



SINTEF

# SINTEF Industry





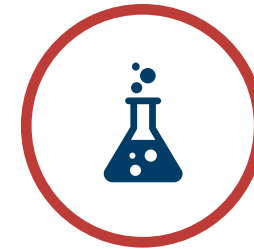
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# Our key roles in society



## Research and innovation

We generate new technologies and knowledge together with our clients



## Laboratories and software

We build and operate key research infrastructure



## Commercialisation

We create new products and businesses



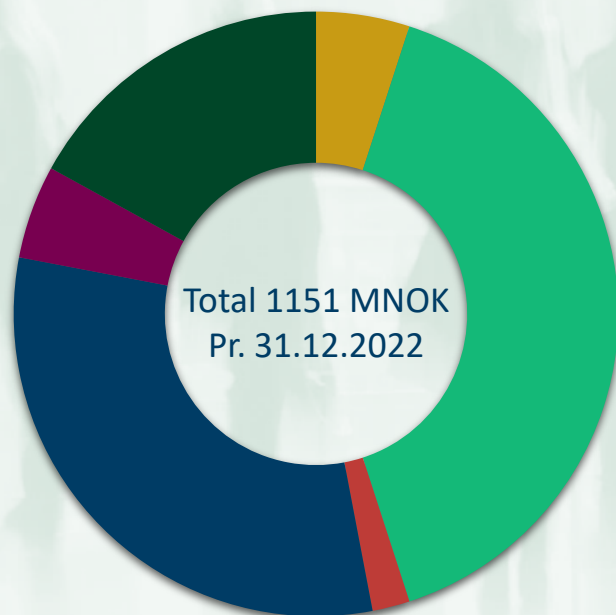
## Thought leadership

We offer advice and knowledge that informs public debate and policymaking

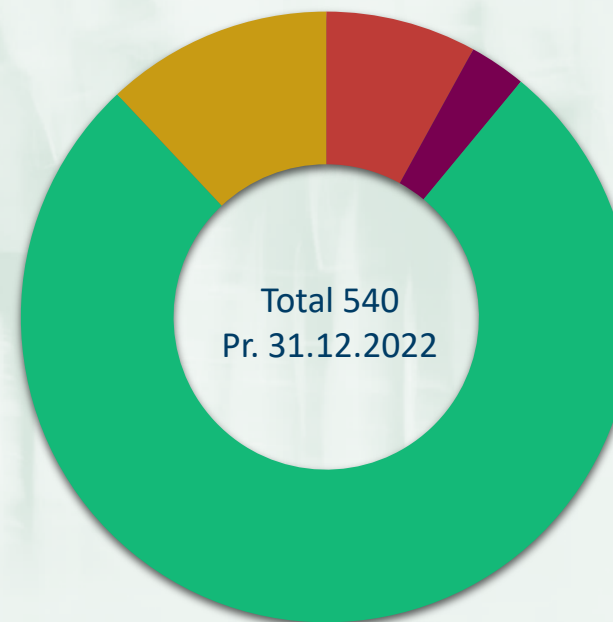


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# Economy and employees



- 5 % NFR basic grant
- 2 % Public sector
- 5 % International contracts
- 40 % NFR project support
- 31 % Industri og næringsliv
- 17 % International EU contracts



