



POLICY ROUNDTABLES

Standard Setting 2010

Introduction

The OECD Competition Committee debated competitive restrictions in standard setting in June 2010. This document includes an executive summary and the documents from the meeting: an analytical note by Sean F. Ennis for the OECD, written submissions from Australia, Brazil, Bulgaria, Chile, the European Union, Germany, Greece, Ireland, Italy, Japan, Korea, Spain, South Africa, Chinese Taipei, Turkey, the United Kingdom, the United States, BIAC and ANSI.

Overview

Standard setting yields substantial benefits to consumers and often promotes competition to benefit consumers. Nonetheless, at times, standard setting can give rise to potential consumer harms. By bringing together different players in an industry, the standard setting process provides an opportunity for collusion, deception and strategy about which regulators must be vigilant and proactive. The roundtable found that a standard setting organisation should represent divergent economic interests including the public sector and consumers in order to avoid problems such as those that may arise when only a restricted set of producers runs the standard setting process. Competition law is suitable for addressing only some of the harms to competition. The others may be combated using other legal avenues or in the system for obtaining patents. A particular challenge arises in the case of patent ambushes, when a party with a patent hides that from a standard setting organisation or even steers the standard setting organisation to embody the patent within a standard, and then, once a standard is agreed, asserts its patent rights to obtain high royalties. Other remedies beside competition law also exist. Policy makers need to decide whether potential competition problems need attention and, if so, how such problems can be resolved appropriately.

Related Topics

Competition, Patents and Innovation II (2009)

Unclassified

DAF/COMP(2010)33



Organisation de Coopération et de Développement Économiques
Organisation for Economic Co-operation and Development

08-Mar-2011

English, French

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

STANDARD SETTING

JT03297759

Document complet disponible sur OLIS dans son format d'origine
Complete document available on OLIS in its original format

**DAF/COMP(2010)33
Unclassified**

English, French

FOREWORD

This document comprises proceedings in the original languages of a Roundtable on Standard Setting held by the Competition Committee (Working Party No. 2 on Competition and Regulation) in June 2010.

It is published under the responsibility of the Secretary General of the OECD to bring information on this topic to the attention of a wider audience.

This compilation is one of a series of publications entitled "Competition Policy Roundtables".

PRÉFACE

Ce document rassemble la documentation dans la langue d'origine dans laquelle elle a été soumise, relative à une table ronde sur la Normalisation qui s'est tenue en juin 2010 dans le cadre du Comité de la concurrence (Groupe de Travail No. 2 sur la Concurrence et la Réglementation).

Il est publié sous la responsabilité du Secrétaire général de l'OCDE, afin de porter à la connaissance d'un large public les éléments d'information qui ont été réunis à cette occasion.

Cette compilation fait partie de la série intitulée "Les tables rondes sur la politique de la concurrence".

Visit our Internet Site -- Consultez notre site Internet

<http://www.oecd.org/competition>

OTHER TITLES
SERIES ROUNDTABLES ON COMPETITION POLICY

1.	Competition Policy and Environment	OCDE/GD(96)22
2.	Failing Firm Defence	OCDE/GD(96)23
3.	Competition Policy and Film Distribution	OCDE/GD(96)60
4.	Competition Policy and Efficiency Claims in Horizontal Agreements	OCDE/GD(96)65
5.	The Essential Facilities Concept	OCDE/GD(96)113
6.	Competition in Telecommunications	OCDE/GD(96)114
7.	The Reform of International Satellite Organisations	OCDE/GD(96)123
8.	Abuse of Dominance and Monopolisation	OCDE/GD(96)131
9.	Application of Competition Policy to High Tech Markets	OCDE/GD(97)44
10.	General Cartel Bans: Criteria for Exemption for Small and Medium-sized Enterprises	OCDE/GD(97)53
11.	Competition Issues related to Sports	OCDE/GD(97)128
12.	Application of Competition Policy to the Electricity Sector	OCDE/GD(97)132
13.	Judicial Enforcement of Competition Law	OCDE/GD(97)200
14.	Resale Price Maintenance	OCDE/GD(97)229
15.	Railways: Structure, Regulation and Competition Policy	DAFFE/CLP(98)1
16.	Competition Policy and International Airport Services	DAFFE/CLP(98)3
17.	Enhancing the Role of Competition in the Regulation of Banks	DAFFE/CLP(98)16
18.	Competition Policy and Intellectual Property Rights	DAFFE/CLP(98)18
19.	Competition and Related Regulation Issues in the Insurance Industry	DAFFE/CLP(98)20
20.	Competition Policy and Procurement Markets	DAFFE/CLP(99)3
21.	Regulation and Competition Issues in Broadcasting in the light of Convergence	DAFFE/CLP(99)1
22.	Relationship between Regulators and Competition Authorities	DAFFE/CLP(99)8
23.	Buying Power of Multiproduct Retailers	DAFFE/CLP(99)21
24.	Promoting Competition in Postal Services	DAFFE/CLP(99)22
25.	Oligopoly	DAFFE/CLP(99)25
26.	Airline Mergers and Alliances	DAFFE/CLP(2000)1
27.	Competition in Professional Services	DAFFE/CLP(2000)2
28.	Competition in Local Services	DAFFE/CLP(2000)13
29.	Mergers in Financial Services	DAFFE/CLP(2000)17
30.	Promoting Competition in the Natural Gas Industry	DAFFE/CLP(2000)18
31.	Competition Issues in Electronic Commerce	DAFFE/CLP(2000)32
32.	Competition and Regulation Issues in the Pharmaceutical Industry	DAFFE/CLP(2000)29
33.	Competition Issues in Joint Ventures	DAFFE/CLP(2000)33
34.	Competition Issues in Road Transport	DAFFE/CLP(2001)10

35.	Price Transparency	DAFFE/CLP(2001)22
36.	Competition Policy in Subsidies and State Aid	DAFFE/CLP(2001)24
37.	Portfolio Effects in Conglomerate Mergers	DAFFE/COMP(2002)5
38.	Competition and Regulation Issues in Telecommunications	DAFFE/COMP(2002)6
39.	Merger Review in Emerging High Innovation Markets	DAFFE/COMP(2002)20
40.	Loyalty and Fidelity Discounts and Rebates	DAFFE/COMP(2002)21
41.	Communication by Competition Authorities	DAFFE/COMP(2003)4
42.	Substantive Criteria used for the Assessment of Mergers	DAFFE/COMP(2003)5
43.	Competition Issues in the Electricity Sector	DAFFE/COMP(2003)14
44.	Media Mergers	DAFFE/COMP(2003)16
45.	Universal Service Obligations	DAF/COMP(2010)13
46.	Competition and Regulation in the Water Sector	DAFFE/COMP(2004)20
47.	Regulating Market Activities by Public Sector	DAF/COMP(2004)36
48.	Merger Remedies	DAF/COMP(2004)21
49.	Cartels: Sanctions against Individuals	DAF/COMP(2004)39
50.	Intellectual Property Rights	DAF/COMP(2004)24
51.	Predatory Foreclosure	DAF/COMP(2005)14
52.	Competition and Regulation in Agriculture: Monopsony Buying and Joint Selling	DAF/COMP(2005)44
53.	Enhancing Beneficial Competition in the Health Professions	DAF/COMP(2005)45
54.	Evaluation of the Actions and Resources of Competition Authorities	DAF/COMP(2005)30
55.	Structural Reform in the Rail Industry	DAF/COMP(2005)46
56.	Competition on the Merits	DAF/COMP(2005)27
57.	Resale Below Cost Laws and Regulations	DAF/COMP(2005)43
58.	Barriers to Entry	DAF/COMP(2005)42
59.	Prosecuting Cartels without Direct Evidence of Agreement	DAF/COMP/GF(2006)7
60.	The Impact of Substitute Services on Regulation	DAF/COMP(2006)18
61.	Competition in the Provision of Hospital Services	DAF/COMP(2006)20
62.	Access to key Transport Facilities	DAF/COMP(2006)29
63.	Environmental Regulation and Competition	DAF/COMP(2006)30
64.	Concessions	DAF/COMP/GF(2006)6
65.	Remedies and Sanctions	DAF/COMP(2006)19
66.	Competition in Bidding Markets	DAF/COMP(2006)31
67.	Competition and Efficient Usage of Payment cards	DAF/COMP(2006)32
68.	Vertical mergers	DAF/COMP(2007)21
69.	Competition and Regulation in Retail Banking	DAF/COMP(2006)33
70.	Improving Competition in Real Estate Transactions	DAF/COMP(2007)36
71.	Public Procurement – The Role of Competition Authorities in Promoting Competition	DAF/COMP(2007)34
72.	Competition, Patents and Innovation	DAF/COMP(2007)40
73.	Private Remedies	DAF/COMP(2006)34

74.	Energy Security and Competition Policy	DAF/COMP(2007)35
75.	Plea Bargaining Settlement of Cartel Cases	DAF/COMP(2007)38
76.	Competitive Restrictions in Legal Professions	DAF/COMP(2007)39
77.	Dynamic Efficiencies in Merger Analysis	DAF/COMP(2007)41
78.	Guidance to Business on Monopolisation and Abuse of Dominance	DAF/COMP(2007)43
79.	The Interface between Competition and Consumer Policies	DAF/COMP/GF(2008)10
80.	Facilitating Practices in Oligopolies	DAF/COMP(2008)24
81.	Taxi Services Regulation and Competition	DAF/COMP(2007)42
82.	Techniques and Evidentiary Issues in Proving Dominance/ Monopoly Power	DAF/COMP(2006)35
83.	Managing Complex Merger Cases	DAF/COMP(2007)44
84.	Potential Pro-Competitive and Anti-Competitive Aspects of Trade/Business Associations	DAF/COMP(2007)45
85.	Market Studies	DAF/COMP(2008)34
86.	Land Use Restrictions as Barriers to Entry	DAF/COMP(2008)25
87.	Construction Industry	DAF/COMP(2008)36
88.	Antitrust Issues Involving Minority Shareholding and Interlocking Directorates	DAF/COMP(2008)30
89.	Bundled and Loyalty Discounts and Rebates	DAF/COMP(2008)29
90.	Techniques for Presenting Complex Economic Theories to Judges	DAF/COMP(2008)31
91.	Competition Policy for Vertical Relations in Gasoline Retailing	DAF/COMP(2008)35
92.	Competition and Financial Markets	DAF/COMP(2009)11
93.	Refusals to Deal	DAF/COMP(2007)46
94.	Resale Price Maintenance	DAF/COMP(2008)37
95.	Experience with Direct Settlements in Cartel Cases	DAF/COMP(2008)32
96.	Competition Policy, Industrial Policy and National Champions	DAF/COMP/GF(2009)9
97.	Two-Sided Markets	DAF/COMP(2009)20
98.	Monopsony and Buyer Power	DAF/COMP(2008)38
99.	Competition and Regulation in Auditing and Related Professions	DAF/COMP(2009)19
100.	Roundtable on competition policy and the informal economy	DAF/COMP/GF(2009)10
101.	Competition, Patents and Innovation	DAF/COMP(2009)22
102.	The Standard for Merger Review, with a Particular Emphasis on Country Experience with the change of Merger Review Standard from the Dominance Test to the SLC/SIEC Test	DAF/COMP(2009)21
103.	Failing Firm Defence	DAF/COMP(2009)38
104.	Competition, Concentration And Stability In The Banking Sector	DAF/COMP(2010)9
105.	Margin Squeeze	DAF/COMP(2009)36
106.	State-Owned Enterprises and the Principle of Competitive Neutrality	DAF/COMP(2009)37
107.	Generic Pharmaceuticals	DAF/COMP(2009)39

DAF/COMP(2010)33

- 108. Collusion and Corruption in Public Procurement
- 109. Electricity: Renewables and Smart Grids
- 110. Exit Strategies

DAF/COMP/GF(2010)6

DAF/COMP(2010)10

DAF/COMP(2010)32

TABLE OF CONTENTS

EXECUTIVE SUMMARY	9
SYNTHÈSE.....	13
BACKGROUND NOTE	19
NOTE DE REFERENCE	57
CONTRIBUTIONS	
Australia	99
Chile	105
Germany	113
Greece	121
Ireland	125
Italy	129
Japan.....	135
Korea.....	147
Spain.....	153
Turkey	159
United Kingdom.....	165
United States	181
European Union	197
and	
Brazil.....	209
Bulgaria	221
South Africa	227
Chinese Taipei.....	233
BIAC	241
ANSI	253
SUMMARY OF DISCUSSION.....	273
COMPTE RENDU DE LA DISCUSSION	287

EXECUTIVE SUMMARY

By the Secretariat

From the background paper and the discussion at the roundtable on standard setting and competition, the following points emerge:

- (1) *There are many types of standards. They can be developed either with or without government involvement in different settings with varying geographical reach and specific internal rules.*

A standard is a common set of characteristics of a particular good or service. The term standard is a broad category which includes (i) quality standards that define product characteristics related to safety, performance or efficiency; (ii) informational standards that set parameters for types of information to be communicated about a product, such as labeling standards; (iii) uniformity standards designed to reduce possible product categories, for example by defining minimal size of a given fruit; (iv) professional conduct and certification standards that define criteria for performance of professions; and (v) interoperability standards designed to ensure that two or more related products or processes may fit and operate with each other.

Standards can be set either through private initiatives or in processes with varying degrees of government involvement. An example of the former may be collaborations among industry actors that produced standards, such as Blu-Ray while an example with government involved with industry may be the GSM standard for mobile phones.

Generally, standards are set within standard setting organizations (SSOs), which can be both purely private or involve varying degrees of government oversight, or within trade associations which are private in nature.

There are SSOs with an international reach, such as the International Organization for Standardization (ISO) or the International Electrotechnical Commission (IEC) that are governed by national SSOs. Most countries have national SSOs, such as the American National Standards Institute (ANSI), the Mexican Dirección General de Normas (DGN) or the Deutsches Institut für Normung (DIN). Then there are a number of purely private, industry specific SSOs or trade associations active in standard setting such as JEDEC (microelectronics), Audio Engineering Society (audio equipment) or European Payments Council (banking).

Within individual SSOs there are various rules that regulate the criteria for participation, the methods of evaluation of proposed standards, the voting rules and so on. Since standards may often involve characteristics that are subject to patent protection, many SSOs also have rules specific to intellectual property (IP). Some SSOs require participants to first disclose any patents or pending patent applications relevant for the standards under discussion and second to commit that they will eventually license under fair, reasonable and non-discriminatory (FRAND) conditions should the adopted standard include their disclosed patents.

- (2) *The development of standards results in many benefits, which vary depending on the purpose of the standard and the product or service it covers. Standards further public policy objectives such as public health as well as promoting better operation of markets.*

The benefits of standardization are wide reaching both in scope and form, depending on the purpose behind the standard and the type of product that is standardized. Many standards pursue environmental, human health or food safety objectives. For example, the Chinese Taipei delegation mentioned a standard for mineral water production aimed at improving quality, health and safety, which involved voluntary certification for producers satisfying this standard and resulted in better information for consumers.

Standards can also promote better operation of markets. The discussion highlighted several benefits in this respect. First, the development of a standard may facilitate market creation through the establishment of a common set of characteristics that allow producers to supply compliant products. Second, standardization reduces transaction costs, for example, by ensuring interoperability of complementary products. Third, firms have incentives to have their patents included in a standard, which fosters innovation.

In addition, standards contribute to better functioning of markets in other ways. They enable economies of scale and offer consumer benefits in the form of network effects. They can also facilitate market entry by offering market acceptance and recognition for qualifying suppliers. Other benefits include increased incentives to invest in order to obtain higher returns due to standardization or lower information costs for consumers achieved, for example, by uniform labeling standards or professional rules of conduct.

- (3) *The potential consumer harms that may arise from organized standard setting are nontrivial. By bringing together different players in an industry, the standard setting process provides an opportunity for collusion, deception and strategy about which regulators must be vigilant and proactive.*

At its heart, standard setting involves coordinated action between many interested parties in an industry, including potential competitors, the very conditions with which competition law is usually concerned. The potential for collusion in such a setting cannot be ignored. Indeed, some of the harms observed as a result of collaborative standard setting are exclusion, output restraints and coordinated higher prices.

Exclusion through standard setting can occur by deliberately choosing criteria that will necessarily exclude competitors from being able to meet the standard. This can result in preventing quality products and services from reaching consumers. The South African submission presented such a case in which a vehicle safety association made experience a criterion for certification, effectively excluding new entrants from the market. The risk of such exclusion increases when participation in the standard setting process is restricted or if the standard chosen is mandatory.

Output restraints can take several forms. A standard created in the guise of upholding quality may reduce quantity and variety. However, competition authorities do not condemn all exclusionary standards. For example, the Greek submission illustrated this point by presenting a case where stringent standards for pipes, which restricted the output of pipes used to bring natural gas into homes, were justified by safety concerns. Finally, a sub-optimal standard may be chosen, thus reducing quality, either by inertia with an extant technology when a new one is available or through imperfect information causing consumers to select the lower quality option between two incompatible standards.

Associations can also set regulations on conduct, which may result in higher prices to consumers. As seen with professional service associations, restrictions on bidding and advertising, hallmarks of competition, are sometimes forbidden.

Two major harms specifically associated with the peculiarities of standards containing intellectual property are (i) royalty stacking and (ii) patent ambush. Royalty stacking occurs when a product contains many technologies each covered by a patent for which a royalty must be paid. The resulting cumulative royalty rate paid by a manufacturer can be prohibitively high. Patent ambush can result from deliberate deception or misinformation by participants in the standard setting negotiation. A firm promotes a technology without disclosing that it owns or is in the process of obtaining a patent for it. After the technology is chosen, the firm ensures the relevant patent is obtained. Once other parties pour enough resources into the new standard to render it locked, the firm reveals its patent, demanding payment or blocking implementation of the technology altogether.

- (4) *Competition law is suitable for addressing only some of these harms to competition. The others may be combated using other legal avenues or in the system for obtaining patents.*

Antitrust law enforcement is primarily concerned with unilateral and concerted conduct that has anticompetitive effects on consumer welfare, such as limiting innovation, raising prices or otherwise limiting consumer choice. As noted above, standard setting is not immune to either of these harms.

Interactions between competitors, while a necessary component of standard negotiations, present opportunities for collusion. As regards abuse of dominance, the discussion highlighted several examples, such as patent holders charging discriminatory royalty rates for essential patents in violation of a FRAND commitment as was alleged in a case reported by the Korean delegation. It can also occur when only one entity is charged with certification as discussed by the Bulgarian delegation. Certification of compliance with a standard is often limited to very few firms, or just one. Such limits raise the risk that providers of certificates of conformity will have market power. Increasing the number of potential providers for a given standard would likely reduce opportunities to exercise market power.

Competition authorities should not hesitate to address clear cases of collusion or abuse of dominance. But it is important to note that intervention by a competition authority or court constitutes only an ex post remedy to an existing problem.

There are also ex ante solutions that may prevent these harms from materializing in the first place.

One of these relates to the rules that govern the operation of SSOs. First, an SSO should represent divergent economic interests including the public sector and consumers in order to avoid problems such as that presented by South Africa, where an SSO allowed a sub-committee comprised of only the three major incumbents in the market to set the standard for vehicle theft tracking devices. The resulting standard was based on prior performance and effectively blocked entry. If potential new competitors or consumers had been a part of the process, the standard would probably have been based on technological superiority rather than entrenchment.

Another solution that fosters reaching the best possible standard and forecloses the possibility of patent ambush involves the imposition of disclosure requirements on participants in the SSO. At times, SSO members are required to disclose any existing patents or pending patent applications that are relevant to the standard under discussion. However, as discussed by Prof. Geradin, the large size of some companies' patent portfolios does not allow for a full search before a standard is chosen. Thus companies are in practice only required to disclose patents whose existence and relevance they are aware of. Further,

SSOs may demand that its members disclose the maximum fees and most restrictive terms they would ask for if their technology became part of the standard.

Such disclosures would enable SSOs to compare the financial and technical merits of the competing technologies prior to selecting a standard. Rather than being held up by IP owners after the standard has been chosen, participants could take advantage of *ex ante* competition to secure the most desirable terms. However, with such rules in place, SSOs must be aware that those with essential patents might deliberately stay out of the process, that discussing maximum rates could lead to illegal price fixing if it amounts to bid-rigging of competing technologies and that disclosed maximum future fees could risk being inflated when compared to actual fees, in particular if several rounds of declarations are foreseen or if private negotiations follow the announced maximum fee.

A related proposal, mentioned by the US delegation, calls for *ex ante* negotiations between the potential licensor and licensees. This is meant not only to promote disclosure but also to create countervailing buying power in the hands of the combined licensees. However, economists disagree about the effects on consumer welfare when a monopsony faces a monopolist. In addition, the risk of collusion arises when potential competitors are negotiating payments to each other. In a 2007 report on intellectual property rights, U.S. DOJ and the U.S. FTC concluded that there were limited circumstances where such negotiations would harm competition: “[S]uch negotiations might be unreasonable if there were no viable alternatives to a particular patented technology that is incorporated into a standard, the IP holder's market power was not enhanced by the standard, and all potential licensees refuse to license that particular patented technology except on agreed-upon licensing terms. In such circumstances, the *ex ante* negotiation among potential licensees does not preserve competition among technologies that existed during the development of the standard but may instead simply eliminate competition among the potential licensees for the patented technology”.

However, the most common *ex ante* solution employed by SSOs to avoid excessive IP licensing fees, as mentioned above, is to require its members to commit to licensing their technology on FRAND terms. A FRAND guarantee reduces the incentive for patent ambush. However, while it is generally clear what constitutes “non-discriminatory” terms, the meaning of “fair” and “reasonable” are much more amorphous.

While one approach to treating patent ambushes is via abuse of dominance, the panelists also highlighted alternative legal routes, such as breach of contract or fraud, which could be pursued once a company violates the terms of its FRAND commitment. These alternative approaches also present complications, notably from the difficulty in identifying a FRAND price. Another approach is to argue that failure to disclose patents during the standard-setting process, when a disclosure is required by SSO rules, invalidates the ability of the patent-holder to sue for patent infringement.

Prof. Geradin also stressed the important role that IP regimes play in the standard setting process. Structural reforms that make obtaining a patent more difficult would reduce the large number of patents that currently exist for a single technology, such as about 2000 patents for Blu-Ray. This in turn would make royalty negotiations more manageable.

More broadly, many benefits could be gained from international harmonization of standards. This would increase consumer welfare by providing a greater variety of products or decreasing the cost of production. For example, the Italian delegation suggested that a unified voltage system for locomotives in Europe would increase competition for the provision of trains thus lowering the ultimate price to consumers.

SYNTHÈSE

Par le Secrétariat

Le document de référence et les débats tenus lors de la table ronde sur la normalisation et la concurrence font apparaître les points suivants :

- (1) *Il existe de nombreux types de normes. Elles peuvent être élaborées avec ou sans la participation des pouvoirs publics, par des instances différentes, avec une portée géographique variable et des règles internes spécifiques.*

Une norme est un ensemble de caractéristiques d'un bien ou d'un service donné. Le terme norme désigne une catégorie générale qui comprend (i) les normes de qualité qui définissent les caractéristiques d'un produit relatives à la sécurité, la performance ou l'efficacité ; (ii) les normes d'information qui établissent les paramètres régissant les informations à fournir concernant un produit, comme les normes d'étiquetage ; (iii) les normes d'uniformité destinées à réduire le nombre de catégories de produits, par exemple en fixant la taille minimale d'un fruit ; (iv) les normes de déontologie et de certification qui définissent des critères pour l'exercice d'une profession ; et (v) les normes d'interopérabilité qui visent à faire en sorte que deux produits ou processus associés ou plus soient compatibles et fonctionnent ensemble.

Les normes peuvent être fixées par des acteurs privés ou lors de processus qui font intervenir les pouvoirs publics dans une plus ou moins large mesure. La collaboration entre des acteurs sectoriels, comme pour la norme Blu-Ray, illustre le premier cas de figure, tandis que la norme GSM pour les téléphones portables est un exemple du deuxième cas.

En général, les normes sont définies par des organisations de normalisation, qui peuvent être strictement privées ou impliquer un certain degré de supervision publique, ou par des associations professionnelles qui sont privées par nature.

Certaines organisations de normalisation ont une portée internationale, comme l'Organisation internationale de normalisation (ISO) ou la Commission électrotechnique internationale (CEI) qui sont administrées par des organisations nationales. La plupart des pays comptent des organisations de normalisation nationales, comme l'American National Standards Institute (ANSI), la Dirección General de Normas (DGN) au Mexique ou le Deutsches Institut für Normung (DIN) en Allemagne. Il existe également un certain nombre d'organisations sectorielles ou d'associations professionnelles strictement privées qui s'emploient à établir des normes, comme le JEDEC (microélectronique), l'Audio Engineering Society (équipements audio) ou l'European Payments Council (banque).

Au sein des différentes organisations de normalisation, diverses règles s'appliquent aux critères de participation, aux méthodes d'évaluation des normes proposées, aux droits de vote, etc. Étant donné que les normes impliquent souvent des caractéristiques faisant l'objet d'une protection par brevet, de nombreuses organisations de normalisation ont aussi des règles spécifiques à la propriété intellectuelle (PI). Certaines demandent aux participants, d'une part, de divulguer les brevets ou demandes de brevet en instance susceptibles d'être pertinents pour les normes à l'étude, et d'autre part de s'engager à accorder des licences

à des conditions justes, raisonnables et non discriminatoires si la norme adoptée englobe leurs brevets divulgués.

- (2) *L'établissement de normes procure de nombreux avantages, qui varient selon l'objectif de la norme et le produit ou le service couvert. Les normes soutiennent des objectifs de politique publique, comme la santé, et favorisent un meilleur fonctionnement des marchés.*

Les avantages que procure la normalisation sont vastes, tant par leur portée que par leur forme, et dépendent de la finalité poursuivie par la norme et du type de produit normalisé. De nombreuses normes poursuivent des objectifs qui se rattachent à l'environnement, à la santé humaine ou à la sécurité alimentaire. Par exemple, la délégation du Taipei chinois mentionne une norme applicable à la production d'eau minérale visant à améliorer la qualité, la santé et la sécurité, qui prévoit la certification volontaire des producteurs qui s'y conforment, et qui a amélioré les informations pour les consommateurs.

Les normes peuvent également promouvoir un meilleur fonctionnement des marchés. Les débats mettent en évidence plusieurs bienfaits à cet égard. Premièrement, la définition d'une norme peut faciliter la création d'un marché par l'établissement d'un ensemble de caractéristiques communes qui permettent aux producteurs de fournir des produits conformes. Deuxièmement, la normalisation réduit les coûts de transaction, par exemple en garantissant l'interopérabilité de produits complémentaires. Troisièmement, les entreprises sont incitées à inclure leurs brevets dans une norme, ce qui stimule l'innovation.

En outre, les normes contribuent à un fonctionnement plus efficient des marchés par d'autres biais. Elles génèrent des économies d'échelle et des effets de réseau dont profitent les consommateurs. Elles peuvent faciliter l'accès au marché en garantissant aux fournisseurs agréés l'acceptation et la reconnaissance de leurs produits et services par le marché. Les autres avantages incluent l'incitation à investir afin d'accroître le rendement sous l'effet de la normalisation, ou la baisse des coûts d'information pour les consommateurs, qui peut par exemple provenir de normes d'étiquetage harmonisées ou d'un code de déontologie.

- (3) *Les préjudices potentiels pour le consommateur qui peuvent résulter d'un processus de normalisation organisé sont considérables. En réunissant différents acteurs d'un même secteur, le processus de normalisation ouvre la voie à la collusion, à la tromperie et à des comportements stratégiques auxquels les autorités de tutelle doivent être vigilantes et doivent réagir promptement.*

Fondamentalement, la normalisation implique une action coordonnée entre de nombreuses parties concernées dans un secteur, y compris des concurrents potentiels, ce à quoi le droit de la concurrence s'efforce précisément de remédier. Le risque de collusion dans de telles circonstances ne peut pas être ignoré. De fait, certains préjudices induits par un processus normatif mené en collaboration sont l'exclusion, des restrictions de production et la hausse coordonnée des prix.

L'exclusion provoquée par la normalisation peut être liée au choix délibéré de critères qui empêcheront des concurrents de se conformer à la norme, avec pour conséquence que les consommateurs seront privés de produits et services de qualité. L'Afrique du Sud présente une affaire dans laquelle une association de sécurité routière a fait de l'expérience un critère de certification, excluant de fait les nouveaux venus du marché. Ce risque d'exclusion augmente lorsque la participation au processus de normalisation est restreinte ou si la norme choisie est obligatoire.

Les restrictions de production peuvent prendre diverses formes. Une norme établie sous prétexte d'améliorer la qualité peut réduire la quantité et la variété. Toutefois, les autorités de la concurrence ne condamnent pas toutes les normes ayant un effet d'exclusion. La Grèce en fournit l'illustration en

présentant une affaire dans laquelle des normes draconiennes applicables aux gazoducs, qui limitaient la production de gazoducs d'acheminement du gaz naturel jusqu'aux logements d'habitation, étaient justifiées par des impératifs de sécurité. Enfin, une norme non optimale peut être choisie, ce qui réduit la qualité, soit parce qu'une technologie existante continue d'être utilisée alors qu'une nouvelle est disponible, soit à cause d'une information imparfaite qui conduit les consommateurs à opter pour l'option de moindre qualité lorsqu'ils doivent choisir entre deux normes incompatibles.

Les associations peuvent également fixer des règles de conduite qui peuvent majorer les prix acquittés par les consommateurs. Comme dans le cas des associations de services professionnels, les restrictions aux appels d'offres et à la concurrence, caractéristiques distinctives de la concurrence, sont parfois interdites.

Les normes qui contiennent des droits de propriété intellectuelle posent deux principaux problèmes au regard du droit de la concurrence : (i) l'empilement de redevances et (ii) l'embuscade de brevets. Il y a empilement de redevances lorsqu'un produit contient de nombreuses technologies et que chacune d'elles est couverte par un brevet qui donne lieu au paiement d'une redevance. Le taux cumulé de redevances ainsi acquitté par un producteur peut être si élevé qu'il a un effet dissuasif. L'embuscade de brevets peut résulter d'une tromperie ou de la communication délibérée d'informations erronées par les participants à la négociation de la norme. Une entreprise soutient une technologie sans divulguer qu'elle détient ou a demandé un brevet correspondant. Une fois la technologie retenue, elle fait en sorte d'obtenir le brevet pertinent. Lorsque ses concurrents ont consacré suffisamment de ressources à la norme pour la rendre incontournable, elle révèle qu'elle possède un brevet, exige un paiement correspondant ou bloque tout simplement la mise en œuvre de la technologie.

(4) *Le droit de la concurrence ne permet de remédier qu'à une partie de ces atteintes à la concurrence. Les autres peuvent être combattues en empruntant d'autres voies juridiques ou en agissant depuis l'intérieur du système de délivrance de brevets.*

Les autorités chargées d'appliquer le droit de la concurrence sont avant tout préoccupées par les conduites unilatérales et concertées qui ont des effets anticoncurrentiels sur le bien-être des consommateurs, comme brider l'innovation, augmenter les prix ou restreindre d'une autre manière le choix des consommateurs. Comme on l'a vu plus haut, le processus de normalisation n'est pas à l'abri de telles dérives.

Les interactions entre concurrents, bien que nécessaires dans les négociations des normes, présentent des risques de collusion. S'agissant d'abus de position dominante, les participants évoquent plusieurs exemples, comme celui de titulaires de brevets qui appliquent des taux de redevance discriminatoires pour des brevets essentiels, violant ainsi le principe de conditions justes, raisonnables et non discriminatoires, à l'instar de l'affaire décrite par la délégation de la Corée. Cela peut également se produire lorsqu'une seule entité est chargée de la certification, comme dans l'affaire présentée par la délégation de la Bulgarie. La certification du respect d'une norme est souvent du ressort d'un très petit nombre d'entreprises, voire d'une seule, qui risque de s'accaparer un pouvoir de marché. Augmenter le nombre d'organismes de certification pour une norme donnée réduit très certainement le risque d'exercice d'un pouvoir de marché.

Les autorités de la concurrence ne doivent pas hésiter à s'attaquer à des cas flagrants de collusion ou d'abus de position dominante. Néanmoins, il importe de souligner que l'intervention d'une autorité de la concurrence ou d'un tribunal n'est qu'un recours a posteriori face à un problème existant.

Il existe aussi des solutions ex ante susceptibles d'empêcher que de telles atteintes ne se produisent.

L'une de ces solutions tient aux règles qui régissent le fonctionnement des organisations de normalisation. Premièrement, une organisation de normalisation doit représenter des intérêts économiques

divergents, y compris le secteur public et les consommateurs, afin d'éviter des problèmes tels que ceux exposés par l'Afrique du Sud : une organisation de normalisation a autorisé un sous-comité composé uniquement des trois principaux opérateurs en place à définir la norme pour les appareils de repérage des vols de voiture. La norme élaborée était fondée sur la performance passée et excluait de fait les nouveaux venus. Si des concurrents potentiels ou des consommateurs avaient été associés au processus, la norme aurait probablement été basée sur la supériorité technologique plutôt que sur la position acquise.

Une autre solution qui concourt à élaborer la meilleure norme possible et qui exclut la possibilité d'embuscade des brevets consiste à imposer des obligations de diffusion d'informations aux participants à l'organisation de normalisation. Il arrive que les membres de l'organisation de normalisation soient tenus de divulguer l'existence de brevets ou de demandes de brevet qui concernent la norme à l'étude. Toutefois, comme l'explique le professeur Geradin, certaines entreprises détiennent un si grand nombre de brevets qu'il est impossible de mener une enquête exhaustive avant de choisir une norme. Par conséquent, en pratique, les entreprises sont uniquement tenues de divulguer les brevets qu'elles jugent pertinents. En outre, les organisations de normalisation peuvent exiger que leurs membres fassent connaître les redevances maximales et les conditions les plus restrictives qu'elles imposeront si leur technologie est intégrée à la norme.

Ces informations permettent aux organisations de normalisation de comparer les mérites techniques et financiers de technologies concurrentes avant de sélectionner une norme. Au lieu d'être pris au piège par les détenteurs de droits de la propriété intellectuelle une fois la norme choisie, les participants peuvent tirer parti de la concurrence *ex ante* pour obtenir les meilleures conditions. Toutefois, lorsque de telles règles sont mises en place, les organisations de normalisation doivent savoir que les détenteurs de brevets essentiels doivent délibérément rester à l'écart du processus, que la discussion des tarifs maximums peut conduire à une fixation illégale de prix si elle donne lieu à des soumissions concertées de technologies concurrentes, et que les redevances futures maximales communiquées risquent d'être gonflées par rapport aux redevances réelles, notamment si plusieurs séries de déclarations sont prévues ou si des négociations privées suivent l'annonce du prix maximum.

Une proposition correspondante, formulée par la délégation des États-Unis, préconise des négociations *ex ante* entre le concédant et les concessionnaires potentiels. Il s'agit non seulement de favoriser la diffusion d'informations, mais aussi de doter les concessionnaires d'un pouvoir d'achat compensateur. Toutefois, les économistes divergent quant aux effets de la confrontation entre un monopsonne et un monopole sur le bien-être des consommateurs. En outre, un risque de collusion se produit lorsque des concurrents potentiels négocient des paiements réciproques. Dans un rapport sur les droits de la propriété intellectuelle datant de 2007, le ministère américain de la Justice et la Commission fédérale du commerce concluent que, dans certaines circonstances, de telles négociations sont préjudiciables à la concurrence : « [C]es négociations peuvent être inopportunes en l'absence d'alternative viable à une technologie brevetée qui est incorporée dans une norme, si le pouvoir de marché du détenteur de droits de la propriété intellectuelle n'est pas renforcé par la norme, et si tous les concessionnaires potentiels refusent d'autoriser l'utilisation de la technologie brevetée en question, hormis à des conditions de licence convenues. En pareilles circonstances, la négociation *ex ante* entre concessionnaires potentiels ne préserve pas la concurrence entre les technologies qui existaient au cours de l'élaboration de la norme, mais risque tout simplement de supprimer la concurrence entre les concessionnaires potentiels pour la technologie brevetée ».

Toutefois, la solution *ex ante* la plus souvent utilisée par les organisations de normalisation afin d'éviter des redevances de licence de PI excessives consiste à demander à leurs membres de s'engager à accorder des conditions de licence justes, raisonnables et non discriminatoires pour leur technologie. Une telle garantie réduit les incitations à mener une embuscade de brevets. Toutefois, même si la signification

des termes « non discriminatoire » est généralement claire, les adjectifs « juste » et « raisonnable » sont beaucoup plus vagues.

S'attaquer aux embuscades de brevets sous l'angle de l'abus de position dominante est certes une possibilité, mais les participants évoquent d'autres voies de recours juridique, comme la violation de contrat ou la fraude, qui peuvent être utilisées lorsqu'une entreprise enfreint son engagement à offrir des conditions justes, raisonnables et non discriminatoires. Ces autres approches ne vont pas sans difficultés, notamment pour définir un prix juste, raisonnable et non discriminatoire. On peut aussi alléguer que la non-divulgaration de brevets au cours du processus de normalisation dès lors que les règles de l'organisation de normalisation l'exigent prive le titulaire du brevet de la capacité d'engager une action en justice pour violation de brevet.

Le professeur Geradin souligne également le rôle important joué par les régimes de la propriété intellectuelle dans le processus de normalisation. Les réformes structurelles qui rendent l'obtention d'un brevet moins facile réduiraient le nombre actuellement très élevé de brevets déposés pour une même technologie, qui avoisinent 2 000 pour Blu-Ray. Cela faciliterait les négociations des redevances.

Plus généralement, l'harmonisation internationale des normes procurerait de multiples avantages. Elle accroîtrait notamment le bien-être des consommateurs en élargissant l'offre de produits ou en réduisant le coût de production. Par exemple, la délégation de l'Italie suggère que l'instauration d'une tension d'alimentation électrique unique pour les locomotives en Europe renforcerait la concurrence pour l'offre ferroviaire et ferait ainsi baisser le prix final pour le consommateur.

BACKGROUND NOTE

By the Secretariat

1. Introduction

Standard setting is the process of determining a common set of characteristics for a good or service.¹ Standard setting covers many different outputs² and processes, from table salt quality to motorcycle-wheel size to gasoline formulations to computer chip protocols.³ This paper reviews standard-setting issues relevant for competition law and policy.

Standard setting has long been a focus of competition policy. This focus will inevitably remain, given that standard setting often involves close cooperation among potential competitors. This does not mean that governments should have extensive competition-related oversight of standard setting. The appropriate role of government is still a matter of debate. But an underlying fact is that standard setting delivers substantial economic benefits while only rarely resulting in competition law litigation. A proportionate policy response to competition concerns from standard setting is therefore unlikely to involve broad requirements for standard setting processes that may have substantial, costly and widespread unintended consequences. Having said this, governments can take many actions to ensure competition policy concerns are addressed in the standard process, notably by: ensuring that the standard-setting organisations (SSOs) do not promote illegal activity, such as joint price-setting by competitors, limiting the incentives of firms to act deceitfully in the standard setting process, promoting internationally recognised standards, assuring mutual recognition of conformity certificates and certification bodies and ensuring that conformity assessment does become an unduly costly barrier to entry.

Standards arise from a variety of sources. Many countries rely on market operations, such as (SSOs), to develop a largely-private regulation of product markets. The interconnectedness of high-technology products raises additional challenges for standard-setting bodies. Government-set standards⁴ often affect subsequent conditions of competition in a sector.

There are clear and known risks of illegal coordination or undue restrictions on competition from standard setting processes. Standards can have the effect of excluding non-chosen technologies. Standard

¹ A more formal definition is: “Technical regulations and standards set out specific characteristics of a product — such as its size, shape, design, functions and performance, or the way it is labelled or packaged before it is put on sale. In certain cases, the way a product is produced can affect these characteristics, and it may then prove more appropriate to draft technical regulations and standards in terms of a product’s process and production methods rather than its characteristics per se.” Source: http://www.wto.org/english/tratop_e/tbt_e/tbt_info_e.htm.

² Outputs can include goods, services, rules for interaction between goods (e.g., interoperability standards) and information.

³ Perhaps surprisingly, all the standards just mentioned can involve restrictions to competition.

⁴ If obligatory, these are called “technical regulations”.

setting can yield cost advantages for certain technologies and can have substantial influences on the prices paid by consumers as well as product variety. Some recent competition law cases have alleged that firms on occasion “ambush” the standard setting process by urging a standard-setting body to promote a technology which standard-setting body members believe will be accessible at no cost or low cost and then patent key elements of the standard and charge “excessive” royalties. Policy responses to deter standard setting ambushes are a challenge. For example, SSOs may be urged to discuss prices for different technologies prior to setting the standard to avoid ambush, but these announcements and decisions based on them could increase risks of collusive price fixing.

To promote effective competition policy in the areas where standard setting is ongoing, there is a twin set of challenges for policymakers. First, policymakers must understand how standard-setting bodies operate. Second, they must decide whether any government role is appropriate government support and, if so, what role.⁵ One possible government response is *ex post* application of competition law or other legal remedies. *Ex ante* options are also considered, such as government-established rules about how SSO bodies operate. Deciding among all the options, including the option of no action, requires evaluating costs and benefits of different approaches. Use of competition law in the government oversight of standard setting may help to avoid more invasive forms of oversight, such as direct government development of standards, SSO governance practices and price regulation of intellectual property used for standards. In all instances of government action, it is important to recall that standards can become actual or de facto international standards. As a result, application of competition policy in one jurisdiction can at times have extra-territorial implications. Achieving a consensus about appropriate policies is thus particularly important.

This paper is not intended to provide an overview of the wide-ranging legal and economic scholarship on competition policy issues related to standard setting. Rather, it presents a framework for considering and evaluating potential best practices.

A number of points emerge. These include:

- The standard setting process, taking into account all different types of standards, is extraordinarily complex.
- The benefits of allowing firms to jointly discuss standards with each other, or potentially in conjunction with the government, are substantial. For example, standards help to integrate complementary intellectual property with separate owners. Policy makers should begin with the rebuttable presumption that standard setting is a legitimate activity that yields substantial economic benefits.
- There are clear and known risks of illegal coordination or undue restrictions on competition from standard setting processes. Longstanding examples would include price setting and market allocation among competitors.
- A more recent example of risks occurs when standards are “ambushed” by a company that conceals relevant patents until a standard has been set and then sues for infringement. Patent

⁵ For the treatment of standardisation agreements in the European Union, see the European Commission Notice, Guidelines on the applicability of Article 81 of the EC Treaty to Horizontal Cooperation Agreements, OJ 2001 C 3/2, Chapter 6. The European Commission is preparing new horizontal cooperation guidelines which are close to completion at the time of writing this note. The U.S. Department of Justice and U.S. Federal Trade Commission published joint “Antitrust Guidelines for the Licensing of Intellectual Property.” 6 April 1995 available at: <http://www.justice.gov/atr/public/guidelines/0558.pdf>.

ambushes are an activity with no redeeming social benefits. Competition agencies sometimes combat patent ambushes by allowing and advocating certain *ex ante* measures by SSOs, such as rules on disclosures, negotiations of licensing terms. Agencies may also take enforcement action against ambushers.

- Efforts to mitigate potential harms from standard setting may have unanticipated effects.
- Conformity assessment raises important and largely ignored competition policy issues. While designed to ensure that products meet a standard, conformity assessment policies merit review, especially when governments require duplicative assessments that are substantially equivalent or when governments or SSOs limit the number of assessors in a way that may restrict the number of suppliers of conformity assessments for a given standard and lead to high prices for certification.
- Governments can usefully:
 - Be cautious when considering instituting widespread obligations on the standard setting process, taking into account the international context of many standards;
 - Evaluate any decision to step into specific disputes in the standard setting arena; and
 - State any general principles for identifying and penalising illegal conduct in advance, taking into account that seeking the best technical standards is an activity that often benefits from joint action by potential competitors.

This paper will focus primarily on identifying the benefits and potential harms from standard setting, leading into a discussion of mitigation measures for some potential harms. The paper concludes with a discussion of conformity assessment. Prior to this, the paper will identify the main functions served by standards and discuss how they are set.

2. Types of standards

Prior to discussing the benefits and potential harms from standard setting, it is important to identify the types of standards that exist and how standards are produced. Standards perform a variety of different functions. Five broad categories of standards are:⁶

- Quality standards;
- Informational standards;
- Uniformity standards;
- Professional conduct and certification standards; and
- Interoperability standards.

⁶ These categories may involve some overlap between each other. For example, professional certification standards are arguably a type of quality standard. See ABA Section of Antitrust Law (2004) for more details.

The potential competition policy concerns with a standard depend on its function and on the fact pattern of how the standard is developed and used.

Quality standards. Quality standards define product characteristics related to safety, performance or efficiency. These standards may prevent dangerous or undesirable products from entering or succeeding in the marketplace. Quality standards can enhance consumer welfare by providing information and assurance of satisfactory and non-dangerous goods.⁷ Products that fail to meet a quality standard may be excluded from a market or fail to receive certification from a conformity assessor or SSO. Quality standards set by government⁸ will often exclude non-conforming products from the market. Privately established quality standards will not exclude a product legally but will serve largely to provide information to consumers. Quality standards can serve as barriers to entry. Even when privately set, a firm may propose a standard that would give its product an advantage over a competitors equivalent but non-identical product.⁹

Informational standards. Informational standards provide measurement and test of products and result in information that can be distributed to buyers, sellers and other users of a standard. It does not define a product characteristic but sets parameters for types of information to be communicated about the product. For example, standards for reporting nutritional content of food products may yield information about fat content levels for different types of fats. The introduction of such standards can affect competitors differently.¹⁰

Uniformity standards. Variety reductions standards seek to reduce the proliferation of product categories. Reduction in variety can enhance the achievement of economies of scale. Reducing the variety of sizes of canned vegetables, for example, both increases the scale of production at each remaining size and enhance the ability of consumers to store their cans compactly. However, at times uniformity standards can reduce consumer choice to suboptimal levels and facilitate collusion by eliminating competing versions of underlying technologies.^{11, 12}

Professional conduct and certification standards. Trade associations often set standards governing professional conduct and certification. Conduct standards may include ethical standards or rules on advertising, for example.¹³ Certification standards may include criteria that must be met by professionals performing certain actions. These standards can convey valuable information about the training and competencies of professionals. At times, certification standards may be excessive for the performance of a given task and unduly limit supply of certified professionals rather than simply ensuring good quality.

⁷ Standards can apply not only to products and services but also to generic management systems. ISO 9001 and ISO 14001, for example, create standards for a quality management system and environment management system, respectively.

⁸ Standards mandated by government are often called technical regulations.

⁹ See Link (1983), p. 395.

¹⁰ See ABA Section of Antitrust Law (2004), p.9

¹¹ For example, standards governing fruit production have, in the past, become stricter over “minimum size” at times of high production, thus having the effect of limiting fruit sold through fresh outlets apparently for the benefit of producers against the benefit to consumers.

¹² See ABA Section of Antitrust Law (2004), p. 9.

¹³ In many jurisdictions, ethical standards have been used to limit price competition between professionals. (See, e.g., *Wilk et al. v. American Medical Association* (1987) Judgment (Northern District of Illinois, Eastern Division No. 76 C3777.)) Advertising standards have at times prevented professionals from advertising boldly or from mentioning prices in advertisements.

Interoperability standards. Interoperability or compatibility standards ensure that two or more related products or processes will fit, operate or communicate with one another. One benefit of such standards is that they allow interchangeability of complementary products. (Farrell and Saloner (1986)) One example is the interfaces used for personal computers. USB ports allow a given personal computer to connect with multiple printers, just as they allow multiple printers to connect with a given computer. Interoperability standards facilitate competition among providers of complementary products, facilitate entry or expansion of competitors in these markets and can create environments conducive to innovation and patenting in these complementary markets. Interoperability standards can have large effects on efficiency. One study concluded that imperfect interoperability between computer systems in the automotive supply chain results in costs of at least one billion dollars per year.¹⁴ Interoperability standards can have negative impacts if the standards slow innovation of the standardised product or unduly constrain product design.

3. How are standards set?

From one product or service area to another, the need for standards varies. The ways in which standards are established and verified may vary according to the specific needs of a given standard setting objective.

Standards have 3 main sources:

- Industry collaboration;
- Government standard setting; and
- Uncoordinated processes.

These sources will be discussed in sequence. Potential policy issues vary according to the source of the standard in question.

3.1 *Industry collaboration*

Industry collaboration occurs largely via SSOs or, at other times, trade associations with broader agendas than standard setting that undertake standard setting as one part of their activity. Standards set by industry collaboration are frequently set through consensus after wide discussion in the industry. For this reason, participation in the standard setting process is often unrestricted (i.e. non-members are allowed to participate) and transparent. This is normally the case for standards adopted by the recognised standards bodies which are based on non-discriminatory, open and transparent procedures. When customers are members of the standard setting body, there is less likelihood of anti-competitive agreements being formed against the interests of consumers.

Dedicated standard setting organisations include

- *International organisations*, such as the International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), and the International Telecommunication Union (ITU) are governed by national standard-bodies. National standard bodies have varying degrees of government and private oversight. Examples of national standards bodies include the Brazilian National Standards Organisation (ABNT), the American National Standards Institute (ANSI), the British Standards Institution (BSI), the Mexican Dirección General de Normas (DGN), the Deutsches Institut für Normung (DIN), the Instituto Argentino de Normalización y

¹⁴ See Brunnermeier and Martin (1999).

Certificación (IRAM), the Japanese Industrial Standards Committee (JISC), the Korean Agency for Technology and Standards (KATS), the Nederlandse Norm (NEN), the South African Bureau of Standards (SABS), the Standardisation Administration of China (SAC), the Standards Council of Canada (SCC), the Swedish Standards Institute (SIS), Standards Norway (SN), the Swiss Association for Standardisation (SNV), or Standards New Zealand (SNZ). There are also multinational bodies, notably in Europe, such as the European Committee for Standardisation (CEN). Figures help to illustrate the variety and volume of standard setting activity. At ISO, there were 3238 technical bodies developing standards, with 18,083 standards on record as of 31 December 2009. The ISO standards are only a small portion of total worldwide standards.¹⁵

- *Product or industry-specific standard setting organisations.* Examples of such organisations are highly varied. Electronic and telecommunications oriented bodies include: the Joint Electron Device Engineering Council (JEDEC), European Committee for Electrotechnical Standardisation (CENELEC), the European Telecommunications Standards Institute (ETSI) and the European Payments Council (EPC).

Professional bodies and trade associations. The borderline between standard setting organisations and trade associations are not always clear. Professional and trade associations tend to have a broad mission that can include, in addition to standard setting and certification, sharing news of industry interest, lobbying, providing training, providing professional advising, running conferences, etc.. Professions or trade associations often set product or performance standards, particularly with the objective of ensuring quality of products or services overseen by the association. Some of these services can have the effect of limiting supply. Limiting supply is not always harmful. For example, medical associations establish training and other requirements for doctors that are intended to prevent people with inadequate training from calling themselves doctors.¹⁶

3.2 *Government standard setting*

Governments may take a variety of positions for setting standards. They can serve as very active participants in setting standards, as happened with the GSM mobile phone standard in Europe. They can serve as a registration and enforcement service for standards. At times, governments may have no involvement at all.

Governments in different countries do not always adopt the same approach to a given technology. For example, with second generation (2G) mobile phone standards, developed in the late 1980s and early 1990s, European governments pushed for a particular standard (the Global System for Communications standard, or GSM) and adopted it as mandatory. The Pacific Digital System was adopted by the Japanese government. The U.S. government chose to leave the standard creation for the second generation systems to the private sector.

Government-industry collaboration in standard setting may provide the best outcomes in some cases. Government standard setting can move faster than industry standard setting, largely because governments can act by dictate but private standard setting requires voluntary agreement among parties who often have conflicting financial interests and a consensus decision-making process. However, industry participants

¹⁵ For example, one source estimates there were 52,000 U.S. government standards in 1995 and 41,500 private standards. (See ABA Section of Antitrust Law (2004), p.4)

¹⁶ Some professions have established limits on the number of training places. While such limits may create substantial restrictions on competition, they are not related to standards or certification procedures so would not be treated in this paper. Certification procedures that limit entry or unduly high, to reduce entry, would fall under the rubric of standard setting.

likely have better information about quality/price tradeoffs for technology as well as key elements of standards for commercial success. The active involvement of industry in a government-led standard setting process may provide a combination of the benefits of speedy action with state-of-the-art technical and commercial considerations.

3.3 *Uncoordinated processes*

Standards sometimes develop simply through the general adoption of products made by one company or entity. For example, as personal computer users increasingly purchased computers with Microsoft operating systems, Windows increasingly became a de facto standard for programmers creating applications for personal computers. Adobe essentially created a common standard for computer readable documents with its PDF file system. Sometimes private innovations are adopted with such universality that they become de facto standards.

3.4 *Process followed*

Once a decision has been made to establish a standard, a group of experts will be brought together, often within the context of a larger umbrella SSO.

The process of creating standards by SSOs is often governed by a set of rules specific to the given standard or SSO. These will often include rules about:

- Who can vote and provide input on new or revised standards;
- What is the formal step-by-step process for standard development;
- What information about commercial interests (e.g., IP) must be revealed and when;
- What type of consensus is needed for an outcome; and
- How negative votes or ballots are handled.

The development time for a single standard can take years, whether the standard is created by a private SSO or by government. As a practical matter, governments may be able to establish standards more quickly than consensus-based SSOs.

4. What are the benefits from standard setting?

Standards serve many different purposes and cover many different products, so their benefits can be varied. Broad social, safety and environmental objectives underlay many standards.

- Human health and safety standards account for the largest number of standards, according to the WTO.¹⁷ Examples include seatbelt regulations, electrical socket standards and cigarette labeling regulations;
- Protection of animal health and safety is another important motivation for many standards. Examples include animal food standards; and

¹⁷

See http://www.wto.org/english/tratop_e/tbt_e/tbt_info_e.htm.

- Protection of the environment motivates many standards. Regulations to reduce air, soil and water pollution are increasingly common. Examples include standards related to auto emissions, recycling of plastic products and energy-efficiency labels.

The macroeconomic benefits of standards are likely significant. The German national standard-body DIN finds that the economic benefits of standardisation are about 1% of GNP.¹⁸

Standards can promote better operation of markets. Market-related benefits can include a number of related factors:

- Facilitating market creation by creating an environment in which consumers are ready to commit to product;
- Achieving economies of scale and user externalities;
- Facilitating market entry;
- Improving firms' incentives to innovate; and
- Lowering information costs and preventing consumer deception.

4.1 *Facilitating market creation*

Standards can help to create markets where none might exist otherwise. Certain products require coordination and investment among diverse companies and products in order to achieve a technological improvement. High definition television (HDTV) is a good example of a product that may require such coordination. High definition television is a major improvement over previous standards, such as NTSC in the U.S. and Japan, or PAL and SECAM elsewhere. An HDTV system requires a standard for the HDTV signal, programming that is produced in that format, televisions that are capable of showing that format and transmission infrastructure that is capable of distributing it. These complementary elements need to be introduced nearly simultaneously in order for investments to make sense. Moreover, a chicken and egg problem arises. Consumers are unwilling to purchase HDTV television sets unless there is programming available for these sets and broadcasters are unwilling to substitute expensive new equipment for older operational equipment unless they can identify a clear audience or other financial benefit from adoption.¹⁹ If there is no HDTV standard established, it is particularly unlikely that consumers, broadcasters and producers of programming will adopt the new technology.

One interesting case illustrating what can happen when no standard is established concerns stereo AM. Stereo AM was proposed and alleged to have a number of characteristics superior to FM stereo. In the face of competing proposals for AM stereo radio standards, the U.S. Federal Communications Commission (FCC) ultimately decided for a "marketplace" approach. Three benefits of this approach were identified. The first is that private parties would know the intensity of their preferences over the different characteristics of the systems. The second is that developments of better systems would proceed at a greater pace than would occur under FCC management. The third is the marketplace approach avoids granting a monopoly to one manufacturer. The FCC did issue some rules to ensure monophonic compatibility, ensure international agreements would be followed and avoid interference but stayed away from making any judgements about competing standards. The industry was not able to agree on a standard

¹⁸ See DIN (2000), p.28.

¹⁹ See Farrell and Shapiro (1992) for a detailed discussion of challenges in HDTV adoption.

itself. The results were chaotic. Multiple non-compatible systems were installed by radio stations and listeners. After 3 years of operation, 90% of radio stations had not adopted stereo broadcasting and a very small percentage of users had receivers capable of receiving stereo AM.²⁰ This suggests that absence of a standard, in this case, did not help the rollout of successful stereo AM products.

Establishing a standard does not necessarily mean the product will be successful. For example, in 1992, it appeared that Digital Audio Tape (DAT) would be the successor to analog audio cassettes in much the same way that CDs were the successor to vinyl records. However, DAT was not as successful as the CD format. The reasons included high cost of players, lack of music distributed on DAT tapes and legislation that limited sound quality to ensure perfect digital copies of music could not be made.²¹

Second generation mobile phones provide an example of contrasting government approaches to market creation. (See Box 1.)

Box 1. Second Generation Mobile Phones: Alternative Approaches to Standard Setting

An interesting case study in standards creation and adoption relates to second generation (2G) mobile phones. The interest lies in comparing the rollout of a government-overseen standard in Europe to competing standards in the United States, where the government chose to allow standards competition.

The European Union, acting in response to analog, first generation mobile phone systems that were largely incompatible across its member countries, sought a unified standard. In 1982, the Conférence des Administrations Européennes des Postes et Télécommunications (CEPT) decided that a digital standard was needed and established a working party to develop a standard. This standard was ultimately set in February 1987 under the name Global System for mobile Communication (GSM). The digital standard chosen was not the proprietary Alcatel-SEL standard that would have been favorable to the German and French telecom industries. In May 1987, the four largest markets in Europe – France, Germany, Italy and the U.K. – signed a Memorandum of Understanding to commit to the deployment of the GSM standard. By September 1987, 13 other countries had committed to roll out the standard.²² By 1989, Germany had awarded a GSM concession. By the end of 1993 there were more than 1 million subscribers in Europe.

The U.S. adopted a decentralised approach to digital standardisation, allowing competing standards to form and compete with each other. The U.S. assigned “PCS” spectrum to for new purposes of mobile calling, but did not mandate a specific standard. The Federal Communications Commission (FCC) had endorsed a single standard for first generation mobile phone services (AMPS) by requiring use of a given technology in its licensing process. The U.S. started to revise its first generation systems somewhat later than Europe. Starting in 1985, the Cellular Telephone Industry Association (CTIA) began an evaluation of alternative technologies. The FCC determined that it would not determine a standard for second generation technology, citing its limited resources and expertise.²³ This review was endorsed by both cellular telephone companies and equipment manufacturers. In 1989, CTIA members voted for TDMA as the standard for 2G mobile phone systems. In 1992, the Telecommunications Industry Association (TIA) published the TDMA standard. (IS-54) But deployment was slow. In the meantime, the competing CDMA technology had caught up in being ready for commercial use. In July 1993, the TIA published a CDMA standard. (IS-95) The U.S. only completed its first auction of PCS spectrum in March 1995. By this time, every country in Europe had at least one GSM operator.

²⁰ See Besen and Johnson (1986).

²¹ Commercial music companies were concerned that DAT would allow unlimited perfect digital copies of commercial music.

²² In 1989, CEPT transferred the GSM Committee to ETSI which finalised the system specifications.

²³ The FCC had previously experience with selecting standards and then changing its position. It established a standard for AM stereo and the reversed itself. Similarly, it had established the CBS standard for colour television and reversed itself to adopt the RCA standard. (See Besen and Johnson, 1986.)

In both cases, setting a standard was an essential precursor to successful investment in and commercialisation of digital “second generation” mobile phone technologies. However, in one case, the standard setting was performed by the government and ultimately with a view to ensuring that proprietary systems were avoided. (Europe) In the other case, private sector decision-making was allowed to establish competitive standards that would operate over one band of spectrum. (U.S.) Some observers suggest that the CDMA standard was technically superior to the GSM standard.²⁴ But the GSM standard reached consumers (in Europe and elsewhere) well in advance of the dualing U.S. standards reaching U.S. consumers. Second generation rollout in the U.S. may have been delayed by leaving the standard setting to the market rather than government decision making.

4.2 *Achieving economies of scale and user externalities*

Standards often reduce variety, ensuring that production will be standardised around fewer design variables and promoting increased economies of scale. For example, DASA-Airbus estimated that customised parts cost 15 times more than standardised parts, for equivalent parts. It further found that about 50% of customised parts were “suitable for standardisation”.²⁵

Compatibility standards may have additional effects, notably user externalities (often called network externalities) from users being able to interact with other users. These occur through a communications network, through sharing software that runs on a common operating system or exchanging multimedia recorded in the same format. Increasing the number of users, through ensuring compatibility of products, means that consumers place an increased value on their own use of a product.²⁶

In a recent business review letter, benefits of compatibility standards are explained in terms of user externalities. “Interoperability standards can enable consumers to share information with each other and to interconnect compatible products from different producers. In addition, the collaborative standard-setting process can enable industry participants to share knowledge and develop a “best-of-breed” product or process. Especially in industries with network effects, the collaborative standard-setting process can enlarge markets by overcoming coordination failures among those interested in developing and using the standard so that the products are available to, and used, by more consumers.”²⁷

The value of user externalities and cost reductions available to enterprises from using the Internet is large. These cost reductions are possible only because users are available on the platform that uses a standardised communications protocol. Varian et al. estimate that, French, Germany, UK and U.S., “organizations that are currently deploying Internet business solutions *expect* to realize” more than \$588 trillion in cost savings “once all Internet businesses solutions have been fully implemented by 2010.” (Varian et al., 2002)

4.3 *Facilitating market entry*

Standards can help to facilitate new entry to product markets. For example, organic standards and certification help to ensure that farmers who invest in organic production can distinguish their products from non-organic products in a manner that is reliable to end customers. Absent a standard, non-organic

²⁴ See, for example, Tan (2001). At the time of rollout, the technical superiority for moving data was less important, because data applications over mobile phones were rare.

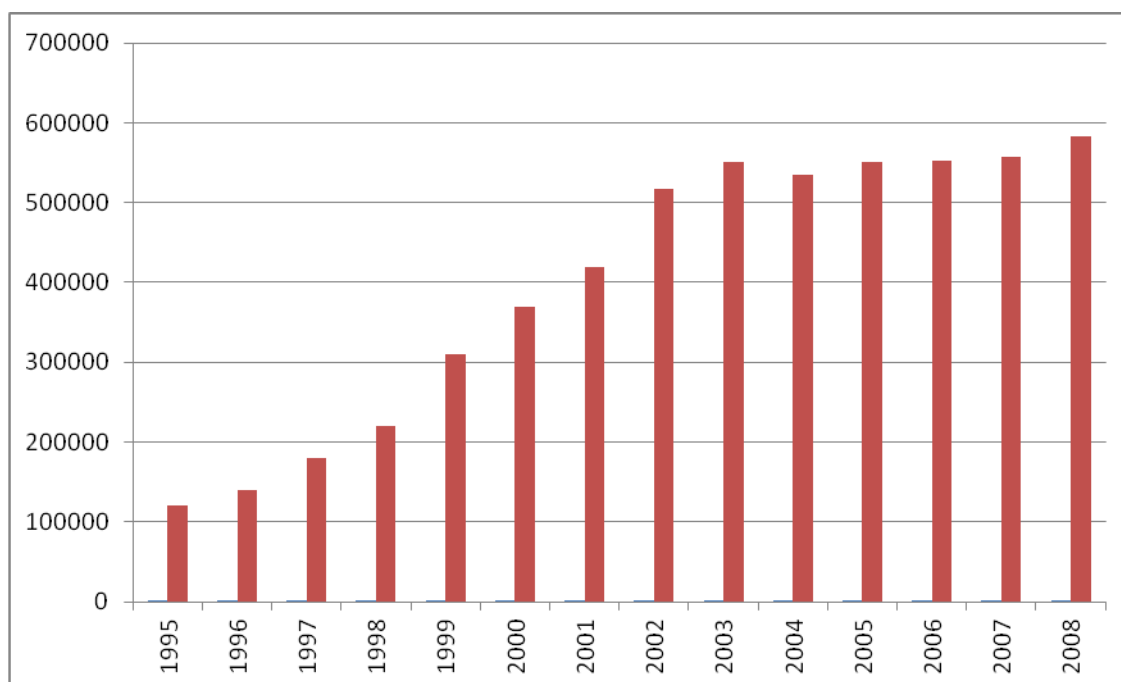
²⁵ See DIN (2000), p. 33

²⁶ See Katz and Shapiro (1985) and Farrell and Saloner (1985).

²⁷ See Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Robert A. Skitol, Esq., Drinker, Biddle & Reath, LLP, Oct. 30, 2006, re VMEbus International Trade Association (VITA) available at <http://www.usdoj.gov/atr/public/busreview/129380.pdf>.

producers could have the incentive to denominate their products as organic, since prices for organic foods are typically higher than for comparable non-organic foods. The organic food standards ensure that farmers have an incentive to become certified organic producers. The European Union introduced a standard for organic food in 1991.²⁸ Figure 1 shows the area of French land in bio production increased by a factor of five between 1995 and 2002.

Figure 1. Area in bio production, FR 1995-2008 (in hectares)



Source: Agence Bio, France, *L'agriculture biologique*, ChiffresClés, 2009

4.4 Improving firms' incentives to innovate and invest

Incentives to innovate do not depend exclusively on intellectual property (IP) protection. Ultimately, incentives to innovate are dependent on expected profits from investment. Expected profits arise from many factors not related to IP, such as bringing products to market before other companies, manufacturing profits using the innovation, increased profits from increasing the perceived or measurable qualities of the product. Importantly, expected profits from commercialisation of investment can depend substantially on packaging an innovation with other innovations (as in a high technology standard) or motivating consumers to purchase a new product. To motivate consumers and to establish packages of complementary innovations, standards can serve a crucial role.

Investment is not focused exclusively on innovation. Investment can be motivated by the incentive to increase capital. Returns to capital can be enhanced by the existence of standards. For example, the beneficial impacts of occupational licensure include encouraging investment in human capital that enhances quality of service. (Shapiro (1986))

²⁸

See Regulation EEC 2091/92.

4.5 Lowering information costs and preventing consumer deception

Standards provide benefits in part because they decrease the consumer's cost of gathering information and searching for the appropriate products.²⁹ Agro-food products are often experience goods (quality known after consumption) or credence goods (quality not identified even with consumption, as with organic foods). For such goods, trustworthy signals are important for maintaining consumer confidence. In absence of such signals, low-quality production will reduce willingness of consumer to purchase the product, and thus reduce the incentive of high-quality producers to maintain quality.

The beneficial impacts of occupational licensure include reducing consumer uncertainty about the quality of the product. (Arrow (1963)). Medical associations establish standards and certification programs for doctors in large part because consumer information is limited in at least three respects:

- The quality and capabilities of their practitioner;
- The *ex ante* appropriateness of the care suggested; and
- The *ex post* effectiveness of the care.

Health care services are often “credence” goods: even after buying them, a consumer may not be able to judge their quality adequately. This feature of health services arises both because of imperfect consumer information about the physical outcome of care and the fact that appropriateness of care and outcomes are not perfectly correlated. Sometimes appropriate care yields poor outcomes and inappropriate care yields good outcomes. These information problems mean that consumers must often rely on external sources for judgments about care.

A non-regulatory solution might exist in publishing simple empirical indicators of quality. In their crudest form, indicators could look at survival rates from high-risk surgeries. Given that the best surgeons often see the most difficult cases, a perverse result could arise in which survival rates for the best surgeons could be lower than those of the worst surgeons. Standards with certification are not equally subject to such perverse results.

5. What are the potential harms from standard setting?

As just described, standard setting has many benefits. It also can be associated with harms. These may include:

- Facilitating exclusion and quantity constraints;
- Promoting coordinated high prices;
- Picking a winner that would not maximise social welfare;
- Picking a winner through deceit (patent ambush); and
- Yielding asymmetric cost impacts.

These harms are closely related. For example, anticompetitive exclusion is a form of output restriction that may lead to higher prices. Each of these harms is explained below. The potential for harm is

²⁹ See Carlton and Klammer (1983).

recognized by the courts. The U.S. Supreme Court has stated that collaborative standard setting organisations may be “rife with opportunities for anticompetitive activity.”³⁰

Factors to consider for the analysis of the competitive effects of standard setting include:

- Percentage of appropriately defined market included within the standard;
- Whether producers exclusively use the standard;
- Whether incentives of different participants diverge, making anti-competitive agreements difficult; and
- Whether efficiencies can be achieved in a manner that does not include producer cooperation.

5.1 *Facilitating exclusion*

Standards can exclude potential providers of a service via criteria that are necessary to meet a standard. The risk of exclusion arises especially in the context of standards that are set by a group of competitors. Exclusion can occur via “manipulation” of a standard to exclude quality products of competitors. Such concerns are more serious if the competitors had no voice in the standard setting process or if the standard is mandatory.

Distinguishing manipulation from normal promotion of private interest can be challenging, particularly as standards do often need to make choices between competing technologies. Moreover competitors participating in a standard setting process generally have an incentive to favour their own products. At times, companies may unilaterally or jointly seek to alter the outcome of an SSO. For example, several steel manufacturers were alleged to have agreed to oppose a standard that would have accepted the use of polyvinyl chloride for electrical conduit. The colluding manufacturers allegedly recruited more than two hundred people to join the relevant trade association and vote against the proposed standard.³¹ This action led to a private case for damages against the alleged colluding manufacturers.

An interesting recent case on exclusion of competitors involved vehicle recovery systems in South Africa. See Box 2 for more information on this case.

Box 2. South African Vehicle Recovery Systems

A recent judgment of South Africa’s Competition Tribunal suggests how exclusion can operate.³² In South Africa, car theft became a serious problem in the late 1980s. Up to that time, devices commonly used to reduce theft were gear locks or car alarms. But with increasing levels of theft and recovery rates of stolen cars around 20%, insurance companies sought alternative sources of protection. In the early 1990s, stolen vehicle recovery (SVR) systems became much more common. These systems included installation of a geo-location device that allowed a stolen car to be tracked and found. Providers of SVR services would often perform the recovery themselves. When cars were fitted with tracking devices, recovery rates rose to 70%.

³⁰ See *Am. Soc’y of Mech. Eng’rs, Inc. v. Hydrolevel Corp.*, 456 U.S., 556, 571 (1982).

³¹ 486 U.S. 492 (1988)

³² Competition Commission and Tracetec (Pty) Ltd and Netstar (Pty) Ltd, Matrix Vehicle Tracking (Pty) Ltd, Tracker Network (Pty) Ltd and Vehicle Security Association of South Africa, Case No: 17/CR/Mar05, Judgment of 19 April 2010.

VESA was a trade association started in 1987. According to the Competition Tribunal judgment, “Its membership comprises firms involved in the vehicle security industry and includes manufacturers, suppliers, installers and maintenance firms. Firms are competitors of one another and are organised into sub-committees relevant to their market niche.” VESA established an SVR subcommittee and developed standards for providing SVR services. The insurance industry wanted assurance that SVR providers were reputable and capable. The SVR subcommittee set up performance based criteria. “The controversial aspects of the criteria were that in order to qualify as a member a firm had to reach certain targets; it had to have been in operation for at least one year, have installed at least 3000 units, and have made 100 recoveries.” (p.3)

This rule allegedly served as a *de facto* barrier to entry. While auto owners were free to install SVRs from non-approved providers, the insurance industry for the most part gave discounts on insurance premiums for having SVR systems only to those car owners using VESA approved systems. New entrants were unable to meet the criteria for operation, since they would have neither a significant number of covered cars nor a significant number of recoveries.

The complainant, Tracetec, was rejected for SVR membership of VESA in 2001. In response to concerns that its performance standards were anti-competitive, “VESA eventually in August 2003 adopted an alternative for aspirant members who could not meet the performance criteria – they could now lodge a R2 million financial guarantee in lieu of meeting the performance standards.” (p.5) Tracetex lodged a complaint with the Competition Commission in February 2004. In May 2004 three leading SVR members of VESA resigned and insurers changed their approach so that VESA approval was no longer a necessity for reductions in car insurance premiums. The Competition Commission considered that, with the financial guarantee system in place, the SVR standards after August 2003 were not exclusionary.

The Tribunal concluded that “The three SVR respondents, whilst not the only members of the committee, agreed to that standard and the probabilities are that without their consent the standard could not have been set. We say that the probabilities favour such an interpretation because this brief history illustrates that until all three companies were on board, it was not possible to agree a standard, and the later history shows that when they could not agree to changes in the standards, the committee disintegrated. It also illustrates that the three firms were not willing to agree on any more diluted form of standard that might have been less exclusionary in its effect.” (p. 19) The Tribunal determined that the standard was exclusionary from the time of its introduction in 1999 to the time of introduction of introducing the financial guarantee option in August 2003. (p. 80) Tracetec argued that even the financial guarantee option was exclusionary. This view was not endorsed by the Tribunal.

Reduction of variety can serve as one form of exclusion. An example of how quality standard can be manipulated to reduce output is described in Box 3 on the Navel and Valencia orange marketing committees.

Box 3. Navel and Valencia Oranges: Quality Adjustments with Effect of Reducing Output

The U.S. Agricultural Adjustment Act of 1933 and the Agricultural Marketing Act of 1937 permitted the majority of producers of an agricultural commodity to agree to form a marketing coalition that could determine, for all producers, the amount of product sold for different uses, rate of flow of the product onto the market and minimum quality standards for that product. The coalition could impose price posting and inspection programs for agricultural commodities. Producers who oversupplied could face substantial penalties. With the benefit of antitrust immunity, the Navel and Valencia orange producers formed cartels that governed the distribution of their oranges for fresh orange sales and processing sales, initially a joint cartel, and then after 1952, separate cartels for each kind of orange. The orange marketing orders allowed the administrative committees to set how much of the crop would be sold in the fresh form, the timing of shipments to the fresh domestic orange market, and the minimum size of oranges.

One of the administrative committees contends that the stability provided by the marketing order made fresh oranges “available to consumers at a cost which is free from the inefficiencies of non-orderly marketing.” (Valencia Orange Administrative Committee, Annual Report of Operations under Federal Marketing Order 22, at 2 (1978-79)) However, an analysis of the effect of marketing orders suggests the reverse. Normally, in seasons of optimal growing

conditions, a higher percentage of fruit would be of a quality appropriate for consumers of fresh fruit. However, the practice of the administrative committees has been to reduce the percentage of the fruit that goes to the fresh market in good seasons below the percentage allowed in bad seasons, largely by pro-rata limits as well as through quality limits on the size of oranges. The effect of such limitations is to keep prices high. In fact, while “85-90 percent of Navels and 65-80 percent of Valencias are of sufficient quality to be marketed in fresh form, fewer than 70 percent of Navels and 45 percent of Valencias typically reached the fresh market between the 1960-61 and 1980-81 seasons.” (Shepard (1986)) More fruit was directed to processing than quality would suggest. The consequence was higher prices for fresh fruit, due to the output reduction.

Standards that establish different grades of quality are less likely to create competitive harm than standards that establish a minimum size because the minimum size standards can be used to limit total output reaching the fresh market, while establishing a gradation mechanism between different sizes does not limit the output reaching the fresh market.

Competition authorities do not condemn all standards agreements that are exclusionary. An example of a permitted agreement is an agreement among manufacturers over minimum performance criteria of domestic washing machines. In the EU, nearly all producers and importers of domestic washing machines agreed to cease production or importation of the most energy inefficient machines. The official rationale of the agreement is to reduce energy consumption. Despite the agreement’s harm to competition (and elimination for consumers of the option to purchase the cheapest washing machines) this restriction was permitted by a decision of the European Commission on the grounds that it would bring considerable benefits to consumers from the reduction of emissions from electricity production.³³

With respect to professional certification, Shaked and Sutton (1981) show that, as a theoretical matter, professions are likely to choose quality levels that are too high and sizes that are too small. That is, a profession will only set the socially optimal quality level if it cares solely about consumer welfare and not professional income.

5.2 *Promoting coordinated high prices*

Professional associations in many countries have developed “ethical” rules that prohibit competitive bidding or solicitation of the customers of another professional. Such ethical rules are generally regarded as violations of competition law. For example, in *National Society of Professional Engineers v. United States*, the Supreme Court deemed illegal the “Code of Ethics” provisions that prohibited competitive bidding among professional engineers. The association claimed that competitive price pressures would have an adverse effect on quality, thereby reducing public safety.³⁴

5.3 *Picking a standard that would not maximise social welfare*

At times, standards may be set that would both not be set by the market and which would not maximise social welfare. One explanation of such standard decisions is that they are simple mistakes perhaps based on imperfect information about market desires by the standard setters. Other explanations are based on individual incentives yielding adoption of a standard when a different one (or no new one) would have maximised social welfare.

“Excess inertia” can arise when users do not know each others’ preferences. In such cases, a standard might not be adopted even though its adoption would be in the interest of all users. This situation can arise in two types of cases, first when users employ an old technology and a new one becomes available. Even

³³ Commission Decision 2000/475/EC of 24 January 1999 (CECED), OJ [2000] L187/47.

³⁴ 435 U.S. 679 (1978).

though all users would benefit from switching to a new technology, it may be that no individual will actually switch.³⁵ In the second case, consumers choose between adopting one of two incompatible technologies. With imperfect information, they may end up choosing one when they all would have preferred the other. But they cannot reverse their choices.³⁶

Standard setting can also promote “inefficient bandwagons”. In these cases, users move to a new technology even when they would have been better off with the pre-existing technology. This can occur when some users prefer the new technology while others prefer the older one. The new users will move to the new technology. Users preferring the older technology will choose to follow, despite potentially having higher preference for the pre-existing technology than for the new one.³⁷

5.4 *Picking a standard through deception or incomplete information: patent ambush*

At times, standard setting processes are alleged to be used to pick winners by some form of deception or misinformation. By participating in the standard-setting process, a company can keep itself informed about how a standard is developing. The company can also take advantage of delays and flexibility in the patent examination system to optimise the timing and nature of changes to the scope of any pending patent claims it may have that are related to the standard. When carrying out a patent ambush strategy with pending patents, the company does not inform the SSO that it has patent applications which are relevant to the standard being developed. At the same time, the company may adapt the claims in those applications to fit the emerging standard. Furthermore, the company may influence the standard, making it resemble its pending claims more closely. The company might therefore be able to modify both the standard and its own pending patents so that they match as closely as possible.

If the company succeeds in its strategy, the SSO will promulgate a standard that is covered by the company’s undisclosed pending patents, which the company will then push through the examination process until they are granted. In the meantime, other companies will implement the standard in their products and customers will buy them. Substantial sunk investments that rely on the standard will be made. When the ambusher is confident that enough resources have been sunk to make switching to another standard too costly, it will reveal its patents and pounce, threatening infringement lawsuits. It might demand very profitable licensing fees, or it might decide to block the implementation of the technology altogether.

Patent ambushes would not necessarily change the outcome of a standard and, excluding price and access terms, may yield standards that the market would choose for technical reasons.

To the extent that legal cases do not restrain patent ambushes, they can give participants in standard setting processes a perverse incentive to engage in patent ambushes. This incentive to ambush may be lower for vertically integrated companies engaged in repeated interactions over standard setting. Broad use of patent ambushes by SSO participants could change the nature of standard setting, likely reducing the

³⁵ A commonly cited example of this kind of path dependency is the QWERTY keyboard, allegedly designed to slow down manual typewriters to avoid key jams.

³⁶ See Farrell and Saloner (1985).

³⁷ See Farrell and Saloner (1985).

value and quality of standards.³⁸ A number of cases in which patent ambushes have been alleged are described below.³⁹

5.4.1 *The Rambus Cases*

Both the European Commission and the U.S. Federal Trade Commission have taken action against Rambus, Inc. in recent years for an alleged patent ambush involving pending patents and standards for dynamic random access memory (“DRAM”) chips.⁴⁰ The cases have now concluded.⁴¹

The Joint Electron Device Engineering Council (JEDEC) develops standards for computer memory. One of its goals is to avoid setting standards that will require payment of substantial patent royalties by those who manufacture products that comply with the standard. Thus, JEDEC’s policies sought to avoid inclusion of patented technologies in standards unless the patent holder had agreed to charge fair, reasonable and non-discriminatory (“FRAND”) licence fees.

Rambus, a developer and licensor of computer memory technology, was a member and participant in proceedings of the JEDEC subcommittee on DRAM chip standards for approximately four years in the early to mid-1990s. During that time, Rambus had pending patent applications with disclosures broad enough to cover technologies for the standards under consideration.

The FTC challenged Rambus’s conduct under Section 5 of the FTC Act (prohibiting unfair or deceptive methods of competition) and Section 2 of the Sherman Act (prohibiting monopolisation). In support of its claims, the FTC alleged that Rambus did not disclose any of its patents or pending patent claims during its JEDEC membership, although it did disclose some patents in connection with its resignation from the JEDEC. The FTC alleged that when a Rambus representative was asked for information about any of its patents that could cover the proposed standards under consideration he evaded the question, providing only partial information. Furthermore, throughout Rambus’s JEDEC membership, Rambus is alleged to have used the information that it gained regarding the standards under consideration to amend and refine its pending patent claims with the aim of making them correspond directly to the proposed standards.

It was undisputed that Rambus’s patents ultimately allowed it to monopolise (with a market share of approximately 90 per cent) four markets for technologies that were elements of the standard developed for DRAM. But internal Rambus communications urged the company not to assert those patents “until ramp reached a point of no return.”⁴² That is essentially what Rambus did, eventually enforcing its patents with several infringement lawsuits against DRAM chip manufacturers and significant licensing fees.

³⁸ SSOs are often not well placed to sue privately for deception towards the body, as SSOs often have very limited financial means.

³⁹ This list is not exhaustive.

⁴⁰ EC, *Commission Confirms Sending a Statement of Objections to Rambus*, Press Release (23 August 2007), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/330&form>; *In the Matter of Rambus, Inc.*, FTC Docket No. 9302, Opinion of the Commission (August 2, 2006); *Rambus Inc.*, 2007 WL 431524 (F.T.C. 2007); *Rambus, Inc.*, 2007 WL 431525 (F.T.C. 2007); *Rambus, Inc.*, 2007 WL 2086203 (F.T.C. 2007); *Rambus, Inc.*, 2007 WL 431523 (F.T.C. 2007); *Rambus, Inc. v. FTC*, 522 F.3d 456 (D.C. Cir. 2008).

⁴¹ The US FTC ultimately dismissed its case. U.S. FTC, *Statement in the Matter of Rambus*, Press Release (14 May 2009), available at www.ftc.gov/opa/2009/05/rambus.shtm.

⁴² *In the Matter of Rambus, Inc.*, FTC Docket No. 9302, Opinion of the Commission (2 August 2006), at 44-48.

The significance of Rambus's conduct under the antitrust laws has been intensely disputed. The main issues in the litigation have been i) whether Rambus had an obligation to disclose its granted and pending patents; ii) whether its failure to disclose them enabled it to obtain a monopoly in the four technology markets or whether that monopoly was instead the inevitable result of its superior technology; and iii) whether its failure to disclose merely deprived the JEDEC of an opportunity to obtain a commitment, in advance of establishing its standards, from Rambus that it would charge FRAND licence fees.

In July 2007, the European Commission sent a Statement of Objections to Rambus based on the same conduct that led to the FTC's case. The SO outlines the Commission's preliminary view that Rambus abused a dominant position by claiming unreasonable royalties on certain DRAM patents subsequent to a patent ambush. The official press release states that this is the first time the EU dealt with a patent ambush under EC antitrust law.⁴³ In December 2009, the European Commission accepted binding commitments from Rambus to lower its royalty rates over certain patents for a five-year period, with royalty rates of zero for the standards developed while Rambus was a JEDEC member and royalty rates of 1.5% for later JEDEC standards compared to a pre-commitment rate of about 3.5%.

5.4.2 ETSI

In 2005 the European Commission conducted an investigation of the European Telecom Standards Institute (ETSI), raising concerns that flaws in ETSI's standard setting procedures made the standards susceptible to patent ambushes. The EC closed the investigation after ETSI incorporated rule changes that were recommended by the Commission, making ETSI's procedures more resistant to patent ambushes. The changes included obligations relating to early disclosure of IPRs that are essential for implementing the standard, fair and transparent procedures for standard-setting, and FRAND conditions for licensing.^{44 45} At the time, ETSI also announced that it was considering further changes to potentially introduce negotiations over *ex ante* licensing agreements.

The current "ETSI Guide on Intellectual Property Rights" further states that "Specific licensing terms and negotiations are commercial issues between the companies and shall not be addressed within ETSI. Technical Bodies are not the appropriate place to discuss IPR Issues. Technical Bodies do not have the competence to deal with commercial issues. Members attending ETSI Technical Bodies are often technical experts who do not have legal or business responsibilities with regard to licensing issues. Discussion on licensing issues among competitors in a standards making process can significantly complicate, delay or derail this process." This suggests that ETSI would not perform *ex ante* licensing but would instead leave that for bilateral negotiation.

⁴³ EC, *Commission Confirms Sending a Statement of Objections to Rambus*, Press Release (23 August 2007), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/330>.

⁴⁴ EC, *Commission Welcomes Changes in ETSI IPR Rules to Prevent 'Patent Ambush'*, Press Release IP/05/1565 (12 December 2005), available at <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/05/1565>.

⁴⁵ Clause 4.1 of the "ETSI IPR Guidelines" states: "Subject to Clause 4.2 below, each MEMBER shall use its reasonable endeavours, in particular during the development of a STANDARD or TECHNICAL SPECIFICATION where it participates, to inform ETSI of ESSENTIAL IPRs in a timely fashion." To make this rule operational, ETSI adopts procedures such as guidelines to a chair that a "short reminder call for IPR disclosures should be made: on formal submission of a technical solution; on completion of the first stable draft of the standard; on working group approval of a draft standard; on TB approval of a draft standard.

E.g., this may consist of the following sentence 'May I remind Members of their obligations to use reasonable endeavours to disclose any Essential IPR [related to this issue] in a timely fashion'." 17 May 2010 available at http://www.etsi.org/WebSite/document/Legal/ETSI_Guide_on_IPRs.pdf.

5.4.3 *Unocal*

Patent ambushes are not restricted to private SSOs, but can also occur when governments set standards. An example is the alleged patent ambush by Unocal, a gasoline refiner, in the California government's determination of new clean air regulations. In 1988, the California legislature authorised the California Air Resources Board ("CARB") to adopt and implement, among other measures, "motor vehicle fuel specifications for the control of air contaminants and sources of air pollution"⁴⁶.

CARB set about to fully define reformulated gasoline (RFG). The California legislature directed CARB to consult with the industry in the development of the Phase 2 regulations.⁴⁷ While the phase 2 RFG regulations were under development, Unocal and 13 of the other largest domestic oil companies and the three big domestic automobile manufacturers created the Auto/Oil joint venture ("Auto/Oil") to pool their individual research and to conduct joint research so that Auto/Oil could develop recommendations based upon publicly available data and technologies, with which various state governments can fairly and accurately compare the costs and benefits of the various alternatives to reduce emissions while avoiding expensive patented processes.⁴⁸ To achieve this goal, the Auto/Oil joint venture agreement required that all of the research conducted by Auto/Oil or donated to Auto/Oil through a presentation would be in the public domain and free for everyone to use.⁴⁹ On the other hand, this joint study agreement explicitly provided that each firm could pursue its own simultaneous, independent research and that no firm would be obliged to disclose the existence of this independent effort or share the results with the other members of the joint venture.⁵⁰

Unocal conducted independent research and development activities that identified ways to change gasoline formulations to reduce the emissions of carbon monoxide, nitrogen oxide and unburned hydrocarbons. The research identified key variables for reducing emissions.⁵¹

Unocal presented its 5/14 research results to CARB and the industry group, and allegedly stated that these results were in the public domain and non-proprietary. Given this information, CARB adopted Phase 2 RFG regulations which are mainly based on Unocal's 5/14 research results. After the adoption of the regulations by CARB and following refinery modifications, Unocal revealed its patent on these results and intent to seek licence fees for the use of its patent.

On 4 March 2003, U.S. FTC charged Unocal with anticompetitive conduct throughout the California Air Resources Board Phase 2 RFG rulemaking process (1990-1994). The Complaint alleges that Unocal

⁴⁶ California Health & Safety Code, 43013 (a).

⁴⁷ In 1990, CARB adopted Phase I reformulated gasoline ("RFG") regulations, establishing a modest set of standards governing certain gasoline properties. These regulations required only minimal compliance costs.

⁴⁸ CCPF, p. 1439-43, 1455.

⁴⁹ The stated purpose of the agreement was to conduct "joint" research, the results of which "will be disclosed to government agencies, the Congress and the public, and otherwise placed in the public domain." To ensure that this result was effective, the agreement states, "No proprietary rights will be sought nor patent applications prosecuted on the basis of the work of the Program unless required for the purpose of ensuring that the results of the research by the Program will be freely available, without royalty, in the public domain. Complaint Counsel's Post Trial Belief, March 2005, p. 50-51.

⁵⁰ Paragraph 6-B (p. 14-15) of the agreement, see the press release on Federal District Court jury's decision, November 3, 1997, p.7. available at <http://sec.edgar-online.com/1997/11/04/14/0000716039-97-000054/Section2.asp>.

⁵¹ One major finding was that the temperature at which 50% percentage of gasoline would evaporate (T50) was a key variable to reduce in order to cut emissions.

violated Section 5 of the FTC Act while seeking and gaining its monopoly power in the supply of technology used to produce California gasoline. The Complaint alleges that, throughout the CARB Phase 2 RFG rulemaking process (1990-1994), Unocal brought “materially false and misleading” information to CARB and to industry groups “for the purpose of obtaining competitive advantage”.⁵² The FTC’s Complaint argues that Unocal aimed to “lock in” the industry to produce Phase 2 RFG so that Unocal would obtain monopoly power in licensing nearly all gasoline formulations used by refiners to meet requirements of CARB’s Phase 2 regulations. Thereafter, Unocal could allegedly gain excessive profits through collecting licensing fees for use of its patent.

On 25 November 2003, Administrative Law Judge D. Michael Chappell issued an Initial Decision concluding that the *Noerr-Pennington* state action doctrine⁵³ protects much of the conduct alleged to constitute unfair methods of competition and that the FTC lacks jurisdiction over the remaining allegations because they depend on resolution of substantial questions of patent law.

Complaint Counsel appealed ADJ’s initial decision and on 7 July 2004, the Commission reversed and vacated the Initial Decision, because “Neither the *Noerr-Pennington* doctrine nor the claimed absence of FTC jurisdiction provides an adequate basis for Unocal’s motions to dismiss”.⁵⁴

In August 2005, during the merger between Chevron and Unocal, Unocal stated that it would cease and desist from seeking to enforce its patents related to the CARB regulations.

This case illustrates that patent ambushes are not exclusively a concern for SSOs but can also be a concern for standards set by government. Government-established standards arising from a patent ambush potentially can be immunised by state actions against enforcement of antitrust laws.

5.5 *Yielding asymmetric cost impacts*

Standards can have different impacts on variable costs of production for firms. Giving some firms lower variable costs than others can substantially affect subsequent competition between products produced to a given standard. Asymmetric production cost impacts may be a natural result of much standard setting activity. Consequently, asymmetric production cost impacts are not presumed harmful. Moreover, asymmetric production costs are normal when there are multiple IP holders. This is because producing firms license the IP necessary to produce products via bilateral negotiation. These bilateral rights will involve lower payments (or potentially no payments at all) when each party to the contract is exchanging IP rights with each other. Firms without any IP rights to trade, in contrast, will pay a higher total licensing price. The lower cost for firms that have engaged in research to produce IP can be viewed as part of their return to research investment. Asymmetric licence costs should be viewed as normal in these situations.

Cost differences may not be “normal” in the same sense if aggravating factors are present, such as if a firm uses a patent ambush as a method to raise rivals costs.⁵⁵ In the Unocal case discussed above, after CARB’s Phase 2 RFG regulations were put in force, Unocal sought licence fees for the use of its patented technology. Other refiners challenged Unocal’s patent. Following the decision by California’s district court (September 1998) finding that other refiners were infringing Unocal’s patent, Unocal sought 5.75 cents per

⁵² Administrative Complaint, March 2004.

⁵³ The state action doctrine makes actions by states immune from prosecution for competition law violations under certain conditions.

⁵⁴ Order Reversing and Vacating the Initial Decision/ Commission’s Opinion, July 2004.

⁵⁵ See Salop and Scheffman (1983).

gallon over all gasoline production from 1996 to 2000, which used its patented technology (that was over 92% of all RFG complying with CARB's regulations). The high fees raised production costs of all refiners who supply Phase 2 RFG to consumers in California and ultimately were expected to raise prices for consumers.⁵⁶

6. What actions can be taken to mitigate the harms?

Although competition harms may arise from standard setting, there are few simple solutions for addressing them.⁵⁷ A number of actions can be taken to mitigate the harms from anticompetitive consequences of certain standard setting actions. *Ex post* solutions that deal with the situation after the harm has been done from a patent ambush include competition law, patent review and SSO IP contract violation. Competition law solutions may be appropriate when there is patent ambush through standard setting, though courts have not been uniformly supportive of the use of competition law and other solutions, such as lawsuits based on contract law, may be preferable. Weiser (2008) suggests that “effectively focused antitrust oversight – as was the case in Rambus – can bolster the effectiveness of private standards bodies that might otherwise be less vigilant in ferreting out abusive conduct.”⁵⁸ For the moment, competition law experience is limited, much of it having been discussed earlier and contract law experience, based on obligations to disclose and license patents at reasonable and non-discriminatory rates, is also limited. Reviews and invalidations of granted patents may be appropriate where there are legitimate questions about the original grounds for the claim.⁵⁹

Government officials have considered not only *ex post* solutions but also *ex ante* mitigations. *Ex ante* mitigations often suggested include:

- Use of international standards;
- Governance of SSOs;
- SSO disclosure rules;
- *Ex ante* negotiations over price and other terms; and
- Fair, reasonable and non-discriminatory pricing.

⁵⁶ Unocal's economic expert claimed that “...90% of the additional costs associated with complying with any royalty license from Unocal would be reflected in wholesale gasoline prices.”

⁵⁷ Solutions can apply to multiple areas of potential harm. To avoid repetition, then, they are listed in a different section of this note.

⁵⁸ In contrast, Lemley (2002) argues for enforcement of SSO IP rules but that “Antitrust law should be extremely reluctant to interfere with this process to avoid chilling the creation of private liability rules in the patent system. He further suggests creating a safe harbour for SSOs to agree on intellectual property rules “even if they take an active role in determining what a reasonable and non-discriminatory royalty should be, so long as they apply a fair process set *ex ante*.” Kobayashi and Wright (2009) argue that patent holdup cases are best argued under patent laws and contract law. While this argument may be reasonable, it is not clear that courts are any more amenable to resolving patent ambush cases via patent and contract law than via antitrust law. See the Unocal case for an example in which a private attempt to deal with an alleged patent ambush fails.

⁵⁹ Lemley (2002) argues that the sectors where patents are “most likely to overlap and to block the development of necessary improvements” are the telecommunications, computer and Internet industries. He suggests, “SSO IP rules are thus a partial market solution to a problem created by overbroad intellectual property protection.”

Simple rules will have difficulty mitigating harms in the complicated world of standard setting, across so many different types of products and with firms and consumers of various degrees of sophistication. To the extent that simple rules are promoted by government, it is important to consider the unintended consequences that can arise from intervention. One key point with respect to patent ambushes is that private firms participating in a SSO bear the direct financial risk of a patent ambush and thus have a direct, individual incentive to restrict patent ambushes.

The most commonly proposed *ex ante* rules are discussed below.

6.1 *Use of international standards*

In some countries, standards may be set for goods at a national level that are different from commonly accepted international standards. The World Trade Organisation (WTO) has a Technical Barriers to Trade (TBT) agreement that seeks, as an underlying principle, to avoid unnecessary obstacles to trade. The Agreement encourages Members to use existing international standards for their national regulations, or for parts of them, unless “their use would be ineffective or inappropriate” to fulfil a given policy objective. This may be the case, for example, “because of fundamental climatic and geographical factors or fundamental technological problems” (Article 2.4).⁶⁰ The TBT agreement focuses particularly on technical regulations – for which compliance is mandatory, in the sense that the product is not allowed to be sold without complying with the technical regulation.

