

Business enterprise R&D (BERD) accounts for the bulk of research and development (R&D) activity in OECD countries in terms of both performance and funding. In 2007, R&D performed by the business sector reached USD 616.8 billion (in current PPP), or close to 70% of total R&D. The United States accounted for around 43% of OECD-area BERD. The EU and Japan accounted for 27% and 19%, respectively.

Between 1997 and 2007, OECD-area BERD grew by USD 160 billion (in PPP of 2000). The United States accounted for almost 40% of the growth, and Japan for around 20%. In 2007 BERD in China reached USD 74 billion (in current PPP), or about 45% of BERD in the EU, up from around 7% ten years earlier.

Among OECD countries, Iceland, Portugal and Turkey experienced strong growth of BERD during the last decade, in excess of 10% a year. Outside the OECD area, both China and Estonia had growth rates above 20% a year in real terms. The Slovak Republic is the only country among those surveyed to have experienced a decline of BERD in real terms during the period (almost 10% per year).

In the three main OECD regions, business R&D intensity (R&D expenditure relative to value added in industry) increased from the mid-1990s to 2000. Since then, it has risen strongly in Japan (to 3.7% in 2007), but remained stable in the European Union (around 1.8%). In the United States, after a drop in the early 2000s (2.8% in 2004), it climbed to 3.1% in 2007. Business R&D intensity is well above the OECD average of 2.4% in all Nordic countries except Norway, but particularly in Sweden (4.5%) and Finland (4.0%).

Business R&D

Business enterprise expenditure on R&D (BERD) covers R&D activities carried out in the business sector by performing firms and institutes, regardless of the origin of funding. While the government and higher education sectors also carry out R&D, industrial R&D is most closely linked to the creation of new products and production techniques, as well as to a country's innovation efforts. The business enterprise sector includes:

- All firms, organisations and institutions whose primary activity is production of goods and services for sale to the general public at an economically significant price.
- The private and not-for-profit institutions mainly serving them.

When assessing changes in BERD over time, it is necessary to take account of changes in methods and breaks in series, notably in terms of the extension of survey coverage, particularly in the services sector, and the privatisation of publicly owned firms.

Source

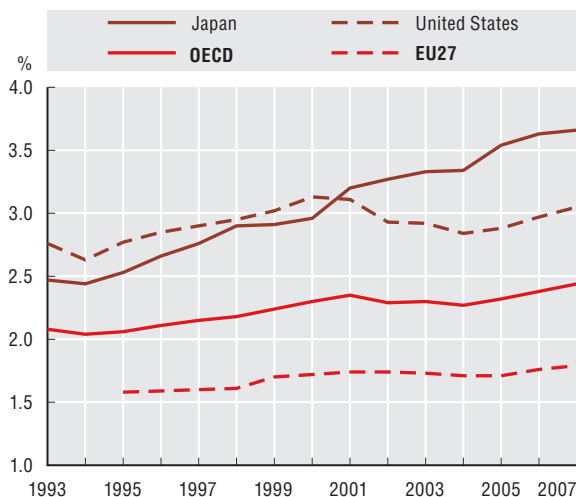
OECD, Main Science and Technology Indicators Database, June 2009.

Going further

OECD (2002), *Frascati Manual: Proposed Standard Practice for Surveys on Research and Experimental Development*, OECD, Paris, www.oecd.org/sti/frascaticmanual.

Business R&D intensity trends by area, 1993-2007

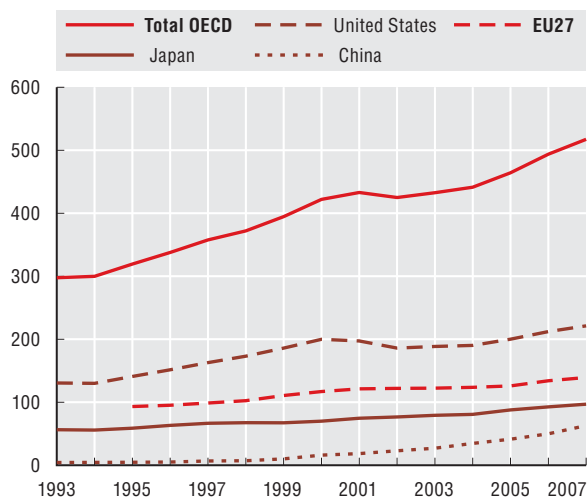
BERD as a percentage of value added in industry



