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Ireland

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IRELAND

For more than a decade, growth of GDP per capita has been among the fastest in the OECD area, and by 2006 Ireland had the fourth highest income level in the OECD area in purchasing power parity terms. With a commitment to science, technology and innovation of EUR 8.2 billion for 2006-13, the government is keen to foster both a strong science base and enterprises able to create knowledge, innovate and exploit knowledge in global markets.

The innovation system has been strongly influenced by the openness of the economy and the extensive involvement of foreign multinationals. Benefits have flowed from foreign trade, investment and inflows of educated migrants, and labour productivity in manufacturing is high by international standards. However, there is a sizeable and persistent gap in innovation performance between indigenous and foreign firms; the latter contribute significantly to Ireland's R&D and innovation landscape.

Rapid growth in GDP has served to keep R&D intensity relatively unchanged over the past decade, despite an expansion in spending. At 1.32% of GDP (or 1.56% of GNP), expenditure on R&D is well below the OECD average. Around 67% of gross domestic expenditure on R&D is performed by the business sector, of which two-thirds by foreign multinationals operating in Ireland. Although Ireland is home to large R&D-intensive information and communication technology (ICT) and pharmaceutical sectors, they do not contribute significantly to R&D intensity, since the relevant firms are almost entirely foreign-owned and perform substantial amounts of their R&D

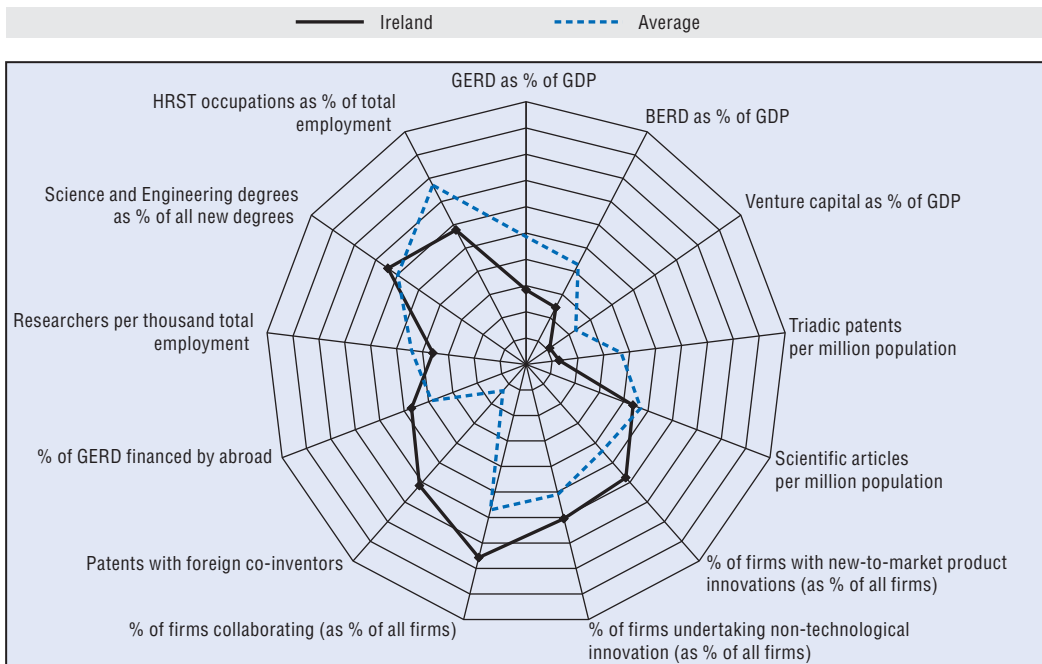
in their country of origin. A key challenge is to encourage foreign multinationals to undertake more R&D activity in their Irish establishments.

The share of researchers per 1 000 total employment rose from five in 2000 to six in 2006, below the OECD 2005 average of 7.3, but in line with the EU average. Ireland's goal to double the annual output of PhDs in science, engineering and technology by 2013 aims at improving this situation. Ireland has a mixed record on research outputs: the number of scientific publications per capita is just above the OECD average and the number of triadic patents is low, but the number of firms with new-to-market products is high, co-patenting levels are well above average, and a large proportion of firms undertake non-technological innovation.