“The TBT Agreement takes into account the existence of legitimate divergences of taste, income, geographical and other factors between countries. For these reasons, the Agreement accords to Members a high degree of flexibility in the preparation, adoption and application of their national technical regulations. The Preamble to the Agreement states that ‘no country should be prevented from taking measures necessary to ensure the quality of its exports, or for the protection of human, animal, and plant life or health, of the environment, or for the prevention of deceptive practices, at the levels it considers appropriate’. However, Members’ regulatory flexibility is limited by the requirement that technical regulations ‘are not prepared, adopted or applied with a view to, or with the effect of, creating unnecessary obstacles to trade’. (Article 2.2).”⁶¹

For many years, technical experts have worked towards the international harmonization of standards. An important role in these efforts is played by the International Standardization Organization (ISO), the International Electrotechnical Commission (IEC) and the International Telecommunication Union (ITU). Their activities have had major impact on trade, especially in industrial products. For example, ISO has developed more than 9,600 international standards covering almost all technical fields.

Technical harmonization may increase consumer welfare. Within a harmonized regulatory environment, competition ensures that consumers have a wide and economically attractive choice of products. This presupposes, however, that harmonized standards do not go beyond fulfilling their legitimate regulatory objective, i.e. that they do not stifle innovation or otherwise discourage producers from introducing new products or product variants.

⁶⁰ The TBT Agreement states: “Where technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations except when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfillment of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.”

⁶¹ See WTO.

6.2 *Governance*

The way that SSOs are governed and operated can substantially mitigate many competition policy risks.

6.2.1 *Representing diverging economic interests*

One way to promote results aimed at delivering products that are best for end consumers is for SSOs to include end consumers among the participants and voters. Some medical profession licensing boards have attendees who represent the legal service of the government. Others mandate that some members shall not be from the licensed profession, as with Ireland's Medical Council that reserves at least three out of 25 seats for non-physicians who are explicitly requested to protect the public interest. The Institute of Medicine, an independent scientific advisor to the U.S. government, recommended that, in response to the presumed lack of independence of medical professions, "[l]icensing boards should draw at least half of their membership from outside the licensed occupation; members should be drawn from the public as well as from a variety of areas of expertise such as health administration, economics, consumer affairs, education, and health services research." (IOM (1989)) Encouraging wide participation in standard setting helps to increase the voice of potentially excluded firms and technologies. This can potentially reduce anticompetitive exclusion.

Consumer representation on SSOs or licensing boards is not a panacea. In general, consumers have a small economic interest in the outcome of licensing compared to any member. For many standards, an approved consumer's body would not exist. Consumer representative bodies do not always have a clear and compelling link to real consumers, so may not be perfect representatives of consumers. Finally, consumer representatives may not grasp the implications of complex technical choices that are made during standard setting and may not be able to make good technical judgments about tradeoffs between different technologies that can be included in a standard.

6.2.2 *Ensuring that SSOs avoid acting as cartels*

In order to reduce the likelihood of SSOs acting as a cartel or price co-ordination body, many SSOs implement policies that do not permit discussion of price during the standard setting process. Rules may take particular care to ensure that producers of substitutes do not joint set prices, whether for IP in the SSO stage or as end-producers.

6.3 *Standard-setting body disclosure rules*

Standard setting bodies have a variety of approaches for disclosure of potential intellectual property claims and potential royalty rates and licensing terms in settings prior to the adoption of a standard. These rules have sometimes been proposed a method to reduce ability to carry out a patent ambush.

Two main types of disclosures can be required or encouraged. First, SSOs may create rules that impose obligations on their members to make accurate disclosures of any patents and pending patents they have that could overlap with the standard under development. The disclosures have to be made before and during the standard setting process.⁶² Second, SSOs can oblige their members to disclose the maximum fees and most restrictive licensing terms they would demand for such patents if the technology they cover

⁶² Disclosure rules presume that companies are aware of all relevant patents they may hold. For large companies, a representative may not be aware of all relevant patents. Moreover, the most complete searches for patents related to a standard are often performed at the end of the standards process, to avoid multiple and expensive searches of potentially broad portfolios.

were to become part of the standard. Under a proposed policy of a developer of computer device interconnection standards, VITA members will be required to make early disclosures of patents and obliged to declare maximum royalty rates and most restrictive non-price licensing terms that would be required of a licensee. A business review letter found benefits from such a scheme because “each working group member also will be able to compare the most restrictive licensing terms associated with each alternative technology, including freely-available public domain technologies, when deciding which technology to support for inclusion in the draft VSO specification. Disclosure of this information, enforced by the requirement that non-disclosed patents be licensed royalty-free, permits the working group members to make more informed decisions when setting a standard.”⁶³ Former Commissioner Kroes endorsed both of these approaches as a way for SSOs to avoid “being manipulated by narrow commercial interests.”⁶⁴

A variation on those policies is to give members the option to commit to making such disclosures, rather than making the commitments mandatory. A business review letter to IEEE considers a policy that would give members of the SSO the option to publicly disclose and commit to the most restrictive terms (including royalty rate) that they would require for patent claims deemed essential for the standard.⁶⁵ If there is any *ex ante* competition, though, the effect could be the same. A company would probably raise the SSO’s suspicions and put itself at a competitive disadvantage if it refused to undertake such a commitment when its rivals did commit themselves. Not only might the SSO be more likely to choose the rival’s technology, but there would also be a risk that the SSO might limit the company’s ability to continue participating in the standards’ development process.

Either version of these disclosure policies will improve an SSO’s ability to compare the technical and financial merits of the technologies covered by granted or pending patents with each other and with any IPR-free alternatives *before* committing to a particular formulation of a standard.⁶⁶ That, in turn, could enable the SSO to take advantage of any *ex ante* competition between technologies that exists, instead of exposing itself to being held up after the standard is chosen and it is too late to switch to another technology.

If an IP owner announces a high “*supra-competitive*” royalty rate even before a formal decision is made to incorporate its IP into the standard, but the IP is nonetheless included, there would not be a competition policy concern. In other words, if the required disclosures are made and they do not cause the SSO to avoid putting a certain patented (or patent pending) technology into its standard, then there should not be a presumption that it is anticompetitive for the IP owner to charge a *supra-competitive* licensing fee for that technology. Under those circumstances, the IP owner simply has the best technology when both its price and quality are taken into account – or maybe it has the only feasible technology. The competition policy objective should not be to force low or “reasonable” licensing fees, but rather to prevent IP owners

⁶³ See Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep’t of Justice, to Robert A. Skitol, Esq., Drinker, Biddle & Reath, LLP re VMEbus International Trade Association (VITA), Oct. 30, 2006, available at <http://www.usdoj.gov/atr/public/busreview/129380.pdf>.

⁶⁴ Neelie Kroes, European Commissioner for Competition Policy, *Being Open about Standards*, Speech 08/317 before OpenForum Europe (10 June 2008), p.4.

⁶⁵ See Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep’t of Justice to Michael Lindsay, Esq., Dosey and Whitney, LLP re IEEE, 30 April 2007 available at <http://www.justice.gov/atr/public/busreview/222978.pdf>.

⁶⁶ But see Thomas Cotter, “Reflections on the Antitrust Modernisation Commission’s Report and Recommendations Relating to the Antitrust/IP Interface”, 53 *Antitrust Bulletin* 745, 762 n.50 (noting possibility that SSO members might disclose too many granted or pending patents, leading to unnecessary delays in the standard setting process as the SSO wades through irrelevant disclosures).

from receiving more by using an ambush strategy than they would have received if they had not used that strategy.

Making firms responsible for revealing relevant IP can have unintended consequences. In particular, such rules may increase the rewards to a firm with essential technology from staying out of the standard-setting process. Once the standard is adopted, a patent may still be unveiled with high licensing fees, but such actions would involve no deceit nor any promise of fair and reasonable licensing fees.

If firms are required to announce a maximum licence fee for all their IP in advance of a standard's finalisation, the risk is increased that a standard setting forum will turn into a forum for illegal price setting.

Strategic actions by firms may distort the standard setting processes. When firms know that their announced maximum licensing fees will serve as the basis for later bilateral negotiations with other firms over access to the other firms' IP, it is reasonable to expect that maximum fees will be inflated well above expected fees. Firms expecting a modest fee or none at all may choose to announce high fees as a bargaining strategy. Ultimately, the aggregate announced fees as a percentage of product sales revenue could amount to more than 100%.

6.4 *Ex ante negotiations*

Another anti-ambush strategy that has been proposed builds on the disclosure requirements and calls for joint *ex ante* negotiations between all the SSO members who are prospective licensees of a technology and the member who is a prospective licensor of that technology over the royalties that the latter would charge if the technology were to be incorporated in the SSO's standard.

As with rules requiring the disclosure of maximum fees, part of the purpose of holding joint *ex ante* negotiations is to get potential licensors to set their royalty rates before the standard is selected, *i.e.*, while the licensors still face some competitive pressure (assuming the SSO has a realistic option of choosing an alternative technology). The other component of this strategy aims to create some countervailing buyer power by combining the demand generated by all the potential licensees in the SSO. Together, the *ex ante* effect and the joint negotiation/monopsony effect can help the SSO members who will implement the standard to procure more reasonable terms from owners of essential IP, leading to lower marginal costs and possibly to lower consumer prices. It might also result in a speedier standard setting process and a reduced likelihood that litigation will be necessary to resolve disputes about licensing fees and terms.

On the other hand, economic theory suggests that countervailing buyer power leads to an indeterminate outcome when pitted against monopoly power. Output and consumer welfare could both decline even further than they would in a pure monopoly scenario. Furthermore, it will not necessarily always be the case that the licensor has monopoly power, especially before the standard is set. The buyer power therefore might not be countervailing against monopoly power but rather it might just push fees that are already competitive even lower. That could force royalty rates down so much that the leading innovators would respond by reducing their investments in R&D. Several commentators have dismissed the idea that buyer power in SSO settings would lead to output reductions, though.⁶⁷

The antitrust risk from *ex ante* negotiations over prices may be larger than for simple price announcements, given that many participants to an SSO are potential competitors.⁶⁸ If firms agree to create

⁶⁷ See *e.g.* Joseph Farrell, *et al.* (2007) p. 632; Ohana *et al.* (2003).

⁶⁸ Sidak (2009) suggests that insufficient attention is being given to the risk of oligopsonistic collusion in SSOs if they are allowed to discuss royalty terms in an effort to avoid "hold up".

a high marginal cost for themselves through licensing, but will receive much of the higher cost back in IP payments, they may be able to achieve price impacts like those of a cartel. Competition authorities should take great care when encouraging pricing conversations among a group of competitors.⁶⁹

Aggregate limits for all licensing fees have also been suggested as a possible solution. But determination of an appropriate licensing fee is difficult. It would not be appropriate to have the same percentage fee for all products, as some will have higher intellectual property dependence than others. But determining the appropriate aggregate rate for any particular standard would then be an individual inquiry with no clear means of developing a fair aggregate fee or of allocating that fee among multiple suppliers of IP for the standard.

Group licensing such as cross-licensing or patent pool formation can reduce the incentive to charge high royalties for IP licensors. “[C]oordinating such licensing can lead to lower royalty rates than would independent pricing of the patents.” The intuition is that “[l]ower prices for one component generative a positive external effect on the owner of the other component. These externalities are internalized through integration, leading to lower prices.”^{70 71}

In appropriate circumstances, competition authorities have viewed such *ex ante* negotiations as worthwhile. For example, the business review letter for the UHF RFID standard does not oppose a “proposed joint patent-licensing arrangement, pursuant to which the Consortium will license its members” patents that are “essential” to manufacture products in compliance with certain ultra high frequency identification standards, and distribute royalty income among” the licensors. The letter finds efficiencies from the proposal, including that “overall royalty rates may be lowered by limiting the threat of hold up and royalty stacking, and transaction costs will be lower. It finds safeguards against potential anticompetitive effects, such as valid patents, exclusion of substitute patents from the pool, limited ability to restrict downstream competition and narrowly tailored grantback clauses to ensure an ongoing incentive to produce follow-on innovations.”⁷²

6.5 FRAND

One widespread SSO strategy for ensuring IP rights do not result in excessive IP licensing fees requires members to make an *ex ante* commitment that if any technologies on which they hold patents or pending patents are included in the SSO’s standard, they will license those technologies on “FRAND” or

⁶⁹ At the moment, for standards containing multiple firms’ IP, price negotiations for royalties tend to be bilateral.

⁷⁰ See Shapiro (2000).

⁷¹ Antitrust review of pooled patents has a long history. Perhaps the first such review occurred in September 1917 when the U.S. Attorney General issued an antitrust advisory opinion on the pool of patents for producing airplanes. The Wright-Martin Aircraft Corp. was demanding 1,000 USD per plane, considered a “high” fee and amount to about 5% of an airplane’s cost. The Wright-Martin patents were pooled with those of the Curtiss Aeroplane & Motor Corp. The pool held various basic patents, including the “Heavier Than Air Flying Machines” patent. The pool split royalties of 200 USD per plane between Wright-Martin (67.5%) and Curtiss (20%) with the remaining fees reserved for pool administration. The pool had a lower aggregate fee than would exist absent the pool, though the threat of government exercise of eminent domain may have brought them to the table. The antitrust review found that there were no anticompetitive effects from assembling these patents into a single package. (See Klein (1997))

⁷² See Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep’t of Justice to William F. Dolan and Geoffrey Oliver, Jones Day, re RFID Consortium, 21 October 2008 available at: <http://www.justice.gov/atr/public/busreview/238429.htm>.

“RAND” terms. FRAND means “fair, reasonable, and non-discriminatory.”⁷³ FRAND commitments are typically worded in a broad fashion and do not specify actual licence terms. FRAND commitments have the potential to reduce gains from patent ambush.

The “non-discriminatory” component of FRAND is generally deemed to be useful. Although FRAND does not necessarily require that all licensees receive identical licence terms, it does give similarly situated licensees some reassurance that they will be treated alike by the licensor. It can also prevent the licensor from potentially harming competition by charging higher royalties to its horizontal competitors than it does to everyone else.⁷⁴

On the other hand, the “fair” and “reasonable” part of FRAND has been controversial. Proponents argue that FRAND license obligations provide some reassurance that would-be ambushers will not be able to hold up the standard by refusing to license their patents or by offering a licence only on unreasonable terms. Others find that expectation to be naïve. While FRAND commitments may prevent licensors from threatening outright refusals to deal since they require the patent owner to license its patents (at some price), they offer little or no protection against “gouging”.

The root of the problem with “fair” and “reasonable” is that those terms are not tied to an objective principle or definition. Instead, they are imprecise and can be conceptualised in different ways. Therefore, a firm with a patent that is essential to a standard could, in principle, fulfil its FRAND obligation to offer a licence but do so at an asking price that no potential licensees consider reasonable. Without something to anchor the argument besides the words “fair” and “reasonable” themselves, however, it is not clear how FRAND can help to settle the parties’ differences.

A court might be called upon to decide what “fair” and “reasonable” mean in the context of a particular dispute. Different courts would likely have different interpretations for the same case about what “fair” and “reasonable” mean. Therefore, FRAND offers little or no predictability to either licensors or licensees. “[T]he expression ‘FRAND terms’ is so indeterminate as to be devoid of any meaning in practice.”⁷⁵ On the other hand, it can be argued that FRAND is the best feasible regime for governing IP licensing.⁷⁶

6.6 Conclusion on mitigation of potential harms

Mitigation strategies for the harms that can arise from standard setting are complex and not foolproof. Adopting international standards and ensuring open participation in governance can reduce risks of harm. SSOs generally actively discourage activities that could be conceived of as anti-competitive co-operation by competitors. It is important nonetheless to avoid competition law threats that may chill actions such as sharing of price information to determine costs of adopting one technology as opposed to another.

SSOs have a private incentive to limit patent ambush, so it is unclear that government promotion of mitigation strategies is essential in addition to the private incentives. In order to achieve the valuable positive benefits of standard setting, governments may need to accept that governmentally imposed *ex ante* measures will not always be successful in eliminating harms. Given that *ex ante* measures can be costly, have unintended consequences and at times provide no clear guidance, there is a legitimate question about

⁷³ RAND simply omits the word “fair.” For convenience’s sake, only the term “FRAND” is used here.

⁷⁴ See Masoudi (2007), p. 6.

⁷⁵ See Ohana, Hansen, and Shah (2003) or Lemley (2002) (“without some idea of what [FRAND] terms are, reasonable and non-discriminatory licensing loses much of its meaning”).

⁷⁶ See, e.g., Geradin and Rato (2007).

the role of government in preventing patent ambushes, apart from ensuring a clear path for *ex post* threat of litigation and encouraging enforceable contracts about IP by SSOs.

The international nature of law enforcement and government advocacy in this area is of particular importance. “Unlike some aspects of antitrust oversight (say, the essential facilities doctrine), different jurisdictions cannot adopt different approaches on standard setting body IPR licensing policies without creating considerable confusion and undermining the globalised nature of the information technology marketplace.”⁷⁷ Governments should take account of the international nature of standard-setting process when considering national initiatives.

7. Conformity assessment

Once standards are set, how can consumers be sure they are followed? For many products and services, the answer is through a guarantee of conformity. To provide a guarantee of conformity, two main approaches exist. These are conformity assessment (often by an independent conformity assessment body) or self-certification of conformity through a supplier’s declaration of conformity (SDOC).

Certification bodies that deliver independent certificates of conformity are typically private but often are authorised by government or SSOs. “Conformity assessment procedures are technical procedures — such as testing, verification, inspection and certification — which confirm that products fulfill the requirements laid down in regulations and standards.” (WTO) When conformity assessment works, no firm will be able to claim a product meets a standard when, in fact, it does not.

When governments requires independent conformity assessment bodies to provide certificate of conformity prior to sale of a product or service in a given geographic area, international firms producing a product experience supplemental and duplicative conformity assessment costs (for duplicating work already performed by one conformity assessment body), extra costs for initial product samples (which are prepared prior to mass production and thus potentially very expensive); and lost business opportunities during the delays during which conformity assessment is underway and products cannot be launched in a country. For short lifecycle products, these delays can be particularly costly. A final critique is that conformity assessment requirements can be used illegally to acquire proprietary technology. For large companies with many products, the direct and indirect costs of certificates of conformity can be large.

SDOC gives manufacturers an ability to declare their product in conformity with a standard without having a formal certificate of conformity assessment. Such procedures are most likely to be permitted for products in which there are minimal health and safety ramifications from non-conformity. SDOC reduces the costs of conformity assessment. Many governments appear unwilling to accept SDOC perhaps through worries that SDOC disclosures are not independent and are subject to falsification. The primary protection to consumers against false SDOC is that manufacturers are open to litigation risk in case of false disclosures.

The best way to provide conformity guarantees is a subject of much debate. In a path-breaking effort, Europe has in the last 15 years adopted SDOC for many types of products and services. OECD research suggests that this adoption generally promoted more exports into the EU. Requiring independent conformity assessment at a country level, as before the change to SDOC, may constitute a barrier to entry, particularly for foreign-based firms.⁷⁸

⁷⁷ See Weiser (2008), p. 3.

⁷⁸ See OECD Trade Policy Working Paper Number 78. Available at: <http://www.oecd.org/dataoecd/57/3/41481368.pdf>

7.1 *Market structure*

To better understand potential competition policy issues with conformity assessment, it is important to know more about how certificates are delivered. The number of conformity assessment bodies worldwide is large. The International Accreditation Forum has more than 5,000 members and the OECD has estimated that there are more than 10,000 organisations conducting conformity assessment.⁷⁹ Despite the large number of bodies performing conformity assessment, conformity assessment bodies may at times have market power as a result of public regulation or self-regulation. For a given standard, there is often only one body in a given jurisdiction authorised by the government or by the relevant SSO to provide conformity guarantees. Such bodies may have significant ability to influence the price and terms of conformity assessment. There are few reasons to limit the number of conformity assessors for a standard provided that the laboratories have shown a capability to test and evaluate goods and services, maintains control over the certification of products (even when certain testing is performed by subcontractors), is independent in its decision-making and produces reasonable and documented findings. Some governments allow multiple bodies to apply for conformity assessment credentials, including foreign bodies.⁸⁰ To the extent that excessive restrictions exist on which bodies can perform conformity assessment, those restrictions merit review.

7.2 *TBT agreement*

The concerns about competition policy in conformity assessment are not just hypothetical. According to the WTO, “Non-transparent and discriminatory conformity assessment procedures can become effective protectionist tools.” Conformity assessment is covered by the WTO Technical Barriers to Trade (TBT) agreement. The TBT Agreement aims to support the goal of “*One product, one test, accepted everywhere*”. (OECD, WP37) An unnecessary obstacle to trade could result from stricter or more time-consuming procedures than are necessary to assess that a product complies with the domestic laws and regulations of the importing country. For instance, information requirements should be no greater than needed, and the siting of facilities to carry out conformity assessment, and the selection of samples should not create unnecessary inconvenience to the agents” (Articles 5.2.3 and 5.2.6). (See http://www.wto.org/english/tratop_e/tbt_e/tbt_info_e.htm)

“According to the TBT agreement, procedures for conformity assessment shall be applied to products imported from other WTO Members “in a manner no less favourable than that accorded to like products of national origin and to like products originating in any other country” (Article 5.1.1). This means that imported products must be treated equally with respect to any fees charged to assess their conformity with regulations. Similarly, Members must respect the confidentiality of information about the results of conformity assessment procedures for imported products in the same way as for domestic products so that commercial interests are protected (Articles 5.2.4 and 5.2.5).” See http://www.wto.org/english/tratop_e/tbt_e/tbt_info_e.htm

Duplicative testing is a socially wasteful cost without proven social benefits. “Demonstrating compliance with technical regulations may impede international trade. In particular, if products are to be exported to multiple markets, multiple testing may be required. Manufacturers can have difficulties in securing approval for their products on foreign markets, for instance because testing experts disagree on optimal testing procedures, from bureaucratic inertia or even from manipulation of the testing process by

⁷⁹ See OECD Trade Policy Working Paper Number 37. Available at: [http://www.oilis.oecd.org/olis/2006doc.nsf/LinkTo/NT00003B06/\\$FILE/JT03212596.PDF](http://www.oilis.oecd.org/olis/2006doc.nsf/LinkTo/NT00003B06/$FILE/JT03212596.PDF)

⁸⁰ One example of allowing multiple and foreign laboratories is the U.S. Occupational Safety and Health Administration (OSHA) Nationally Recognized Testing Laboratory (NRTL) designation. There are more than 10 NRTLs, at least two of which are foreign based (one in Canada, one in Germany).

protectionist groups. Whatever the reason might be, such diversity of procedures and methods significantly increases the costs of producers who sell in multiple markets.”

7.3 *Harmonisation of conformity assessment*

Harmonisation of standards is beneficial in part because conformity assessment is cheaper for harmonised standards. For example:

Construction products can be placed on the market only if they conform to the European Council's Construction Products Directive (i.e. by applying harmonized European standards), for instance by obtaining a "European Technical Approval" (ETA). ETAs, however, are only awarded for one product and one manufacturer at a time, which means additional expenses in the range of DM 5,000 to DM 30,000 (where harmonized standards exist), and DM 10,000 to DM 70,000 (where there are no harmonized standards). It is therefore evident that manufacturers of construction products for which no harmonized standards exist face considerably higher costs before approval. (DIN (2000), p. 32)

Harmonisation of conformity assessment will take the savings on conformity assessment one step further, by eliminating duplicative costs, ensuring, e.g., mutual recognition of conformity assessments from different certification bodies. Mutual recognition agreements (MRAs) for test reports and certification is discussed as a solution to duplicative testing costs and limited domestic competition to assess conformity, but real progress in achieving mutual recognition is slow. Reasons for this include that government acceptance of the principle of MRAs is limited, certification bodies would likely not seek full MRA because this would reduce their aggregate revenues, and certification is increasingly required by non-traditional demanders.

Article 6.3 of the TBT Agreement strongly encourages WTO Members to enter into negotiations with other Members for the mutual acceptance of conformity assessment results. The presence of a high degree of confidence in testing and certification bodies is, in fact, a prerequisite for the good functioning of an MRA. For this reason, Article 6.1 of the TBT Agreement recognises that prior consultations may be necessary to arrive at a mutually satisfactory understanding regarding the competence of the conformity assessment bodies. It also points out that compliance by conformity assessment bodies with relevant guides or recommendations issued by international standardising bodies can be regarded as an indication of adequate technical competence.

Many governments are reluctant to support mutual recognition. They may fear a loss of control over safety standards and disadvantage for their domestic certification bodies compared to foreign ones that may win more business in case of mutual recognition. Even when mutual recognition is agreed between technical bodies, governments may not support it. One example is “the International Laboratory Accreditation Cooperation (ILAC) agreement, whose signing ceremony some years ago was attended by government representatives from some of the major countries involved, such as the EU and the United States; but when the question was asked “*will those governments recognise, as a basis for certification, a test report issued outside their own country under the ILAC agreement?*” the position taken by some governments was that regulatory recognition could only be granted if the CABs in question complied with the separate, regulatory procedures.^{81,82}

⁸¹

The EU, for example, requires its domestic CABs to enter into formal, direct sub-contracts with any foreign CAB (i.e., outside the EU) whose test reports it wishes to use as a basis for certification. Evidently, in trade between EU member states within the EU itself, that requirement does not apply, and direct recognition of home-country certificates is normally assured.

Certification bodies would, in aggregate, lose revenue from MRA, because only one certification body would do the substantive testing work that, at the moment, is performed repeatedly across multiple jurisdictions. If an MRA is put into force, that would be an additional effect of increasing price competition across certification bodies, as firms would shop for the certification body that would offer the best terms.

Increasingly, the private sector, such as large stores, are requiring certification for various product categories. MRAs would consequently develop a new hurdle because in order for a manufacturer to sell to a retailer, it would not only need government support for MRAs, but also the retailer's support.

The absence of harmonisation and mutual recognition of conformity assessment or non-recognition of self-certifications can result in duplicative costs of conformity assessment, raise other costs, at times slow entry by foreign firms and, if information gained through national conformity assessment is appropriated, result in taking of proprietary company information. Restrictions over domestic provision of certification may result in higher prices than would exist with active competition.

8. Conclusion

In conclusion, this paper has provided guidance on the complexities of competition policy with respect to standard setting. In case governments take action, it is important to recall that standards, particularly in high technology, can become actual or de facto international standards. As a result, application of competition policy in one jurisdiction can at times have extra-territorial implications. Ensuring that inconsistent rules do not develop in different parts of the world is therefore particularly important.

A number of points emerge from the practices and policies considered in this paper:

- The standard setting process, taking into account all different types of standards, is extraordinarily complex.
- The benefits of allowing firms to jointly discuss standards with each other, or potentially in conjunction with the government, are substantial. For example, standards help to integrate complementary intellectual property with separate owners. Policy makers should begin with the rebuttable presumption that standard setting is a legitimate activity that yields substantial economic benefits.
- There are clear and known risks of illegal coordination or undue restrictions on competition from standard setting processes. Longstanding examples would include price setting and market allocation among competitors.
- A more recent example of risks occurs when standards are “ambushed” by a company that conceals relevant patents until a standard has been set and then sues for infringement. Patent ambushes are an activity with no redeeming social benefits. Competition agencies sometimes combat patent ambushes by allowing and advocating certain *ex ante* measures by SSOs, such as rules on disclosures, negotiations of licensing terms. Agencies may also take enforcement action against ambushers.
- Efforts to mitigate potential harms from standard setting may have unanticipated effects.

⁸²

See OECD Trade Policy Working Paper 37. Available at:
[http://www.oilis.oecd.org/oilis/2006doc.nsf/LinkTo/NT00003B06/\\$FILE/JT03212596.PDF](http://www.oilis.oecd.org/oilis/2006doc.nsf/LinkTo/NT00003B06/$FILE/JT03212596.PDF).

- Conformity assessment raises important and largely ignored competition policy issues. While designed to ensure that products meet a standard, conformity assessment policies merit review, especially when governments require duplicative assessments that are substantially equivalent or when governments or SSOs limit the number of assessors in a way that may restrict the number of suppliers of conformity assessments for a given standard and lead to high prices for certification.
- Governments can usefully:
 - Be cautious when considering instituting widespread obligations on the standard setting process, taking into account the international context of many standards;
 - Evaluate any decision to step into specific disputes in the standard setting arena; and
 - State any general principles for identifying and penalising illegal conduct in advance, taking into account that seeking the best technical standards is an activity that often benefits from joint action by potential competitors.

BIBLIOGRAPHY

- ABA Section of Antitrust Law (2004) "Handbook on the Antitrust Aspects of Standard Setting." American Bar Association: Chicago.
- Anton, James J., Dennis A. Yao (1995), "Standard-Setting Consortia, Antitrust, and High-Technology Industries," *Antitrust Law Journal*, Vol. 64, No. 1, pp. 247-265.
- Arrow, Kenneth J. (1963) "Uncertainty and the Welfare Economics of Medical Care," *American Economic Review*, 53, 941-973.
- Balto, David A. (1999), "Networks and Exclusivity: Antitrust Analysis to Promote Network Competition," *George Mason Law Review*, Vol. 7, pp. 523-576.
- Besen, Stanley M., Joseph Farrell (1994), "Choosing How to Compete: Strategies and Tactics in Standardization," *Journal of Economic Perspectives*, Vol. 8, No. 2, pp. 117-131.
- Besen, Stanley M., Leland Johnson (1986), "Compatibility Standards, Competition and Innovation in the Broadcasting Industry. RAND Report. Available at: <http://www.rand.org/pubs/reports/2007/R3453.pdf>.
- Brunnermeier, Smita B. & Sheila A. Martin, (1999) "Planning Report: Interoperability Cost Analysis of the U.S. Automotive Supply Chain," National Institute of Standards and Technology ES-5 (March).
- Carlton, Dennis and Klammer (1983) "The Need for Coordination among Firms, with Special Reference to Network Industries", *The University of Chicago Law Review*. Vol. 50, pp. 446-465.
- Carrier, Michael A. (2003), "Why Antitrust Should Defer to the Intellectual Property Rules of Standard-Setting Organizations: A Commentary on Teece & Sherry," *Minnesota Law Review*, Vol. 87, pp. 2019-2037.
- Church, Jeffrey, Neil Gandal (1992), "Network Effects, Software Provision and Standardization," *Journal of Industrial Economics*, Vol. 40, pp. 85-104.
- Church, Jeffrey, Neil Gandal (1993), "Equilibrium Foreclosure and Complementary Products," Tel Aviv Sackler Institute of Economic Studies.
- Church, Jeffrey, Neil Gandal (1996), "Strategic Entry Deterrence: Complementary Products as Installed Base," *European Journal of Political Economy*, Vol. 12, pp. 331-354.
- de Palma, A., L. Leruth (1996), "Variable Willingness to Pay for Network Externalities with Strategic Standardization Decisions," *European Journal of Political Economy*, Vol. 12, pp. 235-251.
- DIN (2000) *Economic Benefits of Standardization*. Available at: <http://www.sis.se/upload/632248898159687500.pdf>.

- Economides, N. (1996), "Network Externalities, Complementarities, and Invitations to Enter," *European Journal of Political Economy*, Vol. 12, pp. 211-233.
- Economides, N., S.C. Salop (1992), "Competition and integration among complements, and network market structure," *Journal of Industrial Economics*, Vol. 40, pp. 105-123.
- Economides, N., L.J. White (1994), "Networks and compatibility: implications for antitrust," *European Economic Review*, Vol. 38, pp. 651-662.
- Farrell, Joseph, John Hayes, Carl Shapiro, Theresa Sullivan (2007) "Standard Setting, Patents, and Hold-up," *Antitrust Law Journal*, Vol. 74, No. 3, pp. 603-670.
- Farrell, Joseph, Michael Katz (1998), "The Effects of Antitrust and Intellectual Property Law on Compatibility and Innovation," *The Antitrust Bulletin*, Vol. 43, pp. 609-650.
- Farrell, Joseph, H.K. Monroe and G. Saloner (1998), "The Vertical Organization of Industry: Systems Competition versus Component Competition," *Journal of Economics & Management Strategy*, Vol. 7, No. 2, pp. 143-182.
- Farrell, Joseph, G. Saloner (1985), "Standardization, Compatibility, and Innovation," *RAND Journal of Economics*, Vol. 16, No. 1, pp. 70-83.
- Farrell, Joseph, G. Saloner (1986), "Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation," *The American Economic Review*, Vol. 76, No. 5, pp. 940-955.
- Farrell, Joseph, G. Saloner (1988), "Coordination through committees and markets," *RAND Journal of Economics*, Vol. 19, No. 2, pp. 235-252.
- Farrell, Joseph, G. Saloner (1992), "Converters, Compatibility, and Control of Interfaces," *Journal of Industrial Economics*, Vol. 40, No. 1, pp. 9-35.
- Farrell, Joseph, Carl Shapiro, (1992) "Standard Setting in High Definition Television," in Richard R. Nelson and Roger G. Noll *Brookings Papers on Economic Activity. Microeconomics*, pp. 1-93.
- Farrell, Joseph, Tim Simcoe (2007), "Choosing the Rules for Formal Standardization," Working Paper, University of California and University of Toronto, www.rotman.utoronto.ca/timothy.simcoe/papers/formal.pdf.
- Farrell, Joseph, P.J. Weiser (2003), Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age, *Harvard Journal of Law and Technology*, Vol. 17, No. 1, pp. 85-134.
- Federal Trade Commission (2003), *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, a Report, <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>.
- Gandal, Neil, David Salant, Leonard Waverman (2003) "Standards in wireless telephone networks," *Telecommunications Policy*, Volume 27, Issues 5-6, June-July 2003, pp. 325-332.
- Gilbert, Richard J. (1992), "Symposium on Compatibility: Incentives and Market Structure," *Journal of Industrial Economics*, Vol. 40, No. 1, pp. 1-8.

- Girardin, Damien, Miguel Rato (2007) "Can Standard-Setting Lead To Exploitative Abuse? A Dissonant View On Patent Hold-Up, Royalty Stacking And The Meaning Of FRAND," *European Competition Journal*, Vol. 3, No. 1, pp. 101-161.
- Holler, M.J., J.-F. Thisse (1996), *The Economics of Standardization: Introduction and Overview*, *European Journal of Political Economy*, Vol. 12, pp. 177-182.
- Katz, M. L., C. Shapiro (1985), "Network externalities, competition, and compatibility," *The American Economic Review*, Vol. 75, No. 3, pp. 424-440.
- Katz, M.L., C. Shapiro (1986a), "Product Compatibility Choice in a Market with Technological Progress," *Oxford Economic Papers*, New Series, Vol. 38, pp. 146-165.
- Katz, M.L., C. Shapiro (1986b), "Technology Adoption in the Presence of Network Externalities," *Journal of Political Economy*, Vol. 94, No. 4, pp. 822-841.
- Katz, M.L., C. Shapiro (1992), "Product Introduction with Network Externalities," *Journal of Industrial Economics*, Vol. 40, No. 1, pp. 55-83.
- Katz, M.L., C. Shapiro (1994), "Systems Competition and Network Effects," *Journal of Economic Perspectives*, Vol. 8, No. 2, pp. 93-115.
- Katz, M.L., C. Shapiro (1998), "Antitrust in software markets," in Jeffrey A. Eisenach & Thomas M. Lenard (eds.) (1999), *Competition, Innovation and the Microsoft Monopoly: Antitrust in the Digital Marketplace*, Boston, Dordrecht, & London, Kluwer Academic, pp. 29-81.
- Klein, Joel I. (1997), "Cross-Licensing and Antitrust Law," Department of Justice, Antitrust Division, www.usdoj.gov/atr/public/speeches/1123.htm.
- Klein, Joel I. (1998), "The Importance of Antitrust Enforcement in the New Economy," Address before the New York State Bar Association, Antitrust Law Section Program, www.justice.gov/atr/public/speeches/1338.htm.
- Lee, Nari (2004), "Standardization and Patent Law - Is Standardization a Concern for Patent Law?" <http://ssrn.com/abstract=610901>.
- Lemley, Mark A. (1996), "Antitrust and the Internet Standardization Problem," *Connecticut Law Review*, Vol. 28, pp. 1041-1094.
- Lemley, Mark. A. (1998), "The Law and Economics of Internet Norms," *Chicago-Kent Law Review*, Vol. 73, pp. 1257-1294.
- Lemley, Mark A. (1999), "Standardizing Government Standard-Setting Policy for Electronic Commerce," *Berkeley Technology Law Journal*, Vol. 14, pp. 745-758.
- Lemley, Mark A. (2002), "Intellectual Property Rights and Standard-Setting Organizations," *California Law Review*, Vol. 90, pp. 1889-1981.
- Lemley, Mark A., David McGowan (1998), "Legal Implications of Network Economic Effects," *California Law Review*, Vol. 86, pp. 479-611.

- Lessig, Lawrence (1999), "The Limits in Open Code: Regulatory Standards and the Future of the Net," *Berkeley Technology Law Journal*, Vol. 14, pp. 759-769.
- Link, Albert N. "Market Structure and Voluntary Product Standards," *Journal of Applied Economics*. Vol. 15, No. 3, pp. 393-401.
- Masoudi, Gerald (2007) "Efficiency in Analysis of Antitrust, Standard Setting, and Intellectual Property," Deputy Assistant Attorney General, USDOJ, Speech at Tilburg University Workshop on Standardisation, IP Licensing, and Antitrust (January 18).
- Matutes, C., P. Régibeau (1992), "Compatibility and Tie-Ins in a Duopoly Model," *Journal of Industrial Economics*, Vol. 40, pp. 37-54.
- Matutes, C., P. Régibeau (1996), "A Selective Review of the Economics of Standardization: Entry Deterrence, Technological Progress and International Competition," *European Journal of Political Economy*, Vol. 12, pp. 183-209.
- McKenzie, Melonie L. (2002), "How should competing software programs marry? The antitrust ramifications of private standard-setting consortia in the software industry," *Syracuse Law Review*, Vol. 52, pp. 139-158.
- Ohana, Gil, Marc Hansen & Omar Shah (2003) "Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush?" *European Competition Law Review*.
- Patterson, Mark R. (2003), "Antitrust and the Costs of Standard-Setting: A Commentary on Teece and Sherry," *Minnesota Law Review*, Vol. 87, pp. 1995-2017.
- Posner, Richard A. (2001), "Antitrust in the New Economy," *Antitrust Law Journal*, Vol. 68, pp. 925-943.
- Rohlfs, Jeffrey (1974), "A Theory of Interdependent Demand for a Communications Service," *The Bell Journal of Economics and Management Science*, Vol. 5, No. 1, pp. 16-37.
- Salop, Steven C., David Scheffman, "Raising rivals' costs," *American Economic Review*, Vol. 73, No. 2, pp. 267-271.
- Sidak, J. Gregory (2009) "Patent Holdup and Oligopsonistic Collusion in Standard-Setting Organizations," *Journal of Competition Law and Economics*, Vol. 5, No. 1, pp. 123-188.
- Shapiro, Carl (1996), "Antitrust in Network Industries," speech before the American Law Institute and American Bar Association Conference, "Antitrust/Intellectual Property Claims in High Technology Markets," January 25, 1996, www.justice.gov/atr/public/speeches/0593.pdf.
- Shapiro, Carl (2001), "Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting," *Innovation Policy and the Economy*, Vol. 1, pp. 119-150, www.haas.berkeley.edu/~shapiro/thicket.pdf.
- Shapiro, Carl (2000), "Setting Compatibility Standards: Cooperation or Collusion?" in Rochelle Dreyfuss, Diane Zimmerman and Harry First, eds, *Expanding the Boundaries of Intellectual Property*, Oxford University Press, Oxford.

- Shepard, Lawrence (1986), "Cartelization of the California-Arizona Orange Industry, 1934-1981," *Journal of Law and Economics*, Vol. 29, No. 1, pp. 83-123.
- Tan, Zixiang Alex (2001) "Comparison of Wireless Standards-Setting: U.S. vs. Europe." TPRC conference, available at: <http://arxiv.org/abs/cs.CY/0109100>.
- Taffet, Richard S. (2002), "Patented Technology and Standard Setting: A Standards Development Organization View," Paper presented at the ABA Antitrust Section's 50th Annual Spring Meeting in Washington D.C. on April 25, 2002.
- Teece, David J., Edward F. Sherry (2003), "Standards Setting and Antitrust," *Minnesota Law Review*, Vol. 87, pp. 1913-1994.
- U.S. Department of Justice and the Federal Trade Commission (2007), *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition*, <http://www.justice.gov/atr/public/hearings/ip/222655.pdf>.
- Varian, Hal, Robert Litan, Andrew Elder, Jay Shutter (2002) "The Net Impact Study". http://www.netimpactstudy.com/NetImpact_Study_Report.pdf
- Weiser, Philip J. (2001), "Internet Governance, Standard Setting, and Self-Regulation," *Northern Kentucky Law Review*, Vol. 28, pp. 822-846.
- Weiser, Philip J. (2008) "Making the World Safe for Standard Setting," in Michelle Bertho, Beverly Crawford and Edward Fogerty, eds, *The Impact of Globalization on the United States*, Greenwood Publishing. Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1003432.
- Weiser, Philip J. (2009) "Regulating Interoperability: Lessons from AT&T, Microsoft, and Beyond," *Antitrust Law Journal*. Antitrust Law Journal, volume 49. Available at SSRN: <http://ssrn.com/abstract=1344828>.

NOTE DE REFERENCE*

Par le Secrétariat

1. Introduction

Le processus de normalisation consiste à définir un ensemble de caractéristiques communes à un bien ou un service¹. Il concerne une production² multiple et une multitude de procédés, depuis la qualité du sel de table jusqu'aux protocoles des puces informatiques, en passant par la taille des roues des motos et les formules d'essence³. Ce document examine les aspects de la normalisation pertinents du point de vue du droit et de la politique de la concurrence.

La politique de la concurrence s'intéresse depuis longtemps à la normalisation qui, parce qu'elle implique souvent une coopération étroite entre des concurrents potentiels, restera une question prioritaire. Cela ne signifie pas qu'il faille confier aux pouvoirs publics la supervision de la normalisation en ce qui concerne son incidence sur la concurrence. Le débat n'est pas clos sur le rôle qui devrait leur être dévolu en la matière. Il n'en demeure pas moins toutefois que la normalisation apporte des bienfaits économiques certains tandis qu'elle ne suscite que rarement des litiges sur le plan du droit de la concurrence. Les inquiétudes que soulève la normalisation au regard de la concurrence ne devraient donc probablement pas justifier un encadrement strict des processus de normalisation susceptible d'avoir de nombreux effets non souhaités, coûteux et de grande portée. Ceci dit, les pouvoirs publics disposent de nombreux moyens pour garantir la prise en compte des intérêts de la politique de la concurrence dans le processus de normalisation. Ils peuvent notamment s'assurer que les organismes de normalisation n'encouragent pas les activités illégales, comme la collusion sur les prix, limiter l'incitation des entreprises à fausser le processus de normalisation, promouvoir des normes reconnues internationalement, garantir la reconnaissance mutuelle des certificats de conformité et des organismes de certification et s'assurer que l'évaluation de la conformité ne devienne pas un obstacle trop coûteux à l'entrée.

* Ce document a été élaboré par Sean F. Ennis. Il fait en partie appel, en l'adaptant, à la note de référence préparée pour la Table ronde sur la concurrence, les brevets et l'innovation (II).

¹ Voici une définition plus officielle : « Les règlements techniques et les normes énoncent les caractéristiques spécifiques d'un produit — telles que sa taille, sa forme, sa conception, ses fonctions et propriétés d'emploi ou la manière dont il est étiqueté ou emballé avant d'être mis en vente. Dans certains cas, la manière dont un produit est fabriqué peut influencer sur ces caractéristiques et il peut alors s'avérer plus approprié de rédiger les règlements techniques et les normes en termes de procédés ou de méthodes de production plutôt que par rapport aux caractéristiques proprement dites du produit. » Source : http://www.wto.org/french/tratop_f/tbt_f/tbt_info_f.htm.

² Cette production peut prendre la forme de biens, de services, de règles régissant l'interaction entre des biens (comme les normes d'interopérabilité) et d'informations.

³ De façon surprenante peut-être, toutes les normes susmentionnées peuvent impliquer des restrictions à la concurrence.

Les normes émanent de sources diverses. De nombreux pays comptent sur les acteurs du marché, comme les organismes de normalisation, pour élaborer une réglementation principalement privée des marchés de produits. Les liens d'interdépendance entre les produits de haute technologie posent des défis supplémentaires aux organismes de normalisation. Les normes définies par les pouvoirs publics⁴ ont souvent une incidence sur la concurrence au sein des secteurs concernés.

Les processus de normalisation impliquent des risques bien connus de collusion ou de restrictions de la concurrence. Les normes peuvent avoir pour effet d'exclure les technologies non retenues. La normalisation peut abaisser le coût de certaines technologies et exercer une influence considérable tant sur le prix que sur la diversité des produits proposés aux consommateurs. Dans le cadre de certaines affaires récentes de droit de la concurrence, des entreprises ont parfois été accusées de « prendre en embuscade » le processus normatif en encourageant l'organisme de normalisation à promouvoir une technologie dont ses membres estiment qu'elle sera accessible gratuitement ou à peu de frais, puis en brevetant des éléments clés de la norme et en prélevant des redevances « excessives ». Il n'est pas aisé pour les pouvoirs publics d'empêcher ce type de dissimulation. Les organismes de normalisation peuvent par exemple être incités à discuter du prix des diverses technologies avant de définir la norme afin d'éviter d'être instrumentalisés, mais ces annonces et les décisions consécutives pourraient accroître les risques de collusion sur les prix.

Les décideurs désireux de promouvoir une politique de la concurrence efficace dans les domaines concernés par la normalisation sont confrontés à un double défi. Ils doivent tout d'abord comprendre le fonctionnement des organismes de normalisation. Ils doivent ensuite décider si les pouvoirs publics peuvent jouer un rôle approprié de soutien public et, dans l'affirmative, définir ce rôle⁵. L'une des réponses possibles pour les pouvoirs publics est d'intervenir en aval pour faire appliquer le droit de la concurrence ou exercer d'autres recours. Ils peuvent également intervenir en amont, en définissant par exemple les règles de fonctionnement des organismes de normalisation. Avant de choisir parmi l'ensemble des options qui s'offrent à eux, y compris celle de ne rien faire, ils doivent évaluer les coûts et les avantages des diverses approches. Ils pourront s'inspirer du droit de la concurrence pour éviter les formes de supervision les plus directives, comme de confier à une instance publique l'élaboration des normes, la définition des pratiques de gouvernance des organismes de normalisation ou la réglementation tarifaire de la propriété intellectuelle utilisée par les normes. Dans tous les cas, ils devront garder à l'esprit que les normes peuvent acquérir un statut international, de droit ou de fait. Il pourra par conséquent arriver que l'application de la politique de la concurrence dans une juridiction ait des implications extraterritoriales. Parvenir à un consensus sur les politiques appropriées est donc particulièrement important.

Notre propos n'est pas ici de dresser un tableau exhaustif des connaissances juridiques et économiques des questions de politique de la concurrence touchant à la normalisation, mais plutôt de présenter un cadre pour l'examen et l'évaluation des meilleures pratiques potentielles.

Il se dégage certaines observations, dont certaines sont énumérées ici :

⁴ Lorsqu'elles ont caractère obligatoire, il s'agit de « règlements techniques ».

⁵ Pour le traitement des accords de normalisation dans l'Union européenne, se référer à la Communication de la Commission, Lignes directrices sur l'applicabilité de l'article 81 du traité CE aux accords de coopération horizontale, JOCE, 2001 C 3/2, chapitre 6. La Commission européenne élabore actuellement de nouvelles lignes directrices sur les accords de coopération horizontale, qui sont en cours de finalisation au moment où nous écrivons. Le département de la Justice des États-Unis et la Federal Trade Commission ont publié conjointement des « Lignes directrices antitrust sur l'octroi de licences de propriété intellectuelle » (Antitrust Guidelines for the Licensing of Intellectual Property), 6 avril 1995, qui peuvent être consultées à l'adresse suivante : <http://www.justice.gov/atr/public/guidelines/0558.pdf>.

- Le processus de normalisation est extraordinairement complexe, compte tenu de la grande variété des normes.
- Il pourra être très avantageux d'autoriser les entreprises à débattre entre elles des normes avec ou sans le concours des instances publiques. À titre d'exemple, les normes facilitent l'intégration de propriétés intellectuelles complémentaires dont les droits sont détenus par des personnes distinctes. Les pouvoirs publics doivent partir de l'hypothèse, réfutable, selon laquelle la normalisation est une activité légitime qui produit des avantages économiques certains.
- Les processus de normalisation impliquent des risques bien connus de collusion ou de restrictions de la concurrence. Parmi les exemples les plus caractéristiques, on peut citer la fixation des prix et le partage des marchés entre concurrents.
- Un type de pratique plus récente concerne l'« embuscade » de normes par une entreprise qui dissimule qu'elle a breveté des éléments pertinents jusqu'à l'adoption de la norme, puis se pourvoit en justice pour atteinte à ses droits de propriété intellectuelle. La dissimulation de droits de brevet est une activité sans retombée bénéfique pour la collectivité. Les autorités de la concurrence la combattent parfois en autorisant et en encourageant les organismes de normalisation à prendre certaines mesures en amont, comme les règles de transparence et la négociation de licences. Elles peuvent également adopter des mesures coercitives contre les auteurs de la dissimulation.
- Les mesures prises pour atténuer les effets potentiellement nuisibles de la normalisation peuvent avoir des conséquences inopinées.
- Les évaluations de conformité soulèvent des questions de politique de la concurrence importantes et très rarement prises en compte. Si les politiques d'évaluation de la conformité visent à garantir la conformité des produits aux normes, elles doivent cependant faire l'objet d'un examen attentif, en particulier lorsque les pouvoirs publics imposent une double évaluation, qui fait pratiquement doublon, ou lorsque les instances publiques ou les organismes de normalisation érigent des barrières à l'entrée susceptibles de limiter le nombre d'organismes habilités à réaliser les évaluations de conformité à une norme donnée, induisant des tarifs de certification élevés.
- Les pouvoirs publics pourront avec profit :
 - agir avec prudence lorsqu'ils envisagent d'encadrer strictement les processus de normalisation, en tenant compte du contexte international de nombreuses normes,
 - évaluer toute décision d'intervenir dans des litiges spécifiques touchant à la normalisation,
 - et énoncer à l'avance tous principes généraux pour identifier et sanctionner les pratiques illégales, sachant que la recherche des meilleures normes techniques est une activité souvent favorisée par un travail commun entre concurrents potentiels.

Ce document a pour principale ambition d'identifier les bienfaits de la normalisation et ses effets potentiellement nuisibles, en vue d'initier un débat sur les mesures qui pourront être adoptées pour atténuer ces derniers. Il aborde en conclusion la question des évaluations de conformité, après avoir défini les principales fonctions des normes et examiné comment elles sont élaborées.

2. Les différents types de normes

Avant d'évoquer les bienfaits de la normalisation et ses effets potentiellement nuisibles, il est important de définir les différents types de normes qui existent et d'examiner comment elles sont élaborées. Les normes servent diverses fonctions. On dénombre cinq grandes catégories de normes :⁶

- les normes de qualité,
- les normes d'information,
- les normes d'uniformité,
- les normes de conduite professionnelle et de certification, et
- les normes d'interopérabilité.

Les inquiétudes qu'une norme peut soulever du point de vue de la politique de la concurrence dépendent de sa fonction et du schéma suivi pour son élaboration et son utilisation.

Les normes de qualité. Les normes de qualité définissent les caractéristiques des produits en termes de sécurité, de performance et d'efficacité. Elles peuvent empêcher les produits dangereux ou indésirables d'arriver sur le marché ou d'y prospérer. Les normes de qualité peuvent améliorer le bien-être des consommateurs par l'apport d'informations et l'assurance de disposer de produits satisfaisants et non dangereux⁷. Les produits qui ne répondent pas à une norme de qualité peuvent être exclus du marché ou se voir refuser la certification d'un organisme d'évaluation de conformité ou d'un organisme de normalisation. Les normes de qualité élaborées par les pouvoirs publics⁸ excluent souvent du marché les produits non conformes. Celles établies par les organismes privés n'excluent pas les produits juridiquement parlant, mais informent utilement les consommateurs. Les normes de qualité peuvent constituer des barrières à l'entrée. Même dans le cas de normes émanant d'organismes privés, il peut arriver qu'une entreprise propose une norme qui conférerait à son produit un avantage sur des produits équivalents, mais non identiques, de ses concurrents⁹.

Les normes d'information. Les normes d'information fournissent des mesures et des tests de produits, et génèrent des informations qui pourront être diffusées auprès des acheteurs, vendeurs et autres utilisateurs de la norme. Elles ne définissent pas les caractéristiques des produits, mais établissent des paramètres pour le type d'informations à communiquer. Par exemple, les normes sur les apports nutritionnels de produits alimentaires peuvent donner des informations sur la teneur en lipides de différents corps gras. L'introduction de ces normes peut affecter différemment les concurrents¹⁰.

⁶ Ces catégories peuvent se recouper. Les normes de certification professionnelle, par exemple, peuvent être considérées comme un type de norme de qualité (cf. section ABA de la loi antitrust (2004) pour plus de détails).

⁷ Les normes peuvent s'appliquer non seulement à des produits et à des services, mais aussi à des systèmes de management génériques. Les normes ISO 9001 et ISO 14001, par exemple, codifient respectivement les systèmes de management de la qualité et les systèmes de management environnemental.

⁸ Quand les normes sont imposées par les pouvoirs publics, on parle souvent de règlements techniques.

⁹ Voir Link (1983), p. 395.

¹⁰ Voir section ABA de la loi antitrust (2004), p. 9.

Les normes d'uniformité. Les normes de réduction des variétés cherchent à endiguer la prolifération des catégories de produits. La réduction des variétés peut favoriser les économies d'échelle. En standardisant la dimension des conserves de légumes, par exemple, on accroît les quantités produites dans chacune des dimensions retenues et on permet aux consommateurs d'optimiser le stockage de leurs conserves. Il arrive cependant que les normes d'uniformité restreignent les choix qui s'offrent aux consommateurs dans des proportions excessives et facilitent la collusion en éliminant des versions concurrentes de technologies sous-jacentes^{11, 12}.

Les normes de conduite professionnelle et de certification. Les organisations professionnelles élaborent couramment des normes régissant la conduite professionnelle et la certification. Les normes de conduite prennent la forme de normes éthiques ou de règles de publicité, par exemple¹³. Les normes de certification peuvent prescrire des critères que doivent remplir les professionnels qui réalisent certaines tâches. Ces normes peuvent fournir des informations précieuses sur leur formation et leurs compétences. Elles peuvent aussi être excessivement contraignantes et limiter indûment l'offre de professionnels habilités à réaliser une tâche donnée au lieu de garantir simplement une bonne qualité.

Les normes d'interopérabilité. Les normes d'interopérabilité ou de compatibilité garantissent que plusieurs produits ou processus connexes sont compatibles, peuvent fonctionner ou communiquer ensemble. L'un de leurs avantages est de permettre l'interchangeabilité de produits complémentaires (Farrell et Saloner (1986)). On peut citer, à titre d'illustration, les interfaces des ordinateurs personnels. Les ports USB permettent de connecter un ordinateur à de multiples imprimantes, tout comme ils permettent à de multiples imprimantes de se connecter à un ordinateur donné. Les normes d'interopérabilité favorisent la concurrence entre les fournisseurs de produits complémentaires, facilitent l'entrée ou le développement des concurrents sur ces marchés et peuvent créer des environnements propices à l'innovation et au dépôt de brevets sur ces marchés complémentaires. Les normes d'interopérabilité peuvent avoir des effets importants sur l'efficacité. Une étude démontre qu'une interopérabilité imparfaite entre systèmes informatiques coûte chaque année plus d'un milliard de dollars à la chaîne d'approvisionnement automobile¹⁴. Les normes d'interopérabilité peuvent avoir un impact négatif si elles ralentissent l'innovation du produit standardisé ou restreignent indûment la conception des produits.

3. Comment les normes sont-elles élaborées ?

Le besoin de normes varie d'un produit et d'un service à l'autre. La façon dont les normes sont élaborées et vérifiées est fonction des impératifs spécifiques de l'objectif poursuivi.

Les normes ont principalement trois origines :

- la collaboration interprofessionnelle,
- la normalisation d'État,

¹¹ Il est arrivé par exemple que les normes régissant la production fruitière imposent un calibrage plus strict en période de production abondante, ce qui a pour effet de limiter les quantités vendues sur les marchés de fruits frais, au profit des producteurs et au détriment des consommateurs.

¹² Voir section ABA de la loi antitrust (2004), p. 9.

¹³ Dans de nombreuses juridictions, les normes d'éthique ont servi à limiter la concurrence tarifaire au sein d'une profession (voir par exemple *Wilk et al. v. American Medical Association* (1987) Judgment (Northern District of Illinois, Eastern Division No. 76 C3777.)) Les règles de publicité peuvent parfois interdire à une profession les publicités tapageuses ou qui mentionnent des tarifs.

¹⁴ Voir Brunnermeier et Martin (1999).

- des processus sans coordination.

Nous nous intéresserons successivement à chacune de ces sources. La problématique, du point de vue de l'action des pouvoirs publics, dépend de la source de la norme concernée.

3.1 *La collaboration interprofessionnelle*

La collaboration interprofessionnelle intervient dans de nombreux cas par l'intermédiaire des organismes de normalisation ou, plus rarement, dans le cadre d'organisations professionnelles dont l'action s'étend au-delà de la normalisation, qui ne constitue qu'un volant de leur activité. Les normes issues de la collaboration interprofessionnelle sont souvent le fruit d'un consensus obtenu après une concertation à grande échelle au sein du secteur concerné. C'est pourquoi la participation au processus de normalisation est souvent transparente et rarement restreinte (c'est-à-dire que les non-membres sont autorisés à y prendre part). C'est normalement le cas des normes adoptées par les organismes de normalisation reconnus, qui sont élaborées au terme de procédures transparentes, ouvertes et non discriminatoires. La présence de clients au sein des organismes de normalisation limite la possibilité de formation d'ententes anticoncurrentielles aux dépens des consommateurs.

Les différents organismes de normalisation comprennent :

- *des organisations internationales*, comme l'Organisation internationale de normalisation (ISO), la Commission électrotechnique internationale (CEI) et l'Union internationale des télécommunications (UIT), qui sont régies par des organismes de nationalisation nationaux. Les organismes de normalisation nationaux allient à divers degrés une supervision publique et privée. Entrent notamment dans cette catégorie l'Associação Brasileira de Normas Técnicas (ABNT), l'American National Standards Institute (ANSI), la British Standards Institution (BSI), la Dirección General de Normas (DGN), le Deutsches Institut für Normung (DIN), l'Instituto Argentino de Normalización y Certificación (IRAM), le Comité japonais des normes industrielles (JISC), la Korean Agency for Technology and Standards (KATS), le Nederlandse Norm (NEN), le South African Bureau of Standards (SABS), la Standardisation Administration of China (SAC), le Conseil canadien des normes (CCN), le Swedish Standards Institute (SIS), Standards Norway (SN), l'Association suisse de normalisation (SNV) et Standards New Zealand (SNZ). Il existe également des organismes multinationaux, en Europe notamment, comme le Comité européen de normalisation (CEN). Des données chiffrées permettent d'illustrer la diversité et l'importance de l'activité de normalisation : au 31 décembre 2009, l'ISO comptait 3 238 organismes techniques d'élaboration de normes et recensait 18 083 normes. Les normes ISO ne représentent qu'une petite portion de l'ensemble des normes au niveau mondial¹⁵ ;
- *des organismes de normalisation de produits ou secteurs spécifiques*. Il en existe une grande variété. Dans le secteur de l'électronique et des télécommunications, on peut citer : le Joint Electron Device Engineering Council (JEDEC), le Comité européen de normalisation électrotechnique (CENELEC), l'Institut européen des normes de télécommunication (ETSI) et l'European Payments Council (EPC).

Organisations professionnelles et interprofessionnelles. La distinction entre organisme de normalisation et organisation professionnelle n'est pas toujours claire. Les organisations professionnelles et interprofessionnelles ont tendance à adopter des missions étendues pouvant recouvrir, outre la normalisation et la certification, la diffusion d'actualités d'intérêt sectoriel, le lobbying, la formation, le

¹⁵ Une source estime par exemple qu'en 1995, les États-Unis comptaient 52 000 normes publiques et 41 500 normes privées (voir section ABA de la loi antitrust (2004), p. 4).

conseil professionnel, l'organisation de conférences, etc. Ces organismes élaborent couramment des normes de performance ou de produits, afin notamment de garantir la qualité des produits ou services qu'ils supervisent. Certaines de ces normes peuvent avoir pour effet de limiter l'offre. Limiter l'offre n'est pas toujours négatif. Par exemple, les associations médicales imposent des formations ou d'autres exigences pour les médecins sans lesquelles une personne ne peut pas revendiquer le titre de docteur en médecine¹⁶.

3.2 *La normalisation d'État*

Les pouvoirs publics peuvent adopter des positions variables vis-à-vis de la normalisation. Ils peuvent y prendre une part très active, comme dans le cas de la norme GSM de téléphonie mobile en Europe. Ils peuvent jouer le rôle d'organisme d'enregistrement et de contrôle des normes. Il peut arriver qu'ils n'y participent pas du tout.

Les autorités de pays différents ne retiennent pas toujours une approche identique à une technologie donnée. Dans le cas des normes de téléphonie mobile de deuxième génération (2G) élaborées à la fin des années 80 et au début des années 90, par exemple, les États européens ont soutenu la norme GSM (Global System for Communications) et l'on rendue obligatoire. Les autorités japonaises ont adopté le Pacific Digital System. Le gouvernement américain a préféré laisser le secteur privé élaborer les normes des systèmes de deuxième génération.

Dans certains cas, une collaboration entre l'État et les entreprises produit le meilleur résultat. La normalisation d'État peut avancer plus rapidement que la normalisation professionnelle, principalement parce que les autorités peuvent imposer leurs choix, tandis que les organismes privés doivent obtenir l'adhésion volontaire de parties dont les intérêts financiers sont souvent opposés et parvenir à un consensus. En revanche, les professionnels sont généralement mieux informés sur le rapport qualité/prix des technologies et sur des éléments clés pour la réussite commerciale des normes. La participation active des professionnels à la normalisation d'État peut permettre de cumuler les avantages de la célérité et de considérations techniques et commerciales très pointues.

3.3 *Les processus non coordonnés*

Les normes découlent parfois simplement de l'adoption générale de produits fabriqués par une entreprise ou une entité. Par exemple, à mesure que les utilisateurs d'ordinateurs personnels ont plébiscité les machines équipées de systèmes d'exploitation Microsoft, Windows s'est imposé comme norme de fait pour les programmeurs d'applications dédiées aux ordinateurs personnels. Adobe a pratiquement créé une norme commune pour la lecture de documents sur ordinateurs avec son système de fichiers PDF. Il arrive que certaines innovations du secteur privé soient adoptées de façon tellement universelle qu'elles deviennent des normes de fait.

3.4 *Processus suivi*

Une fois la décision prise d'élaborer une norme, on rassemble un groupe d'experts souvent sous l'égide plus large d'un organisme de normalisation.

¹⁶

Certaines professions plafonnent le nombre d'étudiants admis. Ces plafonds peuvent créer des restrictions significatives à la concurrence, mais ne sont pas liés aux normes ou aux procédures de certification et ne sont donc pas traités dans ce document. Les procédures de certification imposant un *numerus clausus* ou qui sont excessivement exigeantes dans le but de limiter l'accès à une profession entrent dans le champ de la normalisation.

Au sein des organismes de normalisation, le processus de normalisation est souvent régi par un ensemble de règles qui lui sont propres ou qui sont définies pour une norme spécifique. Elles déterminent notamment :

- qui peut voter ou communiquer son point de vue sur les normes nouvelles ou révisées,
- le déroulement étape par étape du processus officiel pour l'élaboration des normes,
- les informations relatives aux intérêts commerciaux (ex. : les droits de propriété intellectuelle) qui doivent être révélées et quand,
- le type de consensus nécessaire pour parvenir à un résultat, et
- le traitement des voix ou bulletins contraires.

L'élaboration d'une norme prend des années, qu'elle émane du secteur privé ou public. En règle générale, les pouvoirs publics obtiennent des résultats plus rapidement que les organismes de normalisation dont le fonctionnement repose sur une approche consensuelle.

4. Quels sont les bienfaits de la normalisation ?

Les normes pouvant remplir des fonctions diverses et porter sur des produits très différents, leurs bienfaits peuvent varier. Les normes ont souvent pour objectifs sous-jacents des considérations de large portée à visée sociale, des impératifs de sécurité ou d'ordre environnemental.

- Selon l'OMC, la plupart des normes sont adoptées dans le but de protéger la sécurité ou la santé des personnes¹⁷. On peut citer notamment comme exemples les règlements relatifs aux ceintures de sécurité, les normes applicables aux prises de courant et la réglementation sur l'étiquetage des cigarettes.
- La protection de la santé et de la sécurité des animaux est un autre motif majeur justifiant l'élaboration de normes. C'est notamment le cas des normes encadrant l'alimentation animale.
- De nombreuses normes sont motivées par le souci de protéger l'environnement. Les règlements visant à réduire la pollution de l'air, des sols et de l'eau sont de plus en plus fréquents. Il s'agit par exemple des normes régissant les émissions des véhicules, le recyclage des produits en plastique et les labels d'efficacité énergétique.

Les bienfaits macroéconomiques des normes sont probablement considérables. D'après l'Institut allemand de normalisation (DIN), les avantages économiques de la normalisation avoisinent 1 % du PIB¹⁸.

Les normes peuvent promouvoir un meilleur fonctionnement des marchés. Les avantages économiques peuvent recouvrir plusieurs facteurs liés :

- les normes peuvent faciliter la création de marchés en générant un environnement dans lequel les consommateurs sont prêts à s'engager pour un produit ;

¹⁷ Voir http://www.wto.org/english/tratop_e/tbt_e/tbt_info_e.htm.

¹⁸ Voir DIN (2000), p. 28.

- elles génèrent des économies d'échelle et des externalités pour les utilisateurs ;
- elles facilitent l'entrée sur le marché ;
- elles incitent les entreprises à innover ;
- et elles abaissent le coût de l'information et évitent que les consommateurs ne soient abusés.

4.1 *Faciliter la création de marchés*

Les normes peuvent faciliter la création de marchés qui n'existeraient peut-être pas sans elles. Certains produits exigent la coordination et l'investissement de diverses entreprises dans des produits variés pour parvenir à une amélioration technologique. La télévision à haute définition (TVHD) est un bon exemple de produit nécessitant une telle coordination. La TVHD représente une amélioration majeure par rapport aux normes antérieures, comme NTSC aux États-Unis et au Japon ou PAL et SECAM ailleurs. Un système TVHD nécessite une norme pour le signal TVHD, une programmation destinée à ce format, des téléviseurs capables de l'afficher et une infrastructure de transmission en mesure de le diffuser. Ces éléments complémentaires doivent être introduits presque simultanément pour que les investissements aient un sens. En outre, se pose le problème de l'œuf et de la poule. Les consommateurs hésitent à s'équiper en téléviseurs TVHD tant qu'une programmation n'est pas disponible pour ces postes et les diffuseurs préfèrent attendre pour remplacer leur ancien équipement par un nouveau plus cher d'avoir un public clairement identifié ou de pouvoir en retirer un autre avantage financier¹⁹. En l'absence de norme TVHD, il est peu probable que les consommateurs, les diffuseurs et les producteurs de programmes adopteront cette nouvelle technologie.

La stéréophonisation des ondes AM constitue une illustration intéressante de ce qui peut se produire en l'absence de norme. L'AM stéréo a été envisagée et était censée être supérieure à la FM stéréo eu égard à plusieurs de ses caractéristiques. Face à diverses propositions concurrentes de normes pour la radio en AM stéréo, la commission fédérale américaine des communications (Federal Communications Commission - FCC) a finalement opté pour une approche « de marché ». Celle-ci semblait avantageuse à trois égards. Premièrement, les parties intéressées du secteur privé seraient à même de mesurer leurs préférences pour les différentes caractéristiques. Deuxièmement, l'amélioration des systèmes irait plus vite que si elle était gérée par la FCC. Troisièmement, l'approche de marché permettrait d'éviter d'accorder un monopole à un fabricant. La FCC a bien élaboré quelques règles pour garantir la compatibilité monophonique, s'assurer que les accords internationaux seraient respectés et éviter les interférences, mais elle s'est abstenue de formuler une quelconque appréciation sur les normes concurrentes. Le secteur n'est pas parvenu à se mettre d'accord sur la norme à adopter. Le résultat a été chaotique. De multiples systèmes incompatibles ont été installés par les stations de radio et les auditeurs. Après trois ans d'exploitation, 90 % des stations de radio n'avaient toujours pas adopté la diffusion en stéréo et un pourcentage très réduit d'auditeurs était équipé pour recevoir les émissions en AM stéréo²⁰. Il semble donc que l'absence de norme, dans ce cas, a empêché le déploiement fructueux de produits d'AM stéréo.

Élaborer une norme ne signifie pas nécessairement que le produit rencontrera le succès. En 1992, par exemple, la cassette audionumérique (Digital Audio Tape - DAT) semblait appelée à remplacer les cassettes audio analogiques de la même façon que les CD avaient remplacé les disques vinyles. La cassette audionumérique n'a cependant pas connu le même succès que le format CD. Cet échec s'explique notamment par le coût élevé des lecteurs, l'insuffisance de l'offre de musique distribuée sur cassettes

¹⁹ Voir Farrell et Shapiro (1992) pour un examen détaillé des défis posés par l'adoption de la TVHD.

²⁰ Voir Besen et Johnson (1986).

audionumériques et une législation qui a limité la qualité du son pour interdire la copie parfaite d'œuvres musicales²¹.

Les téléphones portables de deuxième génération illustrent la variété des approches retenues par les différents États pour créer un marché (voir l'encadré 1).

Encadré 1. Les téléphones portables de deuxième génération : différentes approches de normalisation

Les téléphones portables de deuxième génération (2G) constituent un cas intéressant à étudier du point de vue de la création et de l'adoption des normes. L'intérêt consiste à comparer le déploiement d'une norme supervisée par les autorités en Europe et celui de normes concurrentes aux États-Unis où les autorités ont choisi d'autoriser la concurrence entre les normes.

En réponse à des systèmes de téléphonie mobile de première génération, en analogique, en grande partie incompatibles entre États membres, l'Union européenne a cherché à unifier la norme. En 1982, la Conférence des Administrations Européennes des Postes et Télécommunications (CEPT) a décidé qu'il convenait d'élaborer une norme numérique et a constitué un groupe de travail à cette fin. Cette norme a finalement vu le jour en février 1987 et a été baptisée GSM (Global System for mobile Communication). Ce n'est pas la norme numérique brevetée par Alcatel-SEL, qui aurait favorisé les secteurs des télécommunications allemand et français, qui l'a emporté. En mai 1987, les quatre premiers marchés européens (la France, l'Allemagne, l'Italie et le Royaume-Uni) ont signé un protocole d'accord par lequel ils se sont engagés à déployer la norme GSM. En septembre 1987, 13 autres pays leur ont emboîté le pas²². En 1989, l'Allemagne a accordé sa première licence GSM. À la fin de l'année 1993, l'on recensait plus d'un million d'abonnés en Europe.

Les États-Unis ont opté pour une approche décentralisée de la normalisation numérique, laissant des normes concurrentes voir le jour et s'affronter. Les autorités américaines ont assigné les fréquences PCS à la téléphonie mobile, mais n'ont pas exigé de norme spécifique. La commission fédérale américaine des communications (Federal Communications Commission - FCC) avait soutenu une norme unique pour la téléphonie mobile de première génération (le système avancé de téléphonie mobile ou Advanced Mobile Phone System - AMPS) en exigeant l'utilisation d'une technologie donnée dans le cadre de l'octroi de licences. Les États-Unis ont entrepris de réviser les systèmes de première génération un peu plus tardivement qu'en Europe. À partir de 1985, la Cellular Telephone Industry Association (CTIA) a commencé une évaluation des technologies alternatives. La FCC a décidé de s'abstenir de définir une norme pour la technologie de deuxième génération, invoquant ses ressources et compétences limitées²³. Cette évaluation a été conduite par les opérateurs et les constructeurs de téléphonie mobile. En 1989, les membres de la CTIA ont choisi le TDMA (time-division multiple access) comme norme de téléphonie mobile de deuxième génération. En 1992, la Telecommunications Industry Association (TIA) a publié la norme TDMA (IS-54), mais le déploiement a été lent. Dans l'intervalle, la technologie concurrente d'accès multiple par répartition en code (AMRC – CDMA code division multiple access) l'avait rattrapée et était prête à être commercialisée. En juillet 1993, la TIA a publié une norme CDMA (IS-95). Ce n'est qu'en mars 1995 que les premières licences pour les fréquences PCS ont été octroyées aux États-Unis. Tous les pays d'Europe comptaient déjà au moins un opérateur GSM.

Dans les deux cas, la normalisation a été une étape essentielle pour l'investissement dans des technologies de téléphonie mobile numériques, de deuxième génération, et leur commercialisation. Dans un cas, cependant, la normalisation a été réalisée par les pouvoirs publics, avec l'objectif ultime de s'assurer qu'aucun système déjà breveté ne serait adopté (cas de l'Europe). Dans l'autre, le secteur privé a été laissé libre de définir des normes concurrentes

²¹ Les éditeurs d'œuvres musicales s'inquiétaient de ce que les cassettes audionumériques pourraient permettre de réaliser, sans aucune limite, des copies numériques parfaites d'œuvres musicales protégées.

²² En 1989, la CEPT a transféré la commission GSM à l'ETSI qui a finalisé le cahier des charges du système.

²³ Il est arrivé que la FCC revienne sur sa position après avoir sélectionné une norme. Elle a élaboré une norme pour l'AM stéréo, puis a changé d'avis. De la même façon, elle a élaboré la norme CBS pour la télévision en couleurs, avant de se raviser et d'adopter la norme RCA (voir Besen et Johnson, 1986).

auxquelles certaines fréquences ont été allouées (cas des États-Unis). Certains ont fait observer que la norme CDMA était supérieure à la norme GSM, du point de vue technique²⁴. Toutefois, la norme GSM est parvenue aux consommateurs (en Europe et ailleurs) bien avant que les deux normes américaines parviennent aux consommateurs américains. La décision de confier au marché plutôt qu'aux pouvoirs publics la tâche de la normalisation aura peut-être retardé le déploiement de la téléphonie de deuxième génération aux États-Unis.

4.2 Générer des économies d'échelle et des externalités pour les utilisateurs

Les normes réduisent souvent la diversité, assurant une production standardisée autour d'un nombre limité de variables de conception, et favorisent les économies d'échelle. À titre d'illustration, les pièces détachées fabriquées sur mesure coûtent 15 fois plus cher que leurs équivalentes normalisées, selon DASA-Airbus, qui estime en outre que la moitié environ des pièces sur mesure se prêtent à la normalisation²⁵.

Les normes de compatibilité peuvent avoir des effets subsidiaires et notamment créer des externalités pour les utilisateurs (souvent appelées externalités de réseau) résultant de l'opportunité pour les utilisateurs d'interagir avec d'autres utilisateurs. Ces externalités se manifestent par le biais d'un réseau de communication, du fait du partage d'un logiciel qui fonctionne sur un système d'exploitation commun ou de l'échange de contenu multimédia enregistré dans un format identique. En augmentant le nombre d'utilisateurs grâce à la compatibilité des produits, on accroît la valeur de l'utilisation d'un produit pour ces mêmes utilisateurs²⁶.

Une lettre d'information publiée récemment explique les avantages des normes de compatibilité en termes d'externalités pour les utilisateurs. « Les normes d'interopérabilité peuvent permettre aux consommateurs de partager des informations et de connecter des produits compatibles de constructeurs différents. En outre, le processus de normalisation collaborative peut permettre aux intervenants du secteur de partager des connaissances et d'élaborer un produit ou processus qui réunisse les meilleures caractéristiques de sa catégorie. Dans les secteurs à effets de réseau, en particulier, la normalisation collaborative peut étendre le marché en remédiant aux défaillances de coordination entre les parties concernées par l'élaboration et l'utilisation de la norme afin que les consommateurs soient plus nombreux à avoir accès aux produits et à pouvoir les utiliser »²⁷.

Il ne faudrait pas sous-estimer la valeur des externalités pour les utilisateurs et des réductions de coûts pour les entreprises que crée l'usage de l'Internet. Ces réductions de coûts ne sont possibles que parce que les utilisateurs sont accessibles sur une plateforme qui utilise un protocole de communication commun. Selon Varian *et al.*, en France, en Allemagne, au Royaume-Uni et aux États-Unis, « les entités qui déploient aujourd'hui des solutions d'affaires sur Internet *espèrent* réaliser » plus de 588 000 milliards de dollars d'économies « une fois que ces solutions auront été entièrement déployées, à l'horizon 2010 » (Varian *et al.*, 2002).

²⁴ Voir par exemple Tan (2001). Au moment du déploiement, la supériorité technique pour le transfert de données était moins importante parce que les applications de données pour téléphones portables étaient rares.

²⁵ Voir. DIN (2000), p. 33.

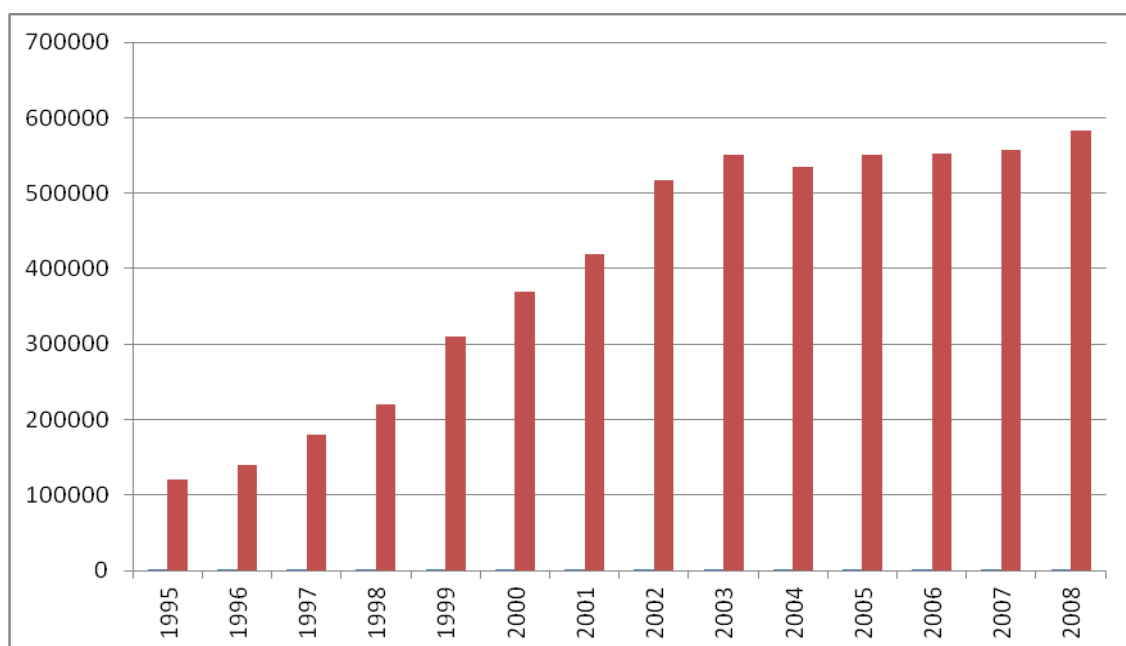
²⁶ Voir Katz et Shapiro (1985) et Farrell et Saloner (1985).

²⁷ Voir la lettre de Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, à Robert A. Skitol, Esq., Drinker, Biddle & Reath, LLP, 30 octobre 2006, re VMEbus International Trade Association (VITA), consultable à l'adresse : <http://www.usdoj.gov/atr/public/busreview/129380.pdf>.

4.3 *Faciliter l'entrée sur le marché*

Les normes peuvent contribuer à faciliter l'arrivée de nouveaux produits sur le marché. Par exemple, les normes et la certification biologiques contribuent à faire en sorte que les agriculteurs qui investissent dans la production biologique puissent se démarquer des agriculteurs traditionnels de façon fiable aux yeux des consommateurs. En l'absence de norme, les producteurs non organiques pourraient être tentés d'étiqueter leurs produits comme des produits biologiques, qui se vendent généralement à des prix plus élevés que leurs équivalents non biologiques. Les normes de produits biologiques incitent les agriculteurs à devenir des producteurs biologiques certifiés. L'Union européenne a introduit une norme pour les aliments biologiques en 1991²⁸. Le graphique 1 montre que la surface arable allouée en France à la production biologique a été multipliée par cinq entre 1995 et 2002.

Graphique 1. Surface arable allouée à la production bio en France entre 1995 et 2008 (en hectares)



Source : Agence Bio, France, *L'agriculture biologique, Chiffres Clés*, 2009

4.4 *Inciter les entreprises à innover et à investir*

L'incitation à innover n'est pas seulement fonction de la protection des droits de propriété intellectuelle. Elle dépend en dernier ressort des bénéfices que les entreprises escomptent retirer de leurs investissements. Les bénéfices escomptés découlent de nombreux facteurs indépendants de la propriété intellectuelle, comme la capacité à mettre les produits sur le marché avant les autres entreprises, à abaisser les coûts de production grâce à l'innovation et à augmenter les marges grâce à l'amélioration perçue ou mesurable de la qualité des produits. Surtout, le bénéfice escompté de la commercialisation d'un investissement peut dépendre en grande partie de la possibilité de regrouper plusieurs innovations (comme dans le cas d'une norme de haute technologie) ou de motiver l'achat du nouveau produit. Les normes peuvent jouer un rôle crucial pour inciter à la consommation et pour regrouper des innovations complémentaires.

²⁸

Voir Règlement CEE 2091/92.

L'investissement ne cible pas uniquement l'innovation. Il peut être motivé par l'incitation à former du capital. L'existence de normes peut améliorer la rentabilité du capital. Par exemple, soumettre une profession à l'autorisation d'exercer peut, entre autres bienfaits, encourager l'investissement dans le capital humain, avec pour effet une amélioration de la qualité des services (Shapiro (1986)).

4.5 *Abaissier le coût de l'information et éviter que les consommateurs ne soient abusés*

Les normes procurent des avantages en partie parce qu'elles diminuent pour le consommateur le coût de la recherche d'informations et de la quête du produit approprié²⁹. Les produits agroalimentaires sont souvent des produits d'expérience (dont on connaît la qualité après les avoir consommés) ou de croyance (dont la qualité n'est pas identifiée même après les avoir consommés, comme dans le cas des aliments biologiques). Pour ces produits, un étiquetage fiable est important pour entretenir la confiance des consommateurs. En l'absence d'un tel balisage, la production de basse qualité réduira l'incitation des consommateurs à acheter ces produits et découragera les fabricants de produits de haute qualité.

Les autorisations d'exercice professionnel ont notamment comme effet bénéfique de rassurer les consommateurs sur la qualité d'un produit (Arrow (1963)). Les organisations médicales élaborent des normes et des programmes de certification pour les médecins, en grande partie parce que l'information des consommateurs est limitée au moins à trois égards :

- la qualité et les compétences de leur praticien,
- le bien-fondé du traitement proposé a priori et
- l'efficacité de ce traitement a posteriori.

Les services de santé sont souvent des produits de « croyance » : même après les avoir achetés, un patient n'est pas toujours en mesure de juger correctement leur qualité. Cette caractéristique des services de santé provient à la fois de ce que le patient dispose d'une information imparfaite sur les conséquences physiques du traitement et de la corrélation imparfaite entre le bien-fondé de la prescription et l'effet qu'elle aura. Il arrive que des protocoles appropriés ne produisent pas les effets recherchés et que des interventions inadéquates débouchent sur une guérison. Ces problèmes d'information signifient que les patients doivent souvent se fier à des sources extérieures pour juger de la qualité des soins.

Une solution non réglementaire pourrait consister à publier des indicateurs de qualité simples et empiriques. Dans leur forme la plus élémentaire, ces indicateurs pourraient comptabiliser le taux de survie à des interventions chirurgicales à haut risque. Dans la mesure où les meilleurs chirurgiens opèrent souvent les cas les plus difficiles, cela pourrait créer un effet pervers, si bien que les meilleurs chirurgiens auraient des taux de survie inférieurs à ceux de leurs confrères pourtant moins bons. Les normes de certification ne sont pas sujettes à de tels effets pervers.

5. Quels sont les dommages potentiels de la normalisation ?

Comme nous venons de le voir, la normalisation procure de nombreux bienfaits. Des dommages peuvent aussi lui être associés. On peut notamment lui reprocher de :

- faciliter l'exclusion et les contraintes de quantité,
- promouvoir la coordination de prix élevés,

²⁹ Voir Carlton et Klammer (1983).

- faire gagner le concurrent qui n'est pas le meilleur du point de vue du bien-être social,
- choisir un candidat malhonnête (dissimulation de droits de brevet) et
- créer des asymétries de coûts.

Ces dommages sont étroitement liés. Par exemple, l'exclusion anticoncurrentielle est une forme de restriction de la production qui peut entraîner des hausses de prix. Nous passons ci-après en revue chacun de ces dommages. Les tribunaux reconnaissent les dangers de la normalisation. La Cour suprême des États-Unis a déclaré que les organismes collaboratifs de normalisation peuvent « regorger d'opportunités d'activités anticoncurrentielles »³⁰.

Les facteurs à prendre en compte dans l'analyse des effets de la normalisation sur la concurrence recouvrent notamment les questions suivantes :

- le pourcentage de marché défini de façon appropriée inclus dans la norme,
- le fait de savoir si les fabricants utilisent exclusivement la norme,
- les divergences entre les incitations des différents participants, qui rendent les accords anticoncurrentiels difficiles, et
- la possibilité d'améliorer l'efficacité autrement que par la coopération entre producteurs.

5.1 Faciliter l'exclusion

Les normes peuvent exclure des fournisseurs de services potentiels par le jeu des critères exigés pour se conformer à la norme. Le risque d'exclusion est particulièrement présent lorsque les normes sont élaborées par un groupe de concurrents. L'exclusion peut résulter d'une « manipulation » de la norme pour exclure les produits de qualité fabriqués par des concurrents. Ces préoccupations sont plus sérieuses si ces concurrents n'ont pas eu voix au processus de normalisation ou si la norme a un caractère obligatoire.

Il peut être difficile de distinguer la manipulation de la promotion normale des intérêts privés, en particulier parce que la normalisation implique souvent d'opérer des choix entre des technologies concurrentes. En outre, les concurrents qui prennent part au processus de normalisation ont généralement intérêt à favoriser leurs propres produits. Parfois, les entreprises peuvent chercher à peser unilatéralement ou conjointement sur la décision d'un organisme de normalisation. Plusieurs aciéristes ont par exemple été accusés de s'être entendus pour s'opposer à une norme qui aurait autorisé l'utilisation de conduits électriques en polychlorure de vinyle. Ils auraient recruté plus de deux cents personnes pour adhérer à l'organisation professionnelle concernée et voter contre le projet de norme³¹. Cette affaire s'est soldée par un procès de droit privé en dommages-intérêts intenté contre les aciéristes accusés d'entente.

Il s'est produit récemment une affaire intéressante d'exclusion de concurrents dans le secteur des systèmes de localisation de véhicules en Afrique du Sud. L'encadré 2 analyse cette affaire de façon plus détaillée.

³⁰ Voir *Am. Soc'y of Mech. Eng'rs, Inc. v. Hydrolevel Corp.*, 456 U.S., 556, 571 (1982).

³¹ 486 U.S. 492 (1988).

Encadré 2. Systèmes sud-africains de localisation de véhicules

Un jugement récent du tribunal de la concurrence d'Afrique du Sud indique comment l'exclusion peut fonctionner³². En Afrique du Sud, le vol de véhicule est devenu un problème grave à la fin des années 80. Jusqu'alors, les antivols et les alarmes étaient les systèmes de dissuasion couramment utilisés. Cependant, la recrudescence des vols et un taux de localisation des véhicules volés voisin de 20 % ont incité les compagnies d'assurance à rechercher d'autres solutions de protection contre le vol. Au début des années 90, les systèmes de localisation de véhicules se sont généralisés. Ces solutions comportent l'installation d'un dispositif de géolocalisation qui permet de suivre une voiture volée et de la retrouver. Les fournisseurs de ces solutions se chargeaient souvent de récupérer eux-mêmes le véhicule. Avec la géolocalisation, le taux de récupération est passé à 70 %.

La VESA est un organisme professionnel créé en 1987. Selon le jugement du tribunal de la concurrence, « ses adhérents se composent d'entreprises actives dans le secteur de la sécurité des véhicules et comprennent des constructeurs, des fournisseurs, des installateurs et des sociétés d'entretien. Ces entreprises sont concurrentes et organisées en comités en fonction de leurs créneaux de marché. » La VESA a créé un comité dédié à la géolocalisation et a élaboré des normes pour la fourniture des services correspondants. Les compagnies d'assurance voulaient des garanties quant à la réputation et aux compétences des fournisseurs de services de géolocalisation. Le comité de géolocalisation a élaboré des critères de performance. « Ces critères étaient sujets à controverse dans la mesure où la certification des entreprises était conditionnée à la réalisation de certains objectifs ; elles devaient exercer leur activité depuis au moins un an, avoir équipé au moins 3 000 véhicules et retrouvé au moins 100 véhicules » (p. 3).

Cette règle servait de fait de barrière à l'entrée. Si les particuliers étaient libres d'installer un système d'un fournisseur non certifié, les compagnies d'assurance n'accordaient généralement d'abattement sur les primes d'assurance au titre de l'équipement d'un véhicule que si celui-ci était équipé d'un système certifié par la VESA. Les nouveaux arrivants ne pouvaient pas répondre aux critères de performance, puisqu'ils ne pouvaient se prévaloir ni d'avoir équipé un nombre important de véhicules, ni d'en avoir retrouvé beaucoup.

Le plaignant, Tracetec, s'était vu refuser son adhésion à la VESA pour ses activités de géolocalisation en 2001. En réponse à des inquiétudes quant au caractère anticoncurrentiel de ses critères de performance, « la VESA décida plus tard, en août 2003, d'une alternative pour les candidats au label qui n'étaient pas en mesure de remplir les critères de performance : ils pouvaient déposer une garantie de 2 millions de rands les dispensant de satisfaire aux critères de performance » (p. 5). Tracetec a porté plainte devant la commission de la concurrence en février 2004. En mai 2004, trois membres éminents du secteur de la géolocalisation ont démissionné de la VESA et les compagnies d'assurance ont modifié leur approche, si bien que le label de la VESA n'était plus nécessaire pour bénéficier de l'abattement sur les primes d'assurance. La commission de la concurrence a estimé que suite à la mise en place du système de garantie financière, les normes de géolocalisation n'avaient plus un caractère d'exclusion après août 2003.

Le tribunal a conclu que « les trois défendeurs du secteur de la géolocalisation, bien qu'ils ne soient pas les seuls membres du comité, ont accepté cette norme et il est probable que sans leur consentement la norme n'aurait pas vu le jour. Le tribunal estime que les probabilités sont en faveur de cette interprétation car ce bref historique montre que tant que ces trois entreprises ne participaient pas au processus, un accord sur une norme était impossible, et les événements qui ont suivi ont révélé que lorsqu'elles ne parvenaient pas à s'accorder sur les modifications à apporter aux normes, le comité se désintérait. Ils ont également démontré que ces trois entreprises refusaient de s'accorder sur une norme moins contraignante dont l'effet d'exclusion aurait été moins marqué » (p. 19). Le tribunal a jugé que la norme avait un caractère d'exclusion depuis son introduction en 1999 jusqu'à l'adoption de l'option de garantie financière en août 2003 (p. 80). Tracetec a défendu le point de vue selon lequel même l'option de garantie financière avait un effet d'exclusion. Le tribunal ne lui a pas donné raison sur ce point.

³²

Competition Commission and Tracetec (Pty) Ltd and Netstar (Pty) Ltd, Matrix Vehicle Tracking (Pty) Ltd, Tracker Network (Pty) Ltd and Vehicle Security Association of South Africa, Case No: 17/CR/Mar05, jugement du 19 avril 2010.

La réduction de la diversité peut servir de forme d'exclusion. L'encadré 3, sur les comités de commercialisation des oranges Navel et Valence, illustre la façon dont une norme de qualité peut être manipulée pour réduire la production.

Encadré 3. Oranges Navel et Valence : ajustements de la qualité ayant pour effet de réduire la production

La loi des États-Unis de 1933 d'ajustement agricole (*Agricultural Adjustment Act of 1933*) et la loi des États-Unis de 1937 sur le marketing agricole (*Agricultural Marketing Act of 1937*) autorisaient la plupart des producteurs agricoles à conclure un accord visant à former un groupement de commercialisation qui établirait, pour tous les producteurs, la quantité de produit vendu suivant différents usages, le taux d'écoulement du produit sur le marché et les normes minimales de qualité applicables à ce produit. Le groupement pouvait imposer l'affichage des prix ainsi que des programmes d'inspection des produits agricoles. Les producteurs qui avaient une offre excédentaire étaient passibles de lourdes sanctions. Grâce à leur immunité à l'égard de la législation antitrust, les producteurs d'oranges Navel et d'oranges de Valence ont conclu des ententes qui régissaient la distribution de leurs produits sur le marché des oranges fraîches et celui des oranges destinées à la transformation. Au début, il n'y avait qu'une seule entente. Après 1952, une entente distincte a été conclue pour chaque variété d'orange. Les règlements relatifs à la commercialisation des oranges permettaient aux comités administratifs de fixer la quantité d'oranges vendues fraîches, le moment de la commercialisation sur le marché intérieur des oranges fraîches et leur taille minimale.

Selon un des comités administratifs, la stabilité apportée par les règlements relatifs à la commercialisation avait rendu les oranges fraîches « accessibles aux consommateurs sans que leur coût soit alourdi par les problèmes d'efficience qui affectent la commercialisation non réglementée » (*Valencia Orange Administrative Committee, Annual Report of Operations under Federal Marketing Order 22, at 2 (1978-79)*). L'analyse de l'effet des règlements relatifs à la commercialisation tend toutefois à démontrer que c'est l'inverse qui est vrai. Normalement, pendant les saisons où les conditions de culture sont optimales, le pourcentage de fruits de qualité suffisante pour être offerts aux consommateurs de fruits frais augmentait. Cependant, lorsque les récoltes étaient abondantes, les comités administratifs réduisaient le pourcentage de fruits vendus sur le marché des fruits frais en deçà du pourcentage autorisé lors des mauvaises campagnes, en ayant principalement recours à des contingents de commercialisation et à des limites qualitatives fondées sur la taille des oranges. Ces limitations avaient pour effet de maintenir des prix élevés. De fait, même si « 85 % à 90 % des oranges Navel et 65 % à 80 % des oranges de Valence étaient d'assez bonne qualité pour être commercialisées fraîches, moins de 70 % des oranges Navel et moins de 45 % des oranges de Valence étaient généralement offertes sur le marché des produits frais pendant la période comprise entre les campagnes 1960-61 et 1980-81 » (Shepard, 1986). La quantité de fruits affectés à la transformation a été excessive compte tenu de la qualité. Cela a eu pour conséquence d'augmenter le prix des fruits frais, du fait des restrictions à la production.

Les normes qui fixent différentes qualités risquent moins d'être dommageables à la concurrence que celles qui fixent un calibre minimum, car ces dernières peuvent servir à limiter la production totale qui arrive sur le marché du frais alors que la mise en place d'un mécanisme de gradation entre les différents calibres ne limite pas cette offre.

