

EURAXESS Countries in focus – Research in Norway



Research is of decisive importance when it comes to ensuring that Norway is a knowledge-based and innovative society, well positioned for changes.

Primary objectives

The Government has set out three primary objectives in the long-term plan for research and higher education.

- To strengthen competitiveness and innovation capacity.
- To solve major challenges to society.
- To develop high-quality research groups. ¹

The Norwegian government aims to strengthen its investment in research and development. Key goals for research policy is to support ground-breaking and high quality research, to develop world-leading research capabilities, to foster innovation in industry, and to stimulate increased investments in research and development in businesses.

Research is international in nature, and international flows of knowledge have always been the norm in science. The Government is committed to increasing the internationalisation of Norwegian research, both for strengthening Norwegian competitiveness and for gaining access to a large international knowledge base. To further enhance the quality of Norwegian research, international cooperation must become an integral part of the average workday of more Norwegian researchers.

Norway aims to occupy a strong position internationally in terms of new technology, skills and knowledge. In several areas Norway can offer unique competence and research opportunities. Our strengths are largely related to the country's geography, economic specialisation patterns and institutional characteristics: a challenging topography has impelled leading research within fields such as oceanography, satellite communication and polar research.

Priority areas

The exploitation of natural resources has had a profound impact on our innovation and research

¹ <https://www.regjeringen.no/en/topics/research/innsiktsartikler/langtidsplan-for-forsking-og-hogare-utdanning/id2353317/>

profile. Hence Norway has strong research traditions within marine and maritime research, petroleum research and energy research in general. More recently, special priority is given to research related to renewable energy, and carbon capture and storage.²

Specifically, the Government's long-term plan states that it will increase allocations to research and development activity (R&D) in six long-term priority areas:

- the oceans;
- climate change, the environment and environment-friendly energy;
- public sector renewal and higher quality, more efficient welfare, health and care services;
- enabling technologies;
- an innovative, adaptable private sector;
- world-class research groups.

Knowledge and expertise are critical factors in economic competitiveness, especially for Norway given its high cost of living. Public investment is vital in this context, both in terms of allocating public funding to e.g. universities and university colleges and in terms of encouraging private investment in research and development activities or competency measures.

Without major investments in knowledge, it will not be possible to effectively address the major challenges society is facing, such as those related to security and preparedness, disease and epidemics, and reliable access to energy, water and food. These problems are for the most part global as well, and require international cooperation both through research and through other measures.

Research and higher education of uniformly high quality are critical for achieving the knowledge policy objectives. High quality is necessary to be able to develop and utilise knowledge. At the same time, it is the most cutting-edge research that advances the knowledge front the most and that results in the truly significant breakthroughs.³

