

SWITZERLAND

Switzerland's economy enjoys stable economic growth and low unemployment. It has a highly skilled labour force and its per capita GDP is among the highest in the world. Its gross expenditure on R&D (GERD) was 3% of GDP in 2008. Industry financed 68% of GERD, while the government funded 23%. The main beneficiaries were small and medium-sized firms, which received more than 40% of government R&D funding. The business enterprise sector performed 74% of GERD and the higher education sector 24%. In 2008, Switzerland's business expenditure on R&D (BERD) was 2.2% of GDP, the fifth highest in the OECD, and venture capital intensity increased to 0.13% of GDP.

These strong inputs translate into above-average outcomes. Patent intensity in particular has increased over recent years, and Switzerland's 186 triadic patent families per billion USD of industry-funded R&D were the second highest in the OECD area. In 2008, its 113 triadic patents per million population and its 1 770 scientific articles per million population were the highest in the OECD area. Switzerland ranks in the top three countries on scientific publications in environmental sciences. Other prominent research is conducted in biosciences such as brain research, genomics, and regenerative and plant science. However, Switzerland recorded a low average annual growth of 0.9% in triadic patents over the decade to 2008.

Indicators measuring innovation linkages are generally strong. The 6% of GERD financed from abroad was slightly above

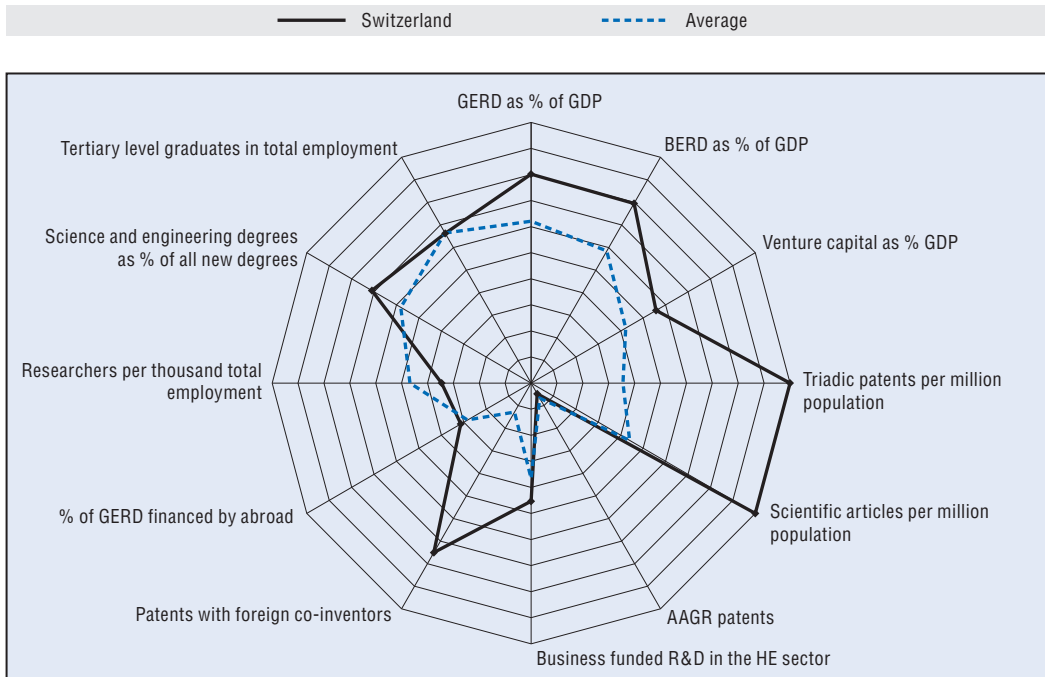
the average (5.4%). A very high 45% of Patent Cooperation Treaty (PCT) patent applications in 2005-07 had foreign co-inventors. The 6.9% of business-funded R&D performed in the higher education sector was slightly above the average.

Switzerland's performance in human resources in science and technology (HRST) indicators is mixed. The country attracts many foreign students: more than 40% of doctoral students are foreigners. However, its six researchers per thousand employment is below the average. In 2007, science and engineering degrees were 26% of all new degrees, above the OECD average, and tertiary graduates accounted for around one-third of total employment.

Switzerland's GDP grew at an average annual rate of 2.1% between 2001 and 2007. Growth slowed to 1.8% in 2008 and GDP contracted by 1.5% in 2009. Unemployment increased modestly from 3.6% in 2007 to 4.2% in 2009. Average annual labour productivity increased by about 1% during 2001-07, slowing in late 2007 and stagnating in 2008. GDP per capita was 91% relative to the United States in 2008.

The most important innovation policy document is the Statement to the Promotion of Education, Research and Innovation 2008-2011 (ERI Message). It is the government's medium-term policy in the form of a four-year plan for education, research and technology at the federal level. Investment in human capital should also be encouraged to strengthen higher education outcomes.

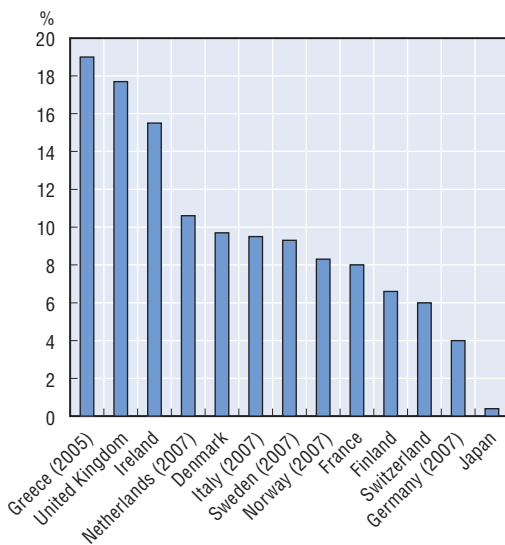
Science and innovation profile of Switzerland



StatLink <http://dx.doi.org/10.1787/888932335134>

Gross expenditure on R&D financed from abroad

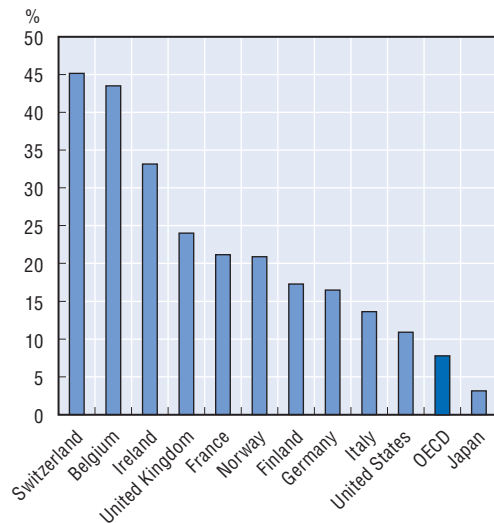
As a percentage of total GERD, 2008



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PCT patent applications

As a percentage of applications with co-inventors located abroad, 2005-07



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