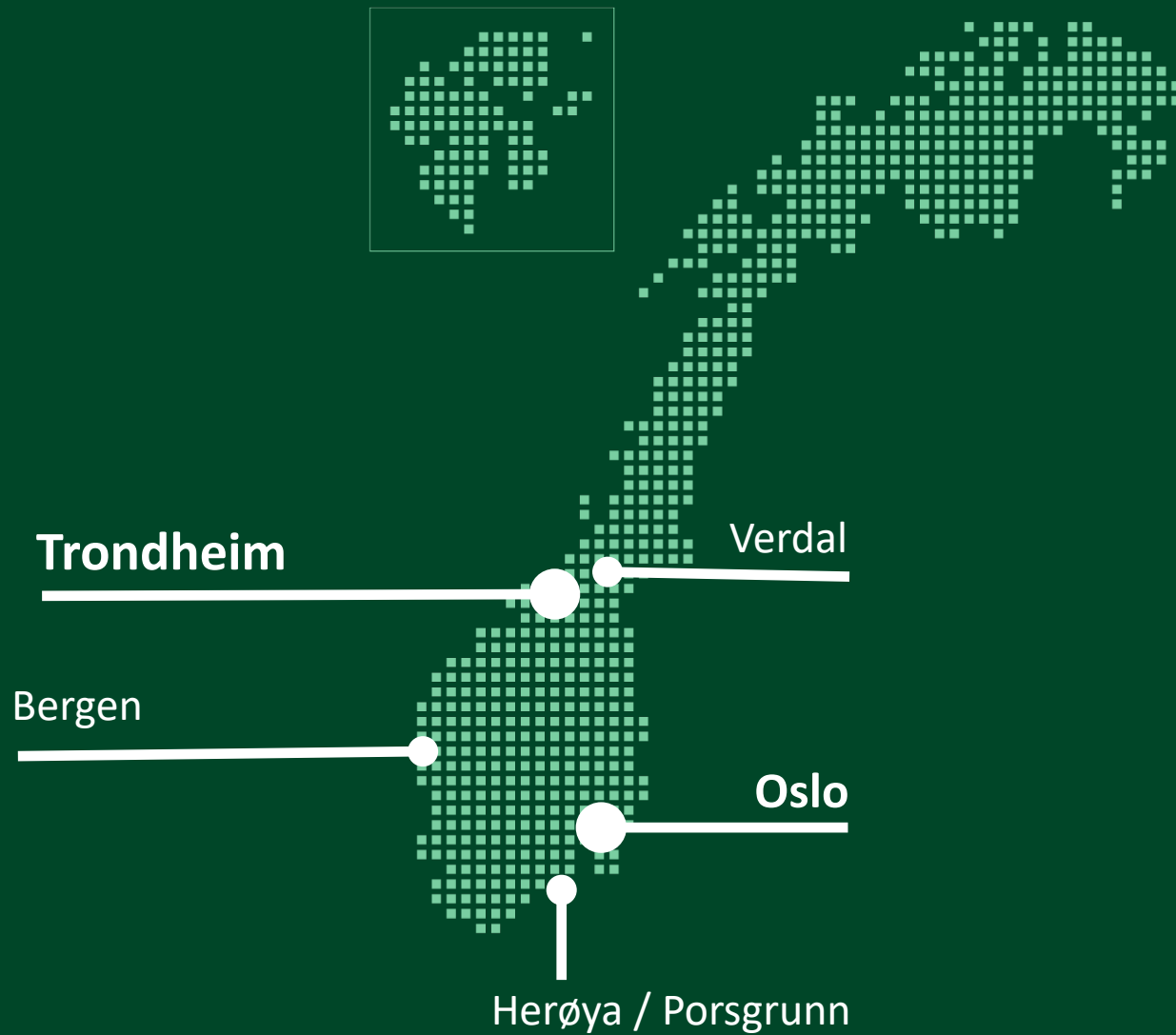
- 8,14 % Administration
- 76,8 % Researchers
- 2,7 % Technical personnel
- 12,2 % Ingenieers

35 % of our employees are from abroad,  
and from 50 different nations.



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# SINTEF Industry is certified

- SINTEF Industry is certified by DNV GL in accordance with ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007 standards.
- SINTEF Industry shall at all times work to ensure that the organisation's results meet adequately the requirements and expectations of our clients and other stakeholders.
- Our management system ensures that SINTEF delivers products and services in accordance with specified level of quality, safeguards the environment and operates with a systematic approach to occupational health and safety.

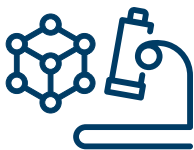




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# SINTEF Industry prioritized research areas