The Research Council of Norway

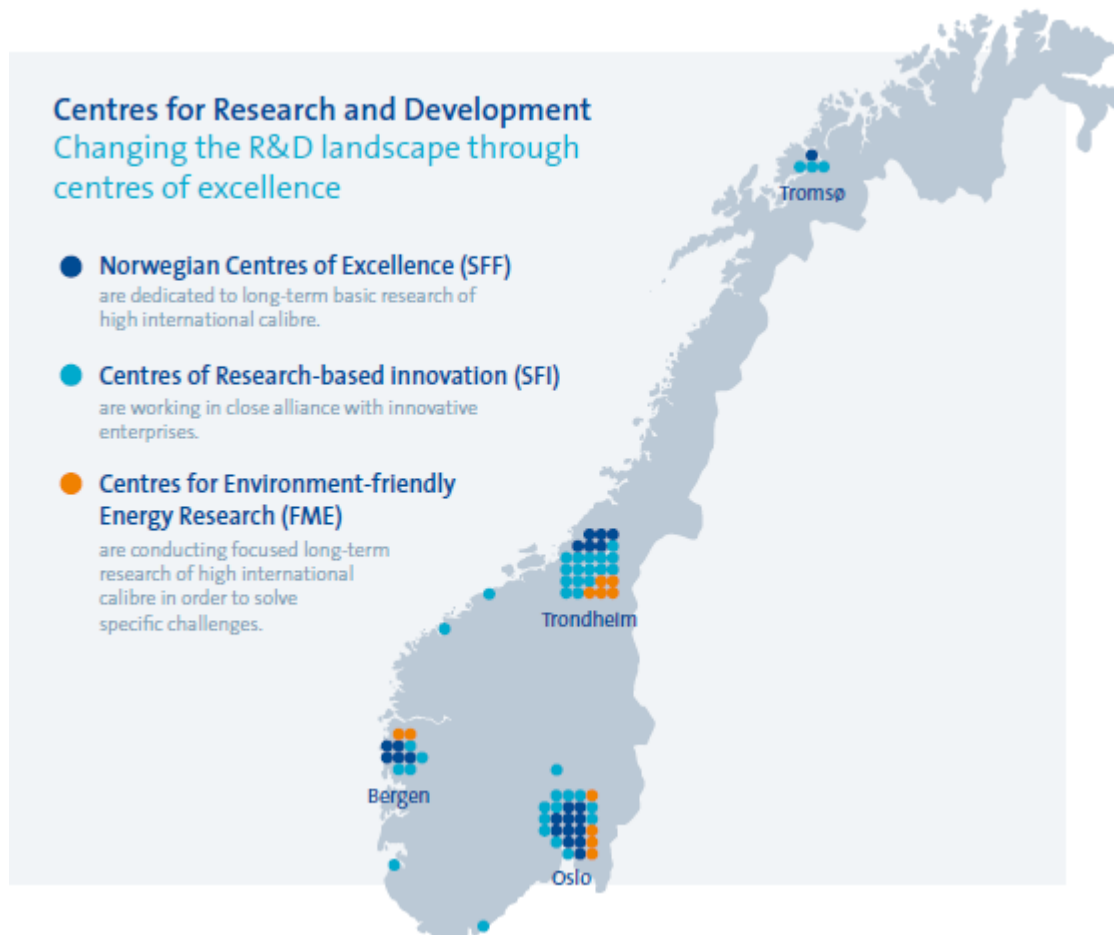
The Research Council is the key advisor on research policy issues to the government authorities and distributes in excess of NOK 9 billion to research and innovation activities each year. The Research Council's sphere of action encompasses all subjects and disciplines, all thematic areas and all aspects of society, from basic research to research-based innovation and commercialisation. The Research Council seeks to strengthen the international position of Norwegian research together with other actors in the research system and serves in the role of change agent in these matters. The funding schemes for R&D projects can be divided into four main groups:

- **Research programmes** - strategic, targeted and coordinated research initiatives designed to bring forth new knowledge or expertise about a designated thematic area and promote innovation and commercialisation within a designated field.
- **Independent projects** - key funding instrument for independent, researcher-initiated basic research that is not associated with any specific research programme or infrastructure measure.

²: <https://www.regjeringen.no/contentassets/12490ae3fbf746eaa2c6b2abd78a14f/brochure-research-in-norway-2013.pdf>

³ <https://www.regjeringen.no/en/topics/research/innsiktsartikler/langtidsplan-for-forsking-og-hogare-utdanning/id2353317/>

- **Networking measures** - strategic initiatives to establish ties between participants in the innovation system, introduction of measures to promote national activities and meeting places, as well as international networking measures.
- **Infrastructural and institutional measures** - basic funding to research institutes and other R&D groups, funding to Centres of Excellence and Centres for Research-based Innovation, and funding for scientific equipment, databases/collections.



Centre schemes (SFF, SFI, FME, NCE)

The Research Council administers several funding schemes for the establishment and operation of specially designated centres of research. Specifically, these schemes comprise the Centres of Excellence (SFF) scheme, the Centres for Research-based Innovation (SFI) scheme, and the Centres for Environment-friendly Energy Research (FME) scheme.

