

Strategy 2030

Faculty of Science and Technology

ENERGY, OCEAN, HEALTH, DIGITAL TECHNOLOGY, SAFETY
OUTSTANDING RESEARCH AND EDUCATION



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Introduction

The Faculty of Science and Technology has built up academic environments and infrastructure in science and technology over several decades. Historically, the process started with engineering related to oil and gas, but has now evolved to cover education and research in a wide range of engineering disciplines and natural sciences.

Science and technology subjects will play a special part when it comes to making the changes that are necessary to solve the important societal challenges we face. Natural science disciplines are key to providing the necessary basic knowledge and educating people with important restructuring skills. Technology and engineering are key drivers for innovation and suppliers of expertise for a changing working life. The faculty will position itself to meet increased competition and the need for restructuring by focusing on innovation, interdisciplinary cooperation and digitisation.

The UN sustainable development goals have been central to the strategy work, with a particular focus on the following:



Illustration: UN sustainable development goals / Shutterstock

Strategic ambitions

In line with the University of Stavanger's overall strategy, the Faculty of Science and Technology has chosen to further focus the initiatives by highlighting five thematic initiatives in technology and science.

GREEN TRANSITION AS SUPERSTRUCTURE

UiS has chosen to focus on "green transition" as a superstructure in the strategy. For the Faculty of Science and Technology, green transition is particularly relevant in terms of work on energy restructuring and the environment, but is also related to better resource utilisation and the circular economy. From a wider perspective, we will emphasise and prioritise research and education that contributes to sustainable development and restructuring at the local as well as the global level.

THEMATIC PRIORITIES

- **Energy**

This covers renewable energy, with a particular focus on ocean energy and geo-energy, carbon capture and storage, efficient energy systems, hydrogen, and battery technology and safe, efficient and environmentally friendly oil and gas extraction.

- **Ocean technology**

This covers technology for the design and operation of marine structures for green energy extraction, aquaculture for sustainable food production, subsea mining and environmentally friendly and efficient transport.

- **Health & Technology**

This covers medical technology, biotechnology, biomedicine and medical statistics for safer and better diagnostics and treatment.

- **Digital technology**

This covers artificial intelligence and robotic technology, data analytics, data security, network technology and blockchain technology.

- **Safety**

Includes studies, theories and methods within risk management and community safety that contribute to the planning and construction of safe, sustainable cities and communities.

OUTSTANDING RESEARCH AND EDUCATION

In addition to thematic initiatives, we will also highlight what is in itself outstanding in knowledge development and basic research in the scientific and engineering disciplines, regardless of whether this addresses specific social challenges. Outstanding work on the knowledge front has an intrinsic value, which we want to highlight. The natural science disciplines represent in themselves, and in a multidisciplinary interaction with the engineering subjects, an opportunity to produce unique knowledge at the faculty of science and technology.

The faculty shall be recognized for good teaching and for having a research culture and an infrastructure that makes us attractive as a place of study, as a workplace and as an alliance partner for good international universities.

Strategic goals: Education

TN will educate attractive candidates for a labour market in rapid restructuring. Our graduates shall be characterised by a high level of professional competence, with a solid basis in natural sciences, where practical experience from laboratories is a key element.

Candidates will be able to communicate and collaborate with national and international actors. They should be innovative and have a good ethical approach, be solution-oriented and up-to-date on current technology. TN will strive for the efficient use of digital tools in engineering education and emphasise innovation and entrepreneurship as part of the education.

WE SHALL:

- Offer our students outstanding research-based teaching and good teaching support.
- Offer interdisciplinary study programmes, where sustainability competence is emphasised.
- Be a preferred study venue with an attractive, flexible programme offering that facilitates lifelong learning.
- Ensure labour-market relevance through good contact with relevant actors in the public sector, business and industry, both locally and globally.
- Stimulate active student learning by providing good physical, social and digital learning arenas.
- Enhance education management and quality in the study programme.

- Continue to focus on international student mobility and strengthen efforts to develop the international contact network (especially in relation to the EU).
- promote the recruitment of more merited teachers.

