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Policies to strengthen innovation performance

Dirk Pilat

Head, Science and Technology Policy Division

dirk.pilat@oecd.org

Strengthening innovation is not straightforward

- Many OECD countries have had **difficulties** in strengthening innovation :
 - The EU's Lisbon agenda has only made slow progress.
 - Many OECD countries have seen little improvement in productivity growth in recent years, despite new opportunities.
- Some **factors** that may explain these difficulties:
 - Business, not government, is the main driver of innovation.
 - Innovation depends on many factors: business-friendly environment, strong education and science system, good links between science and business, etc.
 - Coordinating policies across policy domains can be difficult.
 - Improving innovation often requires a long-term policy commitment .
 - Stronger innovation may imply winners and losers: firms that are not sufficiently innovative may disappear and people may lose their jobs.

- Sharing experiences and good policy practices can help.

Policy responses to the growing importance of innovation

- **Most OECD countries now have high-level policy strategies to foster innovation:** EU – Lisbon agenda; US - competitiveness agenda; Japan - Innovation 25, Australia - Backing Australia's ability, etc.
- **Broad range of policy changes underway across the OECD:**
 - Improvements in the business environment for innovation
 - Reforms to the education and research sector
 - Attention for human resources for innovation
 - Improvements in the links between science and business
 - Changes in policies to foster business innovation
 - Changes to enhance coherence of innovation policy
 - New policy dimensions – growing focus on the demand for innovative products (e.g. through public procurement), and on non-technological innovation

1. Good framework conditions are key

➤ OECD analysis shows that:

- **Strengthening competition**, e.g. in the services sector, also strengthens the incentives of firms to innovate.
- **Openness is key**: A low level of restrictions on foreign direct investment and openness to foreign talent improves cross-border knowledge transfers.
- **Stable macroeconomic conditions** and low real interest rates help to encourage the growth of innovation activity.
- The availability of internal and external **finance** is an important determinant of innovation expenditures: Improved corporate profitability and higher stock market capitalisation both have a positive effect on innovation expenditures.
- **Intellectual property rights** provide important incentives to innovate.
- Good conditions for new innovative firms and **entrepreneurship** are important as these help bring new ideas to the market.

➤ **Much reform has been undertaken across the OECD, but poor framework conditions (e.g. lack of competition and lack of openness) still remain a constraint on innovation in many OECD countries.**