The Centres of Excellence scheme (SFF) was launched to enable research communities to establish centres dedicated to long-term, basic research of a high international calibre, aimed at enhancing the quality of research in Norway.

The Centres for Research-based Innovation scheme (SFI) aims to establish or strengthen Norwegian research groups working in close alliances with innovative enterprises. The SFI scheme promotes long-term research that fosters innovation and enhances industrial competitiveness.

The Centres for Environment-friendly Energy Research scheme (FME) has been established to finance time-limited centres which conduct concentrated, focused and long-term research of high international calibre in order to solve specific challenges in this field.⁴

The institute sector

Research institutes comprise a key component of the Norwegian research and innovation system, and contribute widely to the achievement of national research policy objectives. Measured by number of institutes, the Norwegian institute sector is large compared to many other countries, as well as highly diversified. The scientific focus, tasks, users, organisation, financing and historical background of the research institutes vary widely.

Special strategic responsibility

The Research Council of Norway has responsibility for the strategic planning in the institute sector. The overall objective of the research institutes is to deliver high-quality, applied research results of relevance to trade and industry, the public administration and society at large in the market for commissioned research. The institute sector is also responsible for knowledge development in national priority areas and for fostering innovation, particularly with a view to linking basic and applied research.

The state provides [basic funding](#) to 48 research institutes each year under the public funding scheme administered by the Research Council. These institutes are classified into four categories:

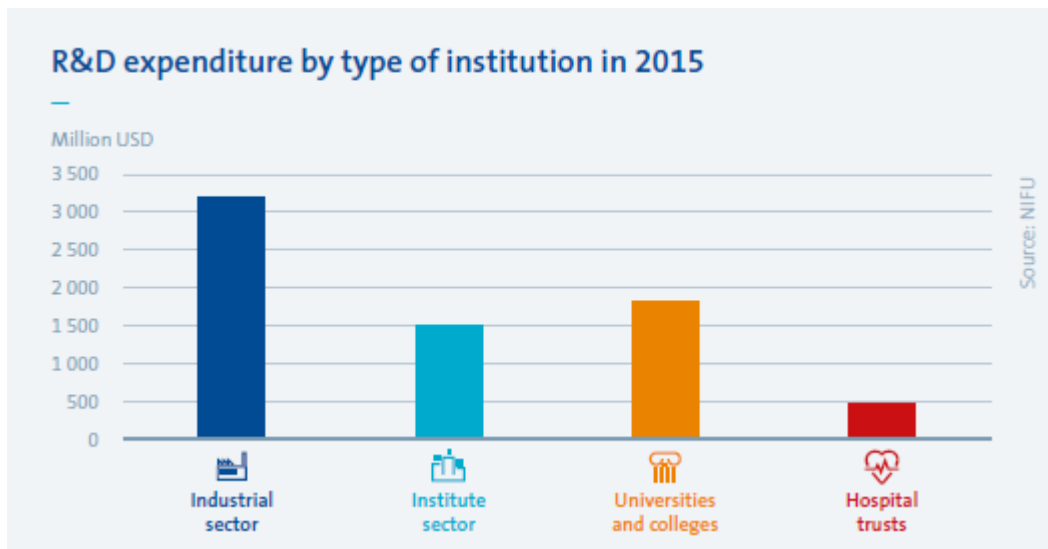
- [Technical-industrial institutes](#)
- [Primary industry institutes](#)
- [Social science institutes](#)
- [Environmental institutes](#)

Conducts one-fourth of Norwegian research

According to figures from the Nordic Institute for Studies in Innovation, Research and Education (NIFU), the institute sector carried out research and development (R&D) activity totalling NOK 10.3 billion in 2009. This is 24 per cent of all R&D activity carried out in Norway. Nearly one-half of the funding allocated by the Research Council and one-third of overall public R&D funding is allocated to research institutes. Thus, an efficient, well-functioning institute sector is essential for achieving research policy objectives, and plays a crucial role in certain areas of sectoral policy.⁵

⁴ https://www.forskningradet.no/en/Home_page/1177315753906

⁵ https://www.forskningradet.no/en/About_the_institute_sector/1254010731859



An innovative business sector

In an economic climate marked by a decline in national revenues, new requirements for productivity and fast-paced technological development, the business sector in Norway is under restructuring. Globally, the world is facing pressing climate and environmental problems as well as resource scarcity, demographic changes and increasing migration. Digitalisation, technology as a driver of change and the green transition entail both opportunities and challenges for society, for companies and for individuals. Interest in research-based innovation is on the rise in the business and public sectors, political circles and the research system.

