

Brussels, 12 October 2005

An action plan to boost research and innovation

The European Commission has tabled an integrated innovation and research action plan, which calls for a major upgrade of the conditions for research and innovation in Europe (see [IP/05/1252](#)). It launches 19 ambitious initiatives to promote innovation and research, such as redeployment of state aid, improved efficiency of intellectual property protection, mobilisation of additional funds for research, creation of innovation poles, and improving university-industry partnerships. For the first time, the plan offers an integrated approach to EU research and innovation policies, and is particularly focused on improving the conditions for private sector investment in R&D and innovation.

Why should Europe do more to increase investment in research and innovation?

Economic studies show clearly that investing in research and innovation has a positive effect on economic growth. One recent study found that for each extra percent in public R&D, there is an extra 0.17% growth in productivity. To put this into context, average annual labour productivity growth in the Eurozone was 1.2% between 1995 and 2003. An increase in EU R&D spending, especially if accompanied by increases in spending at national level, could therefore have considerable impact on productivity. Another study has found that a 0.1% increase in R&D intensity boosts output per capita growth by 0.3-0.4%. (see [MEMO/05/199](#) for more details).

Where does Europe currently stand?

Europe is lagging behind the US and Japan in both innovation and research.

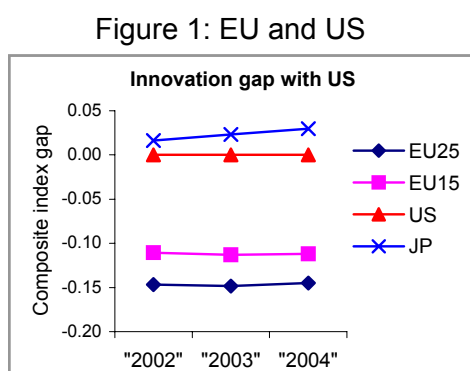
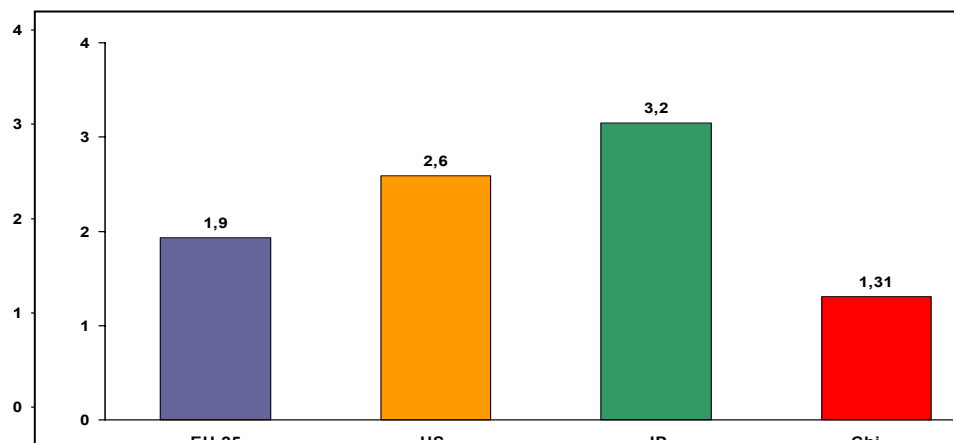


Figure 1: EU and US

Based on a set of comparable data for 16 indicators, the **US and Japan are still far ahead** of the EU average and the vast majority of Member States. The innovation gap between the **EU and the US** appears to be stable, with a slight increase in the gap for the EU15 (Figure 1) largely explained by three indicators: EPO, USPTO and triad patents (45% of the gap), population with tertiary education (25%) and ICT expenditures (19%).

The 2005 key figures show that EU R&D intensity (investment as a % of GDP) is close to stagnation. Growth of R&D investment as a % of GDP has been slowing down since 2000 and only grew 0.2% between 2002 and 2003. Europe devotes a much lower share of its wealth to R&D than the US and Japan (1.93% of GDP in the EU in 2003, as compared to 2.59% in the US and 3.15% in Japan). The EU has set itself the target to invest 3% of its GDP in R&D by 2010.