## Materials



Materials properties and utilization



Metal production

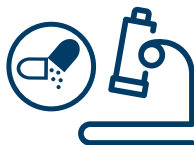


Advanced materials and nanotechnology



Plastics and composites

## Processes



Nanomedicine



Metal processing



Process technology



Circular economy

## Technologies



Biotechnology



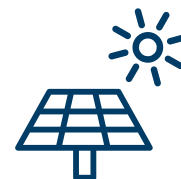
Hydrogen



Battery



Wind



Solar



CCUS



Drilling and wells



Applied geoscience

## Decision support



Operations research and economics

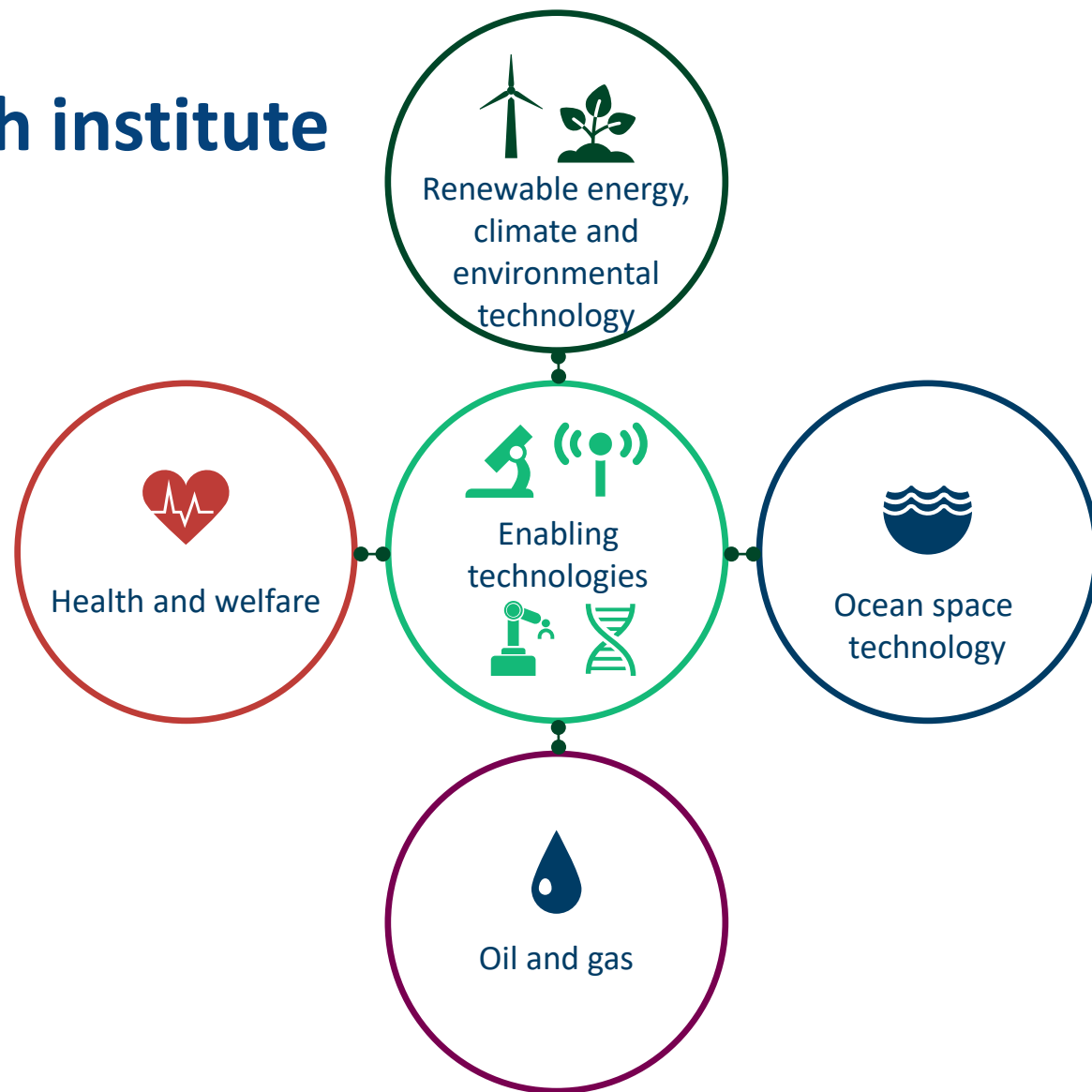


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# A world-leading research institute

