

Europe's R&D: missing the wrong targets?

By: Bruno van Pottelsberghe

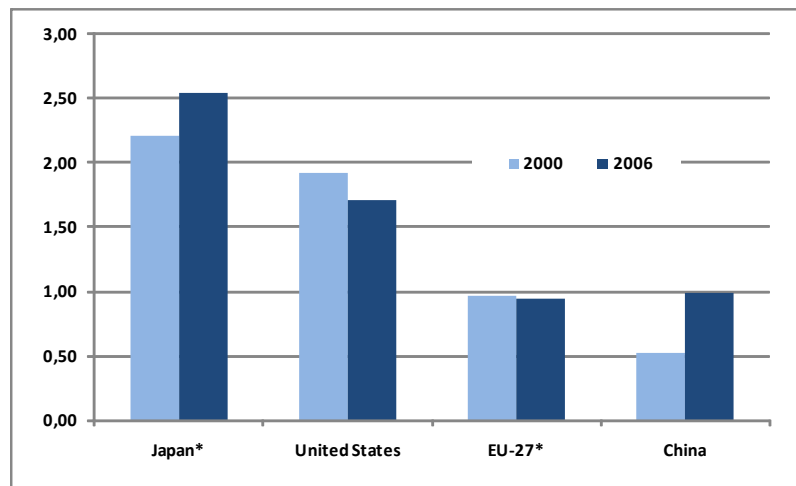
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Questions and answers for media

What is the background to this Policy Brief?

Europe is not living up to the perhaps most well-known target in the Lisbon agenda, to increase its investment in R&D to 3 percent of GDP. This is worrying, not only because Europe seems unable to reach such a high profile objective, but foremost because in 2006 investment in R&D was still below 2 percent. The EU's investment in R&D has been stable between 1,6 percent and 1,8 percent since the early eighties, while the USA has had an average above 2,5 percent. At the same time Japan has constantly increased its R&D intensity and has now overtaken the 3 percent threshold. Even China has, with dramatic increases over the last ten years, almost caught up with the EU.

Figure 1: Business funded R&D as a percentage of GDP, 2000 and 2006 (or closest)



Source: OECD MSTI, 2007. Industry-financed GERD as a percentage of GDP; * indicates the year 2005 instead of 2006.

What is the focus of this Policy Brief?

This Policy Brief is a critical assessment of the R&D component of the Lisbon agenda. The Policy Brief:

1. Discusses the gap between the actual levels of investment in research and development and the national targets that were announced under the Lisbon agenda.
2. Explains why targets for research and development investment at an EU level make little economic sense, since countries have different industrial specialisations.
3. Investigates what can be done to improve the expected return to investment in R&D in Europe.

How far from the target are the actual levels of investment in R&D?

In 2006, R&D intensity in the EU remained under 1,8 percent, which means that it has remained unchanged since the Lisbon Agenda's launch. There are major differences between the EU member states. Finland and Sweden have exceeded the 3 percent target for several years. Denmark, Austria and Germany are around 2,5 percent. But the vast majority of countries are still well below 2 percent.

The countries that have improved their levels of investment in R&D most in the last ten years (Finland, Austria, Denmark and Sweden) were countries that already had high levels in 1995. And three countries have seen a drop in their R&D intensity: France, United Kingdom and the Netherlands.

None of the EU member states currently fulfils the commitment that government should devote one percent of GDP to funding investment in R&D. A large number of countries have actually reduced their government funding as a percentage of GDP.

Is there a problem with the target?

The need for a high level of investment in R&D depends on the industrial specialisation of a country. Countries specialised in tourism, fashion, services or food industries would logically have a lower R&D intensity than a country specialised in pharmaceuticals, engineering or biotech industries. This Policy Brief shows that much of the variation in R&D intensity across countries can be explained by different country specialisations. To set a target for total R&D investment at an EU or country level is, therefore, problematic since research activity is dependent to a large extent on a member state's industrial structure.

What can be done to stimulate R&D?

Even when taking the industrial specialisation of countries into account Sweden and the US have an R&D intensity which is above average. This suggests that there are factors other than technological specialisation that stimulate R&D investments in these countries. This Policy Brief suggests that an important driver of business R&D investment is the economic benefit businesses can expect from engaging in research projects and innovation. Looking at the examples of Sweden and the US, the Policy Brief identifies two policy recommendations:



1. Integrate the market for innovation.

Access to a large market logically brings higher expectations of return. Companies in the US benefit from a large and homogeneous market, with one main language and one set of regulation. R&D investment in Europe is hampered by a lack of European integration. For example, there are insufficient EU-wide financing solutions for emerging companies and the fragmented patent system drives up the cost of innovation.

2. More and better academic research.

The explanation for the high R&D intensity in Sweden is probably related to the high level of spending on academic research. Strong emphasis on academic research is a stimulus for business R&D: universities generate new ideas which are then transferred to the private sector. Not surprisingly, the four countries in with the highest academic R&D intensities are also the four countries with the highest business R&D intensities.

Media queries can be directed to Helena Markstedt, 0032 (0)2 227 4290, email helena.markstedt@bruegel.org

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