

Minutes of the OECD FG Meeting Innovative Firms and Networks
Vienna, 16-18 February, 2000

1.) The meeting was attended by the following participants:

	<i>country</i>	<i>Organisation</i>	<i>address</i>
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Johan Hauknes	NOR	STEP Group, Oslo	Johan.hauknes@step.no
Pim den Hertog (FG: clusters)	NL	Dialogic Ltd., The Netherlands	denhertog@dialogic.nl
Svend Remoe	OECD	OECD, Paris	svend.remoe@oecd.org

The following FG members could not be present at the Vienna Meeting: HUN, BEL, TAI.

2.) The first day (16th February) was dedicated to the Module 1 (completion and further exploitation of the second phase) of the Working Programme.

Participants: Jesper Christensen (R), DEN

Anker Vinding, DEN

Andreas Schibany, AUT

Finn Orstavik, NOR

Luis Sanz (ESP) (joined the working group on the 17th)

The following topics were discussed:

- Status of exploitation
- Merging of the data sets
- Comparability check
- Research questions
- Summary report
- Publications/dissemination

The status of this activity, collecting harmonised data on innovation activity, is that four countries emerge as core participants (Denmark, Norway, Spain, Austria), while two countries are more uncertain (Sweden, Australia). The implementation of the questionnaire has been successful, with good response rates, and the results have been used in papers. The objective of this working group was to check the possibility to merge the data sets in order to use a common one for more advanced types of analysis. In relation to the benchmarking project of the OECD the research questions of this module consists of three foci:

- Science-industry linkages
- Domestic-foreign collaborations
- The service sector as a contributor to product innovation

Within the following weeks the specification of the model should start. It was also concluded that that a dissemination beyond a summary report would be beneficial. A full publication list of the contributions so far will be compiled.

3.) FG members were invited to present their current research in relation to the work of the FG. In the following, a brief summary of their presentations is given (in order of sequence – see Agenda of the workshop). The papers and presentations will be made available on the FG page of the NIS web-site: [http://www.oecd.org/dsti/sti/s_t/inte/nis/networks/networks.htm]

◆ **Timo Hämmäläinen, Gerd Schienstock (FIN): Innovation Networks and Network Policies**

This very comprehensive conceptual paper argues that according to new recursive models of innovation, network arrangements are well suited to co-ordinate modern innovation processes. Traditional transaction cost models are too narrow to analyse the comparative advantage of co-operative networks. The authors therefore developed a broader framework which includes the key characteristics of value-adding systems. The paper also focuses on the economic rationale, nature and organisation of network facilitating policies. In particular, different types of governance failures that could warrant government intervention are analysed, including the proposition of a sophisticated decision making model to help governments to see inefficiencies of economic organisations more generally.

◆ **Finn Orstavik (NOR): Innovation, Collaboration and Networking: On the nature of innovation and on using case studies of innovation to advance concepts and theories on innovation.**

The paper argues that behind existing theoretical approaches, case studies show a much broader, richer and more complex picture of innovation and interorganizational relationships, indicating the necessity of a more micro-oriented conceptual framework. This approach is thus complementary to the existing innovation surveys. A typology of interorganisational must therefore contain the mixed nature of such relationships, i.e. collaborative, complementary and competitive elements including the change of the compositions of the elements over time.

◆ **Jesper Christensen (DEN): Results of the workshop module 1**

See above (2).

◆ **Anker Lund Vinding (DEN): Important Collaboration Partners in Product Development**

The paper presents the results of the Danish DISKO survey, a project on the Danish innovation system in a comparative perspective. The focus of the survey was on the extent and patterns of collaboration with domestic and foreign partners in the development of products in the manufacturing industry in Denmark. Both for the developing firm as a whole, and for the most important development project in the firm. The study shows, that the most frequently occurring partners in the project were those who also played a role in the value chain for the eventual product. Long-term expectations play a crucial role on the choice of the partner.

◆ **Bianca Poti (ITA): Inter-firm relations and innovative performance**

Bianca Poti presented some results using the national database (Mediocredito) and the European CIS data, focusing on the research question to what extent external growth strategies (networks and ownership integration) are relevant in new products development. The results exhibit that firms which realise strategies of co-operation or integration have a higher propensity to innovate than firms which do not have such a strategy. Organisational variables are also less relevant to innovation than new technologies and the skill level of workers. The problem of causality between innovation and co-operation was discussed, indicating that existing databases are not very useful in envisaging these kind of questions.