DURING THE PERIOD WE AIM TO:

- Establish a centre for excellence in education (SFU) by 2030.
- Ensure that all study programmes at TN will have the opportunity for internships as part of their education by 2030.
- Increase recruitment to study programmes within the strategic focus areas.
- Increase student performance on courses and increase the number of completed degrees.
- Establish a learning space that ensures active student learning.
- Provide high-quality post-education and further education adapted to the needs of working life.
- Further develop our activities through the European Consortium of Innovative Universities (ECIU).

Strategic goals: Research

The Faculty of Science and Technology is characterised by high quality in both basic and applied research.

WE SHALL:

- Strengthen professional development through holistic and interdisciplinary knowledge production that lays the foundation for sustainable restructuring.
- Be an attractive partner for the public sector and business.
- Use our size and co-location at Ullandhaug as a starting point for interdisciplinary work.
- Facilitate students to be co-researchers or active participants in research work.
- Have a high ethical standard in our research.
- Have a high level of motivation and good culture for publishing and dissemination.
- Host at least two national research infrastructures.
- Have established well-functioning research cooperation at the faculty level with some selected national and international partners.
- Maintain the quality and scope of research publishing in relevant international peer-reviewed publication channels.
- Increase the annual number of PhD graduates, with a goal of achieving at least 50 PhD graduates annually during the strategy period.
- Increase the proportion of external grant and assignment-funded research.
- Strengthen research cooperation with relevant research institutions.
- Work actively with the career development goals that are established in the employee interviews.

OUR GOALS DURING THE STRATEGY PERIOD ARE TO:

- Host at least two national centres: either SFF, SFI or other professional centres.

Strategic goals: Community involvement

The Faculty of Science and Technology shall be a high-profile mediator that succeeds in long-term and value-creating relationships with the outside world. Our students and staff are encouraged to participate actively in a society that is facing major challenges.

WE SHALL:

- Have visible academic environments and students in the public domain and in the social debate.
- Use our expertise and critical perspective to achieve sustainable social development that addresses the UN Sustainable Development Goals.
- Collaborate with the outside world to develop knowledge clusters, research projects, study programmes and studies closely related to working life.
- Strengthen the knowledge and reputation of the faculty through clear profiling and branding.
- Host several conferences and workshops within the faculty's disciplines.

OUR GOALS DURING THE STRATEGY PERIOD ARE TO:

- Establish new and strengthen existing networks and collaboration relationships.
- Strengthen the culture of innovation through close cooperation with working life.
- Increase students' innovation and entrepreneurial activities.
- Highlight the faculty's activities by developing meeting places for

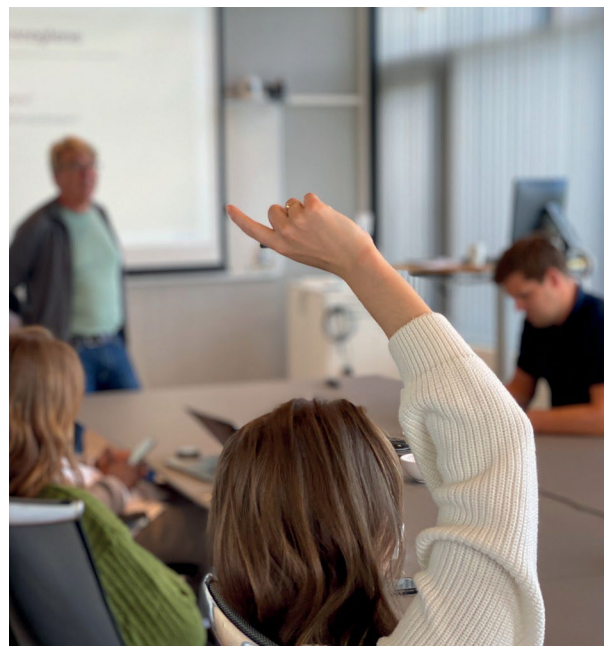


Photo: Siri Pedersen/UiS