



**SINTEF**

— 75 years —



# SINTEF Industry



Technology for a better society





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# SINTEF INDUSTRY

We deliver technology for a better society with cutting-edge expertise  
in sustainable production and value creation

Technology for a better society

# 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



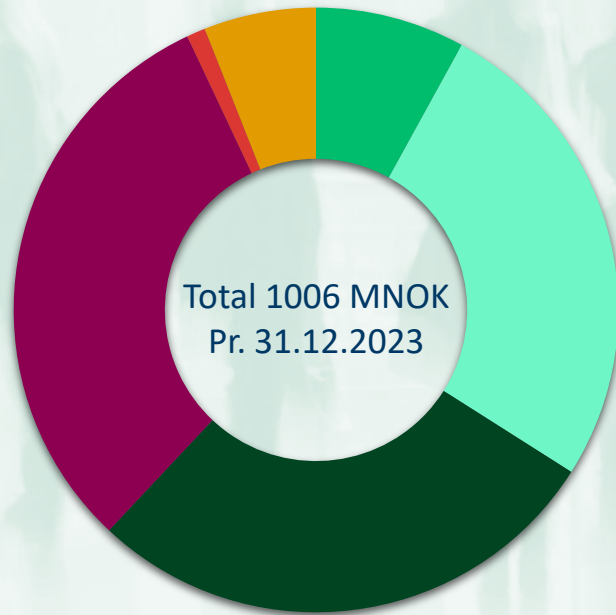
## Thought leadership

We offer advice and knowledge that informs public debate and policymaking

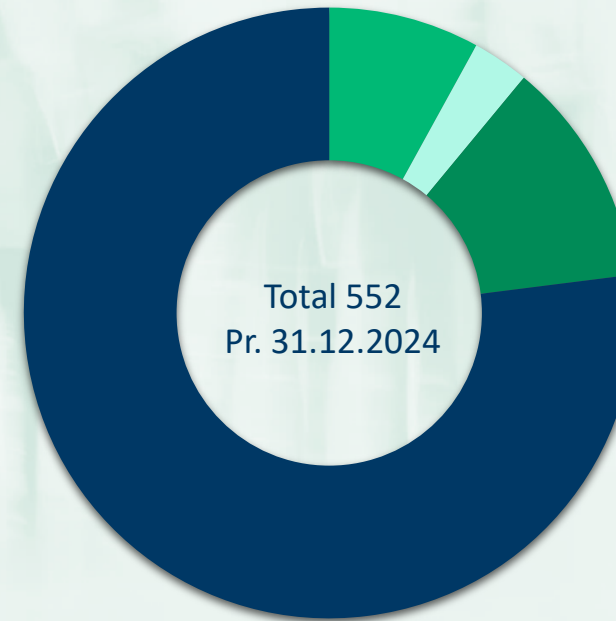


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- 8 % NFR basic grant
- 26 % NFR project support
- 28 % International EU contracts
- 31 % Industri og næringsliv
- 1 % Public sector
- 6 % International contracts



- 8 % Administration
- 12 % Engineers
- 3 % Technical personnel
- 77 % Researchers

46 % of our employees are from abroad,  
and from 55 different nations.





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*SINTEF Industry - Proximity to customers*

Bergen

Verdal  
Trondheim

Oslo

Porsgrunn



# 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.





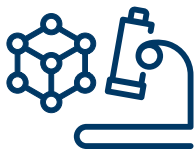


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# SINTEF Industry prioritized research areas

