

EXECUTIVE SUMMARY

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The MONIT project

The OECD's project on national innovation systems (NIS) began in 1995. It was managed by the Working Party on Technology and Innovation Policy (TIP) and set out to explore the requirements for redirecting innovation policy in OECD countries. It took into account new insights into the innovation process arising from innovation research. While many accepted that the linear model of innovation did not capture the realities of the innovation process, they also acknowledged that public policy was still founded upon the linear model and its implications for policy. Hence, the OECD NIS project became an important collaborative mechanism for generating new data based on the interactive model of innovation and for developing a set of recommendations for public policy.

Formally, the OECD NIS project ended in 2001. Over the years, many of its findings fed into other OECD work. It also generated several publications on industrial clusters, networks and human mobility as well as synthesis reports aimed at renewing innovation policy. However, the concluding publication (OECD, 2002) raised a crucial question which became the starting point for the current MONIT project. If the developed economies are shifting towards a more innovation-oriented and dynamic mode, is it feasible for the policy-making modes of national governments to remain largely unaffected? More precisely, given needed changes in the content of policy, how can or should governments modify their structures and processes to better accommodate the dynamism of their environment?

To explore these issues, the OECD and the TIP working party endorsed a new collaborative study called MONIT (monitoring and implementing national innovation policies). The project was organised in two work packages, one to study the main innovation governance issues in each country and the second to select and study policy areas relevant to innovation policy. This volume contains the studies undertaken in the first part. Volume 3 (OECD, 2005b) contains those resulting from the second part of the project.

MONIT's basic assumption was that innovation policy and its governance require significant changes. While the earlier linear and systemic models of innovation can be seen as the first and second generations of innovation policy, MONIT set out to explore the foundations of a third generation, in which innovation policy constitutes a process, and to examine its institutional, structural and political characteristics. From the point of view of firms, such a policy forms a nexus in which policies interact to produce innovation outcomes. Thus, coherence of innovation policy across ministerial boundaries is key to successful governance.

The case for flexibility and adaptation

In recent decades there has been an increasing trend towards globalisation of the world economy, as flows of goods, services, capital and labour transcend national borders more easily and to a far greater extent. Further, the world economy has become more dynamic, with knowledge production and use, innovation and technology development becoming more important for economic growth and restructuring. Hence, the need for more flexible economies.

As knowledge and its diffusion and use have become more important for innovation and innovation systems, the earlier linear model of innovation has revealed its weaknesses. The systemic or interactive model of innovation, currently broadly accepted as a representative picture of how the innovation-driven economy works, postulates the need for dynamic and flexible structures and processes that facilitate the diffusion of knowledge throughout the economy (OECD, 2002). However, non-economic institutions that are not exposed to market forces often continue to develop along an earlier path (path dependency). Public institutions such as governments typically operate according to a rationale different from that of commercial firms and change slowly, if at all. They may thus remain out of step with a wider need for flexibility and adaptation.

Recently, greater attention has been given to the need for governments to change and develop institutional capabilities and governance practices more in line with a dynamic, innovation-driven economy. A third-generation innovation policy (going beyond the linear and interactive models) is emerging. It calls attention to institutional adaptation in the area of science, technology and innovation (STI) policy as well as to the need to develop innovation policy components across ministerial boundaries and thus redefine innovation policy horizontally. By implication, this will require new government capabilities. The more an economy needs to release lock-ins and develop new development paths, the more will be demanded of governmental institutions and policy making to accommodate these changes.

A variety of projects

This volume of contributions represents analytical work on governance structures and processes in participating countries. Many of these chapters draw on earlier reports and papers, as major efforts have been made in many countries to study in depth the challenges to current governance practices. In most cases, independent research teams have done research on contract for governmental agencies. In some countries, the MONIT activity has also been linked to major policy learning processes aimed at assisting ongoing policy formulation. Other chapters are written by civil servants who have taken part in the MONIT project and reflect insiders' views of governance challenges and processes in their countries.

These proceedings have as their focus important developments taking place in each country. They do not aim at an overall treatment of all issues analysed in the various national projects. Hence, the individual chapters focus on a variety of issues, reflecting what is at stake in a given country and what seems to offer lessons of value for other countries. Conclusions for the study as a whole are to be found in the synthesis report contained in Volume 1 (OECD, 2005a).

A guide to this volume

This volume is divided into two parts which reflect two broad trends in how governance challenges are being met across countries: On the one hand, countries may redefine or reform their STI-related institutions. On the other, they may develop broader framework policies with the aim to induce an improved strategic orientation across ministerial boundaries.