2. Policies towards Public Research are changing

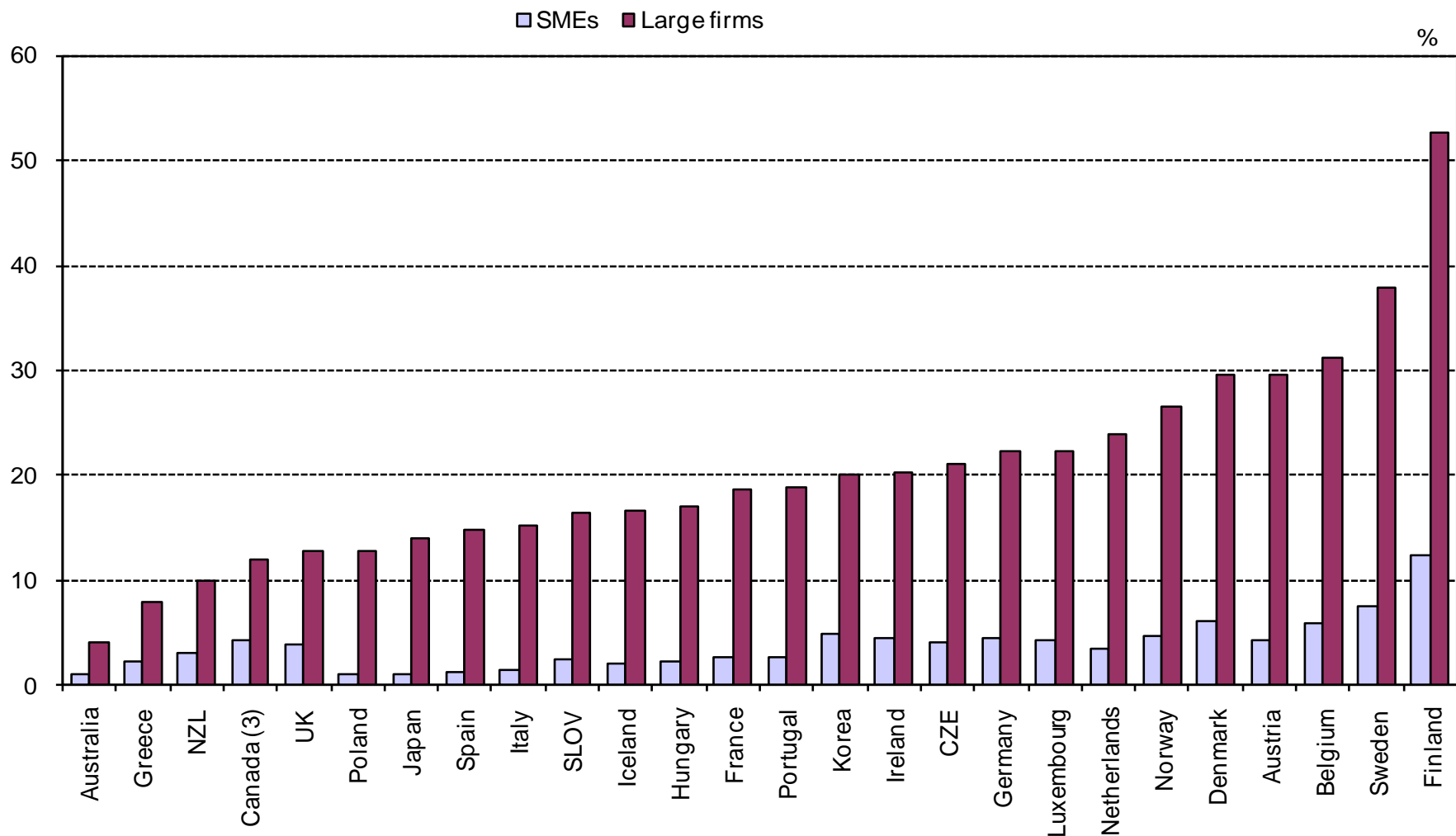
- There is a growing recognition that **strong innovation requires a strong and efficient knowledge base** (e.g. in universities and public research institutions).
- Public R&D expenditure in several OECD countries has risen.
- **Reform of public research institutions** is underway:
 - Focus on critical mass for scientific research (e.g. Denmark) – fewer, larger universities
 - University reforms aimed at greater autonomy (Japan) and performance targets
 - Reforms of public research institutions aimed at improving performance (Spain)
- **Growing focus on excellence and relevance:**
 - Ensure best research is funded – focus on excellence
 - Not everything can be funded to the same degree - achieving critical mass is key
 - Growing emphasis on competitive funding
 - Growing focus on evaluation of policies to ensure that results are achieved: new quality assessment frameworks in several OECD countries (e.g. Australia, Austria, Norway)

3. Human resources: a common constraint

- **People are key for innovation** – but there are concerns about the future supply of qualified people in several OECD countries:
 - Interest in some fields relevant to innovation (e.g. science) has declined.
 - The workforce is ageing.
 - Some OECD countries suffer from brain drain.
- **Some policies that are being introduced across OECD countries:**
 - Start early: Reform of school curricula and improved teaching can increase interest in science and technology – involvement of firms can help, as can role models
 - Improve the attractiveness of research careers – insecurity of careers in early stages, low salaries, future prospects not always clear.
 - Enhance the participation of women (e.g. in science) – still underrepresented in many fields, in some countries and at higher levels.
 - Life-long learning - initial education is no longer sufficient.
 - Attract foreign talent to fill gaps – though this is not a long-term solution.

4. Science-industry links can be further improved

Firms collaborating in innovation with higher education institutions, by size, 2002-04



5. Policies to foster business innovation

- Governments typically provide some support for business innovation as this may provide **important societal benefits**. Also, achieving R&D targets (e.g. in the European Union) will require greater business investment in innovation.
- Such support can take several forms, including tax relief and direct support (e.g. grants).
- These policies are changing across OECD countries:
 - Some streamlining – support programmes are often too complex for firms
 - Growing focus on competitive-based funding
 - Growing focus on supporting networks and clusters, instead of individual firms
- R&D tax credits are being reformed (e.g. in Belgium, Spain, Netherlands)
- Overall: in search of “smarter ways” to support business innovation.