◆ **Pim den Hertog (NL): A cluster perspective on innovation. Update from the OECD Cluster Focus Group**

In this presentation an overview was given to the on-going work within the Cluster FG. Three dimensions were presented:

- What is the cluster perspective?
- Cluster Policy Approach?
- Status ongoing work in the Cluster FG.

In defining a cluster as a 'reduced scale innovation system' the specificity of the cluster approach compared to the NIS approach was discussed.

◆ **Johan Hauknes (NOR): A service based approach to innovation. A need for new concepts?**

Due to the strong focus on technological innovation within innovation theory the paper focuses on the necessity to a service based approach to innovation. This view of innovation emphasise that a system perspective is of fundamental importance to understand the emergence of both innovation and services.

◆ **Regina Gusmao (FRA): New ongoing projects at OST**

Regina mentioned two projects at OST which are relevant to the FG work:

- The dynamics of S&T Activities in the EU-Regions: this project aimed to characterise the dynamics of the scientific and technological activities in the EU-regions (including technological linkages) in their relationship to economic growth.
- CDIS (Comparative Dynamics of Innovation Systems): within this project some contemporary systems of innovation approaches and their implications for S&T and other policies are analysed.

◆ **Terttu Luukkonen (FIN): Interfirm Networks in the EU Framework Programme**

The paper presented three types of additionality of the framework programme: promotion of cross-country collaboration, promotion of cross-sector collaboration, promotion of complex networking. The survey shows, that the EU-programme is an open network, promoting the co-operation between industry and the public sector. The paper introduced four types of networks (horizontal, vertical, mixed and other) with vertical and horizontal networks as the dominant patterns. Mixed network turned out to be most additional though differences were not very large.

◆ **Heinz Hollenstein (SUI): Innovative Activity and Knowledge Networks**

The focus of the paper lies on the heterogeneity of the innovation process by searching for innovation types based on different indicators and the use of external knowledge sources. By using firm-level data of the Swiss Innovation Survey the paper exhibits no clear-cut correspondence between the traditional approach of ranking (industries or firm size) and the different types resulting from the cluster analysis. It was very well shown, that cluster analysis is a useful procedure for a multidimensional analysis of knowledge networks. The further work will use a wider set of co-operation indicators, will take the service sector into consideration as well as the stability of knowledge networks over time.

◆ **Tuomo Pentikäinen (FIN): Industrial networks and clusters. Potential for growth?**

Based on intra-industry trade the study derives an trade-flow based, industry-level indicator of networking. The indicator is proportional to the volume and distribution of intra-industry trade, both forward and backward in the value-adding chain. The empirical test shows no one to one mapping between network indices and performance. The following discussion was concerned with the usefulness on I/O table for the analysis of networks and to what extent trade-flows are an indication of possible existing networks.

