



**From:**  
**OECD Science, Technology and Industry Outlook  
2010**

**Access the complete publication at:**  
[http://dx.doi.org/10.1787/sti\\_outlook-2010-en](http://dx.doi.org/10.1787/sti_outlook-2010-en)

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## Finland

**Please cite this chapter as:**

OECD (2010), "Finland", in *OECD Science, Technology and Industry Outlook 2010*, OECD Publishing.  
[http://dx.doi.org/10.1787/sti\\_outlook-2010-17-en](http://dx.doi.org/10.1787/sti_outlook-2010-17-en)

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## FINLAND

Finland's innovation investment and performance are among the strongest in the OECD area. Collaboration with other countries is at a high level, and a large proportion of the labour force has a tertiary qualification. Venture capital intensity is above average and the government's R&D budget is large.

Since 2000, gross expenditure on R&D (GERD) increased consistently to 3.7% of GDP in 2008. Finland aims at GERD intensity of 4% of GDP. In 2008, industry financed 70.3% of GERD, while government's share fell to 21.8%. Business expenditure on R&D (BERD) has remained above average over the past decade and peaked at 2.8% of GDP in 2008. Also in 2008, its venture capital intensity of 0.24% of GDP was the highest in the OECD area.

Finland's strong R&D investment is reflected in solid innovation-related outcomes. It had 64 triadic patents per million population in 2008, almost double the OECD average. With 1 573 scientific articles per million population in 2008, Finland ranks third among OECD countries and contributed 0.5% of the world share of scientific publications. Nearly one in four firms introduced new-to-market product innovations during 2004-06. Given the economy's focus on manufacturing, business R&D in the services sector was comparatively low. A below-average 42% of firms undertook non-technological innovation during 2004-06.

In 2004-06, Finland led the OECD with almost a third of all firms collaborating on innovation activities. During 2005-07 an above-average 18% of Patent Cooperation Treaty (PCT) applications had co-inventors

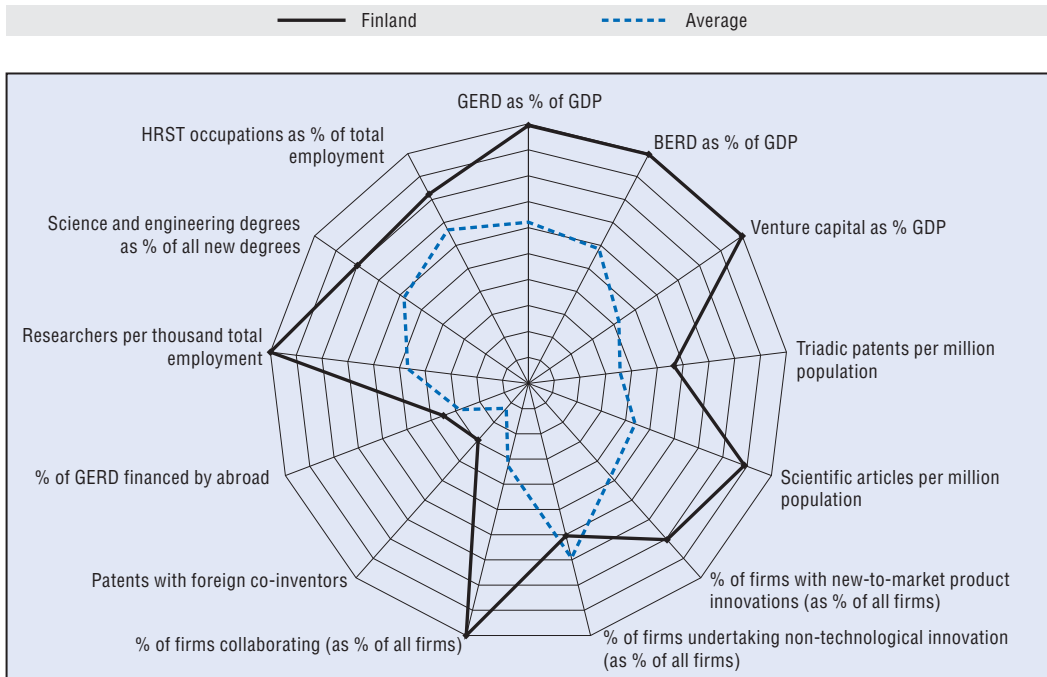
located abroad. Around 6.6% of GERD was funded from abroad in 2008, after tripling in recent years.

Finland's indicators on human resources in science and technology (HRST) are strong. In 2008 it led the OECD with 16 researchers per thousand employment, and researcher numbers have increased by 2% a year since 2000. Almost 60% of all researchers were in the business sector. HRST occupations represented 34% of total employment and 29% of all degrees were in science and engineering; both were above the average.

Finland's key economic sector is manufacturing, principally the wood, metals, engineering, telecommunications and electronics industries. Exports account for over one-third of GDP and are concentrated in high technology, such as mobile phones. The global recession severely affected these sectors, as evidenced by a contraction in GDP of 7.8% in 2009, with GDP per capita falling by more than 8% and the unemployment rate increasing to 8.2%. Labour productivity has also slowed since 2006 and fell in 2008.

The Finnish government's Innovation Strategy, launched in 2008, still forms the basis of innovation policy in Finland. It includes measures to encourage innovation in non-technological business areas, especially in the services sector, and measures to increase demand and user orientation of R&D and innovation activities. The most recent significant reform was the Universities Act in 2009, which modified the legal status of universities and renewed structures through mergers.

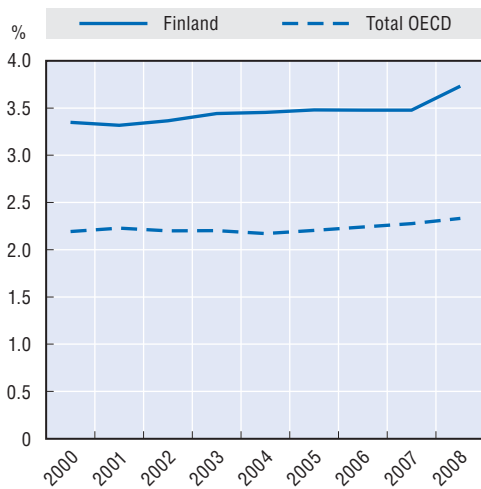
### Science and innovation profile of Finland



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#### Gross expenditure on R&D

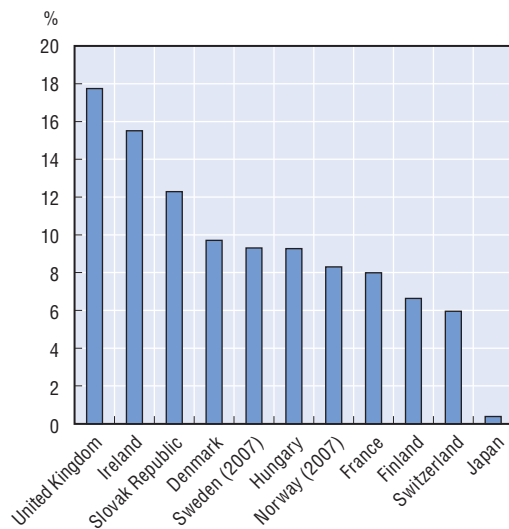
As a percentage of GDP, 2000-08



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#### Gross expenditure on R&D financed from abroad

As a percentage of total GERD, 2008



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