Les autorités de la concurrence ne condamnent pas tous les accords de normalisation qui créent des exclusions. Il est par exemple permis aux constructeurs de s'entendre sur un critère de performance minimale pour les lave-linge à usage domestique. Au sein de l'UE, la quasi-totalité des constructeurs et importateurs de lave-linge ont convenu de cesser la production ou l'importation des modèles les plus énergivores. La raison officielle de cet accord est de réduire la consommation d'énergie. Bien qu'elle nuise à la concurrence (et ôte aux consommateurs l'option d'acheter les machines à laver les moins chères), cette restriction a été autorisée par une décision de la Commission européenne en vertu du fait qu'elle apporterait des bienfaits considérables aux consommateurs en raison de la réduction des émissions liées à la production d'électricité³³.

³³

Décision de la Commission 2000/475/CE du 24 janvier 1999 (CECED), JO [2000] L187/47.

En ce qui concerne la certification professionnelle, Shaked et Sutton (1981) ont montré que, sur le plan théorique, les groupes professionnels tendent à retenir des niveaux de qualité trop élevés et un nombre trop réduit de praticiens habilités. C'est-à-dire qu'une profession ne fixera le niveau de qualité optimal du point de vue du bien-être social que si elle se soucie uniquement de l'intérêt des consommateurs et non de son propre revenu.

5.2 *Promouvoir la coordination de prix élevés*

Dans de nombreux pays, les organismes professionnels ont élaboré des règles « d'éthique » qui interdisent de proposer des tarifs plus avantageux aux clients d'un autre praticien ou de les démarcher. Ces règles d'éthique sont généralement considérées comme des violations du droit de la concurrence. Par exemple, dans l'affaire opposant la *National Society of Professional Engineers* aux États-Unis, la Cour suprême a jugé contraires au droit les dispositions du « code d'éthique » interdisant les offres concurrentielles entre ingénieurs professionnels. Cet organisme prétendait que des pressions concurrentielles sur les prix auraient un impact négatif sur la qualité, qui porterait atteinte à la sécurité publique³⁴.

5.3 *Faire gagner le concurrent qui n'est pas le meilleur du point de vue du bien-être social*

Il arrive que des normes soient retenues alors qu'elles n'auraient pas été choisies par le marché et qu'elles ne sont pas les plus bénéfiques du point de vue du bien-être social. Il peut s'agir de simples erreurs, qui viennent peut-être de ce que les personnes qui les ont élaborées se sont fondées sur une connaissance imparfaite des souhaits du marché. Cela peut aussi provenir d'incitations individuelles aboutissant à l'adoption d'une norme alors qu'une norme différente (ou aucune nouvelle norme) aurait été préférable pour le bien-être social.

Il peut se produire un « excès d'inertie » quand les utilisateurs ignorent quelles sont leurs préférences réciproques. En pareils cas, il est possible qu'une norme ne soit pas adoptée alors que son adoption aurait été bénéfique pour tous les utilisateurs. Cette situation peut se produire dans deux cas de figure : d'abord lorsque les utilisateurs emploient une technologie ancienne et qu'une nouvelle technologie voit le jour. Même si l'adoption de la nouvelle technologie serait bénéfique pour l'ensemble des utilisateurs, il peut arriver que personne ne franchisse le pas³⁵. Dans le second cas de figure, les consommateurs choisissent entre deux technologies incompatibles. Si l'information dont ils disposent est imparfaite, il est possible qu'ils se prononcent pour l'une, mais qu'ils auraient préféré l'autre. Ils ne peuvent cependant pas revenir sur leur décision³⁶.

La normalisation peut aussi promouvoir les comportements moutonniers : les utilisateurs adoptent une nouvelle technologie alors qu'il aurait été dans leur intérêt de conserver la technologie antérieure. Cela peut se produire lorsque certains utilisateurs préfèrent la nouvelle technologie alors que les autres privilégient l'ancienne. Les nouveaux utilisateurs adoptent la technologie la plus récente. Les utilisateurs qui préfèrent l'ancienne technologie choisiront de suivre, en dépit de leur préférence potentielle pour la technologie antérieure³⁷.

³⁴ 435 U.S. 679 (1978).

³⁵ Un exemple couramment cité de ce type de survivances tenaces est le clavier AZERTY, qui aurait été conçu pour ralentir la frappe afin de ne pas coincer les lettres des machines à écrire.

³⁶ Voir Farrell et Saloner (1985).

³⁷ Voir Farrell et Saloner (1985).

5.4 Choisir un candidat malhonnête (dissimulation de droits de brevet)

Il arrive que l'on accuse la normalisation d'être utilisée pour choisir des vainqueurs par la tromperie ou des informations inexacts. Participer au processus de normalisation permet à une entreprise de se tenir informée de la manière dont une norme est élaborée. Elle peut aussi tirer parti des retards et de la souplesse du système d'examen des demandes de brevets pour optimiser le calendrier et la nature de changements affectant la portée de toute demande de brevet en instance qu'elle aura déposée en lien avec la norme. Lorsqu'une entreprise qui dispose de demandes de brevets en instance adopte une stratégie de dissimulation, elle n'informe pas l'organisme de normalisation qu'elle a déposé des demandes de brevets en lien avec la norme en cours d'élaboration. Elle peut simultanément adapter le contenu des brevets en instance pour qu'ils correspondent à la future norme. Elle peut en outre exercer une influence sur la norme de manière à ce qu'elle se rapproche davantage de ses demandes de brevets. L'entreprise peut donc être en mesure de modifier à la fois la norme et ses propres brevets en instance pour qu'ils coïncident autant que possible.

Si cette stratégie est victorieuse, l'organisme de normalisation publie une norme couverte par des brevets en instance non divulgués, tandis que l'entreprise poursuit la procédure de demande, de l'examen jusqu'à la délivrance du brevet. Dans l'intervalle, d'autres entreprises utilisent la norme dans la fabrication de leurs produits et des clients les achètent. Des investissements substantiels sont réalisés à fonds perdus en se fondant sur cette norme. Lorsque l'entreprise à l'origine de la dissimulation est certaine que ces investissements sont suffisamment élevés pour que le passage à une autre norme soit trop coûteux, elle révèle l'existence de ses brevets et attaque, menaçant d'engager des actions pour atteinte à ses droits. Elle peut décider de demander des redevances de licence très élevées ou de bloquer purement et simplement l'application de la technologie en cause.

La dissimulation de droits de brevet ne modifie pas nécessairement l'issue du processus de normalisation et, hormis les conditions de prix et d'accès, elle peut aboutir aux normes que le marché aurait choisies pour des raisons techniques.

Dans la mesure où les affaires en justice ne restreignent pas la dissimulation de droits de brevet, elles peuvent fournir aux entreprises qui prennent part au processus de normalisation une incitation perverse à s'y livrer. Cette incitation peut être moindre pour les entreprises verticalement intégrées amenées à interagir de façon répétée dans le cadre de la normalisation. Si la dissimulation de droits de brevet devenait une pratique courante parmi les membres des organismes de normalisation, elle pourrait modifier la nature de la normalisation et diminuer, potentiellement, la valeur et la qualité des normes³⁸. Nous évoquons ci-après plusieurs affaires de suspicion d'une telle dissimulation³⁹.

5.4.1 Les affaires Rambus

La Commission européenne et la Commission fédérale du commerce des États-Unis (*Federal Trade Commission*, FTC) ont, l'une et l'autre, engagé des poursuites contre Rambus, Inc. ces dernières années pour suspicion de pratique de dissimulation de droits de brevet en instance et des normes relatives aux puces à mémoire dynamique à accès aléatoire (DRAM)⁴⁰. Ces affaires ont aujourd'hui trouvé une conclusion⁴¹.

³⁸ Les organismes de normalisation ne sont souvent pas en position d'intenter des procès pour tromperie, compte tenu de leurs moyens financiers très limités.

³⁹ Cette liste n'est pas exhaustive.

⁴⁰ CE, « Commission Confirms Sending a Statement of Objections to Rambus », communiqué de presse (23 août 2007), consultable à l'adresse <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/330&form> ;

Le *Joint Electron Device Engineering Council* (JEDEC) est un organisme chargé de définir des normes pour les mémoires informatiques. L'un de ses objectifs est d'éviter d'établir des normes qui exigent le paiement de redevances de licence élevées de la part des entreprises qui fabriquent des produits conformes. C'est pourquoi ses règles visaient à éviter l'intégration de technologies brevetées dans les normes, sauf si le titulaire du brevet s'était engagé à appliquer des conditions de licence équitables, raisonnables et non discriminatoires (FRAND).

Rambus, qui conçoit des technologies de mémoire informatique et concède des licences sur ces technologies, était membre du JEDEC et a participé aux travaux du sous-comité sur les normes relatives aux puces à mémoire DRAM pendant environ quatre ans, du début au milieu des années 90. Durant cette période, l'entreprise avait des demandes de brevets en instance, dont les divulgations étaient suffisamment larges pour couvrir les technologies visées par les normes en cours d'examen.

La FTC a contesté le comportement de Rambus sur le fondement de l'article 5 de la loi instituant la FTC (qui interdit les formes de concurrence déloyales ou reposant sur la tromperie) et de l'article 2 de la loi Sherman (qui interdit les monopoles). À l'appui de son accusation, la FTC a fait valoir que l'entreprise Rambus n'a divulgué aucun de ses brevets ou brevets en instance lorsqu'elle était membre du JEDEC, bien qu'elle en ait divulgué certains dans le cadre de sa démission du JEDEC. La FTC a fait valoir qu'interrogé sur l'existence éventuelle de brevets susceptibles de couvrir les normes à l'étude, le représentant de Rambus a éludé la question et n'a fourni que des informations partielles. En outre, pendant toute la période durant laquelle elle a été membre du JEDEC, l'entreprise a utilisé les informations auxquelles elle avait accès sur les normes à l'étude pour modifier et affiner les revendications de ses brevets en instance, afin qu'elles correspondent exactement aux projets de normes.

Nul ne contestait que les brevets possédés par Rambus lui ont permis d'acquérir un monopole (avec une part de marché de l'ordre de 90 %) sur quatre technologies intégrées à la norme élaborée pour la mémoire DRAM. Toutefois, des documents internes de l'entreprise appelaient à ne pas divulguer l'existence de ces brevets « jusqu'à ce que la production ait atteint un point de non-retour »⁴². C'est ce qu'a fait Rambus, qui a fini par opposer ses brevets, engageant plusieurs actions en justice pour atteinte à ses droits à l'encontre de fabricants de puces équipées d'une mémoire DRAM et revendiquant des redevances considérables.

L'analyse du comportement de Rambus à la lumière du droit de la concurrence a donné lieu à de vives controverses. Les principales questions à trancher dans le procès portaient sur le point de savoir si i) Rambus avait l'obligation de divulguer ses brevets, délivrés et en instance ; ii) le fait de ne pas les avoir divulgués lui avait permis d'obtenir un monopole sur les quatre technologies ou si ce monopole était plutôt le résultat inévitable de la supériorité de sa technologie ; et iii) la non-divulgaration avait eu pour seule conséquence de priver le JEDEC de toute possibilité d'obtenir, avant d'élaborer ses normes, que Rambus s'engage à concéder des licences à des conditions FRAND.

En juillet 2007, la Commission européenne a envoyé à Rambus une communication de griefs pour le même comportement que celui qui avait conduit la FTC à engager des poursuites. La Commission y expose son analyse préliminaire, qui est que Rambus a abusé de sa position dominante en demandant des

In the Matter of Rambus, Inc., FTC Docket n° 9302, Opinion de la Commission (2 août 2006) ; *Rambus Inc.*, 2007 WL 431524 (F.T.C. 2007) ; *Rambus, Inc.*, 2007 WL 431525 (F.T.C. 2007) ; *Rambus, Inc.*, 2007 WL 2086203 (F.T.C. 2007) ; *Rambus, Inc.*, 2007 WL 431523 (F.T.C. 2007) ; *Rambus, Inc. contre FTC*, 522 F.3d 456 (D.C. Cir. 2008).

⁴¹ La FTC a finalement abandonné ses poursuites (USFTC, « Statement in the Matter of Rambus », communiqué de presse (14 mai 2009), consultable à l'adresse www.ftc.gov/opa/2009/05/rambus.shtm.

⁴² *In the Matter of Rambus, Inc.*, FTC Docket n° 9302, Opinion de la Commission (2 août 2006), pp. 44-48.

redevances excessives pour l'utilisation de certains brevets qui portaient sur la technologie DRAM et qu'elle avait instrumentalisés. Le communiqué de presse officiel précise que, pour la première fois, la Commission européenne aborde une affaire de dissimulation sous l'angle du droit de la concurrence⁴³. En décembre 2009, la Commission européenne a accepté un engagement contraignant de Rambus par lequel la société abaissait ses tarifs de redevance sur certains brevets pendant une durée de cinq ans, fixant à 0 le montant des redevances pour les normes élaborées alors que Rambus était membre du JEDEC et à 1.5 % le taux de redevance pour les normes élaborées ultérieurement par le JEDEC, contre un taux précédemment appliqué de l'ordre de 3.5 %.

5.4.2 L'ETSI

En 2005, la Commission européenne a ouvert une enquête concernant l'Institut européen des normes de télécommunication (ETSI) et a constaté que des faiblesses dans les procédures de normalisation de cet organisme exposaient les normes à un risque de dissimulation. La Commission a clôturé son enquête après que l'ETSI a apporté à ses règles les modifications recommandées par la Commission afin de renforcer la protection contre les dissimulations. Ces modifications portaient sur l'obligation de divulgation rapide des droits de propriété intellectuelle essentiels pour l'application d'une norme, sur l'équité et la transparence des règles de normalisation et sur l'application de conditions FRAND à la concession de licences^{44 45}. À la même époque, l'ETSI a également annoncé qu'il envisageait d'autres modifications en vue de permettre la négociation éventuelle d'accords de licence en amont.

Sous sa forme actuelle, le guide de l'ETSI sur les droits de propriété intellectuelle précise par ailleurs que « (l)es conditions et négociations spécifiques en matière d'octroi de licences sont des questions commerciales que doivent résoudre les entreprises et qui ne seront pas traitées dans le cadre des procédures de l'ETSI. Les organes techniques ne constituent pas un forum approprié pour débattre des questions de droits de propriété intellectuelle. Les organes techniques ne disposent pas des compétences nécessaires pour traiter des questions commerciales. Les membres participant aux organes techniques de l'ETSI sont souvent des experts techniques qui n'exercent pas de responsabilités juridiques ou commerciales en ce qui concerne les questions d'octroi de licences. Les délibérations sur les conditions d'octroi d'une licence au sein d'un groupe de concurrents participant à la procédure de normalisation risquent de compliquer, retarder ou faire échouer le processus. » On peut en conclure que l'ETSI ne serait pas prêt à se charger de négocier des accords de licence en amont, mais prônerait plutôt des négociations bilatérales.

⁴³ CE « Commission Confirms Sending a Statement of Objections to Rambus », (23 août 2007), consultable à l'adresse <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/07/330>.

⁴⁴ CE, « La Commission se félicite des modifications apportées par l'ETSI à ses règles en matière de droits de propriété intellectuelle afin de prévenir toute situation de type "patent ambush" », communiqué de presse IP/05/1565 (12 décembre 2005), consultable à l'adresse <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/05/1565>.

⁴⁵ La clause 4.1 du guide de l'ETSI sur les droits de propriété intellectuelle stipule : « Sous réserve de la clause 4.2 ci-après, chaque MEMBRE s'engage à déployer des efforts raisonnables, en particulier durant l'élaboration d'une NORME ou d'un CAHIER DES CHARGES TECHNIQUE à laquelle il participe, pour informer l'ETSI des DPI ESSENTIELS en temps opportun ». Pour rendre cette règle opérationnelle, l'ETSI adopte des procédures comme le guide édicté à l'intention des présidents, précisant qu'« il convient de rappeler succinctement l'obligation de divulgation lors de la soumission formelle d'une solution technique, de la réalisation du premier projet de norme, de l'approbation d'un projet de norme par un groupe de travail et de l'approbation par les organes techniques d'un projet de norme.

Ce rappel pourra par exemple être formulé ainsi : '*Puis-je rappeler aux Membres leurs obligations de déployer des efforts raisonnables pour divulguer tous DPI essentiels [pertinents pour cette question] en temps opportun*'. », 17 mai 2010, consultable à l'adresse suivante : http://www.etsi.org/WebSite/document/Legal/ETSI_Guide_on_IPRs.pdf.

5.4.3 Unocal

La dissimulation de droits de brevet n'est pas l'apanage des organismes de normalisation privés, mais peut également se produire dans le contexte de la normalisation d'État. C'est ce qu'illustre le cas d'Unocal, un raffineur suspecté d'avoir dissimulé ses droits de brevet à l'occasion de la définition par l'État de Californie de nouvelles réglementations contre la pollution de l'air. En 1988, les instances législatives californiennes ont autorisé le *California Air Resources Board* (CARB) à adopter et faire appliquer un ensemble de mesures parmi lesquelles « des normes pour les carburants automobiles afin de limiter les contaminants de l'air et les sources de pollution de l'air »⁴⁶.

Le CARB a entrepris un ambitieux programme de reformulation des essences (RFG). Les instances législatives californiennes ont invité le CARB à se concerter avec la filière concernée pour l'élaboration des réglementations de phase 2⁴⁷. Durant l'élaboration des réglementations RFG de phase 2, Unocal, 13 autres grandes compagnies pétrolières locales et les 3 grands constructeurs automobiles américains ont créé la coentreprise Auto/Oil (ci-après « Auto/Oil ») afin de fédérer leurs efforts de recherche et de travailler ensemble pour qu'Auto/Oil puisse élaborer des recommandations fondées sur les données et technologies à disposition du public, permettant aux diverses instances de l'État de comparer de façon équitable et exacte les coûts et avantages des différentes solutions de réduction des émissions en évitant les procédures brevetées coûteuses⁴⁸. Pour parvenir à cet objectif, l'accord de coentreprise Auto/Oil exigeait que toute la recherche qui serait réalisée par Auto/Oil ou qui lui serait donnée par le biais de présentations appartienne au domaine public et puisse être utilisée gratuitement par quiconque⁴⁹. En revanche, cet accord de recherche commune prévoyait explicitement que chaque entreprise se réservait le droit de poursuivre simultanément et indépendamment sa propre recherche et qu'aucune entreprise ne serait tenue de dévoiler l'existence de cette démarche indépendante ni d'en partager les fruits avec les autres membres de la coentreprise⁵⁰.

Unocal a réalisé des activités indépendantes de recherche et développement qui lui ont permis d'identifier des moyens de modifier la formule de l'essence de façon à réduire les émissions de monoxyde de carbone, d'oxyde d'azote et d'hydrocarbures imbrûlés. La recherche a mis en évidence des variables clés de réduction des émissions⁵¹.

Unocal a présenté les résultats de ses recherches 5/14 au CARB et aux représentants de la filière, et aurait déclaré que ces résultats appartenaient au domaine public et étaient libres de tous droits de propriété

⁴⁶ California Health & Safety Code , 43013 (a).

⁴⁷ En 1990, le CARB a adopté les réglementations de reformulation des essences (RFG) de Phase I, fixant un ensemble raisonnable de normes régissant certaines propriétés de l'essence. Ces réglementations ne nécessitaient que des coûts minimales de mise en conformité.

⁴⁸ CCPF, p. 1439-43, 1455.

⁴⁹ Cet accord avait pour objet la réalisation de recherche « commune », dont les résultats « seront divulgués aux administrations, au Congrès et au public, et mis librement à disposition du public par d'autres moyens ». Pour plus de garantie, l'accord stipule qu' « (i)l ne sera sollicité aucun droit de propriété intellectuelle ni revendiqué aucune demande de brevet sur les travaux du Programme autre que pour s'assurer que les résultats de la recherche du Programme seront librement disponibles sans redevance et dans le domaine public. » Mémoire du plaignant après jugement, mars 2005, p. 50-51.

⁵⁰ Paragraphe 6-B (p. 14-15) de l'accord, cf. communiqué de presse de la décision du jury du tribunal fédéral de district, 3 novembre 1997, p. 7, disponible à l'adresse suivante : <http://sec.edgar-online.com/1997/11/04/14/0000716039-97-000054/Section2.asp>.

⁵¹ L'une des principales découvertes a été que la température à laquelle 50 % de l'essence s'évaporait (T50) était une variable clé pour la réduction des émissions.

intellectuelle. Sur la base de ces informations, le CARB a adopté les réglementations RFG de phase 2 qui se fondent principalement sur les résultats des recherches 5/14 d'Unocal. Une fois les réglementations adoptées par le CARB et les raffineries modifiées en conséquence, Unocal a révélé avoir breveté ces résultats et avoir l'intention d'exiger des revenus de licence pour l'utilisation de son brevet.

Le 4 mars 2003, la FTC a porté plainte contre Unocal pour comportement anticoncurrentiel tout au long du processus d'élaboration de la réglementation RFG de phase 2 par le California Air Resources Board (1990-1994). La plainte accusait Unocal d'avoir violé l'article 5 de la loi instituant la FTC pour avoir cherché et obtenu un pouvoir de monopole sur l'offre d'une technologie utilisée pour produire l'essence californienne. Selon le plaignant, tout au long du processus d'élaboration de la réglementation RFG de phase 2 (1990-1994), Unocal a fourni au CARB et aux représentants de la filière des informations « substantiellement fausses et trompeuses » « en vue d'obtenir un avantage concurrentiel »⁵². D'après la plainte déposée par la FTC, Unocal avait l'intention de « piéger » la filière pour la production d'essence reformulée de phase 2 afin de s'arroger un pouvoir de monopole en exigeant des revenus de licence sur la quasi-totalité des formules d'essence utilisées par les raffineurs pour se conformer aux réglementations de phase 2 du CARB. Par la suite, Unocal aurait été en mesure de réaliser des bénéfices exorbitants grâce aux revenus de licence issus de l'utilisation de sa technologie brevetée.

Le 25 novembre 2003, le Juge D. Michael Chappell, du tribunal administratif, a rendu un jugement initial dans lequel il concluait que le comportement accusé de constituer une méthode abusive de concurrence était en grande partie protégé par la doctrine *Noerr-Pennington* sur l'action de l'État⁵³ et que les autres chefs d'accusation étaient en dehors de la compétence de la FTC car ils dépendaient de la résolution de questions importantes touchant au droit des brevets.

L'avocat des plaignants a fait appel du jugement initial rendu par le tribunal administratif et, le 7 juillet 2004, la Commission a infirmé et annulé le jugement initial, considérant que « ni la doctrine *Noerr-Pennington* ni l'absence de compétence alléguée de la FTC ne constituait un fondement approprié pour les demandes de non-lieu d'Unocal »⁵⁴.

En août 2005, dans le cadre de la fusion entre Chevron et Unocal, Unocal a déclaré abandonner et renoncer à toute action en vue de l'application de ses brevets relatifs aux réglementations du CARB.

Cette affaire montre que les dissimulations de droits de brevet ne sont pas uniquement une préoccupation des organismes de normalisation, mais concernent également les normes élaborées par les autorités. Il peut arriver que les normes élaborées par les autorités à la faveur d'une dissimulation de droits de brevet puissent se soustraire à l'application du droit de la concurrence en vertu d'actions de l'État.

5.5 Créer des asymétries de coûts

Les normes peuvent avoir des effets différents sur les coûts de production variables des entreprises. Abaisser les coûts variables de certaines entreprises par rapport à d'autres peut affecter considérablement la concurrence ultérieure entre des produits fabriqués en conformité avec une norme donnée. La normalisation peut souvent avoir pour conséquence naturelle de créer des asymétries de coûts de production. En conséquence, on ne suppose pas d'emblée que les effets d'asymétrie de coûts de production

⁵² Plainte administrative (Administrative Complaint), mars 2004.

⁵³ La doctrine de l'action de l'État exclut, sous certaines conditions, les actions des États du champ d'application du droit de la concurrence.

⁵⁴ Décision infirmant et annulant l'avis/la décision initiale de la Commission (Order Reversing and Vacating the Initial Decision/Commission's Opinion), juillet 2004.

sont nuisibles. En outre, les asymétries de coûts de production sont normales en cas de propriété intellectuelle partagée par plusieurs entreprises, puisque c'est dans le cadre de négociations bilatérales qu'elles accordent aux fabricants les droits de licence sur la propriété intellectuelle nécessaire à la fabrication de leurs produits. Ces droits bilatéraux donnent lieu à une réduction (voire une exonération totale) des versements, lorsque toutes les parties au contrat échangent des droits de propriété intellectuelle entre elles. En revanche, les entreprises qui n'ont pas de droits de propriété intellectuelle à échanger acquittent un prix total de licence supérieur. La réduction de coût dont bénéficient les entreprises qui ont entrepris de la recherche pour créer de la propriété intellectuelle peut être perçue comme une composante du retour sur investissement de leur activité de recherche. Dans ces situations, l'asymétrie des coûts de licence doit être considérée comme normale.

En revanche, ces écarts de coûts peuvent être « anormaux » en présence de facteurs aggravants, comme lorsqu'une entreprise dissimule des brevets pour augmenter les coûts de ses concurrents⁵⁵. Dans l'affaire Unocal évoquée plus haut, après l'entrée en vigueur des réglementations RFG de phase 2 du CARB, Unocal a exigé des revenus de licence pour l'utilisation de sa technologie brevetée. Les autres raffineurs ont contesté la validité du brevet d'Unocal. Après jugement rendu par un tribunal de district de Californie (septembre 1998) selon lequel les autres raffineurs violaient le brevet déposé par Unocal, celui-ci a exigé 5.75 cents par gallon sur toute l'essence produite entre 1996 et 2000 en utilisant sa technologie brevetée (était concernée plus de 92 % de l'ensemble de l'essence reformulée conformément aux réglementations du CARB). Ces droits élevés accroissaient les coûts de production des raffineurs qui fournissaient de l'essence reformulée de phase 2 aux consommateurs californiens et cette hausse pouvait se répercuter sur le prix à la pompe⁵⁶.

6. Quelles mesures peut-on prendre pour atténuer les dommages ?

Même si la normalisation peut avoir des effets nuisibles pour la concurrence, il existe des solutions simples pour y remédier⁵⁷. Plusieurs mesures peuvent être adoptées pour atténuer l'impact des effets anticoncurrentiels de certaines activités de normalisation. Les solutions *ex post* pour remédier aux dommages causés par une dissimulation de droits de brevet sont notamment à rechercher dans le droit de la concurrence, la révision des brevets et les violations de contrats de propriété intellectuelle des organismes de normalisation. Les solutions du droit de la concurrence peuvent être appropriées en cas de dissimulation de brevets lors du processus de normalisation, bien que les tribunaux ne soutiennent pas unanimement le recours au droit de la concurrence et que d'autres solutions, comme les actions en justice invoquant le droit des contrats, puissent être préférables. Weiser (2008) estime qu'« une supervision efficacement ciblée par les autorités de la concurrence, comme dans l'affaire Rambus, peut renforcer l'efficacité des organismes de normalisation privés, qui sinon pourraient être moins vigilants dans le dépistage des comportements abusifs »⁵⁸. À ce stade, le recours au droit de la concurrence reste limité et a déjà été largement évoqué, et

⁵⁵ Voir Salop et Scheffman (1983).

⁵⁶ L'expert économiste d'Unocal a estimé que « les coûts supplémentaires liés au paiement des redevances exigées par Unocal seraient répercutés sur le prix de gros de l'essence à hauteur de 90 %. »

⁵⁷ Certaines solutions peuvent s'appliquer à plusieurs types de préjudices. Pour éviter les répétitions, elles sont énumérées ailleurs dans le présent document.

⁵⁸ En revanche, Lemley (2002) plaide pour l'application des règles de propriété intellectuelle des organismes de normalisation, mais recommande « d'être très attentif aux risques d'interférence de la loi antitrust avec le processus afin d'éviter de paralyser la création de règles de responsabilité de droit privé dans le système de brevets ». Il propose en outre la création d'une sphère de sécurité pour permettre aux organismes de normalisation de s'entendre sur des règles de propriété intellectuelle « même s'ils jouent un rôle actif dans la définition de ce qui constitue des redevances raisonnables et non discriminatoires, tant qu'ils appliquent une procédure juste fixée *ex ante*. » Kobayashi et Wright (2009) estiment que les cas de hold-up de normes doivent être traités de préférence dans le cadre du droit des brevets ou dans celui du droit des contrats. Si

l'invocation du droit des contrats, fondée sur l'obligation de divulguer les brevets et de fixer des droits de licence raisonnables et non discriminatoires, reste aussi limitée. La révision et la révocation de brevets délivrés peuvent être appropriées lorsque la légitimité des revendications initiales du brevet est mise en cause⁵⁹.

Les pouvoirs publics n'ont pas considéré uniquement les solutions *ex post*, mais aussi les mesures d'atténuation *ex ante*. Les mesures d'atténuation *ex ante* comprennent notamment :

- l'utilisation des normes internationales,
- la gouvernance des organismes de normalisation,
- les règles de divulgation des organismes de normalisation,
- les négociations *ex ante* sur les prix et autres conditions,
- et les tarifications équitables, raisonnables et non discriminatoires.

Dans l'univers complexe de la normalisation, des règles simples auront du mal à atténuer les effets négatifs au regard de la multitude de catégories de produits différentes et en présence d'entreprises et de consommateurs informés à des degrés divers. Dans la mesure où les pouvoirs publics privilégient les règles simples, il est important de prendre en compte les effets non souhaités susceptibles de découler de l'intervention. Un aspect majeur de la dissimulation de droits de brevet est que les entreprises privées qui participent à un organisme de normalisation supportent le risque financier direct de cette dissimulation et ont donc une incitation directe et individuelle à l'empêcher.

Nous passons en revue ci-après les règles *ex ante* qui sont le plus couramment envisagées.

6.1 Utilisation des normes internationales

Il arrive que certains pays adoptent pour des produits des normes à un niveau national qui diffèrent des normes internationales communément acceptées. L'Organisation mondiale du commerce (OMC) a élaboré un accord sur les obstacles techniques au commerce (OTC) dont le principe sous-jacent consiste à éviter les obstacles inutiles au commerce. Cet accord encourage les signataires à intégrer dans leurs réglementations nationales les normes internationales existantes ou leurs éléments pertinents, « sauf lorsque ces normes internationales ou ces éléments seraient inefficaces ou inappropriés » pour la réalisation d'un objectif stratégique donné, par exemple en raison « de facteurs climatiques ou géographiques fondamentaux ou de problèmes technologiques fondamentaux » (article 2.4)⁶⁰. L'accord

cet argument paraît raisonnable, il n'est pas évident que les tribunaux soient plus ouverts à la résolution des cas de dissimulation de droits de brevet dans le cadre du droit des brevets ou du droit des contrats que dans celui du droit de la concurrence. L'affaire Unocal illustre l'échec d'une tentative privée de résolution d'une accusation de dissimulation de droits de brevet.

⁵⁹ Lemley (2002) estime que les secteurs dans lesquels les brevets « ont le plus de chances de se chevaucher et de bloquer les évolutions nécessaires » sont les télécommunications, l'informatique et l'Internet. Il considère que « les règles de propriété intellectuelle des organismes de normalisation sont donc une solution partielle du marché à un problème induit par une protection trop large de la propriété intellectuelle ».

⁶⁰ L'accord OTC stipule : « Dans les cas où des règlements techniques sont requis et où des normes internationales pertinentes existent ou sont sur le point d'être mises en forme finale, les Membres utiliseront ces normes internationales ou leurs éléments pertinents comme base de leurs règlements techniques, sauf

OTC cible en particulier les règlements techniques, qui doivent obligatoirement être respectés, au sens où la vente d'un produit non conforme au règlement technique n'est pas autorisée.

L'Accord OTC tient compte de l'existence de différences légitimes de goût, de revenus ou de conditions géographiques et autres entre les pays. C'est pourquoi il laisse aux Membres un haut degré de souplesse pour l'élaboration, l'adoption et l'application de leurs règlements techniques nationaux. Ainsi, dans le préambule de l'Accord, il est dit que « rien ne saurait empêcher un pays de prendre les mesures nécessaires pour assurer la qualité de ses exportations ou nécessaires à la protection de la santé et de la vie des personnes et des animaux, à la préservation des végétaux, à la protection de l'environnement, ou à la prévention de pratiques de nature à induire en erreur, aux niveaux qu'il considère appropriés ». Toutefois, la souplesse dont disposent les Membres à cet égard est limitée par la prescription qui veut que « l'élaboration, l'adoption ou l'application des règlements techniques n'aient ni pour objet ni pour effet de créer des obstacles non nécessaires au commerce international » (article 2.2)⁶¹.

Il y a de nombreuses années que les experts techniques travaillent à l'harmonisation internationale des normes. Dans ce domaine, l'Organisation internationale de normalisation (ISO), la Commission électrotechnique internationale (CEI) et l'Union internationale des télécommunications (UIT) jouent un rôle important. Leurs activités ont un impact majeur sur les échanges et en particulier sur le commerce de produits industriels. L'ISO a par exemple élaboré plus de 9 600 normes internationales couvrant la quasi-totalité des domaines techniques.

L'harmonisation technique peut améliorer le bien-être des consommateurs. Dans un environnement réglementaire harmonisé, la concurrence garantit que les consommateurs disposent d'un choix de produits étendu et économiquement attrayant. Cela présuppose toutefois que les normes harmonisées se cantonnent à leur objectif légitime de réglementation, c'est-à-dire qu'elles n'étouffent pas l'innovation ni ne découragent autrement la mise sur le marché de nouveaux produits ou de versions différentes d'un produit.

6.2 Gouvernance

La gouvernance et le fonctionnement des organismes de normalisation peuvent atténuer considérablement de nombreux risques au regard de la politique de la concurrence.

6.2.1 Représenter des intérêts économiques divergents

En faisant participer les consommateurs au processus de normalisation et en leur accordant un droit de vote, les organismes de normalisation peuvent favoriser l'élaboration de normes qui servent davantage les intérêts des consommateurs. Certaines commissions de certification professionnelle pour les professions médicales accueillent des représentants de l'administration juridique. D'autres intègrent dans leur composition des membres qui n'appartiennent pas à la profession concernée, à l'instar du conseil médical d'Irlande qui réserve au moins 3 de ses 25 sièges à des non-médecins explicitement chargés de protéger les intérêts du public. L'*Institute of Medicine*, organe de conseil scientifique indépendant du gouvernement américain, recommande, en réponse au manque présumé d'indépendance des professions médicales, que les « commissions d'agrément soient composées au moins pour moitié de membres n'exerçant pas la profession concernée, issus du public ainsi que de divers domaines de compétence comme l'administration de la santé, l'économie, les questions de consommation, l'enseignement et la recherche en services de santé » (IOM (1989)). En encourageant une participation plus large au processus de normalisation, on peut

lorsque ces normes internationales ou ces éléments seraient inefficaces ou inappropriés pour réaliser les objectifs légitimes recherchés, par exemple en raison de facteurs climatiques ou géographiques fondamentaux ou de problèmes technologiques fondamentaux ».

⁶¹

Voir OMC.

donner voix au chapitre à des entreprises et technologies qui auraient pu en être exclues. Cela peut permettre de diminuer l'exclusion anticoncurrentielle.

La représentation des consommateurs au sein des organismes de normalisation ou des commissions de certification n'est pas une panacée. De façon générale, l'intérêt économique des consommateurs à l'issue de la certification est moindre que celui des autres membres. Dans de nombreux cas, il n'existera pas d'organe reconnu de représentation des consommateurs correspondant au domaine que l'on cherche à normaliser. Les organes de représentation des consommateurs n'ont pas toujours de liens clairs et démontrés avec les consommateurs réels, et peuvent donc ne pas être parfaitement représentatifs. Enfin, les représentants des consommateurs peuvent ne pas saisir les implications des choix techniques complexes opérés dans le cadre du processus de normalisation et peuvent ne pas être en mesure de former de bons jugements techniques quant aux avantages et inconvénients respectifs des diverses technologies susceptibles d'être retenues.

6.2.2 *S'assurer que les organismes de normalisation ne se comportent pas en cartels*

Afin de rendre moins probable un comportement de cartel ou de coordination sur les prix, de nombreux organismes de normalisation mettent en œuvre des politiques qui n'autorisent pas de débattre des prix au cours du processus de normalisation. Les règlements peuvent s'assurer en particulier que les producteurs de produits de remplacement ne s'entendent pas sur les tarifs, tant en ce qui concerne la propriété intellectuelle au stade de l'organisme de normalisation que pour les producteurs finaux.

6.3 *Règles de transparence des organes de normalisation*

Les organismes de normalisation peuvent adopter diverses approches concernant la transparence des éventuelles revendications de propriété intellectuelle, du montant des redevances et des conditions d'octroi de licences avant l'adoption d'une norme. Ces règles sont parfois envisagées comme une protection contre les tentatives de dissimulation de droits de brevet.

Deux grands modes de divulgation pourraient être exigés ou encouragés. Premièrement, les organismes de normalisation pourraient se doter de règles obligeant leurs membres à révéler tout brevet délivré ou en instance susceptible de recouper la norme en cours d'élaboration. Cette divulgation devrait être effectuée avant et pendant le processus d'élaboration de la norme⁶². Deuxièmement, les organismes de normalisation pourraient obliger leurs membres à indiquer le montant maximum des redevances et les conditions de concession de licence les plus restrictives qu'ils imposeraient pour l'exploitation de ces brevets si la technologie qu'ils couvrent devait être intégrée à la norme. VITA, l'organisme de normalisation d'outils d'interconnexion informatique, envisage d'obliger ses membres à divulguer à l'avance leurs brevets et à annoncer le montant maximum de redevances et les conditions non tarifaires les plus restrictives qu'ils exigeraient pour l'octroi de licences. Une lettre de clarification à l'intention des entreprises du département de la Justice des États-Unis (*business review letter*) estime que ce règlement serait avantageux car « chaque membre du groupe de travail sera à même de comparer les conditions d'octroi de licences les plus restrictives pour chacune des technologies, y compris celles en libre accès dans le domaine public, au moment de choisir celles qu'il souhaite voir inclure dans le projet de norme de la VSO. La divulgation de ces informations, garantie par l'obligation de gratuité des licences d'utilisation des technologies protégées par des brevets dont l'existence n'aura pas été divulguée, permettra aux membres

⁶²

Les règles de divulgation présupposent que les entreprises sont au fait de tous les brevets pertinents qu'elles sont susceptibles de détenir. S'agissant de grandes entreprises, un représentant peut ne pas être au courant de l'ensemble des brevets pertinents. En outre, les recherches les plus poussées de brevets liés à une norme sont souvent réalisées à la fin du processus de normalisation afin d'éviter les recherches multiples et coûteuses au sein de portefeuilles potentiellement importants.

des groupes de travail de prendre des décisions mieux informées lorsqu'ils élaborent des normes »⁶³. Nelly Kroes, l'ancienne commissaire européenne à la concurrence, a apporté son soutien à ces deux approches, en déclarant qu'elles constituaient un moyen, pour les organismes de normalisation, d'éviter de « se laisser manipuler par des intérêts commerciaux étriés »⁶⁴.

Une variante de ces politiques consisterait à donner aux membres la possibilité de s'engager à effectuer ces divulgations, au lieu de les rendre obligatoires. Une lettre de clarification à l'intention des entreprises du département de la Justice des États-Unis adressée à l'IEEE évoque une politique consistant à donner aux membres de l'organisme de normalisation l'option de divulguer publiquement et de s'engager sur les conditions les plus restrictives (y compris le montant des redevances) qu'ils exigeraient pour l'utilisation de brevets jugés essentiels pour la norme⁶⁵. En présence de concurrence *ex ante*, l'effet serait le même. En refusant de prendre cet engagement alors que ses concurrents l'ont déjà fait, une entreprise éveillerait probablement les soupçons de l'organisme de normalisation et se mettrait dans une position concurrentielle défavorable. L'organisme de normalisation serait non seulement plus enclin à choisir la technologie concurrente, mais risquerait également de limiter la capacité de l'entreprise à continuer de participer à l'élaboration des normes.

L'une ou l'autre version de ces politiques de divulgation augmentera la possibilité d'apprécier les avantages techniques et financiers des technologies couvertes par les brevets délivrés et en instance pour les comparer entre elles et avec d'autres technologies, non couvertes par des droits de propriété intellectuelle, *avant* de s'engager vis-à-vis de la formulation d'une norme⁶⁶. L'organisme de normalisation pourra ainsi tirer parti de toute concurrence *ex ante* entre les technologies, au lieu de s'exposer à être piégé une fois que la norme est choisie et qu'il est trop tard pour opter pour une autre technologie.

Si le titulaire de droits de propriété intellectuelle annonce une redevance supraconcurrentielle avant même qu'il soit officiellement décidé d'intégrer sa technologie protégée à la norme, l'intégration de sa technologie ne soulèverait pas de problème du point de vue de la politique de la concurrence. En d'autres termes, si les divulgations requises ont été effectuées, et si elles n'obligent pas l'organisme de normalisation à ne pas intégrer une certaine technologie brevetée (ou en attente de brevet) à sa norme, il n'y a pas lieu de présumer que l'application, par le titulaire des droits de propriété intellectuelle, d'une redevance supérieure au niveau de concurrence est une pratique anticoncurrentielle. Dans ces circonstances, le titulaire des droits de propriété intellectuelle a tout simplement la meilleure technologie, compte tenu du montant de la redevance et de la qualité – à moins qu'il détienne la seule technologie possible. L'objectif de la politique de la concurrence ne doit pas être d'imposer un montant de redevances bas ou « raisonnable », mais d'empêcher les titulaires de droits de propriété intellectuelle de pratiquer, en

⁶³ Voir lettre de Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, à Robert A. Skitol, Esq., Drinker, Biddle & Reath, LLP re VMEbus International Trade Association (VITA), 30 octobre 2006, consultable à l'adresse suivante : <http://www.usdoj.gov/atr/public/busreview/129380.pdf>.

⁶⁴ Neelie Kroes, Commissaire européenne chargée de la concurrence, « Being Open about Standards », discours 08/317 prononcé devant OpenForum Europe (10 juin 2008), p. 4.

⁶⁵ Voir lettre de Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice à Michael Lindsay, Esq., Dosey et Whitney, LLP re IEEE, 30 avril 2007, consultable à : <http://www.justice.gov/atr/public/busreview/222978.pdf>.

⁶⁶ Mais voir Thomas Cotter, « Reflections on the Antitrust Modernization Commission's Report and Recommendations Relating to the Antitrust/IP Interface » 53 Antitrust Bulletin 745, 762 note 50 (qui fait observer que les membres des organisations de normalisation risquent de divulguer un trop grand nombre de brevets en instance et délivrés, ce qui retarderait inutilement le processus de normalisation, le temps que l'organisation de normalisation vienne à bout de l'examen de divulgations sans rapport avec la norme).

utilisant des stratégies de dissimulation, des prix plus élevés que ceux qu'ils auraient exigés s'ils n'avaient pas utilisé cette stratégie.

Rendre les entreprises responsables de la divulgation des propriétés intellectuelles pertinentes peut avoir des conséquences inopinées. En particulier, du fait des règles de divulgation, il peut devenir plus avantageux pour une entreprise possédant une technologie essentielle de ne pas participer au processus de normalisation. Une fois la norme adoptée, elle pourra toujours révéler son brevet et revendiquer une redevance élevée, sans s'être rendue coupable de tromperie ni s'être engagée à appliquer un montant de redevance équitable et raisonnable.

Si l'on oblige les entreprises à annoncer le montant maximum de redevances qu'elles pourraient exiger pour l'utilisation de leur propriété intellectuelle avant la finalisation des normes, on augmente le risque de voir l'effort de normalisation se transformer en une entreprise de fixation illégale de prix.

Les actions stratégiques des entreprises peuvent fausser le processus de normalisation. Quand les entreprises savent que le montant maximum de redevances annoncé servira de fondement aux négociations bilatérales ultérieures avec les autres entreprises en vue de l'utilisation de leur propriété intellectuelle, on peut raisonnablement penser qu'elles auront tendance à donner un chiffre nettement supérieur au montant de redevances anticipé. Les entreprises anticipant des redevances modestes ou nulles pourraient choisir d'annoncer des redevances élevées dans le cadre de leur stratégie de négociation. Enfin, le montant total des redevances annoncées pourrait être supérieur à celui des recettes des ventes de produits.

6.4 *Négociations ex ante*

Une autre stratégie proposée pour prévenir les dissimulations de droits de brevet repose sur les obligations de divulgation et préconise la tenue, entre les membres d'un organisme de normalisation qui sont susceptibles de prendre à l'avenir des licences sur une technologie et le membre susceptible de concéder ces licences, de négociations collectives *ex ante* sur la redevance qui serait pratiquée si la technologie devait être intégrée à la norme.

Comme l'obligation de divulgation du montant maximal des redevances, la tenue de négociations collectives *ex ante* vise notamment à obliger les cédants potentiels à fixer le montant de la redevance avant le choix de la norme, c'est-à-dire tant que les cédants sont encore soumis à une certaine concurrence (en supposant que l'organisme de normalisation ait réellement la possibilité d'opter pour une autre technologie). L'autre objectif de cette stratégie est de créer un certain contre-pouvoir d'acheteur, en regroupant la demande de tous les preneurs de licence participant au processus de normalisation. L'effet *ex ante*, associé à l'effet de négociations collectives/de monopsonie peut aider les membres de l'organisme de normalisation qui veulent appliquer la norme à obtenir des conditions plus favorables de la part des titulaires de brevets essentiels, ce qui conduit à une diminution des coûts marginaux et éventuellement à une baisse des prix pour le consommateur. Cette stratégie est également susceptible d'accélérer le processus de normalisation et de diminuer le risque qu'une action en justice soit nécessaire pour résoudre des différends liés aux redevances et conditions de licence.

D'un autre côté, selon la théorie économique, l'existence d'un contre-pouvoir d'acheteur a un résultat incertain lorsqu'il est exercé face à un pouvoir de monopole. La production et le bien-être des consommateurs pourraient même l'une et l'autre diminuer davantage qu'ils ne le feraient dans un scénario de monopole pur. En outre, le cédant n'a pas toujours un pouvoir de monopole, en particulier avant l'adoption de la norme. Il s'ensuit que le pouvoir d'acheteur pourrait être, non pas un contre-pouvoir à un monopole, mais un moyen de comprimer des redevances qui sont déjà à un niveau concurrentiel jusqu'à un niveau encore plus faible. La pression à la baisse sur les redevances serait telle que les principaux innovateurs réagiraient par une diminution de leurs investissements en recherche et développement. À

noter toutefois que plusieurs commentateurs ont contesté l'idée selon laquelle l'existence d'un pouvoir d'acheteur dans le cadre du processus de normalisation entraîne une baisse de la production⁶⁷.

Les négociations *ex ante* peuvent poser davantage de risques de comportement anticoncurrentiel que les simples annonces de prix, dans la mesure où les membres des organisations de normalisation sont souvent des concurrents potentiels⁶⁸. Si les entreprises conviennent d'établir un coût marginal élevé par le biais d'accords de licence, mais recouvrent la majeure partie du surcoût sous la forme de redevances, elles peuvent être en mesure de causer des impacts de prix comparables à ceux d'une entente. Les autorités de la concurrence doivent être très prudentes lorsqu'elles encouragent un groupe de concurrents à débattre des prix⁶⁹.

Une solution possible a également été proposée qui consisterait à plafonner le montant total des redevances. Il est cependant difficile de déterminer ce qui constitue un montant de redevance approprié. L'application d'un taux uniforme à l'ensemble des produits ne conviendrait pas, car certains dépendent davantage que d'autres de la technologie protégée. Toutefois, déterminer le taux global approprié pour toute norme spécifique serait alors un exercice individuel sans moyen clair de parvenir à une redevance globale équitable ou de ventiler cette redevance entre les multiples apporteurs de la propriété intellectuelle intégrée à la norme.

Les concessions de licences groupées, comme les accords de partage de brevets ou les communautés de brevets, peuvent réduire l'incitation des titulaires de technologies protégées à exiger des redevances élevées. « [L]a coordination de ces concessions peut déboucher sur des redevances inférieures à ce qu'aurait produit une tarification indépendante des brevets. » On suppose que « [l']abaissement du prix d'un composant génère un effet externe positif sur le détenteur de l'autre composant. Ces externalités sont internalisées par l'intégration, débouchant sur des prix inférieurs »^{70 71}.

Dans les circonstances appropriées, les autorités de la concurrence ont considéré que de telles négociations *ex ante* étaient valables. Par exemple, la lettre de clarification à l'intention des entreprises du département de la Justice des États-Unis portant sur la norme UHF RFID ne s'oppose pas à « l'accord envisagé de concession de licence commune en application duquel le consortium concéderait des licences

⁶⁷ Voir par exemple, Joseph Farrell, *et al.*, « Standard Setting, Patents, and Hold-Up », 74 *Antitrust Law Journal* 603, 632 (2007) ; Ohana, *et al.*, note 32 *supra*, p. 654.

⁶⁸ Sidak (2009) suggère que l'on ne prête pas suffisamment attention au risque de collusion oligopolistique dans les organismes de normalisation, lorsqu'ils sont autorisés à débattre des conditions des redevances en vue d'éviter un « hold-up ».

⁶⁹ Pour l'instant, dans le cas de normes contenant de la propriété intellectuelle d'entreprises multiples, les négociations tarifaires tendent à être bilatérales.

⁷⁰ Voir Shapiro (2000).

⁷¹ Les brevets groupés ont fait l'objet de multiples examens du point de vue du droit de la concurrence à travers le temps. Le premier remonte probablement à 1917 lorsque l'Attorney General des États-Unis a émis une opinion consultative de droit de la concurrence sur le groupement de brevets en vue de la construction d'avions. La Wright-Martin Aircraft Corp. exigeait 1 000 USD par avion, ce qui semblait un montant de redevance « élevé », représentant environ 5 % du coût d'un appareil. Les brevets de la Wright-Martin étaient groupés avec ceux de la Curtiss Aeroplane & Motor Corp. Le groupement détenait divers brevets fondamentaux, y compris un brevet de « machines volantes plus lourdes que l'air ». Les redevances de 200 USD par avion étaient réparties entre Wright-Martin (67.5 %) et Curtiss (20 %), le solde étant affecté à la gestion du groupement. Le montant global des redevances était inférieur à ce qu'il aurait été en l'absence de groupement, même si la menace de l'exercice par les pouvoirs publics de leur prérogative de propriété éminente aurait pu les amener à négocier. L'examen du point de vue de la concurrence a conclu que le regroupement des brevets n'avait pas eu d'effets anticoncurrentiels (voir Klein (1997)).

sur les brevets de ses membres « essentiels » à la fabrication de produits conformes aux normes pour l'identification dans les ultra-hautes fréquences et distribuera des redevances aux concédants. » Selon la lettre, le projet présente des efficiences, du fait notamment que le montant global des redevances pourrait être réduit « en limitant la menace de « hold-up » et de redevances en cascade et en abaissant les coûts de transaction. » La lettre recense des garde-fous contre de possibles effets concurrentiels, tels que la garantie de validité des brevets, l'exclusion de brevets de substitution, la capacité limitée à restreindre la concurrence en aval et la possibilité d'inclure des clauses de rétrocession sur mesure garantissant le maintien de l'incitation à produire des innovations de suivi⁷².

6.5 Conditions FRAND

Une stratégie couramment utilisée par les organismes de normalisation pour s'assurer que les droits de propriété intellectuelle n'entraînent pas des redevances de licences trop élevées consiste à obliger les membres à s'engager *ex ante* à concéder, dans l'hypothèse où des technologies sur lesquelles ils détiennent des brevets ou des brevets en instance seraient intégrées à une norme, des licences à des conditions dites « FRAND » ou « RAND ». FRAND signifie « équitables, raisonnables et non discriminatoires »⁷³. Ces engagements sont en principe formulés dans des termes relativement vagues et ne précisent pas les conditions exactes de concession de licence. Ils peuvent permettre de limiter le bénéfice d'une dissimulation de droits de brevet.

L'obligation de « non-discrimination » contenue dans les conditions FRAND est généralement jugée utile. Bien qu'elle ne signifie pas nécessairement que tous les preneurs de licence doivent bénéficier de conditions identiques, elle garantit aux preneurs de licence qui se trouvent dans une situation identique qu'ils seront traités de la même manière par le cédant. Elle est également susceptible d'empêcher que le cédant puisse nuire à la concurrence en facturant à ses concurrents horizontaux des redevances plus élevées que celles imposées à toute autre partie⁷⁴.

En revanche, les obligations d'équité et de caractère raisonnable des conditions FRAND sont controversées. Alors que certains estiment qu'elles contribuent à garantir que les dissimulateurs potentiels ne pourront pas prendre la norme en otage en refusant de concéder des licences sur leurs brevets ou en les concédant à des conditions non raisonnables, d'autres jugent cette attente naïve. Si les conditions FRAND sont effectivement susceptibles d'empêcher les cédants de menacer de refuser purement et simplement de concéder des licences puisqu'elles obligent le titulaire de brevet à le faire (à un prix quelconque), la protection qu'elles offrent contre la pratique de prix abusifs est limitée, voire inexistante.

Le problème que posent les termes « équitables » et « raisonnables » tient au fait qu'ils ne sont pas liés à un principe ou à une définition objective. Il s'agit de termes vagues, qui peuvent être interprétés de différentes manières. Par conséquent, une entreprise qui possède un brevet essentiel pour une norme peut, en principe, remplir l'obligation de concéder une licence, conformément aux conditions FRAND, mais demander un prix qu'aucun preneur de licence potentiel ne jugera raisonnable. Si rien n'est fait pour définir les termes « équitables » et « raisonnables », les conditions FRAND peuvent difficilement contribuer à régler les différends entre les parties.

⁷² Voir lettre de Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice à William F. Dolan et Geoffrey Oliver, Jones Day, re RFID Consortium, 21 octobre 2008, consultable à l'adresse suivante : <http://www.justice.gov/atr/public/busreview/238429.htm>.

⁷³ Dans RAND, le mot « équitables » a été omis ; par souci de simplification, seul le terme FRAND est utilisé dans le présent document.

⁷⁴ Voir Masoudi (2007), p. 6.

Un tribunal peut être amené à se prononcer sur le sens des termes « équitables » et « raisonnables » dans le cadre d'un différend particulier. Il est probable que la conception de ce qui est « équitable » et « raisonnable » varie selon les tribunaux, pour un même cas d'espèce. Par conséquent, les conditions FRAND n'offrent guère de prévisibilité aux cédants comme aux preneurs de licence. « L'expression "conditions FRAND" est tellement imprécise qu'elle est, dans la pratique, dénuée de sens. »⁷⁵ En revanche, on peut opposer que les conditions FRAND constituent le meilleur système dont on dispose pour régir la délivrance de licences⁷⁶.

6.6 Conclusion sur l'atténuation des dommages potentiels

Les stratégies d'atténuation des dommages que peut causer la normalisation sont complexes et ne sont pas imparables. L'adoption de normes internationales et l'assurance d'une participation ouverte à la gouvernance peuvent réduire les risques de dommages. En général, les organismes de normalisation découragent énergiquement les activités susceptibles d'être perçues comme relevant d'une collaboration anticoncurrentielle entre concurrents. Il est toutefois important d'éviter d'instaurer des menaces du droit de la concurrence potentiellement dissuasives de pratiques comme le partage d'informations sur les prix qui permettent de déterminer le coût qu'impliquerait l'adoption d'une technologie par rapport à une autre.

Les organismes de normalisation ont une incitation privée à limiter les dissimulations de droits de brevet ; il n'est par conséquent pas évident que la promotion par les pouvoirs publics de stratégies d'atténuation soit essentielle, s'ajoutant aux incitations privées. Pour tirer parti des bienfaits précieux de la normalisation, il faut peut-être accepter que les mesures *ex ante* imposées par les autorités ne réussissent pas toujours à remédier aux dommages. Les mesures *ex ante* peuvent être coûteuses, avoir des conséquences inopinées et parfois n'aboutir à aucune solution évidente. On peut donc légitimement se poser la question du rôle des pouvoirs publics dans la prévention des dissimulations de droits de brevet, hormis ouvrir la voie à la menace *ex post* d'une action en justice et encourager la conclusion par les organismes de normalisation de contrats exécutoires sur les propriétés intellectuelles.

Le caractère international de l'application des législations et de la sensibilisation à l'action des pouvoirs publics dans ce domaine revêt une importance particulière. « Contrairement à certains aspects de la supervision des autorités de la concurrence (comme la doctrine des installations essentielles), des juridictions différentes ne peuvent pas adopter des approches diverses concernant les stratégies des organismes de normalisation en matière de concession de licences sur les droits de propriété intellectuelle sans créer une confusion considérable et nuire au caractère mondialisé du marché de la technologie de l'information »⁷⁷. Les pouvoirs publics doivent tenir compte du caractère international du processus de normalisation lorsqu'ils envisagent des initiatives nationales.

7. Évaluation de la conformité

Une fois que les normes ont été élaborées, comment les consommateurs peuvent-ils s'assurer qu'elles sont observées ? Pour de nombreux produits et services, la réponse est : grâce à une garantie de conformité. Pour fournir une garantie de conformité, deux grandes approches sont possibles : les évaluations de

⁷⁵ Voir Ohana, Hansen, et Shah (2003) ou Lemley (2002) (« en l'absence d'une idée un tant soit peu précise de ce que sont les conditions [FRAND], l'obligation de pratiquer des conditions de concession de licence raisonnables et équitables perd beaucoup de son sens ») Gil Ohana, Marc Hansen et Omar Shah « Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush? » 24 European Competition Law Review 644, 648 (2003).

⁷⁶ Voir par exemple Geradin et Rato (2007).

⁷⁷ Voir Weiser (2008), p. 3.

conformité (souvent réalisées par un organisme d'évaluation indépendant) ou l'autocertification par une déclaration de conformité du fournisseur (DDCF).

Les organismes de certification qui délivrent des certificats de conformité indépendants sont généralement des intervenants privés, mais sont souvent agréés par les pouvoirs publics ou par les organismes de normalisation. « Les procédures d'évaluation de la conformité sont des procédures techniques — telles que des essais, vérifications, inspections ou certifications — qui permettent de confirmer que les produits satisfont aux prescriptions énoncées dans les règlements et les normes » (OMC). Lorsque l'évaluation de la conformité fonctionne, aucune entreprise n'est en mesure de prétendre qu'un produit est conforme à la norme alors que ce n'est pas le cas.

Lorsque les pouvoirs publics exigent que des organismes indépendants d'évaluation de la conformité fournissent des certificats de conformité avant la commercialisation d'un produit ou d'un service dans une zone géographique donnée, les entreprises internationales qui fabriquent le produit encourrent des coûts d'évaluation de la conformité additionnels et en double (pour reproduire les travaux déjà réalisés par un organisme d'évaluation de la conformité), des coûts supplémentaires pour les échantillons de produits initiaux (qui sont fabriqués avant la production en série et peuvent donc coûter très cher) et un manque à gagner pendant la durée de l'évaluation de la conformité en raison de l'impossibilité de saisir les opportunités et de lancer le produit dans le pays concerné. Pour les produits dont la durée de vie est courte, ces retards peuvent être particulièrement onéreux. Enfin, une dernière critique des exigences d'évaluation de la conformité est qu'elles peuvent constituer un moyen illégal de s'approprier une technologie protégée. Les coûts directs et indirects des certificats de conformité peuvent être considérables pour les grosses entreprises aux produits multiples.

Les DDCF donnent aux fabricants la possibilité de déclarer que leur produit est conforme à une norme sans qu'ils soient tenus de produire un certificat officiel d'évaluation de la conformité. Ces procédures sont plus couramment autorisées pour les produits pour lesquels la non-conformité a des conséquences minimales sur le plan de la santé et de la sécurité. Les DDCF réduisent le coût de l'évaluation de la conformité. Il semble fréquent que les pouvoirs publics les refusent, peut-être par crainte que ces déclarations ne soient pas indépendantes et qu'elles puissent être falsifiées. La principale protection des consommateurs contre des DDCF fausses est que les fabricants s'exposent à des poursuites devant les tribunaux en cas de déclarations mensongères.

La question de la meilleure façon de fournir des garanties de la conformité donne lieu à moult débat. Dans un effort d'innovation, l'Europe a adopté depuis 15 ans des DDCF pour de nombreux types de produits et de services. La recherche de l'OCDE semble indiquer que ces mesures ont généralement favorisé l'afflux d'exportations vers l'UE. Exiger des évaluations indépendantes de la conformité, comme on le faisait avant l'adoption des DDCF, pourrait constituer un obstacle à l'entrée, en particulier pour les entreprises basées à l'étranger⁷⁸.

7.1 Structure du marché

Afin de mieux appréhender les questions que l'évaluation de la conformité est susceptible de poser du point de vue du droit de la concurrence, il est important de mieux connaître la façon dont les certificats sont délivrés. Il existe de nombreux organismes d'évaluation de la conformité à travers le monde. Le Forum international de l'accréditation compte plus de 5 000 membres et l'OCDE a recensé plus de

⁷⁸ Voir Document de travail de l'OCDE sur la politique commerciale, n° 78, consultable à : <http://www.oecd.org/dataoecd/57/3/41481368.pdf>

10 000 organismes réalisant des évaluations de la conformité⁷⁹. Bien qu'ils soient nombreux, ces organismes peuvent parfois exercer une influence sur le marché du fait de la réglementation publique ou de l'autoréglementation. Pour une norme donnée, il n'existe souvent dans une juridiction donnée qu'un seul organisme habilité à délivrer des garanties de conformité par les pouvoirs publics ou par l'organisme de normalisation compétent. Ces organismes peuvent être en mesure d'influer significativement sur le prix et les modalités de l'évaluation de la conformité. Il y a peu de raisons de limiter le nombre des évaluateurs de la conformité à une norme à condition que les laboratoires aient démontré leur capacité à tester et évaluer les biens et les services, à conserver la maîtrise de la certification des produits (même lorsque certains tests sont confiés à des sous-traitants), à prendre des décisions de façon indépendante et à produire des conclusions raisonnables et documentées. Certains pays sont prêts à agréer de multiples organismes d'évaluation de la conformité, y compris ceux d'origine étrangère⁸⁰. Dans la mesure où des restrictions excessives déterminent quels sont les organismes autorisés à évaluer la conformité, il convient de se pencher sur ces restrictions.

7.2 *L'accord OTC*

Les inquiétudes que soulève l'évaluation de la conformité du point de vue du droit de la concurrence ne sont pas seulement hypothétiques. Selon l'OMC, « des procédures d'évaluation de la conformité non transparentes ou discriminatoires peuvent devenir des mécanismes protectionnistes efficaces ». L'évaluation de la conformité est couverte par l'Accord sur les obstacles techniques au commerce (OTC). L'accord OTC vise à promouvoir l'objectif d' « un produit, un essai, acceptés partout » (OCDE, WP37). Un obstacle non nécessaire au commerce peut résulter de l'application de procédures plus strictes ou plus longues qu'il n'est nécessaire pour vérifier qu'un produit satisfait aux lois et réglementations intérieures du pays importateur. Par exemple, les demandes de renseignements ne devraient pas excéder ce qui est nécessaire et l'emplacement des installations utilisées pour les procédures d'évaluation de la conformité et le prélèvement des échantillons ne devrait pas être de nature à constituer une gêne non nécessaire pour les agents (articles 5.2.3 et 5.2.6). Voir http://www.wto.org/french/tratop_f/tbt_f/tbt_info_f.htm.

Conformément à l'accord OTC, « les procédures d'évaluation de la conformité doivent être appliquées aux produits importés d'autres Membres de l'OMC "à des conditions non moins favorables que celles qui sont accordées aux produits similaires d'origine nationale ou aux produits similaires originaires de tout autre pays" (article 5.1.1). Cela signifie que les produits importés doivent être traités sur un pied d'égalité pour ce qui est des éventuelles redevances perçues aux fins de l'évaluation de leur conformité aux règlements. De même, les Membres doivent respecter le caractère confidentiel des renseignements pouvant résulter des procédures d'évaluation de la conformité concernant des produits importés, de la même manière que s'il s'agissait de produits d'origine nationale, afin de protéger les intérêts commerciaux » (articles 5.2.4 et 5.2.5). Voir http://www.wto.org/french/tratop_f/tbt_f/tbt_info_f.htm.

La duplication des tests représente un coût socialement inutile sans avantage social démontré. « (L)e fait d'avoir à démontrer que l'on s'est conformé aux règlements techniques peut constituer une entrave au commerce international. En particulier, si des produits doivent être exportés vers des marchés multiples, des essais multiples pourront être nécessaires. Les fabricants pourront avoir des difficultés à obtenir que leurs produits soient agréés sur les marchés étrangers, par exemple parce que les experts chargés des essais ne seront pas d'accord sur les procédures d'essai optimales, ou encore en raison de lourdeurs

⁷⁹ Voir Document de travail n°37 de l'OCDE sur la politique commerciale, consultable à : [http://www.oecd.org/olis/2006doc.nsf/LinkTo/NT00003B06/\\$FILE/JT03212596.PDF](http://www.oecd.org/olis/2006doc.nsf/LinkTo/NT00003B06/$FILE/JT03212596.PDF)

⁸⁰ À titre d'exemple d'agrément de plusieurs laboratoires et de laboratoires étrangers, on peut citer l'agrément par l'Occupational Safety and Health Administration (OSHA) aux États-Unis de Nationally Recognized Testing Laboratories (NRTL). Il existe plus d'une dizaine de ces NRTL, dont deux au moins sont basés à l'étranger (un au Canada et l'autre en Allemagne).

bureaucratiques, voire de la manipulation des procédures d'essai par des groupes protectionnistes. Quoi qu'il en soit, cette diversité des procédures et des méthodes alourdit très sensiblement les coûts supportés par les producteurs qui vendent sur des marchés multiples. »

7.3 *Harmonisation de l'évaluation de la conformité*

L'un des avantages de l'harmonisation des normes est que le coût de l'évaluation de la conformité est moins élevé lorsque les normes sont harmonisées. À titre d'illustration :

Les produits de construction ne peuvent être mis sur le marché que s'ils sont conformes à la directive du Conseil européen sur les produits de construction (c'est-à-dire, en application des normes européennes harmonisées), par l'obtention, par exemple, d'un « agrément technique européen » (ATE). Toutefois, les ATE ne sont délivrés que pour un produit et un fabricant à la fois, ce qui implique des coûts supplémentaires de l'ordre de 5 000 DM à 30 000 DM (lorsqu'une norme harmonisée existe) et de 10 000 DM à 70 000 DM (en l'absence d'harmonisation). Il est par conséquent évident que les fabricants de produits de construction pour lesquels il n'existe pas de norme harmonisée encourent des coûts nettement supérieurs avant l'agrément (DIN (2000), p. 32).

L'harmonisation de l'évaluation de la conformité permettra de franchir une nouvelle étape dans l'abaissement des coûts liés à l'évaluation de la conformité, par l'élimination des coûts qui font doublon, en garantissant, par exemple, la reconnaissance mutuelle des évaluations de conformité entre différents organismes de certification. Les accords de reconnaissance mutuelle (ARM) des rapports de test et des certifications pourraient constituer une solution pour supprimer les coûts des tests dupliqués et les limitations à la concurrence intérieure dans le domaine de l'évaluation de la concurrence. Toutefois, les progrès dans la reconnaissance mutuelle sont lents. Cette lenteur s'explique notamment par l'acceptation limitée du principe des ARM par les pouvoirs publics, par la perspective d'un manque à gagner pour les organismes de certification qui ne les incite pas à accepter un ARM complet et par le développement de nouveaux types de demandes de certification, émanant de sources non traditionnelles.

L'article 6.3 de l'Accord OTC encourage vivement les Membres de l'OMC à engager des négociations avec les autres Membres en vue de la reconnaissance mutuelle des résultats de leurs procédures d'évaluation de la conformité. Le bon fonctionnement d'un accord de reconnaissance mutuelle est, de fait, conditionné par l'existence d'une très grande confiance dans les organismes d'essai et de certification. C'est pourquoi l'article 6.1 de l'Accord OTC reconnaît que des consultations préalables pourront être nécessaires pour arriver à un accord mutuellement satisfaisant sur la compétence des organismes d'évaluation de la conformité. Il souligne aussi que le respect, par les organismes d'évaluation de la conformité, des lignes directrices ou recommandations pertinentes émanant d'organismes internationaux à activité normative, peut être considéré comme une indication de l'adéquation de la compétence technique.

Les pouvoirs publics sont souvent réticents à promouvoir la reconnaissance mutuelle. Ils peuvent craindre de perdre la maîtrise des normes de sécurité et de voir leurs organismes de certification nationaux désavantagés par rapport à leurs homologues étrangers et susceptibles de subir un manque à gagner en cas de reconnaissance mutuelle. Même lorsque les organismes techniques signent des accords de reconnaissance mutuelle, les pouvoirs publics peuvent ne pas leur apporter leur soutien. Mentionnons l'accord de l'International Laboratory Accreditation Cooperation (ILAC), qui a été signé il y a quelques années en présence de dignitaires de certains des grands pays participants tels que l'Union européenne et les États-Unis ; cependant, lorsqu'on leur a demandé si leur gouvernement allait reconnaître, à des fins de certification, un rapport d'essais émis dans un autre pays en vertu de l'accord de l'ILAC, certains pays ont

répondu que la reconnaissance serait accordée uniquement si les organismes d'évaluation de la conformité respectaient les procédures réglementaires^{81,82}.

Les organismes de certification verraient leur marché global se réduire, du fait des ARM, car un seul organisme réaliserait les tests d'évaluation, qui sont aujourd'hui répétés dans de multiples juridictions. L'application d'un ARM aurait en outre pour effet de renforcer la concurrence tarifaire entre organismes de certification, les entreprises étant à même de privilégier celui qui leur offrira les meilleures conditions.

On note une demande croissante du secteur privé, de la grande distribution par exemple, à exiger la certification de produits de diverses catégories. Les ARM créeraient par conséquent un nouvel obstacle, car pour pouvoir être référencé chez un distributeur, le fabricant d'un produit devrait non seulement solliciter l'appui des pouvoirs publics en faveur d'un ARM, mais aussi celui du distributeur.

L'absence d'harmonisation et de reconnaissance mutuelle de l'évaluation de la conformité ou la non-reconnaissance des autocertifications peuvent entraîner une duplication des coûts de l'évaluation de la conformité, augmenter les autres coûts, ralentir parfois l'arrivée d'entreprises étrangères et, en cas d'appropriation des renseignements glanés dans le cadre de l'évaluation de la conformité réalisée au niveau national, être l'occasion d'acquérir des informations protégées qui appartiennent aux entreprises. Les restrictions à la délivrance de certifications au niveau national peuvent se traduire par des prix plus élevés qu'en cas de concurrence active.

8. Conclusion

En conclusion, le présent document fournit quelques pistes pour aborder certaines questions complexes de politique de la concurrence dans le domaine de la normalisation. S'ils interviennent, les pouvoirs publics devront garder à l'esprit que les normes peuvent acquérir un statut international, de droit ou de fait, en particulier dans les hautes technologies. Il pourra par conséquent arriver que l'application de la politique de la concurrence dans une juridiction ait des implications extraterritoriales. Il est par conséquent crucial d'éviter que des règles contradictoires ne soient élaborées dans différentes parties du monde.

Il se dégage de l'analyse des pratiques et politiques étudiées dans ce document un certain nombre de constatations.

- Le processus de normalisation est extraordinairement complexe, compte tenu de la grande variété des normes.
- Il pourra être très avantageux d'autoriser les entreprises à débattre entre elles des normes avec ou sans le concours des instances publiques. À titre d'exemple, les normes facilitent l'intégration de propriétés intellectuelles complémentaires dont les droits sont détenus par des personnes distinctes. Les pouvoirs publics doivent partir de l'hypothèse, réfutable, selon laquelle la normalisation est une activité légitime qui produit des avantages économiques certains.

⁸¹ Par exemple, l'Union européenne exige que ses organismes d'évaluation de la conformité sous-traitent directement avec leurs homologues étrangers (hors Union) lorsqu'ils désirent utiliser leurs rapports d'essais à des fins de certification. Évidemment, cette prescription ne s'applique pas aux échanges entre les États membres de l'Union, et les certificats des pays d'origine sont normalement reconnus.

⁸² Voir le document de travail n°37 de l'OCDE sur la politique commerciale, consultable à l'adresse suivante : [http://www.oilis.oecd.org/oilis/2006doc.nsf/LinkTo/NT00003B06/\\$FILE/JT03212596.PDF](http://www.oilis.oecd.org/oilis/2006doc.nsf/LinkTo/NT00003B06/$FILE/JT03212596.PDF).

- Les processus de normalisation impliquent des risques bien connus de collusion ou de restrictions de la concurrence. Parmi les exemples les plus caractéristiques, on peut citer la fixation des prix et le partage des marchés entre concurrents.
- Un type de pratique plus récente concerne l'« embuscade » de normes par une entreprise qui dissimule qu'elle a breveté des éléments pertinents jusqu'à l'adoption de la norme, puis se pourvoit en justice pour atteinte à ses droits de propriété intellectuelle. La dissimulation de droits de brevet est une activité sans retombée bénéfique pour la collectivité. Les autorités de la concurrence la combattent parfois en autorisant et en encourageant les organismes de normalisation à prendre certaines mesures en amont, comme les règles de transparence et la négociation de licences. Elles peuvent également adopter des mesures coercitives contre les auteurs de la dissimulation.
- Les mesures prises pour atténuer les effets potentiellement nuisibles de la normalisation peuvent avoir des conséquences inopinées.
- Les évaluations de conformité soulèvent des questions de politique de la concurrence importantes et très rarement prises en compte. Si les politiques d'évaluation de la conformité visent à garantir la conformité des produits aux normes, elles doivent cependant faire l'objet d'un examen attentif, en particulier lorsque les pouvoirs publics imposent une double évaluation, qui fait pratiquement doublon, ou lorsque les instances publiques ou les organismes de normalisation érigent des barrières à l'entrée susceptibles de limiter le nombre d'organismes habilités à réaliser les évaluations de conformité à une norme donnée, induisant des tarifs de certification élevés.
- Les pouvoirs publics pourront avec profit :
 - agir avec prudence lorsqu'ils envisagent d'encadrer strictement les processus de normalisation, en tenant compte du contexte international de nombreuses normes,
 - évaluer toute décision d'intervenir dans des litiges spécifiques touchant à la normalisation,
 - et énoncer à l'avance tous principes généraux pour identifier et sanctionner les pratiques illégales, sachant que la recherche des meilleures normes techniques est une activité souvent favorisée par un travail commun entre concurrents potentiels.

BIBLIOGRAPHIE

- ABA Section of Antitrust Law (2004) « Handbook on the Antitrust Aspects of Standard Setting. » American Bar Association: Chicago.
- Anton, James J., Dennis A. Yao (1995), « Standard-Setting Consortia, Antitrust, and High-Technology Industries », *Antitrust Law Journal*, vol. 64, n° 1, pp. 247-265.
- Arrow, Kenneth J. (1963) « Uncertainty and the Welfare Economics of Medical Care », *American Economic Review*, 53, pp. 941-973.
- Balto, David A. (1999), « Networks and Exclusivity: Antitrust Analysis to Promote Network Competition », *George Mason Law Review*, vol. 7, pp. 523-576.
- Besen, Stanley M., Joseph Farrell (1994), « Choosing How to Compete: Strategies and Tactics in Standardization », *Journal of Economic Perspectives*, vol. 8, n° 2, pp. 117-131.
- Besen, Stanley M., Leland Johnson (1986), Compatibility Standards, Competition and Innovation in the Broadcasting Industry. RAND Report. Disponible à l'adresse : <http://www.rand.org/pubs/reports/2007/R3453.pdf>.
- Brunnermeier, Smita B. et Sheila A. Martin, (1999) « Planning Report: Interoperability Cost Analysis of the U.S. Automotive Supply Chain », National Institute of Standards and Technology ES-5 (mars).
- Carlton, Dennis et Klammer (1983) « The Need for Coordination among Firms, with Special Reference to Network Industries », *The University of Chicago Law Review*, vol. 50, pp. 446-465.
- Carrier, Michael A. (2003), « *Why Antitrust Should Defer to the Intellectual Property Rules of Standard-Setting Organizations: A Commentary on Teece & Sherry* », *Minnesota Law Review*, vol. 87, pp. 2019-2037.
- Church, Jeffrey, Neil Gandal (1992), « Network Effects, Software Provision and Standardization », *Journal of Industrial Economics*, vol. 40, pp. 85-104.
- Church, Jeffrey, Neil Gandal (1993), « Equilibrium Foreclosure and Complementary Products », Tel Aviv Sackler Institute of Economic Studies.
- Church, Jeffrey, Neil Gandal (1996), « Strategic Entry Deterrence: Complementary Products as Installed Base », *European Journal of Political Economy*, vol. 12, pp. 331-354.
- de Palma, A., L. Leruth (1996), « Variable Willingness to Pay for Network Externalities with Strategic Standardization Decisions », *European Journal of Political Economy*, vol. 12, pp. 235-251.
- DIN (2000) *Economic Benefits of Standardization*. Disponible à l'adresse : <http://www.sis.se/upload/632248898159687500.pdf>.

- Economides, N. (1996), « Network Externalities, Complementarities, and Invitations to Enter », *European Journal of Political Economy*, vol. 12, pp. 211-233.
- Economides, N., S.C. Salop (1992), « Competition and integration among complements, and network market structure », *Journal of Industrial Economics*, vol. 40, pp. 105-123.
- Economides, N., L.J. White (1994), « Networks and compatibility: implications for antitrust », *European Economic Review*, vol. 38, pp. 651-662.
- Farrell, Joseph, John Hayes, Carl Shapiro, Theresa Sullivan (2007) « Standard Setting, Patents, and Hold-up », *Antitrust Law Journal*, vol. 74, n° 3, pp. 603-670.
- Farrell, Joseph, Michael Katz (1998), « The Effects of Antitrust and Intellectual Property Law on Compatibility and Innovation », *The Antitrust Bulletin*, vol. 43, pp. 609-650.
- Farrell, Joseph, H.K. Monroe et G. Saloner (1998), « The Vertical Organization of Industry: Systems Competition versus Component Competition », *Journal of Economics & Management Strategy*, vol. 7, n° 2, pp. 143-182.
- Farrell, Joseph, G. Saloner (1985), « Standardization, Compatibility, and Innovation », *RAND Journal of Economics*, vol. 16, n° 1, pp. 70-83.
- Farrell, Joseph, G. Saloner (1986), « Installed Base and Compatibility: Innovation, Product Preannouncements, and Predation », *The American Economic Review*, vol. 76, n° 5, pp. 940-955.
- Farrell, Joseph, G. Saloner (1988), « Coordination through committees and markets », *RAND Journal of Economics*, vol. 19, n° 2, pp. 235-252.
- Farrell, Joseph, G. Saloner (1992), « Converters, Compatibility, and Control of Interfaces », *Journal of Industrial Economics*, vol. 40, n° 1, pp. 9-35.
- Farrell, Joseph, Carl Shapiro, (1992) « Standard Setting in High Definition Television », dans Richard R. Nelson and Roger G. Noll *Brookings Papers on Economic Activity. Microeconomics*, pp. 1-93.
- Farrell, Joseph, Tim Simcoe (2007), « Choosing the Rules for Formal Standardization », document de travail, Université de Californie et Université de Toronto, www.rotman.utoronto.ca/timothy.simcoe/papers/formal.pdf.
- Farrell, Joseph, P.J. Weiser (2003), Modularity, Vertical Integration, and Open Access Policies: Towards a Convergence of Antitrust and Regulation in the Internet Age, *Harvard Journal of Law and Technology*, vol. 17, n° 1, pp. 85-134.
- Federal Trade Commission (2003), *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, a Report, <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>.
- Gandal, Neil, David Salant, Leonard Waverman (2003) « Standards in wireless telephone networks », *Telecommunications Policy*, volume 27, numéros 5-6, juin-juillet 2003, pp. 325-332.
- Gilbert, Richard J. (1992), « Symposium on Compatibility: Incentives and Market Structure », *Journal of Industrial Economics*, vol. 40, n° 1, pp. 1-8.

- Girardin, Damien, Miguel Rato (2007) « Can Standard-Setting Lead To Exploitative Abuse? A Dissonant View On Patent Hold-Up, Royalty Stacking And The Meaning Of FRAND », *European Competition journal*, vol. 3, n° 1, pp. 101-161.
- Holler, M.J., J.-F. Thisse (1996), *The Economics of Standardization: Introduction and Overview*, *European Journal of Political Economy*, vol. 12, pp. 177-182.
- Katz, M. L., C. Shapiro (1985), « Network externalities, competition, and compatibility », *The American Economic Review*, vol. 75, n° 3, pp. 424-440.
- Katz, M.L., C. Shapiro (1986a), « Product Compatibility Choice in a Market with Technological Progress », *Oxford Economic Papers, New Series*, vol. 38, pp. 146-165.
- Katz, M.L., C. Shapiro (1986b), « Technology Adoption in the Presence of Network Externalities », *Journal of Political Economy*, vol. 94, n° 4, pp. 822-841.
- Katz, M.L., C. Shapiro (1992), « Product Introduction with Network Externalities », *Journal of Industrial Economics*, vol. 40, n° 1, pp. 55-83.
- Katz, M.L., C. Shapiro (1994), « Systems Competition and Network Effects », *Journal of Economic Perspectives*, vol. 8, n° 2, pp. 93-115.
- Katz, M.L., C. Shapiro (1998), « Antitrust in software markets », dans Jeffrey A. Eisenach & Thomas M. Lenard (dir. pub.) (1999), *Competition, Innovation and the Microsoft Monopoly: Antitrust in the Digital Marketplace*, Boston, Dordrecht, & London, Kluwer Academic, pp. 29-81.
- Klein, Joel I. (1997), « Cross-Licensing and Antitrust Law », Department of Justice, Antitrust Division, www.usdoj.gov/atr/public/speeches/1123.htm.
- Klein, Joel I. (1998), « The Importance of Antitrust Enforcement in the New Economy », discours devant la New York State Bar Association, Antitrust Law Section Program, www.justice.gov/atr/public/speeches/1338.htm.
- Lee, Nari (2004), « Standardization and Patent Law - Is Standardization a Concern for Patent Law? » <http://ssrn.com/abstract=610901>.
- Lemley, Mark A. (1996), « Antitrust and the Internet Standardization Problem », *Connecticut Law Review*, vol. 28, pp. 1041-1094.
- Lemley, Mark. A. (1998), « The Law and Economics of Internet Norms », *Chicago-Kent Law Review*, vol. 73, pp. 1257-1294.
- Lemley, Mark A. (1999), « Standardizing Government Standard-Setting Policy for Electronic Commerce », *Berkeley Technology Law Journal*, vol. 14, pp. 745-758.
- Lemley, Mark A. (2002), « Intellectual Property Rights and Standard-Setting Organizations », *California Law Review*, vol. 90, pp. 1889-1981.
- Lemley, Mark A., David McGowan (1998), « Legal Implications of Network Economic Effects », *California Law Review*, vol. 86, pp. 479-611.

- Lessig, Lawrence (1999), « The Limits in Open Code: Regulatory Standards and the Future of the Net », *Berkeley Technology Law Journal*, vol. 14, pp. 759-769.
- Link, Albert N. « Market Structure and Voluntary Product Standards », *Journal of Applied Economics*, vol. 15, n° 3, pp. 393-401.
- Masoudi, Gerald (2007) « Efficiency in Analysis of Antitrust, Standard Setting, and Intellectual Property », Deputy Assistant Attorney General, USDOJ, Speech at Tilburg University Workshop on Standardisation, IP Licensing, and Antitrust (18 janvier).
- Matutes, C., P. Régibeau (1992), « Compatibility and Tie-Ins in a Duopoly Model », *Journal of Industrial Economics*, vol. 40, pp. 37-54.
- Matutes, C., P. Régibeau (1996), « A Selective Review of the Economics of Standardization: Entry Deterrence, Technological Progress and International Competition », *European Journal of Political Economy*, vol. 12, pp. 183-209.
- McKenzie, Melonie L. (2002), « How should competing software programs marry? The antitrust ramifications of private standard-setting consortia in the software industry », *Syracuse Law Review*, vol. 52, pp. 139-158.
- Ohana, Gil, Marc Hansen & Omar Shah (2003) « Disclosure and Negotiation of Licensing Terms Prior to Adoption of Industry Standards: Preventing Another Patent Ambush? », *European Competition Law Review*.
- Patterson, Mark R. (2003), « Antitrust and the Costs of Standard-Setting: A Commentary on Teece and Sherry », *Minnesota Law Review*, vol. 87, pp. 1995-2017.
- Posner, Richard A. (2001), « Antitrust in the New Economy », *Antitrust Law Journal*, vol. 68, pp. 925-943.
- Rohlfs, Jeffrey (1974), « A Theory of Interdependent Demand for a Communications Service », *The Bell Journal of Economics and Management Science*, vol. 5, n° 1, pp. 16-37.
- Salop, Steven C., David Scheffman, « Raising rivals' costs », *American Economic Review*, vol. 73, n° 2, pp. 267-271.
- Sidak, J. Gregory (2009) « Patent Holdup and Oligopsonistic Collusion in Standard-Setting Organizations », *Journal of Competition Law and Economics*, vol. 5, n° 1, pp. 123-188.
- Shapiro, Carl (1996), « Antitrust in Network Industries », discours devant l'American Law Institute and American Bar Association Conference, « Antitrust/Intellectual Property Claims in High Technology Markets », 25 janvier 1996, www.justice.gov/atr/public/speeches/0593.pdf.
- Shapiro, Carl (2001), « Navigating the Patent Thicket: Cross Licenses, Patent Pools, and Standard-Setting », *Innovation Policy and the Economy*, vol. 1, pp. 119-150, www.haas.berkeley.edu/~shapiro/thicket.pdf.
- Shapiro, Carl (2000), « Setting Compatibility Standards: Cooperation or Collusion? » dans Rochelle Dreyfuss, Diane Zimmerman and Harry First, dir. pub., *Expanding the Boundaries of Intellectual Property*, Oxford University Press, Oxford.

- Shepard, Lawrence (1986), « Cartelization of the California-Arizona Orange Industry, 1934-1981 », *Journal of Law and Economics*, vol. 29, n° 1, pp. 83-123.
- Tan, Zixiang Alex (2001) « Comparison of Wireless Standards-Setting: U.S. vs. Europe. » conférence TPRC, disponible à l'adresse : <http://arxiv.org/abs/cs.CY/0109100>.
- Taffet, Richard S. (2002), « Patented Technology and Standard Setting: A Standards Development Organization View », document présenté lors de la 50^e réunion annuelle de printemps de l'ABA Antitrust Section à Washington D.C. le 25 avril 2002.
- Teece, David J., Edward F. Sherry (2003), « Standards Setting and Antitrust », *Minnesota Law Review*, vol. 87, pp. 1913-1994.
- U.S. Department of Justice and the Federal Trade Commission (2007), *Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition*, <http://www.justice.gov/atr/public/hearings/ip/222655.pdf>.
- Varian, Hal, Robert Litan, Andrew Elder, Jay Shutter (2002) « The Net Impact Study ». http://www.netimpactstudy.com/NetImpact_Study_Report.pdf
- Weiser, Philip J. (2001), « Internet Governance, Standard Setting, and Self-Regulation », *Northern Kentucky Law Review*, vol. 28, pp. 822-846.
- Weiser, Philip J. (2008) « Making the World Safe for Standard Setting », dans Michelle Bertho, Beverly Crawford and Edward Fogerty, dir. pub., *The Impact of Globalization on the United States*, Greenwood Publishing. Disponible à l'adresse : http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1003432.
- Weiser, Philip J. (2009) « Regulating Interoperability: Lessons from AT&T, Microsoft, and Beyond », *Antitrust Law Journal*. Antitrust Law Journal, volume 49. Disponible sur SSRN : <http://ssrn.com/abstract=1344828>.

AUSTRALIA

1. Introduction

This submission focuses on the role of standards setting, the many objectives that standards setting seeks to achieve, and the consequent impacts on competition. The submission notes that while standards can be pro-competitive or anticompetitive, concerns regarding the anticompetitive effects must be considered within the context of the other objectives that standards may be designed to achieve, and the costs and benefits weighed accordingly. A number of examples from Australia's experience are provided to illustrate this point. The submission concludes by considering some of the institutional frameworks involved in standards setting in Australia.

2. Example: phone number portability

Following the release of a discussion paper by the Australian Competition and Consumer Commission (ACCC) in 1999, the Australian Government made regulations in 2001 under the *Telecommunications Act 1997* to set an industry standard to increase mobile phone number portability. It was the third implementation of number portability in Australia. Local number phone number portability came into full effect at the start of 2000, and portability for specialist phone numbers was introduced in November 2000.

Phone number portability ensures that telephone customers can retain their existing phone number(s) when changing their carriage service provider. Previously, consumers found switching carriers while maintaining their phone numbers extremely difficult, which therefore reduced the attractiveness of switching, to the advantage of incumbent carriers. Phone number portability allows consumers to choose between competing carriage service providers based on price, quality, type of service and (for mobile phone users) coverage without the inconvenience and expense of having to take a new number when moving between providers. Phone number portability also eliminates the need for callers to contact directory services to find someone's new number or for people to miss calls as callers continue to dial the old number.

Thus, the setting of standards by the Australian Government in respect of phone number portability has reduced barriers to entry to the telecommunications market, making it easier for new entrants to attract customers from incumbent providers.

However, as noted above standards setting can be prone to anticompetitive behaviour, particularly in the absence of government coordination, because standards are often set by groups that include actual and potential competitors. Standards can exclude certain technologies and alter incentives to invest in new intellectual property or product development. Standards setting processes may also provide firms with the ability to alter market conditions to their advantage by 'hijacking' those processes by, for example, erecting artificial barriers to entry. The mere meeting of actual and potential competitors to discuss the setting of standards may represent its own risks.

While standards setting may in some cases be vulnerable to exploitation by those with the ability and incentive to use the process for anticompetitive purposes, at other times standards setting may unintentionally result in anticompetitive consequences. Just like any well intentioned regulation, the

formulation of rules to achieve social outcomes or other welfare objectives may have the perverse result that markets are altered in ways that restrict competition – an outcome that may not have been obvious to, or taken into account by, the decision makers at the time.

3. Example: food standards

In Australia, the two key agencies that regulate food are Food Standards Australia and New Zealand (FSANZ) and the ACCC.

FSANZ is the regulatory authority that develops and reviews food standards, including labelling requirements, for food sold or prepared for sale in Australia and New Zealand, and food imported into Australia and New Zealand. FSANZ is responsible for developing and administering the Australia New Zealand Food Standards Code (the Code), a collection of individual food standards. However, FSANZ does not enforce the Code.

In 2004, the ACCC and FSANZ signed a memorandum of understanding to facilitate cooperation and coordination between the two agencies, in relation to areas of overlap between the Australia New Zealand Food Standards Code and the *Trade Practices Act 1974* (TPA), particularly in the area of false and misleading labelling.

The *Food Standards Australia New Zealand Act 1991* (FSANZ Act) outlines FSANZ's objectives (in descending priority) as being the:

- protection of public health and safety;
- provision of adequate information about food to enable consumers to make informed choices; and
- prevention of misleading and deceptive conduct.

The food standards in the Code are given legal effect by state, territory and New Zealand legislation. In Australia, state and territory health departments are responsible for enforcing and interpreting the Code. The Code's requirements must also be read in conjunction with the relevant local food legislation and the TPA.

The ACCC is the independent statutory authority that enforces the prohibitions contained within the TPA. As noted in the ACCC's Memorandum of Understanding with FSANZ, the ACCC's key role in relation to food standards and food labelling relates to the enforcement of the TPA's provisions relating to misleading and deceptive conduct (Part IV of the TPA).

However, the ACCC's role in relation to Australia's food standards does not extend to advice on whether Australian and New Zealand food labelling standards may reduce competition in particular markets.

3.1 *Interaction between standards setting and competition policy in food labelling*

An Australian food retailer recently reported that compliance with Australian food labelling requirements (in this case relating to peanut butter, a spread) cost 50 cents per jar due to the need to re-label all jars imported into Australia. The retailer advised that this food labelling requirement had therefore altered the actual and potential threat of import competition to the domestic Australian peanut butter market, increasing prices for consumers as a result.

While food labelling may reduce competition in certain circumstances, as highlighted by the example above, these losses to society must be weighed against other dividends from the regulations, namely FSANZ's objectives of: protection of public health and safety; provision of adequate information about food to enable consumers to make informed choices; and the prevention of misleading and deceptive conduct.

However, achieving the appropriate policy balance is often difficult and can be influenced by special interest groups, particularly those with the ability and incentive to manipulate standards setting processes for anticompetitive purposes. Therefore, it is important to ensure that the appropriate institutional arrangements are in place to minimise the risk of regulatory capture, particularly in the case of government-sanctioned standards setting.

In other circumstances, food products imported into Australia may be labelled differently in their home markets under a standard which achieves the same objectives as Australia's. In these circumstances it is important to ensure there is some level of international harmonisation, so as not to unduly restrict competition or trade. Some of these issues are currently being considered by a broad review of food labelling law and policy in Australia.

3.2 *Review of food labelling law and policy in Australia*

The Australia and New Zealand Food Regulation Ministerial Council (the Ministerial Council)¹ has commissioned an independent comprehensive review of food labelling law and policy. On 5 March 2010, the Food Labelling Law and Policy Review Panel (the Review) released an issues consultation paper, which notes the importance of ensuring domestic labelling requirements do not create unnecessary barriers to trade,² and further stated that:

‘The crux of this Review will be to address the tensions between fair and competitive trade in the market, the minimisation of the regulatory burden for business, the securing of government objectives in food labelling and the needs of consumers in order to make informed choices.’³

The final report of the Review is expected to be provided to the Ministerial Council in December 2010.

The peanut butter jar labelling example above and this review process both highlight the need to consider these issues beyond merely a domestic context as these issues often have an international aspect that can influence competitive outcomes at both the domestic and international level. This is recognised by subparagraph 18(2)(b) of the Food Standards Australia and New Zealand Act which provides that one of the factors which FSANZ must have regard to when developing or reviewing food regulatory measures is: ‘the promotion of consistency between domestic and international food standards’.

While harmonisation of standards across borders may not always be possible or desirable, it is important to at least consider these issues in this broader context.

¹ The Australia and New Zealand Food Regulation Ministerial Council is made up of Health Ministers from most Australian States and Territories, the Australian Government and New Zealand as well as other Ministers from related portfolios (such as Consumer Affairs).

² Food Labelling Law and Policy Review, Issues consultation paper, page 1.

³ Ibid page 2.

4. Standards setting and competition in Australia

Key avenues for the government consideration of the competition effects of standards setting in Australia include assessment of the regulatory impacts of government regulations by the Office of Best Practice Regulation (OBPR)⁴ and the involvement of the ACCC in industry ‘codes’ or standards.

The OBPR promotes the Australian Government’s objective of improving the effectiveness and efficiency of regulation through assessment of regulatory impacts, and ensuring best practice regulatory principles are followed in the development of new regulations. The OBPR’s role applies broadly to government policy and includes government-made regulations such as standards setting. The OBPR’s analysis requires that decision makers consider the impact on competition of the regulations they are making, including whether the regulations will change the ability or incentives of businesses to compete, and the impact on consumers.

The ACCC’s role in relation to standards setting has evolved over time and ranges from providing guidance to industry associations involved in developing voluntary standards, to the administration of regulated mandatory industry standards (or ‘codes of conduct’).

In respect of voluntary codes of conduct, the ACCC plays a particularly important role. As noted above and observed by the ACCC in the past, voluntary codes of conduct are more likely to be open to anticompetitive abuse, as it is the competitors who are creating the regulations. The ACCC has assisted the development of 42 voluntary industry standards. The ACCC’s role includes the following:

- providing feedback to industry in the standards development phase;
- providing feedback on TPA issues within the proposed standard;
- granting notification or authorisation⁵ relating to anticompetitive sections of an industry standard where appropriate; and
- participating as an observer on standards administration committees.

The ACCC aims to ensure that the voluntary codes it assists with are pro-competitive by:

- providing publications that alert industry on avoiding anticompetitive implications, such as the ACCC’s ‘Guidelines to developing effective voluntary industry codes of conduct’;
- cautioning industry to be mindful during the development phase of the standard to avoid anticompetitive behaviour during meetings of actual or potential competitors;
- assisting industry with the development of the standard, including encouraging industry to obtain legal advice to ensure the standard does not contain any anticompetitive provisions;
- encouraging industry to include a comment in the standard advising that the standard does not exclude signatories from their obligations under the TPA; and

⁴ The OBPR is an agency within the Australian Government Department of Finance and Deregulation.

