

NORWAY

Norway's economy continues to expand, led by global demand for energy resources, but its ability to boost longer-term growth and prepare for a future decline in oil reserves will hinge on continued productivity gains supported by innovation.

The country's performance in science and innovation is mixed. Scientific output is high: with 788 scientific articles per million population in 2005, it leads the United Kingdom (756) and Germany (535), but trails Sweden (1 108). The quality of Norwegian science is high by international standards in several areas: marine, freshwater and land-based biology and agriculture; medicine and dentistry; Earth sciences; physics; technology; and mathematics. It also has higher than average shares of human resources in science and technology and R&D personnel. About 30% of all R&D in Norway takes place in the higher education system, mainly universities and specialised university institutions, and funding has increased since the 1990s.

However, R&D intensity, at 1.52% of GDP in 2006, is below the OECD average. Business R&D (including R&D by research institutes serving firms) represents 54% of total spending, but the share of manufacturing is low by international standards. In contrast, R&D spending in the services sector is high and represented more than 35% of business R&D in 2004.

In spite of strong performance on some indicators, innovation indicators such as patents per capita show weak performance. Moreover, innovation surveys show that Norwegian firms are less innovative than firms in several other OECD countries, especially in the services sector. At the same time, Norway has experienced

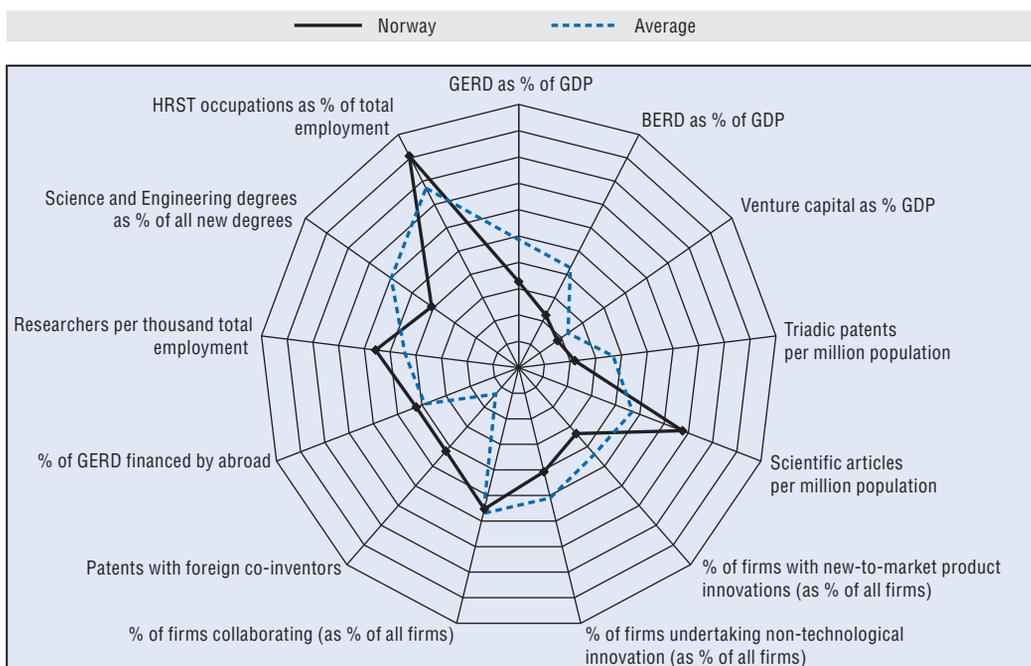
fast productivity growth in the services sector – fuelled by high skills levels in the workforce – which implies quite robust innovation.

According to the *OECD Review of Innovation Policy: Norway*, weak innovation performance on some indicators is mainly due to the manufacturing sector; however, standard indicators of innovation may underestimate innovation, especially in the services sector. In fact, business R&D spending adjusted to reflect the country's specific industrial structure compares favourably with that of other OECD countries.

To boost innovation performance, the government aims to increase R&D spending to 3% of GDP, notably by encouraging business R&D, including through loans, grants and R&D tax credits, especially for SMEs. The government has announced a White Paper on Innovation Policy in 2008 that will outline a framework and concrete measures to bring together different innovation-related policy areas, such as R&D for industrial development, education and human resources, entrepreneurship, intellectual property rights, and innovation in the private and public sectors. Sustainable development and eco-innovation will receive special attention.

The government also seeks to increase the supply of science and engineering talent and to raise the quality of Norwegian research. It is developing a White Paper on researcher training and recruitment for research to be presented to parliament in 2008. Strengthening the international links of Norwegian research institutions and teams and attracting foreign talent are also priorities.

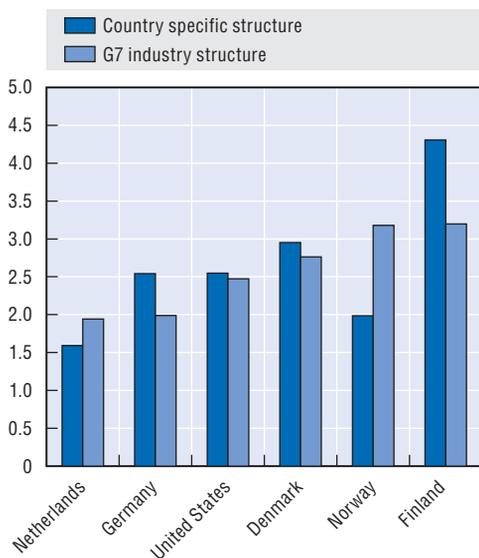
Science and innovation profile of Norway



StatLink <http://dx.doi.org/10.1787/453528418637>

R&D intensity in the business sector adjusted for industrial structure

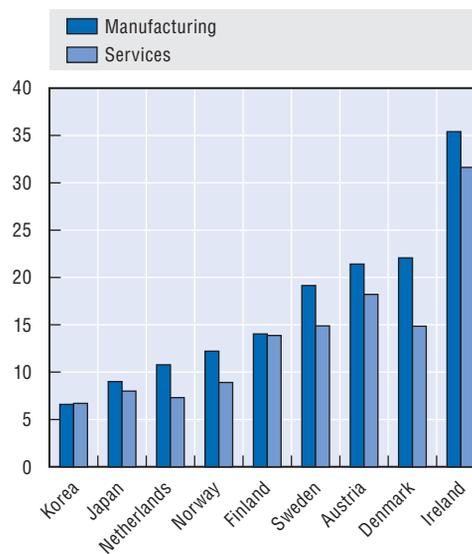
Percentage of business sector value added, average over 2001-03



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In-house product innovators by sector, 2002-04 (or nearest available years)

As a percentage of all firms



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