Figure 1: Total R&D expenditure (as % of GDP), 2003



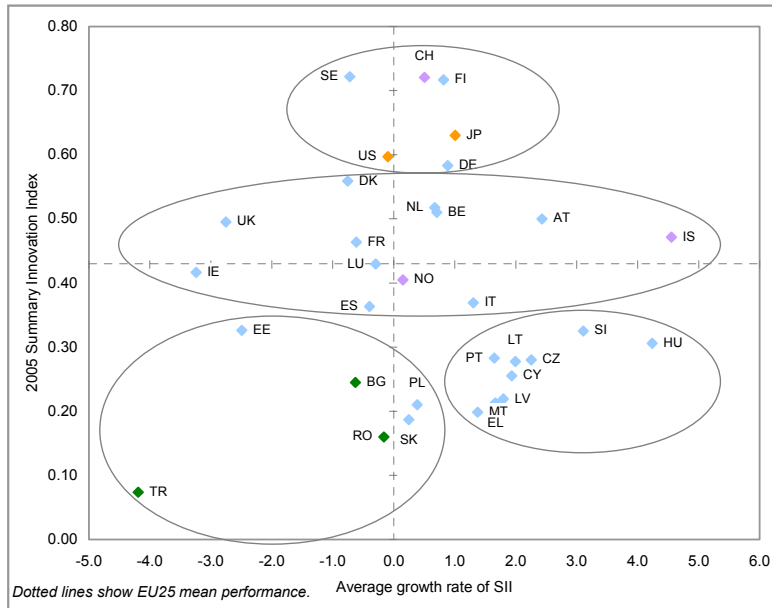
Equally worrying is the fact that, while China has lower R&D intensity than the EU (1.31% of GDP in 2003), it grew at about 10% per year between 1997 and 2002. If these trends in the EU and China continue, China will be spending the same amount of GDP on research as the EU in 2010 – about 2.2%.

Are there significant differences between Member States?

The picture in research and innovation varies widely across the EU and EEA.

Innovation performance is measured by the Summary Innovation Index (SII) which combines 26 indicators and is calculated for those countries for which adequate data are available. Based on their SII score and the growth rate of the SII the countries can be divided in four groups: Finland, Sweden, Germany and Switzerland make up the group of “Leading countries”. Of these, only Sweden shows a below EU average SII growth rate. Denmark, France, Luxembourg, Ireland, United Kingdom, Netherlands, Belgium, Austria, Italy, Spain, Norway and Iceland all belong to the group of countries showing “Average performance”. Countries “Catching up” are Slovenia, Hungary, Portugal, Czech Republic, Lithuania, Latvia, Greece and Cyprus. Countries “Losing ground” are Estonia, Bulgaria, Poland, Slovakia and Romania.

Figure 2: Summary Innovation Index – current and trend performance



In terms of the catching up countries, none is expected to be at the EU25 average by 2010. At best Hungary, Slovenia and Italy will under the current conditions reach EU25 average by 2015. Under this scenario, for Malta, Slovakia and Poland the catching up process would take more than 50 years. Based on the current trends, it would also take more than 50 years for the EU25 to reach the US level of innovation performance.

Spending on research and development varies widely too. Sweden and Finland spend more than 3% of GDP. Denmark, Germany, Austria and France are spending more than the EU average of 1.93%. Other Member States vary from Netherlands and UK who are only just under the EU average, to less than 0.4% of GDP in Latvia and Cyprus.

What is the role of the private sector?

The EU’s target is that by 2010, two-thirds of total R&D spending should come from private financing. This figure is currently about 55%, compared with 63% in the US and 74.5% in Japan. There has been a slow-down in business funding of R&D. In 2002 business funding grew at a slower rate than GDP, and the business share of R&D spending is decreasing. Therefore the EU needs to consider the conditions within which businesses finance innovation and R&D spending, and see how these can be improved.

How does the EU monitor the situation in the Member States?

The European Commission has a number of tools to monitor the performance of Member States and the private sector in R&D and innovation spending.

The first is the *European Innovation Scoreboard* (EIS), which has been published since 2000 on an annual basis. The EIS is the instrument developed by the European Commission, under the Lisbon Strategy, to evaluate and compare the innovation performance of the Member States. The EIS 2005 (to be published in November 2005) will include innovation indicators and trend analyses for all 25 EU Member States, as well as for Bulgaria, Romania, Turkey, Iceland, Norway, Switzerland, the US and Japan. More information is available at <http://trendchart.cordis.lu/>

The Commission also regularly publishes Key Figures on R&D, an annual analysis of R&D statistics and trends. The latest report was issued in July 2005 and is available at <http://www.cordis.lu/indicators>.