⁵ The ACCC may authorise businesses to engage in anticompetitive arrangements or conduct when it is satisfied that the public benefit from the arrangements or conduct outweighs any public detriment. The authorisation provides immunity from legal action under the TPA.

- advising industry to apply to the ACCC for authorisation of anticompetitive elements of the standards where necessary.

There is no requirement for those seeking to establish an industry standard to approach the ACCC. However, where voluntary standards involve a possible breach of the restrictive trade provisions of the TPA, authorisation must be sought from the ACCC for the standard.

In respect of mandatory industry standards, these can be made by regulations (subject to assessment by the OBPR) under Part IVB of the TPA, and are enforced by the ACCC. Section 51AD of the TPA establishes that a corporation must not, in trade or commerce, contravene an applicable industry code.⁶

- A code is an ‘applicable industry code’ when it has been declared by regulations under section 51AE to be either a mandatory or a voluntary industry code.
- A voluntary code is an applicable industry code only for those corporations that have consented to be bound by the voluntary code. The regulations may specify the method by which a corporation agrees to be bound.

Section 51AD makes a breach of an industry code a breach of the TPA. The relevant provisions of Part VI of the TPA allow for civil remedies (such as injunctions and damages) for these breaches, but not penalties. Currently there are four mandatory standards under the TPA: the Franchising Code of Conduct, the Oilcode, the Horticulture Code of Conduct and the Unit Pricing Code of Conduct.

5. Conclusion

Australia does not have a central authority that deals with standards setting policy and issues. However, there are a range of minimum checks and balances on standards setting to ensure that impacts on competition are either minimised or justified. The OBPR plays a role in ensuring that decision makers consider the impact on competition that new regulations and legislation create, including in relation to mandatory industry standards under the TPA. In addition, all standards are subject to the restrictive trade provisions of the TPA, which applies broadly to the economy, unless they are authorised by the ACCC.

In relation to voluntary standards, where anticompetitive abuse may be most likely, industry participants have a strong incentive to consult with the ACCC on the design of their proposed industry standard. This ensures that if necessary, industry participants can seek authorisation from the ACCC for any anticompetitive provisions in the standard, in order to avoid potential breaches of the restrictive trade provisions of the TPA.

This paper has discussed some of the costs industry standards can have on competition in a market. However, as with any government intervention in markets, there may be unintentional anticompetitive effects and such costs must be weighed against the benefits associated with the other objectives that standards may be designed to achieve.

⁶ The TPA typically refers to ‘industry codes’ as opposed to ‘industry standards’, however the terms can be used interchangeably.

CHILE

A *standard* is a public document prepared and agreed upon by an acknowledged body, which provides rules, criteria or principles for public use in common, frequent activities and/or their results, meant to achieve an optimal order in a given context. In Chile the adoption of standards is voluntary unless a legal provision¹ makes it mandatory; the mandatory ones are known as *technical regulations*.

As in many jurisdictions, *standards* and *technical regulations* have been thoroughly employed in Chile to establish a common array of rules and/or minimum requirements on variables related to the production and supply of assorted goods and services. We shall therefore understand *standard setting* as the process by which such standards and technical definitions are determined. Their connection to competition policy will be relevant in as far as the standard/technical regulation or its enforcement has anti-competitive effects in the corresponding markets.² Sometimes standards point at providing the same information to all players, thus solving markets' information asymmetry. In such cases the standards setting must ascertain whether its potential restrictions (a private and/or social cost) exceed the benefits of imposing them, an assertion that must be built in them from the very start.

This contribution describes the Chilean institutional arrangements for standard settings and technical regulations and their policy purposes –not always noticeable– for a sample of standards. This includes their potential anti-competitive impacts, although the competition impact on markets of many of these standards has not been properly assessed by *Fiscalía Nacional Económica* (FNE³, the competition agency) as part of its regular functions.

1. Chilean institutional arrangement for standard and technical regulations setting

1.1 Technical standards for quality processes

The Chilean institutional arrangement for standard settings is ascribed to the *Instituto Nacional de Normalización* (INN⁴, or National Standards Institute), a private, non-profit entity set up by CORFO (Chilean Economic Development Agency) in 1973,⁵ to endorse the use of metrology and other technical

¹ Be it limited (i.e., "it must comply NCh 720") or general (i.e., "according to Chilean standards on elements security...").

² This is particularly relevant for Chile, given that under our Competition Act (DL 211/1973, amended inter alia by Law 20361/2009), anticompetitive infringements are "...any deed, act or contract that prevents, restrict or obstruct free competition, or that tends to produce these effects [on markets]". Consequently, the analysis of any potential transgression necessarily includes the definition of the relevant market and conditions affecting the entry of potential competitors.

³ The FNE is an independent government competition agency in charge of detecting, investigating and prosecuting competition law infringements, issuing technical reports and performing competition advocacy. The FNE's website is at www.fne.gob.cl.

⁴ The INN's website is at www.inn.cl

⁵ Supreme Decree No. 678 / July 5th, 1973.

principles (NCh) in productive processes in a number of economic sectors.⁶ Its main lines draw up their disclosure and approval criteria, the coordination of the National Metrology Network and training in specific rules and quality management systems. The goal of the NCh is to strengthen national quality components, enhancing their competitiveness in domestic and in foreign markets alike.⁷

The local procedure for standards drafting was set out in Chilean Standards NCh 1 of 2004, consistent with internationally criteria (International Organization for Standardization (ISO) and the International Electro technical Commission (IEC)). Following the WTO Secretariat Report on Chile's Trade Policy Review (TPR)⁸ *«The process of preparing a standard is initiated by the INN or at the request of any interested government or private entity. If the necessary financing is available, a technical committee is established to draw up a provisional draft taking into account the relevant international or regional standards. The private sector (producers, importers, traders and consumers), the competent authorities and representatives of academia take part in this committee. Once the standard is drawn up, the draft is put up for public consultation for 60 days on the INN website and its text is made available to any concerned person. The comments received in the course of the public consultation are delivered to the technical committee, which decides whether they are relevant or not. Once there is a consensual text, the technical committee submits it to the INN Council for approval. In some cases... it is sent to the competent ministry for endorsement and publication in the Official Journal ».* Accordingly, a Chilean standard (NCh) is a presentation analyzed by a technical committee and approved by the INN Council, while an *Official Chilean standard* (NCh Of) is an NCh approved upon order or resolution, by a Ministry.

According to the INN, as of December 2009 there were more than 3,000 NCh in operation.

1.2 Technical regulations

These are issued by sectoral regulators, that is, government entities regulating their respective areas of competence, *inter alia*, the Ministries of Economy, Health, Agriculture, Transport and Telecommunications, Housing and Urban Planning, and the SEC (Supervisory Authority for Electricity and Fuel). These technical regulations involve laws, decrees or resolutions; for instance, the *Handbook of Technical Standards for Signs, Traffic Control and Regulation on roads where works are being carried out*, approved by Resolution No. 1826, Ministry of Public Works, 1983; or the *Technical Standard No. 57, for clinical tests of pharmaceutical drugs in human beings*, approved by Resolution No. 952, Ministry of Health, 2001.

Despite there being no catalogue or inventory of all technical regulations currently in force –so as to know their quantity–, a Website⁹ records the competition criteria of regulatory agencies in their respective subjects when and if these criteria affect tradable goods. According to the authorities, many of these technical regulations follow international benchmarks. Technical (mandatory) regulations compelling locally traded goods only –that may or may not be uploaded to said website– are presumed known to those

⁶ Such as: Risk prevention, health and quality of life; Energy; Construction; Agriculture and Food; Chemistry; Metallurgy and mining; Electricity; Forest, among others.

⁷ Regarding international trade, in 1995 the INN adopted the Code of Good Practice for the Preparation, Adoption and Application of Standards, annexed to the WTO – Agreement on Technical Barriers to Trade (TBT).

⁸ WTO (2009), Secretariat Report on Chile, TPR, October. WT/TPR/S/220, Section 102, page 47, downloadable at http://www.wto.org/english/tratop_e/tp320_e.htm.

⁹ This inventory can be viewed at www.reglamentostecnicos.cl. Sanitary and phytosanitary measures having been left out, they are to be consulted at the corresponding institutions' websites.

whom might be concerned, since they are published in the official gazette and/or in the website of the regulatory agency that issues them.

1.3 *Further arrangements: registers of suppliers and other agents*

These refer to standards or technical regulations that are not properly such, yet have the same connotations standards have. Standards other than NCh or NCh Of directly affecting the number of players in the markets are imposed by different accreditation system of suppliers provided by *register of suppliers of goods and services* currently in force in some public agencies or State-owned enterprises (SOE). Here are some examples:

1.3.1 *Public procurement and contracts*

A wide range of public agencies must quote, tender, contract, award, request delivery and, in general, develop all their procurement and contracting processes for goods, services and works only by means of the technological platforms established by the Public Procurement and Contracting Bureau (*ChileCompra*), as are *MercadoPublico.cl* and *ChileProveedores.cl*.¹⁰ Following this, every individual or legal entity wanting to do business with the government must access the above-mentioned virtual markets and comply with all legal requirements included there.¹¹ This platform is a voluntary, formal, online supplier registry, where eligible bidders freely upload the credentials necessary for trading with the State.¹² By this registering and storing, *ChileProveedores.cl* allows interested parties to verify the suppliers' legal/financial situation and technical qualifications online, in this way diminishing the transactional costs (i.e., complex, time-consuming procedures and paperwork for buyers and sellers alike) associated to government commercial affairs.

1.3.2 *Ministry of Public Works' Registers of Contractors and Consultants*

This Ministry (MOP), has a specialised department for the management and updating of centralised registers, one for contractors –for major and minor public works– and the other for consultants.¹³ By these means that department certifies that registered persons and legal entities fully fulfil the corresponding prerequisites,¹⁴ and qualifies the performance of contractors/consultants holding valid contracts. Because the General Registry for Contractors serves all MOP's directorates and services as well as a number of public entities dealing with infrastructure, it has wide application, significantly affecting the construction industry, mainly the one linked to the government.

¹⁰ Both created as part of the amendments to Chile's public procurement system carried out by ChileCompra, aimed at improving the standards of transparency and efficiency of public tendering processes. More information available at www.chilecompra.cl.

¹¹ Generally speaking these are Accreditation of financial, commercial and legal nature, technical suitability, fulfilment of its workers' social security and health care obligations; no tax debts outstanding, and not having been found guilty of monopoly practices.

¹² This Registry stores information on these online businesses, and offers suppliers accreditation in order to facilitate their participation in future public tendering processes. Public agencies can thus make fast and accurate decisions, while suppliers do not have to deliver paperwork and certificates several times, submitting the same documentation to each procuring entity in each tendering process.

¹³ Review [here](#) for further details.

¹⁴ This is the Regulation for Public Works Contracts, enacted in 2004 by the Supreme Decree No. 75 of the Ministry of Public Works; and the Regulation for the Procurement of Consulting Services, enacted in 1994 by Supreme Decree No.48 of the same ministry.

The MOP's General Registry for Contractors defines different disciplines and categories within each one, according to the economic capacity, experience and professional staff to be met by contractors. Being enrolled in a particular record allows the contractor to execute only works covered by the Register. A contractor cannot be enlisted in more than one category, whether as an individual contractor or as a member of a construction society. Regarding sanctions, the Registry ascertains that if any violation of their obligations occurs, contractors are automatically suspended and disabled from forwarding new offers or integrating other registered companies' teams until the failure has been resolved.

1.3.3 Register of suppliers of goods and services for ENAP

ENAP –the Chilean State-owned oil company- has a contracts and procurements system of its own, where any interested local or foreign supplier can apply for registration. There are two registrations: with or without previous accreditation. The accreditation process is carried out by an entity outside ENAP and its cost, charged to the supplier, may vary according to its character, *i.e.*, whether is a natural or legal person, local or foreign, and to the size of the company. This accreditation process includes the following aspects: legal, financial, tax, technical, work experience, safety and quality management, all of these stated in the “ENAP - Accreditation System of Suppliers of Goods and Services”. ENAP's local and foreign suppliers must be accredited, all except suppliers of minor or specific services, provided they are subject to the surveillance and regulation of authorities such as Superintendences and the like.

1.4 Others: Liberal professions licensing

These are definitions, standards or accreditation systems currently in force, affecting some liberal professions. They are mandatory or imposed by a professional association or society. Same as the above-mentioned standards, these ones affect the number of players in the market and can sometimes mean barriers to the entrance of new professionals. Examples of this are the following:

1.4.1 Structural calculation projects reviewers

Due to the seismic history of the country, the quality of building and construction is of the utmost importance and addressed in several ways. One is the National Registry of Structural Calculation Project Reviewers,¹⁵ assigned to the Ministry of Housing and Urbanism (MINVU), which in turn entrusts it to the private “Construction Institute”.¹⁶ According to this regulation, all individuals or legal entities who act as Reviewers must fulfil all professional¹⁷ and minimum experience requirements made there for the corresponding category, being qualified to act as such only while enrolled in the Registry. Besides, reviewers in different categories can examine and inform different structural calculation projects according to particular requisites.

1.4.2 Professional practice and professional societies

Society of Professional Engineers

This national professional society was created by law,¹⁸ and one of its articles expressly establishes that “Those listed in the Professional Engineers and Technicians Association and with their fees duly paid

¹⁵ Decree No. 134/2002, Housing and Urbanism Ministry.

¹⁶ According to this regulation, the Registry is unique and excludes similar registries in any other public or private institution.

¹⁷ They must be in possession of the professional licence as Architect or Civil Engineer with Civil Work specialization.

¹⁸ Law No. 12,851 / 1958.

are the only ones who may exercise the relevant profession and be appointed to administrative positions of public, semi, municipal or private character...” (Art. 31, which also sets directives for foreign engineers’ practice in Chile). Moreover, higher education is regulated by the Education Law,¹⁹ which defines professional licences as those “granted to a student of a technical institute or university, who has successfully gone through the career program, the contents of which ensure the general and scientific training necessary for a proper job performance” (Art. 35). According to this, no adscription to any professional society should be needed by a licensed engineer to join his profession’s labour market; in practice, though, there are not one, but two yardsticks for the practice of the profession in Chile.

Similar situations are found in the health sector, especially among some medical practitioners and technical medical, where the deficient precision or their boundaries or the lack of normative definition of certain medical specialities²⁰ has resulted in frictions between interest groups -even a competition case law-, as the following sections show:

1.4.3 Physiotherapy accreditation: Competition Court’s Ruling 35/05,²¹ Technical Institute vs. the Physiotherapists Association of Chile

In 2004 an educational Technical Institute started the career of Physiotherapy, immediately receiving the strong oppositions of the Association of Physiotherapists. The Institute then charged the Association with anticompetitive behaviour —attempts of imposing barriers of entry, boycott and exclusion of the would-be graduates and professors. The Association asserted that the offering of the career by a technical institution was at odds with the Public Health Law, the article 12 of which grants university graduates only the right to practice medical professions. The Competition Court, however, ruled out the argument on the grounds that said article had been actually repealed by the Education Law, which regulates higher education and records all professions requiring a university degree, not including Physiotherapy. Here too, therefore, there is not one but two standards enforced for professional practice. In July 2005 the defendant was pronounced guilty, ordered to stop the boycott and fined with the equivalent of US\$ 1,500.00 of that time.

1.4.4 Eye care professions: The Association of Ophthalmologists against the licensing of optometrists

As mentioned before, article 12 of the Public Health Law establishes that only university graduates may practice medical professions. This provision has founded the Association’s position against a bill currently under discussion in Congress, seeking to modify the sanitary code to allow the provision of optometrists’ services in Chile. Opticians, in turn, have complained to the FNE that because of the dominant position conferred by Art. 12 of the Sanitary Code, the Association of Ophthalmologists will create entry barriers to the development of a new market, such as the optometrists’. The FNE declined an investigation on the matter, considering its advocacy in that potential market instead.

1.5 Mandatory standards for information in social markets

1.5.1 Chile’s private pensions system – AFPs

The creation of the AFP system in 1981 entailed a deep cultural change for Chilean workers, who moved from government managed pay-as-you-go regime —where people worried about their retirement only at the end of their working life, to a fully-funded system based on individual accounts managed by

¹⁹ Law No.18,962 / 1990 amended by Law No. 20,370 / 2009.

²⁰ Chilean Public Health Law, article 12.

²¹ See details at www.tdlc.cl/DocumentosMultiples/Sentencia_35-2005.pdf.

private companies. In the new system workers are allowed to choose the AFP they want to affiliate with, to transfer their funds among these, and to have voluntary savings accounts; the government's supervision and regulation of the system is entrusted to the Pensions Superintendence.²²

For years the Superintendence and academic analyst have been devoted to the reduction of managerial and sales costs which lower the return of the funds—in the early 1990s marketing and sales costs, highly related to the expansion of the sale force, exceeded total cost by one third. This was particularly baffling since the affiliation to the system had grown fully mature and so the sales effort could focus only on switching affiliates among AFPs and not on securing new ones. To curb participants' switching ability proved an efficient way of reducing administrative costs, but greatly reduced competition. In addition, the Superintendence made an information standard mandatory whereby AFPs send their members a quarterly report in a standardized format, on their personal account's profitability and commissions paid, in this way making the AFP comparison easier. The overseeing body also regulates the AFPs' advertising, promotion and information disclosure.

1.5.2 Chile's private health insurance providers – ISAPREs

This is a case similar to the one referred to above, also related to a social system and to the regulatory imposition of a common form for information disclosure. ISAPREs are also required to offer their insurance plans according to a standard format designed by their Superintendence in order to facilitate comparisons by the affiliated. This format includes information about common medical services and their coverage by the most acknowledged private medical providers. In spite of that, the Health Superintendence has found it very poor the ability of customers for understanding all that information when making their choices. This stems from the fact that health providers and insurers negotiating different services for assorted medical plans, making it nearly impossible for the ordinary consumers to ascertain final prices for health services—out-of-pocket health payments. This subject has been analysed by the FNE in a joint effort with the Superintendence, so to advocate for competition among private health providers. Both government entities investigated what are the main factors in consumers decision-making regarding affiliation and contracts in the private health market, and concluded that consumers need a scheme for valuing estimated out-of-pocket payments for a great deal of health services by different health providers, which the Superintendence is currently working on.

2. Potential anticompetitive effects of standards and technical regulations

The following table summarises the potential anticompetitive effects of the standards here included:

²²

Additional information at www.safp.cl.

Table 1: Summary of potential anticompetitive effects of the sample of standards considered

Standard	Enforceability	Ground of standard application	Potential effects on competition	Scope of Application
NCh	Voluntary	Technical standards for productive processes	<i>Anticompetitive:</i> Likely increase in costs derived from the standard might delay the entrance of new competitors.	Wide: Any tradable sector can apply NCh on a voluntary basis Markets regulated by rules from Ministries of Economy, Health, Agriculture, Transport, Telecom, Housing and the Authority for Electricity and Fuel
NCh Of	Mandatory	Technical standards for productive processes	<i>Pro competitive:</i> By subjecting domestic markets to international standards, it lowers entry barriers <i>Anticompetitive:</i> Entail entry barriers and/or affect relevant market boundaries in bidding	<i>Public works:</i> Construction sector , consulting services
Registers of suppliers	Mandatory for suppliers wanting to become State's trade partners	Suppliers' experience, and technical and financial situation	<i>Pro competitive:</i> Reduce search and transaction costs <i>Anticompetitive:</i> Entail entry barriers; mainly foreclosing the professional market	Public procurements
Liberal professions licensing	Voluntary	None	<i>Pro competitive:</i> Allow comparison among entities <i>Anticompetitive:</i>	Liberal professional services
Standards regarding "social markets"	Mandatory	Information disclosure Advertisement expenditure	Reduce qualitative differentiation among AFPs by controlling advertisement expenditure,* despite constant commissions	Pension funds, Private health insurance market Pension funds

* Currently the anticompetitive effect is less relevant due to the reform to social security introduced in 2009.

GERMANY

1. Introduction

This contribution to the Roundtable on Standard Setting builds on the contribution by the German delegation submitted to the Roundtable on Competition, Patents and Innovation of June 2009¹. It carries the discussion further by focusing on the standard setting aspects that are in play in the patent law field and their interaction with competition issues.

Both, standards and competition are important factors contributing to a key determinant of economic growth, i.e. innovation. However, the relationship between standard setting and competition law is inherently fraught with potential for conflict: Standard setting requires competitors to collaborate. Standards that set detailed technical specifications for a product or service codify a particular status quo and may actually limit the scope for different, competing routes of technical development and innovation. Standards, therefore, carry the risk of limiting competition.

2. Standard setting in Germany

2.1 General observations

Standardisation agreements have as their primary objective the definition of technical or quality requirements with which current or future products, production processes, services or methods may comply.²

Standardisation, i.e. the elaboration and issuance of specifications which apply to more than one company, is organised not as a sovereign task in Germany, but by the private sector. It is handled, first and foremost, by “formal” national and international standardisation organisations (in Germany e.g. by DIN, the *Deutsches Institut für Normung*, and at international level by for example the ISO, the *International Organization for Standardization*). The standardisation work is based on institutionalised, consensual procedures, i.e. it involves all interested stakeholders in the respective standardisation project.

The DIN is a private sector organisation and is – according to an agreement with the Federal Republic of Germany of 1975³ – responsible for standardisation in Germany. DIN's primary task is to work closely with its stakeholders to develop consensus-based standards that meet market requirements. Experts contribute their skills and experience to the standardization process which takes place in working committees of the DIN. Thematically organised standards committees are the organs of the DIN. Some standards committees are “external committees” and are located not within DIN but with industry associations.

¹ Cf. DAF/COMP(2009)22, p. 101 ff.

² Cf. Commission Notice – Guidelines on the applicability of Art. 81 to horizontal co-operation agreements, OJ C 3 of 06.01.2001, p. 2 ff., mn. 159.

³ Agreement of 05.06.1975 with the Federal Republic of Germany, cf. <http://www.din.de/cmd?menuid=47566&level=tpl-bereich&cmsareaid=47566&languageid=en>.

By agreement with the German Federal Government, DIN is the acknowledged national standards body that represents German interests in European and international standards organizations. Ninety percent of the standards work now carried out by DIN is international in nature. The work of the DIN standards committees mirror the work of the European standardisation institutes CEN (non-electrotechnical standardisation) and CENELEC (electrotechnical standardisation). The third European standardisation organisation ETSI deals with standards in the telecommunication sector. This organisation is special as it is not composed of delegates from national standardisation institutions; its membership is comprised of companies.

A second standardisation body is the DKE German Commission for Electrical, Electronic & Information Technologies of DIN and VDE (VDE Verband der Elektrotechnik Elektronik Informationstechnik e.V., the Association for Electrical, Electronic & Information Technologies). It is a non-profit service organization. DKE is a joint organization of DIN and VDE. VDE is responsible for the daily operations of DKE. DKE is the national organization responsible for the creation and maintenance of standards and safety specifications covering the areas of electrical engineering, electronics and information technology in Germany.

In addition, a number of “informal” standardisation forums and consortia draft sectoral and industry-wide standards. Often, to save time, these bodies have to be set up by groups of companies, especially in sectors with short product cycles, since the formal and consensual standardisation process is regarded as more time-consuming. Such an informal standardisation process may achieve the position of a “de-facto standard”.

The DIN acts as a cooperation partner for some of these established and permanent consortia. It furthermore offers to transfer standards established by the consortia into national, European or international standards.

In order to reduce trade barriers the German standardisation bodies aim to harmonize national and international standards.

According to DIN, a standard does not specify one technical solution, but rather contains requirements that form the framework for many different possible solutions.⁴ Moreover, well-devised standards may contribute to the rapid dissemination of technical knowledge, allowing a quick translation of research results into marketable technical products. Furthermore, European and international standards open up markets for new technologies throughout Europe and the world.

2.2 *Terms of access and certification*

The use of an established standard by a company for its products is entirely voluntary (at least in formal terms), as is participating in the standardisation process as a whole. Any company and other legal entities can become members of the German standardisation organisations.

Innovation and technical progress are regarded as the mainsprings of product and service quality by DIN, but they need to be in accordance with the relevant legislation. They require the effective use of technical standards. Any standards user having a question regarding the technical content of a standard (e.g. delivery conditions, dimensions, test instructions) is therefore free to contact the German standardisation organisations for assistance.

⁴ Cf. DIN-Website at http://www.din.de/cmd?level=tpl-rubrik&languageid=en&cmsrubid=innovation_management.

In some cases proof of compliance with certain standards may be required. In such cases standards users in Germany can make use of the certification services offered by DIN and its subsidiaries. Three associated companies of the DIN deal with certification issues (DIN CERTCO; DQS GmbH; DIN GOST). In these companies DIN holds a majority stake or is jointly engaged with companies of the Technical Inspection Organisation TÜV (*Technischer Überwachungsverein*).

3. Standard setting and competition rules

There is a broad area in which standard setting and competition co-exist without any tensions. However, conflicts may arise, both under the aspects of anti-competitive agreements and of abuse of dominance.

3.1 *Standard setting and the prohibition of agreements restricting competition*

Originally, German competition law offered the possibility to exempt standardisation agreements from the ban on cartels. However, this provision was abolished in 2005, when the German ARC was adapted to the corresponding substantive law of the EU Treaty. Henceforth, co-operation on standardisation is, both under EU and German competition law, measured by the “self-assessment” system to determine whether it violates the ban on anti-competitive agreements (Section 1 of the Act against Restraints of Competition, Art. 101 of the TFEU).

To facilitate interpretation of whether an agreement is exempt from the ban on anti-competitive agreements, criteria have been developed by the European Commission in the horizontal Guidelines.⁵ These criteria correspond to the ones developed in the realm of the WTO’s Technical Barriers to Trade Committee⁶. These criteria are, inter alia, based on the principles of openness, transparency, and non-discrimination. Thus, for example, to materialise the potential gains of standards for competition and innovation, all interested companies must in principle be able to participate in the setting of the standard in a transparent manner, and the necessary information to apply the standard must be effectively available to those wishing to enter the market. In essence, standards should be as open as possible.

The horizontal Guidelines of the European Commission – which give undertakings guidance for the self-assessment – are currently under review.⁷ The current draft version elaborates the situation and possible competition law infringements in more detail and acknowledges the problems which undertakings have faced in the past due to the inherent tension between standard setting and competition law. The draft Guidelines give details of which standard setting rules can be regarded as restricting or distorting competition and which aspects have to be considered by standard setting organisations.

The procedural rules of German standardisation bodies for the process of standardisation and the underlying principles are in line with those of the European and International standardisation bodies.

Furthermore, effective enforcement mechanisms are necessary to ensure compliance with these procedural rules. It is primarily the task of the standardisation organisations to monitor and enforce compliance with the criteria established by them.

⁵ Cf. Commission Notice – Guidelines on the applicability of Art. 81 to horizontal co-operation agreements, OJ C 3 of 06.01.2001, p. 2 ff.

⁶ Cf. WTO Committee on Technical Barriers to Trade - Decisions and Recommendations adopted by the Committee since 1 January 2005, G/TBT/1/Rev.7.

⁷ The draft Horizontal Guidelines have been published for consultation at http://ec.europa.eu/competition/consultations/2010_horizontals/index.html.

Participants in the standardisation process need to be aware of the competition law implications that go along with IPRs and need to ensure that competition law is not infringed.

3.2 *Standard setting and the abuse of a dominant position*

Standard setting may also be in conflict with the competition rules on the abuse of a dominant position. This problem is particularly relevant for proprietary standards. These are standardized technologies which are tied up with IPRs. This is the case for example when a standard is based on a patent-protected technology.

Proprietary standards have a great potential to impede competition. After all, there is a risk that existing IPRs will prevent competitors from having access to the standard. Without a right to use the intellectual property, it is not possible to use the technology in question and it may not be possible to compete. A standard relying on an IPR-protected technology may lead to fencing off a monopoly market – with the result that a key objective of standardisation, i.e. to facilitate market access, would be counteracted.

Nevertheless, or precisely because of this, standardisation procedures are increasingly being confronted with “patent ambushes”, i.e. a situation in which the holder of relevant IPRs participates in the creation of the standard, but does not disclose the existence of these IPRs. The existence of these (potentially) standard-relevant IPRs is thus not publicly known (e.g. because the patent has been registered, but not yet awarded). In the following process the patent holder tries to incorporate the protected technology as part of the standard. After the incorporation of the patent or technology into the standard, the patent holder discloses the existence of the IPRs and tries to obtain extraordinarily high licence fees for use of the patent. The patent holder of one very valuable patent for the standard can thus threaten to obtain an injunction unless the licence fee demands are met. This scenario, which may also occur independently of a preceding patent ambush, is also referred to as “hold-up”.

Depending on the circumstances this behaviour may be regarded as an abuse of a dominant position which is prohibited under German and European Law (Section 19 of the Act against Restraints of Competition, Art. 102 of the TFEU). German courts, however, have so far not given their final judgement on this interpretation.

3.3 *Standard setting body disclosure rules*

In order to counter these dangers, some standardisation organisations have introduced internal procedural rules to balance the needs of standardisation for public use and the interests of the owners of IPRs.

Considering the impact of patent ambushes, it is of crucial importance for relevant IPRs to be identified in time in the course of a standard setting process. All questions concerning the handling of IPRs should be resolved as comprehensively and early as possible, both amongst the parties to the standardisation procedure and in terms of the effect on third parties. This also implies that it might be useful to stipulate subsequent licence fees and conditions prior to the adoption of the standard. Agreement on a basic calculation method for licence fees (and the related maximum rates) and on minimum licence conditions can ensure that the advantages of standardisation are actually disseminated. Competition-related concerns do not stand in the way of such an approach. Rather, this can usually be viewed as a necessary element of the standardisation process, since it prevents subsequent abusive practices which have the potential to undermine the entire success of the standardisation work.

German standardisation bodies have also identified the dangers of patent ambushes. Thus, the DIN has integrated rules on handling IPRs into their internal procedural rules. The stakeholders involved in the

standardisation procedure are generally required to report IPRs in advance. If existing IPRs are identified, the holder has to disclose whether he will be willing to grant a royalty-free licence to these IPRs or to make a pledge to make it possible for the other parties in the standardisation process and for third parties to use the standardisation results, e.g. by obtaining a licence for the IPR at fair, reasonable and non-discriminatory (“FRAND”) conditions.

If the patent holder refuses to grant royalty-free licences or licences under FRAND terms, the standardisation process is suspended. The standard will then be redesigned in order to circumvent the IPRs in question.

3.4 *Relevant case law*

Disputes about standards are usually taken to court within a patent infringement proceeding. Typically, in these cases the patent holder takes to court a potential infringer/ licensee claiming an infringement of the patented standard-essential technology. In general, the defendant in such a case will raise the so-called competition law defence in order to justify his actions. German courts have accepted this defence in patent infringement proceedings. However, the content and the scope of the defence are still unclear and disputed.

In the recent past, complaints by companies against the anti-competitive behaviour of patent holders have increased. However, so far no decisions by the *Bundeskartellamt* or other German competition authorities have emerged from this.

To date, the German competition authorities have not decided on the question of a competition law infringement in the realm of a standardisation process. Furthermore, so far no decision has been taken with regard to a possible abuse of a dominant market position on the grounds of standard-essential IPRs.

Also, to date neither the *Bundeskartellamt* nor the German courts have had to deal with the question of royalty-free standards. This is presumably due to the fact that most proceedings dealing with problems of standard setting and competition law are patent infringement proceedings which ultimately aim at a resolution on a monetary level.

In the last decade German courts have had to deal with different issues of standard setting. All these cases were taken forward as patent infringement proceedings. Patent infringement proceedings are civil law proceedings in Germany.

The following presentation of cases builds upon the presentation made in the Roundtable on Competition, Patents and Innovation. From the available case law the following lessons can be deduced with regard to standard setting:

- The Federal Court of Justice (*Bundesgerichtshof*) ruled that it can constitute a violation of the ban on discrimination if a patent holder refuses to grant a licence for an IPR that constitutes a (de facto) standard which it has granted to other domestic and foreign firms (either with or without

the payment of royalties)⁸. Similar companies would thus be treated differently without any objective justification.⁹

- The Federal Court of Justice held in a further case that a company which manufactures products under a patented industrial standard without a licence could use the competition law defence against the holder of the patent.¹⁰ This means that the user of the patent can claim that the patent holder is abusing his dominant position which derives from the standard by depriving him of the use of the patent. According to the court the user would have to prove that he tried unsuccessfully to obtain a licence under adequate terms and conditions, and that by refusing to grant the licence the holder of the patent was violating the prohibition under competition law of hindering other companies or treating them differently from similar companies without any objective justification.
- Finally, in the most recent case, the District Court of Mannheim¹¹ (*Landgericht Mannheim*) dealt with the current issue of a patent licence manager or non-practicing entity holding standard-essential patents.¹² In its ruling the court inter alia did not find the enforcement of patents by a patent licence manager, which had bought the standard-essential patents from another producing company, abusive. The court also ruled that the transfer of patents to the non-practicing entity in question, which had not pledged to grant licences for the standard-essential patents under FRAND conditions, did not constitute an infringement of Art. 81 EC (now Art. 101 TFEU) and was thus not invalid. The ruling in this case is not final.

4. Conclusion

Standards play an essential role in the process of innovation. On condition that the standard setting occurs through open and transparent processes, and that standards are generally available for all interested parties, they create a level playing field on which all market participants can compete.

Forms of conduct that may have restrictive effects on competition, such as hold-ups, patent ambushes and the charging of abusive royalty rates by holders of IPR in the case of a proprietary standard, should be

⁸ For the details of the case and the reasoning of the court cf. the German contribution to the Roundtable, DAF/COMP(2009)22, p. 101 ff and Federal Court of Justice (BGH), decision of 13.07.2004, KZR 40/02 – Standard-Spundfaß, online at: <http://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=en&sid=afd17569ae503cb56f3e1ee98d7e8745&client=12&nr=47897&linked=pm&Blank=1>; only available in German.

⁹ Cf. Federal Court of Justice (BGH), decision of 13.7.2004, KZR 40/02, loc. cit., p. 12.

¹⁰ For the details of the case and the reasoning of the parties cf. the German contribution to the Roundtable, DAF/COMP(2009)22, p. 101 ff and Federal Court of Justice (BGH), decision of 6 May 2009, KZR 39/06, online at: <http://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=en&sid=b5343b8e4b42c68ccd0ee220ba41f048&client=12&nr=48134&pos=0&anz=1>; only available in German; press release online at: <http://juris.bundesgerichtshof.de/cgi-bin/rechtsprechung/document.py?Gericht=bgh&Art=en&sid=afd17569ae503cb56f3e1ee98d7e8745&client=12&nr=47897&linked=pm&Blank=1>; only available in German.

¹¹ For the details of the case and the reasoning of the parties see decision by the District Court of Mannheim, decision of 27 February 2009, 7 O 94/08, online at: http://lrw.juris.de/cgi-bin/laender_rechtsprechung/document.py?Gericht=bw&GerichtAuswahl=Landgerichte&Art=en&Datum=2009-2&nr=11337&pos=1&anz=6; only available in German.

¹² Non-practicing entities do not have any production of their own; their sole activity is the licensing of its patents. Such companies are sometimes referred to as “patent trolls”.

addressed at the earliest possible stage during the standard setting process. Standard setting organisations need to ensure that the standard setting process in general does not lead to the discrimination or foreclosure of third parties or segment markets.

Based on these cases German courts and the Bundeskartellamt have identified certain issues and competition law problems in the context of standard setting. The principles on the handling of these issues are developed during the application of the law in individual cases.

GREECE

1. General remarks

Standardisation is the voluntary process of developing technical specifications based on consensus among all interested parties. Standardisation is an excellent tool to facilitate international trade, competition and the acceptance of innovations by markets. Standard Setting in Greece is implemented in accordance with the requirements of the EU Legislative Framework.¹

The primary standard setting body in Greece is ELOT S.A., while ESYD S.A. is responsible for the management of the accreditation system in Greece. Both ELOT and ESYD operate under the supervision of the State and are directly involved in policy-making in the fields of standard setting and accreditation respectively, at national level.

The powers of the Hellenic Competition Commission (HCC) as to impediments of effective competition deriving directly or indirectly from regulatory measures, such as technical standards and specifications, are rather limited. National legislation doesn't provide for a mandatory or voluntary competition assessment or screening of legislative or regulatory measures by the HCC. In theory, the HCC may deliver non-binding opinions on competition law issues pertaining to Standard Setting, on its own initiative or following a Minister's request or a request by unions of chambers of commerce and industry and professional chambers. In practice though, the HCC is not consulted on such matters.

Nevertheless, the HCC is empowered to intervene *ex post*, following a complaint or on its own initiative, where Standard Setting results in facilitating anticompetitive behaviour and practices by undertakings, either in the form of abuse of dominance or in the form of prohibited concerted practices and agreements.

Thus, in practice, the HCC conducts investigations in markets where, for instance, competition distortions are linked to the poor implementation of EC Directives concerning standard setting in specific industries (see section 4 below). The HCC has not issued any decisions concerning competition law infringements relating to Standard Setting so far.

2. ELOT S.A. - Hellenic Organisation for Standardisation

The Hellenic Organisation for Standardisation (ELOT S.A.) is a state-controlled private liability company operating under the supervision of the Minister of Economy, Competitiveness and Mercantile Marine.² ELOT participates in the European³ and international⁴ Standardisation Organisations.

¹ http://ec.europa.eu/enterprise/policies/single-market-goods/regulatory-policies-common-rules-for-products/new-approach/index_en.htm

² ELOT was established by Law 372/76 (as amended by Law 2642/1998); see http://www.elot.gr/default_en.aspx.

³ CEN, CENELEC, ETSI, EOTA.

ELOT is the sole body at national level, which is responsible for preparing, issuing and delivering national standards and standardisation documents.⁵ The elaboration of national standards is undertaken by ELOT's Technical Committees and Working Groups, consisting of public and private sector representatives and operating on the principle of consensus.

The Hellenic Standards and the Hellenic Specifications have to be harmonised with the equivalent European and international Standards and Specifications. ELOT is the owner of the IPRs of the Hellenic Standards and Specifications.⁶

More precisely, the ELOT standards and the relevant standardisation documents are based either on European standards which are transposed into national standards or on international standards or on ELOT's own standardisation work in cases where no identical or similar European or international standards exist.⁷

The founding law of ELOT also establishes a 15-member National Standardisation Council (NSC), which is the competent advisory body of the State on standardisation matters. The majority of NSC members are Ministries' representatives, while the rest of its members represent professional chambers and consumers.

Furthermore, the Certification Council of ELOT has the exclusive competence to grant conformity marks and conformity certificates, the so-called Hellenic Conformity Marks and Hellenic Conformity Certificates; the latter declare the conformity of products, services, processes, activities, organisations, systems, personnel and/or a combination thereof with the requirements of Hellenic and European Standards or other normative documents.

3. ESYD S.A. - The Hellenic Accreditation System

The management of the accreditation system in Greece is entrusted with the Hellenic Accreditation System S.A. (ESYD S.A.) which is a state-controlled private liability company operating under the supervision of the Minister of Economy, Competitiveness and Mercantile Marine.⁸

ESYD provides accreditation services to laboratories, proficiency testing providers, management systems certification bodies, environmental verifiers, inspection bodies and verification bodies of greenhouse gases emissions.

The ESYD founding Act provides for a well balanced representation of Ministries, scientific associations, professional and social unions within ESYD's Managing Board and Hellenic Accreditation Council, thus safeguarding the independence and impartiality of ESYD's activities.

⁴ ISO, IEC.

⁵ Until 1968, the Technical Chamber of Greece (TEE), which is the Professional Association of Engineers, was solely responsible for standard setting in Greece, see http://portal.tee.gr/portal/page/portal/SCIENTIFIC_WORK/scient_typopoiisi/drastiriotes.

⁶ See, Article 3(4) Law 372/1976, as amended by Law 2642/1998.

⁷ See also Directive 98/34/EC of the European Parliament and of the Council of 22 June 1998 laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services, OJ [1998] L 24/37.

⁸ ESYD was established by Law 3066/2002. It succeeded the Hellenic Accreditation Council, which operated under the same distinctive title within the Ministry of Development since 1994 according to Law 2231/1994; see <http://www.esyd.gr/portal/p/esyd/en/index.jsp>.

ESYD is supported in its tasks by a number of Technical Committees and employs external assessors and experts. The latter are selected and trained according to strictly defined criteria and procedures and they must comply with specific regulations concerning their independence, integrity and confidentiality.

ESYD is one of the founding members of the European co-operation for Accreditation.⁹

4. Competition distortions in the gas market related to technical regulations¹⁰

The HCC is currently dealing with one case where standard-setting has arisen as a competition concern. The case concerns the gas market.

The Greek gas market is a “young” market. Natural gas has been introduced to the Greek energy mix just in 1996. With practically 100% imports from a single supplier (no indigenous production) and a late start compared to the rest of Europe, Greece was characterised as an emergent gas market and was granted a derogation from the provisions of Directive 98/30/EC¹¹ until November 2006. At the end of 2005, a new Gas Law was passed by the Parliament,¹² fully transposing the Directive 2003/55/EC,¹³ the so-called “second liberalisation Directive”, into Greek legislation, one year before the expiry of the derogation.

According to the new Gas Law and by means of Presidential Decrees 33 and 34 (FEK A 31/20.2.2007), a transmission system operator has been established (“Hellenic Gas Transmission System Operator SA” – “DESFA”).

⁹ The European Accreditation Bodies have founded the European Co-operation for Accreditation (EA), one of the main goals of which is to promote the international recognition of both the accreditation provided by its members and the accredited services by maintaining reliable multilateral agreements (MLAs). Since March 2004, ESYD has become a signatory to the MLAs for Testing Laboratories, Calibration Laboratories and Inspection Bodies and since March 2005 for Certification Bodies for all provided services (persons, products, quality management systems, environmental management systems).

¹⁰ According to Article 1(9) of Directive 98/34/EC the term “technical regulation” applies to technical specifications and other requirements, including the relevant administrative provisions, the observance of which is compulsory, *de jure* or *de facto*, in the case of marketing or use in a Member State or a major part thereof, as well as laws, regulations or administrative provisions of Member States. *De facto* technical regulations include:

- laws, regulations or administrative provisions of a Member State which refer either to technical specifications or other requirements or to professional codes or codes of practice which in turn refer to technical specifications or other requirements and compliance with which confers a presumption of conformity with the obligations imposed by the aforementioned laws, regulations or administrative provisions;
- voluntary agreements to which a public authority is a contracting party and which provide, in the public interest, for compliance with technical specifications or other requirements, excluding public procurement tender specifications;
- technical specifications or other requirements which are linked to fiscal or financial measures affecting the consumption of products by encouraging compliance with such technical specifications or other requirements; technical specifications or other requirements linked to national social-security systems are not included.

¹¹ Directive of the European Parliament and of the Council of 22 June 1998 concerning common rules for the internal market in natural gas, OJ [1998] L 204/1.

¹² Law 3428/2005, FEK A 313/27.12.2005.

¹³ Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC, OJ [2003] L 176/57.

DEPA has established three Gas Distribution Companies, called EPAs, operating in the three larger urban centres of Greece (Attica, Thessaloniki, and Larissa-Volos). EPAs operate under a 30-year concession license for the exclusive distribution of gas in their region to customers.¹⁴

Following the approval of the technical installation by the EPAs, the latter distribute natural gas to their household customers. The technical installation study must comply with the requirements of the “*Technical Regulation on internal natural gas installations with a maximum pressure PS up to 1 bar*”. The Technical Regulation was introduced in 2003 by way of a Joint Ministerial Decision and relates to the Pressure Equipment Directive 97/23/EC (PED) on the approximation of the laws of the Member States concerning pressure equipment.¹⁵

The investigation of the HCC has so far showed that the above mentioned Technical Regulation includes detailed technical specifications as to the installation requirements concerning only two types of piping equipment; thus, in practice, the operation of suppliers of alternative piping equipment, which is not expressly included in the Technical Regulation, is significantly impeded.

Based on this defect of the Technical Regulation, two of the three EPAs have consistently refused to approve technical installation studies that do not implement one of the two types of piping equipment described in the above Technical Regulation. The result of this conduct is, however, to exclude all competition from suppliers of alternative piping equipment carrying the CE marking according to the PED Directive, without any objective justification. This kind of conduct could be seen as a refusal to deal with discriminatory and ultimately exclusionary effects on a secondary market. The HCC will deliver its decision on this issue before the end of 2010; until then the findings of the HCC’s General Directorate remain confidential.

¹⁴ Source: Regulatory Authority for Energy (RAE) <http://www.rae.gr/en/prices/main.htm>

¹⁵ The PED Directive formulated under the New Approach provides for a flexible regulatory environment that does not impose any detailed technical solution. This approach allows European industry to develop new techniques thereby increasing international competitiveness. The Directive concerns items such as vessels, pressurised storage containers, heat exchangers, steam generators, boilers, industrial piping, safety devices and pressure accessories. Such pressure equipment is widely used in the process industries (oil & gas, chemical, pharmaceutical, plastics and rubber and the food and beverage industry), high temperature process industry (glass, paper and board), energy production and in the supply of utilities, heating, air conditioning and gas storage and transportation. Under the Community regime of the Directive, pressure equipment and assemblies above specified pressure and/or volume thresholds must:

- be safe;
- meet essential safety requirements covering design, manufacture and testing;
- satisfy appropriate conformity assessment procedures; and
- carry the CE marking and other information.

Pressure equipment and assemblies below the specified pressure / volume thresholds must:

- be safe;
- be designed and manufactured according to sound engineering practice; and
- bear specified markings (but not the CE marking).

See http://ec.europa.eu/enterprise/sectors/pressure-and-gas/documents/ped/index_en.htm

IRELAND

1. Introduction

This submission outlines the Irish Competition Authority's experience with standard setting in professional services in Ireland. The submission begins with an overview of the main justifications for setting standards in professions and types of standards. The likely effects – both positive and negative - of these standards are then examined, noting the competition issues which tend to arise. The final part of the submission describes some interesting cases that the Authority has analysed as part of a series of Market Studies of professional services. Standard setting in some professions in Ireland have created barriers to entry without improving the quality as intended. The Authority has therefore made a number of recommendations to address this.

2. Rational – Consumer protection

The common reasons for setting professional standards are to ensure a minimum quality of entrants' ability, minimum quality of service, and consumer safety in an area where there are huge information asymmetries. For example, if consumers cannot evaluate the quality of service they receive, there is little incentive for higher quality professionals to provide better service than their lower quality rivals. Thus the average quality of service can decline.

3. Types of standard

Standards are introduced to correct market failures, and usually take the form of:

- minimum standards of training;
- “demarcation” (restrictions on who is allowed to provide certain services);
- standards of behaviour.

In Ireland these types of professional services have been set both by private bodies and statutory regulators.

4. Effects

Despite good intentions, professional standard setting can fail to protect consumers, result in adverse impacts and be disproportionate to their aim. For example, practitioners may have an acceptable standard of qualifications, but this does not ensure that they will provide an acceptable quality of service – if consumers can still not assess the quality of service they have received. This is why minimum standards are often accompanied by Codes of Conduct.

Regulatory authorities sometimes divide a profession into different branches, or reserve the provision of certain services or “functions” to one or more types of profession. This “demarcation” of services also attempts to protect consumers from poor quality service by preventing certain tasks from being provided

by anyone other than a registered practitioner. Demarcation can have the effect of protecting a professional from competition from “para professionals” – people with related qualifications - even if they are suitably qualified. Excluding qualified and experienced persons from supplying services that have been reserved for registered practitioners can result in higher fees and less choice, innovation and efficiency in the delivery of those services.

Excessive standards of entry and poor demarcation within a profession can also create harmful rigidities in the market. The degree of substitutability between one professional’s services and abilities and another’s changes over time, due to advances in technology and increased training/experience. In addition rules and standards of entry can be difficult to change once they are introduced. If there are no provisions for regular review of the reservation of certain functions to a certain profession this protects that profession from future competition.

5. Cases

5.1 Dentists

In 2008 there was a change in the demarcation of dental services in Ireland that introduced greater competition among dentists. A new para-profession qualified to fit and sell dentures - Clinical Dental Technicians - became legally recognised in Ireland. Until that point, the sale and fitting of dentures directly to the public was not legally permitted by anyone other than a dentist. The fitting of dentures fell within the definition of “practising dentistry”, which was reserved to dentists under section 51(1) of the Dentists Act 1985. Irish patients only had the option of purchasing dentures from a dentist - who ordered them from a dental technician¹ - and then charged a mark-up on the cost of the dentures. Irish patients did not have the option of going to a qualified clinical dental technician² for a one-stop-shop service, as was available in many other countries. The clinical aspect of fitting dentures was reserved to dentists, even if a dental technician had undertaken training in clinical aspects.

The 1985 Act provided for the legal recognition of new para-professions such as clinical dental technicians. However it took over twenty years for the statutory regulatory body responsible for the registration and control of persons engaged in the practice of dentistry – the Dental Council and the Minister for Health and Children - to agree on the extent of this recognition.

The Dental Council wanted to limit clinical dental technicians to the fitting and sale of full dentures and allow only dentists to fit and sell partial dentures. The Council also wanted to impose a requirement on patients to obtain an oral examination from a dentist before attending a clinical dental technician.

The Competition Authority’s 2007 Study concluded that imposing restrictions on the way different professions within dentistry can operate in order to protect the health and safety of the public was a valid objective. However, restricting the supply of full and partial dentures to dentists only, was a disproportionate way of achieving this objective, as there were other para-professionals who could easily provide the service. The Authority pointed out that it was an inefficient use of the more advanced training and expertise of dentists to have them providing services which clinical dental technicians were equally well trained to perform.

¹ Dental Technicians are trained in dental technology, which involves the manufacture and repair of dental appliances, including dentures, which are ordered by dentists.

² Clinical Dental Technicians are trained in clinical dental technology. Often they are dental technicians who have undertaken additional training to develop clinical skills which allow them to deal directly with patients.

The Authority recommended the introduction of a State register for the profession of Clinical Dental Technician to legally recognise this profession. In July 2008, the Minister for Health and Children gave her consent to the legal recognition of Clinical Dental Technicians and the creation of a Register by the Dental Council. Clinical Dental Technicians are now permitted to provide full and partial dentures directly to patients without any dentist involvement.

The new Register of Clinical Dental Technicians provides:

- legal competition to dentists in the sale of dentures;
- consumer protection - as buyers of dentures are able to determine whether the provider they choose is a qualified professional and registered with the Dental Council;
- more consumer choice;
- a beneficial impact on the price of dentures.

5.2 *Lawyers*

The minimum standards of qualification for the legal profession are set by way of a monopoly in professional training. This is a disproportionate regulatory tool. Entry into the legal profession in Ireland is controlled by those already in the profession. The self-regulating Law Society and Honorable Society of King's Inns control who may train professionally to be a solicitor or barrister respectively.

Professional training leading to the qualification of solicitor can, by law, only be provided by the Law Society and bodies licensed by the Law Society. To date the Law Society has not licensed any providers other than its own school.

The Law Society says that its objective is to ensure consistency in the standard of education for trainee solicitors. It says that it would have no objection in principle to other institutions providing training courses, so long as such providers could "replicate" the standards and systems of education and training of trainee solicitors provided by the Law Society.

However, the Law Society has refused to publish any information or the criteria it would apply in considering applications for licences. This has discouraged applications for licences from other institutions which may wish to provide solicitor professional training. Such applicants are not prepared to invest the considerable resources required to apply for a licence without an indication of the criteria that would be applied.

Professional training leading to the qualification of barristers in Ireland is controlled by the Honorable Society of King's Inns ("King's Inns"). King's Inns decided that the best way for it to ensure standards in the training of barristers is through its own monopoly training course. Only persons who have obtained the professional degree provided by King's Inns can practise as a barrister.

Among the reasons given by King's Inns for not recognising any alternative courses to its own is that it believes that it could not ensure quality of training if other institutions were permitted to offer the degree.

Consistency in the standards of solicitors and barrister training is a valid objective. However a monopoly is a disproportionate way of achieving this objective. Many other professions achieve minimum standards through multiple training institutions e.g. doctors and dentists. In 2006, the Authority recommended that an independent body be established, to set criteria for standards in courses and

examinations for the training of barristers and solicitors. Interested parties, including the Law Society and King's Inns, could then be required to apply and meet those standards. However, this recommendation has yet to be implemented and the Law Society and King's Inns monopolies continue.

Allowing multiple training schools would facilitate competition in the markets for solicitor and barrister training. Trainees would be able to choose from different providers in different locations and with a variety of course formats and content. This could also increase the numbers of solicitors and barristers qualifying in Ireland each year and increase competitive pressure on those practising.

6. Statutory Vs non statutory regulation

The potential for harm from anti-competitive standard-setting varies depending on who is setting the standard. Competition law places limits on the co-ordination activities of a non-statutory self-regulating profession and thus reduces the likelihood of harm. However, if the Government has decided that standard-setting has a basis in law, a number of provisions should be put in place to prevent anti-competitive standard-setting.

If a statutory regulatory body is composed largely of members of the profession it is regulating, a conflict of interest is likely to arise. The regulator is charged with protecting consumers but there is always a possibility of members using their position to further the interests of their profession. For example it is natural that members may be inclined to make it difficult for new practitioners to enter the profession, limiting competition on their own members, which may decrease their profits. Raising standards of entry and demarcation of the profession are commonly used to do this.

It is therefore important that the regulatory process should be decided and implemented by an independent board which can properly reflect consumer interests. It is also important that provisions are put in place to ensure that standards are reviewed over time to allow for the development of para-professionals as technology changes and training opportunities arise.

ITALY

1. Introduction

Standard setting activities are becoming international in nature as national economies are more interconnected with each other and interoperability is now often a requirement in most network industries. This contribution briefly explores the Italian institutional framework for standard setting and presents some interventions in this area by the Italian Competition Authority.

2. The institutional framework of standard setting in Italy

The process of standard setting in Italy, like in other industrialized countries, originates from the government, industry collaborations, as well as spontaneous processes arising from the market (“*unilateral or marketplace standards*”¹). The two main standard setting organizations (SSOs) are UNI (Italian Organization for Standardization) and CEI (Italian Electrotechnical Committee). Both organizations are formally recognized by the Government since their by-laws were approved and included in specific ministerial decrees.

UNI is a private non-profit association with more than 7000 members which include companies, freelance professionals, associations, scientific and academic institutions, and bodies connected to the public administration. UNI carries out standardization activities in all industrial, commercial and tertiary sectors, with the exception of the electrical and electrotechnical sectors which are the responsibility of CEI.

CEI is a non-profit scientific and technical association, formally recognized by the Government and by the European Union in charge of standardization and unification in the electrical, electronic and telecommunications fields in Italy.

Although both UNI and CEI are private organizations, the government plays a significant role in their governance structure. Representatives from the Economic Development Ministry and other Ministries, the National Research Council sit in UNI’s steering committee together with representatives from the Italian Railways Company, CEI’s President, Presidents of sectoral SSOs.

CEI’s steering committee is made of representatives from the Economic Development and University Ministries, the National Research Council, but also the Italian Railways Company (Trenitalia) and the National Electricity Utility (ENEL).

There is also a significant activity of standard setting by private organizations such as professional and trade associations, producers consortia (particularly in the food industry), but also local authorities, particularly when setting standards in relation to public tenders. Sometimes, the standard setting activities of these organizations tend to limit competition under the assumption that specific qualitative standards would be negatively affected should competition be fully allowed.

2.1 Railway industry

A typical instance where standard setting were significantly limiting the full development of a competitive environment is in the railway transportation service.

¹ ABA, “Handbook on the Antitrust Aspects of Standards Setting”, Chicago, 2004.

In July 2003, the Authority issued a report on tenders for regional rail services. The relevant regulations stated that, in order to choose the provider of local railway transportation services, non-discriminatory public competitive tenders had to be organized, and by the end of 2003 local administrations were supposed to arrange all the preliminary administrative, financial and technical requirements.

The Authority found that most Regions did not even meet the preliminary conditions necessary for organizing the competitive tender procedures, since neither the local administrations nor the rail transport companies took action during the transition period in order to acquire the rolling stock necessary for providing services. Almost all the material that had been used was in fact the exclusive property of Trenitalia Spa, part of the Ferrovie dello Stato group, holder of a legal monopoly until liberalization. Furthermore, the Authority observed that Trenitalia's competitors would have found it difficult to participate in the tenders because of the long time required to produce new rolling stock and the fact that a secondary market for rolling stock did not exist. Such difficulties were also magnified by specific technical standards concerning rolling stock. Only two other European countries (Belgium and the Czech Republic) had the same technical standards and were theoretically able to provide the necessary rolling stock to Trenitalia's competitors. These difficulties threaten the liberalization of local rail transportation, both by interfering with the preparation of calls for tender and hindering the participation in competitive tenders by railways other than Trenitalia.

The Authority underlined the importance of speeding up the liberalization process in the sector as much as possible, carrying out all calls for tender by the legal deadline of 31 December 2003 in a way that does not discriminate against competing companies. To achieve this goal, when rolling stock is in the possession of Regional Administrations, the license should be assigned to the company able to guarantee the most efficient service. Where the local administration does not have any rolling stock, whether a potential provider of rail services owns or not the necessary rolling stocks at the time of the bid should not be a discriminating factor in awarding the concession. The Authority noted that the concession should be awarded to the bidder with the most advantageous economic conditions, allowing the winner to start service in the shortest possible time (24-36 months).

Over the past years this has been the situation in most European countries where different technical standards concerning electricity voltage for motor units were adopted. More recently, the market is opening up as new production lines are manufacturing multi-voltage motor units that can be used all over Europe.

2.2 *Food industry*

Standard setting often occurs in the food industry where producers' consortia define certain common sets of rules and quality requirements for products that will eventually bear specific denominations. In theory such standards are meant to protect the quality of certain products by requiring the selection of special ingredients, the use of specific production processes and storage facilities. Some other times, standard setting is also used to limit access to the market, define market shares for consortium members, to hinder significantly competition among producers.

2.2.1 *Agreement in the "denomination of protected origin" Grana Padano cheese industry*

In June 2004 the Competition Authority completed an investigation into the Consortium for the Protection of Grana Padano cheese (established on a voluntary basis by roughly 200 producers of the cheese located in the traditional production area). The investigation followed the notification of an agreement among Consortium's members regarding the repositioning of the Grana Padano D.O.P. (Denomination of Protected Origin).

The Authority concluded that these resolutions constituted anticompetitive agreements, insofar as they were likely to limit the production of Grana Padano and keep wholesale prices at artificially high levels. In view of the gravity of the offence, the Authority imposed a fine of €120,000 on the Consortium.

As regards the agreement notified in 2003, containing measures aimed at guaranteeing output of higher quality and increasing the investment in advertising to reposition the product on the market, to be financed through a progressive contribution mechanism, the Authority concluded that: i) the measures aimed at promoting higher quality standards were not in and of themselves liable to restrict competition; and ii) the measures concerning the contribution mechanism were anticompetitive since they were likely to discourage increases in production by Consortium

members with respect to their historical production levels. However, in view of the improvement in the conditions of supply subsequent to the repositioning of the product, the Authority granted an exemption from the prohibition of restrictive agreements for a period of six months, up to December 2004.

2.2.2 *Agreements in the “denomination of protected origin” ham industry*

In June 1996, the Authority completed its investigation on the voluntary Consortia among producers of San Daniele and Parma ham, which supervise and control the quality standard of their respective products.

Each Consortium had adopted a production plan for 1995, setting a ceiling on total production and dividing it among the member companies on the basis of their "historical" market shares. The Authority considered that the definition of production ceilings and quotas were agreements that restricted competition under section 2 of the Act. The fact that the law instituting the system for protecting denominations of origin empowered the Consortia to draw up production plans and that the plans were later approved by the relevant Ministries did not appear relevant facts for excluding the restrictive behaviour from the application of the antitrust law. In fact the ministerial approval was merely a subsequent control of the plan, in no way altering their nature of contractual agreements concluded freely and independently by the members of the Consortia themselves.

However, at the request of the Consortia, the Authority granted for a period of a year a waiver for the agreements under section 4 of the Competition Act. It was pointed out that since other less restrictive instruments for controlling production quality standard provided by the denomination protection legislation had not yet become operational, quantitative controls over production could be used for another year until other less restrictive instruments for quality control would become operational.

2.2.3 *Agreements in the “denomination of protected origin” Parmesan cheese industry*

In November 1996 the Authority concluded its investigation into the two Consortia protecting Parmigiano Reggiano and Grana Padano cheese. The two voluntary Consortia have the statutory function of promoting the products they oversee and protect, and also of planning and control production and marketing according to strict quality and production standards. The Consortia planned production quantities by establishing production plans indicating the maximum total production target for each specific year, and the individual production quotas for each member.

The Authority concluded its competitive assessment stating that competition legislation applies whenever there is autonomy in the decision making of the Consortia. Since production plans were freely established by the Consortia, the agreements were deemed as restricting competition.

In the wake of the remarks made by the Authority regarding the system of quality control, the Consortia decided to change the regulations to bring them into line with competition law. These changes were designed to convert the planning system based on quantities into one under which the Consortia would retain the right to ascertain whether the cheese would meet the required quality standards.

These example shows that sometimes standard setting conceals a limitation to competition by supposedly promoting quality standards but in fact undermining a company's ability to efficiently compete in the market.

2.3 *Professional activities*

Professional activities are heavily regulated in Italy and one of the purposes of professional associations is to set specific standards for its members concerning access, competitive behaviour and advertising. Very often the establishment of new professional associations is meant to create standards that supposedly protect the quality of the services and products provided, but in fact tend to constrain the

economic behaviour of its members. This has an inevitable and negative impact on competition in the relevant market.

In 2005 the Authority exercised its advocacy powers on several occasions with regard to professional activities, calling the legislator's attention to the benefits that greater competition can bring to the sector. In particular, the Authority made several observations on a series of draft bills concerning a) the establishment of the register of pharmaceutical products promoters; b) the establishment of the Order of Accountants and Accounting Experts; c) framework legislation on professional activities; d) condominium managers; and e) the rules governing the requirements for admission to the State exam for a significant number of professions.

In April 2005 the Authority sent an opinion to Parliament and the Government under Article 22 of Law 287/1990, concerning the possible anticompetitive effects of the draft law on the establishment of the register of promoters of pharmaceutical products.

The Authority considered that the establishment of a new Professional Association is justified only when this satisfies needs of a general nature and is necessary to resolve significant imperfections in markets (such as information asymmetries and externalities). Otherwise it is likely to produce unfair and inefficient results. Given that pharmaceutical companies that use the services of trained professionals to promote their drugs among doctors are all qualified interlocutors who do not require any particular safeguards, the Authority concluded that the activity in question does not meet these exceptional criteria.

Again in April 2005, in exercising its advocacy powers under Article 22 of Law 287/1990, the Authority formulated an opinion on the possible anticompetitive effects of the adoption of a bill creating the Association of Accountants and Accounting Experts.

The Authority stressed the unjustified distortions of competition that would derive from the attribution of areas of exclusive competence to accountants and accounting experts. Assigning specific functions on an exclusive basis can only be justified in the case of professions whose exercise is strictly linked to protecting public interests under the meaning of the Italian Constitution. Also such reserves must be strictly necessary to guarantee minimum quality standards of service. These conditions were not met in the case of accountants and accounting experts.

The Authority also used its advocacy powers regarding the draft legislative decree on professional activities, in relation to the following aspects: the composition of exam committees for access to professions; the establishment of new professional registers; the fixing of professional fee scales; and bans on advertising. Strict standard setting in these areas by professional associations would have significantly impacted on the development of a competitive environment.

Regarding the composition of exam committees, the Authority emphasized the need to cut the number of representatives of Orders to safeguard the principle of impartiality in the procedures for accessing professional activities. To this end and in order to guarantee the impartiality of the awarding body, the Orders should not play a dominant role in the initial phases of the selection process when the candidates' qualifications are evaluated. Competing professionals should not determine the number of those who can access a certain profession.

Turning to the establishment of new registers, the Authority pointed out that placing certain professions, currently carried out in a free market system, under the aegis of Professional Orders, would significantly restrict competition by hindering the entry of new operators and creating exclusive areas of activity. Reserve systems should be restricted, instead, exclusively to activities whose exercise is characterized by involving constitutionally protected interests, such as the right to health and defence, and where their inadequate provision would have high social costs or the complexity of the services provided

would prevent users from assessing, also ex post, the quality of the service and the fairness of the prices charged.

Referring to the setting of minimum or fixed fee scales, the Authority stressed once again their inappropriateness for guaranteeing the quality standard of the services provided. The adoption of minimum fees is neither a benchmark for clients faced with making choices in the marketplace, nor is it an incentive for professionals to offer better quality services than their competitors.

In addressing the issue of advertising, the Authority clarified that advertising per se does not tarnish the image of the profession nor lowers the required quality standard. Moreover, the total ban on advertising is not justifiable on the grounds of the general interest. On the contrary, advertising that refers both to the characteristics and prices of the services offered by professionals is an important factor in overcoming information asymmetries.

In exercising its advocacy powers under Article 22 of Law 287/1990, the Authority also submitted an opinion on the creation of a special public list of condominium managers.

The Authority stressed that condominium managers should not be obliged to compulsory membership to a professional association since this would have unjustifiably restricted competition without assuring a minimum quality and technical standard.. The Authority confirmed the principle that the exercise of a profession is, in general, free, and accordingly limitations set by the legislator on its exercise must be exceptional and justified by the particular importance of the activity in question. The creation of a public list of condominium administrators was not meant to safeguard general interests, nor was it proportional with the aim of correcting significant market failures. Indeed, enrolment in the list would not guarantee customers of the quality standards by registered administrators.

<p>Finally, in March 2006, the Authority made some observations on a draft decree on the rules governing the requirements for admission to the State exam for a substantial number of professionals (including land and forest experts, agronomists, architects, social workers, actuaries, biologists, chemists, work consultants, pharmacists, geologists, surveyors, journalists, engineers, land surveyors, industrial engineers and psychologists). The State exam was considered a necessary requirement to guarantee the quality standard of the prospective professional.</p>

The Authority underlined once more that the qualitative standard requirements for access to professions must not subtly introduce quantitative restrictions. This means that the requirements for admission to the State exam, including an obligatory period of professional training, must be proportional to the professional practices it authorizes, and must not be unjustly restrictive. To this end the Authority felt that the introduction of a compulsory training period or its excessive duration were unjustified. The limits placed by the legislator on the exercise of a profession must be of an exceptional nature, proportional to the required qualitative and technical standards and justified by the particular importance of the activity in question, and therefore only when the protection of general interests is at stake.

JAPAN

1. Introduction

In this contribution paper, we would like to introduce (i) a survey by the Japan Fair Trade Commission (JFTC) on the actual situation of voluntary standards and certification by public interest corporations in 1998, and (ii) the JFTC's guidelines regarding standard setting as efforts in competition issues related to standard setting in Japan.

2. Survey on Actual Situations of Voluntary Standards and Certification by Public Interest Corporations (1998)

In 1998 the JFTC conducted a survey on voluntary standards and certification by public interest corporations from the viewpoint of competition policy. The points checked by the survey were, for example, whether new entries of entrepreneurs were unjustly restricted or whether the standards or certification substantially substituted for public regulations after deregulation. The summary of the published results are as follows.

2.1 Points Checked in the Survey

Regarding the activities related to voluntary standards and certification by public interest corporations, the survey was conducted mainly on the following points:

2.1.1 *Appropriateness of the contents of voluntary standards and certification*

- Check for the unjust prevention of supply of various products or the exclusion of certain entrepreneurs by the provision of unnecessary standards in the light of the purpose (excessive regulations) (Fitness for purpose)
- Check for the exclusion of new or foreign entrepreneurs by the provision of unfairly discriminatory contents for those entrepreneurs (Neutrality and fairness)
- Check for uncertainty resulting in the prevention of entry of new or foreign entrepreneurs by the provision of unclear standards (Clearness of contents)
- Check whether the contents of standards are set based on fair, neutral and appropriate procedures (Appropriateness of establishing procedures)

2.1.2 *Appropriateness of inspection/certification methods and openness of system utilization*

- Check whether the inspection/certification method is clearly provided in advance so that arbitrary operation is excluded (Transparency of operation)
- Check for unjustly discriminatory inspection/certification methods for new or foreign entrepreneurs (Neutrality and fairness of operation)

- Check for refusal of the utilization of voluntary standards or certification systems against entrepreneurs that are not members of public interest corporations or foreign entrepreneurs (Openness of system utilization)

2.1.3 Involvement by administrative organs

- Check for misunderstanding by entrepreneurs that the utilization of voluntary standards or certification systems is statutorily obliged due to involvement by administrative organs (Clear indication of non-arbitrariness of the system)
- Check for substantial substitution for public regulations after deregulation caused by administrative organs working on new public interest corporations to establish voluntary standards or certification systems or to use existing voluntary standards or certification systems (Exclusion of substitution for public regulations)

2.2 Summary of survey results

Out of all public interest corporations subject to the survey, 52 corporations have voluntary standards. Further, 32 corporations conduct inspections or tests to judge the fitness of the voluntary standards.

2.2.1 Contents of voluntary standards and certification

Purpose and Necessity of Voluntary Standards and Certification System

Most entrepreneurs admitted the necessity and usefulness of the system for the safety of products assured by inspection of a third party organization and for saving the costs of having inspection equipment themselves.

Contents of Voluntary Standards

- Fitness for purpose

No entrepreneur pointed out that voluntary standards had inappropriate or unnecessary contents to achieve the purpose of the voluntary standards or certification system.

- Relation with public standards

In case voluntary standards are set in addition to public standards (statutory standards or Japan Industrial Standards), public corporations gave the insufficiency of public standards for specific products or specific applications and the difficulty in flexible approaches to changes in situations as meanings for the existence of voluntary standards.

- Price clause

Some voluntary standards were found to have clauses requiring appropriate price levels for products and services (price clause).

- Neutrality, fairness, clearness and transparency

Most entrepreneurs did not recognize any problem. However, new entrepreneurs had complaints about the requirement of business results for a certain period before the application for certification or about unclear explanations of specific requirements in some voluntary standards.

– International consistency

From the viewpoint of consistency with the international market, a change of standards on specifications to those on performance is in progress.

- Setting procedures

No problem was pointed out by entrepreneurs.

2.2.2 *Appropriateness of inspection/certification method and openness of system utilization*

Inspection/certification method

- Transparency of Operation

Entrepreneurs did not point out that the inspection/certification method and implementation procedures lacked transparency.

- Neutrality and Fairness of Operation

Most entrepreneurs did not recognize any problem. However, some entrepreneurs showed concern that their engineering secrets might be known to other entrepreneurs through inspection.

Openness of system utilization

- Refusal of nonmembers to use the system

It was found out that nonmembers were treated differently from members in some cases: (i) the nonmember (entrepreneur who is not a member of the trade association) is not allowed to utilize the system, (ii) the applicant entrepreneur for certification is required to obtain a recommendation from a related entrepreneur organization (organization recommendation), or (iii) different charges are applied to members and nonmembers.

Public interest corporations gave reasons for the treatment in these respective cases as follows: (i) the system is a service for members managed as their business, (ii) intellectual property rights need to be protected and the reliability of the standards need to be maintained, and (iii) nonmembers do not pay member fees or other costs.

- Access from overseas

Utilization by foreign entrepreneurs or imported goods was not restricted in any system. However, according to some entrepreneurs, it was substantially difficult for imported goods to be inspected or certified in some systems assuming inspections at plants in Japan.

2.2.3 Effect of certification and system dissemination

Effect of certification

According to public interest corporations and entrepreneurs, statutory or administrative effects were observed in some cases where, for example, (i) inspection by an administrative agency is obliged under law or ordinance, but it is simplified if the products have been certified, or (ii) the administrative organ references certification when it gives authorization.

Dissemination of voluntary standards and certification

- Dissemination

According to the written survey, public interest corporations answered that voluntary standards/certification systems were disseminated at least in their industry. Even when public interest corporations thought so, however, entrepreneurs did not always recognize the system very much.

- Recognition by Manufacturers

In the case where the answer in the written survey was “Products that do not satisfy the voluntary standards are manufactured little,” many of the manufacturers stated that they utilized the voluntary standards/certification system because they were able to have an advantage. It was pointed out, however, that some entrepreneurs thought such utilization disadvantageous but recognized (misunderstanding) that manufacturing products that did not satisfy the voluntary standards was prohibited by law, and some utilized the system just because they needed to do the same thing as other companies.

2.2.4 Others

Utilization of voluntary standards/certification system or coverage with specific insurance in relation to utilization of the system was not forced in any case (the latter case existed in the past, but it has been improved).

2.3 Recommendation from the Viewpoint of Competition Policy

2.3.1 Openness of system utilization

If requirements for certification include organization recommendations, utilization results, business results, or inspection at plants in Japan, they would prevent new entry of entrepreneurs or imports. This could be a problem under the Antimonopoly Act (AMA) in some cases.

2.3.2 Review of involvement by administrative organs

It is necessary for voluntary standards and certification with involvement by administrative organs to be constantly reviewed regarding their purpose, necessity and rationality.

For example, in the case where deregulation has been implemented but is not disseminated among entrepreneurs and they misunderstand that the utilization of voluntary standards or certification systems is obliged by law, the competent administrative organ should take appropriate measures to disseminate the contents of deregulation among entrepreneurs.

Further, if it is misunderstood that the acquisition of certification is statutorily required due to the involvement of an administrative organ, or if the inspection method by an administrative organ that is naturally available under law is not utilized because the contents and procedures are not clear, the competent administrative organ needs to be appropriately reviewed.

2.3.3 Review of Price Clause

It cannot be said that a clause for appropriate price levels is necessary to achieve the purpose for which voluntary standards and certification systems have been established. If the price clause is applicable, the unclarity of specific criteria about price appropriateness could result in arbitrary operation, including the exclusion of specific entrepreneurs or newly entering entrepreneurs.

2.3.4 Several organizations to conduct inspections or tests

In many actual cases, the public interest corporation authorized by the administrative agency (the designated corporation) to perform clerical work under the law or regulation for the inspection/test is limited to one organization per field. However, if several implementation periods can be set, it is preferable to have several organizations for such a purpose as far as possible in the future.

Similarly, even when the administrative agency recommends or authorizes the utilization of voluntary standards or certification systems of the public interest corporation, sufficient consideration is required to be taken so that such recommendation or authorization does not prevent fair and free competition among corporations if several public interest corporations are doing certification activities in a field.

3. The JFTC's guidelines regarding standard setting

With regard to standard setting, especially intellectual property rights, the JFTC has published the "Guidelines on Standardization and Patent Pool Arrangements" (hereinafter referred to as the "Patent Pool Guidelines") (2005) and the "Guidelines for the Use of Intellectual Property under the Antimonopoly Act" (hereinafter referred to as the "Intellectual Property Guidelines") (2007).

Also, with regard to the activities of trade associations, the JFTC has referred to the principles under the Antimonopoly Act (AMA) regarding standard setting activities by trade associations in the "Guidelines concerning the activities of trade associations under the Antimonopoly Act" (hereinafter referred to as the "Trade Associations Guidelines") (1995).

The contents of these guidelines are as follows.

3.1 Patent Pool Guidelines (June 2005; amended September 2007)

In the Patent Pool Guidelines, the JFTC has presented (i) principles of the application of the AMA to activities to standardize specifications, and (ii) perspectives of problems under the AMA with activities to pool patents for specifications.

3.1.1 Principles of application of the AMA to activities to standardize specifications

If the activity restricts competition in related markets or threatens to impede fair competition with restrictions as follows, it poses legal issues with the AMA.

Restrict the prices of new products with specifications

Competitors in the activity jointly fix prices, quota outputs, limit marketing activities, etc., of their new products with specifications. (Unreasonable restraint of trade, etc.)

Restrict the development of alternative specifications

Competitors in the activity mutually restrict, without due cause, the development of alternative specifications or adopt alternative specifications to produce and distribute products with them. (Unreasonable restraint of trade, dealing on restrictive terms, etc.)

Unreasonably extend the scope of specifications

Competitors in the activity jointly extend the scope of specifications when doing so is not necessary to ensure compatibility among their products, but only to mutually restrict competition in developing new products. (Unreasonable restraint of trade, etc.)

Unreasonably exclude technical proposals from competitors

Competitors deliberately, without due cause, prevent technical proposals by a specific competitor from being adopted in the development or improvement of the technologies for specifications. (Private monopolization, discriminatory treatment in a concerted activity, etc.)

Exclusion of competitors from the activities

Competitors deliberately exclude specific competitors from the activity in a case in which the competitors are largely not involved in developing and distributing the products with the specifications and do not participate in the activity, and are at risk of being excluded from the market. (Private monopolization, etc.)

3.1.2 Problems under the AMA with activities to pool patents for specifications

Basic viewpoint

If many competitors license their patents for specifications through the pool, imposing on licensees certain restrictions--with the exception of obviously anti-competitive ones such as fixing the product price or quota--will not pose problems under the AMA when (a) the market share of the pool is no more than 20% in the related markets or (b) if market share is inappropriate for analyzing the effect on competition, there are at least four other available specifications.

Perspectives in examining problems under the AMA in the activity to pool patents

- Technological characteristics of patents
 - If only patents essential to the specifications are pooled

Because essential patents are mutually complementary for adopting the functions and utilities for the specifications, competition among the patented technologies is not restricted when only the essential patents are pooled and licensing conditions are fixed. To exclude completely the risk of violating the AMA, it is necessary to limit patents in the pool to essential patents only.
 - If patents not essential for specifications are pooled

If patents that are not essential for specifications are pooled, given the following effects on competition among the technologies associated with the specifications, the activity is likely to restrict competition and represent a legal problem under the AMA.

- When a number of patents on alternative technologies are pooled and licensed with fixed conditions, because the patents on these technologies are competing based on their licensing conditions, competition among these alternative technologies is restricted.
- When there are a number of patents on alternative technologies and some are pooled and licensed as a package with essential patents, the technologies with the patents not pooled are hardly adopted by licensees of the pool and are excluded from the technology market.

To summarize, when a patent not essential for specifications is pooled, the anticompetitive effects are not negligible. As a consequence, it is necessary to comprehensively evaluate, on the basis of market conditions, the effect on competition of pooling such patents, taking the following factors into account:

- Whether or not pooling the patents is reasonably necessary or has pro-competitive effects.
- Whether or not patent holders pooling their patents can license their patent without going through the pool. And the businesses can select the necessary patents and accept licenses only for them.

- Analysis of constraints on licensees in a license agreement through a patent pool

- Setting differential licensing conditions

Licensing agreements through a pool imposing differential conditions on specific businesses without due cause, such as refusing to license the patents, requiring extremely high licensing fees compared with other licensees and limiting the scope of the authorized use of the patents, are at risk of violating the AMA when such activities have a direct and serious impact on the competing functions of licensees that are suffering discrimination. (Private monopolization and discriminatory treatment on transaction terms) To prevent a violation of the AMA it is necessary to grant licenses on a non-discriminatory basis as long as there is no reasonable necessity to make differential conditions.

- Restricting research and development activities

In the case of licensing patents for specifications through the pool, any restriction on licensees with respect to research and development concerning the technologies for the specifications or competing technologies independently or jointly with third parties will make it difficult to develop those technologies or specifications and will run the risk of restricting competition in the product and technology market. (Private monopolization, unreasonable restraint of trade)

On the other hand, if developing specifications is regarded as substantially a joint research and development activity such that a small number of competitors confidentially develop core technologies for the specifications, restricting the research and development of technologies for the specifications or competing technologies independently or jointly with third parties could be recognized as falling within reasonable restrictions. However, even in a case such as this, once the specifications have been developed, limiting research and development by

licensees in the licensing agreements through the pool may not be deemed to be reasonably necessary and will pose a legal problem under the AMA.

- Obligation to grant a license for patents on improvements or developments of the technologies for the specifications through a pool (grant back)

When licensing patents through a pool, requiring licensees to grant licenses for patents on improvements or developments of the technologies for the specifications through the pool will restrict competition in the technology market with the following effects:

- This obligation will reinforce the advantageous position of the pool in the markets associated with the specifications. By accumulating in the pool the improvements or developments, by licensees, of the technologies for the specifications the obligation will make it difficult to develop alternative technologies for the specifications or alternative specifications.
- If improvements or developments by licensees accumulated in a pool provide an alternative function or utility to that provided by other patented technologies in the pool, competition among these technologies is restricted.

On the other hand, there may be a case in which patents on improvements or developments by licensees are essential to the specifications. In this case, imposing the obligation on the licensees generally does not pose a problem with the AMA if it means obliging a licensee to pool the essential patent and license it non-exclusively through the pool, and if it is accompanied by no other restrictions on the use of the essential patent and imposes on the licensee non-discriminatory treatment in, for example, the distribution of licensing fees compared with others pooling their patents.

- Measures against filing a petition for the invalidation of patents (Non-challenge clauses)

In the case of licensing through patent pools, imposing on licensees a non-challenge clause will deprive licensees of the opportunity to contest the validity of any patent included in the pool if doing so is accompanied by a measure to terminate licensing agreements with the licensee for all the patents in the pool. This measure has a greater impact on licensees' business activities than simply terminating licensing agreements with the licensee for the patent that is the subject of the licensee's petition for invalidation.

Imposing on licensees a non-challenge clause will create a legal issue under the AMA if it is accompanied by a measure to terminate licensing agreements with the licensee for all patents in the pool. (Concerted Refusal to Deal)

On the other hand, if the measure is to terminate licensing agreements with the licensee only for the patent subject to the invalidation claim, for instance by taking out the patents from the pool, imposing on licensees a non-challenge clause will not deprive licensees of the opportunity to contest the validity of any patent included in the pool. Imposing such a clause does not pose a legal problem under the AMA.

- Non-assertion of patent rights against patent holders and other licensees (NAP)

In the case of licenses through patent pools, imposing on licensees a non-assertion of patents (NAP) clause and prohibiting the exercise of patent rights they are obtaining or will obtain

against patent holders in the pool and any other licensees will effectively result in the accumulation of licensees' patents in the pool. This means that imposing on licensees such a clause has the risk of reinforcing the advantageous position of the pool, restricting licensees' ability to compete with alternative technologies and substantially restricting competition in the technology market.

On the other hand, there may be cases in which licensees obtain or will obtain an essential patent associated with the specifications. In this case, imposing on licensees a NAP clause generally does not violate the AMA if it means obliging a licensee to pool the essential patent and license it non-exclusively through the pool, provided it is accompanied by no other restrictions on the use of the essential patent and imposing on licensees non-discriminatory treatment in, for example, the distribution of licensing fees compared with the others pooling their patents.

3.2 *Intellectual Property Guidelines (September 2007)*

In addition to the Patent Pool Guidelines [above (1)], in the Intellectual Property Guidelines, the JFTC has presented (i) activities to inhibit the use of technology, and (ii) activities to impose conditions on the use of technology, as questioned conducts regarding standard setting in light of the AMA.

3.2.1 *Inhibiting the use of technology*

Interception

Where a technology is found to be influential in a particular product market and is actually used by numerous entrepreneurs in their business activities, it may fall under the exclusion of the business activities of other entrepreneurs if any one of the entrepreneurs obtains the rights to the technology from the rights holder and refuses to license the technology to others, preventing them from using it.

Concentration of rights

In a case in which an entrepreneur conducting business activities in a particular technology or product market collects all of the rights to a technology that may be used by its actual or potential competitors but not for its own use and refuses to license them to prevent the competitors from using the technology, this activity may fall under the exclusion of business activities of other entrepreneurs.

Falsity in establishing the product standards

Under the circumstances in which a product standard has been jointly established by several entrepreneurs, it may fall under the exclusion of the business activities of other entrepreneurs when the rights holder refuses to grant licenses so as to block any development or manufacture of any product compliant with a standard, after pushing for the establishment of that standard, which employs a technology of the rights holder, through deceptive means, such as falsification of the licensing conditions applicable in the event the technology is incorporated into the standard, thereby obliging other entrepreneurs to receive a license to use the technology.

This also applies in a case in which an entrepreneur holding rights to a technology refuses to grant licenses so as to prevent other entrepreneurs from participating in the bidding after deceiving a public institution into setting out specifications of the product it will be purchasing through bidding that can be satisfied solely by the use of the technology, thereby creating a situation in which no bidder can manufacture any product meeting the specifications without receiving the license to use the technology.

3.2.2 Imposing conditions on the use of technology

When the rights holder to a technology concerned with product standards or the technology essential for business activities in the technology or product market ("essential technology") prohibits the development of any alternative technology when granting a license to other entrepreneurs, it corresponds in principle to the act of controlling the business activities of licensees. Preventing licensees from adopting alternative technology corresponds in principle to the act of excluding business activities of other entrepreneurs.

When the rights holder to essential technology imposes an obligation to obtain a license on any technology other than that concerned or to purchase any product designated by the licensor without reasonable grounds when granting a license to other entrepreneurs, it may constitute an act of controlling the business activities of the licensees or the act of excluding the business activities of other entrepreneurs.

3.3 Trade Associations Guidelines (October 1995)

Furthermore, in the Trade Associations Guidelines, the JFTC has presented the principles under the AMA regarding voluntary regulations, standards, certification, authorization, etc., by trade associations.

In the Trade Association Guidelines, for example, the JFTC has presented the principles of judgments to the case that trade associations establish voluntary standards for rationalizing production and distribution systems or enhancing consumer convenience as follows.

3.3.1 Judgments of substantial restraint of competition

Even if the activity in question takes the form of self-regulation, self-imposed certification, authorization, and so forth, it violates the AMA as a cartel made by trade associations if it substantially restrains competition in a market.

3.3.2 Judgments of tendency to impede fair competition

The judgments as to whether or not self-regulation or related conduct constitutes an impediment to competition under the AMA are made on the basis of the considerations outlined in sub-paragraph a) below, "judgments regarding Self-Regulation, etc." Similarly, judgments regarding self-imposed certification, authorization, and so forth, are made on the basis of the considerations outlined in sub-paragraph b) below, "Judgments concerning Self-imposed Certification, Authorization, etc.," in conjunction with the considerations outlined in sub-paragraph a) below.

Judgments concerning self-regulation, etc.

The following factors should be considered when judging whether or not a given self-regulation activity constitutes an impediment to competition. The following factors (i) and (ii) are the main criteria for judgment, and the factor (iii) is a sub-element that should be taken into account in making a judgment:

- Whether the activity unjustly harms the interests of users by restricting the means of competition;
- Whether the activity unjustly discriminates among firms; and
- Whether the activity is within the necessary rationalized scope to achieve social or other rightful purposes.

Judgments concerning self-imposed certification, authorization, etc,

With regard to autonomous certification, authorization, and similar conduct, the following will be considered in addition to the factors described in sub-paragraph a) above.

- The use of self-imposed certification, authorization, and so forth should be left to the discretion of constituent firms; a trade association forcing a constituent firm to use self-imposed certification, authorization, and so forth is likely to pose a problem in light of the AMA.
- Under conditions where it is difficult for a firm to conduct business without receiving self-imposed certification, authorization, and so forth from the association, the association is likely to be in violation of the AMA if it imposes restrictions on a specified firm with respect to the use of said certification, authorization, and so forth without rightful reasons. Therefore, under such conditions, the use of self-imposed certification, authorization, and so forth should be open to firms, including non-constituent firms. (Charging a reasonable amount of money from non-constituent firms as payment for expenses related to the use of self-imposed certification, authorization, and so forth, does not pose a problem.)

KOREA

1. Introduction

Standard setting enhances industrial competitiveness by securing product interoperability. Standardizing the method of components assembly and system connection improves production efficiency and contributes to technology development. Standard also can be set for safety and quality of products and services, providing more benefits to people's lives. Standards for kids' items, safety belts of vehicles and methods of measuring pollution level for environmental regulation are representative examples which show that standard setting is directly related to people's health and safety. Moreover, standardizing the means of communications such as language, letters, signs and charts can promote information exchange and mutual understanding and boost international trade by eliminating trade barriers.

Standards, however, could obstruct industrial development by repressing diversity in the related technologies. Once a technology is selected as standard and widely used, it incurs enormous costs to replace the standard, which hampers adoption of a new technology. And if the technology included in standards is protected by patent right which has exclusiveness in its nature, it could seriously lessen competition in the relevant market.

Korea is actively promoting the use of standards, and this trend is expected to accelerate. The government leads standard-setting process for the basics, such as product requirements and safety while providing strong policy support for winning international standard to strengthen competitiveness of high-tech industries. While actively encouraging the use of standards for its maximized benefits, Korea is pursuing a balanced policy by ensuring procedural fairness in the standard-setting process and tightening measures against abuse of standard-related patents.

2. Standard setting in Korea

2.1 *Standard-setting bodies*

Technology standards in Korea can be divided into national standards and standards set by the private sector. The representative national standard is Korean Industrial Standard (KS). The Ministry of Knowledge Economy (MKE), which carries out policies for industrial development, is in charge of setting KS. As of late 2009, the total number of KS (excluding imported standards) stood at 23,372. National standards are usually for product requirements and safety. Due to this nature of national standards, there has been only one case that patented technology was included in national standards so far. In the meantime, Korean Agency for Technology and Standards (KATS) is in charge of development and promotion of national standards under the supervision of the MKE. The KATS conducts overall standards-related work including development of national standards and support for standard setting by the private sector.

Currently, 88 private standard-setting bodies are registered in KATS, and they set 1,811 group standards as of 2009. Given the large number of unregistered standard-setting organizations and de facto standards which are widely used as standard without official standardization process, there seem to be a considerable number of private standards not counted in the official statistics. Private standard-setting

bodies voluntarily conduct standard-setting process under their internal system. If certain conditions are met, private standards can be registered as official group standards after certification by KATS.

2.2 *National standard setting process¹*

2.2.1 *Suggestion on development or revision of KS*

The head of the KATS may suggest development of new KS when deemed necessary for product quality enhancement, consumer protection and interoperability. Interested parties including industrial associations also can propose development or revision of KS by submitting suggestion with explanation to the KATS head.

2.2.2 *Consultation with relevant ministries and interested parties*

After suggestion on standard is submitted, the KATS consults with the relevant administrative agencies to verify whether there would be any difficulty in using the suggested standard. Stakeholders are given an opportunity to express their opinions on the suggestion. If a stakeholder requests public opinion hearing in writing, the KATS head is mandated to hold hearing.

2.2.3 *Review by Korea Industrial Standards Commission*

After collecting opinions, the suggested standard is subject to review process of Special Committee and Technology Deliberation Board; both composed of specialists in the relevant technologies.

2.2.4 *Prior notice on development of standard*

Once the abovementioned procedures are completed, the KATS head makes public the name, number and major contents of the newly set standard in the official gazette, which confirms the new KS.

2.2.5 *Adequacy review after development*

Every five years from the date of development, the KATS reviews adequacy of a standard to find out whether the standard is needed to revise or withdraw the concerned standard. If needed, a standard can be revised or withdrawn even within the five-year-period.

2.3 *Process involving adoption of patented technologies in standards*

If a standardized technology is protected by exclusive patent rights, it would cause serious anticompetitive effect in the relevant markets. To address this concern, during the process of developing national standards, prior review is conducted to check whether patented technologies are included in the suggested standard. If the review reveals the existence of patented technology, the patent holder should submit to KATS written consent to license the concerned patented technology on reasonable and non-discriminatory (RAND) terms. If the patented technology is included in standard, the relevant information such as the name of invention and application number is specified in standardization documents so that those who want to use standards can check the existence of patent.

¹ The following description on the national standard-setting process is focused on KS, the representative national standard of Korea.

Box 1. How to indicate information of patents

When the newly set KS is regarded to include patents, the following information needs to be indicated in the overview of the KS.

- Complying with this standard could result in the use of the following patent rights:

Name of the invention

Date of patent registration and patent (registration) number

Application number

- This indication has no impact on the effect and scope of the abovementioned patent rights.
- It is assured that the patent holder provided Korea Industrial Standards Commission he/she's intention to license the concerned patent for anyone on RAND terms.
- Apart from the patent mentioned in a), some part of this standard could include technologies protected by patents, patents applied for, utility model rights, or utility model rights applied for. Using this standard might cause an infringement of intellectual property rights. The head of KATS and Korea Industrial Standards Commission will not take responsibility for the confirmation on the matters related to abovementioned rights.
- Where the existence of patent rights is uncertain, the following needs to be indicated in the introduction of KS.

Attention needs to be called to the fact that some part of this standard could include technologies protected by patents, patents applied for, utility model rights, or utility model rights applied for. Using this standard might cause an infringement of Intellectual Property Rights. The head of KATS and Korea Industrial Standards Commission will not take responsibility for confirmation on the matters related to abovementioned rights.

Source: [KS A 0001 Appendix F]

In the case where the use of standard is disrupted because the patent is not licensed under RAND condition, the KATS investigates how the concerned standard is being used. Especially, the KATS confirms the scope of the patent right which disrupted the use of the standard. If the review finds that the existence of the patented technology causes difficulty in using the standard, the standard revision process may be conducted. But there has been no case in Korea where national standards were revised due to breach of RAND condition in licensing patented technologies.

The aforementioned procedures on development of KS are stipulated in "KS A 0001 Appendix F", the guideline of the KATS, which was produced based on ISO guideline. National standard-setting procedures are conducted according to the guideline. Group standard-setting procedures of the private sector also usually include prior review on existence of patent right and negotiation for RAND license.

2.4 Role of the government in standard-setting process

In addition to leading the national standard-setting procedure, the government promotes standards by supporting voluntary standardization of the private sector. It provides guideline by improving institutional system to make the standard-setting procedure impartial and transparent. It also tries to ensure fairness in participation by representing interests of the parties marginalized in the course of standardization.

In other words, the government tries to maximize the industrial development by developing and revising national standards and promoting the use of standards, while preventing standardization from adversely affecting public benefits by emphasizing procedural fairness in the standard-setting procedure. The abovementioned basic standard-setting procedure is operated by KATS under the supervision of MKE which carries out policies for Korean industrial development.

Also, the government imposes regulation to minimize the risk of setting up monopoly that could be arisen as a result of standardization. In particular, intervention of the competition agency is needed, for example, when a patented technology relevant to a standard is abused. The KATS, the national standard setter, and private standard-setting organizations both recognize the need for the procedure mentioned in 2.3 when including patented technology in a standard. But the procedure itself has its limitation in avoiding potential harm of patents relevant to standards, considering asymmetric information provided in prior review on patent rights, various obstacles in specifying RAND condition in actual contracts and huge costs incurred when revising standards. Consequently, ex post competition enforcement by competition agency is required where anti-competitiveness results from patent abuse.

3. Standard setting and antitrust policies

3.1 *Type of anticompetitive conduct related to standardization*

Usually standards have pro-competitive nature, since they boost consumer welfare by encouraging utilization of the relevant technologies and enhancing efficiency with technology compatibility. But sometimes fair market transaction is undermined with abuse of the standardization process or imposition of unreasonable condition for the use of standard-related patents. And these anticompetitive practices are subject to regulation of the competition authority.

The Korea Fair Trade Commission (KFTC) recently revised the “Guideline on Review of Unfair Exercise of Intellectual Property Rights (hereinafter referred to as the “Guideline”)” to, among others, effectively respond to practices abusing patent right related to the standards. This Guideline specifies practices of abusing patent rights including unlawful concerted acts in standardization process, patent ambush, refusal to license patents relevant to standards, and imposition of discriminatory conditions and demand for prohibitively high license fee.

3.1.1 *Unlawful concerted act in standardization*

Interested parties participating in the process of standardization usually are in competition, which raises concerns over the possibility of unlawful concerted act. The case in point is to restrict competition in the market by reaching an agreement in the course of negotiation for standardization on various terms such as prices and quantity of products, transaction area, transaction counterparty and limitation on technology improvement. In the case where the agreement does not lessen competition and, rather, facilitates technology standardization, raising its efficiency, these positive aspects can be considered in the course of assessing illegality of the conduct. But if the standardization process is no more than the means to cover up unlawful concerted act, the KFTC will take tough measure against it.

