

SPAIN

Spain's science and innovation profile demonstrates a number of strengths, and shows improvements over the two years to 2008 despite difficult economic circumstances. Gross expenditure on R&D (GERD) increased consistently from 0.9% of GDP in 2000 to 1.4% in 2008, with strong average annual real growth of 8.4%. In 2007 the business sector financed 46% of total GERD, slightly more than a decade earlier, and government funding increased from 39% in 2000 to 44%. Spain's business expenditure on R&D (BERD) was 0.74% of GDP, also below the OECD average. However, venture capital intensity has risen substantially, and in 2008 was above the average at 0.13% of GDP.

Triadic patents were a low 5.1 per million population in 2008. While only 6% of firms introduced new-to-market product innovations during 2004-06, 21% undertook non-technological innovation. Spain's 791 scientific articles per million population were marginally above average.

During 2004-06, a low 6% of firms collaborated internationally on innovation activities, with less than 2% collaborating with European partners. However, the 19% of Patent Cooperation Treaty (PCT) patent applications with foreign co-inventors during 2005-07 was higher than average, and in 2007 an above-average 7% of GERD was financed from abroad.

Performance on human resources in science and technology (HRST) indicators is

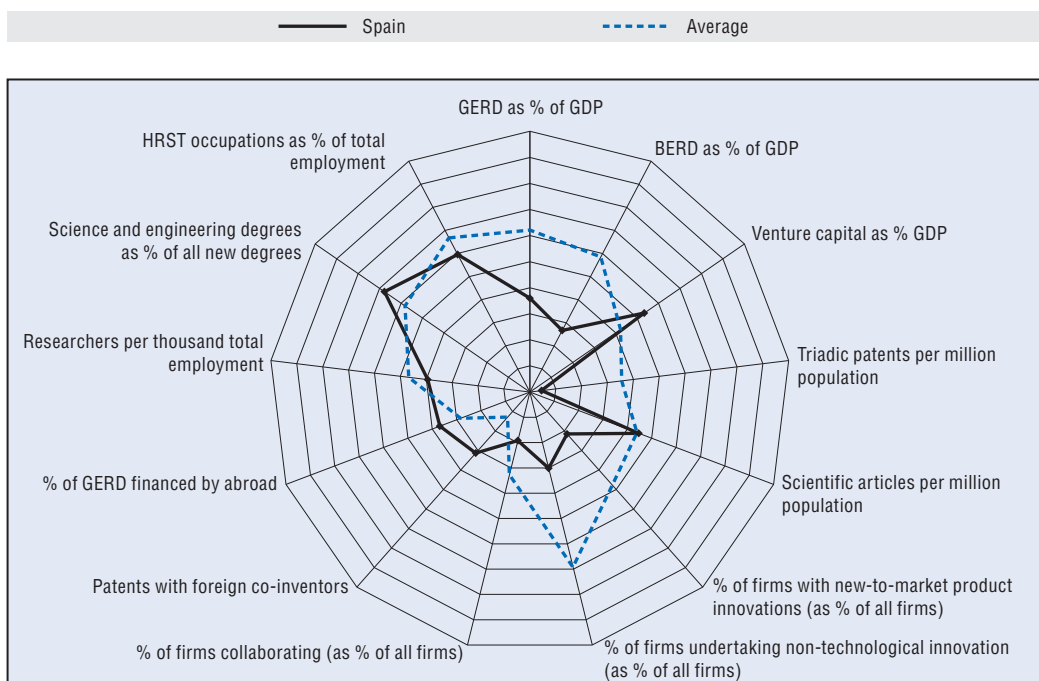
mixed. In 2007 24% of all new degrees were in science and engineering. At 25% of total employment HRST occupations were lower than the average in 2008, as were the 6.4 researchers per thousand employment, although this ratio increased sharply from 4.7 in 2000. HRST occupations rose by a particularly strong 6.3%; the wage gap between men and women narrowed significantly over the past decade.

GDP increased at an average annual 3% between 2001 and 2007, but slowed to 0.9% in 2008 and contracted by 3.6% in 2009. Unemployment rose very severely, rising from 8.3% in 2007 to 18% in 2009. Labour productivity growth averaged around 1% between 2001 and 2008. GDP per capita was 67% relative to the United States in 2008.

The government is currently working on a Science and Technology Act to create a new framework for research funding and to improve co-ordination between state and regional administrations. The State Innovation Strategy, based on core areas of action, aims, among others, to increase the number of innovative businesses and strengthen their commitment to innovation.

The national R&D&I Plan 2008-11 includes specific public funding instruments to support strategic research in health, biotechnology, energy and climate change, telecommunication and information societies, nanotechnology, new materials and new industrial processes.

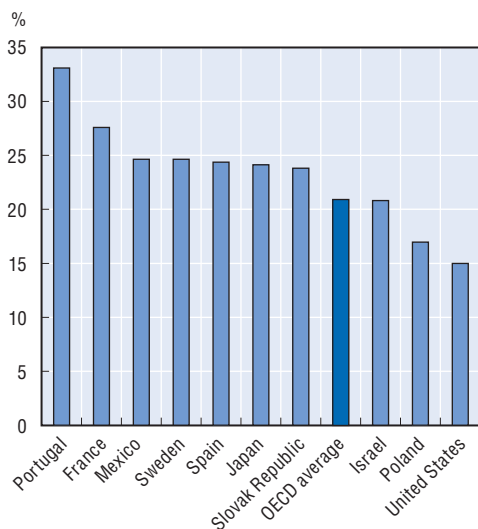
Science and innovation profile of Spain



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Science and engineering degrees

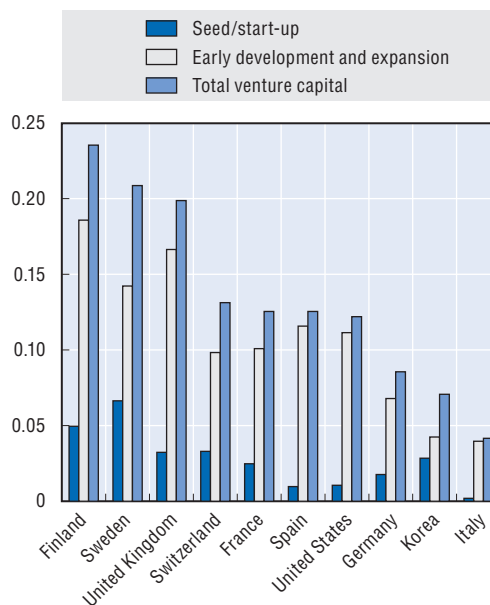
As a percentage of all new degrees, 2007



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Venture capital intensity by stage

As a percentage of GDP, 2008



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