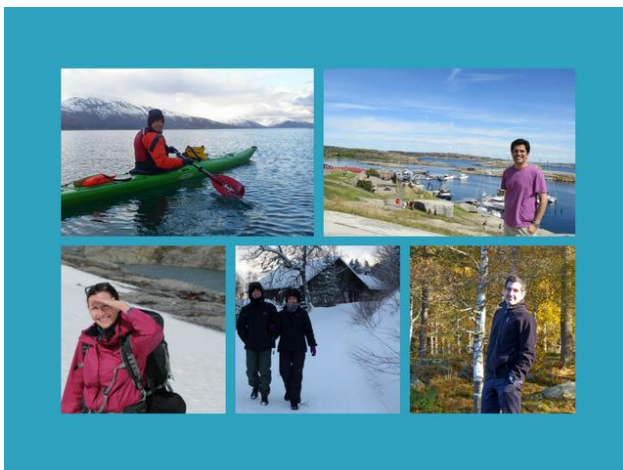
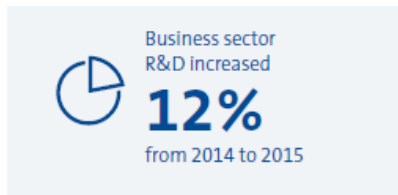
The Norwegian research and education sector is robust, with universities, university colleges, university hospitals and research institutes located throughout the country. The quality of Norwegian research activities is steadily improving. The business sector has the largest expenditures for research and development (R&D) in Norway, providing approximately 47 percent of total R&D expenditures (2015). Norway has a small, open economy exposed to international competition, with various large, R&D-performing, export companies in the marine, energy, process, manufacturing and bio-based industries, among others. There is, however, substantial value creation and employment in industries with weak R&D traditions, and due to the industrial structure in Norway, the business sector conducts less research than in comparable countries.

If more Norwegian companies are to compete more successfully internationally, they must make greater use of research-based knowledge, invest more in R&D and actively apply research-based innovation to fully realise the potential for value creation to be found in addressing societal challenges, in Norwegian natural resources and in new technology.

The Norwegian authorities have the long-term perspective, resources and willingness to take risks needed to move Norway towards a new future by investing in education, basic research and research-based innovation in the business sector. The Research Council is a key actor in this effort, and its activities include allocating funding, providing advice and facilitating cooperation.

The Research Council's strategy for an innovative business sector has its basis in the main strategy, Research for Innovation and Sustainability, and is intended to increase the share of research investments and international research cooperation leading to value creation and jobs in Norway. The strategy presents a set of measures designed to help to achieve the Research Council's objectives with regard to:

- Serving as an attractive innovation partner for the business sector;
- Enhancing the societal impact of investments in research;
- Encouraging more companies to use research in innovation activities;
- Supporting companies in taking greater advantage of the opportunities to be found in addressing societal challenges;
- Encouraging the business sector to boost research investments;
- Contributing to the progress of research and education institutions as strong innovation actors.⁶



To find out more about being a researcher in Europe visit the home page of [EURAXESS Norway](#).

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<https://www.forskningsradet.no/servlet/Satellite?pagename=ForskningsradetNorsk%2FHovedsidemal&cid=1212565796096&c=InnholdsKontainer&p=1220788264903&querystring=03575-1&sortby=title&sortorder=asc&hits=30&configuration=nfrcpspublikasjonsppublished&publicationType=ALLE>