3.1.2 *Patent ambush in the process of standardization*

The Guideline of the KFTC as well as rules of each standard-setting organization specifically stipulates the necessity of disclosing the existence of patent before standards are set and pledging to license the patented technology under RAND condition. Whether the abovementioned requirements were met or not is important consideration in deciding illegality of the concerned patent exercise.

Patent ambush is a scheme where a company intentionally withholds information on its patented technology to increase the possibility of its patented technology being selected as standard and to avoid prior negotiation on license condition. This scheme discourages participation of the interested parties and hampers the standard-setting process. The KFTC expresses severe concern on this kind of deceptive act aimed to undermine fairness in the standard-setting process. Procedural unfairness of patent ambush, along with its consequent anticompetitive effect, is seriously considered in assessing illegality of the conduct.

3.1.3 Refusal to license a patented technology relevant to standards

In general, patent holders are granted the right to exclusively use the patented technology. Antitrust enforcement against refusal to license a patented technology, therefore, requires more careful approach than general type of refusal to deal. However, if a patented technology is selected as industrial standard or is widely used as de facto standard in the concerned industry, refusal to license is highly likely to cause anticompetitive effect. Particularly, if a market-dominating company which owns standard-related patents usurps the standard to exclude its rivals, it could seriously restrict competition in the relevant market. Moreover, refusing to license a rival company to use a patented technology included in a standard violates RAND condition pledged in the course of standard-setting process. Breach of the RAND condition stipulated in internal rules of standard-setting organizations does not necessarily translate to violation of antitrust law. But it can be used as grounds for proving illegality of the concerned conduct.

3.1.4 Issues related to setting conditions on licensing standard-related patents

When setting the conditions on licensing patent, patents relevant to standards might be subject to tougher restriction than other patents. Even though patent holders deserve appropriate rewards for their innovative technology, when establishing conditions of licensing patents relevant to standards, RAND conditions is required given the impact of standards on the relevant markets. Charging discriminatory or unreasonably high license fees can be subject to antitrust enforcement. A typical example for this case is a company with strong market dominance charging discriminatory license fees to exclude rivals in breach of RAND terms. (Further explained below)

3.2 Major enforcement case on abusing standard-related patents

Despite concerns over potential concerted act and patent ambush in the course of standardization, there has yet to be the related violation case handled by the KFTC. However, the KFTC will vigorously monitor potential anticompetitive acts involving standardization considering the accelerating trend of standardization and limitation of discretionary ex-ante procedures.

The KFTC sent a strong message on abuse of standard-related patents in 2009 as it enforced against Qualcomm's abuse of patented technology relevant to standard. The following is brief overview on the Qualcomm case.

3.2.1 Market Dominance Abuse by Qualcomm

Qualcomm is a market-dominating company which possesses patented technology selected as mobile communications standard. The company vertically operates the relevant technology and product markets by manufacturing and selling modem chips, which are incorporated into mobile phones, using its patented technology. In the process, it discriminately imposed high royalties for its patented technology on the companies which bought modem chips from its rival, even though it pledged RAND license in the course of the standard-setting process. By charging discriminatory royalties for its patented technology, it was able to maintain a 99% market share, effectively shutting out its rival.

In July 2009, the KFTC issued surcharges of 273.2 billion won (230M USD) and corrective order on Qualcomm for its anticompetitive act including discriminatory royalty practice. In this case, that Qualcomm pledged to license its patented technology on RAND terms in the standardization process constituted important grounds for proving illegality of its conduct. Generally, patent holders have the right to set royalty at their discretion. But if the patent is selected as standard, the patent holder faces restriction in setting royalty to some degree. This case shows that breach of the RAND term that causes anticompetitive effect in the relevant markets can be enforced against despite exclusive authority granted to patent holders.

SPAIN

1. Introduction

The experience of the CNC in cases dealing with standard setting and certification is basically limited to standardisation agreements established by business associations and to cases dealing with “certification in succession” or the refusal to renew certain certificates. In the context of the powers conferred by article 26 of the Spanish Competition Act, the CNC is working on a Report based on a Market Study on Quality and Security Certification activities, soon to be released.

The Study, initiated *ex officio* upon request of the CNC Council, responds to the need to conduct an in-depth sector investigation “in light of the reiteration of complaints in the certification sector and of competition concerns about certification systems¹”. The draft Report focuses on the analysis of likely competition restrictions in the certification of technical standards on quality, industry security and environment.

The present contribution to the WP2 of the OECD Competition Committee is based on information gathered as a result of both the investigation and resolution of cases and the work in progress on the said Report.

The CNC is aware of the potential benefits of standardisation and certification. Indeed, the Study will state the CNC’s opinion that those activities help solve problems of imperfect and asymmetric information between producers and consumers, improve the quality and security of products, enhance competition, guarantee interoperability, foster innovation, reduce production costs, and ease market creation, efficiency and integration. For all these reasons, the CNC admits that cooperation between competing firms in this field can be beneficial as long as it is not associated to potential anticompetitive effects.

2. Standard setting

Royal Decree 2200/1995² defines standard-setting bodies as non-profit private entities whose aim is the development of standards. The Spanish Association for Standard Setting and Certification (*Asociación Española de Normalización y Certificación*, AENOR hereinafter) is the only standard setting body in Spain, as established by Royal Decree 2200/1995, and is responsible for the elaboration of Spanish standards, so called “UNE standards”. Besides, AENOR represents Spain in international bodies, as a member of both ISO and European standard setting organisations such as CEN, CENELEC and ETSI. As such, its activities are subject to compliance with the internal rules of these international organisations.

Members of AENOR include natural and legal persons, public and private, interested in the development of standards and of certification activities in Spain. Current membership of AENOR includes around 1.000 undertakings of the Spanish industrial sector.

¹ Proceedings S/0143/09 AENOR.

² Royal Decree 2200/1995, of December 28th, regulating the infrastructure for industrial quality and security.

According to Royal Decree 2200/1995, all sectors concerned and a representation of the Public Administrations (appointed by the *Coordinating Council for Industrial Security*) should participate in AENOR's decision bodies. As a result, AENOR's Statute establishes that, of the 70 members of its Board of Directors, 10 will represent the Public Administrations.

The Coordinating Council for Industrial Security just mentioned, is an administrative collegiate entity attached to the Ministry for Industry, Tourism and Trade. Its main functions are the designation of representatives of the Public Administrations in the governing bodies of standardisation and accreditation bodies, as well as the drafting of strategic plans for standard setting, the design of Annual Standardisation Plans aiming at integrating and coordinating standard-setting bodies' and Public Administrations' needs, the promotion of the issuance and use of Spanish standards, and the transposition of EU ones, the evaluation of results of standardisation works in the fields of quality and industrial security in Spain, and Government counselling on standard-setting related matters.

AENOR's standardisation activity takes place within the Standardisation Technical Committees (STC). AENOR's internal functioning rules determine that STCs are set up by the Board of Directors. The first step is a proposal by a number of member firms belonging to a certain field of activity, or by the representatives of the Public Administrations. The new STC must have a balanced representation of all actors involved in the concerned activity, including manufacturers, service providers and clients or consumers, and must also be open to, inter alia, Public Administrations, laboratories and research entities. Besides, AENOR's non-members can also take part in the STC's activities after a request is made and approved (by simple majority). In principle, certification bodies can participate in STCs.

The initiative to elaborate a standard may come from the sector-related STC, from the Public Administrations, from other STCs, from any legal or natural person, or may be just the result of international agreements. It is the sector-related STC finally approving the beginning of the works.

There are two kinds of UNE standards: the purely national standards and the ones transposed from either European or International standards. Purely national standards have typically been elaborated as a result of a specific interest by the public sector to regulate areas not covered by the European or the International rules, but this is an increasingly rare event. Indeed, only 20% of UNE standards contained in the AENOR's Catalogue –28.030 in 2008– are purely national, while 80% are transposed standards from either European or International standards (mostly European: 73,6%).

Nonetheless, AENOR is not completely independent when elaborating purely national UNE standards, since certain disclosure and information requirements towards EU institutions and standard-setting organisations need to be fulfilled in this case. Thus, Royal Decree 1337/1991³ states that, except for identical or equivalent transpositions of International or European standards, AENOR must inform the European Commission, the European standard-setting organisations and the national standard-setting bodies of EU member States, about the new areas where it has decided either to establish or to amend a standard. In addition, AENOR must submit its draft standards to the European Commission and to the European standard-setting organisations, if they so request, publish the drafts in order to make them available for public consultation in the whole territory of the EU, grant the national standard-setting bodies of EU member States the right to participate either actively or passively in AENOR's works, and allow for its standardisation work to be discussed at European level, without taking any action which may prejudice a further decision at such European level.

³ Royal Decree 1337/1999, of July 31st, regulating the transfer of information on standards and technical rules and regulations regarding the services of the information society. This rule transposes Directive 98/34/EC, of the European Parliament and the Council, of June 22nd, and Directive 98/48/EC of the European Parliament and Council of July 20th.

As mentioned before, the Spanish Competition Authority has dealt with standardisation agreements established by business associations. In this context it has found that agreements fulfilling certain conditions are not to be considered as infringements of competition law, i.e., those unable to prevent, restrict or distort competition because of their object -they are not aimed at price fixing, at agreeing on common commercial conditions or at market sharing-, but tending instead to, for example, set up common nomenclatures or greater limitations to the exercise of activities than those established by sector regulation in order to protect the general interest, provided standard fulfilment is voluntary and third operators are not excluded⁴.

On the other hand, as a result of the Study about to be published, the CNC has learned that stakeholders are satisfied with AENOR's policy to allow participation of all interested parties in its standardisation activities. In addition to this, AENOR's Manual of Procedure provides that an UNE standard must be established with the participation of all interested parties, and that compliance with it is not mandatory.

The Spanish Competition Authority has not investigated any cases concerning disclosure rules and terms of access to technology required by a standard (FRAND licensing terms). However, its recently published Guide for Business Associations⁵ states that *"[i]n certain sectors it may be desirable, for efficiency reasons, to establish technical or quality requirements to be met by products or services. Partnerships can facilitate the adoption of such standards whether technological, quality or otherwise. However, those standardisation agreements introducing unnecessary restrictions to competition are prohibited, for example, those imposing unjustified barriers to entry or those making the standard mandatory for companies operating in the sector"*.

The question whether AENOR is equipped with rules ensuring that its members disclose relevant IPR during the standard-setting process and that they later grant licenses on the relevant IPR in FRAND terms, is becoming less and less relevant as the already low number of strictly national standards keeps decreasing. Moreover, these standards are usually unrelated to matters susceptible to be affected by such codes of conduct or commitments.

3. Certification

Royal Decree 2200/1995 defines certification bodies as public or private entities set up with the purpose of establishing conformity, upon voluntary request by interested agents, of a particular company, product, process, service or person with the requirements described in standard or technical specifications.

Certification includes three main evaluation areas: certification of products, processes or services; certification of Management Systems, and certification of persons⁶.

According to ENAC, the national accreditation body, there are 51 entities authorised to certify products, processes or services in Spain. Most of them specialise in certification of agricultural products,

⁴ Decision of April 30th 1993 on Proceedings *Bancos Españoles*, Decision of December 20th 1993 on Proceedings 51/93 *Fenacor*, Decision of April 12th 2000 on Proceedings A 267/99 *Almacenistas de Hierros*, Decision of May 26th 2000 on Proceedings A279/00 *Conducta Empresarial FEBE*, Decision of November 10th 2000 on Proceedings A 274/00, Decision of March 7th 2005 on Proceedings 575/04 *Fabricantes de Cartón 2*.

⁵ http://www.cncompetencia.es/Administracion/GestionDocumental/tabid/76/Default.aspx?EntryId=35543&Command=Core_Download&Method=attachment (yet only available in Spanish).

⁶ It certifies that a natural person is able to carry out a certain specific technical task.

and only a minority certifies industrial products. AENOR is the only certifying body recognised as such in a legal text.

ENAC provides information on 142 types of products for which authorised certification bodies exist. Out of those 142 types of products, 62 are authorised by a single certification entity, which in most cases is either AENOR or AIDIT.

The small number of competitors in many types of products may be due to limited demand for certification as a result of the specificity of products, as well as to the fact that product certification requires in many cases laboratory testing and auditing activities, which drives up entry costs.

The activity of Management Systems (MS)' certification is concentrated in two main areas: Quality Management, with 25 certifiers, and Environmental Management, with 17. Accreditation for MS' certification is not given in general but for a particular field, such quality or environment. The standards which are certified most in these two areas are, respectively, ISO 9001 and ISO 14001.

ENAC differentiates 102 sectors where these kinds of MS' certification are done. The number of certifiers in each sector is quite high; there are no sectors with single certifiers, and sectors with only two are rare.

Thus, contrary to what happens in the area of products' certification, competition in MS' certification is intense. *Bureau Veritas* leads the list of certification entities by number of ISO 9001 and ISO 14001 certificates with 32% market share, closely followed by AENOR, with 30% market share (AENOR has recently been losing market share for the benefit of *Bureau Veritas*), and distantly followed by *LRQA*, *SGS ICS Ibérica* and *APPLUS+CTC*, with less than 10% market share each. There are slight differences by certification fields, being the most significant that AENOR is the main provider of ISO 14001 certificates.

The certification of persons (welders, management systems auditors or gas installers, for instance) constitutes a minor field of action in which large certification entities, such as AENOR or *Bureau Veritas*, do not operate. Nowadays, seven entities accredited by ENAC issue person certificates.

Several Decisions by the Spanish Competition Authority have analysed competitive restrictions within the certification sector. Typically, these Decisions have dealt with problems associated to the so-called "*certification in succession*"⁷ or have followed complaints against AENOR on grounds that it refused to renew certain certificates⁸.

The CNC Report analyzes different possible restrictions to competition in the certification sector stemming, in principle, from the following circumstances: AENOR's dual position as standard setter and certifier, the composition and operation of the STCs for products, the role of the Public Administrations as certification services' applicants, and the absence of mutual recognition agreements among product certification entities.

AENOR is both the only national standard setting body and the main certification entity in Spain. This dual role may be placing AENOR in a privileged situation on the certification markets and, thus, may be resulting in a distortion of competition in such markets. Several reasons would support this argument. First, AENOR technicians participating in standard-setting processes could be better prepared to evaluate

⁷ Decision of September 4th 2000 on Proceedings 469/99 *AENOR*, and Decision of May 5th 2009 on Proceedings S/0087/08 *AENOR*.

⁸ Decision of March 3rd 2009 on Proceedings S/0010/07 *AENOR-I*, and Decision of July 28th 2009 on Proceedings S/0143/09 *AENOR*.

conformity with such standards *ex post*. Second, since companies and associations are present at the STCs, special links may emerge between AENOR and these companies and associations, which are potential users of certification services. Third, AENOR operates in the market under a special status, since it is the single standard-setting body in Spain as well as the Spanish representative at European and international standard-setting organisations. Fourth, AENOR could influence the selection of standards to be developed or the standard-setting processes to the benefit of its own certification activity⁹, even though, as it has previously been stated, AENOR's independence to elaborate standards is very limited. Fifth, AENOR could finance its certification activities with public subsidies granted for standardisation activities (cross-subsidisation). Sixth, the public sector has a significant influence on AENOR's activities, since it takes part in its Board of Directors and may propose the set-up of new STCs and the beginning of standardisation processes, and this could pose the problems that typically arise when an operator in a market is also involved in its regulation.

MS certifiers make their decisions on the basis on the opinions of their own technical experts. However, some product certifiers, and this is the case of AENOR, have chosen to establish Committees made up of technical experts but also representatives of companies active in the relevant sector, as well as consumers and Public Administrations. The fact that AENOR is organized in this way may raise competition concerns, given its importance in the market for certification of certain products. On the one hand, the presence in these Committees of firms or industry associations could put at a disadvantage those companies seeking certification services that are not represented on the Committee, since they are to be evaluated by a Committee where their competitors have voice and vote¹⁰. On the other hand, AENOR could favour its own network of laboratories at the expense of competitor laboratories.

The current legal framework encourages Public Administrations to acquire standardised products. Also, quality certificates are usually required in public procurement processes. In this context, it would be undesirable from a competition point of view that Public Administrations bestow a more favourable treatment to certain certifiers discriminating against the others. As a matter of fact, the Spanish Competition Authority's Decision on case 469/99 AENOR, of September 24th 2000, ruled that Public Administrations were favouring AENOR. Nonetheless, the Public Sector Contracts Act (Act 30/2007, of October 30th), establishes that "unless otherwise justified by the object of the contract, technical specifications should not mention an exclusive manufacturing method, nor make any reference to any specific brand, patent or product origin, with the aim of favouring or disqualifying certain firms or products".

There are two kinds of international mutual recognition agreements in the certification sector. Those signed between accreditation entities and those signed between certifiers. The former allow accreditation

⁹ This was one of the arguments alleged in the complaint initiating Proceedings 469/99 AENOR.

¹⁰ In fact, the CNC's Decision of July 28th 2009 on Proceedings S/0143/09 AENOR, discussed a possible restriction of competition to foreign products in the Spanish market resulting from a decision taken at a STC in AENOR. A Portuguese company sued AENOR for having suspended its certificate in order to protect the companies within a Spanish association of manufacturers. In the relevant STC, not only the association of manufacturers participated but also one of its members was the director. However, the CNC did not consider that AENOR had committed an abuse of dominant position because, among other reasons, the STC's decision to suspend the certificate was adopted by consensus and thus there was no need to vote. However, the CNC drew attention to the possible harms to competition that might arise from the composition of STCs.

bodies recognised in one country to operate in other countries¹¹. The latter imposes mutual acceptance of the certificates issued by each other.

At international level, the recognition of certifications issued by a member of IQNet (International Certification Bodies Network) is automatic for the rest of IQNet members. Nevertheless, the CNC is not aware of any mutual recognition agreements signed by Spanish certification bodies.

The lack of mutual recognition between certification entities may result in the so-called “certification in succession”, which happens when a certain certifier certifies a product only on the condition that all inputs incorporated in the product have also merited certification by the same certifier. This could lead to the expulsion from the certification market of those input certifiers whose certificates are not recognised by product certifiers. However, Spanish certification entities do not consider that the lack of mutual recognition is a problem, especially after the Spanish Competition Authority issued its first Decisions on the matter.

¹¹ ENAC has signed several mutual recognition agreements as a member of the international qualification body named *International Accreditation Forum*. Mutual recognition between EU accreditation entities is possible after passing an evaluation, as stated in Regulation (EC) N° 765/2008 of the European Parliament and of the Council of 9 July 2008, setting out the requirements for accreditation and market surveillance relating to the marketing of products.

TURKEY

This contribution is intended to provide the approach of the Competition Board to various aspects regarding standard setting through relevant decisions of the Competition Board and the secondary legislation in the form of guidelines.

1. Decisions of the Competition Board

Standardization aims to define technical or quality requirements of a product or its production process and method. The standardization agreements or such decisions of association of undertakings may include various matters ranging from standardizing the type or size of a particular product to standardizing the technical characteristics of a product so that it fits other related products. Moreover, the conditions that should be satisfied to receive a quality certificate or to secure certification by a particular authority may also be deemed as standard.

While considering standardization agreements or such decisions of the association of undertakings under Article 4 of the Competition Act¹, which prohibits anti-competitive agreements and concerted practices between undertakings, and decisions and practices of associations of undertakings, the Competition Board primarily takes into account that participation of the relevant undertakings in the standard setting process has not been restricted and transparency has been ensured. Moreover, in case the standard agreed is used with an aim to drive current or potential rivals out of the market or such effects occur, then the agreement or the decision would be contrary to Article 4 of the Competition Act. In order to understand whether such an aim exists or such an impact is likely, the Competition Board considers whether

- participation of the relevant undertakings in the standard setting process has been restricted,
- a transparent environment where relevant undertakings or persons can obtain information regarding the standard exists,
- the standard is applied to create discrimination, and
- undertakings are constrained to sell and market their products that do not comply with the standard.

Having cited these in its *Medium Density Fiberboard and Chipboard* decision,² the Competition Board evaluated the decision by an association of undertakings to produce medium density fiberboard and chipboard with a thickness of 16 mm instead of 18 mm. 16 mm is the standard thickness in the European Union and the Middle Eastern countries whereas consumption in Turkey concentrates on 18 mm leading to differentiation of Turkish production from world standards. By changing the industry standard to 16 mm, it is aimed to avoid restrictions faced by the industry in imports as well as exports.

¹ Act on Protection of Competition No:4054.

² The decision is dated 14.8.2003 and numbered 03-56/650-298.

First of all, the decision of the association of undertakings has been favored by most of the undertakings operating in the market representing a very large part of the market. The members of the association as well as non-members were aware of the nature and subject of the decision and participated in the decision-making process by presenting their views, which ensured transparency. The number of undertakings favoring the decision, the high market share they represented, the nature of the decision and transparency of the decision-making process were taken as indications that the aim was to create a new standard for the industry and there did not exist a practice by some undertakings with a purpose to restrict competition. Moreover, that the decision did not aim to drive any actual or potential competitors out of the market was also apparent from the fact that any undertaking could produce the 16 mm product without any additional cost, investment or difficulty. Furthermore, the decision did not include any restriction preventing the undertakings from producing the 18 mm product on demand. Finally, among the benefits of the standardization through the decision of the association of undertakings, which was mentioned in the decision of the Competition Board, are compliance with the standards in foreign countries; decrease in the difficulties faced during exports; decrease in cost of raw material (mainly that of wood) as the new standard is thinner; cheaper prices for customers as a result of decrease in costs of all the inputs used in production; higher quality (the thinner the product is the higher the quality should be); and increase in competitiveness of the industry vis-à-vis foreign undertakings due to decreasing costs; and the resulting possibility of more exports. As a result, it was decided that the decision of the association of undertakings did not violate the Competition Act as there was no risk of prevention of freedom of undertakings to produce products of 16 mm or 18 mm and no possibility of exclusion from the market.

In another case³, the Competition Board assessed whether the Turkish Pharmacists' Association (TPA) violated the Competition Act by granting certificate of conformity for the E signs pointing to pharmacies (Letter "E" stands for "P" of pharmacy) to be used in pharmacies. According to the relevant regulation, there must be E signs in the pharmacies the standards of which are to be determined by the TPA and approved by the Ministry of Health. It was alleged that the practice of TPA to grant certificate of conformity to E signs produced by certain undertakings and to publish a letter indicating names of those undertakings via its website complicated the activities of other undertakings which also produced the E signs in conformity with the standards but had no such certificate. The examination indicated that

- the practice of the TPA regarding E signs aimed to ensure production in conformity with the standards,
- no restriction existed regarding grant of certificate of conformity by TPA to relevant undertakings that could produce in conformity with the standards, and
- TPA had no sanction for those undertakings the production of which was not in conformity with the standards and for those pharmacies which used E signs that did not comply with the standards.

As the practice did not have the object or effect of restricting competition, it was not contrary to Article 4 of the Competition Act. Moreover, the practice of determining the undertakings which could produce the E sign in conformity with the standards and granting the certificate of conformity neither constituted entry barrier nor discrimination in disfavor of those undertakings producing such signs nor complicated their activities and therefore could not be regarded as abuse of a dominant position when it was taken into account that

- the practice was commenced upon demand from members of the TPA and aimed to ensure use by members of signs compatible with the standards,

³ Decision of the Competition Board is dated 15.11.2007 and numbered 07-86/1088-422.

- the practice did not exclude relevant undertakings that could produce in conformity with the standards, and
- the TPA applied no sanction for those pharmacies which used E signs that did not comply with the standards.

In a final case⁴ concerning a project entitled “*New Generation Laundry Detergents Project*” (the Project) carried out by the Soaps and Detergents Industry Association (SDIA) with an aim to release less chemicals to the environment by conscious use of compacted products and to ensure savings in terms of energy, packaging and distribution by less use of such products, the Competition Board analyzed the competitive object and impact of the Project under Article 4 of the Competition Act. The Project is open to all undertakings in the market regardless of membership to the SDIA or the size of the undertakings. Although the four biggest undertakings representing 95% of the relevant market would join the project, the remaining undertakings with a total of 5% share of the market would not produce compacted detergents and act in accordance to prospective market conditions. The project would last two years (from September 1st, 2008 to September 31st, 2010) with an additional one year to sell the possible stocks. The participants of the Project would be responsible to develop and market products with optimized formula leading to the same result with the suggested low dose; communicate to the consumers the information necessary to consume the relevant new products consciously in a clear manner; and to ensure that the products they produced would be safe for human health and the environment. The optimized formula is not protected by any intellectual property rights. In case of need, guidelines to produce the compacted products would be prepared by the SDIA and the International Association of Soaps, Detergents and Maintenance Products of which the SDIA is a member. The Project would have a logo to be used by the participants on their products through a free license. The financing of the Project would be assumed by the participating undertakings according to their market shares in years 2004-2007.⁵

As part of the examination conducted, the Competition Board first analyzed the reason why the undertakings did not use the unpatented technology individually in a competitive manner and acted under the SDIA. It was seen that previous individual attempts failed because of lack of consumer awareness to a great extent. Therefore, it was of crucial importance to advertise the Project. As a result, the Competition Board considered that an advertising campaign independent from particular undertakings and trademarks, which would be based only on the compacted nature of the product and its economic and environmental benefits, would not have the object or effect of restricting competition especially when the participation was not compulsory and the undertakings had their own advertising activities. Secondly, it was taken into account whether the financing of the advertising activities based on the market shares of the participating undertakings in particular years (sharing information on market shares) would lead to coordination in the market. It was seen that the relevant years concerned previous years and did not include years in which the project would last indicating that there would be no coordination. Thirdly, as all the rival undertakings preferred a similar production process, the prices and costs following the adoption of the new production process were also examined. Although the increase in prices was limited during the period when the examination was conducted, there was the risk to pass on the increase caused by the costs to the consumers in the long run. Moreover, the prices charged by the rivals could come close to each other as a result of increase in short term production costs with the effect of similar formulation. Furthermore, although supply would not be restricted as compacted products would replace the non-compacted products, there could be limited impact on supply indirectly depending on the consumer demand. Among some other competitive concerns taken into account were the facts that competition could be restricted in terms of limitation of consumer choice as undertakings representing 95% of the market would terminate production of classical

⁴ Decision dated 15.7.2009 and numbered 09-33/727-167.

⁵ Only those undertakings with a market share above 3% were supposed to contribute to the financing.

laundry detergents and begin to produce new generation laundry detergents; there was the potential to create entry barrier; competition could be restricted in the markets for raw materials due to decrease in purchase of different production inputs etc.

Finally, as the Project had the potential to restrict competitive conditions, it was assessed whether the conditions for the exemption were satisfied to avoid the prohibition under the Article 4 of the Competition Act. The Project was granted exemption because it would lead to new or technical developments in the production, improvement in distribution, consumer benefits due to less environmental pollution and monetary savings caused by less energy consumption. Although the fact that undertakings controlling 95% of the market would begin the production of the compacted detergents could be considered as complicating, via creation of a standard, the competitive conditions for undertakings the production of which would fall outside the standard and as limiting the supply of non-compacted products, it was decided that the Project did not have such an object or effect. It was considered that the chance of success for such a concerted action would be very low without taking account of a fundamental factor such as consumer awareness. Moreover, the sales prices indicated that the participating undertakings competed against each other as well as against other undertakings producing classical non-compacted products. The Project foresaw only advertising activities under a common logo at initial stages; did not restrict advertising and marketing activities of the participating undertakings and therefore the undertakings continued their competitive conduct in terms of pricing their products. Again, although the Project was carried out with the participation of undertakings controlling a significant share of the market, it would be hard to achieve the improvements and benefits of the Project without the participation of the majority of the producers and necessary level of work to ensure consumer awareness. Moreover, the duration of the Project was reasonable to allow the producers to carry out the necessary investments and sell the possible stocks. As a result, in addition to new or technical developments in the production, improvement in distribution, and consumer benefits, it was decided that the Project would neither eliminate competition in a significant part of the relevant market nor limit competition more than what was compulsory.

2. Guidelines on technology transfer agreements (within the context of industry standards)

Apart from the decisions of the Competition Board concerning standard setting, certain general rules on the topic to the extent that intellectual property rights support industry standards can also be found in *Guidelines on Application of Articles 4 and 5 of the Act No. 4054 on the Protection of Competition to Technology Transfer Agreements*⁶ adopted by the Competition Board. In this context, a brief account of some important points in the Guidelines can be provided in the following.

The Guidelines consider technology packages resulting from cross licences and creating de facto industry standard, which third parties need access to compete effectively, as closed standard reserved for the parties, if the parties cross licence each other and undertake not to licence third parties.⁷ Normally, there would be no competition concerns in case the third parties are granted licences regarding technologies supporting such standards on fair, reasonable and non-discriminatory terms.⁸

Technology pools may lessen innovation by foreclosing the market to alternative technologies especially when they support an industry standard or establish a de facto industry standard.⁹ The standard

⁶ Dated 13.5.2009 and available via www.rekabet.gov.tr

⁷ Paragraph 142. Such licensing agreements will be assessed under principles concerning technology pools in paragraphs 182-207 of the Guidelines.

⁸ Paragraph 142.

⁹ Paragraph 185.

and the technology pool may complicate the entry of new and developed technologies in the market.¹⁰ In case the agreements between the technology pool and individual licensees are of relatively long duration and the technology in the pool supports a de facto industry standard, then the pool may prevent access of new substitute technologies to the market where the pool includes technologies alternatives of which are available outside the pool or which are not necessary for the production of the products that the pool relates to.¹¹ In order to evaluate risk of foreclosure under these circumstances, it will be important to consider whether the licensee has the option to terminate part of the licence at reasonable notice with a corresponding reduction in royalties.¹²

Undertakings, which create a technology pool compatible with the relevant articles of the Competition Act and an industry standard it supports, are free to determine the royalties for the technology package and the royalty for individual technologies inside the package either before or after the standard is set.¹³ However, under certain circumstances, it could be important to agree on the royalties before the standard is chosen to avoid granting market power to one or more essential technologies.¹⁴ Competition may be increased between the available technological solutions in case an independent expert selects the technologies to be included in the pool.¹⁵

Licensors and licensees should be free to develop rival products and standards and to grant and obtain licences outside the pool so that third party technologies are not foreclosed and the pool does not limit innovation and prevent emergence of alternative rival technological solutions.¹⁶ In case the pool supports a (de facto) industry standard and the parties are subject to non-compete obligations, there is the risk of prevention of new and improved technologies and standards.¹⁷

Finally, when participation in the creation of a standard or a pool is open to all interested parties representing different interests, it is more likely that the technologies to be included in the pool will be selected according to price/quality considerations compared to a situation where only a limited number of technology owners involve in the process.¹⁸ Similarly, when the relevant organs of the pool are composed of people representing different interests, it will be more likely that licensing terms including royalties will be fair, non-discriminatory and will reflect the value of the licensed technology compared to the case where the representatives of the licensors control the pool.¹⁹ Another factor is the extent to which independent experts involve in creation and operation of the pool.²⁰ For instance, as it is a complex matter generally requiring special expertise to decide which technologies are essential for a standard supported by the pool, it is useful that independent experts involve in the process of selection of the technologies in the

¹⁰ Paragraph 185.

¹¹ Paragraph 194.

¹² Paragraph 194.

¹³ Paragraph 197.

¹⁴ Paragraph 197.

¹⁵ Paragraph 197.

¹⁶ Paragraph 199.

¹⁷ Paragraph 199.

¹⁸ Paragraph 203.

¹⁹ Paragraph 203.

²⁰ Paragraph 204.

pool.²¹ Therefore, the experts should be independent from the undertakings creating the pool and have the necessary technical expertise.²²

²¹ Paragraph 204.

²² Paragraph 205.

UNITED KINGDOM

1. Executive summary

This paper considers the competition effects of product standards with specific reference to environmental standard setting. The paper examines situations where outcomes for consumers – in terms of price, quality, choice and innovation – are diminished as a result of a change in the nature or intensity of competition in a market brought about as a direct result of the implementation of a product standard.

Such concerns are most likely to occur in markets that are characterised by imperfect competition – small numbers of firms, or a few large firms facing a fringe of smaller firms, differentiated products and some degree of entry barriers.

Such concerns are also likely to arise if:

- the product standard has an asymmetric effect on firms operating in the market, or
- the product standard gives rise to strategic behaviour on the part of firms.

In particular, the paper identifies five types of concern relating either to asymmetry or strategic behaviour. The most important concerns relate to two cases.

- First, where the introduction of a mandatory minimum standard imposes an asymmetric cost impact on firms in the industry. The extent to which a competition concern will then arise depends on the magnitude of the cost differential imposed on firms and whether it is permanent or transitory. Such effects can be mitigated by careful design and implementation of the standard. In particular, firms should be given substantial notice of the introduction of the standard, it should not be based on proprietary technology and its introduction should be sympathetic to the product lifecycle for the industry. Additionally, consideration should be given to the use of open standards where appropriate.
- Second, where the development of industry led voluntary standards gives rise to concerns over co-ordinated effects or collusion. Again, the effects can be mitigated through careful design, with an emphasis on limiting contact between firms, information sharing, and the ability to monitor production and sales levels.

2. Part. I. Introduction

For the most part markets function well without the need, within a basic legal framework, for either external or internal intervention. When markets are not functioning well, regulation (be it external or internal) can improve outcomes for consumers.

Standard-setting schemes appear in a broad range of markets; from goods to services, from highly innovative to basic product markets. At the heart of many standard-setting initiatives are wider policy objectives, which policy makers seek to achieve- at both EU and UK level for example the development of

eco labels and minimum environmental performance standards have been introduced in order to allow policy makers to achieve wider environmental objectives. In addition, standards are introduced and developed by industry in order to solve quality problems, which cannot be addressed through market-based solutions.

The potential for regulation, including standard regulation, to affect the competitive process is widely recognised. The aim of this paper is therefore to highlight where competition concerns might arise in setting standards and to explore what steps can be taken to minimise competition concerns through appropriate regulatory design.

This paper is based on a report prepared by Frontier Economics for the UK Office of Fair Trading (OFT) on the competition effects of environmental product standards¹. While the paper was written with particular reference to environmental product standards, many of the same competition and policy implications will also apply to other standards.

This paper sets out an economic analysis of when and how regulations might affect competition, and what actions could be taken to mitigate any competition concerns that arise.

2.1 *Structure of the report*

This report is structured as follows:

- Part II outlines the economic rationale behind product standards and provides a practical description of the types of standard
- Part III provides an assessment of the competition effects that standards can give rise to. It focuses on identifying those cases where competition concerns are most likely to arise and the actions that can be taken to mitigate them. It also identifies the circumstances where product standards can enhance competition.

3. *Part II: How do product standards work?*

Product standards work by correcting market failures in specific product markets. In doing so, successful standards can help markets function better, promoting competition and contributing to wider policy objectives. The following sections describe how standards can help markets function better.

3.1 *Types of standards*

The first primary distinction between different standards is whether they require firms to meet a specific target or take a specific action (which we have termed action standard), or whether they provide information to customers or retailers but leave firms ultimately free to act as they see fit. The second primary distinction is whether the standard is mandatory or voluntary. Mandatory standards impose obligations on all producers whereas voluntary standards do not require compliance from firms, although the firms may attempt to impose some form of enforcement mechanism.

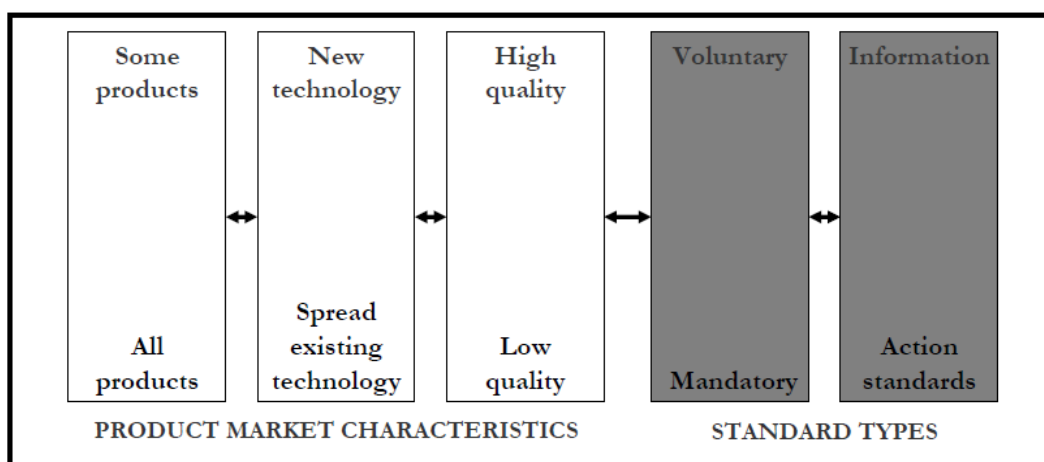
Other standards tend to be variations on these two major themes, including the following variations:

- open or closed standards, and

¹ See the OFT website: http://www.oft.gov.uk/shared_of/economic_research/oft1030.pdf.

- fixed, dynamic or sunseting standards.

Figure 1: Routes by which product standards can take effect²



Many voluntary endorsement labels operate at the top of all the bars in Figure 1. The labels are only available to the best performing products and these are often the top quality products in other dimensions. The label works if customers are prepared to pay a premium, or if firms can sell more products than they would otherwise be able to at the same price. These extra revenues support the use of more expensive technology and encourage research and development into better products.

By contrast, many mandatory performance standards operate along the bottom of all the bars in Figure 1. They apply to all products in the market. Many product standards are explicitly based on 'best available technology' and so the primary emphasis is normally on spreading existing best practice rather than developing new technology. Finally, more expensive products will often have already invested in technology meaning that the performance standard will have more impact on low-end products.

Endorsement labels work by offering firms a price premium or greater sales. The consumers who are most likely to be prepared to pay a price premium are those who are already paying a premium along other dimensions, such as high quality products. In turn, the firms that make high quality products tend to be those that are already investing in technology, as this supports premium prices in the market.

As a result, standards which apply at opposite ends of the bars may struggle. Endorsement labels are less likely to encourage customers who are particularly price sensitive to pay a premium. Likewise, a simple mandatory standard may already be met by many products on the market.

Different standards can therefore be complementary within the same market. Mandatory standards can remove the worst performing products from existing markets, while voluntary standards can promote better technology in future. For example, mandatory standards are likely to be introduced to encourage standards by performance by all products. This may well be necessary as firms targeting very price sensitive consumers may not be prepared to reduce their margin to improve standby performance which customers are largely unaware of. But within the same industry, high end products may be promoted as having extra features for energy efficiency and this, to the extent that customers are prepared to pay extra for better performance, will offer profits to firms that invest in technology. In this way, endorsement labels can offer the same kinds of rewards to firms as explicit prizes can.

² Id., p.47.

4. Part III. Competition Effects

Understanding the likely impact of standards on competition is complex. This is because the competition effects that are likely to materialise depend upon the interaction between the type of standard, the type of costs the standard affects, the structure of the market in which the standard is imposed and the way in which firms in the market compete with each other to begin with. There are a large number of possible combinations of standards and market structures to consider.

4.1 *The pro-competitive effects of product standards*

Product standards can often have pro-competitive effects. Successful standards will help correct market failures: the resulting competition in the market will be more likely to lead to the best outcomes for firms and consumers alike.

There are two ways in which product standards have pro-competitive effects:

- by opening up new dimensions for competition to take place, and
- by triggering changes in the market environment which make competitive activity more likely.

4.1.1 *Opening up new dimensions for competition*

Many product standards rely on competition for their impact. For example, environmental labels will have no impact unless customers value the information they provide and make purchasing decisions on that basis. In these cases, product standards open up a new dimension along which competition takes place. As a result, customers can buy products that more closely reflect their preferences and so create incentives for firms to sell products to match.

Firms may sometimes seek to blunt competition by making it difficult for customers to observe or compare the total costs associated with the products they are considering purchasing. This is especially the case with products that involve an up front cost and an ongoing usage cost. Product standards can improve market transparency by ensuring that all firms must provide lifetime cost data on the same basis and using the same metrics. Better information to consumers is likely to increase the degree of competition between firms as customers select on the basis of lower lifetime costs and improved environmental performance.

These pro-competitive effects may be the result of either mandatory or voluntary standards. Firms have incentives to signal low lifetime costs or improved performance and sometimes develop their own branding mechanism to do so.

In other cases, co-ordination problems can mean that any firm that acts by itself would fail. Customers, perhaps because of lack of trust or awareness, would choose (apparently) cheap alternatives rather than paying higher prices for a product with lower lifetime costs. Industry bodies may be able to resolve the problem and introduce a voluntary standard that allows firms to signal lifetime costs. However, if they are unable or unwilling (perhaps because there are some firms who would lose out) mandatory standards may be required.

4.1.2 *Changing market environment*

Product standards can also have an indirect effect on competition. New product standards can change the market environment in ways that support a more or less competitive market structure. Paragraphs 4.49 - 4.84 outline some of the key concerns about how product standards can make the market less competitive.

This section provides examples of two ways in which product standards can improve competition in a market:

- creating a common standard, and
- increasing incentives to innovate.

Creating a common standard

Competition is likely to be strongest where customers can easily identify what is important and new firms can easily enter the market. Mandating a single product standard will, in some cases, help with both of these points.

First, product standards may help alleviate a 'market for lemons' problem, where customers are unable to distinguish between good quality and poor quality products. If customers cannot distinguish products, they will not pay extra for high quality products. As a result, there is little incentive for firms to produce good quality products, even though customers would be willing to pay high prices if they knew they were getting a good quality product in return. Product standards can reassure customers that they are getting a good product. For example, without mandatory building regulations, people would have less confidence their house was safe. Where customers are able to distinguish between good and bad quality products, this improves competition in the market more generally.

Second, mandatory standards can promote market entry. This can be the case, for example, where the same product standards are adopted internationally. Uniform standards offer firms the opportunity to exploit economies of scale by operating in several countries simultaneously, without having to make costly changes for specific countries. Common mandatory standards may therefore be more pro-competitive than voluntary standards adopted independently in each country.

More generally, one advantage of mandatory standards is that they can provide a degree of certainty to firms that their products will meet all the relevant criteria. Where there is a risk that product standards change frequently, competition is likely to be negatively affected. Firms may reduce the development of new products or limit product runs if there is a risk that they are left with stock that doesn't meet the product standard. Consequently, it may be more appropriate to make less frequent changes to standards (particularly, where a product standard affects a relatively small proportion of the cost base or has relatively small impact on achieving the relevant policy objectives).

Providing a market for innovators

The economics of innovation is complex and the net effect of introducing new standards may be positive or negative, depending on market conditions and the specific form of new standards. Nevertheless, new product standards can improve firms' incentives to innovate. One mechanism is by disrupting an established order in which market leaders can dictate the pace of technological development by making it clear that they will at least match the achievement of others. Small firms or new entrants then have little incentive to innovate as they will not be able to overtake the market leader and win sales. As a result, uncertainty about who will make a breakthrough first can increase incentives to innovate. Since environmental considerations have not always had a high priority in the past, uncertainty about the best way to meet new environmental product standards will, in some cases, increase the degree of innovation in an industry.

Box 2. Summary of pro-competitive effects

Product standards can encourage competition in some situations. They do this either directly, by encouraging competition in a dimension where it was limited before; or indirectly by creating a change in market environment which is more conducive to competitive behaviour.

Understanding these pro-competitive effects can allow policy makers to draw out successful technologies and market outcomes and avoid the problems of picking winners identified in the next section.

4.2 *Negative effects: an analytical approach*

This section sets out an analytical approach to assessing negative effects on competition. In particular, it addresses the rationale and approach to identifying those combinations of standards and markets that have the greatest prospect of giving rise to a negative competition effect.

4.2.1 *Defining negative effect on competition*

For the purposes of this paper we are interested in identifying those circumstances in which the introduction of a particular product standard changes the competitive process in a market such that there is a material worsening of outcomes for consumers.

This definition gives rise to three issues. First, by negative outcomes for consumers, we mean any negative effect on price, product quality, choice or innovation.

Second we are only interested in those cases where outcomes have changed as a result of a change in the nature or intensity of competition that is directly attributable to the introduction of the product standard in the market, and not other factors. For example, meeting product standards can entail extra costs. If a new product standard led to similar increases in operating costs for all firms in an industry, but had no substantial effect on competition between those firms then we would not consider this to be a competition concern, even though prices would rise. However, now suppose the product standard affects the operating costs of only some firms in the industry. Over time these firms become less competitive and exit the industry. The remaining firms now face less competition and are able to increase prices or diminish product quality or choice. In this case the product standard has materially affected the intensity of competition in the market, outcomes for consumers have worsened, and so the introduction of the product standard would be considered to give rise to a competition concern.

Third, in understanding the potential effects on outcomes for consumers we must look beyond the effects of the standards on firms operating within our national borders. Many of the markets in which these types of product standards are being considered are international in nature. Consequently, even if firms in the UK for example are not detrimentally affected by the standard, firms in other countries may be, such that the overall level of competition in the market is reduced.

4.2.2 *Identifying the most likely competition concerns*

Understanding the likely impact of product standard regulations on competition is complex. This is because the competition effects that are likely to materialise depend upon the interaction between the type of standard (label, voluntary, mandatory, minimum), the type of costs the standard affects, the structure of the market in which the standard is imposed and the way in which firms in the market compete with each other to begin with. There are a large number of possible combinations of standards and market structures to consider.

This paper identifies three broad factors that are necessary in order for a competition concern to be likely to arise, and identifies a number of different transmission mechanisms through which the negative competition effects materialise.

The conditions required to give rise to a significant risk of a negative competition effect are:

- the market must be characterised by imperfect competition, and
- the product standard must have an asymmetric effect on firms operating in the market (either directly, or because it gives rise to strategic behaviour on the part of firms), or
- the product standard gives rise to strategic behaviour on the part of firms.

Each of these conditions is discussed in turn below.

Imperfect competition in the market

In economic terms, markets are typically characterised as being:

- perfectly competitive
- imperfectly competitive or oligopolistic, or
- monopolistic.

Competition concerns arising from the introduction of product standards are only likely to be a concern in oligopolistic markets.

Markets that are close to perfectly competitive tend to be characterised by large numbers of relatively similar sized firms, low entry barriers and relatively homogenous products. In order to give rise to competition concerns, a new product standard in such a market would have to convey a substantial and lasting cost advantage to a subset of firms and raise barriers to entry substantially. Any transitory advantage would be competed away. Few product standards could be expected to have such a transformational impact.

Monopolists are likely to already be exploiting their position to the extent that they can, given constraints such as any countervailing buyer power, any threat of market entry and the requirements of competition law. Consequently, it is unlikely that a product standard will give rise to competition concerns.

The type of market where competition concerns are likely to arise, therefore, is one in which there are either a relatively small number of firms, or where there are a few large firms and a fringe of smaller firms.

Typically, one would also expect to see some barriers to entry to the market, and some differentiation in the types of products being offered by competitors.

This does not mean that there will necessarily be competition concerns in such markets if product standards are introduced, but rather that it is possible that such effects might arise, depending on the nature of the product standard and the effect it has on firms.

Asymmetric effects

The introduction of product standards to a market is most likely to give rise to competition effects if the standards have asymmetric impacts on the firms operating in the market. There are at least three ways in which a standard may have an asymmetric impact:

- between firms already operating in a market
- between incumbent firms and possible new entrants, and
- between different products in the same market.

If a product standard impacts asymmetrically, it is likely to confer a competitive advantage on some firms at the expense of others. Over time this may lead to an increase in the market power of some firms and a reduction of the overall level of competition in a market.

Such asymmetry could arise either because of the structure of the industry or because the standard affects firms' costs differently. For example, suppose there is a mix of large and small firms operating in the market. If a product standard is introduced that requires firms to access a new technology, this may advantage larger firms in the short term if they are able to spread the costs of the new technology over a larger number of units of the product. If the cost of the new technology is high enough, the advantage conferred on large firms may force some of the smaller firms to exit the industry. The exit of small firms may in turn lessen the competitive constraints on the large firms, allowing them to raise prices or reduce choice, quality or innovation.

Alternatively, consider the implementation of a product standard based on best available technology, where only a few firms are currently using that technology. If it takes considerable investment to achieve the standard or if it is based on any proprietary technology or processes, the standard could again have an asymmetric effect leading to a lessening of competition.

Strategic behaviour

If standards do not have asymmetric effects, they may still give rise to competition concerns if they give rise to strategic behaviour on the part of firms that is designed to diminish competition in the market.

The two key concerns in this regard are:

- co-ordinated behaviour – firms using the implementation of standards (particularly if based on voluntary agreements) to lessen the intensity of competition in the market, and
- exclusionary behaviour – firms using the regulatory process in order to gain a competitive advantage vis-à-vis their rivals.

Both of these issues are discussed in detail in the next section.

Box 3. Summary of when competition concerns are most likely to arise

From a competition perspective, we are interested in those cases where outcomes for consumers – in terms of price, quality, choice and innovation – are diminished as a result of a change in the nature or intensity of competition in a market brought about as a direct result of the implementation of a product standard.

Such concerns are most likely to occur in markets that are characterised by imperfect competition – small numbers of firms, or a small number of large firms facing a fringe of smaller firms, differentiated products and some degree of entry barriers.

The competition concerns are also only likely to arise if:

- • the product standard has an asymmetric effect on firms, or
- • the product standard gives rise to strategic behaviour on the part of firms.

4.2.3 *Types of competition concern that are likely to arise: five key concerns*

The previous section identified the circumstances in which competition concerns are most likely to arise in relation to product standards. This section considers the types of competition concern that are likely to arise. In particular, it identifies five key ways in which different types of product standard may give rise to competition concerns, and discusses ways in which the effects may be mitigated.

Asymmetric cost impact

When mandatory minimum standards are implemented, one of the most likely ways in which a competition concern can arise is through an asymmetric impact on firms' costs. Specifically, this type of impact can arise in one of three ways:

- differential impact on firm production costs,
- raise minimum efficient scale for the industry, or
- raise production costs for entrants relative to incumbents, thereby increasing barriers to entry.

Differential impact on production costs

This type of effect is most likely to occur where firms are producing differentiated products or using different production processes. In this case, it is likely either that some firms' products will be closer to – or at – the specified minimum product standard, or that their production processes will be more easily and cheaply adapted in order to achieve the product standard. For example, if the standard is based on best available technology, this implies that the products of some firms in the market may already be achieving the performance standard.

Consequently, given that all firms must comply with the standard, some firms are placed at a cost advantage vis-à-vis their rivals. How exactly competition is affected will depend upon the costs that are affected and the size of the cost differential that is created. The standard may affect either the firm's fixed costs of production (where the firm needs to invest in R&D to improve the performance of the product or purchase new equipment or license new technology), or the variable costs of production (where different materials or production processes are required).

If variable costs are affected, then in the short run we would expect that those firms that have been disadvantaged by the standard are less able to compete on price than prior to the standard's introduction. This may lessen competition in the market and lead to an increase in market prices over and above that associated with the increase in industry cost required to meet the standard.

In the longer term, the competition effects will depend on whether the cost advantage conferred on some firms is transitory or permanent. For example, it may be that the disadvantaged firm must incur high production costs in the short term to manufacture a compliant product, but over time can adjust production processes, or build better performance into the design stage of the next generation of products. If so, we would expect the competition effects to be transitory, and over time levels of competition should return to those in place prior to the standard's introduction.

However, if the disadvantaged firms are unable to reduce the cost differential (perhaps because only some firms have access to proprietary technology that is the cheapest way to meet the standard) then the competition effect may be permanent. Moreover, depending on the size of the cost differential, some firms may be forced to exit the industry, exacerbating the competition effect.

Alternatively, the introduction of a product standard may result in firms facing an increase in fixed costs in order to achieve compliance. In this case the extent to which a competition concern arises will depend on the size of the fixed cost increase. If the fixed cost increase is small, firms are likely to incur the cost, and the main impact of the standard will be reduced profitability for some firms. The ability of firms to compete will be largely unaffected and so the intensity of competition should be largely unaffected.³

If the fixed cost increase is large, firms may choose to cease production rather than incur the additional costs. In this case, competition in the market is likely to be reduced, and the remaining firms will have the ability to increase prices or reduce quality choice or innovation.

Increase in industry minimum efficient scale

Minimum efficient scale (MES) refers to the volume of production a firm must reach in order to fully exploit economies of scale. Typically, the larger the fixed costs in an industry, the greater will be minimum efficient scale (for example, in an industry like automotive manufacturing we would expect to see high MES given the high fixed costs of plant and machinery that firms must incur).

In industries where fixed costs are high, then all other things being equal, larger firms will enjoy a cost advantage over their smaller rivals. This is simply because they can spread their fixed costs over a greater volume of production.

In this case, even where a minimum standard does not confer a cost advantage directly on some firms (say all firms must change their production processes in order to produce products that comply with the standard) it can do so indirectly. Specifically, it will do so where the introduction of the standard leads to an increase in fixed costs and where the structure of the market is such that there are a small number of large firms facing a fringe of small firms.

In this case the introduction of the standard raises industry MES for the industry and confers a cost advantage on the big firms relative to their smaller rivals. The magnitude of the competition effect will depend on the degree of asymmetry in firm size and the magnitude of both fixed costs and the increment in fixed costs associated with the introduction of the standard. The greater the asymmetry, the larger the fixed costs or the fixed cost increment, the greater will be the cost advantage that is incurred on the large firms. In terms of competition effects, the cost differential is likely to lead in the first instance to exit from the industry by some of the small firms, as they are unlikely to be able to recover the additional fixed costs

³ Some dynamic competition concerns could arise if the reduced profitability decreased firms' ability or incentives to invest in new products or processes, thereby making them less effective competitors in the future.

incurred. Consequently, the competition constraint on the larger firms is likely to be reduced, leading to potentially higher prices or reduced quality, choice or innovation.

Increased barriers to entry

The final way in which an asymmetric cost impact may manifest itself is through increased barriers to entry in a market. This is an asymmetry between incumbent firms and potential entrants. This will occur if the introduction of a minimum standard raises the costs of those firms considering entry to the industry relative to incumbent firms. This could arise, for example, if firms in the industry have access to technology or production processes that are not available to firms wishing to enter the market.

In this case, while we would not see a reduction in the intensity of competition relative to that observed prior to the introduction of the standard, competition is nevertheless weakened by a reduction in the number of firms entering the industry. As a result, prices may be higher than they otherwise would have been, or quality, choice or innovation reduced.

Self-regulation on standards can open the door for firms to raise barriers to entry⁴. For instance, this could occur if quality standards are set too high⁵ or where firms seek to limit innovation⁶.

Mitigating the competition effects

In some cases it may simply not be possible to mitigate the competition concerns. Standard-setters will then have to weigh the reduction in competition against the need to achieve the relevant objectives the standards seek to achieve. However, thought should be given to the level of performance the standard requires such that the minimum distortion of competition possible is introduced that is consistent with achieving environmental objectives.

However, in some cases it may be possible to mitigate the competition effects. In particular, when setting standards one should consider the following.

- The time firms are given to comply with the standard. The more notice firms are given to comply with a standard, the greater the likelihood that they will be able to develop cost effective production solutions, minimising the cost advantage enjoyed by their rivals.
- The stage of the product lifecycle. If product lifecycles are relatively harmonised, competition effects can be reduced if a standard's introduction is timed to coincide with a new wave of products. If a standard is implemented mid-way through a product lifecycle, some firms are more likely to be disadvantaged as they have already made decisions regarding product performance and production processes. Changing those midway through a product's lifecycle is likely to be

⁴ The economics of self-regulation in solving consumer quality issues. See the OFT website: http://www.of.gov.uk/shared_of/economic_research/oft1059.pdf.

⁵ Theory suggests that businesses might have an incentive to make quality higher than would be optimal for consumers. Intuitively, industry profits can be increased if output is restricted and this can be done by setting high quality standards. If barriers to entry are created for lower quality providers or the agreements exclude lower quality products, consumers could suffer. Those who would like to buy lower quality can't do so, and competition is dampened as the range of quality competition narrows.

⁶ For example, the OFT in its report on competition in professions argued that the prohibition on barristers forming partnerships with other barristers or members of other professions means that 'barristers' choices to adapt their business structures in the way that best meets their needs and those of the client is restricted'.

costly. If a standard is signalled well in advance, firms can take the standard into account when making their investment decisions for the next generation of products.

- Whether an open standard could achieve the same objectives. Where firms produce a fleet of products (say televisions or washing machines) an open standard may provide firms with greater flexibility, and lower the cost of achieving compliance, than if the standard is applied to each specific type of product. Overall, firms will achieve the same level of environmental performance, but will be able to achieve it in the way that minimises total additional costs. This type of standard has been implemented in the automotive industry, where firms must meet emissions targets across their entire fleet of vehicles, rather than for each model.

4.2.4 *Picking winners*

In developing standards, there is a risk that standard-setters 'pick winners', choosing standards that can only be met with a specific technology. If standards choose the 'right' technology, of course, this is not a problem. However, over time, markets tend to be more successful at selecting the appropriate technologies than governments. In particular, markets tend to be quicker to drop technologies that are less successful than hoped, while government policies can inadvertently lock in inappropriate technologies.

Policies are more likely to lead to beneficial outcomes when they aim to draw out winners rather than picking one. Sometimes, firms will lobby for policy standards that can only be met by their technology, or where they believe that the standard will give them a cost advantage relative to rivals. However, at other times, picking winners can be inadvertent rather than explicit, for example setting a performance standard that only one technology can meet. Indeed, the principle that product standards should use the 'best available technology' may by itself result in standards that can only be met by one type of technology.

Mitigating the competition effects

There are a number of practical steps that can be taken to avoid picking winners.

- Product standards should be as flexible as possible while still providing certainty to market participants. Thus, for example, in the context of the report on Environmental standards, this would mean setting outcomes (e.g. energy performance) rather than means (e.g. a specific technology). It also means taking care when specifying test standards. Rigid test standards can inadvertently specify the means that a product must use to improve performance.
- Different product standards can be used to draw out different technological changes. For example, a mandatory standard may be required to ensure widespread adoption of an existing and well-understood technology with clear social benefits. But it may be less successful in encouraging research into new technologies. Instead, standard-setters have a range of options, to reward innovative firms, such as enhanced government procurement standards or other endorsements which offer increased sales and profits.
- The timing of implementation can be important. Products are developed in cycles. Many manufacturers only introduce completely new product ranges every few years, and it may be hard to adapt to the requirements of a new standard or label before the next product range is developed. By being flexible on timing, or having longer implementation periods, firms may be able to integrate product standards into their product development cycle, enabling the standard to become part of the normal competitive process.

4.2.5 *Asymmetric product impact*

There are a limited number of cases in which mandatory product labels could have a disproportionate effect on competition. This could be the case if product labels become interpreted by consumers as a broader signal of product quality (beyond the characteristics for which the label is awarded) but this is unjustified. If this were the case, firms that achieved the product label would gain an unfair competitive advantage at the expense of their rivals.

A similar effect is possible where consumers place excessive weight on the characteristics for which the label is awarded— say environmental benefits. By way of example, in many cases, the value of potential carbon savings from energy efficient products will be relatively small compared to the overall product cost. If product labels encourage consumers to pay a price premium for a product that is greater than the value of the carbon saved, then the product label will have a negative social effect, and distort competition towards excessive up front costs.

Mitigating the competition effect

In practice, the evidence from eco-labelling schemes suggests that this effect is unlikely to occur. However, to the extent that there is a risk of occurrence, the competition effects are likely to be mitigated by:

- Labels that are achievable by all firms in the industry – for example ratings set against absolute standards or star ratings for product performance are better than labels that are based on relative performance, which by definition preclude some firms from achieving them.
- Labels should make clear that they refer only to environmental performance, and not to the overall quality of the product in question.

4.2.6 *Exclusionary behaviour*

A firm is considered to be engaging in exclusionary behaviour when it undertakes short-run loss-making activities with the intention of driving competitors from the market so that it can raise prices and enjoy increased profits in the future.

In the case of product standards, it is argued that this type of behaviour can occur where firms engage in excess investment in improving environmental performance of their products in order to have that level of performance adopted as the minimum standard for the industry. When this occurs the firm's rivals may be at a substantial cost disadvantage in complying with the standard, resulting in the types of competition effect described above.

This behaviour is considered exclusionary because the only way the firm can profit from its investment in improving product performance is if the regulator adopts that level of performance as the industry minimum standard, thereby placing the firm at a competitive advantage with respect to its rivals.

Mitigating the competition effect

The potential for this type of gaming of the regulatory process has its roots in the use of dynamic standards that automatically raise the minimum environmental performance required over time. It is also exacerbated by the use of best available technology or one of its variants as the means for determining where the industry standard should be set.

It is important that those who set standards take into account the potential for firms to engage in such conduct, and set standards at a level that balances wider objectives with the preservation of competition in the market. Moreover in the longer term, if competition is reduced, it may be more difficult for standard-setters/policy makers to achieve future improvement in the objectives they are seeking to achieve, say environmental performance, as the remaining firms may face fewer incentives to innovate and invest in R&D that could lead to environmental performance improvements.

To mitigate the effects, one should take care when designing dynamic standards to ensure that appropriate competition safeguards are built in. Care should also be taken to ensure that a standard set on a best available technology basis is not conferring too great an advantage on a firm or subset of firms. There are alternative ways for providing incentives for firms to develop new technology, without using it as the basis for new standards. For example, in some situations, government procurement procedures could offer preferential treatment for firms or products reaching particularly high environmental standards. This would offer extra sales to firms with the latest technology, without precluding other firms from using alternative ways of improving performance.

4.2.7 *Co-ordinated effects*

The final type of competition effect that this paper explores relates to industry led voluntary agreements to set minimum product standards.

Such agreements can restrict competition for example where firms agree to limit certain types of production or to cease producing certain types of products. In addition, there is a risk that such agreements may lead to the sharing of commercially sensitive information between firms. The economically harmful effects of collusive outcomes are clear: customers pay higher prices or receive lower quality products.

In addition to the directly restrictive effects of such agreements, concerns are also raised about the extent to which they facilitate the lessening of competition more generally in the market either unintentionally (co-ordinated effects) or intentionally (collusion).

In particular, the concerns that the process of reaching such voluntary agreements and monitoring their implementation allows firms to engage in the following conduct which may restrict competition:

- share information on demand, costs and production processes
- monitor other firms' behaviour on an ongoing basis in relation to production volumes of different products may allow firms to signal pricing behaviour
- provide opportunities to co-ordinate output decisions (beyond what is needed in order to meet the object of the voluntary agreement, say an environmental objective) and
- set standards such that barriers to entry to the industry are raised unnecessarily.

In most markets, these types of behaviour would be considered either directly collusive or likely to lead to a lessening of competition through co-ordinated effects.

Mitigating the competition effect

The above discussion should not be taken to suggest that voluntary agreements will always give rise to competition concerns. Clearly, there will always be a role for voluntary agreements and many take place with no reduction in competition. Nonetheless, the very nature of voluntary agreements between firms

means that it is likely that some aspects of competition risk being restricted. Consequently, it will be important for parties to assess whether the agreement is likely to result in a restriction, distortion or prevention of competition within the meaning of the Competition Act 1998 and/or Article 101 of the Treaty on the Functioning of the European Union and, if so, whether the exemption criteria set out therein are met⁷.

Particular care should be taken in ensuring that the design and institutional arrangements associated with voluntary agreements are developed in such a way that the risks to competition are minimised. Design features that minimise such risks could include the following.

- Limiting the information that is shared between competitors at the design stage of the voluntary agreement. For example, information regarding production processes, product performance and production costs could be provided to an independent third party who would then lead the development of the voluntary agreement.
- Limiting the sharing of information on production levels and sales to verify that firms are complying with the agreement. Again, the monitoring/policing of the agreement could be carried out by an independent third party, so that firms are not privy to information from their competitors regarding production levels or sales.
- Limiting the extent to which firms meet to discuss the operation of the agreement, and ensuring the presence of an independent third party.
- Careful analysis of proposals to ensure that they do not unnecessarily advantage incumbent firms at the expense of potential entrants.

4.2.8 *Conclusion*

This paper considers the competition effects of product standards with specific reference to environmental standard setting. The paper examines situations where outcomes for consumers – in terms of price, quality, choice and innovation – are diminished as a result of a change in the nature or intensity of competition in a market brought about as a direct result of the implementation of a product standard.

Such concerns are most likely to occur in markets that are characterised by imperfect competition – small numbers of firms, or a few large firms facing a fringe of smaller firms, differentiated products and some degree of entry barriers.

Such concerns are also likely to arise if:

⁷ An agreement will satisfy the criteria for exemption if it:

- a) contributes to:
 - i) Improving production or distribution, or
 - ii) Promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit; but
- b) does not:
 - i) Impose on the undertakings concerned restrictions which are not indispensable to the attainment of those objectives; or
 - ii) afford the undertakings concerned the possibility of eliminating competition in respect of a substantial part of the products in question.

- the product standard has an asymmetric effect on firms operating in the market, or
- the product standard gives rise to strategic behaviour on the part of firms.

In particular, the paper identifies five types of concern relating either to asymmetry or strategic behaviour. The most important concerns relate to two cases.

- First, where the introduction of a mandatory minimum standard imposes an asymmetric cost impact on firms in the industry. The extent to which a competition concern will then arise depends on the magnitude of the cost differential imposed on firms and whether it is permanent or transitory. Such effects can be mitigated by careful design and implementation of the standard. In particular, firms should be given substantial notice of the introduction of the standard, it should not be based on proprietary technology and its introduction should be sympathetic to the product lifecycle for the industry. Additionally, consideration should be given to the use of open standards where appropriate.
- Second, where the development of industry led voluntary standards gives rise to concerns over co-ordinated effects or collusion. Again, the effects can be mitigated through careful design, with an emphasis on limiting contact between firms, information sharing, and the ability to monitor production and sales levels.

UNITED STATES

1. Introduction

This submission by the U.S. Federal Trade Commission (“FTC”) and the U.S. Department of Justice (“DOJ”) [hereinafter collectively the “Agencies”] sets forth U.S. competition policy perspectives on standard setting. It first provides general background on the nature and effects of standards and standard setting, before briefly addressing the U.S. standard setting environment. It notes the global leadership role played by the U.S. private sector in standard setting, recognizes the procompetitive benefits of standard setting and explains how the Agencies seek to promote a procompetitive and innovative collaborative standard setting environment, through law enforcement actions and policy guidance. It then briefly surveys non-antitrust legal enforcement actions that also relate to competition policy concerns.

2. General background on standard setting

2.1 *The nature of standards and standard setting*

“Industry standards are widely acknowledged to be one of the engines driving the modern economy.¹ Standards can make products less costly for firms to produce and more valuable to consumers.² They can increase innovation, efficiency, and consumer choice; foster public health and safety; and serve as a ‘fundamental building block for international trade.’”^{3 4} Standards enable virtually all the products we rely

¹ Parts of this submission are substantially derived from U.S. Dep’t of Justice & Fed. Trade Comm’n, Antitrust Enforcement and Intellectual Property Rights: Promoting Innovation and Competition (2007) (hereinafter 2007 IP Report), available at <http://www.justice.gov/atr/public/hearings/ip/222655.pdf>. Subsequent footnote references, also drawn from this Report, are made to dates and page numbers of the Hearing Record Transcript (“Hr’g Tr.”) of the 2002 joint FTC and DOJ “Hearings on Competition and Intellectual Property Law and Policy in the Knowledge Based Economy.”

² This submission is concerned with technical standards (hereinafter referred to as standards). A technical standard “includes all of the following: (1) Common and repeated use of rules, conditions, guidelines or characteristics for products or related processes and production methods, and related management systems practices. (2) The definition of terms; classification of components; delineation of procedures; specification of dimensions, materials, performance, designs, or operations; measurement of quality and quantity in describing materials, processes, products, systems, services, or practices; test methods and sampling procedures; or descriptions of fit and measurements of size or strength.” OMB Circular A-119 Revised, Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities (rev. Feb. 10, 1998) ¶ 3, available at <http://www.whitehouse.gov/omb/rewrite/circulars/a119/a119.html> (hereinafter OMB Circular A-119). The two primary types of standards are (1) interoperability standards, which guarantee that products made by different firms can interoperate, and (2) performance standards, which set minimum requirements for all products in a general product category. Gregory Tassey, *Standardization in Technology-Based Markets*, 29 Res. Pol’y 587, 589-90 (2000).

³ “Amy A. Marasco, Standards-Setting Practices: Competition, Innovation and Consumer Welfare (Apr. 18, 2002 Hr’g Tr.), at 3-4, <http://www.ftc.gov/opp/intellect/020418marasco.pdf>; see also Janice M. Mueller, *Patent Misuse Through the Capture of Industry Standards*, 17 Berkeley Tech L. J. 623, 631-32 (2002).” 2007 IP Report, *supra* note 1, at 33 & n2.

upon in modern society, including mechanical, electrical, information, telecommunications and other systems, to interoperate.⁵ “The most successful standards are often those that provide timely, widely adopted, and effective solutions to technical and systems problems.”⁶

The process by which standards are developed and adopted varies. Standards development in the United States may be characterized as sector based and market led.⁷ U.S. businesses often “collaborate to establish standards by working through standard setting organizations (“SSOs”) to develop a standard that all firms, regardless of whether they participate in the process, then can use in making products.”⁸ Standards also may be set in the marketplace, where firms vigorously compete, [sometimes] in a winner-take-all standards war,⁹ to establish their own technology as the *de facto* standard.¹⁰

⁴ The United States is a party to international trade agreements governing the development, adoption and implementation of standards-related measures. The particular rules governing standards-related measures under the World Trade Organization Agreement on Technical Barriers to Trade (TBT Agreement) and U.S. free trade agreements as well as the U.S. legal framework for implementing its standards-related trade obligations are described in the *2010 Report on Technical Barriers to Trade (TBT Report)*, available at <http://www.ustr.gov/sites/default/files/REPORT%20ON%20TECHNICAL%20BARRIERS%20TO%20TRADE%20FINALTO%20PRINTER%2025Mar09.pdf>.

⁵ With respect to beneficial network effects stemming from standardization-induced interoperability, see Michael L. Katz & Carl Shapiro, *Systems Competition and Network Effects*, J. Econ. Persp., Spring 1994, at 93, 109.

⁶ See Andrew Updegrove, Standard Setting and Consortium Structures (Apr. 18, 2002 Hr’g Tr.), at 1-2, available at <http://www.ftc.gov/opp/intellect/020418updegrove2.pdf>. 2007 IP Report, *supra* note 1, at 33.

⁷ In many other countries, a single organization is designated as the major standards developer, and that organization often works closely with, and is frequently a part of, the government.

⁸ “Hundreds of collaborative standard-setting groups operate worldwide, with diverse organizational structures and rules. . . . See, e.g., Mark A. Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 Cal. L. Rev. 1889, 1904-06 (2002) (discussing the wide variation in policies among SSOs). They may be called standard development organizations, promoter’s groups, joint ventures, special interest groups, or consortia. For ease of discussion, this submission will refer to all such standard-setting groups as SSOs [(a term widely used in the law and economics literature)], recognizing that standard-setting organizations vary widely in size, formality, operation, and scope.” 2007 IP Report, *supra* note 1, at 33 n.5.

⁹ “In a ‘standards war,’ substitute products with incompatible designs are introduced into a market, and users’ purchasing decisions ultimately establish one design as the dominant design or *de facto* standard, in what can effectively be a winner-take-all competition. See Carl Shapiro & Hal R. Varian, *The Art of Standards War*, Cal. Mgmt. Rev., Winter 1999, at 8. A well-known war occurred between Sony’s Betamax format Video Cassette Recorder (‘VCR’) and Matsushita’s VHS format VCR, which ultimately resulted in VHS becoming the *de facto* standard. However, not all competition among incompatible designs results in the establishment of a *de facto* standard. For example, multiple competing products based on varying standards for video game consoles exist, including Sony’s PlayStation®3, Microsoft’s Xbox 360™, and Nintendo’s Wii™. Markets in which standards wars result in a single standard are typically those in which the network effects are the greatest—i.e., those markets in which there are substantial benefits if all customers have compatible products. *Id.* at 14.” 2007 IP Report, *supra* note 1, at 34 n.6. Of course, different standards may coexist even in an industry that has substantial network effects. A prime example is the coexistence of the Microsoft Windows Operating System and Apple Computer Macintosh platforms in personal computing.

¹⁰ See, e.g., Mueller, *supra* note 3, at 631-32; Daniel J. Gifford, Standards and Intellectual Property: Licensing Terms: Some Comments (Apr. 1. 2002 Hr’g Tr.), at 1 (discussing the Windows operating system as an example of a *de facto* standard chosen by the market), available at

2.2 *The U.S. Government and standard setting*

The U.S. Government (“USG”), through the National Technology Transfer and Advancement Act, and its implementing policies such as those contained in Office of Management and Budget (“OMB”) ¹¹ Circular A-119, ¹² expresses a general preference for federal agencies’ reliance on voluntary consensus standards in lieu of government-unique standards to achieve regulatory and procurement objectives, except where inconsistent with law or otherwise impractical. ¹³ ¹⁴ Circular A-119 also provides (where appropriate) for federal government agency staff participation in the activities of SSOs which, however, remain free of government control. ¹⁵ The Standards Services Division (“SSD”) within the U.S. Commerce Department’s National Institute of Standards and Technology (“NIST”) publishes information related to standards and conformity assessment as a service to producers and users of such systems—both in the government and in the private sector. ¹⁶

In pursuit of public policy goals reflected in statutes and implementing regulations, U.S. Government agencies play a key role in establishing and overseeing standards that bind private parties. ¹⁷ One focus of standard setting by the U.S. Government (and other governments) is to ensure compatibility in cooperative endeavors where a lack of compatibility would spawn costly confusion or inefficient variety. ¹⁸ The U.S. Government favors “performance standards” that express requirements in terms of outcomes rather than specifying the means to those ends. They are generally superior to engineering or design standards

<http://www.ftc.gov/opp/intellect/020418danieljgifford.pdf>. Of course, as described *supra* note 9, multiple competing standards may coexist in certain industries, reflecting differences in consumer tastes.

¹¹ OMB is the agency that oversees overall management of the Executive Branch of the U.S. Federal Government.

¹² See OMB Circular A-119, *supra* note 2.

¹³ Encouraging reliance on voluntary standards supports the following USG goals: (1) it reduces USG costs associated with developing and maintaining standards and decreases the burdens of complying with agency regulation; (2) it provides incentives and opportunities to establish standards that serve national needs; and (3) it encourages long-term growth for U.S. enterprises by promoting efficiency and economic competition through standard harmonization. *Id.* at ¶ 2.

¹⁴ For a description of the U.S. legal and institutional framework regarding the use of standards in support of regulation, see *Report on the Use of Voluntary Standards in Support of Regulation in the United States* (2009), available at <http://ts.nist.gov/Standards/upload/Use-of-Voluntary-Standards-in-Support-of-US-Regulation.pdf>.

¹⁵ Moreover, USG staff participation does not imply government endorsement of a standard. OMB Circular A-119, *supra* note 2, ¶7.e.

¹⁶ NIST also provides a good overview of the role of the private sector in U.S. standard setting in the NIST publication entitled NISTIR 7614, *The ABC’s of Standards Activities* (Aug. 2009), available at <http://ts.nist.gov/Standards/Information/upload/NISTIR-7614.pdf>.

¹⁷ The brief discussion of USG agency standards activities in paragraphs 5-7 (and of state standard-setting activities in paragraph 8) is merely meant to be illustrative.

¹⁸ See Joseph Farrell and Paul Klemperer, *Coordination and Lock-in: Competition with Switching Costs and Network Effects*, 3 Handbook of Indus. Org. § 3.1, at 2007 (2007). The authors cite as examples nationally mandated standards requiring everyone to drive on the same side of the road, and establishing broadcast frequencies and mobile phone standards. The authors caution that governments should not always seek rapid standardization when the merits of competing standards are unclear, and that governments are wise in seldom intervening to displace an established standard because it is deemed inefficient. The authors point out that governments may be inexperienced, that standards may need to evolve, and (partly as a result) compliance may not be clear. See *id.*

because performance standards give the regulated parties the flexibility to achieve regulatory objectives in the most cost-effective way.¹⁹

Some U.S. Government agencies establish technical regulations that mandate compliance with standards as the result of specific statutory responsibilities. For example, through its Wireless Telecommunications Bureau, the Federal Communications Commission (“FCC”) oversees the licensing of spectrum frequencies to private users and regulates the use of radio spectrum to fulfill the communications needs of businesses, aircraft and ship operators, and individuals.²⁰

Most government standard setting activities, however, focus on performance standards, without reference to specific technologies or interoperability requirements. This provides industry with the maximum flexibility to meet mandated requirements. U.S. Government agencies, such as, for example, the Consumer Product Safety Commission (“CPSC”),²¹ the Food and Drug Administration (“FDA”),²² and the Environmental Protection Agency (“EPA”),²³ may set safety, health, and environmental requirements designed to protect the public, but they rely on voluntary consensus standards, where possible, to meet their regulatory objectives.

In addition, U.S. state and local governments may also opt to mandate compliance with standards to meet their particular subfederal or local policy objectives. For example, the California Air Resources Board (“CARB”) promulgates a variety of regulatory ambient air quality requirements designed to limit air pollution in California.²⁴

3. Potential procompetitive benefits of collaborative standard setting

In many contexts, the collaborative standard setting process can produce substantial benefits. The U.S. Supreme Court has stated that when “private associations promulgate safety standards based on the merits of objective expert judgments and through procedures that prevent the standard-setting process from being biased by members with economic interests in stifling product competition... those private standards can have significant procompetitive advantages.”²⁵ As the FTC has noted, “[t]ypically, the procompetitive benefits of standard setting outweigh the loss of market competition. For this reason, antitrust enforcement has shown a high degree of acceptance of, and tolerance for, standard-setting activities.”²⁶ DOJ has

¹⁹ OMB Circular A-4, *Regulatory Analysis*, at 8 (Sept. 17, 2003), available at <http://www.whitehouse.gov/OMB/circulars/a004/a-4.pdf>.

²⁰ The role of the FCC’s Wireless Communications Bureau is delineated at <http://wireless.fcc.gov/>. The FCC also plays a pivotal regulatory role with regard to the U.S. adoption of a digital television standard. See <http://www.dtv.gov/>. Other regulatory functions carried out by the FCC are described at <http://www.fcc.gov/aboutus.html>.

²¹ For a listing of mandatory government product safety standards issued by the CPSC, as well as non-mandatory voluntary standards, see <http://www.cpsc.gov/cgi-bin/regs.aspx>.

²² The FDA’s regulations governing food safety standards are found at http://www.access.gpo.gov/nara/cfr/waisidx_08/21cfr130_08.html.

²³ The EPA, for example, establishes standards that require specified reductions in emissions of hazardous air pollutants. For a description of these standards, see <http://www.epa.gov/lawsregs/laws/caa.html>.

²⁴ CARB’s ambient air quality standards are set forth at <http://www.epa.gov/lawsregs/laws/caa.html>. They are stricter than EPA standards in several respects.

²⁵ *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492, 501 (1988).

²⁶ *In re Rambus, Inc.*, Docket No. 9302 (Opinion of the Commission filed Aug. 2, 2006), at 3, available at <http://www.ftc.gov/os/adipro/d9302/060802commissionopinion.pdf>.

recognized that “[p]erformance standards can improve the health and safety of consumers and improve consumers' confidence in a product's quality. Interoperability standards can enable consumers to share information with each other and to interconnect compatible products from different producers. In addition, the collaborative standard-setting process can enable industry participants to share knowledge and develop a "best-of-breed" product or process.”²⁷ Moreover, “by agreeing on an industry standard, firms may be able to avoid many of the costs and delays of a standards war, thus substantially reducing transaction costs to both consumers and firms” and speeding up the introduction of new products and services that benefit consumers.²⁸ Standard setting may also help to prevent coordination failures that can arise in markets that have network effects.²⁹ In such markets, consumers' individual decisions may lead them to choose incompatible networks, even though they would all be better off if they coordinated.³⁰ An SSO can provide leadership that prevents this situation from occurring. In short, competition that centers on a particular standard may be very socially beneficial and this reflects the general nature of standard setting in the United States.³¹

4. Potential harm to competition from collaborative standard setting

Nevertheless, collaborative standard setting is not free of potential social costs. Firms that choose to work through an SSO to develop and adopt standards may be competitors within their particular industry. Thus, agreement among competitors about which standard is best suited for them replaces consumer choice and the competition that otherwise would have occurred in the market to make their product the consumer-chosen standard. Consumers could lose some benefit if competitors proceed via agreement rather than through competition and market forces to choose a key industry technology. Social welfare may suffer if alternative standards are prevented arbitrarily from competing in the marketplace. Recognizing that collaboratively set standards can reduce competition and consumer choice and have the potential to prescribe the direction in which a market will develop,³² U.S. courts have been sensitive to antitrust issues

²⁷ Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep't of Justice, to Robert A. Skitol, Esq. (Oct. 30, 2006) [hereinafter VITA Business Review Letter], available at <http://www.justice.gov/atr/public/busreview/219380.pdf>.

²⁸ 2007 IP Report, *supra* note 1, at 34. “Standards wars offer consumers a choice of products that incorporate alternative potential standards. During a standards war, however, some consumers may delay purchasing until the *de facto* standard is chosen because they do not want to bear the costs of moving from a losing standard to the winning standard. Jeffrey Church & Roger Ware, *Network Industries, Intellectual Property Rights and Competition Policy*, Competition Policy And Intellectual Property Rights In The Knowledge-based Economy 230-39 (Robert D. Anderson & Nancy T. Gallini eds., 1998); *see also* Katz & Shapiro, *supra* note 5, at 105-08 (discussing the concept of consumers tipping toward a *de facto* standard). To win a standards war, a firm may have to incur significant costs or limit its assertion of market power in order to establish an installed base of users. The winner of a standards war, however, may have significant market power, often because it can enforce its patent rights to prevent others from making products that conform to the standard. *See, e.g.*, David Balto & Robert Pitofsky, *Antitrust and High-Tech Industries: The New Challenge*, 43 Antitrust Bull. 583, 599 (1998).” 2007 IP Report, *supra* note 1, at 34 n.8. As described *supra* note 9, however, products embodying different standards may maintain a significant market presence in certain industries, such as video gaming and personal computing.

²⁹ “[T]here are network effects if one agent’s adoption of a good (a) benefits other adopters of the good (a ‘total effect’) and (b) increases others’ incentive to adopt it (a ‘marginal effect’).” Farrell and Klemperer, *supra* note 18, § 3.7, at 2054.

³⁰ *See id.* § 3.4.1, at 2022-2024.

³¹ *See, e.g.*, *Consol. Metal Prods. v. Am. Petroleum Inst.*, 846 F.2d 284 (5th Cir. 1988).

³² *See* *Standard Sanitary Mfg. Co. v. United States*, 226 U.S. 20, 41 (1912); Bureau of Consumer Protection, Fed. Trade Comm’n, Standards and Certification: Final Staff Report 28, 34 (1983); Katz & Shapiro, *supra*

that may arise in the context of collaboratively set standards. In a few cases, relative to the vast number of U.S.- based standards that have been set, they have found antitrust liability in circumstances involving the manipulation of the standard setting process or the improper use of the resulting standard to gain competitive advantage over rivals.³³ In addition to enforcing the law, the FTC and the DOJ also have described their policy positions in reports and advisory opinions³⁴ on key competition questions raised by standard setting. The Agencies apply the same general antitrust principles to all standard-setting activities regardless of industry sector. Generally, unless the standard-setting process is used as a sham to cloak naked price fixing or bid rigging, the Agencies analyze action during the standard-setting process under the rule of reason. Although antitrust law is the primary means of addressing competition concerns raised by standard setting, such concerns may be addressed under certain circumstances by other legal doctrines, such as patent, contract, and tort law.³⁵

4.1 *Competition case law development*

As noted previously,³⁶ despite its potential procompetitive benefits, standard setting may also sometimes provide opportunities to distort the competitive process. U.S. court and agency decisions have long held that competition law may be applied to prevent harm to competition associated with standard setting. In particular, challenged conduct has included the anticompetitive exclusion of rivals; the achievement of monopoly power through anticompetitive “hold up” tied to standard setting; and the exercise of market power through reneging on contract terms that reflect standard setting bargains. Key cases representing these different categories are discussed below.

4.1.1 *Anticompetitive exclusion involving standard setting*

The Supreme Court has condemned efforts by firms to use SSO proceedings as a means of excluding products produced by rivals. In the *Radiant Burners case*,³⁷ the Supreme Court considered allegations that manufacturers of gas burners had violated Section 1 of the Sherman Act, which prohibits concerted action that unreasonably restricts competition, by conspiring to manipulate the American Gas Association’s certification tests for such products. The plaintiff claimed that its competing product had been effectively excluded from the market as a result of tests that were not based on objective standards; that competitors of those seeking certification improperly influenced the Association’s decisions; and that the Association and its utility members agreed to refuse to sell gas for use in burners that were not certified. The trial court dismissed the complaint, but the Supreme Court reversed, stressing the potential for harm to competition, stating: “It is obvious that petitioner cannot sell its gas burners, whatever may be their virtues, if, because of the alleged conspiracy, the purchasers cannot buy gas for use in those burners.”³⁸

The Supreme Court has also held that an SSO itself may be liable for antitrust damages if its agents or employees collude with private parties to manipulate quality or safety standards to exclude a competitor.

note 5, at 105-06; Richard Gilbert, *Symposium on Compatibility: Incentives and Market Structure*, 40 J. Indus. Econ. 1 (1992).

³³ Key U.S. antitrust cases are discussed *infra* paragraphs 12-24.

³⁴ See the discussion of the 2007 IP Report, *supra* note 1, and of DOJ business review letters concerning *ex ante* licensing within SSOs, *infra* paragraphs 28-36.

³⁵ See discussion of pertinent cases *infra* paragraphs 38-40.

³⁶ See *supra* paragraphs 2 & 9.

³⁷ *Radiant Burners, Inc. v. Peoples Gas Light & Coke Co.*, 364 U.S. 656 (1961).

³⁸ *Id.* at 659.

In *Hydrolevel*,³⁹ the defendant was the American Society of Mechanical Engineers (“ASME”), an SSO that developed safety codes for boilers and other heavy equipment. One of ASME’s members (a competitor of the plaintiff) persuaded the chairman of one of ASME’s subcommittees to provide an unofficial (and unjustified) letter stating that plaintiff’s product was unsafe. Thereafter, the competitor used that response to discourage customers from buying the plaintiff’s product. Hydrolevel sued the employer of the subcommittee chairman, the competitor, and ASME for violating Section 1 of the Sherman Act. The Supreme Court affirmed a jury verdict against ASME, holding the SSO liable for the actions of its subcommittee chairman because he acted on the “apparent authority” of ASME to discourage customers from purchasing one competitor’s water boiler safety device. The Supreme Court noted that ASME had not enacted any “meaningful safeguards” to try and prevent such actions.⁴⁰

The *Allied Tube*⁴¹ case involved an SSO conspiracy to exclude a rival technology. The SSO, the National Fire Protection Association (“NFPA”), set in the National Electrical Code (“NEC”) the specifications for electrical conduit used to carry electrical wire in buildings. Local government building codes widely adopted the NEC. In the 1970s, the NEC only certified electrical conduit made of steel. Starting in 1980, however, plaintiff Indian Head Inc. began offering electrical conduit made of polyvinyl chloride (“PVC”) and initiated a proposal to obtain NFPA approval to include PVC conduit as a type of electrical conduit in the 1981 edition of the NEC. Indian Head’s proposal was scheduled for consideration at the 1980 annual NFPA meeting, where it could be rejected or adopted by a simple majority of the members present. Fearing that PVC would cut into their market, defendant Allied Tube and Conduit Corporation and other steel conduit makers collectively agreed to “pack” the 1980 NFPA meeting with new NFPA members, whose only function would be to vote against Indian Head’s PVC proposal. The new members’ costs of attending were paid by the steel conduit conspirators. After the PVC proposal was voted down, Indian Head sued Allied Tube and the steel conduit conspirators. A jury held for Indian Head, finding Allied Tube and the others had “subverted” the NFPA consensus standard setting process and thereby illegally restrained trade in violation of Section 1 of the Sherman Antitrust Act. The Supreme Court affirmed the jury verdict. In so doing, it stressed that an SSO cannot validate the anticompetitive activities of its members simply by adopting rules that fail to provide safeguards sufficient to prevent the standard setting process from being biased by members with economic interests in restraining competition.

4.1.2 Anticompetitive “hold up” tied to standard setting

More recently, antitrust issues have arisen in “collaborative standard setting as standards have increasingly incorporated technologies that are protected by intellectual property (“IP”) rights. These issues involve the potential for ‘hold up’ by the owner of patented technology after its technology has been chosen by the SSO as a standard and others have incurred sunk costs that effectively increase the relative cost of switching to an alternative standard.⁴² Before, or *ex ante*,⁴³ adoption of a standard, multiple

³⁹ Am. Soc’y of Mech. Eng’rs v. Hydrolevel Corp., 456 U.S. 556 (1982).

⁴⁰ *Id.* at 570-73.

⁴¹ Allied Tube & Conduit Corp. v. Indian Head, Inc., 486 U.S. 492 (1988).

⁴² “In the standard setting context, firms may make sunk investments in developing and implementing a standard that are specific to particular IP. To the extent that these investments are not redeployable using other IP, those developing and using the standard may be held up by the IP holders. See Carl Shapiro, Standard Setting Organizations: Evaluating the Anticompetitive Risks of Negotiating Intellectual Property Licensing Terms and Conditions Before a Standard Is Set (Nov. 6, 2002 Hr’g Tr.), at 15-16 (“In addition to the word ‘hold-up,’ opportunism is a word that’s commonly used in the relevant economic literature, at least, which is [i]n transaction cost economics, the notion that somebody might wait, perhaps, until commitments were made and then seek to extract a high royalty or might try to steer things in a direction so that they would have an essential patent but not have made a firm commitment *ex ante* on the terms on which it would be licensed.”), <http://www.ftc.gov/opp/intellect/021106ftctrans.pdf>; see also Timothy J.

technologies may compete to be incorporated into the standard under consideration.”⁴⁴ Afterwards, unless they have protected themselves *ex ante*, users of the “winning” “technology may lack effective substitutes⁴⁵ precisely because the SSO chose it as the standard.”⁴⁶ Thus, *ex post*, the owner of a patented technology necessary to implement the standard may have the power to extract higher royalties or other licensing terms that reflect the absence of competitive alternatives.”⁴⁷ The users of the patented technology

Muris, *The FTC and the Law of Monopolization*, 67 Antitrust L.J. 693, 704-06 (2000) (describing factual considerations as to whether a company could engage in a hold up); cf. Benjamin Klein, *Market Power in Franchise Cases in the Wake of Kodak: Applying Post Contract Hold-Up Analysis to Vertical Relationships*, 67 Antitrust L.J. 283 (1999). Moreover, this hold up may cause firms to sink less investment in developing and implementing standards.” 2007 IP Report, *supra* note 1, at 35 n.11. A more detailed economic assessment of the costs of hold up in standard setting in the presence of patent rights is found in Joseph Farrell et al., *Standard Setting, Patents, and Hold-Up*, 74 Antitrust L. J. 603 (2007). As the authors explain, “[h]old-up is a particular problem in the context of cooperative standard setting for two reasons. First, when standards are involved, an entire industry may make specific investments that are subject to hold-up. Second, coordination problems can make it especially hard to shift away from an agreed-upon standard in response to excessive royalty demands. If each user’s leading alternative to sticking with the standard is unilateral switching, and thus losing compatibility with others, then the patent holder’s subsequent advantage . . . includes not only its technology’s inherent advantage and the value of the user’s own sunk investments, but also the value of compatibility to the user. . . . In other cases, users’ best alternative to *ex post* licenses may be a coordinated shift to a new standard, perhaps via reconsideration by the SSO itself. However, SSO processes take a long time. . . . In the language of the economics of standards, hold-up can be severe if there is substantial (or strong) inertia. Moving from one standard to another is often costly and disruptive, and thus, it is *ex post* both normal and efficient for an industry to be reluctant to make such a shift. Of course, this does not imply that exploiting that reluctance is efficient.” *Id.* at 616-17 (citations omitted).

⁴³ “Whether and at what point hold up can occur will vary, depending on a variety of factors. A sufficient condition for hold up to occur is that the cost of switching to the best alternative standard must be greater than the benefits of switching to the best alternative standard.” 2007 IP Report, *supra* note 1, at 35 n.12.

⁴⁴ *Id.* at 35 n.11. See generally, e.g., Daniel G. Swanson & William J. Baumol, *Reasonable and Nondiscriminatory (RAND) Royalties, Standards Selection, and Control of Market Power*, 73 Antitrust L. J. 1 (2005) (proposing that SSOs conduct *ex ante* auctions of their standards, where IP owners would submit RAND commitments coupled with licensing terms and the standardization selection process then would be based on technological merit and price). For a critique of this proposal, see Damien Geradin, Anne Layne-Farrar, and A. Jorge Padilla, *The Ex Ante Auction Model for the Control of Market Power in Standard Setting Organizations* (CEMFI Working Paper No. 0703, 2007), available at <ftp://ftp.cemfi.es/wp/07/0703.pdf>.

⁴⁵ “See, e.g., Carl Shapiro & Hal r. Varian, *Information Rules: A Strategic Guide To The Network Economy* 103-34 (1999).” 2007 IP Report, *supra* note 1, at 36 n.14.

⁴⁶ “Collaborative *de jure* standards sometimes face a market test for acceptance, just as *de facto* standards do. If a standard chosen by an SSO must compete with rival standards, then the owner of any patented technology necessary to implement the SSO’s standard may have little market power. See, e.g., Apr. 18 Hr’g Tr. at 76 (Lemley). The opportunity for users of the SSO’s standard to move to a rival standard if the royalty rates are too high may limit the owner to a competitive royalty rate.” *Id.* at 36 n.15.

⁴⁷ “Nov. 6 Hr’g Tr. at 15 (Shapiro) (“So, the notion of holdup would be that *ex post* there are very few choices, and a company that controls an essential patent is in a very strong bargaining position to extract royalties or other concessions from people who want to comply with the standard. *Ex ante*, the bargaining positions are very different because, let’s suppose, there would be maybe lots of choices . . .”).” 2007 IP Report, *supra* note 1, at 36 n.16. Those higher royalties reflect the high costs of retooling production and ensuring compatibility with other components and products associated with choosing an alternative product design not compatible with the standard. Such costs are delineated in Mark Lemley and Carl Shapiro, *Patent Holdup and Royalty Stacking*, 85 Tex. L. Rev. 1991, 1992-3 (2007). Professors Lemley and Shapiro argue that the threat of hold up gives patent holders excessive bargaining power in component-

do not receive the price benefits that competition between technologies can provide.⁴⁸ Consumers of the products using the standard would be harmed to the extent those higher royalties were passed on in the form of higher prices.⁴⁹

“To mitigate this type of hold up, some SSOs require participants to disclose the existence of IP rights that may be infringed by the potential users of a standard in development.⁵⁰ SSOs also may require SSO members to commit to license any of their IP that is essential to an SSO standard on “reasonable and nondiscriminatory” (“RAND”) terms.”⁵¹ Some SSOs require or permit disclosure of maximum licensing terms “before selecting a particular technology as part of a standard.”⁵² A few SSOs (perhaps the most prominent being the World Wide Web Consortium, the international SSO that develops technical Internet standards) require that members’ IP incorporated in standards be licensed on royalty-free terms.

The FTC has brought three cases that alleged anticompetitive manipulation of standards setting processes designed to achieve hold up under Section 5 of the FTC Act, which prohibits unfair methods of competition. In *Dell*,⁵³ “the FTC alleged that during an SSO’s deliberations about a certain standard, Dell, a member of the SSO, had twice certified that it had no intellectual property relevant to the standard, and that the SSO adopted the standard based, in part, on Dell’s certifications. After the SSO adopted the standard, Dell demanded royalties from those using its technology in connection with that standard. The [FTC] accepted a consent agreement under which Dell agreed not to enforce the patent in question against firms using it as part of the standard.”⁵⁴

*Rambus*⁵⁵ involved a firm, Rambus, that participated in and then withdrew from involvement in the Joint Electronic Device Engineering Councils (JEDEC), an SSO comprised of major computer companies that developed standards for different classes of “dynamic random access memory” (DRAM) computer chips. JEDEC required that its members participate in good faith, and the FTC found that JEDEC’s policies created the expectation that members would disclose patents and patent applications that later

based industries that allow the “patent owner to capture value that has nothing to do with its invention, merely because the infringer cannot separate the infringing component from the non-infringing ones” after it has sunk costs into the design and marketing of a product. *Id.* at 2010. *See also, e.g.,* Thomas F. Cotter, *Patent Holdup, Patent Remedies, and Antitrust Responses*, 34 J. Corp. L. 1151, 1160 (2009).