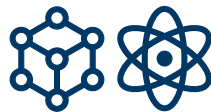
## Materials



Materials properties and utilization



Metal production



Advanced materials and nanotechnology



Plastics and composites

## Processes



Nanomedicine



Metal processing



Process technology



Circular economy

## Technologies



Biotechnology



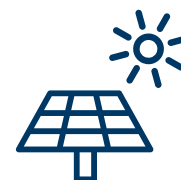
Hydrogen



Battery



Wind



Solar



CCUS



Drilling and wells



Applied geoscience

## Decision support



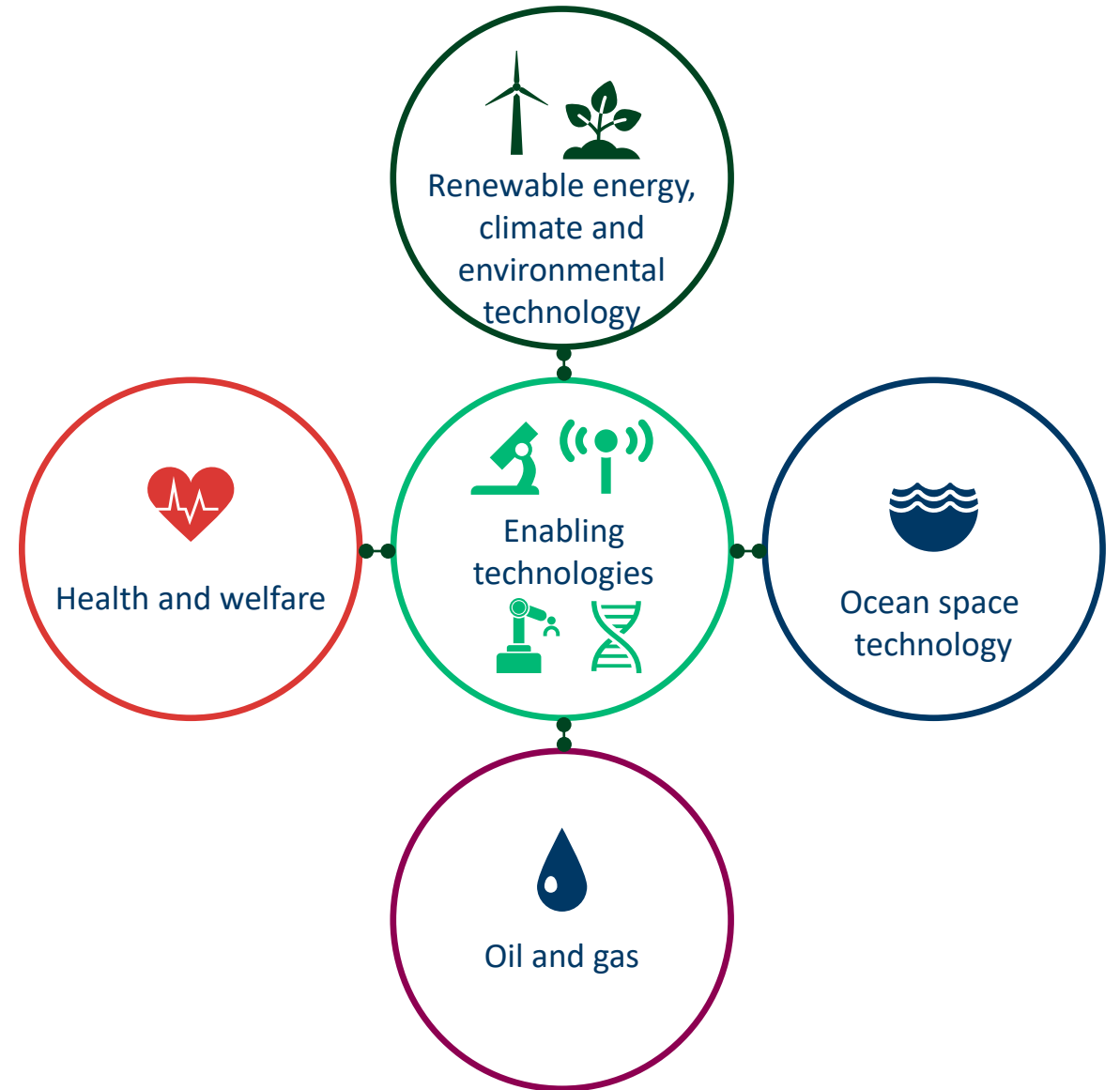