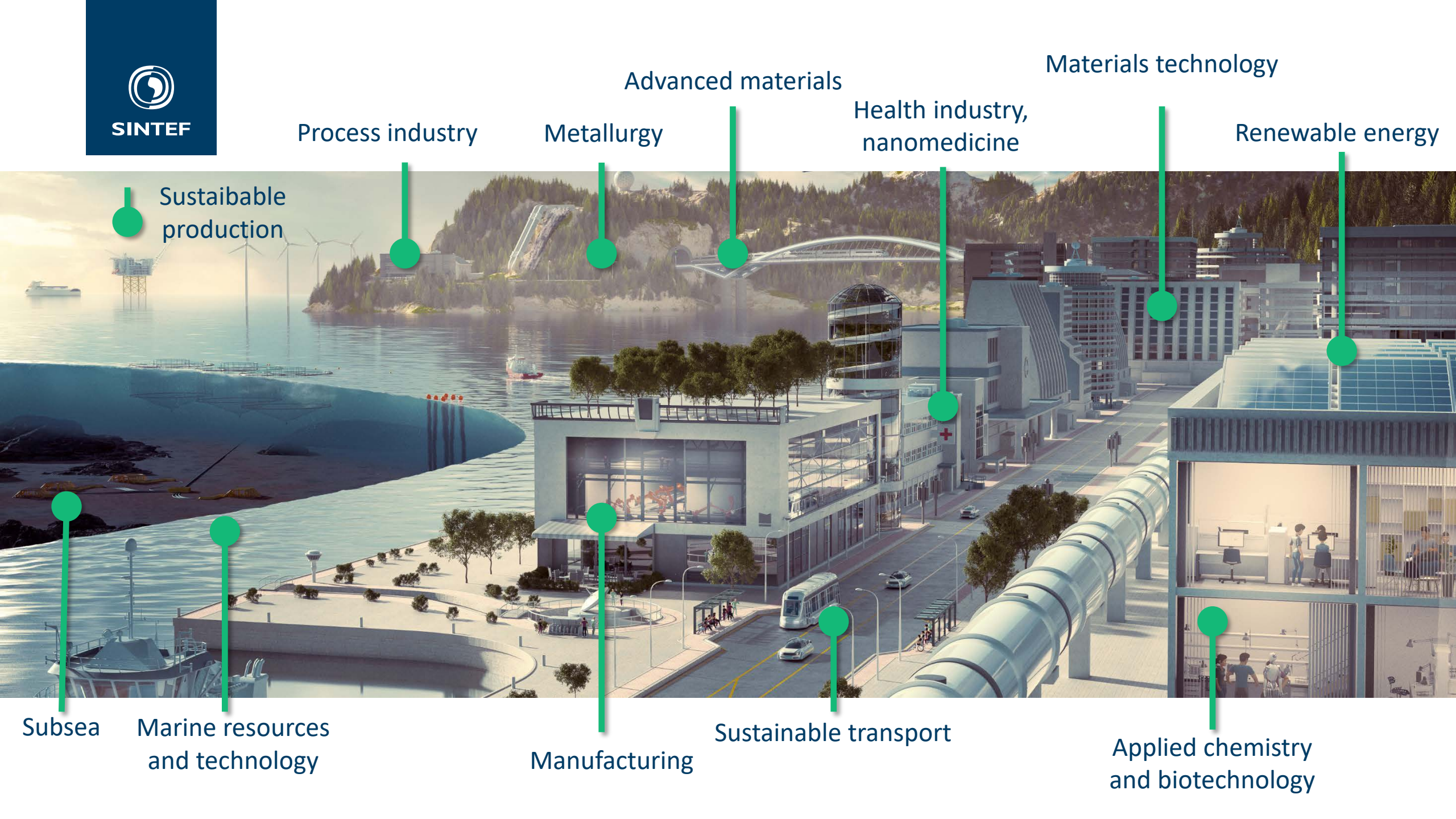
Our main goal: **A world-leading research institute.**

We develop solutions to some of **society's grand challenges** by being at the forefront of our strategic focus areas.





