EUROPEAN POLICY CENTRE

Policy Brief

November 2008

Tackling Europe's innovation deficit

By Fabian Zuleeg

Background

Creating innovative products and services is critical to sustain the EU's economic and social achievements, and remain competitive in light of globalisation. For as the EU's 2006 Innovation Strategy notes: "In this new economic order, Europe cannot compete unless it becomes more inventive, reacts better to consumer needs and preferences, and innovates more."

Innovation matters

Innovation is closely linked to the Lisbon Strategy's objective – competitiveness in a global knowledge-based economy. Firms will have to offer innovative products and services to maintain their global market share, particularly in those sectors that are more technology- and Research and Development-intensive. More innovation is also critical to sustain public services in light of an ageing society and the need to invest in skills.

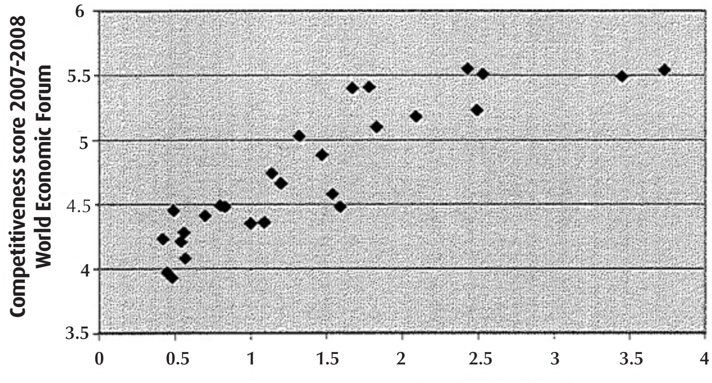
While there are significant concerns about using R&D expenditure (as a percentage of GDP) as an innovation indicator, it is the measure most often used at the EU level.

The level of R&D spending is partly explained by underlying structural factors, such as the extent of a country's manufacturing sector, and its current stage of development and economic growth. This results in significant variations across the EU, with the Scandinavian countries, Germany and Austria generally investing more than the Mediterranean and new Member States.

In 2002, the Union set itself the target of increasing R&D expenditure to 3% of GDP by 2010, but this goal is unlikely to be reached. So far, the figure has remained stubbornly below 1.9%, mainly due to a shortfall in company R&D expenditure, with only Finland and Sweden exceeding the target.

But does this matter? The evidence suggests it does – those EU countries with higher R&D expenditure also tend to be more competitive, as the graph shows.

Correlation between R&D expenditure and competitiveness



Most likely this is a virtuous circle: more competitive countries invest more in R&D, which boosts long-term competitiveness.

Words versus deeds

The causes of the innovation deficit can be difficult to pin down. Europe has many highly innovative and competitive companies, but market fragmentation can result in a lack of critical mass for innovation.

EU policy has focused on innovation since 1995: the European Commisssion's Green Paper was followed a year later by the First Action Plan for Innovation in Europe, motivated by the 'EU paradox': while its universities were seen to deliver excellence, their research was not being sufficiently exploited commercially. The plan aimed to foster an innovation culture and establish a favourable framework for innovation.

The 2006 Aho Report on 'Creating an Innovative Europe', prepared by independent experts, advised the Commission on ways to improve the EU's performance. It proposed focusing on the creation of innovation-friendly markets, strengthening R&D resources, increasing structural mobility and fostering an innovation culture.

However, to date, the EU's potential has not been exploited.

A 2007 European Policy Centre Policy Brief on *Cultivating a market for innovation in Europe* emphasised the Single Market's potential as a market for innovation and proposed a rethink of Europe's innovation architecture.

It contained a range of concrete proposals, warned that innovation was slipping down the political agenda, and called for political will and leadership to drive it forward.

State of play

There has been real progress in recent years, with the R&D target demonstrating a commitment to – and stimulating greater focus on – innovation at EU, Member State and regional level.

To foster an innovation culture and encourage an entrepreneurial spirit among Europeans, who tend to be risk-averse when it comes to transforming ideas into new products or services, the Commission promotes entrepreneurial attitudes through education and learning, with a detailed catalogue of proposals contained in the 2006 'Oslo Agenda for Entrepreneurship Education'.