Operations research and economics



# 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.

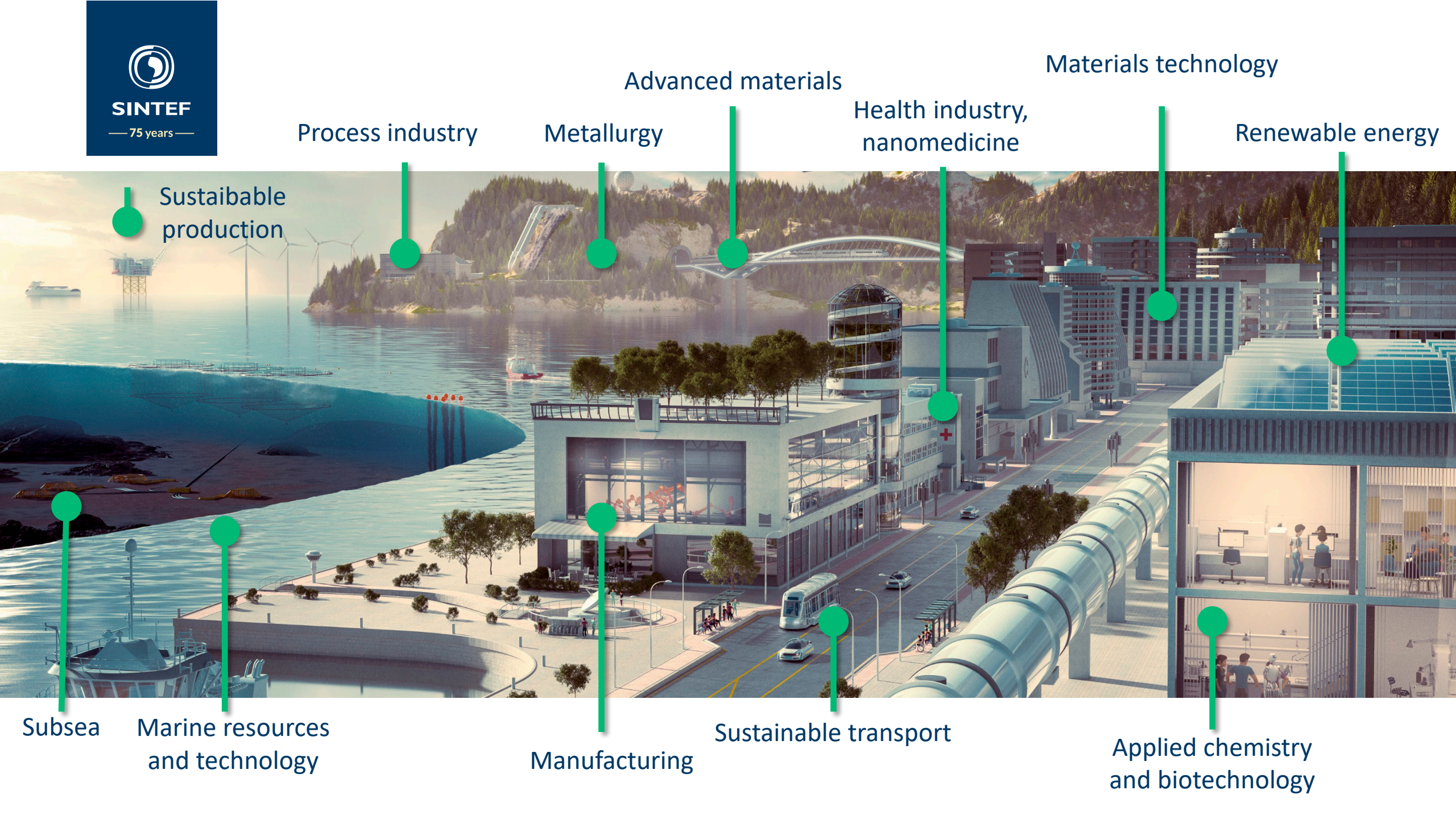






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- Sustainable production
- Process industry
- Subsea
- Marine resources and technology
- Metallurgy
- Manufacturing
- Advanced materials
- Sustainable transport
- Health industry, nanomedicine
- Materials technology
- Applied chemistry and biotechnology
- Renewable energy