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Materials technology

Renewable energy

Health industry,  
nanomedicine

Advanced materials

Metallurgy

Process industry

Sustainable  
production

Applied chemistry  
and biotechnology

Sustainable transport

Manufacturing

Marine resources  
and technology

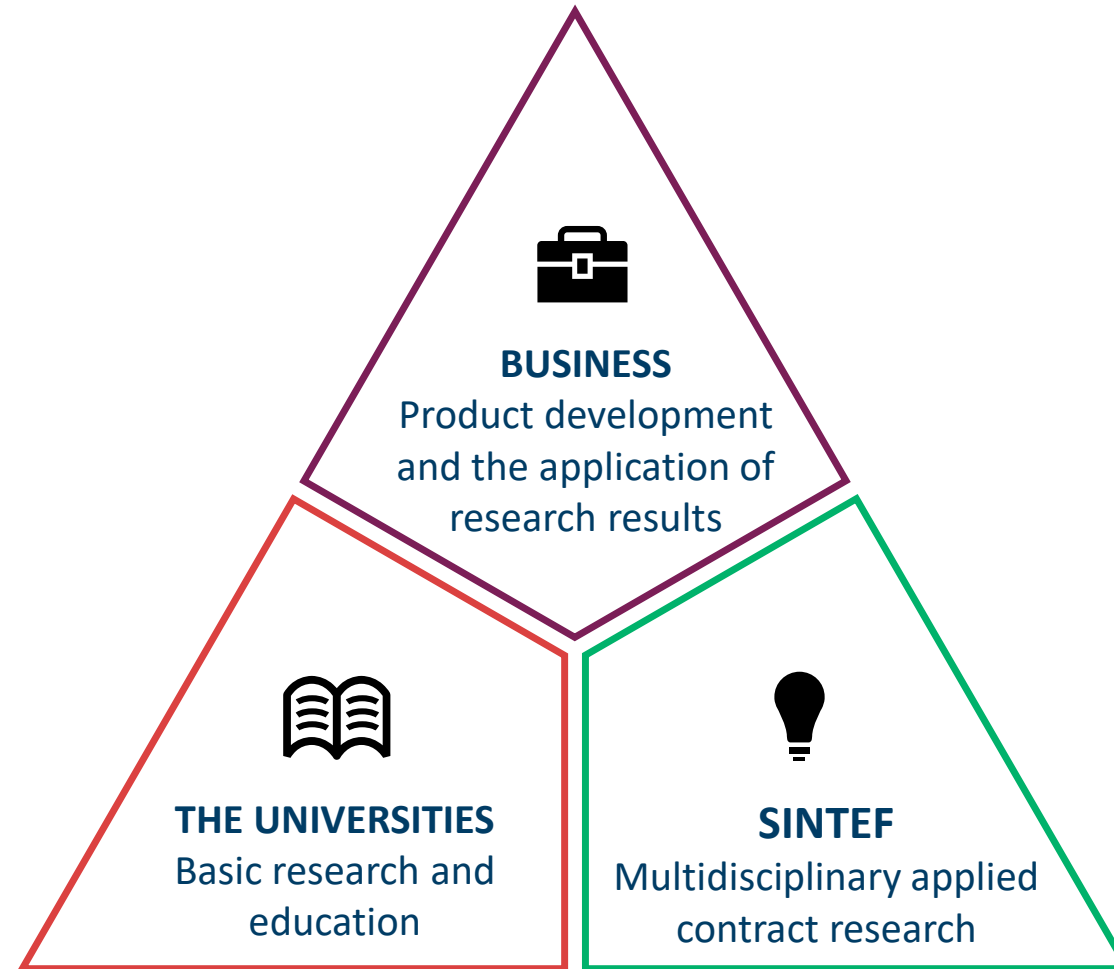