Guided by its Strategy for Science, Technology and Innovation 2006-13, the government is making significant investments in research infrastructure, an area that has been underfunded in the past. Other policy initiatives include increasing the generosity of the R&D tax credit (from 2006) and the development of an internationalisation strategy with a focus on priority countries and technologies.

Further key policy challenges for Ireland include improving framework conditions: raising the educational attainment of the population so as to boost the capacity both for indigenous innovation and for absorbing innovations from elsewhere, and removing infrastructure bottlenecks that impede economic activity. In addition, concentrating public research resources on a few centres of excellence may help to improve quality and reach critical mass.

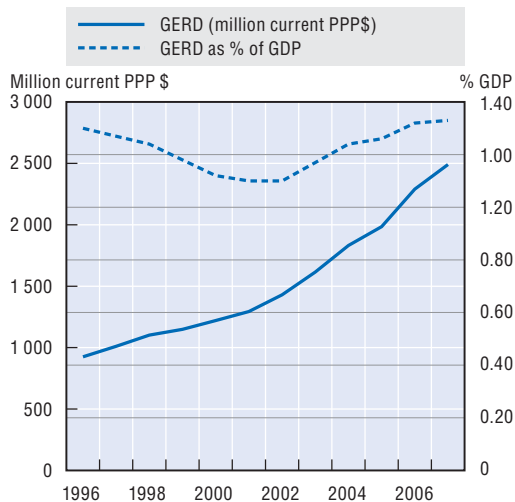
Science and innovation profile of Ireland



StatLink <http://dx.doi.org/10.1787/453023454256>

Gross domestic expenditure on R&D

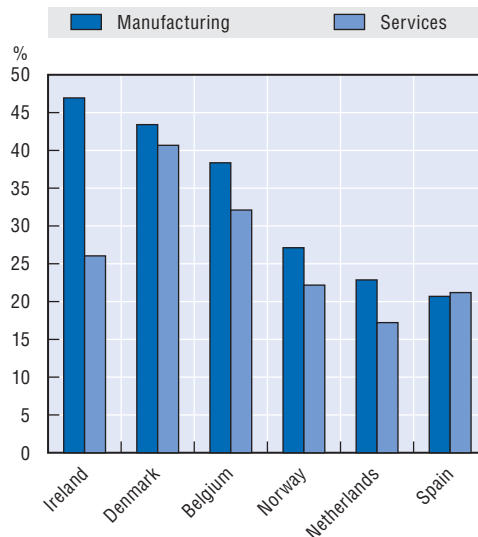
1996-2007



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Non-technological innovators, by sector, 2002-04

As a percentage of all firms



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Chapter 3

Science and Innovation: Country Notes

This chapter complements Chapters 1 and 2 by providing an individual profile of the science and innovation performance of each OECD country, as well as observers to the OECD Committee on Science and Technology Policy (Brazil, Chile, China, Israel, Russia and South Africa), in relation to their national context and current policy issues. The graphs enable countries to see some of their relative strengths and weaknesses as compared to other countries' performance.

The common indicators in the first (radar) graphs were selected on the basis of current policy issues. They focus on research and innovation inputs, scientific and innovation outputs, linkages and networks, including international linkages, and human resources. A standard set of indicators is used; however, when data are not available, alternative indicators may be applied. The annex provides a full list and description of the indicators, methodological notes and data sources.

For each indicator in the radar graph, the country with the maximum value is set at 100, taking into account all OECD and non-OECD countries with available data. The average is calculated by taking into account all OECD countries with available data (non-OECD countries are excluded from the average). The annex provides further details.

The radar graphs are accompanied by country-specific figures that further illustrate national characteristics and underpin policy-specific comments. The selection of comparator countries in these graphs aims to highlight the general position of the focal country and, in some instances, data on other countries may also be shown.

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