Part 1: Adapting institutions in innovation policy

In Chapter 1, Lena Tsipouri and Mona Papadakou present a study of a dilemma in the Greek innovation policy system and focus on the lack of development of governance capabilities, because the innovation system is strongly influenced by external funding from EU sources. They see the challenges to be the creation of effective governance structures and the need for policy makers to find efficient ways to spend external funding for high-impact activities, given that the market is not mature and most actors have limited experience.

In Chapter 2, Rachel Hilliard and Roy Green present an analysis of the Irish innovation policy system. They argue that the system has been struggling with two significant, and interrelated, challenges. The first is stimulation of a national innovation system (NIS). The second is securing the role of policy in achieving effective links and integration between the elements of the NIS.

In Chapter 3, Yoo Soo Hong discusses key changes occurring in Korea which needs to overhaul and renew its formerly successful catch-up policy. Hong argues that the Korean system is changing to meet the challenges of increasing complexity and responds in various ways to leverage the authority of science and technology policy.

In Chapter 4, Leonard Jorg studies Austria's governance practice as a competitive environment in which policy learning is underdeveloped. He argues that Austria's STI policy system lacks strategic focus and needs a centre of gravity and a referee function for supervising the allocation process and imposing a common point of reference for innovators and policy makers.

Chapter 5 contains an analysis of the Finnish governance system by Marja Häyrynen-Alestalo, Antti Pelkonen, Tuula Teräväinen and Sampo Villanen. Their analysis shows that, compared to other nations, Finnish policy has succeeded in raising the STI profile. At the same time it has prevented further horizontalisation of innovation policy. The case study of Finland indicates that it is difficult for actors outside core STI policy to participate in the wider policy-making process.

In Chapter 6, two contributions discuss developments in Japan. Bunro Shiozawa gives an overview of key changes in Japanese industrial policy, pointing notably to basic changes in the institutional organisation, new priorities in innovation policy, such as science-industry relationships, and the development of cluster policies. Tagui Ichikawa presents a particular development in the Japanese governance system, the “agencification” of governmental institutions, with a clearer demarcation between the ministerial policy-making level and the agency policy-implementing level.

Part 2: Integrating policies for innovation

In Chapter 7, Patries Boekholt and Pim den Hertog study the increasing tendency towards integration in the Dutch policy system in a context of strong inertia. Against the background of deteriorating STI performance, existing innovation governance mechanisms are under discussion and new innovation governance mechanisms are being introduced. These are evolutionary rather than revolutionary changes, as both the perceived policy challenges and the arsenal of policy responses develop only slowly.

In Chapter 8, Svend Otto Remøe discusses recent Norwegian efforts to leverage innovation policy to achieve a broader strategy. He discusses current challenges in the innovation policy system and emphasises the inherent tendency towards fragmentation, the low level of co-ordination among autonomous institutions and ministries, and short-termism in priorities. Recent developments to promote a more coherent or horizontal innovation policy are assessed against this background.

In Chapter 9, Jenny Granath Thorslund, Lennart Elg and Patrick Sandgren discuss Sweden. Over the years, large firms have played a central role, and this has led to the Swedish paradox: the Swedish economy is not particularly innovative despite great investments in R&D by Swedish industry. Recent institutional innovations represent a trend towards leveraging innovation policy to develop a broader strategy than traditional R&D policy.

Chapter 10 examines the recent New Zealand strategy to redefine earlier market-oriented priorities and launch a broader policy framework for innovation policy. This framework, it is shown, builds upon the idea of integrating policy areas to support coherent and sustainable economic development. Information on the institutional set-up to ensure this is provided.

In Chapter 11, Mel Timpson and Nathan Rudder describe similar developments in Australia. They discuss how Australia's economic and political structures have shaped, and continue to shape, innovation policy, as well as the influence of past science and industry policies on current innovation policy.

In Chapter 12, Jan Larosse discusses ongoing changes in the Flemish innovation policy system in the context of the devolution of competences in Belgium from the national to the regional level. He argues that in order to fully implement an innovation policy that emphasises the integration of policy domains, new governance structures are needed that support strategic convergence and interactive policy development. The study points to the formalisation of the policy cycle as a key governance issue for strategic innovation policy in Flanders.

References

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- OECD (2005b), *Governance of Innovation Systems, Volume 3: Case Studies in Cross-Sectoral Policy*, OECD, Paris.