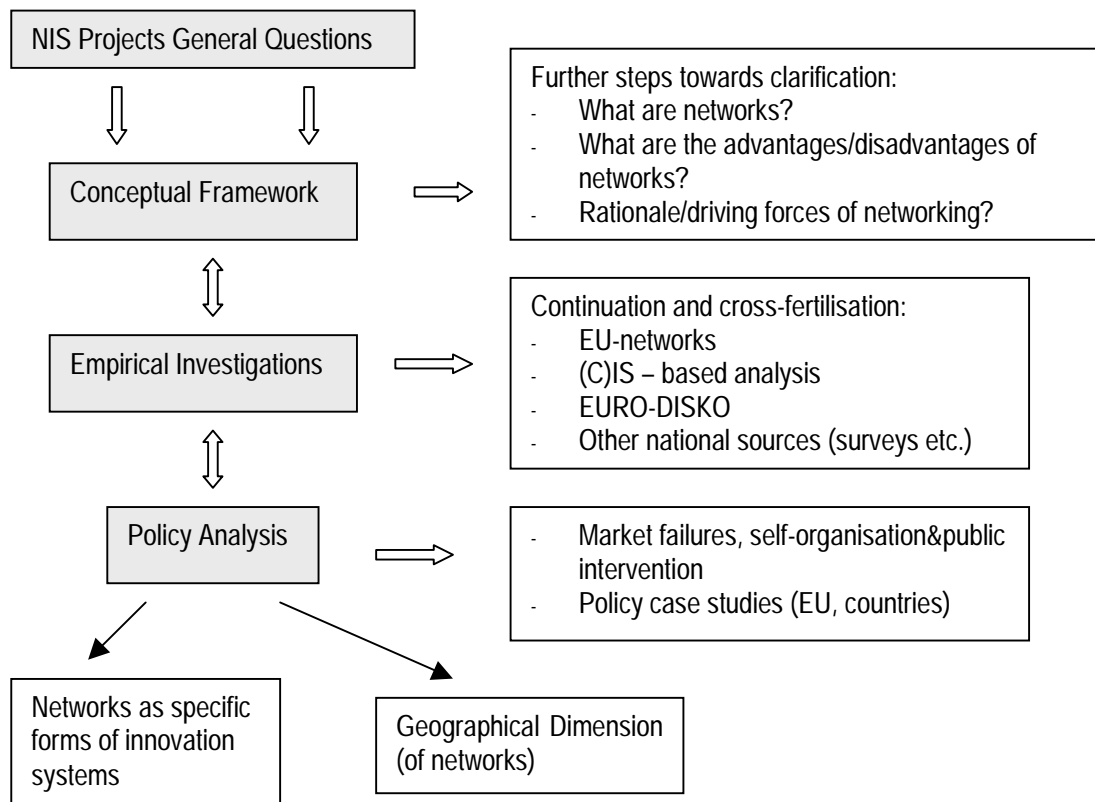
4.) Next steps / work in progress

Wolfgang Polt summarised the state of work and outlined next steps for the FG:

The *state of work* can be summarised as such: with regard to the different building blocks of the FG's work (conceptual framework, empirical investigations and policy analysis), progress has been made in the first two blocks (see graph below). What is needed as next steps is:

- Further clarification of the conceptual framework. Goal is to achieve a sound basis of common understanding until the May meeting.
- Continuation and up-date of the empirical work. A lot of work is in progress, partly dwelling on new data, that have become available only recently or will become available in the coming months. This work would be continued with as much reference to the main questions of the FG as possible (see below)
- On the basis of the preceding two blocks, the policy analysis will be started. It is aimed at providing a framework for policy case studies at the May meeting (see below).
- A main challenge will be to link the building blocks, i.e. to relate the conceptual to the empirical work and both to policy. All contributors are asked to aim at such links.
- As the work of this FG is part of a larger project – the NIS project – we should not loose track of some overarching questions of the NIS project. In our case, this could be:
 - Networks as specific forms of 'Innovation systems' (as distinct from other forms)
 - The geographical dimension of networks (regional , national, international, global)

Graph 1:



On the basis of the very fruitful discussions the participants agreed upon the following steps and research questions for further elaboration:

Conceptual framework: To arrive at a common understanding of the basic notions and concepts, the following questions will be discussed among the FG members, using the FG page of the NIS web page:

- What is a network? (as distinct from a 'Cluster', from a 'strategic alliance', from 'cooperation' and 'collaboration'?)
- Which types of networks do we specifically want to analyse? (e.g. R&D networks, Innovation networks, science-industry networks)
- What are the motives/driving forces/barriers for networking?
- What are the advantages / disadvantages of networks?
- Where does 'self-organisation' of networks end? Where does the scope for public intervention start?
- In which respects are the 'network facilitating policies' different from cluster-oriented or other innovation-system policies?

As a start for this discussion, Finland (Gerd, Timo) and Austria (Andreas, Wolfgang) will formulate tentative definitions and key hypothesis for this questions until the end of March. The FG members are then asked to comment, add and discuss (or contribute in ways they see fit) until Mid-April. The results of this discussion will be synthesised by Finland (Gerd, Timo) and Austria (Andreas, Wolfgang) and be presented by them for a round-up discussion at the May workshop.

Empirical work: Continuation of the ongoing empirical work. Michaela will summarise the discussion of the CORDIS working group and will send the results and next working steps of the group to the participants within the next week.

Policy analysis: Andreas and Wolfgang will elaborate until early April a framework / typology of 'network facilitating policies', addressing different types of perceived market/co-ordination failures. The participants are then asked to indicate examples of such policies (success/failure stories) in their countries. The results of this screening will be presented at the May meeting and form the basis for a selection of policy case studies we will have a closer look onto.

Output: It is foreseen to have outputs in at least two different forms:

- A publication in the format of the book of the 'Cluster' FG. This would allow us to take stock of all the inputs by individual participants.
- A policy oriented synthesis, aiming at the OECD/TIP audience

A detailed schedule for the publications will be discussed in May.

Time schedule / next meetings

We agreed on the following time schedule and locations:

- 15/16. May Rome (Please indicate **as soon as possible** if you can attend the next meeting. Bianca Poti is willing to organise some hotel reservation. Within this year it is quite hard to find some accommodation facilities in Rome.)
- 23/24. October Madrid