



UK Science and Innovation Network Country Snapshot 2020:

Norway

Position in Global Innovation Index

Government spending on R&D £3.0bn

% GDP spending on R&D

Number of universities 10

Value of exports to the UK in 2018 £21.9bn

Joint project NO-UK in H2020

Norway science & innovation landscape

The Norwegian government have focused on innovation over the last decade, and strategies have been developed focusing on oil & gas, energy, climate, green growth, biotechnology, nanotechnology, and the maritime sector. Budgeted R&D allocations showed a relatively large and steady increase from 2012–2017, however, since then the growth has plateaued with only a marginal increase since 2017. The 2019 budget allocated a total of NOK 38 billion for R&D, an increase of NOK 1.4 billion from the previous year, corresponding to an increase of 4%, and a real growth of approximately 1%.

The Global Innovation Index 2019 ranked Norway number 19 (same rank as the previous year), while other Nordic countries like Sweden are ranked second after Switzerland, followed by the United States, Netherlands and the UK. Norway generally scores higher on broad political and economic indicators in the innovation category.



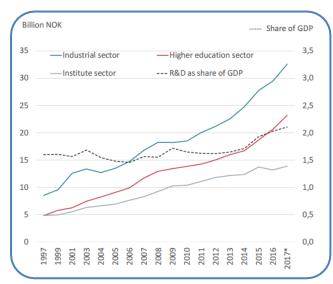
Source: The Research Council Norway (RCN).

Government priorities and funding

The main responsibility for research policy falls under the Ministry of Education and Research. The Minister of Research and Higher Education is Henrik Asheim. A future strategy for research priorities was stipulated in the recent Long-term Plan for Research and Higher Education (2019-2028). The key focus areas are: 1) Seas and ocean; 2) Climate, the environment and clean energy; 3) Public sector renewal and better public services; 4) Enabling and industrial technologies; and 5) Social security and social cohesion in a globalised world.

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Most government ministries also have research portfolios relevant to their sectors, and the ministry for Health and Care Services, as well as the ministry for Trade, Industry and Fisheries allocate significant funds to R&D. Public research money accounts for 47% of total R&D investment in Norway. In 2019, about 42% of the allocated funds went directly to higher

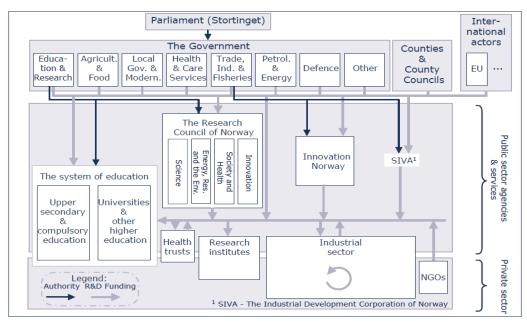


Preliminary figure from NIFU and Statistics Norway.

education institutions, 11% to other research institutions, and 10% went towards international collaborations, such as EU's research programmes. 27% of budget was allocated the administered through the Research Council of Norway (RCN), which both implements research funding schemes, and provides research policy advice to the government. Public sector support for innovation is primarily undertaken by Innovation Norway and the Industrial Development Corporation of Norway (SIVA), and to a lesser degree by the RCN.

Higher education and research landscape

About 20% of R&D activity in the Norwegian system is done by independent research organizations, which are formally outside the education system. About 45% of R&D is carried out within the business sector, whereas the remaining 35% of R&D activity is carried out by the higher education sector. Norway currently has 10 universities, 9 colleges and 5 university colleges with state ownership. Norway also has a number of private higher education institutions, and 17 of them receive government grants.



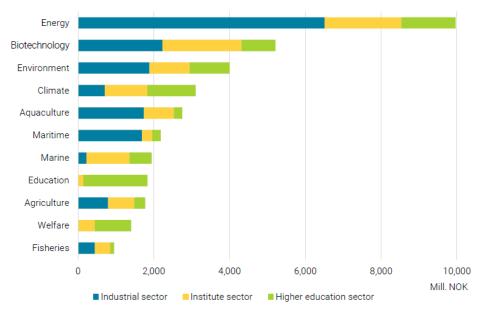
Source: JOREP report, ec.europa.eu

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Research strengths

Norway's primary strengths in science and innovation are related to its human resources, with a high number of researchers per capita, owing in part to a doubling of the number of completed doctorates per year in comparison to 2000. In 2018, 15 900 research articles were produced by Norwegian researchers, corresponding to 0.65% of world production. The number of published scientific articles measured in relation to the population, Norway is listed as number four in the world. Norway's research institutions have particular strengths within arctic research, research on climate change, public health, geology and earth sciences, marine and maritime activities, petroleum technology, public administration and renewable energy. Many of these topics are in line with the priority areas stipulated in the Long-term Plan for Research and Higher Education (2019-2028). Over the recent years, there's been a shift to a "green" focus also in research priorities; in Energy research, which accounts for 15% of the total R&D activity and is the largest thematic area, we have witnessed a reduced focus on petroleum research, while renewable energy and energy efficiency and conversion are growing.

Almost a quarter of Norway's R&D activity falls under the priority 'Global challenges', which includes energy-related research, environment and development studies. The predominant position of research on energy, and in particular oil, reflects the business structure in Norway. Other areas of priority are health, biotechnology, food and maritime research. In technology, ICT is the largest field with an expenditure of 18 billion NOK (85% from the business sector) in 2017.



Source: RCN - Indikatorrapporten 2019

UK science and innovation in Norway

The UK is Norway's most significant research collaborator within the EU, followed by Sweden and Germany, and is second only to the United States globally. The number of joint collaborative papers published between the nations has tripled in the past ten years, with particularly strong cooperation in the areas of health, environment & climate change, biotechnology, food, and polar research. Collaboration has been strong within the European

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Framework Programmes, where the UK has been Norway's most successful partner with nearly 1000 collaborative projects funded under FP7 (2007-2013 awaiting figures for Horizon 2020). The UK is seen as a high quality, safe, and reliable collaborator in Norway.

The two most important institutions for UK-Norway collaboration is SINTEF, with 62 joint projects with the UK and NTNU, with 51 joint projects with the UK.

Engagement with the EU

Norway participates in Horizon 2020 and other EU research programmes as an associated member country. Norway's ambition is to take home 2% of total Horizon 2020 funding. In April 2019, this goal was exceeded, with distributed funding corresponding to 2.22%. Horizon 2020 funding facilitates interdisciplinary cooperation, high quality research and innovation. Norway actively participates in international collaborations with other countries that have entered into agreements for research cooperation using EEA funds.