Another useful tool is the EU Industrial R&D scoreboard, which measures, analyses and compares the R&D investment of the top 500 companies within and also outside the EU. The 2005 scorebaord will be made public in November.

What are the actions proposed in today's Action Plan?

The various areas for future EU action are summarised in the table below:

To put research and innovation at the heart of EU policies		
	The Commission will:	Member States are invited to:
1.1	Step up dialogue with stakeholders to identify regulatory barriers to research and innovation http://europa.eu.int/comm/enterprise/regulation/better_regulation/index_en.htm	Fully exploit the possibilities of the new framework for support to research and innovation
1.2	Adopt a more research and innovation-friendly State aid regime http://europa.eu.int/comm/competition/state_aid/others/action_plan/	Transpose Community legislation in a way that will promote research and innovation
1.3	Support actions on improving the IPR system and its effective use http://www.ipr-helpdesk.org	Adopt the Community patent, and meanwhile improve the current system
1.4	Support, monitor and further develop actions under the research human resources strategy (http://europa.eu.int/eracareers/)	Implement the Recommendations and Directive (when adopted) on research human resources and other means
1.5	Promote the use of public procurement to stimulate research and innovation	Consider reviewing procurement practices through mutual learning and use the possibilities offered by the new legislation
1.6	Define EU guidelines to promote an optimal use of R&D tax incentives	Implement on a voluntary basis the forthcoming EU guidelines taking into account national contexts

To put research and innovation at the heart of EU funding		
2.1	Stimulate the use of Structural Funds for driving research and innovation http://europa.eu.int/comm/regional_policy/sources/docoffic/2007/osci/index_en.htm	Adopt the Commission's proposals on the Cohesion and Structural Funds and take full advantage of the wide range of new opportunities offered by these Funds and by the Rural Development Fund, regarding research and innovation
2.2	Promote a better access to finance for innovative SMEs http://europa.eu.int/comm/enterprise/entrepreneurship/financing/index_en.htm	Make full use of the equity and guarantee schemes and engage their financial communities to facilitate access to finance
2.3	Support the development of new technologies and foster their market uptake http://fp6.cordis.lu/fp6/calls_activity.cfm?ID_ACTIVITY=577	Adopt the Commission's proposals on the 7th Research Framework Programme and the Competitiveness and Innovation Framework Programme, together with the European Parliament
2.4	Mobilise national and regional research and innovation programmes and other sources of funding	Take maximum advantage of Community support schemes to foster trans-national co-operation
To put research and innovation at the heart of business		
3.1.	Define EU guidelines to improve research collaboration and knowledge transfer between public research and industry	Implement the guidelines taking into account the national contexts
3.2.	Promote innovation poles and knowledge-driven and industrial clusters	Take full advantage of Structural Funds for the development of innovation poles and participate in EU cluster initiatives
3.3.	Provide specific business support services to enterprises, in particular SMEs, stimulating research and innovation http://irc.cordis.lu/	Make full use of Structural Funds and IRC support for improving innovation support services, in particular for SMEs.
3.4.	Promote good innovation management practices http://europa.eu.int/comm/research/era/keyfigures_en.html	Use new innovation management tools and consider innovation prizes
3.5.	Define and implement a strategy promoting innovative services	Consider ways for promoting innovative services
3.6.	Establishing a European Industrial Research and Innovation Monitoring System http://europa.eu.int/comm/research/era/keyfigures_en.html	Take account of the results of the EU level monitoring and analysis
To improve research and innovation governance in Europe		
4.1	Monitor and support national research and innovation policy developments through the new Lisbon partnership for growth and jobs http://europa.eu.int/growthandjobs/index_en.htm	Where appropriate, report on national research and innovation policy developments in National Reform Programmes within the new Lisbon partnership for growth and jobs
4.2	Further develop policy analysis instruments for research (http://trendchart.cordis.lu/scoreboards/scoreboard2004/index.cfm) and innovation (http://trendchart.cordis.lu/)	Make full use of statistical and policy analysis provided by the Commission
4.3	Support policy learning platforms and facilitate trans-national policy co-operation http://trendchart.cordis.lu/annualreports/report2004/innovation_policy_europe_2004.pdf)	Take full advantage of trans-national policy learning and co-operation