StatLink <http://dx.doi.org/10.1787/742175228606>

Business R&D by area, 1993-2007

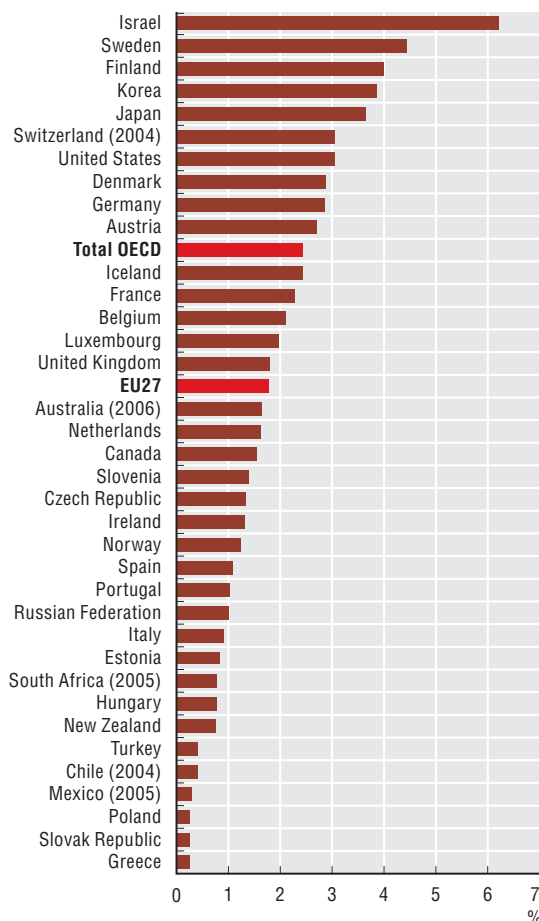
Billions of USD PPP of 2000



StatLink <http://dx.doi.org/10.1787/742222770463>

Business R&D intensity, 2007

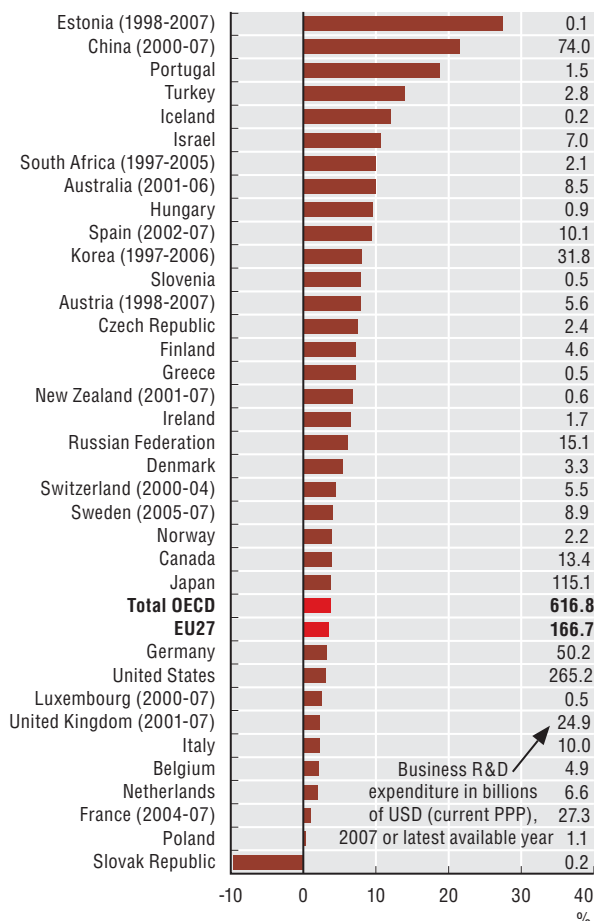
BERD as a percentage of value added in industry



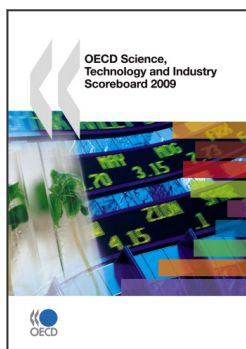
StatLink <http://dx.doi.org/10.1787/742227210404>

Growth of business R&D, 1997-2007

Average annual real growth rate in percentage



StatLink <http://dx.doi.org/10.1787/742168543605>



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