⁴⁸ Moreover, hold up may impose other harms: “the *prospect* of hold-up may induce users to postpone or avoid making commitments. Users may also make inefficient investments to partially protect themselves from possible hold-up.” Farrell et al., *supra* note 42, at 615 (emphasis in the original).

⁴⁹ In other words, the royalties that can result from hold up tax consumer welfare and can harm consumers by raising prices. “For consumer harm to occur, it is not necessary that a hold up result in higher marginal costs for producers. For example, higher lump sum or fixed royalties might discourage entry among firms that would produce the standardized product. The reduction in competition at the downstream level, and possible reduction in product adoption, might harm consumers.” 2007 IP Report, *supra* note 1, at 36 n.17.

⁵⁰ Disclosure rules have limitations, however. “Disclosure, even of an issued patent, let alone of an application, does not clearly reveal what will eventually be held to be covered by a valid patent. This patent fog stems from various aspects of [U.S.] patent policy[.]” Farrell et al., *supra* note 42, at 629.

⁵¹ 2007 IP Report, *supra* note 1, at 36.

⁵² *Id.*

⁵³ *In re Dell*, 121 F.T.C. 616 (1998).

⁵⁴ 2007 IP Report, *supra* note 1, at 44. *See* Decision and Order, *In re Dell*, 121 F.T.C. at 618-23.

⁵⁵ *In re Rambus, Inc.*, Docket No. 9302 (Opinion of the Commission filed Aug. 2, 2006), *available at* <http://www.ftc.gov/os/adipro/d9302/060802commissionopinion.pdf>. The following discussion is based on the facts set forth in the FTC’s opinion.

might be enforced against those practicing the JEDEC standards. In addition, JEDEC members were obligated to offer assurances to license patented technologies on RAND terms, before members voted to adopt a standard that would incorporate those technologies.

The FTC found that Rambus violated section 5 of the FTC Act by engaging in deceptive conduct before JEDEC when it failed to disclose relevant patents and patent applications, and misled JEDEC members into believing that Rambus was not seeking patent rights that would cover implementations of JEDEC standards. The FTC further found that Rambus's actions contributed significantly to JEDEC's technology selections and that JEDEC's choice of standard contributed significantly to Rambus's acquisition of monopoly power. According to the FTC, the switching costs that developed as chip manufacturers became increasingly committed to the standard locked the industry in and rendered Rambus's monopoly power durable. The FTC concluded that Rambus unlawfully monopolized the markets for four technologies incorporated into the SSO's standards in violation of section 5 of the FTC Act. In a subsequent opinion and order on remedy in *Rambus*,⁵⁶ the FTC barred Rambus from making future misrepresentations and omissions to SSOs and directed Rambus to license key patented technologies based on certain specified maximum allowable royalty rates.

Rambus appealed, and a panel of the U.S. Court of Appeals for the District of Columbia overturned the FTC's decision and remanded the case to the FTC for further proceedings.⁵⁷ The court opined that, if JEDEC, in the world that would have existed "but for" Rambus's deception, would have standardized the very same technologies, then Rambus's alleged deception could not be said to have had an effect on competition in violation of the antitrust laws. The court did not view JEDEC's loss of an opportunity to seek favorable RAND licensing terms as an "antitrust" harm. Because the FTC did not reject the possibility that JEDEC would have developed the same standard even absent Rambus's deceptive conduct, the court held that "the Commission failed to demonstrate that Rambus's conduct was exclusionary, and thus to establish its claim that Rambus unlawfully monopolized the relevant markets."⁵⁸ The full D.C. Circuit Court of Appeals and the Supreme Court refused to review this decision, and the FTC ended the case by dismissing the complaint against Rambus.⁵⁹

The third FTC case involved standards set by a state governmental body. "In 2003, the FTC filed an administrative complaint against the Union Oil Company of California ("Unocal") for allegedly misrepresenting information involving proposed low emissions gasoline standards in state regulatory proceedings" before the California Air Resources Board ("CARB").⁶⁰ "According to the complaint, Unocal presented research results in these proceedings that it had represented as non-proprietary, and [CARB] used these results in setting its standards. At the same time, Unocal was pursuing patent rights to cover these research results. The FTC's complaint asserted that Unocal misrepresented its proprietary interest in the standard until members of the refining industry had spent billions of dollars modifying their refineries to become compliant with the new standards. Unocal then alleged that [those implementing] the

⁵⁶ *In re Rambus, Inc.*, Docket No. 9302 (Opinion of the Commission on Remedy and Final Order, issued February 2, 2007, as modified April 27, 2007), available at <http://www.ftc.gov/os/adjpro/d9302/070205opinion.pdf>.

⁵⁷ *Rambus Inc. v. FTC*, 522 F.3d 456 (D.C. Cir. 2008), *reh'g en banc denied* (Sept. 9, 2008), *cert. denied*, 129 S. Ct. 1318 (2009).

⁵⁸ *Id.* at 467.

⁵⁹ The FTC dismissed its complaint against Rambus on May 12, 2009. *In re Rambus, Inc.*, Docket No. 9302 (Order Returning Matter to Adjudication and Dismissing Complaint, May 12, 2009), available at <http://www.ftc.gov/os/adjpro/d9302/090512orderdismisscomplaint.pdf>.

⁶⁰ 2007 IP Report, *supra* note 1, at 45. *In re Union Oil Company of California*, Docket No. 9305 (Complaint, March 4, 2003), available at <http://www.ftc.gov/os/adjpro/d9305/030304unocaladmincmplt.pdf>.

new standards would infringe its patents. This conduct allegedly enabled Unocal to charge substantial royalties, costing consumers hundreds of millions of dollars per year. The Unocal matter settled as part of a larger dual consent agreement that allowed Chevron Corporation to acquire Unocal. Under the terms of the settlement, Unocal [agreed not] to enforce its patents related to the reformulated gasoline standard set by [CARB].”⁶¹

Private antitrust cases also involve allegations of hold up tied to standard setting. A particularly significant example is the 2007 *Broadcom v. Qualcomm* decision, in which the U.S. Court of Appeals for the Third Circuit held that the district court erred in dismissing monopolization and attempted monopolization claims against a manufacturer of patented chipset technology based on its alleged failure to license its patented technology on fair, reasonable, and nondiscriminatory (“FRAND”) terms as it had committed to do during the standard setting process.⁶² The court held that “(1) in a consensus-oriented private standard-setting environment, (2) a patent holder’s intentionally false promise to license essential proprietary technology on FRAND terms, (3) coupled with an SDO’s reliance on that promise when including the technology in a standard, and (4) the patent holder’s subsequent breach of that promise, is actionable anticompetitive conduct.”⁶³ In so holding, the court favorably cited the FTC’s discussion of the antitrust harm associated with standard setting hold ups, found in *Dell*, *Rambus*, and *Unocal*, discussed above.⁶⁴ The court remanded the claims to the district court for proceedings to determine whether the claims could be proven. The parties agreed to settle this litigation in April 2009.

4.1.3 Obtaining market power by reneging on contract terms

In its 2008 *N-Data* consent decree, the FTC condemned a breach of a licensing commitment made to an SSO and subsequently relied upon by the market.⁶⁵ In January 2008, the FTC issued a complaint alleging that the N-Data company violated both prongs of section 5 of the FTC Act (unfair methods of competition and unfair acts or practices), based upon its assertion of patents obtained indirectly from National Semiconductor (“National”).⁶⁶ In particular, the Complaint alleged that N-Data and its predecessor in interest, Vertical Networks, Inc. (“Vertical”), engaged in a prohibited course of conduct when they sought to break a patent licensing commitment made by National to the Institute of Electrical and Electronics Engineers (IEEE).⁶⁷ National employees participated in IEEE meetings which led to the adoption of a new IEEE local area network data protocol standard known as “Fast Ethernet.” The IEEE incorporated National’s patented “NWay” technology within Fast Ethernet, in light of National’s letter to the IEEE offering to license NWay to any requesting party on a non-discriminatory basis. (The IEEE had considered adopting a Fast Ethernet standard without NWay.) National committed that the license would be paid-up and royalty-free after payment of a one-time fee of one thousand dollars. Subsequently National assigned the NWay patents to Vertical, and Vertical acknowledged that it had been informed that

⁶¹ 2007 IP Report, *supra* note 1, at 45. See Statement of the Federal Trade Commission, *In re Union Oil Company of California*, Dkt. No. 9305 and Chevron/Unocal, File No. 051-0125 (June 10, 2005), available at www.ftc.gov/os/adjpro/d9305/050802statement.pdf.

⁶² *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297 (3d Cir. 2007).

⁶³ *Id.* at 314.

⁶⁴ *Id.* at 310-12.

⁶⁵ *In re Negotiated Data Solutions, LLC*, File No. 051-0094 (Sept. 23, 2008), electronic case file available at <http://www.ftc.gov/os/caselist/0510094/index.shtm>.

⁶⁶ Complaint, *In re Negotiated Data Solutions, LLC*, File No. 051-0094 (2008), available at <http://www.ftc.gov/os/caselist/0510094/080923ndscomplaint.pdf>. The following factual summary is based on the FTC’s complaint.

⁶⁷ *Id.*

those patents might be encumbered by National's actions and letter. Subsequently, however, Vertical sought licensing fees on a higher per-unit basis, and sued several companies that tendered one thousand dollar payments, per National's original offer. In 2003, Vertical assigned its patents to N-Data and ceased operations. N-Data continued sending notice letters and asserting the NWay patents in infringement suits.

An FTC majority found that N-Data engaged in an "unfair method of competition" under Section 5 of the FTC Act by engaging in patent hold up – specifically by exploiting the incorporation of NWay into the Fast Ethernet standard and reneging on a known commitment made by its predecessor in interest.⁶⁸ According to the FTC, even if N-Data's actions did not violate the Sherman Antitrust Act because N-Data's alleged misconduct did not cause its monopoly power, N-Data's conduct still threatened to raise prices for an entire industry and to "subvert" the IEEE standard setting process in a way that endangered the viability of standard setting generally. N-Data's conduct threatened to reduce the value of standard setting by raising the possibility of "opportunistic lawsuits." Consequently, firms would be less likely to rely on new or existing standards. Further, new standards might be adversely affected because SSOs would unreasonably seek to avoid incorporating any patented technologies for fear of an N-Data like hold-up. The FTC also noted that National's prior licensing commitment was made to an industry-wide body, thereby involving numerous, injured third parties lacking privity with patentees and having mixed incentives to pass on royalties. Finally, the FTC also found that N-Data's behavior involved an "unfair act" under Section 5 of the FTC Act in that it caused (1) substantial consumer injury, (2) not outweighed by countervailing benefits, (3) which consumers could not reasonably have avoided. In settling these charges, N-Data agreed to be placed under an order prohibiting it from enforcing the N-Way patents unless it first offered a one thousand dollar one-time paid-up license – the license terms National had agreed to before NWay was incorporated into the Fast Ethernet standard.⁶⁹

4.2 *Competition policy guidance regarding ex ante licensing*

The Agencies have provided policy guidance to the private sector regarding actions they might take *ex ante* to avoid competitive problems associated with hold ups. That policy guidance is embodied in a 2007 Report jointly issued by the Agencies, and in specific DOJ "business review letters" responding to SSO proposals regarding *ex ante* patent licensing negotiations.

4.2.1 *2007 report by the agencies on antitrust and intellectual property*

As part of its efforts to inform consumers, businesses, and intellectual property rights holders about how the DOJ and FTC view activities involving intellectual property in the broader context of competition, the agencies issued a joint report in April 2007 entitled ANTITRUST ENFORCEMENT AND INTELLECTUAL PROPERTY RIGHTS: PROMOTING INNOVATION AND COMPETITION ("Report").⁷⁰

The Report was based on a series of hearings in 2002 that included comments from more than 300 stakeholders, including those with interests in biotechnology, computer hardware and software, the Internet, and pharmaceuticals, as well as independent investors, and leading scholars and practitioners in antitrust law, intellectual property law, and economics. Recognizing that intellectual property laws and antitrust laws share the common goals of "encouraging innovation, industry and competition," the agencies

⁶⁸ The following summary of the FTC majority's conclusions is based on *In re Negotiated Data Solutions, LLC*, File No. 051-0094 (2008), Statement of the Federal Trade Commission (Jan. 23, 2008), available at <http://www.ftc.gov/os/caselist/0510094/080122statement.pdf>.

⁶⁹ *In re Negotiated Data Solutions, LLC*, File No. 051-0094 (2008), Decision and Order (Sept. 22, 2008), available at <http://www.ftc.gov/os/caselist/0510094/080923ndsdo.pdf>.

⁷⁰ 2007 IP Report, *supra* note 1.

reported they will use a flexible rule of reason approach to determine antitrust liability for the vast majority of conduct involving intellectual property rights. In particular, the Report assessed potential procompetitive and anticompetitive ramifications of *ex ante* licensing negotiations within SSOs that the Agencies would consider in applying a rule of reason analysis.⁷¹

The Report examined joint negotiation of licensing terms by participants in SSOs before the standard is set and determined that such negotiations can be procompetitive. “In most cases, it is likely that the Agencies would find that joint *ex ante* activity undertaken by an SSO or its members to establish licensing terms as part of the standard-setting process is likely to confer substantial procompetitive benefits by avoiding hold up that could occur after a standard is set, and this would be an important element of a rule of reason analysis.”⁷² *Ex ante* negotiations may, however, raise competition concerns in certain settings. “For example, such negotiations might be unreasonable if there were no viable alternatives to a particular patented technology that is incorporated into a standard, the IP holder’s market power was not enhanced by the standard, and all potential licensees refuse to license that particular patented technology except on agreed upon licensing terms. In such circumstances, the *ex ante* negotiation among potential licensees does not preserve competition among technologies that existed during the development of the standard but may instead simply eliminate competition among the potential licensees for the patented technology.”⁷³

The Report developed a rubric for assessing the competitive impact of various ways licensing terms might be disclosed and discussed within standard setting organizations.

“First, an IP holder’s voluntary and unilateral disclosure of its licensing terms, including its royalty rate, is not a collective act subject to review under section 1 of the Sherman Act. Further, a unilateral announcement of a price before “selling” the technology to the standard setting body (without more) cannot be exclusionary conduct and therefore cannot violate section 2. Second, bilateral ex ante negotiations about licensing terms that take place between an individual SSO member and an individual intellectual property holder (without more) outside the auspices of the SSO also are unlikely to require any special antitrust scrutiny because IP rights holders are merely negotiating terms with individual buyers. Third, per se condemnation is not warranted for joint SSO activities that mitigate hold up and that take place before deciding which technology to include in a standard. Rather, the Agencies will apply the rule of reason when evaluating joint activities that mitigate hold up by allowing the “buyers” (members of the SSO who are potential licensees of the standard) to negotiate licensing terms with the “sellers” (the rival IP holders) before competition among the technologies ends and potentially confers market power (or additional market power) on the holder of the chosen technology. Such joint activities could take various forms, including joint ex ante licensing negotiations or an SSO rule that requires intellectual property holders to announce their intended (or maximum) licensing terms for technologies being considered for adoption in a standard.”⁷⁴

⁷¹ Such negotiations would be condemned as illegal *per se* only if they involved “a sham to cover up naked agreements on the licensing terms each IP holder w[ould] offer the SSO” or an “effort by manufacturing rivals to fix the price of the standardized products they ‘s[old].’” 2007 IP Report, *supra* note 1 at 55.

⁷² *Id.* at 52.

⁷³ *Id.* at 53.

⁷⁴ *Id.* at 54 (citations omitted).

4.2.2 DOJ business review letters on *ex ante* licensing

Competition policy guidance also is reflected in two DOJ business review letters⁷⁵ issued to specific SSOs. In October 2006, DOJ issued a business review letter to the VMEbus International Trade Association (“VITA”) stating that it did not intend to challenge VITA’s proposed patent policy for its standard setting activities. Under the terms of the proposed policy, patent holders would be required to declare their own most restrictive licensing terms. Such declarations could potentially decrease the price of licenses for use under the standard if patent holders compete to increase the chance that their patented technology would be selected by the working group setting the standard. DOJ concluded that the policy would preserve the benefits of competition between alternative technologies, helping VITA to avoid hold up and to improve its decision making by broadening the basis on which working group members decide which technologies to include in its standards.⁷⁶

DOJ also concluded that the policy’s prohibition on joint negotiation or discussion of licensing terms among the working group members (or with third parties) meant that the price of licenses would not be anticompetitively depressed by the concerted action of working group members. DOJ noted that it likely would evaluate any antitrust concerns about such negotiations or discussions under the rule of reason because such actions could be procompetitive.

Pursuant to the VITA policy, actual licensing terms will continue to be determined bilaterally between the patent holder and each potential licensee, subject to the cap declared by the patent holder during the standard setting process. If SSO members use the patent policy procedures to fix the prices of downstream products, or if patent holders decide to rig their declarations of most restrictive licensing terms, DOJ would not hesitate to challenge such activities as *per se* illegal.

After the Department issued its business review letter to VITA, DOJ received a request for a business review letter from IEEE and its standards association, IEEE-SA, asking DOJ for its views on IEEE-SA’s proposed patent policy.⁷⁷ This policy, which IEEE believed would ensure the wide adoption of IEEE standards, provided patent holders the option of making a voluntary assurance about their intended maximum royalty rates and most restrictive licensing terms, made all licensing assurances by patent holders irrevocable, and made such assurances binding on future owners of the patents.

In April 2007, DOJ issued a favorable business review letter to IEEE, concluding that IEEE’s proposed policy could generate benefits similar to those generated by VITA’s proposed policy, even though IEEE’s proposal does not require patent holders to publicly commit to their most restrictive licensing terms. Patent holders could compete on licensing terms to increase the likelihood of being selected for the standard. The basis for the decision-making of the working group could be expanded, and the development, implementation, and adoption of IEEE standards could take place faster. The policy might also decrease patent litigation after the standard is set. DOJ also noted that SSOs may legitimately choose not to adopt patent policies like IEEE’s or VITA’s and that experimentation and competition between SSOs in this area should help determine over time which policies will work best in particular contexts.

⁷⁵ Under DOJ’s business review letter procedures, “persons concerned about the legality under the antitrust laws of proposed business conduct can request the Department’s Antitrust Division to state its current enforcement intentions with respect to that conduct.” Press Release, U.S. Dep’t of Justice, Pilot Program Announced to Expedite Business Review Process (Dec. 1, 1992), *available at* <http://www.justice.gov/atr/public/busreview/201659a.pdf>.

⁷⁶ VITA Business Review Letter, *supra* note 27.

⁷⁷ Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep’t of Justice, to Michael A. Lindsey, Esq., Dorsey & Whitney LLP (Apr. 30, 2007), *available at* <http://www.atrnet.gov/subdocs/222978.pdf>.

4.3 *Non-competition law cases*

In the U.S., the harm to competition arising out of standard setting activities also has been dealt with in cases not involving the application of competition law. Representative examples of such cases are set forth below.

Equitable patent law defenses may be invoked to combat anticompetitive hold up. In *Qualcomm v. Broadcom*,⁷⁸ the U.S. Court of Appeals for the Federal Circuit held that a federal district court properly ruled that Qualcomm (1) had a duty to disclose certain patents related to video compression technology in connection with its participation in the Joint Video Team (“JVT”) SSO; (2) that it breached this duty through silence; and (3) that this breach of duty constituted misconduct that sharply limited Qualcomm’s ability to enforce its patent rights. Qualcomm had sued Broadcom for infringement of certain patents incorporated into the “H.264” JVT standard. The district court found that JVT participants treated JVT’s policies as imposing a duty of patent disclosure upon participants, that Qualcomm’s patents “reasonably might be necessary” to practice the H.264 standard, and that a proper remedy for Qualcomm’s breach of disclosure duty was to make the patents unenforceable against the world.⁷⁹ The Federal Circuit agreed with the district court’s ruling that Qualcomm had ‘impliedly waived’ assertion of its patent rights through its misconduct, that Qualcomm was “equitably estopped” from enforcing its patents against Broadcom, but determined that the remedy should be limited to render the patents in question unenforceable only against the H.264 standard, not against the world (i.e., Qualcomm could enforce these patents against firms making products not covered by the standard).

The breadth and detail of the Federal Circuit’s *Qualcomm v. Broadcom* holding (and the fact that it was handed down by the one U.S. Federal Court of Appeals with jurisdiction over patent-related complaints) indicates that users of a standard may be able to avoid anticompetitive hold up without invoking antitrust law, if they can show that a patentee whose patents apply to the standard violated SSO disclosure rules. When explicit patentee misconduct can be shown,⁸⁰ U.S. patent law doctrine does provide some leeway for combating serious harms to the competitive process stemming from SSO activities.

Finally, some scholars have highlighted the possibility that contract and tort law may in appropriate instances be used to combat hold ups that harm competition.⁸¹ With regard to contracts, “both the Uniform Commercial Code and Restatement (2nd) of Contracts require that [a contract] . . . modification be made in ‘good faith’ by the transacting parties, which would include factors such as losses suffered by the parties under the current terms and market changes since formation of the original agreement. These doctrines can, in principle, be applied to minimize hold up behavior by identifying attempts to hold up a transacting party

⁷⁸ *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004 (Fed. Cir. 2008). This is distinct from the 2007 *Qualcomm v. Broadcom* case, discussed *supra* paragraph 22.

⁷⁹ The Federal Circuit had previously held in *Rambus Inc. v. Infineon Technologies AG*, 318 F.3d 1081 (Fed. Cir 2003), that an SSO-imposed duty to disclose patents or patent applications only extends to patent claims that “reasonably might be necessary” to practice the standard in question. In the *Infineon* case, the Federal Circuit found that the factual record showed that Rambus’s claimed technology did not fall within the JEDEC SSO’s disclosure duty, and that therefore substantial evidence did not support a jury’s verdict that Rambus had breached its disclosure duty.

⁸⁰ See, e.g., *Hynix Semiconductor, Inc. v. Rambus, Inc.*, 2009 U.S. Dist. Lexis 13530 (N.D. Cal. Feb. 23, 2009) and *Micron Technology, Inc. v. Rambus, Inc.*, 2009 U.S. Dist. Lexis 1260 (D. Del. Jan 9, 2009) (injunction requested by patentee denied and patents ruled unenforceable in the face of “obstructive” or “misleading” conduct that included spoliation of evidence). The misconduct cited in *Hynix* led the court to deny Rambus an injunction after patent infringement liability was found.

⁸¹ See Bruce H. Kobayashi and Joshua D. Wright, *Federalism, Substantive Preemption, and Limits on Antitrust: An Application to Patent Holdup*, 5 J. Competition L. & Econ. 469, 506-516 (2009).

and preventing parties from using the court to facilitate a holdup.”⁸² With regard to a tort claim used to combat wrongful SSO-related conduct, “such a claim would have the advantage, from the plaintiff’s perspective, of avoiding the burden of defining markets or demonstrating harm to competition.”⁸³ Of course, issues such as standing (whether a private party is within the zone of those authorized to file suit under the legal doctrine in question) and the lack of treble damages (available in U.S. private antitrust suits but not in contract or tort suits), among other complications, may limit the scope of these legal doctrines to combat anticompetitive SSO activity.

5. Concluding comments

Standard setting is a central feature of modern economies that confers great benefits on society. In the United States, most standard setting activity is carried out by the private sector and has long been subject to antitrust scrutiny. This paper identifies several standard setting activities that can harm the competitive process, thereby retarding innovation and reducing welfare. When merited, competition policy has been deployed in the United States to deal with specific instances of such competitive harm and to provide general policy guidance. The Agencies, working in cooperation with other U.S. Government agencies, will continue to study standard setting and to develop policies and enforcement programs aimed at enhancing the welfare benefits of standards.⁸⁴ Appropriate government actions in this regard can help spur economic growth, enhance efficiency, and promote innovation.

⁸² *Id.* at 508 (citations omitted). As the authors explain, “UCC 2-209’s good faith standard allows contract law, in principle, to distinguish between mutually beneficial modifications and holdup in the form of post-contractual opportunism. The comments to UCC 2-209 are instructive with respect to what types of obligations satisfy this standard, mentioning specifically ‘a market shift which makes performance come to involve a loss.’ The common law takes a similar approach, distinguishing those modifications motivated by unanticipated changes in market circumstances from opportunism. This flexible inquiry enables judges to . . . minimize holdup behavior and lower transaction costs.” *Id.* at 508 (citations omitted).

⁸³ *Id.* at 515.

⁸⁴ Additional policy insights on appropriate remedies for competitive harm associated with standard setting activities may be derived from an FTC Report that is being prepared in light of 2008-2009 FTC Hearings on the Evolving Intellectual Property Marketplace. (The 2009 FTC Hearings, which sought information on changes in the intellectual property marketplace and the implications of such changes for public policy, are described at <http://www.ftc.gov/os/2008/11/P093900ipwkspfrn.pdf>.) The Report may deal with the economic and legal foundations of patent remedies, including reasonable royalty damages. The Report’s analysis may shed further light on the appropriate evaluation of possible remedial actions designed to prevent anticompetitive SSO hold ups, such as the establishment *ex ante* of “RAND” licensing requirements for essential IP. See discussion *supra* paragraphs 28-34.

EUROPEAN UNION

1. Introduction

This paper will focus on the important topic of assessment of standard setting agreements under EU competition law. Standard setting is vital not only for the high-tech industries where interoperability is a key for success but also for a large number of the more traditional sectors. It takes place in different types of settings (from governmentally implemented, to formal standard setting bodies, to a few companies coming together on an ad hoc basis to set a local standard) and there are different types of standards involving different types of cooperation (safety standard, environmental standards, interoperability standards etc). The large variety of types of standards and the large variety of constellations in which such standards are set, makes it also a complex topic from a competition law perspective.¹

Standardisation can give rise to significant efficiency gains and further innovation and competitiveness both in Europe and at a global level. For example, EU wide standards may facilitate market integration and allow companies to market their goods and services in all Member States, leading to increased consumer choice and decreasing prices. Moreover, standards which establish technological interoperability often encourage competition on the merits between technologies from different companies and help to prevent lock-in to one particular customer. Standards may reduce transaction costs. They also play an important role for innovation *inter alia* by reducing the time it takes to bring a new technology to the market and by allowing companies to build on top of an agreed solution.

However, from a competition law perspective the specific context of standards setting also entails certain risks. For example discussions in the context of standard-setting, like all meetings between competitors, can provide an opportunity to reduce or eliminate price competition in the markets concerned, thereby facilitating a collusive outcome on the market. One specific risk is the risk for misuse of the standard setting procedure of a company holding intellectual property rights reading on the standard. Once a company's intellectual property rights ("IPR")/technology are included in a commercially successful standard, market power will, in general, be conferred on that company. Those wishing to use the standard have become "locked-in" in relation to the IPR-holders, i.e. the IPR-holders have become necessary contract partners for all those companies wishing to produce products in compliance with that standard. This might, for example, lead to a situation where the IPR-holders are tempted to extract monopoly rents by excessive prices in violation of Article 102 of the Treaty on the Functioning of the European Union ("TFEU")². In addition, a company might even hide the fact that it has a patent reading on a future standard while the industry is discussing which technological solution to adopt and thereafter block, "hold-up", the standard by either refusing to licence this patent or charging prohibitive fees.

Considering the importance, as described above, of a well-functioning system for standardisation for the competitiveness of the European industry, it is crucial for the Commission to find the right balance in

¹ It should be noted that this contribution will only deal with private standards, i.e. standards which are decided upon and entered into by private undertakings and not standards mandated by government legislation.

² Article 102 TFEU prohibits abuse of a dominant position.

competition policy which allows industry, and in the end the consumer, to benefit from the inherent advantages of standardisation without allowing companies to use standardisation agreements to hamper competition (for example by foreclosing certain competitors or exploiting the users of a standard).

The issue of standardisation in a competition law context is a very topical one for the Commission. Not only has the Commission recently investigated several cases related to different aspects of the standardisation process, but it is also just now in the process of consulting upon draft Horizontal Guidelines³, including a substantially revised chapter on standardisation intending to give guidance to industry on the Commission's policy in relation to standardisation agreements. This contribution will, firstly, cover recent cases dealt with by the Commission in this area (Section 2) and, secondly, the changes to the standardisation chapter of the draft Horizontal Guidelines (Section 3).

2. Recent case experience

The Commission has, in recent years, dealt with a number of cases concerning different aspects of standardisation agreements. This section will, in particular, deal with two recent cases, the *Ship Classification case*⁴ and the *Rambus case*⁵, which have both ended with the Commission accepting commitments from the companies subject to the investigation, remedying the preliminary concerns identified.⁶ For the sake of completeness, two other cases related to standards also deserve mentioning. Even though these two cases did not lead to any formal decision, they were important in increasing the Commission's experience in the field. By raising certain important principal issues they were also important for furthering policy discussions within the Commission.

The *Qualcomm case*⁷, involving in particular the issue of whether certain licensing terms were in breach of a commitment to license on fair, reasonable and non-discriminatory terms (a so called "FRAND" commitment) – or in other terms, unreasonably high – raised important issues about the pricing of Qualcomm's technology after its adoption as part of an industry standard. Qualcomm is a holder of IPR in the CDMA and WCDMA standards for mobile telephone. The WCDMA standard forms part of the 3G (third generation) standard for European mobile phone technology. The Commission's investigation of this case followed complaints lodged with the Commission by mobile phone manufacturers.

The Commission committed time and resources to this investigation – considering in particular that this was the first time that the Commission was confronted with the legal consequences of a potential breach of a FRAND commitment – in order to assess the complex body of evidence, but did not reach formal conclusions in this case. Considering that all complainants finally withdrew their complaints the Commission decided not to invest further resources in the case which was therefore formally closed end of

³ The draft Horizontal Guidelines can be found at the Commission's website at the following webpage: http://ec.europa.eu/competition/consultations/2010_horizontals/index.html

⁴ The press release and a link to the commitment decision can be found at the following webpage: <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1513&format=HTML&aged=0&language=EN&guiLanguage=en>

⁵ The press release and a link to the commitment decision can be found at the following webpage: <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1897&format=HTML&aged=0&language=EN&guiLanguage=en>

⁶ Commitment decisions are based on Article 9 of Council Regulation (EC) No 1/2003 of 16 December 2002, on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, OJ L 1, 4.1.2003.

⁷ <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/516&format=HTML&aged=0&language=EN&guiLanguage=en>

2009. However, during this investigation, the Commission acquired valuable experience and knowledge about the particular issues raised by the case. This experience has fed in to some of the revisions of the standardisation chapter of the draft Horizontal Guidelines (see Section 3).

The *IPCom*⁸ investigation, which just as the Qualcomm case was based on a complaint, concerned a situation where an acquirer of IPR was not initially willing to take over the original IPR-holder commitment to grant irrevocable licenses on FRAND terms to patents essential for various standards set by the European Telecommunications Standard Institute (ETSI). In 2007, IPCom acquired the mobile telephony patent portfolio developed by Robert Bosch GmbH (Bosch) between the mid-1980s and 2000. As a member of ETSI, Bosch took part in the GSM and UMTS (WCDMA) standard setting processes. Bosch had declared that it held essential patents in the relevant standards and committed to ETSI "to grant irrevocable licenses on fair, reasonable and non-discriminatory terms and conditions" for such patents.

The investigation ended with a public declaration by IPCom that, following discussions with the Commission, it was ready to take over Bosch's previous commitment to grant irrevocable licences on FRAND terms to patents held by IPCom which are essential for various standards set by ETSI and UMTS. The Commission welcomed IPCom's declaration and emphasised the importance that when patents essential to a standard are transferred from one owner to another, so should any relevant FRAND commitments. Once again, this experience has also fed into particular changes in the revised standardisation chapter in the draft Horizontal guidelines. It has been clarified that there should be a requirement on all IPR-holders who provide a FRAND commitment to take all necessary measures to ensure that any undertaking to which the IPR owner transfers its IPR is bound by that commitment. The transfer of FRAND commitments after the sale of standard-essential patents is important from a competition law perspective.

2.1 *The Rambus case*

In the *Rambus case*, the Commission was, for the first time, confronted with the issue of "patent ambush," infringing the obligation on companies participating in the standard setting procedure to disclose their patents relevant to the standard before its adoption.

The US-based standard setting organisation JEDEC developed an industry-wide standard for "Dynamic Random Access Memory" chips ("DRAMs"). JEDEC-compliant DRAMs represent around 95% of the market and are used in virtually all PCs. In 2008, worldwide DRAM sales exceeded US\$ 34 billion (more than €23 billion).

On 30 July 2007, the Commission sent Rambus a Statement of Objections, setting out its preliminary view that Rambus may have infringed then Article 82 of the EC Treaty (now Article 102 TFEU) by abusing a dominant position in the market for DRAMs. In particular, the Commission was concerned that Rambus had engaged in a so-called "patent ambush", intentionally concealing that it had patents and patent applications which were relevant to technology used in the JEDEC standard, and subsequently claiming royalties for those patents.

2.1.1 *The Commission's preliminary view*

The Statement of Objections set out the Commission's preliminary view that Rambus had abused its dominant position by claiming unreasonable royalties for the use of certain patents for DRAMS subsequent to the "patent ambush".

⁸ <http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/09/549&format=HTML&aged=0&language=EN>

As Rambus asserts patents on all JEDEC-compliant SDRAM chips and owns the proprietary RDRAM and XDR DRAM technology, the percentage of worldwide commercial DRAM production exposed to Rambus' patent claims is thus more than 90%. Rambus has been and remains the only company asserting patents on DRAM interface technology. Every manufacturer wishing to produce synchronous DRAM chips or chipsets complying with JEDEC standards must therefore either acquire a patent licence from Rambus or litigate its asserted patent rights. There are substantial barriers to entry on the market, primarily due to the fact that the industry is locked into JEDEC standards. On the basis of *inter alia* these facts, the Commission provisionally took the view in its Statement of Objections that Rambus held a dominant position on the market at the point when it started asserting its patents and that it has continued to hold that dominant position since.

The Commission's preliminary view was that Rambus, in violation of Article 102 TFEU, engaged in intentional deceptive conduct in the context of the standard-setting process by not disclosing the existence of the patents which it later claimed were relevant to the adopted standard. This type of behaviour is known as a "patent ambush". Against this background, the Commission provisionally considered that Rambus abused a dominant market position by subsequently claiming unreasonable royalties for the use of those relevant patents. The Commission's preliminary view was that without its "patent ambush", Rambus would not have been able to charge the royalty rates it did. The Commission therefore provisionally concluded that claiming such royalties was incompatible with Article 102 TFEU, in the light of the specific circumstances of this case, including Rambus' breach of JEDEC policy and the underlying duty of good faith in the context of standard-setting, which resulted in a deliberate frustration of the legitimate expectations of the other participants in the standard-setting process. Furthermore, the Commission provisionally considered that such behaviour by Rambus undermined confidence in the standard-setting process, given that an effective standard-setting process is, in the sector relevant to the present case, a precondition for technical development and the development of the market in general to the benefit of consumers.

The standard-setting context and patent ambushes

In the Statement of Objections, the Commission provisionally considered that the specific context relating to standard-setting was important in order to properly assess Rambus' conduct. As set out in the introduction, the process of standard-setting risks leading to an anti-competitive outcome but can also have significant positive economic effects insofar as they promote economic interpenetration on the internal market or encourage the development of new markets and improved supply conditions. For these benefits to be realised, and in view of the risk of anti-competitive outcomes, particular attention must be given to the procedures used to guarantee that the interests of the users of standards are protected. The Commission has therefore outlined the type of behaviour that is considered appropriate behaviour in standard-setting organisations in certain documents. In its 1992 Communication entitled "Intellectual Property Rights and standardisation"⁹ the Commission stated that an IPR-holder would act in bad faith if it was aware that its IPR related to a standard in development and did not disclose its IPR until after the adoption of the standard. This would force its competitors to accept higher licensing fees than those which could have been negotiated at an earlier stage before the adoption of the standard. The Communication also stated that, in order to ensure that a standard-setting process yields its benefits, IPR-holders should be required to identify and report any intellectual property rights relating to a standard in development.

⁹ Commission Communication "Intellectual Property Rights and standardisation", COM(1992) 445, paragraph 4.2.10.

The present Horizontal Guidelines¹⁰ also provide a framework for the analysis of the effects of standardisation on competition. The Horizontal Guidelines state that standards must be set on a non-discriminatory basis, and that it must be justifiable why one standard is chosen over another. By their nature, standards will not include all possible specifications or technologies and, in some cases, it may be necessary for the benefit of the consumers or the economy at large to have only one technological solution. The Horizontal Guidelines therefore stress the importance of "non-discriminatory, open and transparent procedures" to safeguard against anti-competitive outcomes.

Given these factors, standard-setting bodies generally adopt IPR policies which are designed to prevent or minimise the risk of anti-competitive outcomes. Such policies, including JEDEC's patent policy, generally stress the importance of good faith and early disclosure of potentially related IPR. To give effect to this policy, the Statement of Objections outlined that all members were required to disclose to JEDEC any and all issued or pending patents of which they were aware and which might be involved in the standard-setting work of JEDEC.

The Commission provisionally concluded that JEDEC and its members relied upon compliance with the patent policy in developing industry standards. Compliance with JEDEC patent policy, and in particular rules relating to disclosure of issue or pending patents, allowed JEDEC and its members to choose alternative technologies or to design around such potential or actual patents should JEDEC members be unable to obtain an assurance from the patent (application) holder that a licence would be available under satisfactory terms consistent with the JEDEC patent policy. The Commission provisionally concluded that the JEDEC patent policy and the underlying duty of good faith was intended to provide members with an opportunity to develop standards free from potential patent claims. In other words, the policy was aimed at preventing one member company from secretly capturing the standard by not disclosing to JEDEC that technologies being included were covered by the member's granted patent or pending patent application, and at ensuring that licences for technologies protected by patent rights included in the standard are offered to JEDEC members on reasonable and non-discriminatory terms.

It should be noted, however, that while the Commission considered that Rambus may have breached JEDEC's patent policy in its Statement of Objections, an actual breach of the precise rules of a standard-setting body would not be a necessary requirement for a finding of abuse in this context. The finding of abuse would instead be conditioned by the conduct that has necessarily influenced the standard process, in a context where suppression of the relevant information necessarily distorted the decision making process within a standard-setting body.

Rambus' alleged capture of the JEDEC standards and its effect

The Commission provisionally considered that Rambus planned to capture the standard for DRAM interface technology from the outset and that, pursuant to its business strategy, Rambus may have deliberately used its participation in JEDEC to revise and tailor its pending patent applications in an effort to gain control over JEDEC standard-compliant synchronous DRAM chips. There were a number of factors supporting that JEDEC Members were likely to have designed a "patent-free" standard around Rambus' patents had they known they existed.

The Commission therefore provisionally concluded that Rambus was abusing its dominant position on the market for DRAM microchip technology by claiming unreasonable royalties for the use of its patents

¹⁰ Guidelines on the applicability of Article 81 of the EC Treaty to horizontal cooperation agreements, OJ C 3, 6.1.2001, p. 2 ("Horizontal Guidelines"), to be found at the following webpage <http://ec.europa.eu/competition/antitrust/legislation/horizontal.html>.

against JEDEC-compliant DRAM manufacturers at a level which, absent its conduct, it would not have been able to charge.

2.1.2 The Commitment decision

On 9 December 2009, the Commission adopted a decision that rendered legally binding commitments offered by Rambus Inc which, in particular, put a cap on its royalty rates for certain patents for DRAMs.

To address the Commission's concerns, Rambus undertook to put a worldwide cap on its royalty rates for products compliant with the JEDEC standards for five years. As part of the overall package, Rambus agreed to charge zero royalties for the SDR and DDR chip standards that were adopted when Rambus had been a JEDEC member, in combination with a maximum royalty rate of 1.5% for the later generations of JEDEC DRAM standards (DDR2 and DDR3), which is substantially lower than the 3.5% Rambus was charging for DDR in the then existing contracts.

The Commitments extend this rate to all market participants and guarantee that industry will not have to pay more than the capped rates. This predictability and certainty has a clear value for business. Potential new entrants will also have a clear perspective of future royalty costs, facilitating a decision to enter the market. The Commission's decision confirmed that it considers the commitments are adequate to address these competition concerns.

2.2 The Ship Classification case

In the *Ship Classification case*, the Commission was confronted with a completely different aspect of the standardisation process. This case shows that, as outlined in the OECD's invitation for written submissions, problems in this context do not only arise in high-tech standards involving complex intellectual property rights. The case is also relevant in a broader context where membership in a certain association (with market power), or access to that association's products, is vital for competing on an equal footing on the market.

2.2.1 The Commission's initial concerns

The Commission's concerns were that the International Association of Classification Societies ("IACS") prevented classification societies ("CSs") that were not already members of IACS from joining IACS, participating in IACS' technical working groups (which develop IACS technical resolutions laying down requirements and interpretations to be incorporated into the classification rules and procedures of individual CSs) and, finally, from having access to technical background documents which relate to IACS technical resolutions and which are necessary to properly understand and apply these resolutions. Such behaviour would have hindered the entry and development of CSs that were not members of IACS in the ship classification market and therefore have led to foreclosure.

This case concerns the market for classification services for merchant ships. Classification services of CSs consist of two closely related sub-segments, classification work and statutory work. Classification is the traditional domain of CSs and covers the production of technical standards (commonly known as "rules and procedures") for ship construction, equipment, maintenance and inspection; the verification of plans and the supervision of ship construction against these rules and procedures as well as the inspection and certification of ships against these rules once in service. Statutory work covers the task of (i) carrying out the surveys of ships provided for in the International Maritime Organisation ("IMO") maritime safety conventions in order to verify compliance with the technical requirements contained in the IMO maritime safety conventions (statutory requirements); and (ii) issuing the international certificates on their behalf which attest the ships' compliance with these requirements. These tasks can be delegated by a flag state to a CS.

In the course of its investigation, the Commission came to the preliminary view that the ten members of IACS had a strong position on the ship classification market. The Commission based its preliminary assessment in particular on the high combined market shares of the ten members of IACS, and on the view that CSs which are not members of IACS face significant competitive disadvantages preventing them from competing effectively with IACS members. For example many flag states do not allow CSs that are not IACS members to perform statutory work on their behalf and a large number of ports do not permit entry of ships that are not classified by an IACS member.

In its preliminary assessment, the Commission further took the view that there may have been a restriction of competition on the relevant market in ship classification services due to IACS' decisions (i) on the criteria and procedures governing membership of IACS and the suspension or withdrawal of membership, and on the way that these criteria and procedures were applied, and (ii) on the preparation and accessibility to non-IACS CSs of IACS resolutions and technical background information relating to these resolutions.

Given the Commission's preliminary view that the ten members of IACS have a strong position on the market and that classification societies which are not members of IACS may face significant competitive disadvantages, the Commission's preliminary assessment was that these decisions therefore raised concerns as to their compatibility with Article 81(1) EC Treaty (now Article 101(1)¹¹ TFEU) and did not fulfil the cumulative requirements for exemption under Article 81(3) EC Treaty (now Article 101(3) TFEU). In particular, the preliminary assessment expressed the concern that, contrary to Article 101 TFEU, as interpreted by the case law of the European Court of Justice and the Commission's Horizontal Guidelines¹², IACS may have failed to: (a) enact requirements that are objective and sufficiently determinate so as to enable them to be applied uniformly and in a non-discriminatory manner concerning admission to, as well as suspension and withdrawal of, membership of IACS; (b) apply these requirements in an appropriate, reasonable and non-discriminatory way (including the establishment of sufficient safeguards to ensure such kind of application through an independent appeal/review mechanism); (c) provide an adequate system for including non-IACS CSs in the process of developing IACS technical standards (i.e. IACS resolutions), including the establishment of independent complaint/grievance and appeal/review mechanisms ensuring access to IACS' technical working groups; (d) provide for proper dissemination to non-IACS CSs of technical background information (in particular technical background documents) with regard to the application of IACS resolutions (including the establishment of an independent appeal/review mechanism ensuring access to this technical background information).

2.2.2 *The commitments and their proportionality*

In order to accommodate the identified concerns, IACS offered a comprehensive set of commitments including the establishment of objective and transparent qualitative criteria for membership of IACS, and guidance for their non-discriminatory application, the possibility for non-IACS CSs to participate in IACS' working groups and full access to IACS technical resolutions and related background documents. In addition, IACS committed to setting up an Independent Appeal Board to settle possible disputes over access to or suspension or withdrawal of membership of IACS, participation in IACS' technical working groups and access to IACS resolutions and to their technical background documents. These commitments open up the ship classification market to the benefit of both CSs that are not members of IACS and customers of ship classification services and enhance the possibilities for effective competition.

¹¹ Article 101(1) TFEU prohibits agreements which have the object or effect of restricting competition. 101(3) gives a legal exemption to an agreement if the prima facie restrictive effects are offset by efficiencies passed on to consumers.

¹² Horizontal Guidelines, cited above footnote 10, section 6, paragraphs 159 to 175.

On 14 October 2009, the Commission adopted a commitment decision that rendered legally binding the commitments offered. In its assessment of the proportionality of the commitments, the Commission pointed out that with regard to the proposed criteria for membership of IACS, the commitments strike an appropriate balance between on the one hand maintaining demanding criteria for membership of IACS, while on the other hand removing unnecessary barriers to membership of IACS. The new criteria would ensure that only technically competent CSs are eligible to become members, thus preventing the efficiency and quality of IACS' work being unduly impaired by too lenient requirements for participation in IACS. At the same time, the new criteria would not hinder CSs that are technically competent from joining IACS. Similarly, the new IACS system for participation of non-IACS CSs in the IACS technical standard-setting process would on the one hand ensure appropriate possibilities for non-IACS CSs to participate in the development of IACS technical resolutions, while guaranteeing the proper functioning of IACS' technical working groups. In addition, by granting access to technical background documents to non-IACS CSs, the commitments would also ensure full access to the results of IACS' technical standard-setting process.¹³

The Commission's assessment in this case was also guided by the general principles laid down in the standards chapter of the Horizontal Guidelines¹⁴. The chapter emphasises that participation in standard setting should be open to all but also that restricted membership may be permitted if the parties demonstrate important efficiencies. This is a question of proportionality and accordingly, in the ship classification case, the interest of non-IACS members in participation had to be balanced with the public interest that only highly competent CSs decide on the actual setting of a standard. Indeed, participation in IACS' standard-setting process as such had to be seen from the standpoint that IACS standards, by establishing minimum requirements and interpretations to be incorporated in rules and procedures of CSs, play an important role in ensuring maritime safety and the prevention of marine pollution. Therefore, the Commission accepted in the commitments a system which distinguishes between the right of any non-IACS CSs to actively participate in IACS' technical working groups which prepare new standards and the right to finally decide about the adoption of a new standard. This latter right was reserved to CSs that are members of IACS and therefore have passed the demanding competence test of IACS' objective technical membership conditions and are periodically checked as to their continuous compliance with these conditions. At the same time, the new design of IACS' membership criteria as laid down by the commitments ensures that anticompetitive foreclosure under the disguise of technical competence requirements cannot occur.

In this system, all non-IACS CSs have the benefit of discussing, influencing and learning about the details, reasons and context of forthcoming new IACS standards through active participation in IACS' working groups. This also enables them to anticipate new developments and, if necessary, to grow into higher technical competence and altogether to acquire a more solid basis for engaging in effective competition with the current members of IACS. Moreover, those non-IACS CSs that wish to join IACS

¹³ The Commission's decision confirms the principles set out in the so called EBU judgement with regard to membership of commercial associations. While associations without market power may have wide discretion about the way they design and apply their membership rules, this is different, where an association has strong market power and where non-membership of that association gives rise to appreciable competitive disadvantages. Even if membership is not open to all applicants, the restrictions in the membership rules can be held indispensable within the meaning of Article 101(3) TFEU if: (i) the membership rules and practices of that association are objective and sufficiently determinate so as to enable them to be applied uniformly and in a non-discriminatory manner vis-à-vis all applicants for membership and (ii) these membership rules are in fact applied in an appropriate, reasonable and non-discriminatory way. Judgment of the Court of First Instance of 11 July 1996 in Joined Cases T-528/93, T-542/93, T-543/93 and T-546/93 *Metropole télévision SA and others vs. Commission* ('EBU') [1996] ECR-II-649, at paragraph 95.

¹⁴ Cited above footnote 10.

and pass the newly designed objective and non-discriminatory admission test will as new IACS members have the power to co-decide the adoption of new standards in the IACS Council.

2.3 Conclusion

The cases discussed in this section give an overview of the type of problems that may arrive in the context of standard setting. The two main examples given (the *Rambus* case and the *Ship Classification* case are interesting in comparison since they show that very different types of problems may occur. It can be equally detrimental to competition that a company "misuses" the standard setting process by hiding a potentially relevant patent and thereafter exercising its right when lock-in has occurred, as excluding relevant actors (in this case also potential entrants) from access to important information and technical input. The comparison also shows that, from a competition law perspective, certain problems may be tackled under Article 101 TFEU (prohibition against anticompetitive agreements) and others under Article 102 TFEU (prohibition against abuse of a dominant position). However, it is submitted that in the context of standard setting the dividing line between Article 101 and Article 102 is not always clear – the same fact can sometimes be relevant for both. To give an example, clear and binding rules for a standard setting organisation on disclosure of essential intellectual property rights may not only help to give the standard setting organisation legal certainty as to the fact that their agreement falls outside Article 101 (see below Section 3 about the "safe harbour" created by the new chapter on standards in the Horizontal Guidelines). It may also help to prevent companies benefiting from unclear or loose disclosure rules in misusing the system for their own benefit.

3. The revision of the standardisation chapter in the draft Horizontal Guidelines

Guidance for the competition assessment of horizontal co-operation agreements, in EU competition law, is currently given by way of two 'block exemption' Regulations (Commission Regulation (EC) No. 2659/2000 on research and development (R&D) agreements and Commission Regulation (EC) No. 2658/2000 on specialisation agreements) and their accompanying Horizontal Guidelines. The two Regulations exempt research and development as well as specialisation and joint production agreements from the EU's general ban on restrictive business practices, provided they meet all conditions set out in the Regulations. The Horizontal Guidelines provide an analytical framework for the assessment of the most common types of horizontal co-operation agreements including standardisation agreements.

As the two current Regulations will expire on 31 December 2010, the Commission is already at an advanced stage of the process of reviewing these rules. An initial call for stakeholder input on the overall system was made end of 2008/beginning of 2009. In this initial consultation a number of stakeholders provided comments on standard-setting. In the view of these comments, input from the National Competition Authorities and in particular drawing on recent case experience as outlined above, a substantial revision has been made to the standardisation chapter. The aim of the modifications is to, to the extent possible, avoid the type of competition problems that we have been facing in the recent cases.

Already the present Horizontal Guidelines contain a chapter on the assessment of standardisation agreements (providing important general principles for the assessment in both cases analysed above), setting out the Commission's interpretation of when such agreements risk infringing EU competition law. However, the draft standardisation chapter has now been substantially revised in order to reflect our recent case experience on standardisation and competition (as described above), and clarify a number of issues in particular on how to avoid that the inclusion of intellectual property rights in standards leads to an anticompetitive outcome.

The aim of the principles set out in the draft chapter on standardisation agreements is to ensure that standards are set in such a way that they are pro-competitive and that the specific benefits of standard-setting are passed on to consumers.

The revised chapter provides certain conditions (in other words a "safe harbour") for how the standardisation process should be construed in order to ensure that it falls outside Article 101(1) TFEU (i.e. does not even create any restrictive effect on competition). The general policy message is that as long as participation (as well as the procedure for adopting the standard) is unrestricted and transparent, the standard is not compulsory and access is given to a standard on fair, reasonable and non-discriminatory terms, it does not restrict competition within the meaning of Article 101(1). In more specific terms this means that the following conditions should be fulfilled:

First, as regards unrestricted participation and the procedure for adopting the standard, the rules of the standard-setting organisation (in particular its IPR policy) should guarantee that all interested actors can participate in the process leading to the selection of the standard. In particular, there should be no bias in favour or against royalty free standards, depending on the relative benefits of the latter compared to other alternatives. There should also be objective and non-discriminatory procedures for allocating voting rights.

Second, as regards transparency, the standard-setting organisations procedure should allow stakeholders to inform themselves of upcoming, on-going and finalised work. As shown by the discussion on the Ship Classification case above, there is a distinction to be made between participation in the form of member ship and the broader need for transparency for affected parties.

Third, the standard-setting organisation's rules should aim at avoiding misuse of the standard-setting process through hold-ups and charging of abusive royalty rates by IPR holders. This should be done through a binding, clear and balanced IPR policy requiring a good faith disclosure of IPR that might be essential to the standard as well as a requirement that a particular IPR will only be included in the standard if the company provides an irrevocable FRAND commitment (i.e. a commitment to license their IPR to all third parties on fair, reasonable and non-discriminatory terms). There should also be a requirement on all IPR-holders who provide a FRAND commitment to take all necessary measures to ensure that any undertaking to which the IPR owner transfers its IPR is bound by that commitment. The unrestricted access to the underlying proprietary technology on FRAND terms for all third parties safeguards the pro-competitive economic effects of standard setting. Such effects could be eliminated if, as a result of a transfer of patents essential to a standard, the FRAND commitment would no longer apply after the IPR has been transferred.

The revised chapter also provides comfort for those standard-setting organisations that wish to introduce a system of unilateral ex ante disclosures of maximum royalty rates. Indeed, such a system enables those deciding on the technology to be adopted as the standard, to not only take into account the technical but also the pricing aspects and therefore enhances competition between technologies before the standard is set. It enables, the price to be auctioned down to the competitive level before the standard is selected, and the problem of artificially inflated ex post pricing as a result of the standard may be avoided. The revised guidelines therefore give the requested comfort to standard setting organisations that such systems of unilateral ex ante disclosures are pro-competitive and that DG Competition will therefore not come after such systems. However, this is not part of the safe harbour and we do not in any way intend to oblige the standard-setting organisations to introduce this system.

It should be noted that opposition to such schemes has been mooted in some quarters on the grounds of supposed anti-trust concerns (e.g. because "discussing" price in such a collective standards forum should be taboo). Such criticisms should not be used as a smokescreen to hinder the uptake of ex ante type schemes. In a scenario where there are a number of substitute technologies competing to be chosen, "price-

fixing" would in most cases not be a concern. Quite the contrary, since the schemes introduce a parameter of competition (i.e. on price) that has up until now not been present in standards bodies. Of course, if a certain scheme in question is simply a cover for some kind of cartel, then that would obviously be a problem, but that is then nothing to do with the nature of the scheme in itself.

Finally, the chapter also gives guidance on how the level of FRAND (fair, reasonable and non-discriminatory terms) could be interpreted under competition law. Our intention is to provide practical benchmarks which, in case of dispute, could be used to assess whether certain licensing fees or other terms are excessive.

The public consultation of the draft Horizontal Guidelines is open until 25 June 2010. It is expected that there will be many comments from stakeholders, in particular on the changes proposed in the standards chapter. The input received in the public consultation will be incorporated in the final version of the Horizontal Guidelines to be finalised for the end of 2010.

4. Conclusion

The discussion above shows the vast type of difficulties that may arise in the context of standard setting agreements.

However, a general theme in the context of standards is the importance of standard setting taking place under strict conditions of openness and transparency. Once a standard has been adopted it might, if successful, completely change the competitive landscape. It is therefore increasingly important not only that access to the decision-making process but also to the result of the standard is ensured. An effective standard-setting process should take place in a non-discriminatory, open and transparent way so as to ensure competition on the merits and to allow consumers to benefit from technical development and innovation.

Given the increase in patenting and the number of standards which incorporate protected technologies, a lot of the recent debate has focussed on the best way to construct the intellectual property rights policies of a standard-setting organisation. In fact, a patent essential to the implementation of a standard may have a much higher value once the standard has been adopted than it has ex ante. This can therefore create an incentive for the patent holder to attempt to extract the ex post rather than the ex ante value of his technology. There is therefore an important pro-competitive rationale behind, as in the Commission's draft standardisation chapter of the Horizontal Guidelines, requiring disclosure of patents and patent applications in the framework of standard-setting before a standard is adopted.

BRAZIL

1. Introduction¹

Standard settings, although commonly used worldwide to enhance product quality and safety to consumers, also can foster competition concerns as they can either exclude or discriminate against technologies and/or products or be misused by the very same competitors that set the standard rules, therefore restricting competition.

The mere application of competition law enforcement seems not to deal properly with this issue, suggesting, in this context, that competition advocacy would do better. Aware of that, Brazilian competition authorities try to increase the degree of harmonization of standard settings focusing both on *ex ante* and *ex post* interventions, given the potential and effective harm embodied in the standard's anticompetitive effects.

This paper aims to describe briefly the Brazilian System of Metrology Standardization and Industrial Quality (SINMETRO) and present some examples of competition advocacy on standard settings from a Brazilian perspective.

2. Brazilian Standardization System²

2.1 SINMETRO

The Brazilian National System of Metrology, Standardization and Industrial Quality (SINMETRO) was established by Brazilian Federal Law 5966 in December, 1973, involving public and private organizations in order to accomplish activities related to metrology, standardization, industrial quality and conformity assessment. The structure of SINMETRO is seen in Figure 1.

Changes in the 90's launched in Brazilian society (consolidation of political and democratic system under 1988 Brazilian Constitution) and economy (market opening process, insertion in global trade and commerce increasing in the MERCOSUL market) enhanced the necessity of harmonization of national standards with international ones. As a result of this, SINMETRO was restructured and the Brazilian

¹ This paper was written by Carmen Diva Monteiro (Specialist in Public Policy and Government Management, currently works for the Secretariat for Economic Monitoring (SEAE) in the Ministry of Finance. E-mail: carmen.monteiro@fazenda.gov.br) and Abel Abdalla Torres (Specialist in Public Policy and Government Management, currently works for the Secretariat for Economic Monitoring (SEAE) in the Ministry of Finance. E-mail: abel.torres@fazenda.gov.br).

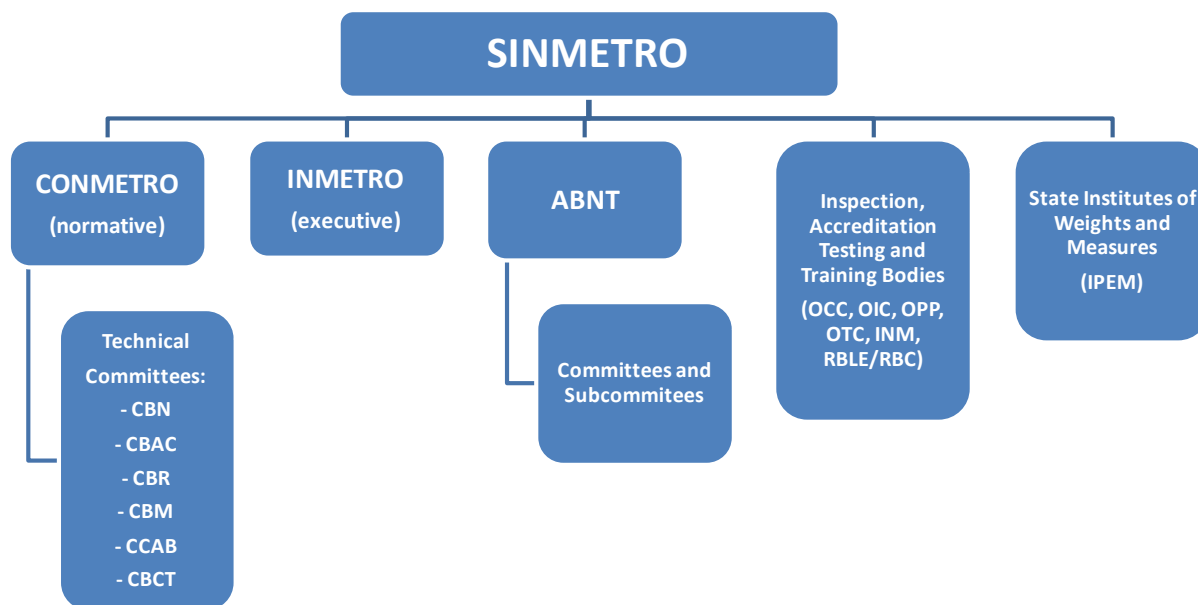
² Unless mentioned otherwise, information in this section was obtained from the following legislation and homepages: Federal Law 5966, Dec. 11th, 1973 (published in Diário Oficial da União (DOU) on 1973-12-12); Federal Law 9933, Dec. 20th, 1999 (published in Diário Oficial da União (DOU) on 1999-12-21); Federal Decree 1422, March 20th, 1995 (published in Diário Oficial da União (DOU) on 1995-03-21); Federal Decree 6275, Nov. 28th, 2007 (published in Diário Oficial da União (DOU) on 2007-11-29); INMETRO's official homepage <http://www.inmetro.gov.br>; and ABNT official homepage: <http://www.abnt.org.br>.

Program for Quality and Productivity (PBQP) was created, aiming to improve quality of products, processes and services in industry, trade and federal administration. Currently SINMETRO is involved in many PBQP activities.

The main public entities of the system are the Brazilian National Council of Metrology, Standardization and Industrial Quality (CONMETRO) and the National Institute of Metrology, Standardization and Industrial Quality (INMETRO), both connected to the Brazilian Ministry of Development, Industry and Foreign Trade (MDIC)³. CONMETRO and INMETRO are SINMETRO's normative and central executive bodies, respectively. The system also includes the State agencies that formed the IPEM Network⁴.

Private participation in SINMETRO is assured through two kinds of organizations: on one side, the group of inspection, accreditation and testing institutions; on the other, the Brazilian Association of Technical Standards (ABNT), which will be discussed later.

Figure 1. Brazilian Standardization System



Brazil follows the international concept of adopting standards originating from voluntary, non-governmental documents rather than on technical regulations, which are mandatory and enforced by the government. Nevertheless, mandatory regulations can be imposed either by SINMETRO or other government bodies in their areas of supervision, such as regulatory agencies.

³ While CONMETRO is subordinated to the Minister of MDIC, INMETRO is an executive agency under MDIC's supervision.

⁴ Officially called Brazilian Network of Legal Metrology and Quality – INMETRO (RBMLQ-I).

2.2 CONMETRO and INMETRO

CONMETRO is composed of representatives from the main public and private economic agents involved in metrology, standardization and conformity assessment activities. The representatives who can vote are the ministers of Developing, Industry and Foreign Trade (MDIC, CONMETRO's president); Science and Technology (MCT); Health (MS); Labor and Employment (MTE); Environment (MMA); Foreign Affairs (MRE); Justice (MJ); Agriculture, Livestock and Supplies (MAPA); Defense (MD); and Education (MEC). Also can vote the presidents of INMETRO; ABNT; CNI (Brazilian National Confederation of Industry); and IDEC (Brazilian Institute for Consumer Defense).

CONMETRO's purview⁵ is to develop, coordinate and supervise national policy on standards, conformity assessment, metrology and industrial quality; ensure measurement uniformity within the country; promote voluntary standardization activities in Brazil; establish technical regulations for industrial products and materials; establish criteria and procedures for industrial product certification and for penalties eventually applied to violations of its regulations; and coordinate Brazilian participation in relevant international SINMETRO-related activities.

CONMETRO establishes the guidelines for the operation of INMETRO. Hence, the latter, under the authorization of the former, may accredit public or private entities to perform activities of its competence as well as serve as the executive secretary to CONMETRO and to all its technical committees⁶. Highlighted in INMETRO's broad scope are metrology (scientific, industrial and legal) and conformity assessment tasks, in addition to being the Brazilian representative in several international forums⁷.

SINMETRO, through INMETRO, is the national guardian of basic metrological standards. INMETRO's headquarter is in Rio de Janeiro, where it also operates laboratories in its facilities for basic metrological standards (in the areas of acoustic and vibration, mechanical, chemical, thermal, optical and electrical). INMETRO also delegates some metrology standards evaluation to laboratories by supervision⁸. Other institutions may join in this system as they develop recognized measurement standards in specific areas.

In legal metrology, INMETRO acts through the Brazilian Legal Metrology and Quality Network (RBMLQ-I), which is its executive arm over the country, composed of the 23 State institutes of weights and measures (IPEM), 1 local body and 2 INMETRO bodies.

INMETRO also performs actions of accrediting and supervising other SINMETRO's institutions and controls the quality verification of products and services in the marketplace by sampling activities, in order

⁵ In practice, CONMETRO's work is carried out through the following six committees that provide technical advice: CBN (Brazilian Standardization Committee); CBAC (Brazilian Certification Committee); CBR (Brazilian Regulation Committee); CBM (Brazilian Metrology Committee); CCAB (Brazilian Codex Alimentarius Committee) and CBTC (Technical Barriers to Trade Coordinating Committee).

⁶ See note 5.

⁷ INMETRO is Brazilian representative in the following international forums: IAF (International Accreditation Forum); IAAC (Interamerican Accreditation Cooperation); ILAC (International Laboratory Accreditation Cooperation); OIML (International Organization for Legal Metrology); IATCA (International Auditor and Training Certification Association); and BIPM (Bureau International des Poids et Mesures). INMETRO also has cooperation agreements with the following entities: UKAS (United Kingdom Accreditation Service); NIST (National Institute of Standards and Technology) and PTB (Physikalisch Technische Bundesanstalt).

⁸ E.g., time and frequency standards to National Observatory (DSHO/ON) and ionizing standards to Institute of Radiation and Dosimetry (IRD/CNEN)).

to improve competitiveness as well as to protect the consumer. In regard to federal technical regulations, quality tests are performed by the IPEM network agencies to ensure harmonization with mandatory certification requirements. The results of this process (experience and information acquired) give feedback to SINMETRO in order to render regulation corrections, revisions and improvements.

INMETRO's organizational structure is governed by the Federal Decree 6275 of 2007, which established that the General Coordination for Accreditation (CGCRE) is the major organizational unit that has full responsibility and authority over all aspects concerning accreditation, including accreditation decisions. It is also the Brazilian compliance monitoring authority for the Principles of Good Laboratory Practices (GLP)⁹, recognizing test facilities that perform studies/tests with the purpose of environmental risk assessment and human health for the registering of pesticides, industrial chemicals and other chemical substances¹⁰.

2.3 ABNT

ABNT, created in 1940, is a private, non-profit organization (mainly funded through member fees and publication sales) engaged in the elaboration of national standards. In 1992, CONMETRO Resolution 7 declared ABNT as the only National Forum for Standardization, being responsible, under a commitment, for the coordination and management of the Brazilian standardization process as well as the elaboration and publishing of all the national technical standards. This commitment establishes not only the open and voluntary participation of all interested parts in standard setting, but also that the decisions must be grounded on consensus.

If the Federal Government decides to regulate a product or service and it needs a standard to support the technical regulation, SINMETRO's stated policy is that it will give priority to ABNT standards, rather than develop its own set of technical requirements. In its turn, ABNT recommends that the Brazilian committees and the sectoral standardization bodies use the international standards as reference for the Brazilian standards¹¹.

ABNT represents the country in relevant international and regional forums¹². It is a founding member of the International Organization for Standardization (ISO) and, since 1940, has been a member of the International Electrotechnical Commission (IEC). ABNT has also contributed to the foundation of the Pan-American Standards Commission (COPANT) and has taken part in the settlement of the MERCOSUL Association for Standardization (AMN), being responsible for its Executive Secretariat. ABNT is also a member of the Global Ecolabelling Network (GEN).

ABNT also acts as a certification body, a task in which it has been active since 1950. Therefore, its expertise allowed the development of several programmes targeting the needs of Brazilian companies.

⁹ As established in the INMETRO's Administrative Rule n. 220 of July 23rd, 2009,

¹⁰ The Laboratory Accreditation Division (DICLA) is the unit of CGCRE responsible for the coordination, management and performance of activities related to the monitoring and recognition of the test facilities in accordance with the GLP Principles.

¹¹ Cf. ABNT Resolution n. 43/2002.

¹² ABNT is Brazilian representative in the following international forums: ISO (International Organization for Standardization); IEC (International Electrotechnical Commission); COPANT (Pan American Standards Commission); CMN (MERCOSUL Standardization Committee); and CEN/CENELEC (Standardization European Organization). ABNT also has cooperation agreement with ANSI (American National Standards Institute). INMETRO, ABNT and other SINMETRO entities participate together in the technical committees of the following forums: MERCOSUL (Southern Common Market) and FTAA (Free Trade Area of The Americas).

ABNT establishes and manages marks of conformity with standards applied in voluntary or compulsory product certification. ABNT is an accredited registration body to certify quality systems, environmental management systems and several products.

Brazilian standards are developed either through ABNT's own technical committees or through sectoral standardization bodies (ONS) which it accredits. No other Brazilian organization develops standards¹³. The standardization process can originate from a demand by society, the private sector or the regulatory bodies. Upon relevance analysis, the request either is brought to the sectoral technical committee for inclusion in the Standardization Sector Plan (PNS) or sent to a Special Study Commission (ABNT/CEE). In both cases ABNT disclosure is assured in order to allow all interested parts to participate.

The CEE discusses and elaborates the draft standard from consensus of the members¹⁴. The next step is to submit the proposal to public consultation during a certain period¹⁵, in order to get opinions from society (grounded on technical justification) about approving or reproving the standard. In the end of the term the CEE meets again, inviting all who sent suggestions, to analyze the received documents. They deliberate if the draft will be approved – in this case, receiving the ABNT NBR number and seal – or modified, meaning it has to be submitted again to public consultation as a second draft. Yet, if there is no consensus on approval, the CEE can request to ABNT to cancel the draft or continue its discussion.

3. Case studies

The Brazilian System for Competition Defense (SBDC), ruled by the Federal Law 8.884/1994, is composed by the Secretariat of Economic Law (SDE) in the Ministry of Justice, the Secretariat for Economic Monitoring (SEAE) in the Ministry of Finance and the Administrative Council for Economic Defense (CADE) as an independent agency in the Ministry of Justice¹⁶.

As a member of SBDC, SEAE's competence encompasses not only activities on controlling mergers and acquisitions and proscribing anticompetitive conducts, but also ensures an important role on competition advocacy, which includes issuing *ex ante* (preventive) or *ex post* (repressive) analysis of any technical regulation that may damage the competition environment, which include, given its potential or effective harm, standard settings.

In this regard, the few selected cases discussed below highlight the interplay between voluntary standardization and the intervention of Brazilian competition authorities in the sense of preventing unfair or promoting fair competition.

¹³ Currently ABNT has 146 committees and technical commissions (it also includes the ONS bodies).

¹⁴ Members are classified into three groups: producers, consumers and neutral (which includes independent laboratories, academic institutions and government bodies). Thus, voting, if necessary, is allowed to those who participate in 30% of the meetings, taking the smaller number of participation in each group.

¹⁵ Usually 60 days.

¹⁶ Both Secretariats have analytical and investigative functions and are responsible for issuing non-binding opinions on mergers and anti-competitive practices cases. CADE is an administrative tribunal and its decisions can only be reviewed by the courts. Cases are begun in SDE, which, with the assistance and advice of SEAE, conducts preliminary investigations and administrative proceedings before submitting the file and its recommendations to CADE, which renders the final judgment.

3.1. *Concrete reinforcing bars*¹⁷

In 2006 SEAE participated, under ABNT's commission, in the revision of technical standard ABNT NBR 7480:1996 (from now on NBR 7480), on concrete reinforcing bars. The decision to follow this revision was due mainly to: (i) the high degree of concentration of industry (there were only 3 domestic producers at the time); (ii) the previous history of price increase and anticompetitive conduct in the market; and (iii) the product's relevance as an input for civil construction, a basic economy industry sector.

Likewise, these factors also had contributed to the product to being included, in 2006, to the List of Exceptions to the Common External Tariff (TEC), with 0% tariff. In fact, the original request for the reduction of import tax was made in 2005, but it was denied at the time because of the existence of technical barriers that would render harmless such action. Among the technical barriers were, allegedly, some restrictions imposed by NBR 7480.

Within the commission, discussions focused on three issues raised by consumers of steel: (a) the inclusion of CA-40 class, said to be more common in the global market and easier to import than CA-50 class, used in Brazil; (b) the compulsory certification of reinforcing bar would be a barrier to imports, and (c) NBR 7480 wouldn't follow the characteristics of the main international standards, thus introducing technical barriers.

Regarding the inclusion of CA-40 class, SEAE concluded, after analysis, there would be disadvantages to the domestic industry, because: (i) its alleged predominance in the international market had not been verified; (ii) its use would be in opposition to the trend to better international practice for concrete projects; (iii) it could create risk of collapse due to poor design of the steel used in inexpensive constructions, whereas the less skilled users are accustomed to using the CA-50 and not CA 40 class, which has a yield stress 20% lower; (iv) it would result in increased costs of production, inventory and distribution throughout the supply chain, thereby decreasing the efficiency of the sector and thus increasing the final product price; and (v) its use would not change the competitive environment because the contestability of the domestic market through imports was already assured with the CA-50 steel class, which was abundantly supplied from abroad.

SEAE also verified that the mandatory marking requirement for reinforcement bars raised no barriers to imports, as it did not innovate regarding to congenerous national and international standards. Moreover, the procedures of conformity assessment required by INMETRO Ordinance 210/2005 innovate in nothing compared with those provided in ISO requirements¹⁸; therefore, they didn't constitute, as far as SEAE was concerned, a technical barrier.

SEAE's opinion was taken into account during the discussions. The draft standard to NBR 7480 was submitted to public consultation and then became the ABNT NBR 7480:2007.

3.2 *Cement*¹⁹

In 2005 and 2006, SEAE participated in the revision of technical standard ABNT NBR 12655:1995 (from now on NBR 12655), which establishes criteria for the preparation, control and receiving of concrete.

¹⁷ Cf. SEAE's Technical Report n. 107/2006/COGAM/SEAE/MF.

¹⁸ V. Certification Form n. 5 in GUIDE 67:2004 of the CASCO Committee of International Standard Organization (ISO).

¹⁹ Cf. SEAE and SDE's Joined Technical Report n. 07/2006/SEAE/MF-SDE/MJ.

In Brazil, since the end of the 90's, the cement industry has been restructured. There had been an increase in the degree of concentration and vertical integration, as well as an increase in the foreign groups' market share. About vertical integration, the tendency towards the buying of concrete companies revealed the largest groups' strategy of expanding their activities in the upper stages of the supply chain, which have greater added value. At the time, of the 10 cement industry groups in Brazil, only one hadn't act in the concrete market. Thereof, SEAE decided to follow NBR 12655 revision under ABNT's commission.

Contrary to the still valid NBR 12655, in which a definition of concrete was not given but implicit understood as it referred to other standards, the standard draft introduced a new definition of concrete, as follows:

3.1.1 Concrete of Portland cement: material formed by the homogeneous mix of cement, various aggregates (as conglomerate gravel, sand, pebbles or shale) and water, with or without the addition of minority components (chemical and mineral additives), that develop its properties by hardening the cement paste (cement and water). For this standard purpose, 'concrete' refers to 'concrete of Portland cement'.

Remarkably, only the aggregates and minority components (referring to chemical and mineral additives) were mentioned in the standard draft's definition. Thus, in doing so, it subtly eliminated the possibility of mineral additions to be made directly to the concrete (since it wasn't mentioned), meaning that they could only be made by the cement industry. Notwithstanding, according to the standard at the time, mineral additives could be made either by the cement industry or by the concrete industry. Moreover, the latter could buy cements with different additive dosages and complement it during the production of the concrete, in accordance with the consumer preference.

Then, on the approval of the standard draft, although technically the final product – concrete – would have no changes, the same wouldn't happen to competition conditions in the market, since it would prevent concrete supplier's flexibility, leaving them in a situation of total dependence on the cement suppliers. In other words, independent concrete companies (that don't belong to groups that also produce cement) would lose competitiveness to the vertically integrated concrete suppliers. Besides that, the suppliers of blast furnace scum, fly ash and other materials would also lose a sale channel for their products (to additions in the cement or concrete), since they would only sell to the cement suppliers (instead of both cement and concrete suppliers).

During the public consultation related to this standard draft, in January 2006, SEAE didn't approve it, suggesting, alternatively, the proposal of changes that allow the additives to be made by the concrete suppliers, but preserving the quality of those additions. However, in spite of SEAE's recommendation, the draft was approved in July 2006.

3.3 *Non-corrective sunglasses*²⁰

In November, 2004, the Brazilian Association of the Manufacturers, Distributors, Merchants and Importers of Sunglasses (ABRACSOL) accused the Optical Industry Brazilian Association (ABIÓPTICA) of promoting supplier discrimination through the creation of the ABIÓPTICA Stamp of Origin and Safety (from now on ABIÓPTICA Stamp). According to ABRACSOL only companies that use the stamp could participate in the ABIÓPTICA fair, the most important event of the optical segment in the Latin America and the fourth largest in the world.

²⁰

Cf. SEAE's Technical Report n. 06102/2009/RJ/COGDC/SEAE/MF.

For this reason, the ABRACSOL claimed that it could restrict their associate²¹ operations. It also alleged that the ABIÓPTICA behavior would limit free competition and would increase the transaction costs of the suppliers, without economical efficiency compensation. As a result of that, SEAE established an administrative procedure to investigate possible anticompetitive conducts implemented by ABIÓPTICA²².

3.3.1 *Procedural instruction*

During the procedural instruction, ABIÓPTICA informed SEAE of the requirements for a company: (i) to become its associate; (ii) to take part in the ABIÓPTICA fair; and (iii) to use the association's stamp. Among the requirements for using of the stamp, the company must pledge to: (a) use it only in products sold in optical stores; and (b) declare the product brands it sells and on which brands it will use the stamp. On the other hand, to participate in the ABIÓPTICA fair, one of the requirements is that the company uses the association's stamp.

ABIÓPTICA also informed that: (i) the stamp was instituted in 2003 and its application was suspended in 2005; (ii) the stamp was applied in the origin, in other words, in the production and import of the products; (iii) the associates were able to sell their products with and without the stamp; and (iv) the use of the stamp was never a requirement to be an associate.

Once consulted, INMETRO informed that it performed a Program Product Analysis (PAP) for sunglasses in 1997 and in 2009, to evaluate the protection from sun rays and the sunglasses adaptation for driving. It didn't find any non-conformity to the lenses in both PAPs. Later, in the Sectoral Panel of Glasses (PSO), INMETRO concluded there was no justification for the development of a compulsory glasses evaluation program. In its turn, ABNT informed that it doesn't promote the certification of non-corrective sunglasses. Finally, National Sanitary Safety Agency (ANVISA) informed that non-corrective glasses aren't considered health products.

3.3.2 *The sector regulation and the legitimacy for the creation of quality stamps*

SEAE, analyzing the sector standards, concluded that there are some regulations on the trade of corrective lenses, which, however, don't effectively regulate the trade of non-corrective lenses. Thereof, SEAE concluded that the public agents delegated to the particular entities the exploration and development of this sector, under the principle of the economical order, especially the free initiative.

The object of the analysis – non-corrective sunglasses – is an industrialized product, according to the Decree 4.544/2002. Therefore, SINMETRO has the competence to establish standards, according to Federal Law 5966/1973. However, INMETRO informed that the activity of conformity evaluation is not exclusive of the public power and it could be carried out by private entities, as there are national and international standards that can be applied voluntarily.

3.3.3 *The conduct analysis*

Considering the use of ABIÓPTICA's stamp, SEAE performed an analysis to evaluate its benefits to the consumer, as well as its possible damages to the consumers, manufacturers, importers and retail traders

²¹ ABRACSOL congregates companies that act in the market of non-corrective sunglasses and trade their products in the reselling and distributing market. But these companies don't trade only sunglasses.

²² The procedure also considers of possible anticompetitive conduct implemented by two class unions. However, this conduct won't be focused in this paper.

in the non-corrective sunglasses market²³. SEAE recognized that, at first, the ABIÓPTICA's initiative in adopting standard settings to assure their associates' product quality would be lawful, since it doesn't harm competition or isn't be accompanied by other rules that are against free competition.

To give its opinion, SEAE highlighted, among the obtained information: (i) non-corrective sunglasses weren't considered health products; and (ii) the sunglasses sold before the ABIÓPTICA stamp already had the property of protecting the consumer's eyes²⁴. These two issues refuted ABIÓPTICA's argument that its stamp would be beneficial to protection of the consumer's eyes.

According to SEAE, the obligation to use the stamp to participate at the ABIÓPTICA's fair would be a way to enforce the use due to event importance. Anyway, it's reasonable to infer that manufacturers and importers still would have freedom to market products with and without the stamp²⁵. Nevertheless, this freedom would be restricted because only products with stamp could be marketed to optical stores and, as a result, ABIÓPTICA would be inducing their associates to act uniformly.

Furthermore, countless non-optical businesses²⁶ that usually sell non-corrective sunglasses would not have access to the brands marketed with the ABIÓPTICA's stamp. According to SEAE, such fact would create a protected market for the optical businesses and it would harm the consumer in two ways: (i) increasing the prices of the stamped products, due to the reduction of competition; and (ii) reducing the number of stores that commercialize stamped products, increasing transaction costs.

SEAE argued that this protected market could discourage the trade of sunglasses by non optical stores, because they would be accessing a smaller number of products. Discouragement could be greater if consumers' perception is that the stamped products have higher quality than non-stamped products, thus reducing the demand for the latter.

On the other hand, SEAE highlighted that manufacturers and importers would be also harmed by the ABIÓPTICA's rules, because the number of buyers of their products would be smaller, once they could not negotiate stamped products to non-optical businesses. This fact could discourage new agents from breaking into the market.

According to SEAE analyses, the ABIÓPTICA's stamp, in the way that was projected, tries to regulate the non-corrective glasses' market. Nevertheless, legal rules to the ophthalmic lenses sector didn't restrict the non-corrective sunglasses trade. Hence, it would not be possible for private entities to either regulate or monitor the sunglasses market.

Therefore, the ABIÓPTICA's stamp, in spite of constituting a susceptible initiative to be adopted by an association, cannot incorporate punitive rules in order to select, from a universe of businesses, those that are able to negotiate stamped products, denying the others the right of trade them. The use of the stamp as a way to forbid some businesses to commercialize products in the market, under the justification that these products could only be marketed in optical stores, apart from being anticompetitive, seems to be a usurpation of the police power, because the market regulation is allowed only to the public power.

²³ On the geographic definition of the market, it was considered the national market for the manufacturers and importers and the local market for the retail traders.

²⁴ PAP accomplished by INMETRO before the implantation of ABIÓPTICA stamp demonstrated that the used lenses protected the consumer's eyes.

²⁵ Because these companies must inform to the ABIÓPTICA which brands they commercialize and on which of them they would use the stamp.

²⁶ Boutiques, supermarkets, among others.

Consequently, SEAE concluded that ABIÓPTICA's rules, related to the use of the stamp, cause damage to the competition environment and recommended to SDE to start an administrative process to step up the investigations²⁷.

4. Conclusions

Recent restructuring of the Brazilian standardization system SINMETRO and the necessity of national standard settings to comply with international standards aim to bring competitiveness to Brazilian products as well as to protect the consumer. In this context, the activity of establishing voluntary standardization is raising competition authorities concerns about not being discriminatory and enhancing fair competition.

Although SBDC mechanisms can correct the drawbacks of a standard setting through the analysis of anticompetitive conducts under the Federal Law 8884/1994, it has become clear that additional competition advocacy activities should be done *ex-ante* and/ or *ex-post* standardization, in order to prevent or end their anticompetitive effects.

However, even doing so, the competition authorities' intervention should not be seen as necessarily implying expected outcomes. As the particular cases discussed in this paper show, the adequacy of technical expertise to specific cases should be continuously improved in order to seek better results.

²⁷

It is important to point out that the SEAE opinion registered in this report does not end the analysis in the SBDC, since the case has not been judged by the CADE yet. In February 2010, SDE started the Administrative Procedure n.08012.010648/2009-11 on the same subject.

BIBLIOGRAPHY

- ABNT. Brazilian Association of Technical Standards (ABNT). Official homepage. www.abnt.org.br. Web. 18 May 2010.
- BRAZIL. National Institute of Metrology, Standardization and Industrial Quality (INMETRO). Official homepage. www.inmetro.gov.br. Web. 18 May 2010.
- BRAZIL. Secretariat for Economic Monitoring (SEAE). Relatório de Atividades 2006. Brasília: SEAE, 2007. www.seae.fazenda.gov.br. Web. 18 May 2010.
- BRAZIL. Secretariat for Economic Monitoring (SEAE). Administrative Procedure n. 18101.000042/2005-91. Technical Report n. 06102/2009/RJ/COGDC/SEAE/MF. 14 December 2009.
- BRAZIL. Secretariat for Economic Monitoring (SEAE). Joined Technical Report n. 07/2006/SEAE/MF-SDE/MJ. Brasília: SEAE. 31 Janeiro 2006.
- BRAZIL. Secretariat for Economic Monitoring (SEAE). Technical Report n. 107/2006/COGAM/SEAE/MF. 28 November 2006.

BULGARIA

1. Bulgarian standard-setting body

The Bulgarian Institute for Standardization (BIS) is the only and unique national standard-setting body. It has been instituted by a special law that provides for its structure and organization of activities. The law also lays down the basic principles for the adoption of standards.

The organization of BIS is based on a large public membership. Members may become:

- associations of employers, branch chambers, producers and traders;
- governmental bodies;
- scientific organizations, institutes and higher schools;
- persons for assessment of the compliance, bodies for control and/or certification, laboratories for testing and/or calibration;
- associations of insurers, associations of consumers, professional organizations and unions.

BIS is further structured into different bodies - the general meeting of members, the managing board, the control board, the executive director as well as the technical boards and committees.

The managing board of BIS is currently composed of 15 members that are representatives of various backgrounds. The president of the board is also member of the Union of Quality Experts in Bulgaria. The government is represented by 3 members coming respectively from the ministry of economy, the defense ministry and the ministry of regional development and public works. The other members are representatives of different universities, scientific or standardization unions, certification, inspection and control firms, as well as representatives of private corporations.

The control board, which has essentially financial and budget controlling powers, is, on the other hand, composed of 3 members that are currently representatives of respectively of the association “Consumer”, the ministry of finance and the higher school of civil engineering.

The actual decision taking regarding standardization activities is entrusted to three technical boards active in three specific areas. Their members are appointed by the managing board from among recognized experts in the area of standardization on the proposal of sector councils (sub-divisions of the technical boards), technical committees (responsible for drafting the standards) and BIS members.

Standardization process in Bulgaria is nowadays harmonized at a large extent with this of the European Union. On the one hand, BIS applies the same rules for standard setting as EU standard setting bodies thus ensuring a harmonized approach not only in the process of adoption of standards but as it regards their methodology and content as well. Thus, from a structural point of view, BIS is organized in way that can reasonably be expected to ensure proper balance of the interests of all economic layers which are affected by standardization – from industries to government and consumers.

2. The standard-setting process

Any person, being it natural or corporate, could make a motivated proposal before BIS for adopting a standard. The proposal is then presented to the respective technical board for assessment. The technical board needs to establish, inter alia, whether there is a necessity for such a standard to be adopted or the extent to which the standard, if adopted, can be continually improved. Once the decision to adopt the proposed standard has been taken, the technical committee starts drafting the documentation.

A crucial stage of the standard-setting process is the achievement of a consensus over a draft standard. Indeed, according to the principle for transparency in the elaboration of standards, a public consultation is held on the draft. For that purpose, drafts are published on the web site of BIS. The consultation lasts eight weeks. In case significant objections are formulated or important corrections to the draft are made during the public consultation, the draft is amended and republished for consultation. Where, as a result of the consultation, it becomes clear that there would be no consensus on the draft, the technical committee reconsiders the usefulness and scope of the draft – in the latter case, it may abandon the standard and opt for technical specifications or technical report instead. It is the technical committee's responsibility to settle the dispute over the draft. Its decision is final.

After having been adopted standards are periodically reviewed and, where necessary, revised in order to ensure that they reflect the achieved up-to-date level of science and technologies.

As part of the obligations to Directive 98/34 and 98/48 BIS is obliged to notify all European standardization organizations upon initiating the elaboration or the review of a standard at a national level. Furthermore, according to the procedure Vilamoura in the electro technical field, BIS can adopt standards at a national level only where less than four technical committees of other member states showed an interest in the standard in question. According to the same principle, BIS applies the “standstill” procedure in case standard setting is made at a European level. In the latter case, BIS cannot elaborate Bulgarian standards or modify existing standards that fall within the scope of work at the European level.

2.1 Principles and requirements which standards need to satisfy

According to the Law on national standardization standards may be adopted only where a consensus among all interested parties, based on the consolidated results of science, technologies and experience, has been achieved.

Furthermore, standards need to obey certain standardization principles that are enumerated below.

- Standards must be impartial, that is standards should not favor particular commercial, industry, those of suppliers or economic groups' interests;
- Standards should aim at describing essential characteristics of products/processes and services rather than prescribing particular forms or materials used; application of this principle is likely to encourage innovation and ensure the free movement of goods;
- Double standardization must be avoided. This principle requires that where European and international standards exist BIS should stimulate the use of these standards rather than adopt their own; international and European standards are adopted by BIS as Bulgarian standards;
- Certification is not a compulsory requirement of the standard. This means that the application of the standard is voluntary.

3. Reference to standards in the legislation

Standards of BIS are commonly referred to in the national legislation. This is generally done for the purposes of avoiding the reproduction of detailed technical prescriptions and specifications.

Commonly, a distinction between two types of reference to standards is made:

- Unconditional reference – renders compliance compulsory;
- Non-binding reference – standard is referred to as means to achieve compliance, i.e. one of the possible and, in the same time easiest way to achieve compliance with the legislation concerned – that is, anyone that does not make use of the specified standard must prove compliance with the legislation in the different way – application of the standard in this case equals to a presumption for compliance.

The Bulgarian legislation does not use unconditional references to standards but rather use application of standards as a presumption for compliance with certain statutory requirements.

Particularly important in this respect are the so called EU harmonized standards. Harmonized standards are European standards (EN), produced under mandate from the European Commission (EC) or from the European Free Trade Association (EFTA) for supporting the essential requirements of “New Approach” Directives. Compliance with Harmonized standards is voluntary. Nevertheless it remains the most efficient way to demonstrate compliance of products with the corresponding essential requirements of the EC directives. Annex Z of each standard, developed under mandate provides information for which essential requirements of directives shall be applied the respective harmonized standard.

In order to become harmonized standards the EU Member States have the task to translate the titles of standards into their national language and send them via CEN/CENELEC to the EC and EFTA Secretariat for publication of the reference in the Official Journal of EU. Thus the European standards, developed by CEN or CENELEC, following a mandate issued by the EC become harmonized standards and, as of the date of their publication, they can be applied for providing presumption of conformity of products to the corresponding EC directives.

The aforementioned directives of New Approach have a special place in the Bulgarian standard setting process. Their transposition in the Bulgarian legislation was made through, inter alia, the adoption of the Law on the technical requirements, complemented with series of Ordinances in all respective areas covered by the Directives.

As a general principle laid down in said Ordinances, products that are manufactured according to Bulgarian standards that introduce harmonized European standards are deemed to be conforming to the essential requirements laid down by the Ordinances.

Conversely, for products that are not manufactured according to above said standards, the manufacturer needs to obtain a certificate for compliance which is physically apposed on the product (certification mark).

Although based on a voluntary compliance, this approach gives a special emphasis on compliance with standards. Indeed, as a prerequisite for starting the provision of a given product or service, an undertaking must identify and ensure that all statutory product/service minimum requirements are met in its production line or service provisioning. Depending on the product or service, this is not always an easy task to perform as some products for example are subject to tough and complex quality/safety regulation

and control. This is likely to stimulate undertakings to apply standards to which statutory requirements make reference. Generally speaking, the more complex the essential requirement, the more likely is for an undertaking to apply related standard in order to prove compliance.

4. Intellectual property aspects

BIS is the unique holder of all copy rights to standards that have been elaborated by its technical committees. In that sense, any publication or reproduction of a Bulgarian standard is subject to BIS's prior written consent. The acquisition of standards documentation is subject to payment of royalties to BIS. As a national member in international standardization organizations, BIS is also authorized to sell international standards documentation – the royalties collected in this case are set by the respective international standardization organizations.

As far as third parties copy rights are concerned, Bulgarian standards may include documents of such third parties only with their prior consent. In case a standard needs to include a drawing which is subject to the copy rights of a third party, such a drawing is included in the standard only for purposes of illustration and cannot be made part of standard's requirements.

Third parties' patents may represent a particular difficulty in the standard setting process. It is responsibility of BIS to ensure that all claims related to third parties' patent rights are effectively dealt with. According to the Rules of BIS, materials that are subject to patent rights of third parties may be included in a standard only in case they satisfy the following cumulative criteria: the material is absolutely necessary to the standard in question; the material does not impose any requirements to comply with; the patent' holder agrees to provide the material at acceptable, affordable and non-discriminatory conditions.

5. Case law of Bulgarian Commission on Protection of Competition related to standard setting

Bulgarian Commission on Protection of Competition has adopted a number of decisions with facts relating to observance of certain standards. These decisions however are usually not for infringement of antitrust provisions of Bulgarian Law on Protection of Competition, but for infringement of unfair competition rules, which form a separate chapter of the law. This paper will therefore not give details on these cases.

As regards the application of antitrust rules to standards and standard setting, there are fewer decisions.

In 2009 the CPC was asked to adopt an opinion on the compliance with the competition rules of a draft Ordinance setting the requirements for performing road construction and reconstruction works and the way these works are made visible to the drivers. The Draft Ordinance previewed the introduction of modern materials and products for signaling repair and reconstruction works on roads - fluorescent paint and folio, fluorescent glass pearls, self adhesive bands, etc. The aim was to have road signs, which are well visible both during the day and the night, during snowfall and with fog. The Draft Ordinance indicated specific standard for the fluorescent materials to be used for some of the road signs. The purpose of the draft act was to ensure higher safety on roads.

The road signs are procured and paid either by central administration authorities or by the local authorities under public procurement procedures and contracts. The Public Procurement Act sets in its Art.2 that the public procurement procedures should observe the principles of free and fair competition and of equal treatment and non-discrimination.

In its analysis the CPC considered that potential competition problems could arise if the legal act puts unreasonably high criteria for the quality of the materials and products, as this would limit the number of

the companies, which are capable of satisfying such high requirements. Such regulation could serve as a barrier for entry for new participants on the market or it could force some of the undertakings out of the market. The introduction of high quality requirements might limit the freedom of the producers and suppliers to offer products with different quality, satisfying different types of demand. Due to these considerations, the requirements for the materials to be used for road signs should not be set above the necessary level of quality, which will guarantee the safety on roads.

The CPC found, that the Draft Ordinance introduces modern materials and products without requiring the highest possible standards as regards the quality of the materials. In fact, the requirements for fluorescence of the paint for horizontal signaling and of the folio for the vertical signaling are minimal and therefore the producers of road signs will be capable of satisfying these requirements. In addition, the CPC considered that these requirements could serve as an incentive for the companies to modernize their production, thus making them more competitive on the single European market. Bearing in mind the purpose of the Draft Ordinance and on the basis of the analysis made, the CPC ruled that the higher standards for the quality of the materials used for road signs will not impede competition and it is justified from the point of view of the public interest.

In another case in 2005, two elevator producing companies filed a complaint before the CPC, claiming that a compliance certification company had been abusing its dominant position through the imposition of unreasonably high prices for the certification.

The CPC established that all new elevators should pass two-stage compliance certification process in order to receive permission for entering into exploitation. These two stages included testing and assessment. The process of compliance certification was performed by companies, which were licensed by and registered in the State Agency for Standardization and Technical Control, ancestor of today's Bulgarian Institute for Standardization. This legal requirement for the compliance certification to be done by licensed companies was introduced into Bulgarian legislation following its harmonization with EU Directive 95/16/EC¹ on the lift safety. The first license for compliance certification company in Bulgaria was issued in September 2004 to the defending undertaking. The defending company then sent offers with prices for its certification services to many lift producing and lift maintenance companies in Bulgaria.

The complainants stated that the compliance certification company had a monopoly position and had abused this position through high prices.

