

Nordic Institute for Studies in Innovation, Research and Education

Moderate growth in Nordic R&D expenditure 2016

Preliminary figures from the Nordic producers of R&D statistics show that the Nordic countries spent about 375 billion Norwegian kroner (NOK) on R&D in 2016. This gives a total growth in current prices of 18 billion NOK or 5 per cent in 2016, which is somewhat higher than the corresponding growth for 2015, at 3 per cent.

Sweden's share of Nordic R&D increases in 2016

In 2016, Sweden accounted for 43 per cent of total R&D expenditure in the Nordic countries (42 per cent in 2015). Denmark's share amounted to 22 per cent, while Finland's share was 18 per cent. Norway accounted for 17 per cent of R&D expenditure and Iceland for 1 per cent. During the last ten-year period, Norway's and Denmark's shares have increased, and Iceland's share is stable. Finland's share has had the strongest decrease, while Sweden's share has had a small decrease.

R&D expenditure in the Nordic countries in 2016 by sector of performance and as a share of GDP. Billions. National currency. Per cent. Preliminary figures.

| Sector of performance ¹ | Denmark | | Finland | | Iceland | | Norway | | Sweden | |
|------------------------------------|---------|-----|---------|-----|---------|-----|--------|-----|--------|-----|
| | DKK | % | EUR | % | ISK | % | NOK | % | SEK | % |
| Business enterprise sector | 39.2 | 66 | 4.0 | 67 | 32.1 | 63 | 33.8 | 53 | 100.0 | 70 |
| Government sector | 1.3 | 2 | 0.5 | 8 | 2.5 | 5 | 9.0 | 14 | 4.9 | 3 |
| Higher education sector | 18.8 | 32 | 1.5 | 25 | 16.4 | 32 | 20.7 | 33 | 38.5 | 27 |
| Total | 59.3 | 100 | 5.9 | 100 | 50.9 | 100 | 63.5 | 100 | 143.4 | 100 |
| Percentage of GDP, 2016 | 2.88 | | 2.75 | | 2.08 | | 2.04 | | 3.25 | |
| Percentage of GDP, 2015 | 2.96 | | 2.90 | | 2.19 | | 1.93 | | 3.28 | |
| Percentage of GDP, 2014 | 2.92 | | 3.17 | | 2.01 | | 1.72 | | 3.15 | |
| Percentage of GDP, 2013 | 2.97 | | 3.30 | | 1.76 | | 1.65 | | 3.31 | |
| Percentage of GDP, 2012 | 2.98 | | 3.42 | | | | 1.62 | | 3.28 | |

Source: National R&D statistics

Growth in Iceland, Norway and Sweden

R&D expenditure in nominal terms and national currency, increased from 2015 to 2016 by about 5 per cent for Iceland, Norway and Sweden. Denmark and Finland had a decline of 1 and 2 per cent, respectively. In Denmark, only the business enterprise sector had growth in 2016. For Denmark, there is a reduction in total R&D expenditures for the first time in many years, while Finland has had decreasing R&D expenditure since 2009. However, from 2017 all sectors are expected to have growth in R&D in Finland.¹ Both in Norway and Iceland, the higher education sector had the strongest growth in R&D in 2016.

R&D share of GDP at new all-time high in Norway

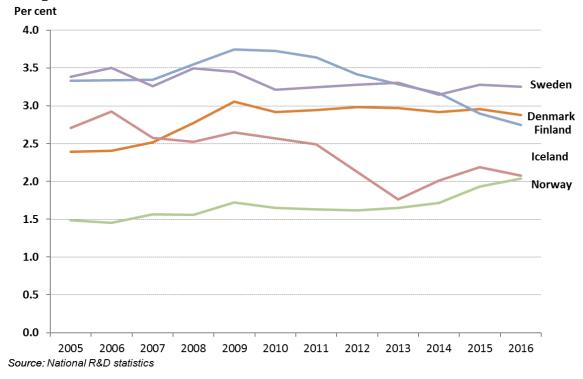
Changes in R&D efforts are also reflected in R&D expenditures as a share of gross domestic product (GDP). In 2016, Sweden again has the highest R&D share of GDP in the Nordic region at 3.25 per cent. In Finland, the proportion has fallen from 3.8 per cent in 2009 to 2.75 per cent in 2016. This is the country's lowest share since 1998. In Denmark, the level has been just under 3 per cent since 2009, with a slight decline to 2.88 per cent in 2016. In Iceland, the share was on a higher level before 2013.² In Norway, R&D as a share of GDP has never been higher than in 2016 (2.0 per cent) and is now almost at the same level as Iceland.

¹ Business enterprise sector includes intramural R&D in the industrial sector and research institutes serving the industrial sector. Government sector includes research institutes who are mainly controlled and financed by the government. Private non-profit sector (PNP) is also included in the business enterprise sector.

¹ Finland has also prepared estimates for 2017.

² Part of the development for Iceland may be of a technical nature, relating to a new producer of R&D statistics from 2013.

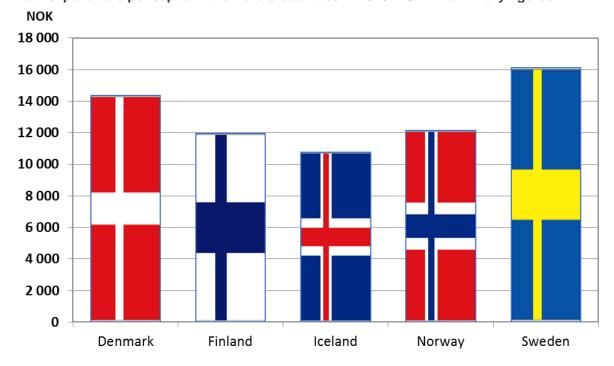
R&D expenditure as share of GDP in the Nordic countries. 2005–2016. Per cent. Preliminary 2016-figures.



Highest R&D expenditure per capita in Sweden and Denmark

When relating expenditure to the number of inhabitants, we see that R&D expenditure were highest in Sweden at 16,000 NOK per capita in 2016. Denmark follows with almost 14,400, Norway and Finland both have about 12,000 NOK and Iceland 11,800 NOK per capita. This is the same ranking as in 2015.

R&D expenditure per capita in the Nordic countries in 2016. NOK. Preliminary figures.



Source: National R&D statistics