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Austria

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Austria performs well on a number of science and innovation indicators. Around 25% of firms introduced a new-to-market product innovation during 2002-04, and non-technological innovation is undertaken by more than a third of firms in both the manufacturing and services sectors. Austria's scientific publication output is above average at 554 articles per million population.

Expenditure on R&D has increased by nearly 1 percentage point as a share of GDP over the past ten years, to reach 2.51% in 2007, mainly owing to business R&D. Business expenditure on R&D (BERD) reached 1.66% of GDP in 2006, while the share of R&D performed by the government and higher education sectors fell from around 42% in 1981 to 32% in 2006. BERD has grown strongly in the machinery, electrical components and automotive sectors.

Much R&D is financed from abroad (third highest share in the OECD area in 2005), owing to the weight of foreign multinationals in the economy. The financing of BERD by foreign enterprises comes mainly from enterprises in the same group. Nearly 30% of patents from Austrian firms and institutions include foreign co-inventors, a sign that Austria is well integrated in international R&D. However, the share of firms with foreign co-operation on innovation, particularly outside of Europe, is lower than in a number of other OECD countries. Venture capital investment is far below average, and this may hinder the formation or growth of riskier projects.

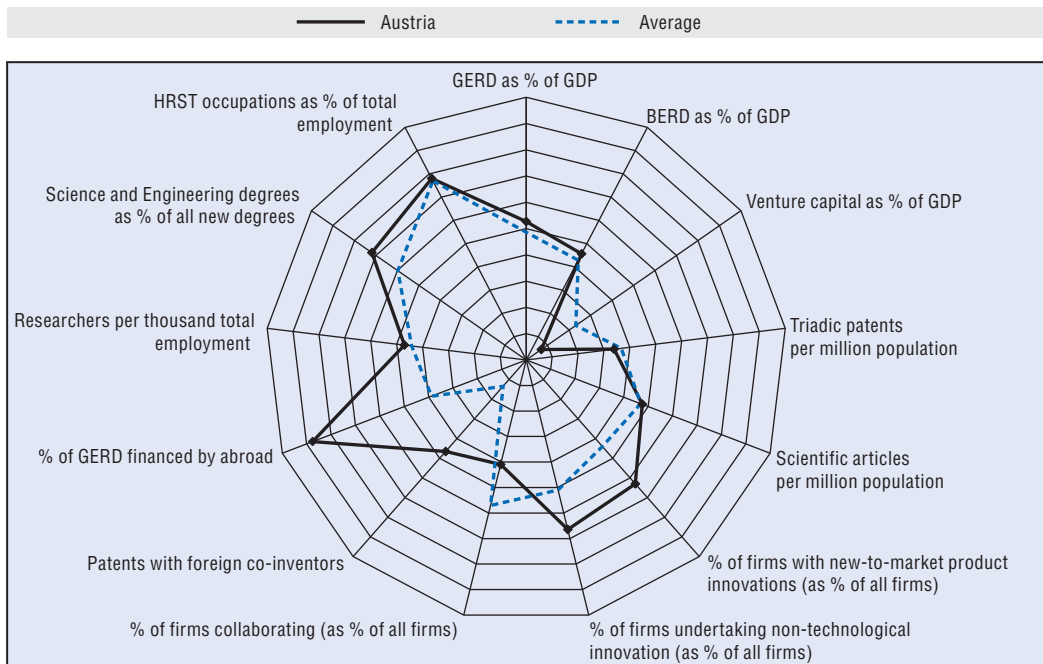
The performance of human resources for science and technology (HRST) in

Austria is somewhat mixed. While the overall share of science and engineering (S&E) degrees as a percentage of all new degrees is above the OECD average, the share of S&E degrees awarded to women is below that of most OECD countries (although it has improved at the doctoral level). HRST occupations represent just over 30% of total employment and grew relatively strongly from 1996 to 2006, at 3.8% a year on average (compared to 2.8% for the EU19). The number of researchers (per 1 000 total employment) was below the OECD average in 2005 but slightly above the EU average.

The federal government's two main goals for 2007-10 are to increase R&D intensity to 3% of GDP and to promote structural change in industry to allow Austria to evolve from a specialisation in low to medium technologies to being a provider of high technology. While living standards and overall employment rates are high in Austria, growth in GDP per capita has fallen behind a number of other advanced OECD countries (*e.g.* the United States and the Nordic countries). Harnessing the strengths of the innovation system will be crucial to improving productivity and maintaining Austria's position near the top of the OECD.

Looking ahead, Austria's policy challenges include ensuring that the supply of R&D personnel keeps pace with demand, particularly in the business sector, in order to raise R&D intensity in coming years. Moreover, lack of venture capital may retard the development and growth of high-technology sectors in Austria.

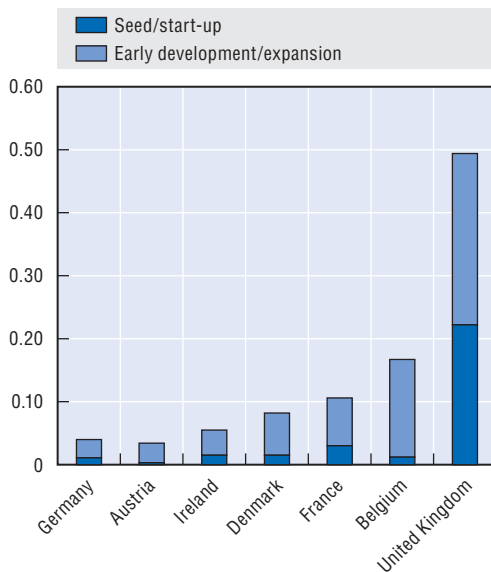
Science and innovation profile of Austria



StatLink <http://dx.doi.org/10.1787/451821302678>

Venture capital investment, 2006

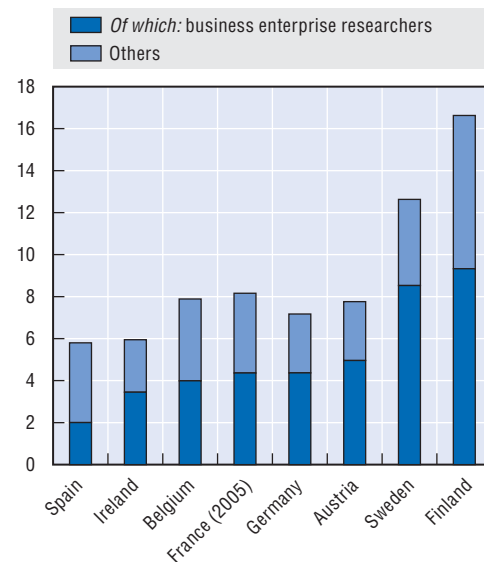
As a percentage of GDP



StatLink <http://dx.doi.org/10.1787/451828017565>

Researchers, 2006

Per 1 000 total employment



StatLink <http://dx.doi.org/10.1787/451864118358>

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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