EU research funding has been refocused on achieving concrete market outcomes, with current research funding more targeted on meeting industry's needs. New partnerships, such as "Technology Platforms" and "Joint Technology Initiatives", aim to network the 'triple helix' of university, business and government. ICT is also treated as a priority area.

The European Institute of Technology should further encourage cross-border innovation clusters. It aims to become a flagship for excellence by bringing together research, education and innovation – the 'knowledge triangle'. It is complemented by the European Research Council, which aims to stimulate scientific excellence by supporting risk-taking in research. Its planned 2009 review provides an opportunity to make the link even more strongly with the innovation policy agenda.

Regions are often key developers and implementers of innovation policies. For the 2007-2013 budget period, regional policy has focused significant resources on innovation in many EU regions, with Structural Funding used to encourage the development of regional innovation strategies and innovative actions. The Commission is also developing a European Cluster Strategy.

Innovation is also funded by the Competitiveness and Innovation Framework Programme (CIP) through an Entrepreneurship and Innovation Programme, the ICT Policy Support Programme, and the Intelligent Energy Europe Programme.

To create new markets for innovation, the EU has developed the Lead Market Initiative, which aims to use legislation, public procurement, standardisation, labelling and certification, Structural Funds and state aids to establish favourable conditions in key emerging markets. Six sectors were identified in 2007 as potential lead markets: e-health, protective textiles, sustainable construction, recycling, bio-based products and renewable energies.

Standardisation is crucial to overcome coordination failures, especially for new and emerging technologies. Public procurement can unlock innovation potential by creating demand, but requires a competitive and transparent market. The 2007 'Communication on Pre-commercial procurement' aims to make public authorities "technologically- demanding first buyers".

Finally, the Commission proposes to dismantle barriers hindering the free movement of knowledge – the so-called "fifth freedom". Plans to create a cross-border European Research Area (ERA) were enshrined in the Lisbon Treaty and in 2007, the Commission noted that a number of steps have already been taken, such as the Services Directive, which includes business services, ICT management, etc. within its scope and is due to be put on national statute books by the end of 2009. The Commission is also planning to introduce a European 'passport' for researchers and a standardisation strategy, and modernise the framework for e-communication and intellectual property rights.

We can do better

Many of the cornerstones required to make the EU more innovative are in place, but will take time to bed in and deliver. Focusing on the demand for innovation, through lead markets and pre-commercial procurement, is a step in the right direction as it focuses efforts on commercially viable products and services. This focus is critical to encourage companies to invest more: private-sector innovation will only increase if there is a market to make it profitable. But it is already clear that it will not be enough.

Doing better in this area is a question of economic survival but despite more than a decade of effort, the EU's performance remains somewhat disappointing. The most striking example is the much-expected failure of the 3% R&D target, but growth has also been particularly low in the high-tech sector and in business services crucial for future economic performance and productivity.

Many of the EU's initiatives do not go far enough. The Lead Markets Initiative is a good start, but is nowhere near to the ambitions set out in the Aho Report in scope or scale. That Report emphasised barriers in the services sector but, so far, the lead markets identified focus mostly on manufacturing, construction and the public sector. Nor is it clear what drove the selection of these markets, how policy success will be monitored and what the next steps will be: will new lead markets be identified and, if so, when?

The fifth freedom also needs a more ambitious agenda. Enabling researchers to move more freely around the EU and creating the European Research Area are only first steps. Preparing the Single Market for the knowledge economy requires much more fundamental change, recognising the importance of knowledge as the underlying asset and driver of future growth.

There is also a lack of clear ownership and overall leadership for innovation in the current framework, with a number of Commission Directorates-General responsible for elements of the policy agenda. This fragmentation of political ownership raises concerns for the future: in the next Commission, who is going to champion innovation in Europe?

Prospects

Europe needs to take advantage of the existing positive momentum: 2009 will be the Year of Creativity and Innovation, which could become an important milestone in relaunching an ambitious EU innovation agenda and developing a more permissive and conducive environment.

More could also be done to deepen current efforts. The Lead Markets Initiative needs to be developed further and there should be better access to venture capital for Europe's entrepreneurs, building on recent European Investment Bank initiatives. Work also needs to start on a more concrete and ambitious agenda for the fifth freedom.

Stronger leadership is required at EU level, with the push for an ambitious innovation agenda coming from the top: the Commission President should take the lead on a comprehensive innovation Action Plan, specifying clearly what the institution intends to do to foster innovation across all policy areas, with a range of Directorates-General reporting annually on progress.

