

PORTUGAL

Economic growth has lagged that of most EU countries; from 2001 to 2006, real GDP per capita growth averaged only 0.1% a year. Although R&D spending has grown faster than GDP (9% a year on average between 1995 and 2006), R&D intensity remains very low (at 0.83% of GDP in 2006). The government sector still accounts for most research funding, although industry-financed R&D increased from 0.11 to 0.29% of GDP from 1995 to 2005.

The innovation gap is visible in the take up of existing technology, with production and exports traditionally being dominated by low value added products. However, Portugal's exports have been steadily moving away from lower technology products towards medium- and high-technology goods.

A low level of human capital formation has slowed technology uptake and has helped to maintain the innovation gap. Tertiary attainment levels remain low, but progress has been made in increasing the number of university graduates, particularly in science and technology, owing in part to teaching initiatives at secondary schools such as *Ciência Viva*. The government has made reform and investment in higher education a priority. Portugal increased the share of science and engineering (S&E) degrees to 25% in 2005. Among new PhDs, the share of S&E degrees is nearly 50%, half of which are granted to women. In 2005, researcher employment reached 4.1 per 1 000 total employment.

Scientific output is also rising, albeit from a low level. Scientific articles increased from 99 to 275 per million population from 1995 to 2005. Similarly, the number of triadic patent families

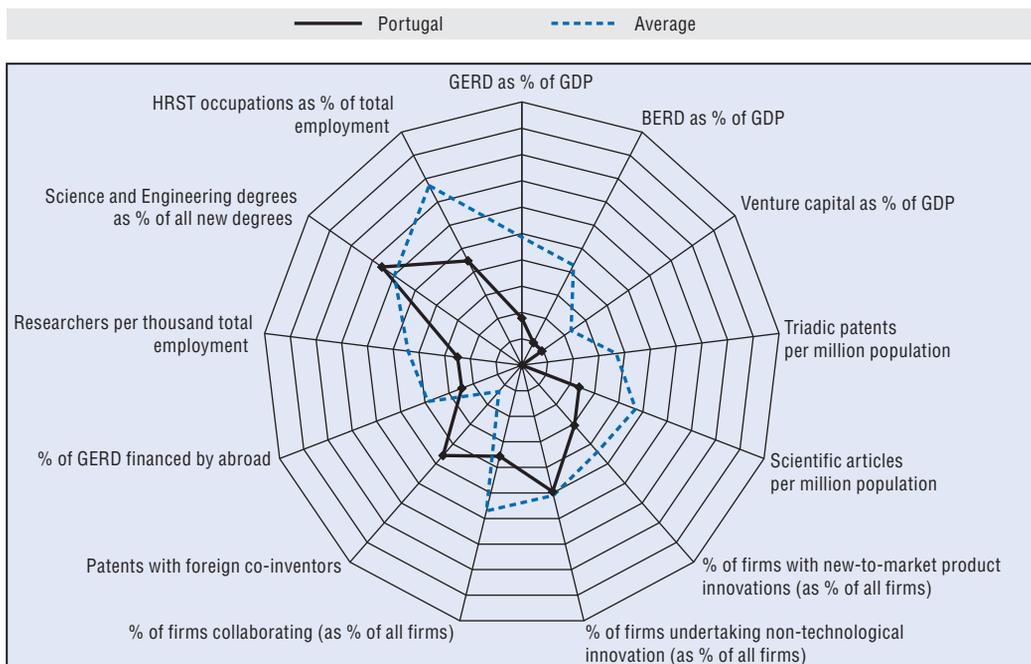
per million population expanded at 11% a year (in compound terms) between 1995 and 2005.

In spite of Portugal's low R&D intensity, Community Innovation Survey data show that over 35% of firms introduced in-house product innovations between 2002 and 2004. Portuguese firms also score well in non-technological innovation. A tax credit for R&D was reintroduced in 2005, and the number of companies that applied in 2006 increased by more than 50% from 2003, the last year in which the system was previously in place.

The current strategy for research and innovation in Portugal is embodied in the Commitment with Science action plan launched in 2006, which aims to: increase the number of researchers; double public investment in R&D from 0.5% of GDP to 1%, while improving the quality of public research through internationalisation and more extensive use of evaluations; and triple business R&D and improve industry-science relations.

The government's desire to raise research quality is illustrated by a strategic programme of international partnerships in science, technology and higher education, which brings together Portuguese and foreign universities, including MIT, Carnegie Mellon University and the University of Texas at Austin. These programmes facilitated the creation in 2007 of thematic networks aimed at stimulating the internationalisation of a large number of Portuguese institutions. The government also seeks to boost business innovation via eight new competence networks, clustered around key technologies and involving consortia of companies.

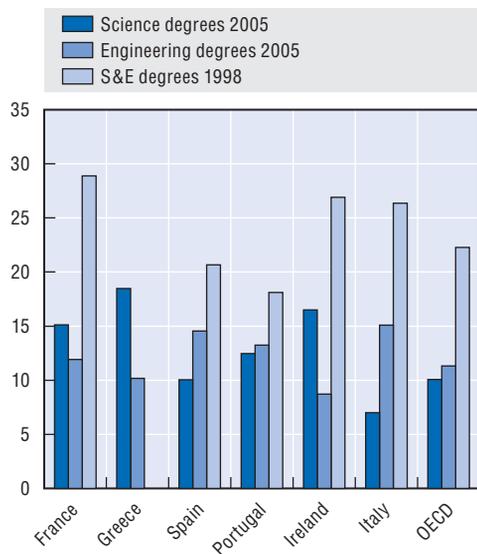
Science and innovation profile of Portugal



StatLink <http://dx.doi.org/10.1787/453731841510>

Science and engineering degrees, 2005

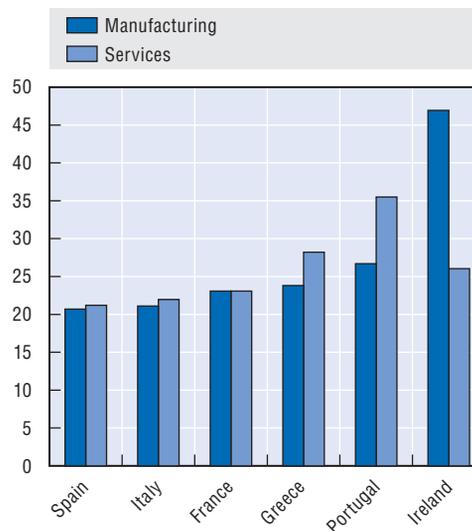
As a percentage of all new degrees



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Non-technological innovation by sector, 2002-04

As a percentage of all firms



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