The CPC defined the relevant market as the service market for applying procedures for compliance assessment of lifts on the territory of Bulgaria. In its analysis the Commission established that the defending company had enjoyed dominant position of 100% for a short period of 3-4 months before other companies had also been licensed to perform compliance certification. When analyzing the prices asked by the defendant, the CPC concluded that the company had not infringed the Law on Protection of Competition.

¹ OJ L 213 of 7 September 1995.

SOUTH AFRICA

1. Primary standard setting bodies in South Africa

The primary standard setting bodies in South Africa are the Independent Communications Authority of South Africa (“ICASA”) and the South African Bureau of Standards (“SABS”).

The Independent Communications Authority of South Africa (ICASA) is the regulator for the South African communications, broadcasting and postal services sector. ICASA was established by legislation.¹ ICASA reports directly to Parliament and the Minister of Communications. ICASA’s mandate is spelled out in the Electronic Communications Act for the licensing and regulation of electronic communications and broadcasting services. Enabling legislation also empowers ICASA to monitor licensee compliance with license terms & conditions, develop regulations for the three sectors, plan, approve communications equipment, manage the frequency spectrum and protect consumers of these services and products provided. In relation to the setting of technical standard ICASA is primarily responsible for approval of communications equipment in conjunction with electro-technical and safety standards adopted by SABS. ICASA also sets performance standards for licensees in relation to their networks (quality of service, downtime etc), customer services and roll-out targets. Barriers to entry in the communications market are still maintained by a requirement that firms obtain a service and spectrum license from ICASA. In the past significant barriers to entry were maintained in relation to both network service providers and internet service providers. ICASA is also responsible for developing rules of access to essential facilities such as the dominant firm’s backbone or local loop. To date these rules have not been adequately designed and allegations of abuse of dominance (margin squeeze, foreclosure and refusal to deal) are still lodged against the dominant operator, Telkom. Recent amendments to the legislation have led to a degree of liberalization of the telecommunications market in South Africa, which has resulted in increased competition in the fixed line and broadband markets.

The SABS reports to the Department of Trade and Industry, and obtains its mandate from the Standards Act, Number 8 of 2008 which sets out the rules relating to the way in which standards are developed and made available. With a view to maximising its service delivery to the industries it serves, SABS recently aligned its activities with seven different industry sectors, each housing the whole range of SABS services pertinent to a particular industry. The seven industry sectors are: Chemicals; Electro-technical; Food and Health; Mechanical and Materials; Mining and Minerals; Services; and Transportation.

SABS publishes national standards which it prepares through a consensus process in technical committees and provides information on national standards of all countries as well as international standards. SABS also tests and certifies products and services to standards and develops technical regulations (compulsory specifications) based on national standards while monitoring and enforcing compliance with such technical regulations.

Government may sit on technical committees if relevant to the business of the government department concerned. In this way government may contribute to and influence the development of standards. However technical committees are required to have balanced representation, government being only one of

¹ Independent Communications Authority of South Africa Act of 2000 as amended.

the stakeholders. Transparency is achieved by the balanced composition of the technical committees, members of which have equal voting rights, and by the 30 or 60 day public comment period, during which time the draft standard is made available to all interested parties for comment. All comments must be taken into account. In terms of the Agreement on Technical Barriers to Trade, the WTO is provided with notifications of all draft technical regulations, including also draft compulsory specifications, to be made available to other countries wishing to import into South Africa, in order to ensure fair trade practices. Draft regulations from other countries are made available on the SABS website to ensure fair trade practices for South Africans wishing to export to other countries. The National Regulator for Compulsory Specifications, which falls within the Department of Trade and Industry, is responsible for drawing up compulsory specifications.

2. Benefit and harm to consumers

While standard setting is largely aimed to benefit consumers (for instance safety standards protect consumers against unsafe products) - when rivals collectively set a standard it poses the potential for harm to competition. Joint standard setting can facilitate collusion and raise barriers to entry for new entrants and potential competitors.

South African markets encompass many industry or trade specific associations which act as systems of self-regulation for their designated members. These trade associations have a number of functions which can sometimes include accreditation and standard setting. While standard setting has many benefits for consumers, there is a potential for harm to competition when these standards are set by competitors. The Competition Commission South Africa (CCSA) recognizes that not all standard setting by rivals raises competition concerns. Unlike price fixing and market sharing by rivals, standard setting is not per se illegal and such cases are brought under the scrutiny of section 4(1) (a) of the South African Competition Act. Respondents thus have an opportunity to justify their actions if they can show that the anticompetitive effect is outweighed by any technological efficiencies.

CCSA has recently successfully prosecuted one such association (the Vehicle Security Association of South Africa – ‘VESA’) at the Competition Tribunal for setting and enforcing standards which excluded rival firms from effectively entering in the market to compete with incumbents who had been approved in terms of the standard². A summary of this case is attached.

3. International and regional standards

International and regional standardisation plays an important role in connecting countries and communities. Many African countries have now embraced standardization as a tool for promoting regional trade, especially in the SADC region. SABS is intimately involved in SADC initiatives, holding the secretariat of SADCSTAN (the SADC standards harmonization initiative) and SADC MEL (the SADC cooperation in legal metrology). SABS has also added its weight to the African Regional Standards Organisation (ARSO) which recently restructured itself into a pan-African standards harmonization body in support of the NEPAD initiatives.

In terms of the Agreement on Technical Barriers to Trade standards bodies are required to adopt international standards to reduce technical trade barriers. If however there is not a suitable international standard available a standard will be developed locally. Reasons for this include climatic factors such as temperature, geographical factors and technology constraints. When a new work item is proposed research

² Case No: 17/CR/Mar05 (Competition Commission vs Netstar (Pty) Ltd; Matrix Vehicle Tracking (Pty) Ltd; Tracker Network (Pty) Ltd; and VESA.).

is conducted by the standards writer including also an impact analysis which takes economic effects into account.

4. Standards and intellectual property

In terms of the Standards Act the SABS holds copyright on all its standards, so therefore issues of individual rights do not arise. An MOU is drawn up in instances where the SABS adopts a standard from another organisation. Each MOU reflects the requirements of the standards body providing the standard for adoption, and each is unique. The SABS does not require royalty payments from organisations adopting SANS standards. The rules for development of standards, including adoptions, are set out in SANS 1-1:2009, and the rules for recognition of standards development organizations in South Africa in SANS 1-2:2007 and government must comply with these rules as well.

5. Terms of access

Terms of access are governed by the Standards Act, and also by the requirements of the International Organization for Standardization, of which the SABS is a member, and whose standards the SABS adopts by preference. Standards may not be made available free of charge as this would undermine the standardization system worldwide. They are made available in hard copy as well as electronically, by email, CD ROM, DVD and download from the SABS website. Standards are however available for perusal free of charge from the SABS as well as from a number of libraries and universities throughout the country. Complete collections of SANS standards are provided free of charge to SADC countries for the same purpose. Certain standards are available free of charge, and draft SANS standards are available free of charge in the public comment period.

6. Fair, reasonable and non-discriminatory licensing terms

In terms of SANS 1-1:2009 technical committees responsible for writing standards are required to have balanced representation from all stakeholders. The chairperson has the responsibility to ensure that no one party hijacks the standard.

7. Royalty-free standards

In terms of the Standards Act and ISO POCOSA 2005 the SABS may not make standards generally available free of charge, as this undermines the international standardization system. Income from standards sales forms a large part of the income of international standardization bodies such as ISO and the IEC, whose standards the SABS adopts.

8. Arrangements for changing or modifying existing standards

A phase-in period, by regulation may be necessary to facilitate introduction of new technology, particularly in light of potential opposition from those firms with no intellectual property rights in the new standard.

9. Competition authority feedback to standard-setting bodies

With the recent VESA judgment, the CCSA now has a relevant precedent upon which to base its future handling of matters concerning standards and standard setting – this will enable CCSA to engage more actively with standard-setting bodies.

10. Summary of VESA Case³

The Vehicle Security Association of South Africa (“VESA”) is an industry association for firms engaged in the vehicle security industry. At the time of the complaint VESA had a sub-committee that set standards for admission to membership of its stolen vehicle recovery market – known as the SVR committee. The SVR committee was made up of competitors who provided recovery services of stolen vehicles utilizing tracking equipment installed in vehicles. At that time three of the members of the SVR committee Netstar, Tracker and Matrix, represented more than 90% of the industry. When major decisions needed to be taken, these three competitors often consulted each other outside of the committee and only among the three of them.

The demand for tracking equipment was driven at the instance or preference of insurance companies that cars priced over a certain value had to have tracking equipment installed. Insurance companies were thus reluctant to insure vehicles that did not have the tracking equipment. Since the overwhelming number of insurers were members of the South African Insurance Association (“SAIA”) they adopted the SAIA position which was to give discounts on premiums only to motorists who installed a VESA approved device. VESA in turn, as an industry body, adopted the standards that were set by the SVR committee.

The SVR committee set a performance standard for membership of the VESA SVR committee which stated that for full approval a firm had to:

- Have a security clearance of all personnel directly involved in tracking and recovery;
- Have a recovery rate that was 90% of the six month floating industry average (weighted);
- and additionally comply with two out of four of the following:
- Have a minimum client base of 3000 installed units;
- Have a period of operation of one year;
- Have made 100 successful recoveries;
- Have basic infrastructure.

The stated rationale by the SVR committee for the performance standard was that it would prevent so called fly-by-nights from entering the market. Thus a new entrant had to meet the performance criteria during a period when the major source of demand in the industry – the insured motorist, was effectively foreclosed to it. The agreement between the competitors as mediated through the industry body VESA was held to be a restrictive practice in terms of section 4 (1) (a) of the South African Competition Act⁴.

The theory of harm put forward by the Commission and accepted by the Tribunal is that the standard operated to exclude rival firms from effectively entering in the market to compete with incumbents who had been approved in terms of the standard.

³ Case No: 17/CR/Mar05 (Competition Commission vs Netstar (Pty) Ltd; Matrix Vehicle Tracking (Pty) Ltd; Tracker Network (Pty) Ltd; and VESA).

⁴ South African Competition Act, Act 89 of 1998.

The Tribunal, in its judgment stated that there is “no magic answer” in differentiating between standard setting behavior which poses competition concerns and those which do not, but provided some guidance in how we can go about distinguishing between the two:

- Does the standard setting body have market power? If the answer is no, it is unlikely to have an exclusionary effect.
- Who drove the standard? A standard set by rivals will prima facie be suspect for that reason alone as they will be presumed to be intended to limit the entry of other rivals. However a standard set by customers would not attract this conclusion as customers would not be considered to be setting standards with exclusionary intent.
- What is the effect of the standard? At one end of the continuum may be a standard without adherence to which a competitor is unable to enter the market. At the other end may be a mere communication of a standard. The less its effect the less restrictive it will be considered to be.
- Is the standard reasonable? The tribunal will be reluctant to determine whether a standard is reasonable or not since an expert can be put up for either side of the case. Despite this, a standard may be considered unreasonable by means of other indicators –i.e. is it consistent with its rationale, is there evidence that a reasonably efficient firm or a firm that is at least as efficient as the respondent firms could comply?⁵

In applying this guidance to the facts in the VESA case the Tribunal found that:

- *Market Power?*: It was clear that the three SVR respondents had market power because collectively they represented over 90% of the industry.
- *Who drove the standard?*: The approval standard was not consumer driven because the role of the South African Insurance Association was limited. The three SVR respondents had determined the content of the standard.
- *Effect of the standard?* Could a reasonably efficient firm or a firm at least as efficient as one of the SVR respondents have entered the market without VESA approval or if not, could it have obtained VESA approval within a reasonable time period?: The standard in this case was not an absolute standard and firms could legally operate in the market without having VESA approval. However the standard was a de facto barrier to entry because without the VESA approval a firm could not achieve volume sales in the lucrative segment (insured segment) of the market and would have limited success in the market. This is because insurance companies would not insure vehicles that were not purchasers of the VESA approved SVR services. The non-insured market was not a viable alternative for firms wishing to enter the SVR market. The factual and theoretical evidence suggested a large number of would be entrants at the relevant time – however due to the high barriers to entry created by the performance standard none of these firms succeeded at entering the market. Also evidence showed that it was not possible for a firm to expand in the SVR market at the time without having its product approved by VESA in the SVR category.
- *Was the performance standard reasonable?* : The Tribunal was mindful of the fact that as a non-expert body it should be cautious about pronouncing on the reasonableness of an industry standard. However it found that the performance standard was self-serving as it was designed to

⁵ See *VESA* Case at [238].

suit the SVR respondents' business models and not necessarily those of other entrants. The Tribunal accordingly held that the standards had an exclusionary effect and that the allegations that they were self-serving and irrational had been convincingly made. The agreement led to a substantial prevention and lessening of competition in the SVR market. The SVR respondents failed to defend the reasonableness of the standard and were unable to show any other technological efficiency or other pro-competitive gain from the standard. On the contrary the effect of the standard was to condemn consumers to higher prices and deny them the benefit of new technologies that would otherwise have entered this innovation market far earlier than they did.⁶

The Tribunal went on to say that once competitors had been found to set a standard there is at very least an evidential onus on them to justify that they had not set an exclusionary standard⁷.

Accordingly the Tribunal found that the actions and decisions of the respondents were liable in term of section 4(1)(a) of the Competition Act in that the standards were set by competitors and were found to be self-serving and irrational and led to a substantial prevention and lessening of competition in the SVR market⁸.

⁶ *Ibid* at [239 - 285].

⁷ *Ibid* at [286].

⁸ *Ibid* at [286].

CHINESE TAIPEI

1. Introduction

In preparing the present submission, the Fair Trade Commission (hereinafter “the FTC”) consulted with various government agencies, including the national standard-setting authority, the Bureau of Standards, Metrology & Inspection under the Ministry of Economic Affairs (hereinafter “the BSMI”), and the competent authorities responsible for the development and administration of interface standards, food standards, environmental standards, and standards for the building trade. After a preliminary review, the FTC decided to focus on issues related to environmental standards and to take the incense stick as an example for illustration, as well as case examples of how the FTC deals with issues related to food standards and telecommunications standards.

This paper will illustrate the issues related to the current state of Chinese Taipei’s standardization promotion efforts, the operations of standard-setting bodies, the status quo for national standards in practice, and national standards and international standards.

2. Standards

In accordance with Article 3, Subparagraph 1 of the Standards Act, the term “standard” means a document, approved by a recognized body and established by consensus through the participation of the industry, government, academia, and R&D sectors, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes or services.

The purpose of the standards is to develop and encourage the use of common and uniform standards with a view to promoting public welfare by facilitating standardization, improving the quality of products, processes and services, enhancing the efficiency of production, and maintaining rationalization for production, marketing and consumption. There are five categories of standards when classified by application hierarchy, including international standards (e.g., ISO, IEC), regional standards (e.g., EN), national standards (e.g., CNS, JIS), group standards (e.g., IEEE, UL) and company standards.

National standards are developed to achieve the goals of protection of lives and property of citizens, safeguarding a healthy environment, and the maintenance of free and fair trade to promote the development of domestic industry. National standards are established or adopted by the standards authority (i.e., BSMI) pursuant to fair, open and transparent processes for easy reference by the general public, domestic industries and agencies (organizations).

3. Current state of Chinese Taipei’s standardization promotion efforts

The term “industry standards” refers to the process by which domestic professional groups or trade associations, societies, and associations engage in establishing and implementing standards for securing their members’ common interests. Industry standards play an important role in enhancing the industrial structure. The development of industry standards can provide a platform where standards can be prepared in a short time to take account of the rapid changes and innovation of scientific technologies to increase the

market competitiveness of industries. The industry standards adopted as national standards ensure that standards are responsive to domestic demands.

Since Chinese Taipei's economy has primarily relied on the success of small and medium-sized enterprises, we usually face the situation where there is a lack of industry organizations that are capable of developing a consensus for industrial technical standards to implement group standards. Currently, Chinese Taipei's standardization policy in addition to the development of national standards also focuses on assisting the industry and associations to promote group standards, and on harmonizing national standards with international standards. Current practices include implementation of the Chinese National Standards Mark (CNS Mark) product certification system and subsidizing organizations promoting standardization activities, awarding standardization efforts, and organizing standardization activities related to education and training.

4. The operations of standard-setting bodies

Article 2 of the Standards Act stipulates that the standards authority is the Ministry of Economic Affairs (hereinafter "the MOEA"). The BSMI under the MOEA is in charge of the implementation of standardization matters. Where standardization activities involve other government agencies, the MOEA shall consult and coordinate with relevant government agencies.

The implementation of national standards and the CNS Mark product certification system aims to enhance the product quality and technical standards of industry. There are 26 categories of national standards. To review and make suggestions on matters relevant to national standards, Chinese Taipei has established both the National Standards Review Council and the National Standards Technical Committees in accordance with Article 6 of the Standards Act.

The National Standards Review Council is divided into three groups of electromechanics, materials science and consumer issues, and its main assignment is to examine the proposals of national standards, approve drafts of national standards, confirm national standards, review the CNS Mark product items and provide recommendations regarding standardization promotion, standards policy, standards regulations and amendments. There are 26 National Standards Technical Committees which are in charge of drawing up and reviewing national standard drafts. These Committees are also responsible for interpreting national standards.

5. The status quo for national standards in practice

Article 4 of the Standards Act states, "national standards are implemented on a voluntary basis. Where all or part of a national standard has been referenced in regulations by the competent authorities of jurisdiction over specific business, such regulations shall apply." Thus, "standards," as referred to in the Standards Act, are mostly used on a voluntary basis for commercial transactions, product manufacturing specifications and quality management, whereas observance of "technical regulations" is mandatory when used by the government in acts of state, and are usually involved in regulating health, safety and environmental protection for humans and plants as well as animals, subject to enforcement activities by the competent authorities.

National standards must naturally be established in accordance with the demands of government policy, economic development, and industry development. Therefore, the development and implementation of national standards proceeds according to its own schedule, with voluntary adoption by industry and agencies after the completion of the establishment or amendment processes. The industrial competent authorities may incorporate all or part of a national standard into their regulations, and where urgent or

timely of policy considerations are involved, the competent authority should take immediate and appropriate administrative measures.

Chinese Taipei's standardization system is divided into three categories, including national standards, group standards, and company standards.

In accordance with Article 7 of the Standards Act, the procedures for the development of National Standards involves six stages:

- Submitting a proposal: Any person, institution or group may submit proposals for development, amendment or withdrawal of national standards to the BSMI.
- Drafting: Drafting of national standards may be conducted by National Standards Technical Committees, or commissioned to professional institutions, groups, schools, manufacturers or experts. Where international standards exist or their completion is imminent, they or the relevant parts of them shall be used as a basis for drafting national standards.
- Soliciting comments: Interested parties, members of related Technical Committees, members of the National Standards Review Council, experts, manufacturers, institutions, groups and schools are notified of the draft national standards for commenting. The comment period shall be at least 60 days and a notice announcing the period of commenting shall be published. However, the comment period may be shortened if any urgent problems related to safety, health or environmental protection arise.
- Review: Drafts of national standards are reviewed by related Technical Committees by taking into account comments received and relevant documentation. Final drafts will be prepared after the review.
- Final review: The final drafts of national standards are approved by the National Standards Review Council. Modifications are limited to editorial changes except when the technical content is internally inconsistent or contradicts policies, regulations or other national standards.
- Approval and promulgation: The approved national standards are submitted to the Ministry of Economic Affairs by the BSMI for publication.

Throughout the national standard-setting process, Chinese Taipei wants to ensure that all relevant stakeholders can become aware and enjoy meaningful participation to share their views, in the hopes of meeting the requirements of industry. The national standards are developed or amended by consensus through fair, open, and transparent procedures and meet the requirements of the Agreement on Technical Barriers to Trade of the World Trade Organization (WTO/TBT) in terms of their preparation, the adoption and application of standards and conformity to assessment procedures.

6. National standards and international standards

With the rapid development of the economy and trade, there is an increasing demand for standards throughout all business sectors. Any existing incompatible standards for similar technologies in different countries or regions can easily create technical barriers to trade. In industries which are output-oriented, there has been a trend towards gradually becoming aware of the consistency of use of global standards to help rationalize the world trade order and lower barriers caused by differences between standards and thus further promote the speedy development of international standards.

To reduce the differences among national standards in different countries and promote trade facilitation processes, the Code of Good Practice for the Preparation, Adoption and Application of Standards under the WTO/TBT Agreement requires that a standardizing body shall use international standards, or the relevant parts of them, as a basis for the standards it develops if they exist or their completion is imminent. With a view to bringing national standards into line with international standards, since 1995 Chinese Taipei has continued to adhere to the WTO/TBT Agreement and the Sub-Committee on Standards and Conformance of the Asia-Pacific Economic Cooperation (APEC/SCSC) requirements and to accelerate the harmonization of our national standards (CNS) with international standards. The harmonization efforts include an assessment of the applicability of international standards, the adoption of international standards, the elimination of any differences with the international standards, participation in international standardization activities, and cooperation with regional professional organizations.

In response to international trends, to guide industry to enhance product quality and technical standards, eliminate trade barriers in international markets, and promote industrial development and trade liberalization, Chinese Taipei has actively promoted internationalization of national standards in many areas, such as information technology and communications, electrical and electronic safety, the ISO 9000 series of quality management system, the ISO 14001 environmental management system, the ISO/IEC 27001 information security management system and other related areas, to ensure that the direction and content of our national standards in these areas have been synchronized with the relevant international standards.

7. Incense stick standards

Chinese traditionally pay homage to their ancestors by burning incense sticks and paper money to ensure that the dead ancestors are comfortable in the after-life. Worshippers also visit temples by burning incense sticks and paper offerings to pray to the Buddha for help or for other reasons.

The production of incense sticks in Chinese Taipei involves mostly individuals or cottage industries, and the production technology employs traditional techniques. In order to maintain this industry's unique value and protect the industry's traditional characteristics, Chinese Taipei has developed national standards for incense sticks. Currently, there are no international standards for incense sticks, and the BSMI considers the situation of the incense stick industry and then develops incense stick standards, inspection for VOC and PAH tests for incense stick burning and paper money standards, so as to protect the value of those traditional products and consumers health. These standards have been developed to reduce the potential harm to consumer health from hazardous materials by establishing limits for toxic heavy metals, formaldehyde, VOC and PAH, so that manufacturers can avoid the addition of unsafe materials during incense manufacturing.

In addition, the Incense Environmental Safety Association has established a National Committee for Incense Inspection and Certification, which has been developing an "Incense ISA Certification" system for the marketing of incense in Chinese Taipei. If the incense conforms to the incense quality requirements of national standard CNS 15047 through inspection, the "Excellent Quality Incense ISA certification" mark is granted to incense products that comply with relevant Chinese National Standards. Manufacturers print and affix such marks on their product's packaging, so that consumers easily identify certified products and can be protected by purchasing incense stick products of excellent quality.

8. Selected cases handled by the FTC

8.1 Case 1

The FTC was informed that there were only two firms granted the mineral water GMP (Good Manufacturing Practice) certification and that these certification standards created market entry barriers so that other firms without GMP certification were prevented from selling their bottled mineral water to schools and institutions. To further identify the fact, the FTC forwarded a written request to the relevant government agencies engaged in promoting the “food GMP certification system” for an explanation. The FTC found that:

To encourage food manufacturers to strengthen self-management systems and to ensure product quality, health and safety, the Ministry of Economic Affairs issued the “Food GMP Promotion Program” in 1989. Then the Industrial Development Bureau and Bureau of Commodity Inspection which are under the Ministry of Economic Affairs, the Central Bureau of Standards (now it is referred to as the Intellectual Property Office), the Environmental Protection Administration, and the Council of Agriculture jointly implemented the above-mentioned program and established the “food GMP certification system”. However, the “food GMP certification system” was implemented by enterprises on a voluntary basis. Moreover, the food GMP was regulated so as to consist of general sections and specific sections according to the nature of the product and the actual need.

The food GMP certification system for mineral water plants prescribed the following benchmarks: (i) “mineral water plants infrastructure, production and testing equipment” certification was based on the “construction and equipment standards for food factories” regarding beverage plants infrastructure, production and testing equipment regulations; (ii) the “water quality and water environment” certification adopted the criteria from the relevant regulations on the “drinking water quality standards;” and (iii) the “basic requirements for mineral water products” were set in accordance with the certification provisions for mineral water (packaged) with the national standards No. CNS12700 as their benchmark.

After investigation, the FTC made the decision that the implementation of the “Food GMP Promotion Program” can improve the quality of mineral water, and help consumers identify excellent quality products in order to protect the interests of producers and consumers, all of which show that the standard is designed to protect the public interest. In addition, the implementation of the food GMP certification system applicable to the mineral water plants was undertaken by various government agencies, all of which were entrusted with such authority by law, and were is not subject to the jurisdiction of the Fair Trade Act. Moreover, the food GMP certification system requirements impose no restrictions on schools and institutions that would force them to only sell GMP food products, but rather institutions and schools can freely decide whether to sell the GMP food products. Therefore, there is insufficient evidence that there has been any restriction on market entry through implementation of the food GMP certification applicable to the mineral water plants.

8.2 Case 2

In March 2008, Da'an Wenshan Cable Co., Ltd. and 27 other cable TV enterprises applied for approval to jointly develop technology standardized specifications for cable digital set top box (cable STB) in order to be in conformity with the National Communications Commission's policy for promoting the acceleration of digital cable TV and replace the use of analog systems in the cable TV market with digital transmission technology as well as to meet the demands for various system operators.

Article 14 of the Fair Trade Act prohibits enterprises from engaging in concerted actions, save for specific conduct that is listed among the exceptions and is beneficial to the economy as a whole and in the

interests of the public at large; for these exceptions to apply, a concerted action must satisfy one of the circumstances listed below: 1) unifying the specifications or models of goods for the purpose of reducing costs, improving quality, or increasing efficiency; 2).....” The intended actions in this case are consistent with the aforementioned circumstances that should have the prior approval of the FTC.

After investigation, the FTC found that the cable STB standardized specifications regarding digital set-top box hardware and software specifications were jointly developed by the members of the Taiwan Cable Broadband Industry Association. After confirmation of the content of the specifications, domestic and overseas digital set-top box suppliers were invited for bidding. After consultation with the National Communications Commission, relevant agencies and cable STB enterprises, the FTC made a decision at its Commissioners’ meeting in July 2008 that jointly unifying the technology specifications standard of the cable STB could reduce procurement costs, benefit consumers through lower costs, and yield advantages for the domestic cable television systems industry, digital content industry, and digital set-top box manufacturing industry. After taking these advantages into consideration, and that it was beneficial to the economy as a whole and in the public interest and had insignificant restrictions on competition or unfair competition, the FTC granted its approval to such companies.

However, the FTC observed that the unifying technology standardized specifications may result in competition being restricted as follows: (1) the information is non-transparent: a small number of set-top box manufacturers producing products which meet the standardization specifications may restrict competition among the digital set-top box manufacturers; (2) exercising exclusive intellectual property rights may result in the formation of market entry barriers; and (3) applicants may make use of the opportunity provided by developing standardized specifications, then jointly determine the prices of goods, and limit the terms of quantity, trading territory, or trading counterparts, etc. For these reasons, the FTC imposed certain specific conditions on the approval of concerted actions as follows:

- The applicants shall not engage in any joint procurement with competitors of the digital STB equipment or digital headed equipment.
- The applicants shall not jointly determine the service price, quantity, trading territory, trading counterparts or other trading conditions with respect to digital or analog cable TV systems, and thereby restrict each other’s business activities.
- The applicants cannot use built-in IC chips or other components designed to increase the switching costs for subscribers between providers of digital set-top boxes when the applicants purchase the digital set-top boxes with standardized specifications.
- The applicants shall not refuse any cable TV system operators without justification to join or withdraw from the concerted actions; and in the event of any changes in the subjects of concerted actions, the applicants shall submit the documents to the FTC for ongoing supervision; and if the concerted actions result in derivative patent royalties or cost-sharing, there shall be reasonable and non-discriminatory conditions for any new entrants.
- The applicants shall not without justification prevent digital set-top box manufacturers or cable TV system operators from obtaining any relevant information or documents regarding the unifying technology standardized specifications resulting from the concerted actions.
- The applicants shall not prevent any individual applicant from engaging in improvements to the quality of digital set-top boxes, and may not jointly decide the sales price of a digital set-top box by means of a contract, agreement or any other form of mutual understanding.

- The applicants shall not prevent other enterprises from manufacturing and selling cable STB digital set-top boxes which use the technology standardized specifications pursuant to this concerted actions.
- When the applicants hold meetings regarding the establishment of jointly standardized specifications, all meeting minutes and any resolutions adopted shall be provided immediately thereafter to the FTC for ongoing supervision.

In addition, to ensure the overall economic benefit, the applicants have expressed their willingness to add an additional two terms or conditions so as to protect consumers' interests. Furthermore, after the applicants have applied to the FTC for approval, up to this date, there shall have been no meetings held by them in relation to the proposed joint technology standardized specifications.

BIAC

1. Overview

The Business and Advisory Committee (BIAC) to the OECD appreciates the opportunity to submit these comments to the OECD Competition Committee for its Roundtable on Standard Setting. The roundtable discussion on standard setting to be held by Working Party 2 of the OECD Competition Committee on June 14 is of very significant importance to those involved in standard-setting processes, such as innovators, manufacturers and other participants, in addition to consumers. The interface between competition enforcement and standard setting and implementation is complex and, while competition enforcement in some narrow and clearly defined instances may be necessary, the risk of incorrect conclusions and unwarranted policy outcomes in this area is high.

The work of the OECD in this area will have a substantial influence on the course taken by national competition enforcement agencies and other government bodies. The report of the roundtable will be cited and possibly relied on in establishing regulatory principles for the way standard setting organisations operate. This is particularly important given the ongoing discussions on antitrust guidance in this and related areas being undertaken in a number of jurisdictions, such as Europe, South Korea and China.

While competition law should continue to deter and provide effective remedies for improper exclusionary conduct, regardless of the setting in which that conduct occurs, including in the area of standard setting, it is critically important that the Committee's work should not endorse or support proposals in the name of competition law that operate effectively as an unbounded and uncertain qualification to intellectual property rights and thereby stifle the very innovation incentives that intellectual property laws (and indeed antitrust laws) were designed to create, stimulate and protect. Competition law should only encroach upon legitimate intellectual property rights in exceptional circumstances. The fact that intellectual property rights are invoked when the underlying technology is incorporated into a standard does not of itself constitute such an exceptional circumstance so as to justify interference with the exercise of intellectual property rights.

Today, there are literally tens of thousands of standards approved as national or international standards. Yet the number of disputes that result in antitrust litigation is very small. In fact, over the past decades the private standards process has operated effectively in the vast majority of cases enhancing competition, generating significant efficiency savings and promoting the development of markets and the expansion of technology. Despite the fact that standard implementers (as opposed to innovators and consumers) sometimes assert that conduct of IP holders in the framework of standard-setting organisations has raised anticompetitive concern, actual, successful regulatory challenges to those practices are rare and are based on unusual fact situations where abuse is established, rather than theorized.

The fact that the vast majority of standard-setting activities do not raise any competitive concern, is in marked contrast statement in the Call for Contributions and the Background Note (DAF/COMP/WP2(2010)4) that "Standard Setting is particularly prone to anti-competitive behaviour." BIAC does not believe that such statements are supported by facts. In addition, BIAC feels that the background documents lean too heavily towards the interests of standard users, i.e. implementers, possibly thereby undervaluing the interests of inventors and firms investing in innovation.

As a general matter, BIAC believes that government intervention in standard setting processes brings with it a high risk of chilling innovation, discriminating against specific business models and undermining the effectiveness of the standardisation process itself. As a result, BIAC believes such intervention is only warranted in the exceptional case and only under narrow and clearly defined circumstances.

2. The practice of standard setting and standard-setting organisations: general observations

Standardisation agreements have as their objective the definition of technical or quality requirements with which products, production processes, services or methods may comply. Standards developed within standard-setting organisations (SSOs) can cover multiple issues, such as connectivity, durability and the different grades and sizes of a particular product. For instance, standards may be developed for the safety features of motor vehicle components, or the technical specifications for a new generation of optical recording and play-back consumer electronics products. Within the information technology sector a myriad of standards have been developed to enable interconnectivity and interoperability of one product or component with another. From the standpoint of consumers and other users, those standards are extremely important because they allow combinations of products from different manufacturers to be formed creating expanded functionality and customised systems. For instance, without standards, only hardware and software from the same company could be used together.

Standards may be developed in a variety of ways. First, specific single-firm standards may over time evolve into de-facto industry standards. For instance, Adobe is known for having developed the Portable Document Format (PDF), which became a de facto standard (and is now a de jure standard known as ISO - 32000-1). Second, standards may be developed by national or supranational governmental organisations, such as the American National Standards Institute (ANSI), or the International Organization for Standardization (ISO). Third, companies that are active in the same or related technology fields may collaborate, often with users, academics and other interested parties, in the development of standards by forming a dedicated, ad-hoc standards organisation. And fourth, standards may be developed in formal standards bodies, such as the European Telecommunications Standards Institute (ETSI), or the Joint Electron Devices Engineering Council (JEDEC). Whether standards are developed within an ad-hoc organisation, or under the auspices of a formal SSO, does not fundamentally alter the analysis of those activities under competition law. Indeed, in both cases it is the conduct of the participating companies, as well as the rules of conduct of the SSO (whether it is a longstanding forum for standards development or an ad-hoc organisation) that are the most relevant parameters for competition law analysis.

It is important to stress that standards are generally developed because the participating companies believe that efficiencies will be achieved that will enhance market demand for the standardised and related products and thereby increase consumer welfare. While cooperation in standard setting activities may in very limited circumstances give rise to anticompetitive effects, or serve as a shield for anticompetitive arrangements, the vast majority of these activities are embarked upon to speed up innovation, enable technological interoperability, and develop standardised product attributes and functions that will meet consumer demand and enhance overall market output. One current example of a relatively new industry in which emerging standards appear particularly important for further demand growth is the market for solar photovoltaics (PV), i.e. solar panel equipment.¹ BIAC notes that this efficiency-enhancing function of SSOs is an important starting point for antitrust analysis of standard-setting activities, but is, unfortunately, often overlooked or not properly credited in the analysis of net competitive effects.

As a related point, standard-setting activities tend to be looked at from an *ex-post* perspective. Obviously then, the analysis then tends to be restricted to standards that have been successfully developed

¹ See, SEMI, "Photovoltaics: An Exploding Market Urgently Needs Industry Standards," available at <http://www.semi.org/en/P039751>.

and implemented, that have gained market acceptance and that have, in addition, become “successful.” A proper analysis must also encompass, however, the *ex-ante* incentives of the parties to invest significant and speculative resources to develop and support the standard and the actual and potential competition that the standard – and, as a corollary, the standard-compliant product- faced at the time the standard has been developed and launched.

The preceding point is closely related to another feature of standard setting: numerous incipient standards simply fail once it becomes evident that there is no market demand for the standardized products.² For other standards, the test of market acceptance can occupy a prolonged period of uncertainty. One example is Digital Audio Broadcasting (DAB), a standard for transmitting and receiving digital radio signals that for many years did not seem to gain acceptance from industry participants and only became a relative success some 10 years after the specifications had been laid down in a standard. And more importantly, in most markets standard-setting initiatives compete, either potentially or actually, with other initiatives to establish the technical specifications of new products. In fact, this is a common phenomenon in many areas; technologies may compete for inclusion in a standard that is being developed and standards may compete for market acceptance. In some instances, competition between standards may take the form of a “standards war”. In fact, there are many examples of such standards wars in which different firms (after having made significant investments in the research and developments of particular technologies) compete by offering standardized, but mutually incompatible products based on such technologies, such as VHS and Beta VCRs³. A more recent example is the “battle” between the High-Definition DVD (“HD DVD”) and Blu-ray standards for a successor to DVD, which was eventually “won” by Blu-ray when the content industry (“Hollywood”) decided to support Blu-ray.⁴

During the standard-setting process, the participating companies typically define the technical requirements and desired functionalities of the new product. These discussions generally have a highly technical character and may involve comparing the potential advantages of multiple possible approaches to a particular technical problem. For instance, the companies participating in standard-setting discussions may conclude that there are various technical solutions to avoid malfunction of a specific electronic apparatus due to overheating. After an in-depth review of those alternatives, they may then decide that option A best meets the requirements, optimizes the chances of market acceptance, and should thus be included in the standard. It is therefore important to stress that discussions on technical specifications are generally driven by the desire to define the “right” technical solution by considering the available technical alternatives. These discussions of course include quality and price considerations, which may in turn be based on expected downstream implementation and upgrade cost, as well as efficiency, durability and other technical issues. As a result, in order to accommodate the needs and interests of the parties participating in the process - and leaving aside the rare case of outright collusion - the incentives of the participating companies are most often aligned to indeed identify the most efficient and functionally successful specification. This means that standard-setting processes are generally geared towards the optimal outcome for consumers.

² For an illustration, see, Meisner, Rosen, Beckman & Bercovitz, *The Role of Voluntary Industry Standards in Environmental Supply-Chain Management, An Institutional Economics Perspective*, JOURNAL OF INDUSTRIAL ECOLOGY, Vol. 6, No. 3-4 (2002).

³ For a number of other illustrations, see Teece & Sherry, *The Interface Between Intellectual Property Law and Antitrust Law: Standard Setting and Antitrust*, 87 MINN. L. REV. 1913 (2003).

⁴ See also Balto, “Standard Setting in Network Economy,” Address Before Cutting Edge Antitrust Law Seminars International (Feb. 17, 2000), available at <http://www.ftc.gov/speeches/other/standardsetting.shtm> (describing a battle over standards in the supply wireless networking area).

In sum, standards are developed in anticipation of market acceptance and future profits and often in a competitive environment. During the standard-development process, different patented technologies may be competing for inclusion in the standard.⁵ Moreover, multiple standardisation initiatives may be proposed and implemented, resulting in competing alternative standards each of which can become highly successful. Absent monopsony conditions, there are generally no barriers for companies to start competing initiatives, or to affiliate themselves with existing standard setting activities. Nor is there any obligation for companies to become part of any particular standard-setting initiative, and many firms do, in fact, elect to rely on their ability to market their own technology without having been part of an SSO.

To this general picture one further element must be added: the temporal dimension. Indeed, while some standards may live long, sometimes evolving with numerous enhancements,⁶ many standards relate to products whose life cycle is short. For instance, in many fast-moving high-tech sectors, the life cycle of products can be less than two years. The implication of this observation is two-fold: (i) there is a need for efficient, expedient and effective standard-setting procedures because delays in standards discussions may result in delays in product launches, or markets may not develop altogether, and (ii) existing standards are often overtaken by newer standards in a relatively short time frame. Timing may thus have a profound impact on competition law analysis.

In many cases where new products are developed, SSOs involve innovators, as well as manufacturers and users. For instance, a computer chip SSO may involve representatives of both chipmakers and computer makers.⁷ And where that is not formally the case, it is nevertheless often essential to take the interests, concerns and requirements of the future users and other affected stakeholders into account to optimise the chances for market acceptance of the standard.

The composition of SSOs raises another point that sometimes gives rise to tensions. Firms involved in standard setting may have a common desire to develop a standard, but nonetheless have different interests, depending on their activities and business models. In particular, pure innovators earn their revenues solely by licensing their technology, while manufacturers that do not own intellectual property tend to consider royalties as a cost of production and therefore have an incentive to reduce or even eliminate them⁸. Vertically integrated firms that are active in technology markets, as well as downstream product markets may have mixed incentives⁹. These various diverging interests and motivations should be taken into account, not only when assessing the potential (or absence thereof) for collusion, but in particular when evaluating complaints by firms that they are being forced to pay “excessive” royalties for the use of other companies’ intellectual property.

The composition of SSOs is also important in terms of determining which parties should be admitted to take part in standard-setting discussions. This matter is of significant practical importance. Indeed, SSOs should be allowed to work effectively and, if necessary, be allowed to place reasonable limits on membership if necessary for the efficient functioning of the organization. This is particularly so if the

⁵ Teece and Sherry point out that SSO members have an incentive to adopt societally – inefficient production techniques that avoid patented technology. Teece & Sherry, *supra* note 3.

⁶ For instance, the first release of the UMTS standard for mobile telephony in 1999 has mutated to the 9th release in 2009.

⁷ Teece & Sherry, *supra* note 3.

⁸ See, European Commission, *Draft Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to Horizontal Co-operation Agreements*, (May 2010) available at http://ec.europa.eu/competition/consultations/2010_horizontals/guidelines_en.pdf at ¶¶ 271-272.

⁹ In this respect, it has been maintained that SSO rules may favour the users of intellectual property, rather than the owners, as the former outnumber the latter. See, Teece & Sherry, *supra* note 3.

timely availability of the specifications to non-members is safeguarded. In fact, far-reaching requirements to admit all participants expressing even casual interest may be counterproductive and perhaps even raise more competitive problems than exclusion.¹⁰

It is important to appreciate the distinction between standard setting and the exploitation of intellectual property. Many standards involve patented technology developed by industry, research institutes or other institutions. This distinction is particularly relevant where intellectual property rights “read” on the standard, i.e. where those intellectual property rights are necessarily infringed when a product is manufactured according to the specifications as laid down in the standard. While today most SSOs seek to obtain assurances or declarations that intellectual property owners will license their “essential” intellectual property covered by the standard on (F)RAND or similar terms, those assurances and declarations do not, in and of themselves, mandate any (furthergoing) commitment, nor do they prescribe the precise manner in which these rights are exploited. In some cases, the parties that hold essential intellectual property rights may voluntarily decide to establish a patent pool to make their technology available for interested parties that wish to manufacture products according to the standard specifications in an efficient manner. While voluntary patent pools may give rise to anticompetitive concerns in rare cases, they are generally associated with important efficiencies.¹¹

3. The pro- and anticompetitive effects of standardization agreements and the role of antitrust agencies

Today, there is consensus that standardization agreements generally have positive effects, in particular by encouraging the development of new products. Standards may also increase competition, particularly in downstream markets for standardized products, lower costs and increase output, benefitting consumers and economies as a whole. For many companies participating in a potentially successful standard is a significant driver for innovation. Many of these efficiencies are particularly likely to be recognized when compatibility standards are involved.

Equally undisputed is the general proposition that standard setting in some circumstances may give rise to anticompetitive effects. One concern is that standard-setting activities that include competitors provide the opportunity to reduce or eliminate (price) competition, either because the standard includes all significant rival technologies, or because the standard-setting discussions have unwanted horizontal spill-over effects in the affected (downstream) market. In addition to these “conventional” horizontal concerns, it is theorized that standard setting may limit technical development and innovation by foreclosing competing technologies from the market and, finally, that companies may violate antitrust law by “abusing” the dominant position that they derive from their intellectual property rights by “holding up” users after the adoption of the standard. The concern is that the owner of patents essential to the implementation of a standard may misrepresent or fail to disclose known patents essential to the implementation of a standard during the process and, once the standard is adopted, and be able to demand a higher royalty for the use of its technology than if the negotiations had been conducted before the standard was set. These latter concerns are sometimes framed as “exploitative abuse” cases¹².

¹⁰ It has also been suggested that requirements for SSOs to be overinclusive could result in less competition. See, Balto, *supra* note 4.

¹¹ See, e.g., Layne-Farrar & Lerner, *To Join Or Not To Join: Examining Patent Pool Participation And Rent Sharing Rules*, (Jan. 7, 2008) available at <http://ssrn.com/abstract=945189>.

¹² See, Geradin & Rato, *Can Standard-Setting lead to Exploitative Abuse? A dissonant View on Patent Hold-Up, Royalty Stacking and the Meaning of FRAND*, (Apr. 2006) available at <http://ssrn.com/abstract=946792>.

Before addressing a number of the anticompetitive concerns sometimes raised in the context of standard setting, BIAC wishes to express its concerns about the proposition sometimes heard that standard setting is *particularly* prone to anticompetitive behaviour, that anticompetitive conduct occurs often and therefore requires specific remedial action. BIAC believes that this is incorrect. The private standards process generally operates effectively and in the interests of consumers, while the number of legitimate concerns and actual findings of antitrust liability are rare, despite the fact that the number of patents reading on standards has increased dramatically over the past decades.¹³ Deliberate refusal to disclose known essential patents and related hold-up problems such as those that claimed to exist in *Rambus*¹⁴ do not occur frequently and neither do instances where intellectual property owners intentionally make and break false promises to license proprietary technology on RAND terms as was initially alleged in *Broadcom v. Qualcomm*¹⁵. Indeed, the empirical evidence on holdup attempts is weak or entirely lacking and the anecdotal evidence is uneven and often contradictory¹⁶. In BIAC's view, it would not be appropriate to formulate broad policies or make general statements of policy, e.g. in guidelines or other documents based on the few instances where concerns have been cited, when empirical evidence suggests that the vast majority of standard setting practices and activities do not raise competition law concerns.

By the same token, BIAC is concerned that antitrust agencies in Europe, China and elsewhere may be tempted to analyse standard-setting activities, as well as subsequent arrangements for the exploitation of intellectual property primarily from a static, *ex post*, perspective. This applies particularly where agencies would one-sidedly seek to control royalty rates, or stimulate the creation and exercise of monopsony power through coordinated actions of standard users. The reason is that static gains in the form of lower short-term royalty rates may lead to larger dynamic losses over time¹⁷.

BIAC believes there is an important role for antitrust agencies and courts to play in the area of standard setting, notably in ensuring that standard setting is not used as a platform for collusive behaviour. However, that role is best confined to a number of narrow and clearly defined areas. For instance, courts and agencies are not well-equipped to decide whether a particular standard adopted in the framework of a SSO is the "correct" standard, or whether a standard is "over- or under-inclusive." In this respect, BIAC has concerns about the overly broad implication of the statement in the draft EC Guidelines on Horizontal Cooperation Agreements, that "standards that set detailed technical specifications for a product or service may limit technical development and innovation."¹⁸ Without greater clarity regarding the specific problems that statement aims to capture, this statement appears to be without sound basis or empirical support. Similarly, antitrust agencies and courts are ill-equipped to decide whether the price charged for use of the technology is "unfair" or "unreasonable." In this respect, it is widely acknowledged that it is not the role of antitrust agencies to set or second-guess prices.¹⁹ BIAC believes that these and related matters should first

¹³ See Simcoe, *Explaining the Increase in Intellectual Property Disclosure*, (Dec. 8, 2005) available at http://www.rotman.utoronto.ca/timothy.simcoe/papers/SSO_IPR_Disclosures.pdf.

¹⁴ *Rambus Inc. v. FTC*, 522 F.3d 456 (D.C. Cir. 2008).

¹⁵ *Qualcomm Inc. v. Broadcom Corp.*, 584 F. 3d 1004 (Fed. Cir. 2008).

¹⁶ See, Leveque & Meniere, *Vagueness in RAND Licensing Obligations is Unreasonable for Patent Owners*, (July 29, 2009), available at <http://ssrn.com/abstract=1030520>.

¹⁷ See, Easterbrook, *Ignorance and Antitrust*, in *INNOVATION & COMPETITIVENESS*, 82, 122-123 (Thomas M. Jorde & David J. Teece, eds.1992).

¹⁸ See, *supra* note 8, ¶ 260.

¹⁹ For instance, senior officials from the Canadian Competition Bureau have stated, with respect to Canada: "As a statute of general application, the Competition Act does not attempt to regulate individual transactions between buyers and sellers. . . . It is important to note that, under the [Competition Act], businesses are generally free to set their own prices at whatever level the market will bear. For the Competition Bureau, high prices or fees are a concern only when they are the result of a contravention of

and foremost be determined by market forces and that antitrust intervention in this area can easily chill innovation, the development of beneficial standards, industry competitiveness and consumer choice. In contrast, antitrust agencies and courts are better placed to evaluate whether standard setting activities give rise to collective boycott actions, price fixing, collusive output reduction, or whether SSO participation rules unduly discriminate against certain parties.

In addition, it is important to note that SSOs are able, and in fact do, revise their rules to address perceived problems. This has occurred for example in relation to patent ambush concerns, where major standards organisations have evolved mechanisms for the *ex ante* disclosure of essential patents. In addition, SSOs such as ETSI and ITU/IEC are currently actively addressing the transferability of FRAND commitments on the assignment of IPRs to companies that are not members of the SSO. In so doing, SSOs seek to ensure to bind future owners of essential IPR to the FRAND commitment.

BIAC submits that courts and agencies, when intervening in standard setting activities, should apply particular analytical rigour with a view to avoiding over-enforcement and false positive findings of antitrust liability. In particular, the mere fact that a specific technology has competed for inclusion in a standard, but has not been chosen and the standard has been set, does not by any means necessarily imply that that technology is actually or potentially excluded from the market or that the SSO or the participants in the standard discussions have infringed antitrust law²⁰. Indeed, the choice of any particular technical specification necessarily that other technical solutions were not chosen.

4. Patent hold-up and (F)RAND licensing obligations

Patent hold-up problems –i.e. patent owners who have knowingly misrepresented or knowingly failed to disclose patents essential to the implementation of the standard (that would not have been adopted absent such disclosure) and who thereafter- “hold up” patent users in the sense of demanding “excessive” royalties after the SSO has adopted the patented technology as an industry standard and manufacturers within the SSO have incurred substantial sunk cost to design and manufacture standard-compliant end products - may merit antitrust intervention in certain circumstances. However, BIAC would stress that antitrust agencies should be exceptionally cautious in choosing to intervene in this area in light of the relative high probability of false positive findings of antitrust harm. Moreover, agencies must be conscious of the fact that for hold-up problems to occur a number of necessary conditions must be met²¹.

First, there must have been evidence *ex ante* of a substitute technical solution that could practicably have been chosen by the SSO if the SSO members had been aware of the conduct of the misrepresenting party. Indeed, if no such substitute exists, any market power derives legitimately from the strength of the intellectual property rather than the inclusion of the intellectual property in the standard.²²

the Act, such as price fixing or abuse of a dominant position. . . . The Competition Bureau, as an independent law enforcement agency, does not have the ability to mandate, regulate or decide prices in any industry. . . .” Richard Taylor, Deputy Commissioner of Competition (Civil Matters) before the Standing Senate Committee on Banking, Trade and Commerce (Canada), March 25, 2009, *available at* http://www.parl.gc.ca/40/2/parlbus/commbus/senate/Com-e/bank-e/03eva-e.htm?%20Language=E&Parl=40&Ses=2&comm_id=3.

²⁰ This is, however, what ¶ 260 of the EC Draft Guidelines seems to suggest. *See, supra* note 8.

²¹ *See, e.g.,* Sidak, *Patent Holdup and Oligopsonistic Collusion in Standard- Setting Organizations*, J. COMPETITION L. & ECON., 5(1), 123- 188, p. 135 and 168.

²² *See, e.g.,* Geradin, *Pricing Abuses by Essential Patent Holders in a Standard- Setting Context: A View From Europe*, (July 2008) *available at* <http://ssrn.com/abstract=1174922>. The relationship between a firm’s alleged deceptive conduct in the context of a SSO and its acquisition of monopoly power was

Second, the party accused of engaging in an antitrust violation in the form of hold-up must have the requisite level of market power. Intellectual property does not in and of itself confer that power.²³ And if the chosen standard is competing with other standards, the owner of the chosen technology may not have market power.²⁴

Non-disclosure of intellectual property in the standard-setting process, even when deceptive or fraudulent, does not in and of itself constitute an antitrust violation. The party alleging that such a violation took place, must establish that the non-disclosure resulted in harm to competition in the monopolised market. This position is in line with the U.S. Circuit Court decision in the *Rambus* case.²⁵

Fourth, widespread hold-up problems are not likely to occur as owners of intellectual property face pressure from a number of different directions not to engage in hold-up practices. In particular, the owner of intellectual property may be only one party among a number of owners of complementary and essential (i.e., “blocking”) IP, and must take into account the possibility of similar conduct by those parties, as well as the negative effect that its own conduct may have on the willingness of such parties to engage in complementary practices, such as cross-licensing. Similarly, the IP owner potentially faces retaliation by implementers, as standards and end products are dynamic, while further iteration of the standard-setting process in the future is common. In addition, the IP owner’s incentives to engage in hold-up strategies may be reduced, or eliminated altogether, because excessive royalty rates or overly aggressive terms could have a negative impact on the downstream market demand for the standardized product. In sum, for hold-up to occur, the party engaging in that practice must have a rare combination of ingredients to create the economic incentive to do this. As a result, as part of the theory of harm, antitrust agencies and courts should evaluate whether the party at hand indeed had those incentives in the first place.

5. Ex ante disclosure of maximum royalty rates and most restrictive non-royalty terms

In response to concerns raised by the potential for hold-up situations, it has been suggested that SSOs should be allowed to permit to require, at the time standards are under discussion, the ex ante disclosure by the patent owner of the maximum royalty that the patent owner would charge under the applicable FRAND regime. The information thus disseminated, i.e. the future cost of using the various patented technologies, would allow the participating companies (including future users) to factor that information into their decision whether to prefer one technology over the other for inclusion in the standard. In the recent past, the US Department of Justice issued two business review letters allowing this practice proposed by SSOs.²⁶ Ex ante disclosure of licensing terms is also dealt with under the draft EC Guidelines.²⁷ Significantly,

specifically discussed in the US *Rambus* case. The court of appeal held that there was insufficient evidence that *Rambus*’ technology would not have been chosen if it had disclosed its patents, and the loss of opportunity to seek favourable terms is not an antitrust violation. *Rambus Inc. v. FTC*, *supra* note 14.

²³ See, *Ill. Tool Works Inc. v. Indep. Ink, Inc.*, 547 U.S. 28 (2006).

²⁴ See, Deborah Platt Majoras, Chairman, Federal Trade Commission, *Recognizing the Procompetitive Potential of Royalty Discussions in Standard Setting*, Remarks at Standardization and the Law: Developing the Golden Mean for Global Trade (Sept. 23, 2005), available at <http://www.ftc.gov/speeches/majoras/050923stanford.pdf> at 10.

²⁵ See, *supra* note 16.

²⁶ See, VITA Business Review Letter, Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep’t of Justice, to Robert Skitol, Esq. (Oct. 30, 2006), available at <http://www.justice.gov/atr/public/busreview/219380.pdf>; and IEEE Business Review Letter, Letter from Thomas O. Barnett, Assistant Attorney Gen., U.S. Dep’t of Justice, to Michael A. Lindsay, Esq. (April 30, 2007), available at <http://www.usdoj.gov/atr/public/busreview/222978.pdf>.

²⁷ See, *supra* note 8.

the Antitrust Division stated that, unless the standard-setting process is used as a vehicle for naked price fixing or bid rigging, the U.S. Department of Justice will analyse these types of arrangements under the rule of reason standard of analysis.²⁸ The EC Commission takes a similar approach.

BIAC agrees with the position that *ex ante* disclosure of maximum royalty rates may in some cases be beneficial. However, BIAC also believes that *ex ante* disclosure of maximum royalty rates may, depending on the facts of the case, give rise to a number of very significant concerns. This means that the mere early disclosure of those terms should be carefully distinguished from joint discussions among implementers, or, alternatively, among holders of intellectual property holders with competing technologies to fix the fees that they will pay or demand for the use of the intellectual property at hand. When involving discussions among downstream manufacturers that will require the use of the standardised technology, the arrangements may in many respects be akin to a horizontal buyers' cartel, the objective of which would be to minimize the cost of patent licenses, i.e. to force patent holders to accept lower royalty rates than they would normally charge. Indeed, the position of the U.S. Department of Justice with respect to *ex ante* negotiation by SSOs with patent holders arguably is somewhat at odds with its position with respect to monopsony buying in the agricultural industry and as expressed in the draft FTC/DOJ Horizontal Merger Guidelines. BIAC believes that such potential IP licensee cartels are of no less concern than potential IP licensor cartels as they may result in low and suboptimal royalty rates that may, in turn, discourage companies from investing in new technology and taking part in standard-setting initiatives. As a result, while forced *ex ante* disclosure of licensing terms may lead to some short term cost reductions, this practice may hamper long run dynamic efficiency.²⁹ In addition, *ex ante* disclosure rules and subsequent cartel-like behaviour may tempt SSOs to opt for low-cost, low quality technology, as opposed to more expensive but technically higher quality technology with greater potential consumer welfare gains.³⁰ In light of the importance of innovation for economic growth, as well as the lack of solid empirical evidence showing the frequency of genuine hold-up problems and the small magnitude of any static gains that *ex ante* maximum royalty disclosures might bring about, BIAC believes that antitrust agencies and courts should cautious with regard to forced joint discussions of licensing terms following *ex ante* disclosure rates and terms.³¹ In this regard, it may also be relevant whether those joint discussions take place before or after the standard has been established³². Finally, most SSOs have adopted mechanisms to protect against opportunistic behaviour by patent holders, in particular rules that seek assurances or declarations from

²⁸ However, it may be relevant to distinguish between *ex ante* participation by groups of potential licensees in licensing discussions before a standard is chosen, versus such coordinated action after the standard has been established. In particular, in its Business Review Letter regarding the 3G Patent Platform Partnership of November 12, 2002, the Department of Justice insisted that potential licensees not be allowed to participate collectively in the discussion of maximum cumulative royalty rates for 3G essential patents, after the standard was already in place, because it wished to prevent the buyers from collectively acquiring market power. See, 3G Patent Platform Partnership Business Review Letter, Letter from Charles A. James, Assistant Attorney Gen., U.S. Dep't of Justice, to Ky P. Ewing, Esq., *available at* <http://www.justice.gov/atr/public/busreview/200455.pdf>.

²⁹ See, e.g., Schmalensee, *Standard-Setting, Innovation Specialists, and Competition Policy*, (Apr. 30, 2009) *available at* <http://www.ssrn.com/abstract=1219784>. See also Teece & Sherry, *supra* note 3. Sidak notes in addition that the pass on rate of static gains to consumers is disputed and uncertain. Sidak, *supra* note 21.

³⁰ See, Balto, *supra* note 4 for an illustration of competition between standards that offer different price/quality options. Technically higher quality technology may include include technology with lower implementation- or lifecycle cost.

³¹ Individual patent owners and implementers may and often do engage in *ex ante* bilateral negotiations outside of SSOs. BIAC is in favor of those mechanisms as they are likely to reflect market prices for the use of the technology.

³² See, *supra* note 28.

patent owners to offer to license their patents on (F)RAND terms.³³ BIAC believes that these requirements may in many situations play a useful role and, as a consequence, obviate the need for additional (ex ante disclosure) rules, the effects of which are uncertain, at minimum.

6. (F)RAND) licensing terms

Many SSO rules require owners of intellectual property involved in standard setting to use reasonable efforts to disclose intellectual property rights that might possibly be essential to the implementation of the standard prior to the adoption of the standard, and to make licenses under those intellectual property rights available on fair, reasonable and non-discriminatory (FRAND) terms and conditions to members of the SSO, as well as interested third parties. While not commenting in detail on these requirements, BIAC offers the following observations. First, FRAND disputes seem to occur only rarely and, if they do, appear in the vast majority of cases to be predominantly commercial in nature, subject to resolution as common law contractual disputes.³⁴ Second, in most cases FRAND requirements appear to work³⁵. A third and related observation is that courts and antitrust agencies are ill-equipped to determine the “right” FRAND conditions. This applies in particular to the question of whether the terms at hand are “reasonable.”

7. Concluding observations

Below, BIAC summarizes a number of its main observations.

- The Round Table on standard setting is of significant importance, in particular in light of current legislative and policy developments in Europe, South Korea and China.
- Competition law should be invoked in the standard-setting process to resolve disputes over intellectual property rights only in the most exceptional of circumstances. The mere fact that an intellectual property right is necessarily infringed upon when implementing a standard and is thus “essential” does not in and of itself constitute such an exceptional circumstance to warrant antitrust scrutiny, even if it is claimed that royalties are “excessive.”
- Standard setting is wide-spread, its efficiencies are well-recognised and genuine competitive concerns arise only infrequently.
- Standards are developed in the hope that the standard will gain market acceptance and stimulate the demand for the standardised products. Most standards are therefore developed in a competitive environment and some standards have only a limited lifetime.
- SSOs should be allowed to place reasonable limits on their membership in the interest of process effectiveness and efficiency without being faced with potential boycott claims based on competition law.

³³ See, e.g., Lemley, *Intellectual Property Rights and Standard-Setting Organizations*, 90 CAL. L. REV. 1889 (2002).

³⁴ See, e.g., Brooks & Geradin, *Talking Contracts Seriously: The Meaning of the Voluntary Commitments to License Essential Patents on “Fair and Reasonable” Terms*, (Mar. 12, 2010) available at <http://ssrn.com/abstract=1569498>. See also, Brenning, *Competition & Intellectual Property Policy Implications of Late or No IPR Disclosure in Collective Standard-Setting*, (June 17, 2002) available at http://ec.europa.eu/competition/speeches/text/sp2002_037_en.pdf. (“It is further undesirable that the Commission is used as a negotiating lever in disputes before SSOs.”).

³⁵ See, e.g., Leveque & Meniere, *supra* note 16.

- Antitrust agencies are not well positioned to decide whether standards are under- or over-inclusive. Similarly, they are not well placed to rule on FRAND disputes, most of which are of a predominantly contractual nature.
- For genuine hold-up problems to exist, a number of specific conditions must be met.
- Ex- ante disclosure requirements may not be permitted to mutate into collusive action on prices for inputs or outputs.

ANSI

1. Introduction

The American National Standards Institute (“ANSI”) is pleased to respond to OECD’s invitation for written submissions relating to the OECD roundtable discussion on standard setting, to be held on June 14, 2010.

By way of introduction, ANSI is a private, not-for-profit organization which coordinates the United States voluntary standards and conformity assessment system. Through its membership ANSI represents the interests of more than 125,000 companies and 3.5 million professionals worldwide. ANSI, with the cooperation of federal, state, and local governments, administers the creation, promulgation, and use of tens of thousands of standards, norms, guidelines, and conformance activities that directly impact businesses and consumers in nearly every industry sector. ANSI also is the established neutral forum for the U.S. voluntary standardization community, and serves as the United States representative to the International Organization for Standardization (“ISO”) and, through the United States National Committee (“USNC”) to the International Electrotechnical Commission (“IEC”).

ANSI understands a number of topics will be discussed during the roundtable based on the contributions from the delegates and other presentations; however, ANSI will focus these comments on the topics identified in the invitation to this event. These include:

- What are the potential benefits and harms from standard setting activity?
- How can the harms be mitigated?
- To what extent should the government be involved in setting standards?
- What licensing rules are applied to intellectual property related to standards?
- What is the appropriate role of government in the resolution of disputes about standards?

ANSI is a unique partnership with membership drawn from industry, standards developers and other professional, technical, trade, labor, academic and consumer organizations, and government agencies. In its role as an accreditor of U.S. voluntary consensus standards developing organizations (“SDOs”), ANSI helps to maintain the integrity of the standards development process and determines whether standards meet the necessary criteria to be approved as American National Standards (“ANSs”). ANSI’s approval of these standards (currently numbering approximately 10,000) is intended to verify that the principles of openness and due process have been followed and that a consensus of materially interested stakeholder groups has been reached. ANSI has established “Essential Requirements” that ANSI-accredited SDOs (“ASDs”) must follow in the development and approval of a standard that is to be designated an American National Standard. This includes compliance with several ANSI policy statements including the ANSI

Patent Policy. ANSI and its accredited SDOs are often characterized as the “*de jure*” or more formalized standards-setting process in the United States.¹

ANSI believes that there are great benefits and pro-competitive effects of a voluntary standardization system. ANSI testified to the Federal Trade Commission (“FTC”) several times about these pro-competitive effects. As far back as 1995 ANSI advised the FTC:

The benefits and pro-competitive effects of voluntary standards are not in dispute. Standards do everything from solving issues of product compatibility to addressing consumer safety and health concerns. Standards also allow for the systemic elimination of non-value-added product differences (thereby increasing a user’s ability to compare competing products), reduce costs and often simplify product development. They also are a fundamental building block for international trade. As the Court of Appeals for the First Circuit explained:

The joint specification development, promulgation, and adoption efforts would seem less expensive than having each member of CISPI [a trade association] make duplicative efforts. On its face, the joint development and promulgation of the specification would seem to save money by providing information to makers and to buyers less expensively and more effectively than without the standard. It may also help to assure product quality. If such activity, in and of itself, were to hurt Clamp-All by making it more difficult for Clamp-All to compete, Clamp-All would suffer injury only as result of the defendants’ joint efforts having lowered information costs or created a better product.... And, that kind of harm is not “unreasonably anticompetitive.” It brings about the very benefits that the antitrust laws seek to promote.

Clamp-All Corp. v. Cast Iron Soil Pipe Institute, 851 F.2d 478, 487 (1st Cir. 1988) (Breyer, C.J.) (citation omitted; emphasis in original).

Therefore, the analysis of any possible anti-competitive effects a standard may have must, under the “rule of reason”, be weighed against its pro-competitive and positive effects. This, however, is somewhat easier said than done.

One of the principle difficulties confronted by enforcement agencies and the courts when applying the “rule of reason” to standardization activities is that any cost- benefit analysis or consideration of possible alternative standards requires a technical expertise that these bodies normally admittedly lack. The obvious alternative is to leave the resolution of technical issues to the experts who participated in the standards development process and focus instead on the

¹ ANSI is often asked about the total number of standards (and standards setting bodies) in the United States. It is estimated that in the U.S. today there are hundreds of “traditional” standards developing organizations – with the 20 largest SDOs producing 90% of the standards – and hundreds more “non-traditional” standards development bodies, such as consortia. This means that the level of U.S. participation is quite expansive as the groups themselves are comprised of individual committees made up of experts addressing the technical requirements of standards within their specific area of expertise.

As of the end of 2009, some 223 of these standards developers were accredited by ANSI; there are approximately 10,000 American National Standards (“ANS”).

According to data provided in NIST Special Publication 806, Standards Activities of Organizations in the United States (1996 Edition; edited by Robert B. Toth), there are more than 93,000 standards produced and nearly 700 organizations that cited standards development as an area of activity. Of these, the federal government is the largest single creator and user of standards (more than 44,000 of them); the private sector in America collectively has about 49,000 standards.

process itself. As pointed out in the Standard-Setting² article, focusing on the standards development process has the benefit of (1) being easier for courts and enforcement agencies to analyze, (2) providing clear guidance to the business community and (3) being designed (and if necessary modified) to reduce if not eliminate the possibility of anti-competitive activity. Standard-Setting at 256.

This has been ANSI's approach, and it has been effective. In its role as the accreditor of U.S. standards developing organizations (SDOs), ANSI seeks to further the integrity of the standards development process and to determine whether candidate standards meet the necessary criteria to be approved as American National Standards. ANSI's approval of these standards is intended to verify that the principles of openness and due process have been followed and that a consensus of all interested parties has been reached. These requirements ensure that the playing field for standards development is a level one. In addition, ANSI considers any evidence that the proposed American National Standard is contrary to the public interest, contains unfair provisions or is unsuitable for national use. (Emphasis added, original footnote deleted, one footnote added for clarification.)

The ANSI system has a long-standing history of effective self-policing. To the extent that the ANSI process has not detected and deterred all potential antitrust-related problems, the problems that surfaced up until 1995 were generally addressed by the private sector in a handful of private action lawsuits³. There are now approximately 10,000 ANSI-approved American National Standards that provide dimensions, ratings, terminology and symbols, test methods, performance and safety requirements. The voluntary standards development process has proven its effectiveness across a diverse set of industries and in federal, state, and local government processes. These industries include telecommunications, safety and health, information technology, petroleum, banking, and household appliances.

The U.S.'s market-driven, private sector-led approach to global standardization is substantially different from the top-down approach favored in many other countries. Though the U.S. system is unique, it is based upon a set of globally accepted principles for standards development, which include:

- **Transparency**
Essential information regarding standardization activities is accessible to all interested parties.
- **Openness**
Participation is open to all affected interests.
- **Impartiality**
No one interest dominates the process or is favored over another.
- **Effectiveness and Relevance**
Standards are relevant and effectively respond to regulatory and market needs, as well as scientific and technological developments.
- **Consensus**
Decisions are reached through consensus among those affected.

² J. Anton & D. Yao, *Standard-Setting Consortia, Antitrust, and High Technology Industries*, 64 Antitrust L.J. 247 (Fall 1995) ("Standard Setting").

³ Although private cases were a principle mechanism prior to 1995 when ANSI testified to the FTC, as shown below, the FTC has been much more active since then in looking at competition cases and standards development, see, for example, *Dell*, *Rambus*, *Unocal*, and *N-Data*.

- ***Performance Based***
Standards are performance based (specifying essential characteristics rather than detailed designs) where feasible.
- ***Coherence***
The process encourages coherence to avoid overlapping and conflicting standards when appropriate.
- ***Due Process***
Standards development accords with due process so that all views are considered and appeals are possible.
- ***Technical Assistance***
Assistance is offered to developing countries in the formulation and application of standards.

Working in partnership with stakeholders from government and industry, ANSI continues to explore how standards and conformity assessment-based solutions – developed with the consensus of all interested parties – can meet the critical needs of the United States and the entire global community.

3. ANSI's Approach to the Intersection of Standards and Intellectual Property

The intersection of standards-setting, patent rights and antitrust concerns has been the subject of inquiry and debate for many years. The standards community has fashioned IP policies and procedures to provide a roadmap that allows for the inclusion of patented material in standards. There are a number of factors standards developers consider in fashioning an IP policy that best suits its particular needs, including:

- (a) **Type of Policy** (*e.g.*, does the policy apply to patents, trademarks, copyrights, or all three?);
- (b) **Scope of Disclosure** (*e.g.*, does the policy apply to just patents that contain essential claims, patents that likely contain essential claims, or the claims themselves; or does the policy not require any specific disclosure information, but rather seeks disclosure that the patent holder just believes that it holds patents with claims that likely will be essential, etc.; or is the policy just “participation-based” with no obligation to disclose at all, but everyone participating agrees to an up-front licensing commitment, sometimes with the option of opting out specific patented technology; or is it a mixture of the two general approaches?);
- (c) **Scope of Licensing Commitment** (*e.g.*, does the license commitment apply to just essential patent claims vis-à-vis the final version of the standard, or more broadly to patents generally? Does it apply to patent applications?);
- (d) **Timing of Disclosure** (*e.g.*, is early disclosure encouraged or is it mandated? If it is mandated, how is that obligation described: is it based on the individual participant’s knowledge, or is knowledge imputed to the participant from the participant’s employer?);
- (e) **Patent Searches** (does disclosure require the IP holder to conduct patent searches?);
- (f) **Form of disclosure** (*e.g.*, does the policy require the use of a specific form/content of disclosure?);

- (g) **Licensing Assurance** (e.g., can the patent holder select from options in terms of its licensing commitment, such as RAND/FRAND, RAND/FRAND-royalty free, or neither, or is the commitment pre-selected by the SSO and/or the specific technical committee?);
- (h) **Licensing Terms** (e.g., does the SSO allow reciprocity, scope of use, disclosure of licensing terms to the standards body *ex ante*, patent pools, etc.?);
- (i) **Enforcement** (e.g., how are disputes resolved, what competition laws apply and how many complaints or what litigation has the SSO experienced in the past ten years regarding the implementation of its IPR policy?); and
- (j) **Industry Impact** (e.g., what are the practical implications of the policy's implementation, particularly as it affects innovation, and the global trade and competitiveness of U.S. industry?).

For its part, ANSI has developed a Patent Policy which generally must be followed by ANSI-accredited SDOs in the development of all American National Standards ("ANSs"). A copy is attached in Appendix A. The ANSI Patent Policy attempts to strike a balance among the rights of the patent holder, the interests of competing manufacturers seeking to implement the standard, the consensus of the technical experts from different stakeholder groups on the desired content of the standard, the concerns and resources of the SDO, the impact on consumer welfare, and the need to avoid unnecessary strictures that would discourage participation in the standards development process. There has not been any adjudicated abuse of the ANSI Patent Policy in the approximately 35 years ANSI has had such a policy.

Under the ANSI Patent Policy, disclosure may be made by a patent holder or third party with actual, personal knowledge of relevant patents. Once such a disclosure is made, ANSI requires a written statement in order to determine whether the patent holder will provide licenses (a) on reasonable and non-discriminatory ("RAND") terms and conditions or (b) on a compensation-free basis (that may include other RAND terms and conditions). If the patent holder submits a patent statement to the effect of either (a) or (b) above, then this creates a commitment by the patent holder and third-party beneficiary rights in implementers of the standard.

ANSI Patent Guidelines, which inform the Patent Policy, advise that discussion of licensing issues among competitors in a standards-setting context could significantly complicate, delay or derail standards-setting efforts. A copy of ANSI's Patent Policy Guidelines is attached in Appendix B. Moreover, discussion of licensing terms may impose a risk that the SDO and the participants will become targets of allegations of improper antitrust conduct. The potential antitrust risks that have been associated with the discussion of license terms should be distinguished from the adoption by SDOs of rules that permit, encourage, or require participants in standards development that identify patents they believe are essential also to disclose the terms on which they will license their essential IP, and to do so as early as possible in the standards development process.

The ANSI Patent Policy is very similar to the common patent policy of ISO, IEC, ITU-T, and ITU-R. All of these policies recognize that it is permissible to develop standards that mandate the use of patented items if there are sufficient technical justifications. As recognized by the United States Federal Trade Commission in *American Society of Sanitary Engineering*,⁴ if a standards development organization comes to enjoy significant market power, its decisions to exclude a patented invention from a standard can

⁴ See *American Society of Sanitary Engineering*, Dkt. C-3169, 106 F.T.C. 324 (1985). It is noteworthy that the invention at issue in that case – the Fillpro valve designed by J.H. Industries - which was "excluded" from the standard was not an "essential" technology. If permitted by the standard, it would be one of many conforming implementations of the standard.

unreasonably restrain trade by misleading consumers, depriving them of information about the performance of the product, or even excluding a technically advanced product from the market.

One recognized result of standards-setting pursuant to internationally-recognized and accepted patent policies (such as those at ISO/IEC, ITU, ANSI and many other well-known standards organizations) is the opportunity to have the “best” technical solution -- which may belong exclusively to a patent holder -- incorporated into a standard and made available to all relevant manufacturers to exploit in competing commercial products. In return for “sharing” its patented technology (including making it available to its competitors), the patent holder may receive reasonable compensation from implementers of the standard in a non-discriminatory manner. The patent laws were designed in part to stimulate innovation and investment in the development of new technologies, which can be shared at reasonable rates with all those wishing to implement a standardized solution to an interoperability or functionality challenge.

Over the last several years, two ANSI-accredited Standards Developing Organizations revised their patent policies and each requested a “Business Review Letter” from the U.S. Department of Justice relating to such policies. A Business Review Letter is a statement of the current enforcement intentions of the U.S. Department of Justice with respect to the specific conduct described by the organization requesting the letter. Information related to these Business Review Letters (“BRLs”) can be found on pages 20-22 of the ANSI GSC-14 Contribution which is referenced and linked in our contribution.

4. U.S. Government Role In Standard Development

The U.S. standardization system and its consensus-based, public-private partnership is reflected in the *National Technology Transfer and Advancement Act of 1995* (“NTTAA”), Public Law 104-113. This law directs all federal government agencies to use for regulatory, procurement, and other agency activities, wherever feasible, standards and conformity assessment solutions developed or adopted by voluntary consensus standards bodies in lieu of developing government-unique standards or regulations. The NTTAA also encourages government agencies to participate in standards development processes, where such involvement is in keeping with an agency’s mission and budget priorities.

The NTTAA remains the cornerstone for promoting the use of voluntary consensus standards and conformance in both regulation and procurement at the federal level. The Office of Management and Budget (“OMB”) – through its OMB Circular A-119 – confirms that close interaction and cooperation between the public and private sectors is critical to developing and using standards that serve national needs and support innovation and competitiveness.

The federal government is a key player in the U.S. standardization system. Over three thousand Federal agency representatives participate in the private sector-led standards development process consistent with the mandate and authority under the NTTAA and OMB Circular A-119. Even more importantly, government participation means that government users understand both the intent and content of specific standards and conformity assessment activities. Government representatives currently participate in the activities of hundreds of standards developing organizations, at both the technical and policy levels.

The US Government recently established a new Subcommittee on Standards, under the U.S. National Science and Technology Council (“NSTC”). The purpose of this Subcommittee is to improve coordination among U.S. federal government agencies’ standards engagement, and to help the U.S. government better address challenges associated with standardization in emerging, multi-disciplinary technologies that are national priorities. ANSI has played a key role in providing information about this activity to the stakeholders in the U.S. Standards System and in gathering useful information for the NSTC Subcommittee on Standards (“SoS”).

5. The Role of U.S. Government in the Resolution of Disputes About Standards

The U.S. Federal Trade Commission (“FTC”) and the U.S. Department of Justice (“DOJ”) have commenced several significant enforcement actions arising in the standard-setting context.

5.1 *In re N-Data*

In re N-Data, the FTC announced a proposed settlement of a claim under Section 5 of the FTC Act involving a patent holder’s attempts to change the licensing terms for an essential patent from those that had been offered by a predecessor owner of the patent as part of its licensing commitment to the standards body. The Complaint alleged that Negotiated Data Solutions, LLC (“N-Data”) engaged in unfair methods of competition and unfair acts or practices relating to the Ethernet standard for local area networks. In a 3-2 decision, the FTC ruled that the licensing commitment made by the previous patent owner was binding upon N-Data given that N-Data knew about the commitment but nevertheless sought to dramatically increase the cost to license the patent. The Complaint did not allege a violation of the antitrust laws.

By way of background, employees of National Semiconductor Corporation (“National”) were members and active participants in IEEE, the standards organization responsible for developing the Fast Ethernet Standard. National disclosed to the group working on the standard that it had filed a patent application for certain technology that it proposed be adopted into the standard. According to the majority statement, based on National’s assurance that a license would be made available to implementers of the standard on a nondiscriminatory basis for a one-time fee of \$1,000, IEEE incorporated the technology into the Fast Ethernet standard and into subsequent revisions of the standard. Thereafter, National assigned a number of the patents covering the technology to a telecommunications start-up company founded by former National employees who, in turn, assigned the patents a second company N-Data. Both companies had knowledge of the “encumbrance” on the patents. Chairman Majoras, one of the dissenting Commissioners, commented that at the time of the original licensing assurance the IEEE’s IPR policy did not state that an assurance was irrevocable and that others had modified licensing assurances under the policy. The dissenting Commissioners also disagreed with the imposition of liability based only on Section 5 of the FTC Act, without a finding that the conduct was unlawful under the antitrust laws.

5.2 *In re Dell*

In 1996, the FTC alleged in *In re Dell*, 121 FTC 616, 616-18 (1996) (No. C-3658) that during an SDO’s deliberations about a certain standard, Dell, a member of that SDO, twice certified that it had no IP relevant to the standard and that the SDO adopted the standard based, at least in part, on Dell’s representations. The FTC described those representations as “not inadvertent.” 121 F.T.C. at 625-626. After the SDO adopted the standard, Dell demanded royalties from those using its technology in connection with that standard. The FTC brought an action against Dell on the basis of this conduct and, ultimately, accepted a consent agreement under which Dell agreed not to enforce the patent in question against firms using it as part of the standard.

5.3 *Rambus*

In June 2002, the FTC commenced an enforcement action against Rambus (*In re Rambus Inc.*, Docket No. 9302) alleging violations of Section 5 of the FTC Act by virtue of Rambus’ conduct in connection with a standards-setting activity at JEDEC. Rambus had developed and patented SDRAM architecture for random access memory. The FTC alleged that JEDEC’s patent policy first impliedly and then later expressly required the disclosure of any knowledge of patents or pending patents that might be necessary to implement the standard under development. According to the Complaint, Rambus had patents and patent claims that read on the standard and it deliberately chose not to disclose them. In addition, the

Complaint alleged that Rambus engaged in an intentional effort to amend its patent claims so that they would continue to map against the evolving standard. By this deceptive conduct, according to the Complaint, Rambus unlawfully monopolized four technology markets in which its patented technologies compete. In July 2006, the Commission found that Rambus' "acts of deception constituted exclusionary conduct under Section 2 of the Sherman Act, and that Rambus unlawfully monopolized the markets for four technologies" that were incorporated into the Dynamic Random Access Memory ("DRAM") standards adopted by the JEDEC in violation of Section 5 of the Federal Trade Commission Act.

On April 22, 2008 the U.S. Court of Appeals for the D.C. Circuit vacated the FTC's decision and remanded the matter back to the FTC for further proceedings consistent with the Court's opinion. The Court of Appeals unanimously determined the FTC failed to demonstrate that Rambus's conduct was exclusionary under settled principles of antitrust law and thus failed to establish its claim that Rambus unlawfully monopolized the relevant markets. In doing so, the Court also expressed its "serious concerns" about the strength of the evidence relied on to support some of the Commission's findings regarding the scope of JEDEC's patent disclosure policies and Rambus's alleged violation of those policies. Among other things, the Court noted its concern that: (1) there appeared to be no record support for the Commission's allegation that JEDEC participants were obliged to disclose not merely relevant patents and patent applications but also their work in progress on amendments to pending applications; and (2) some of the SDRAM technologies at issue were adopted by JEDEC more than two years after Rambus left that organization.

The Commission requested that the United States Supreme Court review the case and that request was denied in February, 2009. In May 2009, the FTC officially dropped the case against Rambus.

5.4 In Re Unocal

The FTC commenced an enforcement action against the Union Oil Company of California ("Unocal") on March 4, 2003 (*In re Union Oil Company of California*, Docket No. 9305). The Complaint charged Unocal with wrongfully obtaining or seeking to obtain monopoly power and unreasonably restraining trade in violation of Section 5 of the FTC Act. Unocal filed two motions to dismiss the Complaint. The first motion sought dismissal based on *Noerr-Pennington* immunity and the second for failure to make sufficient allegations that Unocal possesses or dangerously threatens to possess monopoly power.

In his Initial Decision dated November 25, 2003, the Administrative Law Judge (ALJ) dismissed the Complaint by granting each of these motions in part. He held that FTC Complaint Counsel did not meet its burden of (a) establishing that the *Noerr-Pennington* doctrine did not apply to shield Unocal's actions vis-à-vis CARB from antitrust liability and (b) alleging sufficient facts to support jurisdiction when the allegations of misconduct involve substantial issues of patent law.

On July 7, 2004, the FTC reversed and vacated the Initial Decision, reinstated the Complaint and remanded for further consideration of the Complaint's allegations. 2004 FTC LEXIS 115, July 7, 2004. The FTC found that neither the *Noerr-Pennington* doctrine nor the claimed absence of FTC jurisdiction provided an adequate basis for Unocal's motion to dismiss. Less than a year later, on June 10, 2005, the FTC announced a consent order settling the complaint against Unocal. Under the terms of the settlement, Unocal will cease enforcing its gasoline patents and release all such patents to the public.

6. Conclusion

ANSI welcomes the opportunity to be able to offer some input to the OECD as it considers these issues. We realize that some will argue that standard setting may be prone to anti-competitive behavior because standards are often set by groups that include actual and potential competitors. They will note that

standards can have the effect of excluding non-chosen technologies. Standard setting can also yield cost advantages for certain technologies, can result in payments from one competitor to another for technology, and can ultimately have substantial influences on the prices paid by consumers as well as product variety. Some recent work has alleged that firms on occasion “hijack” the standard setting process by urging a standard-setting body to promote a technology which standard-setting body members believe will be accessible at no cost and then patenting key elements of the standard and charging royalties. At the same time, standard setting bodies may be urged to announce prices for different technologies prior to setting the standard, to avoid such hijacking, but these announcements and decisions based on them could pose risks of collusion, buyer cartel behavior, and price fixing.

ANSI believes the system it has in place has numerous safeguards that mitigate against these fears and concerns from actually occurring. ANSI also realizes that the system used in the USA is often misunderstood. ANSI frequently updates delegations from other countries on changes that are occurring in the USA and what ANSI is doing to address current issues and improve its system. ANSI files comments in proceedings in other countries where public comment is sought and has provided input to the European Commission, the Government of India, and to China’s National Institute of Standardization (“CNIS”) which is drafting a Guide for the Implementation of the Inclusion of Patents in National Standards for the Chinese National Standards Body (SAC –Standardization Administration of China). ANSI has also prepared educational materials such as its Open Standards Critical Issues paper which discusses ANSI’s view on Open Standards and Open Source. (A copy of that paper is attached as Appendix C.)

ANSI, for example, typically makes contributions to the Global Standards Collaboration meetings (www.gsc.etsi.org) on various topics and specifically contributions to the GSC IPRWG. ANSI’s contribution to GSC-14 may provide useful additional information to the OECD delegates. ANSI appreciates the opportunity offered by OECD to provide some information on ANSI and the U.S. standards system. More information is available on the ANSI Web page (www.ansi.org) and we would be happy to answer specific questions.

APPENDIX A

The ANSI Patent Policy, excerpted from the *ANSI Essential Requirements: Due process requirements for American National Standards* is reproduced here in its entirety:

3.0 Normative American National Standards Policies

Every ANSI-Accredited Standards Developer (ASD) shall comply with the normative policies contained in this section. The ASD may choose to: 1) include the text that follows, as appropriate, in its accredited procedures along with any additional information as required; or 2) submit to ANSI a written statement of full compliance with these policies in addition to policy statements that satisfy the requirements set-forth in this section.

3.1 *ANSI patent policy - Inclusion of Patents in American National Standards*

There is no objection in principle to drafting an American National Standard (ANS) in terms that include the use of an essential patent claim (one whose use would be required for compliance with that standard) if it is considered that technical reasons justify this approach.

If an ANSI-Accredited Standards Developer (ASD) receives a notice that a proposed ANS or an approved ANS may require the use of such a patent claim, the procedures in this clause shall be followed.

3.1.1 *Statement from patent holder*

The ASD shall receive from the patent holder or a party authorized to make assurances on its behalf, in written or electronic form, either:

- assurance in the form of a general disclaimer to the effect that such party does not hold and does not currently intend holding any essential patent claim(s); or
- assurance that a license to such essential patent claim(s) will be made available to applicants desiring to utilize the license for the purpose of implementing the standard either:
 - under reasonable terms and conditions that are demonstrably free of any unfair discrimination; or
 - without compensation and under reasonable terms and conditions that are demonstrably free of any unfair discrimination.

3.1.2 *Record of statement*

A record of the patent holder's statement shall be retained in the files of both the ASD and ANSI.

3.1.3 Notice

When the ASD receives from a patent holder the assurance set forth in 3.1.1 b above, the standard shall include a note substantially as follows:

NOTE – The user's attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights.

By publication of this standard, no position is taken with respect to the validity of any such claim(s) or of any patent rights in connection therewith. If a patent holder has filed a statement of willingness to grant a license under these rights on reasonable and nondiscriminatory terms and conditions to applicants desiring to obtain such a license, then details may be obtained from the standards developer.

3.1.4 Responsibility for identifying patents

Neither the ASD nor ANSI is responsible for identifying patents for which a license may be required by an American National Standard or for conducting inquiries into the legal validity or scope of those patents that are brought to their attention.

APPENDIX B

GUIDELINES FOR IMPLEMENTATION OF THE ANSI PATENT POLICY: AN AID TO MORE EFFICIENT AND EFFECTIVE STANDARDS DEVELOPMENT IN FIELDS THAT MAY INVOLVE PATENTED TECHNOLOGY

Copyright © 1997 by American National Standards Institute
All rights reserved.

Updated September 2008 to reflect updates to the ANSI Patent Policy approved by the Patent Group and the IPRPC
Printed in the United States of America

About the American National Standards Institute

ANSI is a nonprofit, privately funded membership organization that coordinates the development of U.S. voluntary national standards and is the U.S. member body to the International Organization for Standardization (ISO) and, via the United States National Committee (USNC), the International Electrotechnical Commission (IEC).

The Institute was founded in 1918, prompted by the need for an “umbrella” organization to coordinate the activities of the U.S. voluntary standards system and eliminate conflict and duplication in the development process. For over seventy years, this system has been successfully administered by the private sector, via ANSI, with the cooperation of federal, state and local governments. The Institute serves a diverse membership of over 1300 companies, 250 professional, technical, trade, labor and consumer organizations and some 30 government agencies. Standards exist in all industries, including safety and health, telecommunications, information processing, petroleum, medical devices, etc.

Some of the Institute’s key functions include:

- Coordinating the self-regulating, due process consensus based U.S. voluntary standards system;
- Administering the development of standards and approving them as American National Standards;
- Providing the means for the U.S. to influence development of international and regional standards;
- Promoting awareness of the growing strategic significance of standards technology to U.S. global competitiveness.

I. Purpose

These Guidelines are intended to assist voluntary standards developers, and those that participate in the standards development process, in understanding and implementing the ANSI Patent Policy (the “Patent Policy”, see Exhibit A). Drafted by a task force formed by ANSI for the purpose of studying the Patent Policy, the Guidelines seek to encourage the early disclosure and identification of patents that may relate to standards under development, so as to thereby promote greater efficiency in standards development practices.

By definition, guidelines are suggestions -- adherence is not essential for standards developers to be found in compliance with ANSI’s Patent Policy. Rather, this is an effort to identify possible procedures that a standards developer may wish to adopt, either in whole or in part, for purposes of effectively implementing the Patent Policy. Additional or different steps may also be selected for such purposes.

II. An Overview of the ANSI Patent Policy

The Patent Policy is set forth in Section 3.1 of ANSI’s “Essential Requirements: Due process requirements for American National Standards” as approved by the ANSI Board of Directors (the “ANSI Essential Requirements”). Compliance (or non-compliance) with the Patent Policy is one of the criteria to be considered by ANSI’s Board of Standards Review (“BSR”) in determining whether to approve (or withdraw approval of) an American National Standards. See ANSI Essential Requirements, Section 4.2.

As set forth in the ANSI Procedures:

There is no objection in principle to drafting an American National Standard (“ANS”) in terms that include the use of an essential patent claim(one whose use would be required for compliance with that standard) if it is considered that technical reasons justify this approach. ANSI Essential Requirements, Section 3.1.

However, where a proposed ANS or an approved ANS may require the use of such patent claim, the procedures detailed in Sections 3.1 must be followed.

In particular, *the identified party or patent holder* must supply the ANSI-accredited standards developer (“ASD”) with either:

- an assurance in the form of a general disclaimer to the effect that such party does not hold and does not anticipate holding any essential patent claim(s); *or*
- an assurance that a license to such essential patent claim(s) will be made available to applicants desiring to utilize the license for the purpose of implementing the standard, either:
 - under reasonable terms and conditions that are demonstrably free of any unfair discrimination; *or*
 - without compensation and under reasonable terms and conditions that are demonstrably free of any unfair discrimination.

ANSI Essential Requirements, Section 3.1.1.

The Patent Holder’s statement of intent to comply shall be retained in the files of both the ASD and ANSI ANSI Essential Requirements, Section 3.1.2.

While ANSI's counsel will verify that the information required from the patent holder has been supplied, counsel will not undertake to evaluate whether the terms and conditions satisfy the substantive test set forth in Section 3.1 (i.e. whether the terms and conditions are "reasonable" and/or "free of any unfair discrimination"). Such a decision is the exclusive province of the Board of Standards Review (or, on appeal, the ANSI Appeals Board) if the issue is raised during the approval process or in a petition for withdrawal of approval. In making its decision, the BSR shall consider all information of record it finds relevant.

Neither the standards developer submitting a standard for approval nor ANSI is responsible for identifying patents for which a license may be required by an American National Standard or for conducting inquiries into the legal validity or scope of any patents brought to their attention. (ANSI Essential Requirements, Section 3.1.4.)

A standards developer seeking approval of a proposed American National Standard should take steps that it reasonably concludes are sufficient to permit a representation to ANSI that the Patent Policy has been met. In turn, ANSI, through its BSR, will take those steps that it reasonably concludes are sufficient to determine that the Patent Policy has been met based on the record before the BSR. Upon publication, the standard shall bear a notice in form specified in Section 3.1.3.

III. Possible Procedures for Implementing the Policy

A. *Early Disclosure of Patent Rights*

Experience has indicated that early disclosure of essential patents or essential patent claims is likely to enhance the efficiency of the process used to finalize and approve standards. Early disclosure permits notice of such patent claims to the standards developer and ANSI in a timely manner, provides participants the greatest opportunity to evaluate the propriety of standardizing the patented technology, and allows patent holders and prospective licensees ample time to negotiate the terms and conditions of licenses outside the standards development process itself.

Accordingly, during the development period, standards developers may wish to adopt procedures whereby one or more requests are made to participants for the disclosure of patents that may be required for use of standards in process. Such a request could be made, for example, by including it on letter ballots used in connection with the development of a proposed standard. Alternatively, other means could be adopted so that requests are repeated throughout the course of the standards development process -- e.g., by a semi-annual notice mailed to each participant in the development process or appropriate working group(s).

This is not to suggest that a standards developer should require any participant in the development process to undertake a patent search of its own portfolio or of any other. The objective is to obtain early disclosure concerning the existence of patents, where known.

A standards developer may also consider taking steps to make it clear that any participant in the process -- not just patent holder -- is permitted to identify or disclose essential patents or essential patent claims that may be required for implementation of the standard. Generally, it is desirable to encourage disclosure of as much information as possible concerning the patent, including the identity of the patent holder, the patent's number, and information regarding precisely how it may relate to the standard being developed. Further, to assist in international standardization, a standards developer may deem it appropriate to encourage the disclosure of relevant unexpired foreign patents.

Similarly, a standards developer may wish to encourage participants to disclose the existence of pending U.S. patent applications relating to a standard under development. Of course, in such a situation

the extent of any disclosure may be more circumscribed due to the possible need for confidentiality and uncertainty as to whether an application will mature into a patent and what its claimed scope will ultimately be.

B. Early Indication of a Willingness to License

The early identification of relevant essential patents or essential patent claims should also increase the likelihood of an early indication from the patent holder that it is willing to license its invention, that it is prepared to do so on reasonable terms and conditions demonstrably free of unfair discrimination, or that the patent in question is not required for compliance with the proposed standard. A patent holder may have a strong incentive to provide an early assurance that the terms and conditions of the license will be reasonable and demonstrably free of unfair discrimination because of its inherent interest in avoiding any objection to the standardization of its proprietary technology. As a consequence, patent holders and prospective licensees would be provided greater opportunities to negotiate acceptable license terms.

It should be reiterated, however, that the determination of specific license terms and conditions, and the evaluation of whether such license terms and conditions are reasonable and demonstrably free of unfair discrimination, are not matters that are properly the subject of discussion or debate at a development meeting. Such matters should be determined only by the prospective parties to each license or, if necessary, by an appeal challenging whether compliance with the Patent Policy has been achieved.

It should also be emphasized that, notwithstanding the incentive for patent holders to indicate any early willingness to license, it may not be possible for potential patent holders to give such an assurance until the standards development process has reached a relatively mature stage. It might be that only at that time will the patent holder be aware that its patent may be required for use of the proposed standard. This should not, however, preclude a patent holder from giving an assurance that *if* its patent is required for use of the standard it will license on reasonable terms and conditions demonstrably free of unfair discrimination.

Thus, standards developers may wish to adopt procedures that would permit and encourage the early indication by patent holders of their willingness to comply with the Patent Policy by providing one of the assurances specified therein. Such encouragement might take the form of simply advising participants in the development effort that assurances may be made at an early stage, explaining the advantages of early negotiations, or through other means. While participants in the standards development effort might consider a refusal to provide assurances (or a refusal to commit to offer acceptable licensing terms and conditions) as a ground for favoring an alternative technology, the patent holder is only required to provide assurances as called for by the Patent Policy.

C. Subsequently Discovered Patents

The Patent Policy applies with equal force to situations involving (1) the discovery of essential patent claims that may be required for use of a standard subsequent to its adoption and (2) the initial issuance of a patent after adoption. Once disclosure is made, the holder is obligated to provide the same assurances to ASD as are required in situations where essential patent claims exist or are known prior to approval of a proposed standard as an American National Standard.

Thus, if notice is given of a patent that may be required for use of an already approved American National Standard, a standard developer may wish to make it clear to its participants that the ANSI procedures require the patent holder to provide the assurances contained in the Patent Policy or suffer the withdrawal of ANSI's approval of the standard as an American National Standard.