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Close collaboration  
creates innovation and  
high professional  
quality



**University**

Research and education



**Business**

Product  
development  
and use of research results



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Multi-disciplinary  
contract research



# Norwegian Centre for Environment friendly Energy Research (CEER/FME)



- Centres for Environment-friendly Energy Research (FME) is a national research scheme.
- SINTEF lead and participate in several of these centres.
- The Centres for Environment-friendly Energy Research (FME) carry out long-term research targeted towards renewable energy, energy efficiency, CCS and social science aspects of energy research.
- The centres selected for funding must demonstrate the potential for innovation and value creation.
- Research activities are carried out in close collaboration between research groups, trade and industry, and the public administration, and key tasks include international cooperation and researcher training.
- The centres are established for a period of maximum eight years (5 + 3).

SINTEF Industry leads one FME and participate in additional ten



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# SFI Centre for Research-based Innovation

- A research centre is a dedicated, long-term initiative designed to strengthen and further develop elite, creative research and innovation groups or to build up research groups in strategically important areas.
- The Research Council of Norway provides long-term funding for collaboration between research-performing companies and research groups in fields of importance for innovation and value creation, and with enhance of technology transfer, internationalization and researcher training.

SINTEF Industry leads two SFI Centres, and participate in four more



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# The GEMINI collaboration

## 51 centres for strategic cooperation

- The Gemini centre is a model for strategic cooperation between research groups at NTNU, SINTEF, University of Oslo, St. Olav's Hospital and NTNU Social Research.
- Internationally, both clients and students call for outstanding research communities. It is the best communities that succeed in increasingly fierce international competition. This is why the Gemini Centre works in line with the vision of «global excellence together»
- There are a total of 51 Gemini Centres, from climate neutral cities and batteries to big data, AI and green aviation, and lots more