Subsea





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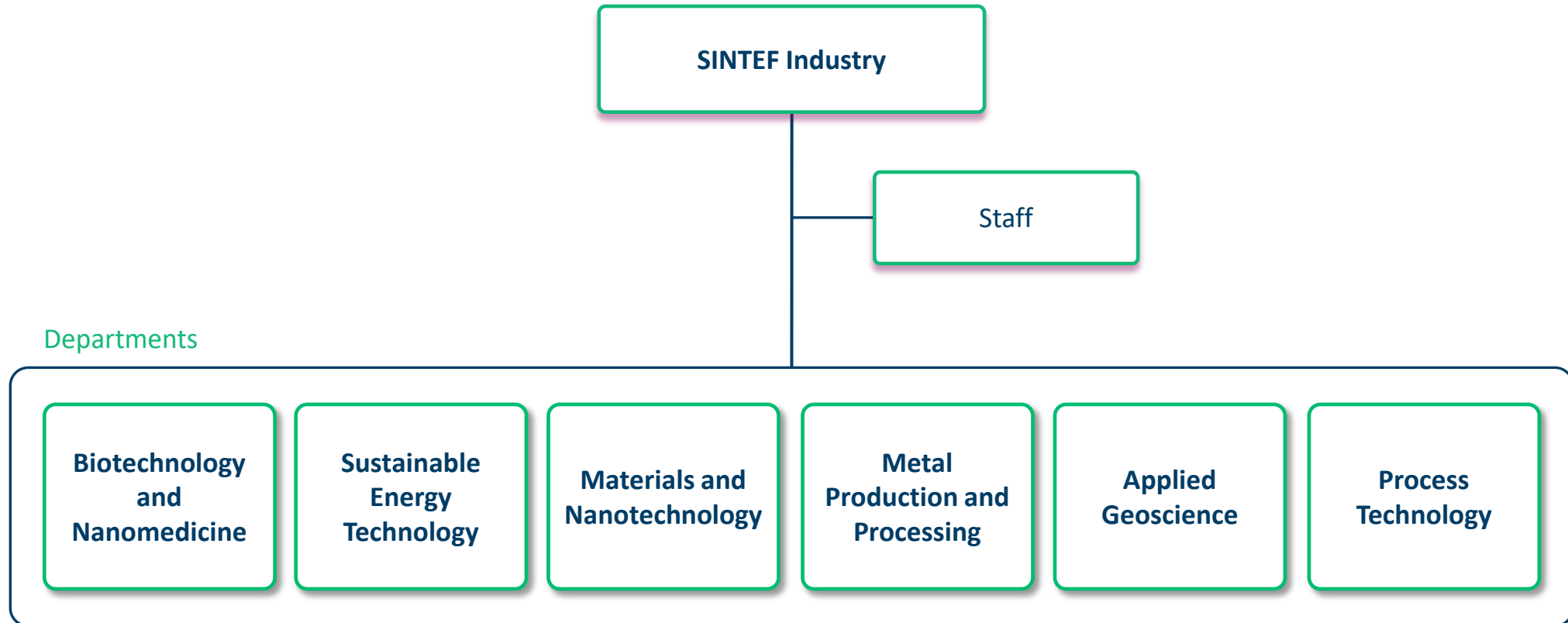
# Close working relationships generate innovation and high quality





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# SINTEF Industry - organisation





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# SINTEF Industry - organisation