IV. Conclusion

Good standards development is often time consuming and demands considerable effort by those participating in the process. In fields that may involve the use of patented technology in a standard, therefore, it is particularly important that a patent holder's willingness and intention to comply with ANSI's Patent Policy be ascertained as soon as possible. Doing, so, however, does not require participants in standards development meetings to become involved in negotiating the terms and conditions of a possible license with the patent holder. To the contrary, what is required is the use of effective procedures designed to assure an understanding of the Patent Policy and to foster prompt compliance with it.

Exhibit A

ANSI Essential Requirements, Section 3.1

ANSI's Patent Policy

3.1 ANSI patent policy - Inclusion of Patents in American National Standards

There is no objection in principle to drafting an American National Standard (ANS) in terms that include the use of an essential patent claim (one whose use would be required for compliance with that standard) if it is considered that technical reasons justify this approach.

If an ANSI-Accredited Standards Developer (ASD) receives a notice that a proposed ANS or an approved ANS may require the use of such patent claim, the procedures in this clause shall be followed.

3.1.1 Statement from patent holder

The ASD shall receive from the patent holder or a party authorized to make assurances on its behalf, in written or electronic form, either:

- (a) assurance in the form of a general disclaimer to the effect that such party does not hold and does not currently intend holding any essential patent claim(s); or
- (b) assurance that a license to such essential patent claim(s) will be made available to applicants desiring to utilize the license for the purpose of implementing the standard either:
 - (i) under reasonable terms and conditions that are demonstrably free of any unfair discrimination; or
 - (ii) without compensation and under reasonable terms and conditions that are demonstrably free of any unfair discrimination.

3.1.2 Record of statement

A record of the patent holder's statement shall be retained in the files of both the ASD and ANSI.

3.1.3 Notice

When the ASD receives from a patent holder the assurance set forth in 3.1.1 (b) above, the standard shall include a note substantially as follows:

NOTE – The user's attention is called to the possibility that compliance with this standard may require use of an invention covered by patent rights.

By publication of this standard, no position is taken with respect to the validity of any such claim(s) or of any patent rights in connection therewith. If a patent holder has filed a statement of willingness to grant a license under these rights on reasonable and nondiscriminatory terms and conditions to applicants desiring to obtain such a license, then details may be obtained from the standards developer.

3.1.4 Responsibility for identifying patents

Neither the ASD nor ANSI is responsible for identifying patents for which a license may be required by an American National Standard or for conducting inquiries into the legal validity or scope of those patents that are brought to their attention.

APPENDIX C

CRITICAL ISSUE PAPER

Title: Current Attempts to Change Established Definition of “Open” Standards

Issue: The term “open standard” has been used recently to describe a standard that may be copied, used and distributed for no fee and/or whose embedded technology is irrevocably available on a royalty-free basis. This definition has created some confusion among standards developers and users because it is contrary to the definition of “open” and “openness” long held by the American National Standards Institute (ANSI) and many other recognized standards bodies who understand the term to describe a collaborative, balanced and consensus-based approval process for the promulgation of domestic or international standards.

Background: Historically, ANSI and many U.S.-based developers of voluntary consensus standards have used the terms “open” or “openness” to characterize a process that has certain important features. These include:

- consensus by a group or “consensus body” that includes representatives from materially affected and interested parties;
- broad-based public review and comment on draft standards;
- consideration of and response to comments submitted by voting members of the relevant consensus body as well as by the public;
- incorporation of approved changes into a draft standard; and
- availability of an appeal by any participant alleging that due process principles were not respected during the standards-development process.

These same features are central to the policies of well-recognized regional and international standards bodies such as the International Telecommunications Union (ITU), International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), European Telecommunications Standards Institute (ETSI) and the WC3 Consortium. Further, these features are endorsed in Annex 4 of the Second Triennial Review of the WTO/TBT Agreement.

By contrast to these well-established notions of standards organizations that develop “open” standards, other incompatible definitions of the term “open standard” exist, both within the standardization industry and within certain industrial sectors. For example, recently the European Commission’s Interchange of Data Between Administrations (“IDA”) released a document which seeks to establish a European interoperability framework to support the delivery of

electronic government services. In that document, entitled *European Interoperability Framework of Pan-European E-Government Services*, the IDA stated that an “open standard” is one that is “available to all interested parties” and subject to copying, distribution and use “for no fee or at a nominal fee” and whose intellectual property is “irrevocably available on a royalty-free basis” with “no constraints on the re-use of the standards.”

But using the term “open standard” to define a specification whose sole quality is that is unconditionally and freely available to those who wish to implement it is misleading for two reasons.

First, it ignores the fact that essential patent holders have the right to decide how they will license their intellectual property. The terms and conditions used in the development of “open standards” should balance the interests of those who will implement the standard with the interests and voluntary cooperation of those who own intellectual property rights that are essential to implementation of the standard. Such terms and conditions should readily promote, and not unreasonably burden, accessibility to the standard for the communities of interested implementers. To achieve such balance, the payment of reasonable license fees and/or other reasonable and nondiscriminatory license terms may be required by the intellectual property rights holders. This balance of licensing rights (rather than waiver thereof) is consistent with an open standard. The word “open” does not imply “free” from monetary compensation or other reasonable and nondiscriminatory license terms.

Further, an open standard may involve the payment of a fee to obtain a copy of the standard. Such fees are sometimes used to offset the costs associated with managing open standards development process.

Additional Information:

- ***ANSI Essential Requirements: Due process requirements for American National Standards (2005 edition)***
- American National Standards Institute - Introduction

ANSI Policy Body Addressing Issue: Intellectual Property Rights Policy Committee

Contact: Patricia A. Griffin
Vice President and General Counsel
American National Standards Institute

E-mail: pgriffin@ansi.org
Telephone: +1.212.642.4954

Publication Date: May 2005

Reprints: This document is publicly available.

Further distribution to interested parties is encouraged

SUMMARY OF DISCUSSION

1. Introduction

The Chair, Alberto Heimler, opened the roundtable discussion on standard setting and competition, which attracted substantial interest among the delegations and drew a number of contributions offering different points of view and experiences.

He noted development of standards serves many objectives that enhance consumer welfare, such as enhancing quality and achieving uniformity and interoperability. Standards represent an opportunity for competition to flourish, and in some markets, allow it to exist. However, they also present a risk of antitrust violations because they may facilitate collusive and/or abusive conduct, in particular in the case of collaborative standards. While most countries have Standard Setting Organizations (SSOs), there are only few jurisdictions where competition authorities have been involved in standard creation, either through advocacy or actual cases. On the other hand, many authorities have dealt with standards in less formalized settings, in particular in the food and liberal professions sector.

The chair noted that the discussion would be divided into three parts:

- Competition issues arising from standard creation and implementation.
- Competition issues associated with the institutional structure of SSOs.
- Competition issues related to the cooperative environment that standards may create.

Before opening the floor for discussion with the delegates, the Chair introduced the two experts who were invited to give presentations: Prof. Damien Geradin, professor of competition law and economics at Tilburg University, who will present a paper on the interface between SSOs, intellectual property rights and antitrust enforcement and Mr. Paul Lugard, of Phillips and the Tilburg Law and Economics Centre, who will make a presentation on the beneficial effects of standards.

The Chair invited Prof. Geradin to give his presentation relating to the first part of the discussion on competition issues arising from standard creation and implementation.

2. Competition issues arising from standard creation and implementation

Prof. Geradin began by outlining the objective of his work, to question the two main assumptions often made in relation to standards involving intellectual property (IP) rights and the extent to which these raise antitrust concerns. The first concerns the problem of “patent holdup” whereby a firm that holds a patent essential for the utilization of a given standard may be tempted to seek exploitative licensing terms. The second assumption relates to “royalty stacking,” which occurs when a large number of companies hold patents essential to implement a single standard. The resulting cumulative royalty rate may be prohibitively high, hence negatively affecting the implementation of a standard.

As an introduction to his paper, Prof. Geradin briefly set out the following 10 points raised therein, discussed in more detail below:

- Standardization does not necessarily confer significant market power on a holder of an essential patent. Nor does it automatically confer market power. Every case is specific and must be evaluated individually.
- Royalties are not all that matter in licensing negotiations. Parties to the negotiation will seek to exchange value and in many cases a cross-license may be more suitable consideration than payment.
- Patent holdup that may threaten innovation is rare.
- Royalty stacking is not pervasive and there is no need for royalty caps.
- There is no clear answer as to whether the purpose of FRAND (fair, reasonable and non discriminatory) licensing terms is to constrain the ability of essential patent holders to monetize their IP. This issue is discussed in more detail in Prof. Geradin's paper.
- A mechanism to determine what a "FRAND royalty" is should not be developed because the concept itself makes very little sense.
- A FRAND commitment by an essential patent owner does not waive its right to seek injunctive relief against potential infringers.
- FRAND commitments are not too vague to be enforceable.
- One partial solution to abusive royalty claims is through an ex ante declaration of maximum rates.
- In terms of alleged abuses by holders of IP rights in the context of standardization, competition law can play an important albeit limited role.

Before discussing these issues in detail Prof. Geradin mentioned some basic principles of standardization in the realm of IP, the area of standardization that has generated the most discussion.

Most SSOs have adopted IP rights policies that balance the incentives of the various actors involved. These policies typically contain two set of rules. First, participants must disclose upfront whether they have an essential patent with respect to the standard that is being discussed. But since a full patent search may take years to complete, the requirement effectively becomes disclosure only of known essential patents. Second, essential patent holders are asked, but not required, to provide a commitment to license their essential patents on FRAND terms. Licensing terms are typically negotiated bilaterally and often before the adoption of a standard.

It is widely recognized that there are many strategic battles in the course of standard setting negotiations in the context of an SSO due to the different incentives of the firms present. If a firm's business model is to innovate, then it will be interested in high royalties in order to be able to fund research. A vertically integrated firm will have mixed incentives as it will be both collecting and paying royalties. An equipment maker will be interested in the lowest royalty payments possible. These examples illustrate the possible scope for strategic behaviour in the context of licensing negotiations.

Contrary to the common view, licensing negotiations are not focused solely on royalties. In many situations, depending on the identity of the licensee, licensors may instead seek a cross-license instead of a royalty payment. Licensing terms inevitably vary significantly from case to case, depending on the position and objectives of the parties involved. This means that any attempt to determine the appropriate royalty in the abstract is not very meaningful, because the rate must depend on the outcome of bilateral negotiations.

As regards patent holdup, Prof. Geradin questioned the common assumption about its pervasiveness and the consequent threat to innovation that it may pose. These assumptions are often based on research papers that were produced in the course of litigation, which are necessarily one-sided. According to him, while patent holdup can be a problem, it has limited impact for the following reasons.

First, in order to engage in holdup, a future licensor must include its technology in a standard without disclosing its licensing terms beforehand. In the course of the development of a standard, any prospective licensee can ask what the potential licensing terms would be. Failure to disclose those terms by the prospective licensor would raise suspicion on the part of the would-be licensee, thus complicating the adoption of that technology into the standard.

Second, the vast majority of licensors are constrained by the fact that they are also licensees. In most cases, a given technology is controlled by a vertically integrated firm that needs access to other technologies included in the standard. This eliminates the scope for non-cooperative behaviour on their part. Finally, the majority of firms will be constrained by the fact that standardization is a repeat process. Any non-cooperation will have consequences in subsequent standard negotiations be they in the same or different SSO. Therefore holdup is likely to be a problem only with firms that do not disclose their licensing terms before hand, do not need a cross-license and treat standard setting as a one-shot game.

According to Prof. Geradin, the problem of royalty stacking is largely overstated and there is consequently no need for royalty caps. First, it is hard to say in the abstract whether a given royalty even up to 50% is excessive because the appropriate rate depends on the share of IP in the total value of the product. Where IP makes up almost the whole value of the product, such as in software, a 50% royalty is not excessive. Second, due to cross-licensing it would be only the firms that did not contribute any IP to the standard that would have to pay the full royalty rate, which is in a sense justified. Large firms often pay very little. This was made clear in the context of the Qualcomm litigation where the firms that alleged that the cumulative rates would stymie the development of the 3G standard disclosed that they were paying cumulative royalty rates below 5%.

Prof. Geradin did not agree with proposals that a mechanism should be developed to determine what constitutes a "FRAND royalty" in the abstract. He believes that the individual character of licensing relationships where the terms very much depend on the position of the parties rids any such attempts of their usefulness. Most of the methodologies proposed contain significant flaws that are explored in detail in Prof. Geradin's paper. However, one potentially useful tool would be a comparison between ex ante and ex post royalty demands, which could at least provide safe harbour in cases where they remain equal.

In general, Prof. Geradin considered compulsory ex ante declarations of maximum rates to be an effective way to prevent patent holdup, a solution some competition authorities are currently exploring. However, he cautioned that as it is difficult to estimate a maximum rate ex ante, firms will tend to inflate their maximum rate declarations in order to protect their business. Hence such a requirement may result in firms disclosing exorbitantly high maximum rates, which would in subsequent negotiations be reduced to more reasonable levels.

As to the question of whether antitrust intervention is needed to address alleged abuses by the holders of IP rights, Prof. Geradin noted that antitrust intervention is more appropriate with respect to some issues than to others.

It is clear that SSOs should not serve as venues for cartel discussions. Similarly, behaviour which excludes certain technologies and/or competitors should be prevented. On the other hand, standards can become overly laden with IP due to the desire of firms to have their patent included in the standard.

Concerning the extent to which antitrust authorities should intervene in cases of "patent ambush"¹, Prof. Geradin pointed to the difficulties in prosecuting such cases on antitrust grounds as in the Rambus cases in the United States (U.S.) and European Union (EU). In the U.S., the Federal Trade Commission's (FTC) case against Rambus was struck down on appeal. In the EU, the European Commission (EC) alleged that the royalties demanded by Rambus were excessive in view of its deceptive behaviour. But because the EC settled its case against Rambus, it is impossible to know whether its objections would have been upheld in court. Due to the possible difficulties he sees in dealing with patent ambush on antitrust grounds, Prof. Geradin suggested other approaches such as treating it as a breach of contract or fraud.

With respect to claims of exploitative royalty rates, Prof. Geradin cautioned against antitrust intervention in such cases due to the inherent difficulty in determining what an excessive or exploitative royalty rate is. Such cases would be unlikely to yield any results.

To the question by the Chair about the importance of cross-licensing, Prof. Geradin responded that, in his experience, cross-licensing in standards involving IP rights is very pervasive. There are only few firms whose business model is to innovate and license. Most firms are vertically integrated and hence focused on creating products, which means that they have both the potential for, and interest in, cross-licensing.

The Chair thanked Prof. Geradin for his presentation and turned to the U.S. delegation with a question concerning the Rambus case. This case was prosecuted under §5 of the FTC Act, which prohibits unfair competition. The Chair asked why this particular provision was utilized instead of the Sherman Act.

The U.S. delegation responded that it is common practice for the FTC to bring a case under both §5 of the FTC Act and §2 of the Sherman Act, as was the case with Rambus. As such the Rambus case can also be seen as a monopolization case.

The Chair went on to ask the U.S. delegation about the burden of proof that must be satisfied for a monopolization case in the standard setting context to succeed under U.S. antitrust law as the judgments in the Rambus and Qualcomm/Broadcom cases appear to be quite disparate in this respect.

The U.S. delegation responded by recalling that in Rambus there were two possible counterfactual scenarios had Rambus disclosed its patents in the standard setting process. One, the SSO would have chosen another standard that would not include Rambus' patents. Two, the SSO would have chosen the same standard and there would have been price effects with respect to royalties. While the FTC argued that the two are equally problematic, the Court of Appeals clearly distinguished the former as the burden that the Commission failed to prove. The U.S. representative remarked that from an economic perspective a certain level of ex post lock-in or profitable power is inevitable in the context of standard setting. In competitive markets these effects will set up incentives for ex ante competition on price or other licensing terms. Encouraging disclosure and ex ante licensing is crucial in this respect. Hence the question in

¹ The term "patent ambush" denotes a situation where a firm conceals a patent that is subsequently included in a standard and later sues for infringement.

Rambus should have been to examine whether its conduct harmed this ex ante competitive process, an aspect on which the Court of Appeals chose not to focus, according to the U.S. delegation.

Prompted by a question from the Chair, the U.S. representative confirmed his view that competition concerns arise in situations when ex ante competition is undermined among technology proponents for the inclusion of their technology into a standard. Because the ex post impact of such conduct is difficult to evaluate for the reasons mentioned by Prof. Geradin, it is particularly important to protect and strengthen the mechanisms of ex ante disclosure and informed negotiations, which may, to an extent, also alleviate some of the imperfections of FRAND commitments. Nevertheless, the emphasis on ex ante disclosure does not mean that ex post monitoring mechanisms should not be deployed as there are limits to disclosure due to the near impracticability of running a full patent search.

The Chair moved on to Germany where standardization bodies have also identified the dangers of patent ambushes. He asked whether these would be treated as antitrust violations in view of the ex ante disclosure and licensing commitment requirements that are in place in Germany.

The German delegation stressed the awareness of competition implications of standards by the German SSO and the Deutsche Institut für Normen (DIN). Specific disclosure rules have been established by DIN in order to foster transparency and minimize the scope for competition related conflicts. Thus far, neither the Bundeskartellamt nor the German courts have ruled on a case of a patent ambush. The German representative noted the difficulty of predicting how this question would be dealt with by the relevant authorities and referred to Prof. Geradin's suggestions as to the suitability of other areas of law. In conclusion, the German representative emphasized the distinctive nature of the prevention of conflicts within SSOs as opposed to dealing with them ex post.

The Chair then went on to ask Paul Lugard to present his views on standard setting.

Paul Lugard began by noting that while speaking in his capacity of lecturer of law at Tilburg University, his presentation would draw in many respects on his experiences at Philips, which has been involved in many standardization initiatives. He then moved on to introduce the focus of his presentation, the interface between standard setting and IP rights. Many of these issues were discussed by Prof. Geradin and Paul Lugard noted their shared views on issues such as holdup, FRAND commitments and the role for antitrust agencies while noting slight differences of opinion on the issue of royalty stacking.

In the beginning of his presentation, Paul Lugard provided an introduction to standard setting. He listed examples of the various standards in the market, such as DVD, Blu-Ray etc. and noted the widespread character of standard setting in the world today. He stressed that standards result in many efficiencies and benefits, such as reduced transaction costs, creation of markets and increased consumer choice in standard compliant products. Standards also foster innovation because companies have incentives to innovate in order for their IP to be included in a standard. But in the context of standard setting, there may be problems of foreclosure and collusion, which may require antitrust intervention. However, non-inclusion of a certain technology in a standard is not in itself an antitrust problem as a standard is chosen after competition among various options.

Paul Lugard then moved on to the practice of standard setting and described that most standards are set within an SSO, which is either a formal or an ad-hoc organization with rules on issues such as criteria for participation in discussions, the methods of evaluation of the various technologies and the voting rules. As to those, he noted that while unanimity may be criticized as slowing down the standard setting process, it ensures the full involvement of all actors. Another important area regulated by an SSO is the disclosure of IP. In this respect, Paul Lugard echoed Prof. Geradin as regards the difficulty for companies with vast IP portfolios to search and identify all patents that may be relevant to a standard, particularly because in many

cases it is not clear what standard will eventually emerge from the discussions. He then noted that in deciding on the best technology available there are necessarily trade-offs between price and quality. Because SSOs are often comprised of more producers than IP holders, participants tend to show a slight preference for lower prices.

As regards some of the antitrust implications of standards, Paul Lugard made the following points:

- It is sometimes overlooked that standards are not developed for the sole benefit of manufacturers and IP holders. Rather companies develop standards to create demand for a given product thus they depend ultimately on market acceptance.
- It is necessary to analyze standard setting not only from an ex post perspective in terms of the effects that a standard creates on relative market power but also from an ex ante perspective, examining the competition conditions for inclusion of a technology into a standard.
- Competition between different standards for market acceptance does not lead to sub-optimal results and thus need not be addressed by promoting participation of all market participants in the initial standard setting. An example may be the competition between HDDVD and Blu-Ray in which Blu-Ray ultimately prevailed.
- It is not correct to assume that every standard has long-lasting effects. Some certainly do but there are many standards that are very short lived as a result of subsequent innovation.
- The principle that SSOs should involve all parties that express interest is very sensible. However, an SSO must be able to function efficiently. Therefore, while there are incentives for as wide participation as possible in order to increase the likelihood of future market acceptance of the standard, a requirement of full participation may in fact be counterproductive.
- Collusion is rather rare in the context of standard setting. Similarly, holdup problems are not particularly frequent and do not justify the continuous involvement of antitrust authorities. Moreover, there may be other ways of handling them should they arise.
- Ex ante disclosure of maximum rates creates the risk of collusion on the licensee side and antitrust authorities should be wary of that.
- FRAND requirements may provide a solution to holdup problems, but it is extremely difficult for companies to evaluate their position prior to a standard being set. The same applies to maximum royalty rates.
- Overreaching standards should not be of concern to antitrust agencies.

Concerning the issue of royalty stacking, Paul Lugard outlined the development in the IP field in the last 25 years during which there has been a dramatic increase in the number of patent holders and thereby participants in standard setting. Also, patent density has increased over time, in particular in the area of CD/DVD, telecom and compression techniques. For example, for CD technology, there are 100 essential patents and for Blu-Ray there are 2000. In this situation royalty stacking can become a serious problem not alleviated by cross-licensing to the extent described by Prof. Geradin. Moreover, for certain multifunction products like mobile phones that also operate as cameras, SMS devices etc., producers have to license from multiple license pools. Paul Lugard stressed the seriousness of the royalty burdens that this situation may lead to; however, he expressed doubts as to the suitability of antitrust or IP law to deal with them. Patent

pools and joint licensing may help partially solve the problem but a better solution may be different ways of exploiting IP, for example, through joint licensing for products rather than the component IP.

In concluding his presentation Paul Lugard stressed that while standard setting involves various issues, very few should be the subject of antitrust intervention, namely collusion. Other issues, such as royalty levels, participation in SSOs and whether standards are overreaching are not suitable for antitrust scrutiny.

Prof. Geradin then responded that he largely agreed with Prof. Lugard with respect to standardization and IP rights but believed that more empirical evidence is necessary to determine the true extent of royalty stacking. However, he disagreed that antitrust and IP law cannot play a role in crafting a solution, noting in particular that more rigorous assessment of patent claims would help curb the problem of overabundant and superfluous patents.

The Chair noted the potential of a structural solution through more restrictive approaches to patent issuance, noting that, for example, 2000 patents for Blu-Ray seem excessive.

Prof. Geradin added that the emphasis on and incentives toward disclosure cause firms to over disclose. While the right balance is an intricate issue, patent authorities could help alleviate the problem by employing more rigorous standards.

In contrast, Paul Lugard argued that 2000 patents for Blu-Ray is not excessive since each company can show that their patent was validly granted, covers steep research and technology costs, and is comprised of distinctive specifications.

The Chair noted that the idea of a more rigorous patent system is a popular one precisely because many patents are not in fact as essential as they purport to be.

He then introduced two countries that tackled that problem in antitrust: Korea and Bulgaria. First, the Korean submission discussed the Qualcomm case, which involved discriminatorily high royalties and the failure to implement FRAND royalties after committing to do so. He asked the delegation also to explain how the KFTC came to identify a FRAND royalty.

The Korean delegation reported that in the Qualcomm case the KFTC decided the company was abusing its dominance by charging discriminatorily high royalties to disloyal customers who were also purchasing from rivals. Qualcomm also violated competition law on the separate ground of failing to honour its own commitment to apply FRAND conditions by charging the discriminatory royalties. By focusing on the discriminatory application, the KFTC did not expound on what constituted “fair” or “reasonable”.

In response to the Chair's question, the Korean delegation clarified that the central charge against Qualcomm was abuse of dominance informed by the violation of their FRAND commitment.

The Chair then referred to a case in the Bulgarian contribution in which a compliance certification company abused its dominant position by overcharging elevator manufacturers for certification. Even though the competition authority eventually dismissed the case, it shed light on the practice of setting prices. He asked the Bulgarian delegation to expound on how to define the “right” price for certification.

The Bulgarian delegation explained that the case was from 2005 when Bulgaria was still in the process of aligning itself with EU legislation in this field. Certification had previously been the role of a single state entity and was being privatized. The company in this case was the first to receive its license for elevator compliance certification but competitors were soon to follow within two to three months. The

initial prices offered by the company were deemed high in relation to the prices previously charged by the state authority or by similar companies in neighbouring countries such as Greece. However, the case was dismissed because of the imminent entry of rivals into the market. Therefore, the high prices set by the company in this case were seen as mere offers to be compared and negotiated once competitors received their licenses as well.

The Chair then moved on to discuss environmental and health standards that may result in the reduction of competition. The UK submission discussed mandatory environmental standards that may be more costly for some firms to implement than others. In cases where it is prohibitively costly, the firm is forced to exit thus reducing competition in the industry. The Chair asked the UK for examples illustrating its suggestion to introduce new standards with a delay to provide all competitors with time to adjust, an idea that has not worked in Italy. In other words, he questioned whether delays result in making the standards ineffectual or unheeded until they are binding.

The UK delegation while not naming specific examples elucidated how its process of transformation addresses the concern that firms will not adhere to a new policy until it is binding. In the UK, governments will heavily engage with industry during the creation of a major new environmental standard before any formal announcement is made. That gives the policy sufficient credibility with firms while allowing them time to make necessary adjustments.

With respect to the effectiveness of environmental and consumer protection standards, the UK employs two complementary types that keep markets dynamic in certain sectors such as food and environment. The first type sets minimum requirements to eliminate the worst performing providers. The second are informational standards, such as requiring labelling and providing product information to consumers, which incentivize investment and innovation.

The delegation further stressed the importance of a well-functioning legislative and consultancy process as well as providing clear advocacy and sufficient lead time when announcing new standards.

The Chair then referred to the Turkish submission where the Soaps and Detergents Industry Association, with government approval, launched a coordinated effort to move consumers to compacted detergent products, which are better for the environment. This included joint advertising and a mutual commitment by major detergent producers to produce only compact detergent. The Chair asked the Turkish delegation why the Association chose to pursue a solely environmental aim and why international producers in Turkey were also prohibited from advertising independently.

The Turkish delegation explained that the project was open to all producers, distributors, and importers of detergent regardless of their size or membership in the Association. Such an effort had been previously attempted by individual firms but had failed to obtain sufficient consumer awareness to make the endeavour successful. Therefore, a joint approach with approval by the competition authority was deemed necessary to get across to consumers the health, energy, and environmental benefits of compacted products. However, individual firms were not prevented from advertising their own products by highlighting environmental concerns. Similar projects had been conducted in other countries.

To the Chair's question as to whether the project was effective, the Turkish delegation responded that it had not yet received any evaluation by companies or consumers.

The Chair moved on to a case in Chinese Taipei where certification was granted to only two mineral water companies. This limited the water supply to schools and hospitals. The competition authority found the certification well grounded but it was not clear whether other potential competitors could also have applied for and received certification.

The delegation from Chinese Taipei explained that the move for water certification came from a food GMP promotion program, an effort by the Ministry of Economic Affairs to encourage manufacturers to improve product quality, health and safety. However, the certification was purely voluntary. Some mineral water companies did apply but failed to obtain certification. Others may have no difficulty receiving certification if they desire. Moreover, the GMP program imposed no restrictions on what schools and hospitals could purchase. Therefore, there is insufficient evidence that the certification system restricted market entry.

The Chair summarized that the initiative to produce high quality water was informational to consumers and optional for manufacturers.

He then invited the Australian delegation to discuss its submission on how the cost of compliance to producers can weaken competition. Specifically, in a recent case, a food retailer reported to the Australian Competition and Consumer Commission (ACCC) that compliance with food labelling requirements would cost 50 cents per jar to re-label all jars of imported peanut butter. This reduced imports into Australia leading to higher prices for consumers. The ACCC continues to explore potential remedies to alleviate the problem given that many labels may contain the same language or be equivalent in substance, putting into question the need for expensive relabeling.

The Australian delegation started by providing some background to the problem. The Australian grocery market is extremely concentrated with two major players occupying approximately 80% of the market while the upstream food processing industry is only slightly less concentrated. Consequently, the Australian government has actively sought to lower barriers to entry in this sector. Some significant new market participants from abroad have entered in recent years. However, stringent food labelling standards in Australia often require products, although they meet the food sanitary requirements, to be relabelled before they can be put on shelves. In the case of peanut butter, this led to a significant cost increase of 50 cents from 3 AUD.

Australia began a review of its food labelling policy in March 2010 to be completed in September, which examined the substance of the requirements, the need for consumer protection, and the goal of minimizing barriers to trade and burdens on business. However, it is likely that any comprehensive solution will require international cooperation and coordination on food labelling standards insofar as they remain fundamentally different in other countries. The process is ongoing and thus it is premature to identify specific remedies.

In response to the Chair's question on whether it would be in the foreign producers' interest to re-label the products for export to Australia, the delegation said that may be a longer term solution. In the short term, domestic retailers were forced to re-label themselves in order to place the products on their shelves.

Lastly, the Australian delegation added that the review was being undertaken by the government in conjunction with the government of New Zealand to create a series of codes and standards to be enforced at the local level.

The Chair then introduced the BIAC submission, which disagreed with the background paper on the need for diligent antitrust enforcement in standard setting. BIAC pointed out that despite the thousands of standards that exist, very few antitrust problems arise. The Chair asked the BIAC delegation to discuss its views on why intellectual property is unique and not to be treated like physical property with respect to antitrust enforcement and standard setting.

The BIAC delegation summarized that IP is a key driver of innovation and efficiencies, and standard setting in IP benefits both markets and consumers. From his experience as an enforcement official in Canada and currently working in the private sector, the delegate relayed that genuine patent-holdup problems appear quite rarely. Further, competition authorities are not well positioned to rule on particular FRAND licensing terms, which would effectively turn them into internal price regulators. Such regulation could chill investment and competition. Thus, market forces should be allowed to operate as the best determinants of fair pricing and appropriate terms while competition authorities should examine truly anticompetitive issues such as market power.

The delegate concluded by suggesting that the roundtable look to the Canadian framework as a model for handling dominance cases involving IP. In Canada, the mere exercise of an intellectual property right, like a patent, by a dominant firm is not by itself a basis for taking remedial action. Significant additional conduct is required.

The Chair responded by pointing out that in some jurisdictions such as in the EU, competition authorities are bound by legal rules that at times require them to become price regulators when dominant firms are charging exploitative prices. He agreed that if possible the rules should be applied in a more sensible way.

He then opened the floor to comments on the role of SSOs with respect to competition issues arising directly from standard setting.

The Swedish delegation posed a question in relation to the comments made by Prof. Geradin and Paul Lugard. Common producers would have the incentive to lobby for standards with substantially more IP than a technical equivalent involving less IP. These incumbents would benefit because of the cross-licensing agreements in place whereas potential entrants might be unable to secure or unsure of what patents may arise, thus creating holdup problems.

Paul Lugard responded broadly by opining that standards have a primarily positive effect on markets, opening them a great deal, particularly in the information, communication and technology (ICT) sectors. It is logical and well known that IP holders will attempt to promote their own technology when standards are being chosen. Thus, it is incumbent upon the SSOs to have clear internal decision-making rules that ensure the best technology is chosen irrespective of the IP content.

BIAC intervened responding to the Chair's earlier point about different legal rules. While it is certainly understandable that some jurisdictions require addressing exploitative abuses, it is perhaps not necessary to intervene in an arms' length transaction between two parties simply because of unequal bargaining power. Real property provides a useful corollary. As a negotiation between a real estate developer and homeowner requires no antitrust intervention, neither do standard-setting negotiations between inventor and implementer that involve no other issue than differential bargaining power.

His second point with respect to different legal rules is that standard setting for technology has international consequences. Therefore, unequal or varying antitrust enforcement can have a significant chilling effect on developing standards and generating efficiencies.

The U.S. delegation then re-emphasized the problem presented by Sweden concerning standards that may be created by the consensus of incumbents, those who already hold many of the patents and cross-licenses with other relevant IP holders. The problems can arise in myriad ways. The process itself can provide the means of direct collusion. The group may push for more IP-laden standards. Or more subtly, they may relax the connection between the IP and the standard resulting in group members collecting higher royalties. Broadly speaking, the varying stakeholders' incentives may be misaligned.

As Prof. Geradin and Paul Lugard indicated earlier, private solutions can be used in dealing with the problem of holdup and royalty stacking. But in evaluating these problems and potential private remedies, it is important to recognize their tendency to address the concerns of active participants instead of the final consumer.

3. Competition issues associated with the institutional structure of SSOs

The Chair then moved the discussion on to institutional structure noting that almost every jurisdiction describes a central body responsible for standard setting with few resulting competition problems. He then asked Spain to discuss some of the problems it has faced as a result of their central body (AENOR) holding the dual roles of standard setter and certifier.

The Spanish delegation explained that the Spanish Competition Authority had a market study on Certification in progress, and that certain problems had already been identified. These problems ranged from over-involvement of both some public and private companies in the standard-setting process, which could compromise the impartiality of the institution, to the role played by AENOR technicians, as they could be better equipped to evaluate compliance after having been involved in the standard setting process. As a matter of fact, the possibility to recommend the separation of the standard-setting and the certification functions within AENOR was being assessed.

The Chair introduced the subject of government-issued guidelines on standardization. He asked the Japanese delegation to discuss the process of adoption and the role of the business community when the Japan Fair Trade Commission (JFTC) promulgates new guidelines.

The Japanese delegation began by enumerating the guidelines issued by the JFTC connected to standard setting: Trade Association Guidelines (1995), Patent Pool Guidelines (2005), and Intellectual Property Guidelines (2007). He then described one case from 1997 before applicable guidelines were issued in which a Pachinko patent-pool association excluded new entry and eliminated rivals by using the standardized patent in the patent pool. The guidelines, in particular the most recent, have provided clear direction on how to approach patent-related standard setting cases.

As for communication with the business community, the JFTC engages with industry during various stages of policy planning and drafting. This ensures that the policy reflects current market conditions and serves to disseminate competition policy into the private sector.

4. Competition issues related to the cooperative environment that standards may create

The Chair then switched to competition issues arising indirectly from standards either officially or cooperatively imposed. He proposed first to discuss the problem of overly strict standards that exclude competition. In Brazil, high standards on concrete reinforcing bars limited the market to three domestic producers. After some discussion over the possibility of allowing lower quality imports into the country, the Secretariat for Economic Monitoring decided that consumers would not be able to discern the quality difference. Thus the idea was rejected. The Chair then asked the Brazilian delegation to expound on that decision.

The Brazilian delegation explained that the applicant who sought to import lower quality steel misrepresented it as the most commonly used internationally in the lower-end segment of the market. In fact, the type already used in Brazil was the most common and represented higher quality. The applicant inaccurately alleged that compulsory certification would be an import barrier. Rather, the Secretariat decided that the better quality and more commonly used steel would be the most appropriate standard to maintain in the segment of the market.

The Chair went on to describe the highly restrictive technical requirements in Greece for gas pipes leading into homes. This market remains quite active since homes only began using natural gas in 1996. One of the gas distribution companies, in an ongoing case, has refused to connect homes whose pipes did not comply with the technical standard. The Greek submission described this refusal as a potential abuse of dominance while the Chair suggested the company was merely complying with the standards in place.

The Greek delegation began by elaborating that the natural gas market has three large distribution companies each exclusively serving the three larger urban centres in Greece under 30-year concession licenses. Effectively they act as administrative monopolies that operate under a universal service obligation. They may only reject potential new customers' applications on safety grounds.

With respect to the standards, they are restrictive only in that they are somewhat detailed and are equivalent to equipment used in jurisdictions with similar earthquake concerns such as the U.S. and Japan. In this case, the company refused to approve technical installation studies that may have shown the pipes in question did comply with the standard.

In response to the Chair's earlier question as to the potential incentives of the gas company to refuse service, the Greek delegation explained that the rules in the market for gas pipes have been harmonized at the EU level. Therefore, the sole obligation of the company is to grant access on a non-discriminatory basis to all piping that is in conformity with EU standards.

The Chair then described the second case in the EU submission, the International Association of Classification Societies (IACS), which grant the classification necessary for merchant ships to enter harbours. Membership in IACS, while clearly essential to succeed, was extremely restrictive in that it required not only technical capacity but experience. Thus outside classification societies were largely precluded from the organization. The Chair then asked the delegation from the EU to explain why the case ended with a commitment decision instead of a cartel prohibition decision and a sanction.

The EU delegation started by highlighting some of the European Commission's (EC) additional concerns in this matter. Not only was potential entry foreclosed but non-members were precluded from joining important technical working groups and from gaining access to technical background documents, which were necessary to apply IACS rules and procedures. To address these concerns, IACS generated a comprehensive set of commitments establishing objective and transparent qualitative criteria for membership and promising the possibility that non-members would be able to participate in working groups and have access to documents. These commitments were deemed to open entry into the ship classification market benefiting both previous non-members and customers of classification societies.

The EU delegate then returned to Paul Lugard's earlier concern that the EU would require over inclusiveness into SSOs. The IACS case illustrates how an exception under Article 113 of the Treaty on the Functioning of the European Union will be granted if some level of exclusivity creates proven efficiencies. Membership in IACS remains somewhat restricted but the experience requirement presents a valid safety issue and not anticompetitive exclusion. Mr. Lugard's earlier example of two competing standards such as HDDVD and Blu-Ray could also lend itself to more restrictive membership depending on the circumstances.

The EC opted for a commitment decision, most importantly, because the commitments made by IACS removed the competition concerns that the EC has identified. Since commitment decisions are less often appealed, it was the quicker and more satisfactory solution to open entry of a previously blocked market.

The Chair brought up a similar case in South Africa where the competition authority opened a case against VESA, an association of companies that provide satellite protection against car theft. Membership

in VESA was also limited by restrictive standards, which the tribunal concluded had substantial anticompetitive effects. The Chair asked the delegation from South Africa how the standard was changed after the decision and why an association like VESA existed in the first place.

The South African delegation explained that VESA began as an industry-created regulatory body, which certified vehicle safety products to be sold to consumers or insurance companies. In this case, vehicle tracking devices did not require a standard but insurance companies, the largest purchaser of such devices, asked VESA to set one. VESA set up a sub-committee comprised of representatives from the three largest producers of these devices who made up 90% of the market. That committee created a performance rather than a technical standard, which required already having a large base of business. Thus new entrants were precluded from entering the market since insurance companies would only purchase from VESA-certified manufacturers. By the time the complaint was lodged, the board of VESA had changed the performance-based standard to a financial guarantee, which opened the market to new entrants. The guarantee lodged with VESA ensured that if the company's device failed, VESA could pay out to subscribers enabling them to purchase a new product.

The Chair then invited the Italian delegation to describe Italy's experience with competing locomotive standards in the EU. Because of the different standards, competition at the local level was restricted and national markets remained protected. For example, the standard used in Italy was only available for purchase in the Czech Republic and Belgium as the Italian producers had long-term arrangements with the incumbent rail operator. The Italian submission discussed changes in this system since 2003.

The Italian delegation explained that railways in Europe used different voltages. Therefore, when the railway sector was opened to competition at the regional level, potential new entrants were limited by where they could purchase locomotives. Since 2003 manufacturers all over Europe produce trains equipped with multi-voltage technology enabling them to cross borders without changing the locomotive. While the trains are expensive, it is a more cost-effective solution than attempting to create a unified voltage system across Europe.

The Chair noted that a future roundtable on structural separation would return to the question of railway system in Europe and moved on to an example presented by the Chilean submission in which an association of ophthalmologists was trying to block a bill that would allow for increased optometrists' services.

The Chilean delegation expounded on the situation. Law in force grants ophthalmologists the exclusive right to prescribe eyeglasses which is a system with high barriers to entry. Eyeglass retailers and optometrist are pushing a bill that would increase the number of professionals allowed to issue prescriptions, although prescription and purchase of eyeglasses in one stop is not considered by the bill. The bill is still in discussion. Ophthalmologists argue that if optometrists were allowed to give prescriptions, some defective vision diseases would remain undetected. They also believe that the bill merely benefits stores and optometrists instead of consumers.

The Chair highlighted a similar problem in Ireland from 2008 when clinical dental technicians became legally recognised and thus were permitted to sell and fit dentures. He then asked the Irish delegation to comment on the effect of the legislative action on the dental services market.

The Irish delegation enumerated some of the developments since the establishment of the Registrar of Clinical Dental Technicians. Those with qualifications are able to register and immediately begin providing services to the public. Many are qualified in the UK, but there are presently no training courses in Ireland so qualification must come from recognized overseas institutions. However, the Dental Council is trying to establish a course. Another limitation is that technicians are not able to check their claims under

state schemes as dentists can. When these two issues have been resolved, the effects on the dental services market should be greater. While dental service rates have in fact decreased, it is difficult to ascertain the specific cause of the lower prices given the most recent recession and the fact that dentists have recently been permitted to advertise.

The Chair followed up by asking if the health system in Ireland, which subsidizes the cost of dentures, made any changes in order not to promote the use of clinical dental technicians.

The Irish delegation responded that no changes had yet been instituted but that a new scheme might be introduced in October 2010.

The Chair then thanked the panellists and participants and closed the roundtable discussions. In his closing remarks the Chair highlighted the issue of IP in standard setting as both intriguing and problematic. He made special note of Paul Lugard's point of the sheer number of patents in existence for the same technology such as Blu-Ray and Prof. Geradin's information on the prevalence of cross-licensing. He pointed out that problems such as patent stacking still exist and that remedies may arise from antitrust, IP, or private solutions, in particular Paul Lugard's suggestion of looking at patents by product instead of IP. The conclusion was reached that patent ambush is actually quite rare, but information disclosure remains vital under either an IP or antitrust regime. Finally, the Chair drew attention to the second part of the roundtable in which restrictive standards blocked entry altogether. In particular, standards that require experience in addition to technical specifications or legal exclusion from service professions can make markets less dynamic.

COMPTE RENDU DE LA DISCUSSION

1. Introduction

Le Président, Alberto Heimler, ouvre la table-ronde sur la normalisation et la concurrence, sujet qui a suscité beaucoup d'intérêt parmi les délégations et plusieurs contributions évoquant des expériences et points de vue divers.

Il observe que l'élaboration des normes sert de nombreux objectifs au bénéfice du consommateur, comme d'améliorer la qualité et d'autoriser l'uniformité et l'interopérabilité. Les normes favorisent l'épanouissement de la concurrence et, sur certains marchés, lui permettent tout simplement d'exister. Elles présentent toutefois aussi des risques de violation de la législation antitrust, parce qu'elles peuvent faciliter les ententes ou les abus, en particulier dans le cadre de processus collaboratifs. Alors que la plupart des pays sont dotés d'organismes de normalisation, seules quelques rares juridictions impliquent les autorités de la concurrence dans le processus d'élaboration des normes, soit par des actions de sensibilisation, soit par une participation directe. En revanche, de nombreuses autorités de la concurrence ont été exposées à la normalisation dans des contextes moins formels, en particulier dans le secteur de l'alimentation et les professions libérales.

Le Président annonce que trois volets seront abordés dans le cadre du débat :

- les questions de concurrence posées par l'élaboration et la mise en œuvre des normes,
- les questions de concurrence associées à la structure institutionnelle des organismes de normalisation et
- les questions de concurrence liées au climat de coopération que pourra induire la normalisation.

Avant de donner la parole aux délégués, le Président présente les deux intervenants invités à introduire le débat : le Professeur Damien Geradin, qui enseigne le droit de la concurrence et d'économie à l'Université de Tilburg, présentera un document sur l'interface entre les organismes de normalisation, les droits de propriété intellectuelle et l'exécution de la législation antitrust et M. Paul Lugard, de Phillips et du *Tilburg Law and Economics Centre*, parlera des effets bénéfiques de la normalisation.

Le Président invite le Professeur Geradin à introduire le premier volet du débat, ayant trait aux questions de concurrence posées par l'élaboration et la mise en œuvre des normes.

2. Questions de concurrence posées par l'élaboration et la mise en œuvre des normes

Le Professeur Geradin précise en préambule l'objectif de ses travaux, qui était d'examiner les deux principales présomptions souvent présentes dans le contexte de normes impliquant des droits de propriété intellectuelle (DPI) et d'estimer dans quelle mesure elles soulèvent des préoccupations antitrust. La première de ces présomptions concerne le problème de « hold-up de normes », situation qui intervient lorsqu'une entreprise détenant un brevet essentiel pour l'utilisation d'une norme donnée tente de s'arroger des conditions de licence exorbitantes. La seconde a trait aux « redevances en cascade », qui sont imposées

lorsqu'un grand nombre d'entreprises détiennent des brevets essentiels pour la mise en œuvre d'une seule norme. Il peut en résulter un taux cumulé de redevance exorbitant qui nuit à l'adoption de la norme.

En guise d'introduction, le Professeur Geradin énonce brièvement les 10 points abordés de façon plus détaillée dans son exposé :

- la normalisation ne confère pas nécessairement des positions commerciales significatives au détenteur d'un brevet essentiel. Elle ne confère pas non plus automatiquement une puissance de marché. Chaque cas est spécifique et doit être examiné individuellement ;
- les redevances ne sont pas l'unique point d'importance sur lequel portent les négociations de licence. Les parties à la négociation s'efforcent d'échanger de la valeur et il arrive souvent qu'un accord de licence croisé constitue une rémunération plus indiquée que le versement d'une somme d'argent ;
- les hold-up de brevets susceptibles de menacer l'innovation sont rares ;
- les redevances en cascade ne sont pas une pratique courante et il n'est pas nécessaire de plafonner les redevances ;
- il est impossible d'établir clairement si l'objectif des conditions FRAND (équitable, raisonnable et non discriminatoire) est de limiter la capacité des détenteurs de brevets essentiels à monétiser leurs DPI. Le Professeur Geradin examine cette question plus en détail dans son rapport ;
- il n'est pas utile d'élaborer un mécanisme pour calculer les « redevances FRAND » car le concept lui-même n'est pas très utile ;
- un engagement FRAND consenti par un détenteur de brevet essentiel ne le prive pas de son droit de solliciter une injonction contre d'éventuels contrevenants ;
- les engagements FRAND ne sont pas trop vagues pour être exécutoires ;
- une solution partielle aux exigences de redevances exorbitantes consiste à prévoir une déclaration ex ante de redevances maximales ;
- s'agissant des présomptions d'abus de la part de détenteurs de DPI dans le contexte de la normalisation, le droit de la concurrence peut jouer un rôle important, mais limité.

Avant d'aborder ces questions plus en détail, le Professeur Geradin rappelle quelques principes fondamentaux de la normalisation concernant les DPI, aspect de la normalisation qui a suscité le plus de débats.

La plupart des organismes de normalisation ont adopté des principes d'action en matière de DPI visant à équilibrer les incitations entre les parties concernées. Ces principes prévoient généralement deux règles. Premièrement, les parties doivent dévoiler avant toute chose si elles détiennent un brevet essentiel en rapport avec la norme objet du débat. Toutefois, dans la mesure où une recherche complète de brevets peut prendre des années, l'obligation ne porte en fait que sur les brevets essentiels connus. Deuxièmement, les détenteurs de brevets essentiels sont invités, mais pas contraints, à prendre l'engagement de concéder des licences sur leurs brevets essentiels à des conditions FRAND. Les conditions d'octroi des licences se négocient en général de façon bilatérale et souvent avant l'adoption de la norme.

Il est notoire que les négociations qui émaillent le processus de normalisation dans le cadre d'organismes de normalisation sont le lieu de nombreuses batailles stratégiques en raison des incitations divergentes des entreprises présentes. Un intervenant dont le modèle d'entreprise est tourné vers l'innovation s'efforcera d'obtenir des redevances élevées pour se donner les moyens de financer sa recherche. Les incitations d'une entreprise verticalement intégrée seront plus nuancées, car elle reçoit des redevances, mais elle en verse aussi. Un équipementier aura intérêt à ce que les redevances soient le moins chères possible. Ces exemples illustrent l'éventail possible des comportements stratégiques dans le contexte de la négociation de licences.

Contrairement à ce que l'on pense couramment, les négociations de licence ne portent pas uniquement sur le montant des redevances. Il est fréquent que le concédant, en fonction de l'identité du bénéficiaire, s'attache plutôt à négocier un accord de licence croisé plutôt que le versement de redevances. Les conditions de licence varient inévitablement de façon importante d'un accord à l'autre, en fonction de la situation et des objectifs des parties concernées. Il s'ensuit que tout essai de calcul du montant de redevance théoriquement approprié est peu significatif, car il doit dépendre de l'issue de négociations bilatérales.

S'agissant des hold-up de brevets, le Professeur Geradin a mis en doute la présomption courante selon laquelle il s'agit d'un phénomène extrêmement répandu et la menace qui en découlerait pour l'innovation. Ces présomptions se fondent souvent sur des études produites dans le cadre de litiges et qui sont nécessairement partisans. Selon lui, si les hold-up de brevets peuvent être un problème, ils n'ont qu'un impact limité, pour les raisons suivantes.

En premier lieu, pour qu'il y ait hold-up, l'entreprise qui prévoit d'octroyer des licences doit incorporer sa technologie dans une norme sans dévoiler par avance les conditions auxquelles elle octroiera ses licences. Au cours de l'élaboration de la norme, tout preneur potentiel d'une licence peut s'informer des conditions éventuelles que demanderait le concédant. Si celui-ci s'abstient de dévoiler ces conditions aux preneurs potentiels, il éveillera leurs soupçons, ce qui compliquera l'adoption de la technologie dans la norme.

Ensuite, la vaste majorité des concédants ont une marge de manœuvre réduite du fait qu'ils sont également preneurs de licences. Dans la plupart des cas, une technologie donnée est contrôlée par une entreprise verticalement intégrée qui a besoin d'avoir accès aux autres technologies incorporées dans la norme. Elles sont par conséquent contraintes de collaborer. Enfin, la majeure partie des entreprises sont tenues par le fait que la normalisation est un processus à répétition. Toute absence de coopération aura des conséquences sur les négociations ultérieures de normes avec le même organisme de normalisation ou avec un autre. Par conséquent, le risque de hold-up est cantonné aux entreprises qui ne dévoilent pas à l'avance leurs conditions de licence, n'ont pas besoin d'accords de licence croisés et traitent le processus de normalisation comme s'il s'agissait d'une expérience unique.

Selon le Professeur Geradin, le problème des redevances en cascade est grandement exagéré et il n'y a par conséquent pas besoin d'imposer des plafonds de redevances. D'abord, il est difficile de déterminer a priori si une redevance allant jusqu'à 50 % est excessive, parce que le pourcentage approprié sera fonction de la part des DPI dans la valeur totale du produit. Lorsque la valeur du produit provient presque entièrement des DPI, comme dans le cas de logiciels, une redevance de 50 % n'est pas exagérée. Ensuite, du fait des licences croisées, seules les entreprises n'ayant apporté aucune PI à la norme seraient obligées de payer l'intégralité du taux de redevance, ce qui se justifie d'une certaine façon. Les grandes entreprises payent souvent très peu. Cela est clairement apparu dans le contexte de l'affaire Qualcomm : les entreprises qui se plaignaient que le cumul des redevances entraverait le développement de la norme 3G ont reconnu que le taux cumulé des redevances qu'elles étaient tenues d'acquitter était inférieur à 5 %.

Le Professeur Geradin rejette les propositions visant à établir un mécanisme pour définir ce qui constituerait théoriquement une « redevance FRAND ». Il estime que le caractère individuel des relations entre concédants et preneurs de licences, qui dépend très fortement de la situation des parties, ôte toute utilité à ces tentatives. La plupart des méthodologies envisagées présentent des défauts importants, que le Professeur Geradin explore en détail dans son document. Il pourrait toutefois être utile de disposer d'une comparaison entre les exigences de redevances ex ante et ex post, ce qui pourrait au moins constituer une certaine protection lorsqu'elles demeurent identiques.

De façon générale, le Professeur Geradin estime que la solution, aujourd'hui étudiée par les autorités de la concurrence, d'une déclaration ex ante obligatoire de taux maximum constitue un moyen efficace d'empêcher les hold-up de brevets. Il prévient cependant que, devant la difficulté à estimer un taux maximum ex ante, les entreprises pourraient avoir tendance à gonfler leur déclaration de taux maximum afin de protéger leur activité. Cette exigence pourrait par conséquent aboutir à l'annonce de taux maximum exorbitants qui seraient ensuite réduits à des niveaux plus raisonnables à l'issue des négociations.

Quant à la question de savoir si une intervention antitrust serait nécessaire en cas de présomption d'abus de la part des détenteurs de DPI, le Professeur Geradin observe qu'une intervention antitrust est plus appropriée dans certains cas que dans d'autres.

Il ne fait aucun doute que les organismes de normalisation ne doivent pas être l'antichambre d'ententes. De la même façon, il convient d'empêcher les comportements qui excluraient certaines technologies ou certains concurrents. D'un autre côté, comme les entreprises cherchent à incorporer leurs brevets dans les normes, il peut arriver que celles-ci contiennent une pléthore de PI.

Quant à savoir dans quelle mesure les autorités antitrust devraient intervenir dans les cas d'« embuscade de brevets »¹, le Professeur Geradin rappelle combien il est difficile d'instruire ces affaires dans le cadre de la législation antitrust, comme l'ont démontré les affaires Rambus aux Etats-Unis et dans l'Union européenne (UE). Aux Etats-Unis, la *Federal Trade Commission* (FTC) a été déboutée en appel. Dans l'UE, la Commission européenne (CE) a considéré que les redevances exigées par Rambus étaient excessives eu égard à son comportement trompeur. Toutefois, la CE ayant conclu un protocole transactionnel avec Rambus, il est impossible de savoir si ses objections auraient été admises par les tribunaux. Les difficultés à instruire les cas d'embuscade de brevets dans le cadre de la législation antitrust incitent le Professeur Geradin à suggérer d'autres approches et notamment à les traiter comme des manquements à des engagements contractuels ou comme des escroqueries.

S'agissant des accusations de redevances exorbitantes, le Professeur Geradin met en garde contre une intervention antitrust dans ces affaires, en raison de la difficulté inhérente à définir ce qui constitue un taux de redevance exagérément élevé ou exorbitant. Il est en effet peu probable que de tels dossiers aboutissent.

Interrogé par le Président sur l'importance des accords de licence croisés, le Professeur Geradin répond que, d'après son expérience, les accords de licences croisés concernant des DPI sont extrêmement courants. Rares sont les sociétés dont le modèle d'entreprise consiste à innover et concéder des licences. La plupart sont verticalement intégrées et ont par conséquent pour vocation de créer des produits, ce qui signifie qu'elles peuvent conclure des accords de licence croisés et qu'elles y ont intérêt.

Le Président remercie le Professeur Geradin pour son exposé, puis interroge la délégation des États-Unis sur l'affaire Rambus. Cette affaire a été portée devant la justice sur le fondement de l'article 5 de la

¹ L'expression « embuscade de brevets » décrit une situation dans laquelle une entreprise dissimule l'existence d'un brevet avant de chercher à faire valoir ses droits une fois son brevet incorporé dans une norme.

loi instituant la FTC, interdisant la concurrence déloyale. Le Président demande pourquoi cette disposition a été invoquée plutôt que la loi Sherman.

La délégation des États-Unis répond qu'il est courant que la FTC invoque à la fois l'article 5 de la loi instituant la FTC et l'article 2 de la loi Sherman, comme cela a été le cas dans l'affaire Rambus. De ce fait, on peut aussi considérer l'affaire Rambus comme un cas de monopolisation.

Le Président poursuit en interrogeant la délégation des États-Unis sur ce qui permet d'établir la monopolisation dans le contexte de la normalisation sous l'empire de la législation américaine antitrust, les jugements rendus dans les affaires Rambus et Qualcomm/Broadcom paraissant assez divergents de ce point de vue.

La délégation des États-Unis répond en rappelant que dans l'affaire Rambus, deux scénarios opposés auraient été possibles dans l'éventualité où Rambus aurait divulgué ses brevets dans le cadre du processus de normalisation. Premièrement, l'organisme de normalisation aurait pu opter pour une autre norme, n'incorporant pas les brevets de Rambus. Deuxièmement, il aurait pu choisir la même norme, avec un impact sur les prix, compte tenu des redevances. Alors que selon la thèse défendue par la FTC, aucun de ces scénarios n'était plus souhaitable que l'autre, la cour d'appel a clairement estimé qu'il incombait à la Commission d'apporter la preuve du premier, ce à quoi elle avait échoué. Le représentant des États-Unis observe que d'un point de vue économique, la normalisation engendre inévitablement dans une certaine mesure des rentes de situation. Sur les marchés concurrentiels, cela crée une incitation en faveur d'une concurrence ex ante sur les prix ou autres conditions de licence. De ce point de vue, il est crucial de promouvoir la divulgation et l'octroi de licences ex ante. Par conséquent, dans l'affaire Rambus, la question aurait dû être de savoir si son comportement avait nui à ce processus concurrentiel ex ante, aspect sur lequel la cour d'appel n'a pas choisi de mettre l'accent, selon la délégation des États-Unis.

En réponse à une question posée par le Président, le représentant des États-Unis confirme qu'à son avis, ce sont les situations d'entrave à la concurrence ex ante entre les technologies qu'il est envisagé d'incorporer dans une norme qui soulèvent des préoccupations du point de vue de la concurrence. Parce qu'il est difficile d'évaluer l'impact ex post de ces comportements pour les raisons mentionnées par le Professeur Geradin, il est particulièrement important de protéger et de renforcer les mécanismes de divulgation ex ante et de négociation informée, ce qui pourra également, dans une certaine mesure, atténuer certaines des imperfections des engagements FRAND. Toutefois, mettre l'accent sur la divulgation ex ante ne signifie pas qu'il ne faut pas déployer de mécanisme de suivi ex post, la divulgation trouvant ses limites dans la quasi-impossibilité de mener une recherche de brevets exhaustive.

Le Président se tourne vers l'Allemagne, dont les organismes de normalisation ont aussi pu observer les dangers des embuscades de brevets. Il demande si ces pratiques y seraient également traitées comme des violations du droit de la concurrence, compte tenu des engagements de divulgation ex ante et d'engagement de licence dont l'Allemagne s'est dotée.

La délégation allemande souligne la conscience aiguë qu'ont les organismes allemands de la normalisation et le *Deutsche Institut für Normen* (DIN) des implications des normes du point de vue de la concurrence. Le DIN a élaboré des règles de divulgation spécifiques afin de promouvoir la transparence et de minimiser la portée des conflits liés à la concurrence. À ce stade, ni le *Bundeskartellamt*, ni les tribunaux allemands n'ont été amenés à se prononcer dans une affaire d'embuscade de brevet. Le représentant de l'Allemagne observe qu'il est difficile de prévoir comment les autorités compétentes approcheraient cette question et se réfère aux suggestions du Professeur Geradin concernant l'apport potentiel d'autres domaines du droit. En conclusion, le représentant de l'Allemagne souligne le caractère distinctif de la prévention des conflits dans le cadre des organismes de normalisation par opposition à un traitement ex post.

Le Président se tourne vers Paul Lugard et l'invite à présenter son point de vue sur la normalisation.

Paul Lugard observe en préambule que bien qu'il s'exprime en sa capacité de professeur de droit à l'Université de Tilburg, sa présentation s'inspire à de nombreux égards de son expérience chez Philips, une entreprise qui a pris part à de nombreuses initiatives de normalisation. Il introduit ensuite le sujet de sa présentation : l'interface entre la normalisation et les DPI. Le Professeur Geradin a évoqué un grand nombre de ces questions et Paul Lugard observe qu'ils partagent le même point de vue sur des questions comme les « hold-up », les engagements FRAND et le rôle des agences antitrust, tout en exprimant quelques divergences sur la question des redevances en cascade.

Paul Lugard ouvre son exposé par une introduction à la normalisation. Il cite des exemples de normes (DVD, Blu-Ray, etc.) et fait remarquer que la normalisation est omniprésente dans notre monde d'aujourd'hui. Il souligne les nombreuses efficacités et les nombreux bienfaits qui résultent des normes, comme la réduction des coûts de transaction, la création de marchés et, pour les consommateurs, un choix élargi de produits respectant les normes. Les normes favorisent par ailleurs l'innovation parce que les entreprises sont incitées à innover pour que leur PI soit incorporée dans des normes. Cependant, dans le contexte de la normalisation, des problèmes d'exclusion et d'entente peuvent nécessiter une intervention antitrust. Toutefois, le fait qu'une technologie donnée ne soit pas incorporée dans une norme ne pose pas en soi un problème antitrust, les normes étant choisies après mise en concurrence de diverses options.

Paul Lugard enchaîne sur les aspects pratiques de la normalisation et indique que la plupart des normes s'élaborent dans le cadre d'un organisme de normalisation, qui peut être une organisation structurée ou une structure ad hoc dotée de règles sur les questions comme les critères de participation aux débats, les méthodes d'évaluation des diverses technologies et les règles de vote. Sur ce dernier point, il observe que si la règle du scrutin à l'unanimité peut être considérée par ses détracteurs comme un frein au processus de normalisation, elle garantit que tous les intervenants participent pleinement au processus. Les organismes de normalisation réglementent un autre domaine important, celui de la divulgation des DPI. À cet égard, Paul Lugard a repris à son compte les observations du Professeur Geradin concernant la difficulté pour les entreprises au portefeuille de DPI étoffé d'établir un relevé exhaustif des brevets susceptibles d'être concernés par une norme, d'autant qu'il est souvent difficile de savoir à l'avance quelle norme naîtra du débat. Il fait observer que lorsque l'on tente de statuer sur la meilleure technologie disponible, on est inévitablement conduit à arbitrer entre prix et qualité. Parce que les organismes de normalisation réunissent souvent davantage de fabricants de produits que de détenteurs de DPI, on a tendance à privilégier légèrement les coûts.

Concernant certaines implications antitrust des normes, Paul Lugard fait les observations suivantes :

- On oublie parfois que les normes ne sont pas uniquement élaborées pour servir les intérêts des fabricants de produits et des détenteurs de DPI. Les entreprises élaborent des normes par souci de créer une demande pour un produit donné ; elles dépendent donc, en dernier ressort, de l'acceptation par le marché.
- Il convient de ne pas seulement analyser la normalisation dans une perspective ex post en termes des effets qu'une norme peut avoir sur les positions commerciales, mais aussi dans une perspective ex ante, en considérant les conditions de concurrence pour incorporer une technologie dans une norme.
- La concurrence que se livrent les différentes normes pour se faire accepter par le marché n'entraînant pas de nivellement par le bas, il n'est pas nécessaire d'intervenir en promouvant la participation de tous les intervenants sur le marché à l'élaboration de la norme initiale. On peut

citer par exemple la concurrence entre les formats HDDVD et Blu-Ray, qui a abouti à la victoire du Blu-Ray.

- On aurait tort de supposer que toute norme engendre des effets à long terme. Si c'est certainement le cas pour certaines, de nombreuses normes ont une durée de vie très réduite, disparaissant avec l'émergence de nouvelles innovations.
- Le principe selon lequel les organismes de normalisation devraient impliquer toutes les parties qui en expriment le souhait est particulièrement judicieux. Il leur faut toutefois pouvoir fonctionner de façon efficiente. Par conséquent, même si l'on a tendance à penser qu'une participation aussi large que possible favorisera l'accueil de la norme par le marché, exiger la participation de tous pourrait se révéler contreproductif.
- Les cas d'entente sont assez rares dans le contexte de la normalisation. De la même façon, les problèmes de hold-up ne sont pas particulièrement fréquents et ne justifient pas l'implication permanente des autorités antitrust. Il peut en outre exister d'autres façons d'y faire face au cas où ils se produiraient.
- La divulgation ex ante de taux maximum crée le risque d'ententes entre preneurs de licences : les autorités antitrust doivent y être alertées.
- Les obligations FRAND peuvent offrir une solution aux problèmes de hold-up, mais il est extrêmement difficile pour les entreprises d'évaluer leurs positions avant qu'une norme ait été élaborée. La même difficulté se pose pour le plafonnement des redevances.
- Les autorités antitrust ne devraient pas s'inquiéter de ce que les normes puissent avoir une portée excessive.

Sur la question des redevances en cascade, Paul Lugard retrace l'évolution du domaine des DPI au cours des 25 dernières années, période durant laquelle le nombre de détenteurs de brevets, et donc de parties prenantes à la normalisation, a connu un accroissement spectaculaire. Par ailleurs, la densité des brevets a augmenté avec le temps, en particulier dans le domaine des CD et DVD, des télécoms et des techniques de compression. Dans le domaine des technologies de CD, par exemple, on compte 100 brevets essentiels et pour le Blu-Ray, il y en a 2 000. Dans ce contexte, les redevances en cascade peuvent poser de graves problèmes qui ne seront pas atténués par les licences croisées autant que le Professeur Geradin le décrit. En outre, pour certains produits plurifonctionnels comme les téléphones portables, qui servent aussi d'appareils photo, d'émetteurs et receveurs de SMS, etc., les fabricants doivent obtenir des licences auprès de groupements multiples. Paul Lugard souligne le poids du fardeau que cette situation peut générer en termes de redevances ; il doute cependant que la législation antitrust ou le droit des redevances apporte le remède approprié. Les groupements de brevets et les licences partagées peuvent contribuer partiellement à résoudre le problème, mais une meilleure solution résiderait peut-être dans différentes façons d'exploiter les DPI, par exemple, par l'octroi de licences communes pour les produits plutôt que les DPI incorporés.

En guise de conclusion, Paul Lugard souligne que tandis que la normalisation implique des questions diverses, seules très peu d'entre elles justifient l'intervention antitrust, à savoir, les ententes. Les autres questions, comme le niveau des redevances, la participation aux organismes de normalisation et la portée éventuellement excessive des normes, n'appellent pas de surveillance antitrust.

Le Professeur Geradin répond qu'il est en grande partie d'accord avec le Professeur Lugard en ce qui concerne la normalisation et les DPI, mais qu'il estime que davantage de données d'observation seront nécessaires pour déterminer l'importance réelle des redevances en cascade. Il ne partage cependant pas

l'opinion selon laquelle la législation antitrust et la législation sur les DPI n'ont aucune place dans la solution, faisant notamment observer qu'un examen plus rigoureux des demandes de dépôt de brevets pourrait contribuer à endiguer le foisonnement problématique de brevets qui n'ont pas de raison d'être.

Le Président relève la possibilité d'une solution structurelle à travers des approches plus restrictives de la délivrance des brevets, faisant par exemple observer qu'il paraissait excessif que 2 000 brevets aient été délivrés pour le Blu-Ray.

Le Professeur Geradin ajoute que l'accent placé sur la divulgation et les incitations en ce sens conduisent les entreprises à une divulgation excessive. Bien qu'il ne soit pas aisé de trouver un juste équilibre, les autorités délivrant les brevets pourraient contribuer à atténuer le problème en appliquant des critères plus stricts.

À l'inverse, Paul Lugard estime que le nombre de 2 000 brevets pour le Blu-Ray n'est pas excessif puisque chaque entreprise peut démontrer que son brevet lui a été valablement délivré, recouvre une recherche approfondie et incorpore des caractéristiques originales.

Le Président relève que l'idée d'un système de brevets plus rigoureux rallie les suffrages précisément parce que de nombreux brevets ne sont pas aussi essentiels qu'ils le prétendent.

Il évoque alors deux pays qui ont traité ce problème par l'approche antitrust : la Corée et la Bulgarie. L'exposé de la Corée, d'abord, examine l'affaire Qualcomm, qui concernait des niveaux de redevances dissuasifs et le non respect d'engagements FRAND. Il prie la délégation de bien vouloir expliquer en outre comment la FTC coréenne a procédé pour déterminer un niveau de redevances FRAND.

La délégation coréenne explique que dans l'affaire Qualcomm, la FTC coréenne a jugé que l'entreprise abusait de sa position dominante pour facturer des redevances d'un montant dissuasif à des clients non fidélisés qui se pourvoient également auprès d'entreprises concurrentes. Qualcomm a par ailleurs violé le droit de la concurrence pour le motif distinct de ne pas avoir respecté son propre engagement FRAND, facturant des redevances dissuasives. En ciblant l'application dissuasive, la FTC coréenne n'a pas précisé ce qu'elle considérait comme « équitable » ou « raisonnable ».

En réponse à la question du Président, la délégation coréenne précise que le principal chef d'accusation dans l'affaire Qualcomm était l'abus de position dominante démontré par la violation de son engagement FRAND.

Le Président mentionne alors une affaire évoquée dans l'exposé de la Bulgarie dans laquelle une société de certification de conformité avait abusé de sa position dominante en surfacturant des constructeurs d'ascenseurs pour des actes de certification. Même si l'autorité de la concurrence a finalement rejeté l'affaire, celle-ci a permis d'élucider la pratique de fixation des prix. Il invite la délégation bulgare à préciser comment l'on procède pour définir le « juste » prix de la certification.

La délégation bulgare explique que cette affaire remonte à 2005, époque où la législation de la Bulgarie était encore en cours d'harmonisation avec le droit européen dans ce domaine. La certification était une fonction qui avait été assignée autrefois à une administration publique et qui était en cours de privatisation. L'entreprise en cause était la première société à avoir reçu une licence pour délivrer des certificats de conformité d'ascenseurs, mais des concurrents ne tardèrent pas à lui emboîter le pas en l'espace de deux ou trois mois. Les tarifs initialement proposés par la société ont été considérés élevés par rapport à ceux antérieurement facturés par l'administration d'État ou des entreprises similaires de pays voisins, comme la Grèce. L'affaire a toutefois été rejetée en raison de l'arrivée imminente de concurrents sur le marché. En conséquence, les tarifs élevés exigés par la société ont été traités comme de simples

propositions de prix qu'il convenait de comparer et de négocier une fois que les autres concurrents auraient reçu leur accréditation.

Le Président évoque alors les normes environnementales et sanitaires susceptibles d'aboutir à une réduction de la concurrence. L'exposé du Royaume-Uni aborde les normes environnementales obligatoires susceptibles d'être plus onéreuses à mettre en œuvre pour certaines entreprises que pour d'autres. Lorsque le coût de la mise en conformité est dissuasif, l'entreprise est contrainte de sortir du marché, ce qui réduit la concurrence dans le secteur d'activité concerné. Le Président invite la délégation du Royaume-Uni à illustrer sa suggestion d'introduire les nouvelles normes selon un calendrier décalé pour permettre à l'ensemble des concurrents d'avoir le temps de s'adapter, une tentative qui s'était soldée par un échec en Italie. Autrement dit, il s'interroge sur le point de savoir si, en retardant leur application, on prive les normes d'effets ou l'on aboutit à ce qu'elles soient ignorées jusqu'à ce qu'elles deviennent contraignantes.

La délégation du Royaume-Uni, sans citer d'exemples spécifiques, explique comment son processus de transformation répond à l'inquiétude de voir les entreprises attendre, pour mettre en œuvre la nouvelle politique, qu'elle soit contraignante. Au Royaume-Uni, les pouvoirs publics se concertent longuement avec le secteur d'activité concerné durant l'élaboration d'une nouvelle loi environnementale importante, avant toute annonce officielle. Cela confère à la politique suffisamment de crédibilité parmi les entreprises tout en leur donnant le temps de procéder aux ajustements nécessaires.

S'agissant de l'efficacité des normes de protection de l'environnement et des consommateurs, le Royaume-Uni en utilise deux catégories, complémentaires, qui entretiennent la dynamique des marchés dans certains secteurs comme l'agroalimentaire et l'environnement. La première catégorie fixe des exigences minimales afin d'éliminer les fournisseurs les moins compétents. La seconde correspond aux normes d'information, exigeant par exemple l'étiquetage et la fourniture aux consommateurs des informations concernant les produits, qui encouragent l'investissement et l'innovation.

La délégation poursuit en soulignant l'importance d'un processus législatif et consultatif efficace, d'une promotion claire et d'un calendrier suffisamment long, lorsque l'on annonce de nouvelles normes.

Le Président se réfère à l'exposé de la Turquie concernant le lancement par la *Soaps and Detergents Industry Association*, avec l'accord des pouvoirs publics, d'une campagne coordonnée pour inciter les consommateurs à utiliser des détergents compactés, meilleurs pour l'environnement. Cette initiative prévoyait notamment des publicités communes et un engagement mutuel des principaux fabricants de détergents de ne produire que des détergents compactés. Le Président demande à la délégation turque pourquoi l'Association a choisi de viser un objectif purement environnemental et pourquoi il a été interdit aux fabricants internationaux de lancer indépendamment des campagnes publicitaires.

La délégation turque explique que le projet était ouvert à tous les fabricants, distributeurs et importateurs de détergents, indépendamment de leur taille ou de leur appartenance à l'Association. Certaines entreprises avaient préalablement tenté une initiative similaire, mais elles n'étaient pas parvenues à sensibiliser suffisamment l'opinion. C'est pourquoi il a été jugé nécessaire d'adopter une approche conjointe, avec l'aval de l'autorité de la concurrence, afin de faire connaître aux consommateurs les bienfaits sanitaires, énergétiques et environnementaux des produits compactés. Il n'a toutefois pas été interdit aux entreprises individuelles de faire la publicité de leurs propres produits en mettant en avant des considérations environnementales. Des projets similaires ont été menés à bien dans d'autres pays.

En réponse à la question du Président concernant l'efficacité de cette initiative, la délégation turque répond qu'elle n'a pas encore reçu d'évaluation de l'impact sur les entreprises ou les consommateurs.

Le Président évoque une affaire dans le Taipei chinois, concernant une homologation qui n'avait été accordée qu'à deux entreprises d'eau minérale. Cette pratique limitait l'offre d'eau destinée aux écoles et hôpitaux. L'autorité de la concurrence a jugé que l'homologation était justifiée, mais il n'était pas évident que d'autres concurrents potentiels aient également pu la demander et l'obtenir.

La délégation du Taipei chinois explique que le projet d'homologation des fournisseurs d'eau minérale était issu d'un programme de promotion alimentaire GMP, une initiative du ministère des Affaires économiques pour encourager les producteurs à améliorer la qualité et la sécurité sanitaire des produits. Toutefois, l'homologation s'effectuait sans obligation de leur part. Certaines entreprises d'eau minérale ont demandé l'homologation, mais sans l'obtenir. D'autres pourraient l'obtenir sans aucune difficulté si elles le désiraient. En outre, le programme GMP n'imposait aucune restriction sur les achats des écoles et des hôpitaux. Il n'est par conséquent pas suffisamment démontré que le système d'homologation ait imposé des barrières à l'entrée.

Le Président récapitule : cette initiative pour produire de l'eau de qualité visait à informer les consommateurs et était optionnelle pour les producteurs.

Il invite la délégation australienne à présenter son exposé sur la façon dont les coûts de conformité des producteurs peuvent affaiblir la concurrence. Dans une affaire récente en particulier, un distributeur alimentaire a rapporté à l'*Australian Competition and Consumer Commission* (ACCC) que le respect des obligations d'étiquetage coûterait 50 cents par bocal, correspondant au coût du réétiquetage de tous les bocaux de beurre de cacahuète importé. Cette obligation restreignait les importations vers l'Australie et induisait des prix plus élevés pour les consommateurs. L'ACCC continue d'explorer d'éventuelles mesures correctrices pour atténuer ce problème, car de nombreuses étiquettes peuvent contenir les mêmes informations ou être équivalentes sur le fond, suscitant des interrogations sur la nécessité d'un réétiquetage onéreux.

La délégation australienne fournit, dans un premier temps, des informations contextuelles sur la question. Le marché australien de la distribution alimentaire est extrêmement concentré, les deux premiers intervenants revendiquant environ 80 % du marché, tandis que le secteur agroalimentaire en amont n'est que légèrement moins concentré. En conséquence, les pouvoirs publics australiens s'emploient activement à abaisser les barrières à l'entrée dans ce secteur. Certains intervenants internationaux importants ont pénétré sur le marché ces dernières années. Toutefois, les normes d'étiquetage alimentaire extrêmement contraignantes de l'Australie nécessitent souvent un réétiquetage des produits avant de les placer sur les linéaires, même s'ils sont conformes aux exigences sanitaires alimentaires. Dans le cas du beurre de cacahuète, cela induisait une augmentation de 0,5 AUD du coût de revient initial de 3 AUD.

L'Australie a lancé en mars 2010 un examen, qui doit durer jusqu'à septembre, de sa politique d'étiquetage alimentaire, portant sur les mentions obligatoires, prenant en compte le besoin de protection des consommateurs et poursuivant l'objectif de minimiser les obstacles aux échanges et le poids de ces mesures pour les entreprises. Il est cependant probable qu'une solution globale, quelle qu'elle soit, nécessitera la coopération internationale et la coordination des normes d'étiquetage alimentaire qui demeurent fondamentalement différentes dans d'autres pays. Le processus suit son cours et il est donc prématuré de rechercher des mesures correctrices spécifiques.

Interrogée par le Président sur le point de savoir s'il serait dans l'intérêt des producteurs étrangers de réétiqueter les produits destinés à être exportés vers l'Australie, la délégation répond que cela peut constituer une solution à long terme. À court terme, les distributeurs nationaux ont été contraints de procéder eux-mêmes au réétiquetage pour placer les produits sur les linéaires.

Enfin, la délégation australienne ajoute que les pouvoirs publics ont entrepris cet examen conjointement avec les pouvoirs publics néo-zélandais, dans le but de créer un ensemble de codes et de normes destiné à être appliqué localement.

Le Président introduit ensuite l'exposé du BIAC, qui est en désaccord avec le document de référence sur la nécessité d'une application antitrust diligente dans le cadre de la normalisation. Le BIAC remarque que bien qu'il existe des milliers de normes, les problèmes antitrust sont très rares. Le Président invite la délégation du BIAC à expliquer son point de vue sur ce qui rend la propriété intellectuelle unique et justifie qu'elle soit traitée différemment de la propriété physique du point de vue de l'application antitrust et de la normalisation.

La délégation du BIAC explique en synthèse que la PI est un moteur clef de l'innovation et des efficacités et que la normalisation et la PI sont avantageuses pour les marchés comme pour les consommateurs. Riche de l'expérience accumulée en tant qu'ancien agent d'exécution au Canada et dans le cadre de son emploi actuel dans le secteur privé, le délégué affirme que les véritables cas de hold-up de brevet sont très rares. En outre, les autorités de la concurrence ne sont pas en position d'émettre des jugements sur les conditions FRAND de licences spécifiques, ce qui les transformerait en autorités de réglementation des prix intérieurs. Une telle réglementation serait susceptible de geler l'investissement et la concurrence. En conséquence, les forces de marché devraient être laissées libres d'opérer comme meilleurs déterminants du juste prix et des conditions appropriées, tandis que l'autorité de la concurrence devrait examiner les aspects réellement anticoncurrentiels, comme le rapport des forces sur le marché.

Le délégué conclut en suggérant à la table-ronde d'examiner le cadre canadien comme modèle pour le traitement de cas de positions dominantes impliquant des DPI. Au Canada, le simple exercice d'un DPI, comme un brevet, par une entreprise dominante, ne constitue pas en soi un motif d'action correctrice. Il faudrait que des comportements significatifs s'y ajoutent.

Le Président répond en faisant remarquer que dans certaines juridictions, comme l'UE, l'autorité de la concurrence est régie par un cadre législatif qui l'oblige parfois à réglementer les prix lorsque les entreprises dominantes revendiquent des montants exorbitants. Il convient qu'il faudrait si possible appliquer les règles de façon plus raisonnée.

Il invite ensuite les délégués à faire part de leurs commentaires sur le rôle des organismes de normalisation concernant les questions de concurrence directement issues de la normalisation.

La délégation suédoise pose une question liée aux observations du Professeur Geradin et de Paul Lugard. Les fabricants de produits courants auraient intérêt à militer pour des normes incorporant beaucoup plus de PI qu'un équivalent technique à moindre contenu de PI. Ces intervenants historiques y tireraient un avantage par le jeu des accords de licence croisés existants, tandis que les entrants potentiels pourraient ne pas être en mesure d'obtenir des brevets ou ignorer les brevets susceptibles d'exister, ce qui créerait des problèmes de hold-up.

Paul Lugard répond que de façon générale il estime que les normes ont principalement un effet positif sur les marchés, les ouvrant dans une large mesure, en particulier dans les secteurs des technologies, de l'informatique et des communications (TIC). Il est logique et notoire que les détenteurs de DPI s'efforcent de promouvoir leur propre technologie au moment du choix des normes. En conséquence, les organismes de normalisation doivent être dotés de règles internes claires régissant les prises de décision, pour s'assurer que la meilleure technologie est retenue, indépendamment de son contenu en DPI.

Le délégué du BIAC prend la parole pour répondre à l'observation antérieure du Président concernant les divergences de règles juridiques. S'il est bien compréhensible que certaines juridictions exigent que

l'on réagisse aux exigences exorbitantes, il n'est peut-être pas nécessaire d'intervenir dans les négociations bilatérales aux conditions de marché pour la seule raison que les parties ne disposent pas d'un pouvoir de négociation égal. Le secteur immobilier fournit un corollaire utile. Les négociations entre un promoteur immobilier et l'acquéreur d'un logement ne nécessitent pas d'intervention antitrust, non plus que les négociations de normalisation entre un inventeur et un fabricant lorsque la seule difficulté provient d'un différentiel de puissance de négociation.

Sa seconde observation concernant les différentes règles juridiques est que la normalisation des technologies a des conséquences internationales. Par conséquent, une application antitrust inégale ou à configuration variable peut freiner considérablement la normalisation et les gains d'efficacité.

La délégation des États-Unis revient sur le problème présenté par la Suède, concernant les normes pouvant être élaborées par consensus entre les intervenants historiques, qui détiennent déjà de nombreux brevets et ont conclu des accords croisés avec d'autres détenteurs de DPI. Les problèmes peuvent prendre de multiples formes. Le processus lui-même peut fournir les moyens d'une entente directe. Le groupe peut militer pour des normes incorporant davantage de PI. Ou, plus subtilement, il peut relâcher le lien entre les PI et la norme pour permettre aux membres du groupe de percevoir davantage de redevances. De façon générale, les différentes parties prenantes peuvent avoir des incitations divergentes.

Comme le Professeur Geradin et Paul Lugard l'ont rappelé, des solutions privées peuvent être appliquées en cas de hold-up ou de redevances en cascade. Toutefois, en évaluant ces problèmes et les éventuelles mesures correctrices privées, il est important de reconnaître leur tendance à répondre aux préoccupations des participants actifs, au lieu de celles du consommateur final.

3. Questions de concurrence associées à la structure institutionnelle des organismes de normalisation

Le Président ouvre le débat sur la structure institutionnelle, faisant observer que presque toutes les juridictions mentionnent un organe central responsable de la normalisation et peu de problèmes de concurrence en résultant. Il invite ensuite l'Espagne à exposer certains des problèmes qu'elle a rencontrés du fait du double rôle de son organe central (AENOR), à la fois institut de normalisation et de certification.

La délégation espagnole explique que l'autorité espagnole de la concurrence est en train de réaliser une étude de marché sur le secteur de la certification et que certains problèmes ont déjà été identifiés. Ces problèmes vont de l'implication excessive de certains acteurs publics et privés dans le processus de normalisation, qui risque de compromettre l'impartialité de l'agence, au rôle dévolu aux agents de l'AENOR, dans la mesure où ils pourraient être mieux armés pour évaluer la conformité après avoir participé au processus de normalisation. On est en fait en train d'étudier la possibilité de recommander la séparation des fonctions de normalisation et de certification au sein de l'AENOR.

Le Président introduit le sujet des directives des pouvoirs publics dans le domaine de la normalisation. Il invite la délégation japonaise à évoquer le processus d'adoption des directives de la *Japan Fair Trade Commission* (JFTC) et le rôle de la communauté des affaires dans le cadre de leur promulgation.

La délégation japonaise commence par énumérer les directives émises par la JFTC en relation avec la normalisation : les directives concernant les syndicats professionnels (1995), les directives concernant les groupements de brevets (2005) et les directives concernant la propriété intellectuelle (2007). Le délégué décrit ensuite une affaire remontant à 1997, soit avant l'émission de directives applicables, concernant un cas d'obstacle à l'entrée et d'élimination de la concurrence, de la part d'un groupement de brevets de Pachinko, en utilisant le brevet du groupement qui avait été incorporé à la norme. Les directives, en

particulier les plus récentes, fournissent des orientations claires sur la façon d'approcher les affaires de normalisation liées à des brevets.

S'agissant de la communication avec la communauté des affaires, la JFTC consulte les entreprises aux différentes étapes de la planification de l'action des pouvoirs publics et de la rédaction des projets. Ce processus vise à garantir que l'action des pouvoirs publics reflète les conditions de marché actuelles et sert à disséminer la politique de la concurrence au sein du secteur privé.

4. Questions de concurrence liées au climat de coopération que pourra induire la normalisation

Le Président aborde alors les questions de concurrence émanant indirectement des normes, qu'elles soient le fruit d'un processus officiel ou coopératif. Il propose d'abord de discuter la question des normes trop strictes qui excluent la concurrence. Au Brésil, les normes élevées régissant les armatures de béton armé restreignaient le marché à trois producteurs intérieurs. Après avoir envisagé la possibilité d'autoriser l'importation de produits de moindre qualité, le *Secretariat for Economic Monitoring* a décidé que les consommateurs ne seraient pas en mesure de discerner la différence de qualité. L'idée a par conséquent été rejetée. Le Président invite la délégation brésilienne à commenter cette décision.

La délégation brésilienne explique que le candidat à l'importation d'acier de qualité inférieure l'a présenté indûment comme l'acier le plus couramment utilisé internationalement sur le segment inférieur du marché. En fait, le type déjà en usage au Brésil est le plus usité et est d'une qualité supérieure. Le candidat a prétendu à tort que la certification obligatoire serait une barrière à l'importation. L'instance brésilienne a considéré que l'acier de meilleure qualité plus couramment utilisé était la norme qu'il convenait de conserver sur ce segment du marché.

Le Président aborde ensuite le cahier des charge extrêmement restrictif régissant en Grèce le raccordement des particuliers au réseau de gaz urbain. Ce marché demeure très actif puisque les particuliers n'utilisent le gaz naturel que depuis 1996. Une affaire en cours concerne le refus, de la part d'une des compagnies de distribution de gaz, de raccorder des habitations dont l'installation n'était pas conforme à la norme technique. Ce refus est présenté, dans l'exposé de la Grèce, comme un cas potentiel d'abus de position dominante, alors que le Président suggère que la société se bornait à respecter la norme en vigueur.

La délégation grecque explique d'abord que le marché de la distribution du gaz naturel compte trois grands intervenants, chacun desservant exclusivement les trois grands centres urbains de la Grèce dans le cadre de concessions d'une durée de 30 ans. Ils se comportent en pratique comme des monopoles administratifs soumis à une obligation de service public. Ils ne peuvent refuser de nouveaux clients que pour des motifs de sécurité.

S'agissant des normes, elles ne sont restrictives que dans la mesure où elles sont quelque peu détaillées et correspondent aux installations employées dans des juridictions soumises aux mêmes préoccupations sismiques, comme les Etats-Unis et le Japon. Dans cette affaire, la société a refusé d'homologuer les études d'installations techniques qui ont pu révéler que les tuyaux n'étaient pas conformes à la norme.

En réponse à une question préalable du Président quant aux motifs susceptibles d'inciter la compagnie de gaz à refuser un nouveau client, la délégation grecque explique que les règles régissant le marché des tuyaux de gaz ont été harmonisées au niveau de l'UE. Par conséquent, la seule obligation pour l'entreprise est d'approvisionner sans discrimination toutes les installations conformes aux normes de l'UE.

Le Président présente la seconde affaire décrite par l'UE dans son exposé, concernant l'Association internationale des sociétés de classification (IACS), organisme chargé de délivrer la classification nécessaire pour l'entrée des navires marchands dans les ports. L'adhésion à l'IACS, tout en étant clairement une condition nécessaire pour réussir, est extrêmement restrictive car elle exige non seulement des capacités techniques, mais aussi de l'expérience. Par conséquent, les sociétés de classification extérieure étaient pour une large part exclues de cette organisation. Le Président invite la délégation de l'UE à expliquer pourquoi cette affaire s'est terminée sur une décision d'engagement plutôt qu'une décision d'interdiction d'entente et une sanction.

La délégation de l'UE commence par souligner certaines autres préoccupations de la Commission Européenne (CE) dans ce domaine. Non seulement l'adhésion était interdite aux nouveaux membres, mais les non adhérents étaient empêchés de participer à d'importants groupes de travail technique et d'avoir accès aux documents techniques de référence, qui étaient nécessaires pour appliquer les règles et procédures de l'IACS. Pour répondre à ces préoccupations, l'IACS a élaboré un ensemble complet d'engagements fixant des critères qualitatifs d'adhésion objectifs et transparents et garantissant la possibilité aux non adhérents de participer aux groupes de travail et d'avoir accès aux documents. Il a été considéré que ces engagements ouvraient le marché de la classification des navires, pour le bénéfice des non adhérents comme des clients des sociétés de classification.

Le délégué de l'UE revient sur la préoccupation évoquée antérieurement par Paul Lugard concernant le risque d'une intégration excessive des organismes de normalisation. L'affaire de l'IACS montre qu'il peut être accordé une exemption sous l'empire de l'article 113 du traité sur le fonctionnement de l'Union européenne, s'il est démontré qu'un certain niveau d'exclusivité crée des efficiences. L'adhésion à l'IACS demeure quelque peu restreinte, mais l'exigence d'expérience constitue une préoccupation légitime de sécurité et non une exclusion à caractère anticoncurrentiel. L'exemple préalablement cité par M. Lugard de deux normes concurrentes comme le HDDVD et le Blu-Ray pourrait aussi être lu comme une restriction d'adhésion, en fonction des circonstances.

La CE a opté pour une décision d'engagement, surtout parce que les engagements pris par l'IACS éliminaient les préoccupations de concurrence soulevées par la CE. Dans la mesure où il est moins souvent fait appel des décisions d'engagement, c'était la solution la plus rapide et la plus satisfaisante pour ouvrir un marché préalablement fermé.

Le Président évoque une affaire similaire en Afrique du Sud, où l'autorité de la concurrence a instruit un dossier contre la VESA, un organisme professionnel rassemblant les sociétés de géolocalisation de véhicules. L'adhésion à la VESA était aussi restreinte par des normes restrictives, ayant, selon le jugement rendu par le tribunal, des effets anticoncurrentiels importants. Le Président demande à la délégation de l'Afrique du Sud de quelle façon la norme a été modifiée après le jugement et pourquoi il existait en premier lieu une association comme la VESA.

La délégation de l'Afrique du Sud explique que la VESA a été créée sous la forme d'un organisme de contrôle du secteur certifiant les produits de sécurité automobile commercialisés auprès des consommateurs ou des compagnies d'assurance. Dans cette affaire, les systèmes de géolocalisation de véhicules ne nécessitaient pas de norme, mais les compagnies d'assurance, leurs principaux clients, ont demandé à la VESA d'en élaborer une. La VESA a constitué un comité compris de représentants des trois premiers fabricants de ces produits, réunissant 90 % du marché. Plutôt qu'une norme technique, ce comité a élaboré une norme de performance qui exigeait de disposer déjà d'une base de clientèle importante. En conséquence, les nouveaux entrants étaient exclus du marché, car les compagnies d'assurance ne se fournissaient qu'auprès de fabricants homologués par la VESA. À l'époque où la plainte a été déposée, le conseil de la VESA avait transformé cette norme de performance en une garantie financière, ce qui ouvrait le marché aux nouveaux entrants. La caution déposée auprès de la VESA garantissait qu'en cas de

déficience du produit vendu par la société, la VESA serait en mesure d'indemniser ses adhérents pour leur permettre d'acheter un nouveau produit.

Le Président invite la délégation italienne à rapporter l'expérience de l'Italie face à la diversité des normes de l'UE pour les locomotives. Les différentes normes avaient pour effet de restreindre la concurrence au niveau local et de protéger les marchés nationaux. Par exemple, la norme utilisée en Italie n'était commercialisée que dans la République tchèque et en Belgique, les fabricants italiens ayant conclu des arrangements à long terme avec l'opérateur ferroviaire historique. La présentation de l'Italie évoque les modifications apportées depuis 2003.

La délégation italienne explique que les lignes de chemin de fer européennes utilisent des tensions électriques différentes. En conséquence, avec l'ouverture du secteur ferroviaire à la concurrence au niveau régional, les nouveaux entrants ont été limités par leurs possibilités d'accès aux locomotives. Depuis 2003, les constructeurs de matériel ferroviaire produisent partout en Europe des trains à configuration multiple capables de traverser les frontières sans changer de locomotive. Si les trains sont chers, cette solution est plus économique que d'essayer d'unifier le système de tension électrique à travers l'Europe.

Le Président indique qu'une future table-ronde sur la séparation structurelle étudiera la question des systèmes ferroviaires en Europe et il aborde un cas présenté par le Chili dans son exposé concernant une tentative d'une association d'ophtalmologistes pour bloquer un projet de loi autorisant les optométristes à offrir des services étendus.

La délégation chilienne fournit des détails. La loi en vigueur confère aux ophtalmologistes le droit exclusif de prescrire des lunettes, créant un système avec des barrières élevées à l'entrée. Les opticiens et les optométristes défendent un projet de loi visant à augmenter le nombre des professionnels autorisés à délivrer des ordonnances, bien que le projet n'envisage pas la création de guichets uniques pour la prescription et l'achat de lunettes. Le projet de loi continue de faire l'objet d'un débat. Les ophtalmologistes soutiennent que si l'on confère des pouvoirs de prescription aux optométristes, certains défauts de la vue pourraient ne pas être détectés. Ils pensent en outre que ce projet de loi avantagerait les opticiens et les optométristes au lieu des consommateurs.

Le Président évoque un problème similaire en Irlande à partir de 2008 avec la reconnaissance juridique des techniciens dentaires cliniques, ainsi habilités à vendre et poser des prothèses dentaires. Il invite la délégation irlandaise à s'exprimer sur les effets de cette mesure législative sur le marché des services dentaires.

La délégation irlandaise passe en revue certaines évolutions depuis la création du *Registrar of Clinical Dental Technicians*. Les professionnels qualifiés peuvent s'inscrire et commencer immédiatement à exercer. La plupart sont qualifiés au Royaume-Uni, mais il n'existe aujourd'hui aucune formation en Irlande et la certification doit par conséquent provenir d'établissements étrangers accrédités. Toutefois, le *Dental Council* s'efforce de créer une formation. Autre facteur limitant, les techniciens dentaires ne peuvent pas faire valoir leurs droits au titre des régimes publics comme le peuvent les dentistes. Une fois ces deux problèmes résolus, l'impact devrait être plus visible sur le marché des services dentaires. Si les tarifs des services dentaires ont en fait diminué, il est difficile d'établir la cause spécifique de cette baisse tarifaire compte tenu de la très récente récession et du fait que le droit de publicité vient d'être accordé aux dentistes.

Le Président demande si le système de santé irlandais, qui subventionne le coût des prothèses dentaires, a été modifié pour ne pas promouvoir le recours aux techniciens dentaires.

La délégation irlandaise répond qu'aucune modification n'a encore été mise en œuvre, mais qu'un nouveau régime pourrait voir le jour en octobre 2010.

Le Président remercie les intervenants et les participants, et clôture le débat de la table-ronde. En guise de conclusion, il souligne que la question des DPI dans la normalisation est à la fois intrigante et problématique. Il prend note en particulier de la remarque de Paul Lugard concernant le nombre de brevets existants pour une seule technologie, comme le Blu-Ray, et des informations fournies par le Professeur Geradin sur la prévalence des accords de licence croisés. Il fait observer que des problèmes demeurent, comme les brevets en cascade, et que des mesures correctrices peuvent provenir de la législation antitrust, des DPI ou de solutions privées, retenant en particulier la suggestion de Paul Lugard de considérer les brevets par produit plutôt que par PI. Il s'est avéré que les embuscades de brevets étaient en fait un phénomène très rare, mais la divulgation des informations demeure cruciale, dans le cadre d'un régime de PI comme d'un régime antitrust. Enfin, le Président met l'accent sur la seconde partie de la table-ronde concernant les normes restrictives interdisant purement et simplement l'accès au marché. En particulier, les normes qui exigent une expérience en plus des qualifications techniques ou l'exclusion juridique des professions de services, peuvent freiner le dynamisme des marchés.