All EU instruments, including different funding streams, must be better coordinated to achieve greater impact and the forthcoming budget review should set out how EU funds will be used to foster innovation. R&D funding and Structural Funds should be used in tandem to boost innovation and human capital across the Union.

But the key challenge is not at EU level; rather, it lies with the Member States and regions, where the main policy levers are. Without action here, the Union cannot make substantive progress.

Ways forward

The public sector has a role to play in fostering innovation, directly as a customer (e.g. in the defence sector) and indirectly as a regulator (e.g. of pharmaceuticals). Here, the EU should continue to develop the Single Market and pursue recent proposals to open up defence and health markets to a greater extent.

The Open Method of Coordination should be used to monitor Member State performance. But to do this, a better benchmark than the 3% target is needed. This was a pragmatic solution at the time to encourgage action, but it has served its purpose and the EU has changed fundamentally since then. As it stands, this target is simply not achievable for many EU Member States. Publicly naming and shaming governments which have not fulfilled their 'duties' will not be an effective deterrent if the target is not fully endorsed and seen as achievable within those countries.

We need to move away from simple numerical targets to long-term, country-by-country innovation action plans which benchmark Member States against others at a similar level of development and with a similar economic structure, using a wide range of quantitative and qualitative indicators.

The Action Plan should aim for year-on-year improvement as well as meeting long-term aspirations, both in terms of policy instruments (e.g. public research funds), outcomes (e.g. patents) and impacts (e.g. revenue and profit from new products and services). Developing such strategies will require investment in measuring innovation more thoroughly and consistently, to include all innovation which results in improved commercial performance or more effective or efficient public services. The Action Plan should set clear targets for each country and specify how these will be met, including the contribution of the regions.

In preparation for the post-2010 Lisbon Agenda, the EU should also invest in research to understand and measure the changing nature of innovation. Already in 2000, a study for the Commission, 'Innovation policy in a knowledge-based economy', noted that innovation is a much broader concept than the mere outcome of formal research, involving a wide array of actors and activities and manifested in a variety of forms.

It is particularly important to be able to measure the impact of innovation in services and the public sector, including innovative human capital development, new business processes and models, and organisational change. The key is to 'capture' the impact of all types of innovation on the economy. Without this, the importance of action in this area will continue to be underestimated.

Research is also required to establish what policies work effectively to encourage private-sector innovation. This could be done through a wide-ranging policy appraisal, including EU, national and regional policy options such as creating lead markets, the role of taxation systems in supporting or discouraging risk-taking, R&D tax breaks and business-support mechanisms.

A key priority for Member States and regions should be concrete actions aimed at fostering an innovation culture. The EU has published a number of guidelines and action plans for the national, regional and local level, but implementation has varied significantly and there are few concrete incentives to reward action in this area.

The EU should focus more of its funding on creating incentives for an innovation culture across a range of institutions, including not only universities but also vocational education settings, schools, private and public training, skills and economic development organisations. For example, schools which aim to provide pupils with entrepreneurial experience should have access to funding for this. The emphasis should not merely be on financial incentives, but rather on the promotion and recognition of good practice.

New beginnings

The EU has come a long way in the last decade and taken a number of steps in the right direction. But if it is to keep up with its global competitors, this process must be accelerated.

The 2009 Year of Creativity and Innovation provides a good platform to advance this policy agenda. The EU needs to lead the way with the right strategy and a stronger institutional setting. The next Commission should be able to draw on strong preparatory work, beginning now, to develop a comprehensive and forward-looking Innovation Action Plan aimed at improving the performance of the Member States and regions.

While 2009 is unlikely to see significant progress towards the R&D target, it could be remembered in future as the year in which the foundations for a robust, forward-looking and, above all, successful European innovation strategy were laid – if we start preparing the ground now.

Fabian Zuleeg is Senior Policy Analyst at the European Policy Centre. This Policy Brief reflects the discussions which took place in the Innovation Task Force, chaired by Senior Adviser Pavel Telicka, between 2007 and mid-2008. The author would like to thank all the Task Force members for their input and involvement, and former Programme Assistants Annalena Seyffart and Nicolo Zingales for their research support.

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Education and Culture DG
'Europe for Citizens' Programme

Co-financed by the European Union within
the programme "Europe for Citizens" 2007 - 2013.