Departments

**Biotechnology and Nanomedicine**

**Sustainable Energy Technology**

**Materials and Nanotechnology**

**Metal Production and Processing**

**Applied Geoscience**

**Process Technology**

**Management and Staff**

Research Groups

Medical Biotechnology

Sustainable Biotechnologies and Bioprospecting

Industrial and Marine Biotechnology

Mass Spectrometry

Polymer Particles and Surface Chemistry

Batteries and hydrogen technologies

Thin Film and Membrane Technology

Solar Energy and Materials

Materials Physics Oslo

Electrochemical Energy Conversion and System Solutions

Operations Research and Economics

Workshop

Material Physics, Trondheim

Corrosion and Tribology

Polymer- and Composite Materials

Materials Integrity and Welding

Material- and Structural Mechanics

Process Metallurgy and Raw Materials

Casting, Forming and Recycling

Electrolysis and High Temperature Materials

Material Processing and Modelling

Geophysics

Reservoir and Geology

Formation Physics

Drilling and Well

Flow Technology

Multiphase Flow

Chemical and Environmental Process Engineering

Kinetics and Catalysis

Process Chemistry and Functional Materials

SINTEF Tel-Tek

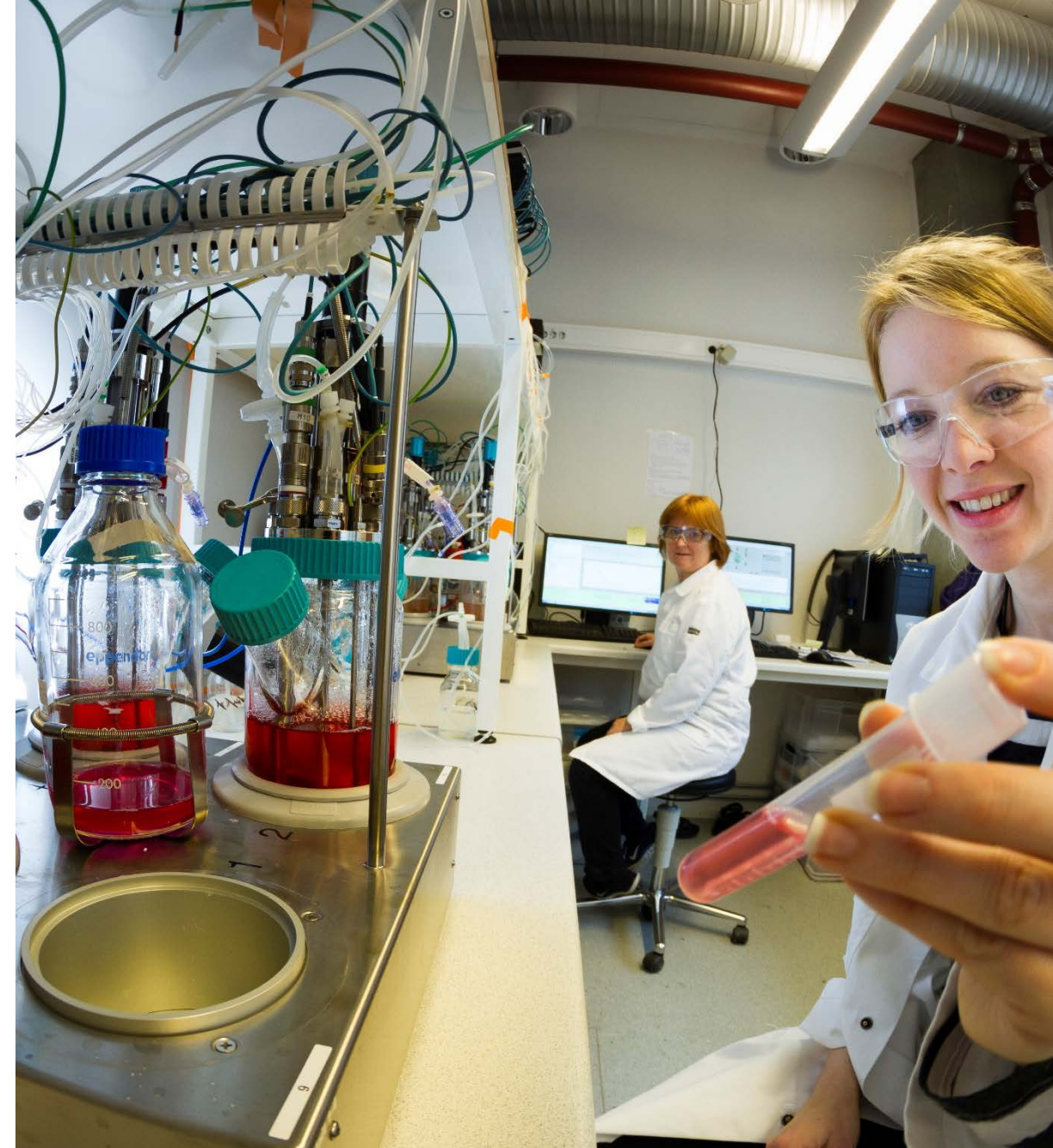
# Biotechnology and Nanomedicine

## Our expertise:

- Bioprocess development
- Microbial molecular biology
- Advanced research-based analyses
- Nanomedicine, polymer particles and surface chemistry

## Applied within:

- pharmaceuticals, vaccines, biomaterials, enzymes, food, feed, chemicals and energy



# Sustainable Energy Technology

## Our expertise:

- Renewable energy and CO<sub>2</sub> capture
- Hydrogen production and fuel cells
- Battery technology and energy harvesting
- Silicon production for solar cells
- Membrane development and gas separation
- Functional materials and powder technology
- CO<sub>2</sub> capture, PV and H<sub>2</sub>&FC national infrastructures



# Materials and Nanotechnology

## Our expertise:

- Aluminium, Silicon, Iron and steel
- Minerals and raw materials
- Polymer and composite materials
- Nanotechnology and functional materials
- Materials properties and utilization



# Metal Production and Processing

## Our expertise:

- Minerals and raw materials
- Metal production – process metallurgy and electrolysis
- Urban mining and recycling
- Casting and casting technology
- Metal forming and processing
- Emissions and environmental monitoring
- Process modelling