6. Developing coherent policies for innovation

- Coordinating strategies towards research and innovation remains a challenge for many OECD governments
- A long-term perspective on innovation is important, as this enhances trust.
- Changes in coordination mechanisms can improve policy coherence:
 - Growing inter-ministerial co-operation, sometimes coordinated by the prime minister (e.g. in Finland)
 - Growing involvement of stakeholders (scientific institutions, business, the public) in the debate on science and technology policy, e.g. through foresight programmes.
 - Growing importance of regional governments and actors in innovation policies (e.g. Spain and Belgium).
- **In sum, considerable policy changes in OECD countries to improve the capabilities for innovation, but still a long way to go.**

7. New dimensions of innovation policies

- The scope of policies to foster innovation is broadening, for example:
 - A growing focus on the **demand for innovation**: what is the market for innovative products and services? - in Europe, the 2006 Aho report on “Creative an Innovative Europe” focused on this issue.
 - A growing focus on **non-technological innovation** – e.g. changes in organisations, in processes, in marketing, in design, etc. – these types of innovation are recognised as being of growing importance, in particular in the services sector.
 - A growing focus on the **global dimensions of innovation** – how can national policies be adapted to the changing global landscape for innovation?
 - A growing focus on **innovation for global challenges** and not only economic growth – eco-innovation, health innovation, etc.

OECD's role in the policy discussion on innovation

- **OECD develops statistics and indicators that can help compare science and innovation performance.**
- **OECD analyses innovation policies and performance:**
 - To improve the understanding of factors and policies driving performance
 - To identify good policy practices that may help to strengthen performance
- **OECD fosters international cooperation in science and innovation**, e.g. through the OECD Global Science Forum
- **OECD provides policy advice in country-specific studies:**
 - Country-specific reviews of innovation policy have been finalised for Switzerland, Luxembourg, New Zealand, South Africa, Chile and China; are underway for Norway, Korea, Turkey, Mexico, Greece and Hungary; and are under discussion with Brazil, Germany, Japan and Russia.
 - The OECD Economic Surveys have also covered innovation for several OECD countries.

OECD Reviews of Innovation Policy

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What are a country's achievements in innovation, and how does this relate to economic performance? What are the major features, strengths and weaknesses, of its innovation system? How can government foster innovation?

The OECD Reviews of Innovation Policy offer a comprehensive assessment of the innovation system of individual OECD member and non-member countries, focusing on the role of government. They provide concrete recommendations on how to improve policies which impact on innovation performance, including R&D policies. Each review identifies good practices from which other countries can learn.

Switzerland's innovation performance is among the best in the world. It is the home of strong research-intensive institutions both in the business and the public research sector. However, growth of GDP and productivity has been relatively slow for some time. A number of other countries have been able to develop their innovative capabilities more dynamically. Further raising the level of innovation is of key importance for boosting Switzerland's economic growth and maintaining high living standards in an increasingly globalised world. This review suggests some reforms in innovation policy which would help to cope with this challenge.

The full text of this book is available on line via these links:

<http://www.sourceoecd.org/science/179264029745>

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Towards an OECD Innovation Strategy

- The OECD Ministerial Council Meeting of 15-16 May 2007 has mandated the OECD to develop an **Innovation Strategy**, recognising the growing importance of this policy area.
- The Innovation Strategy will:
 1. Provide **new facts and evidence** depicting innovation performance in OECD countries, based on statistical, empirical and thematic analysis.
 2. Provide **explanations for the differences in performance** across OECD countries, pointing to the main policies affecting innovation performance.
 3. Provide **comprehensive and forward-looking policies** to strengthen innovation, involving good policy practices and recommendations. This will also seek to address the new dimensions of innovation.
- It will provide governments with a stronger evidence basis and good policy practices to reform and strengthen their policies towards innovation.
- Country-specific recommendations will be provided through voluntary reviews.

Thank you.