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# Applied Geoscience

## Our expertise:

- Exploration technologies
- Reservoir technologies
- Drilling and well
- CO<sub>2</sub> storage
- Increased recovery
- Geothermal energy







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# Process Technology

## Our expertise:

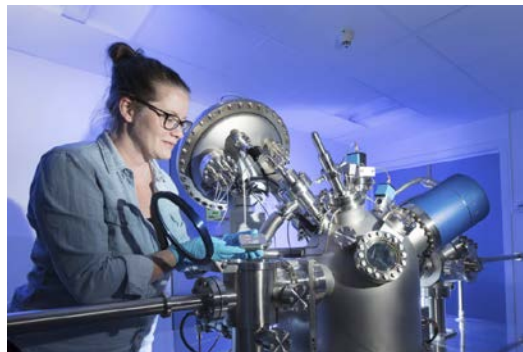
- Computational Fluid Dynamics (CFD) and Multiphase flow
- Catalysis and Kinetics
- Porous and functional materials, separation
- Powder Technology
- High Throughput Technology
- Process Analytical Technology (PAT)
- CO<sub>2</sub> Capture and Separation (CCS)
- Process design and Techno-Economics
- Large scale experimental testing and validation



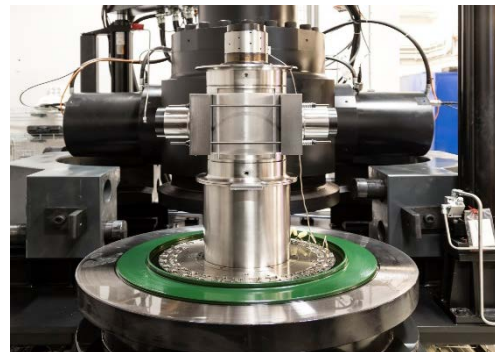


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# Laboratories



Materials characterisation



Subsurface lab.



Multiphase flow, Tiller



CO2-laboratory, Tiller



Nanotechnology



Solar cells



Metal Production



Advanced membranes



Material technology



Mass spectrometry



Biotechnology



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# Strategic projects

## Gemini-Centre

- [Batterier](#)
- [CO<sub>2</sub> Impact](#)
- [CO<sub>2</sub> Enhanced Oil Recovery & Storage \(CEORS\)](#)
- [Funksjonelle oksider for ren energiteknologi \(FORENT\)](#)
- [Fysikalsk metallurgi \(FysMet\)](#)
- [Hydrokjemisk prosesseteknologi i den sirkulære økonomien \(HyProS\)](#)
- [Levetidsforlengelse av metalliske strukturer \(Life<sup>X</sup>\)](#)
- [PV - Solar Cell Materials](#)
- [Kinetikk og katalyse \(KinCat\)](#)
- [Marin planktonteknologi og -økologi](#)
- Materials and energy
- Metallforming
- [Norwegian Laboratory for Mineral and Materials Characterisation \(MiMaC\)](#)
- Solceller
- Surface characterization by Emission and Scattering Spectroscopies (SUCCESS)
- Termisk energilagring
- Transmisjonselektromikroskopi (TEM)
- [Tribology](#)
- [Økonomisk analyse og modellering](#)

## Centres for Research-based Innovation (SFI)

- [DrillWell](#) (2010-2019)
- [Metal Production](#) (2015-2024)
- [Centre for Advanced Structural Analysis \(CASA\)](#) (2015-2024)
- [SFI Manufacturing](#) (2015-2024)
- [Industrial Catalysis Science and Innovation \(iCSI\)](#) (2015-2024)
- [Center for Innovative Ultrasound Solutions](#) (2015-2024)
- [SFI Industrial Biotechnology](#) (2020-2028)
- [SFI SWIPA](#) (2020-2028)
- [SFI PhysMet](#) (2020-2028)

## Centres for Environment-friendly Energy Research (FME)

- [Bio4Fuels](#) (2016-2024)
- [HighEFF](#) (2016-2024)
- [NCCS](#) (2016-2024)
- [MoZEES](#) (2017-2024)
- [SuSolTech](#) (2017-2025)
- [HYDROGENi](#) (2022-2030)

## Other Centre

- [Low Emission](#) (2019-2026)



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Technology for a  
better society