Samfunnsforskning



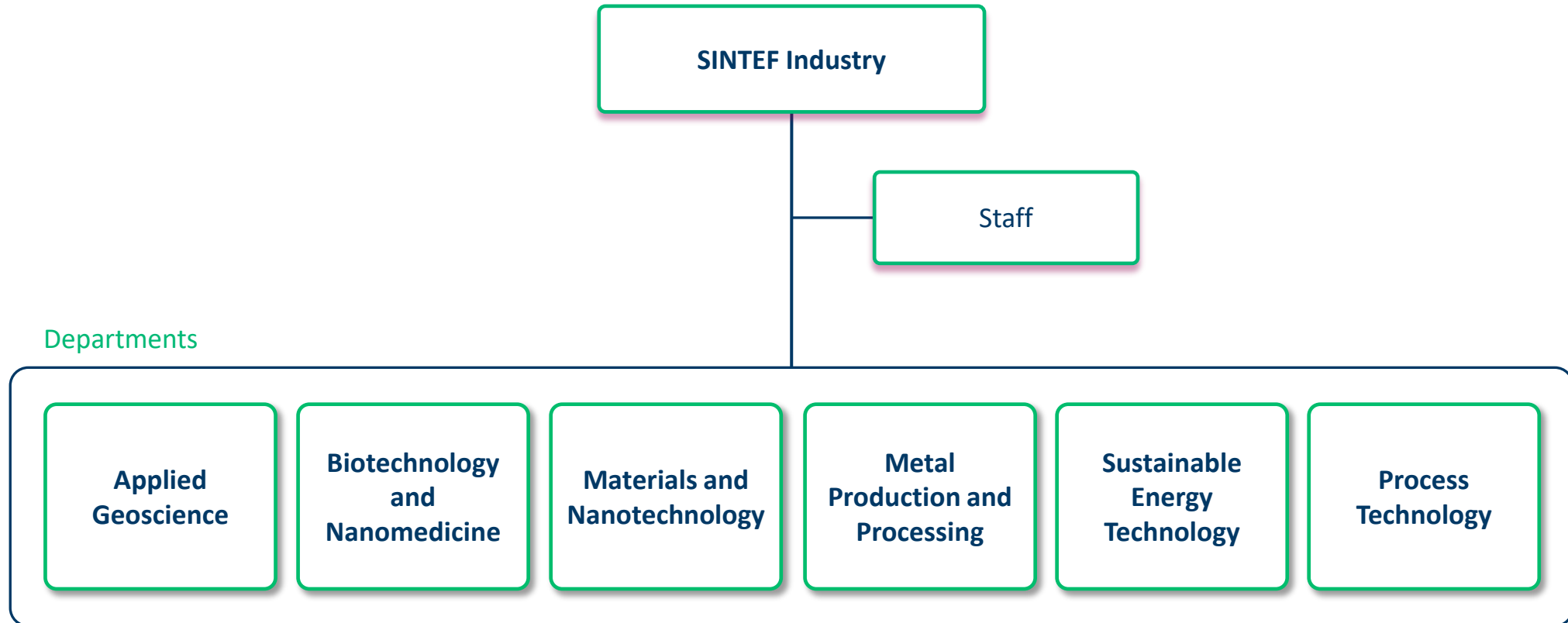




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# SINTEF Industry - organisation





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# SINTEF Industry - organisation

Departments

**Applied  
Geoscience**

**Biotechnology  
and  
Nanomedicine**

**Materials and  
Nanotechnology**

**Metal  
Production and  
Processing**

**Sustainable  
Energy  
Technology**

**Process  
Technology**

**Management  
and Staff**

Research  
Groups

Drilling and Well

Formation Physics

Geophysics

Reservoir and Geology

Industrial and Marine  
Biotechnology

Mass Spectrometry

Medical Biotechnology

Polymer Particles and  
Surface Chemistry

Sustainable  
Biotechnologies and  
Bioprospecting

Corrosion and  
Tribology

Material Physics,  
Trondheim

Materials Integrity and  
Welding

Material and Structural  
Mechanics

Polymer and  
Composite Materials

Casting, Forming and  
Recycling

Electrolysis and High  
Temperature Materials

Material Processing  
and Modelling

Process Metallurgy  
and Raw Materials

Battery Technology

Electrochemical  
Hydrogen Technologies

Materials Physics, Oslo

New Energy Solutions

Operations Research  
and Economics

Solar Energy and  
Materials

Thin Film and  
Membrane Technology

Workshop

Chemical and  
Environmental Process  
Engineering

Flow Technology

Industrial Process  
Design

Kinetics and Catalysis

Multiphase Flow

Process Chemistry

Sustainable  
Chemistry

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# 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







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# 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



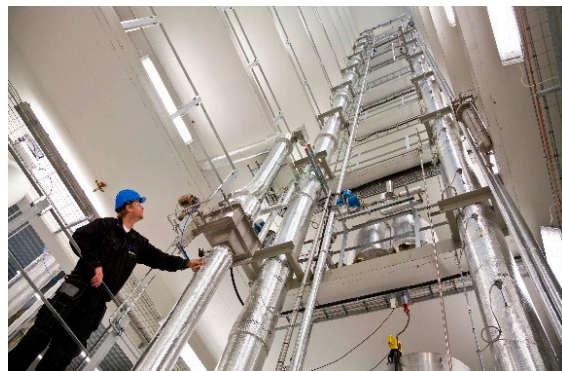




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# Laboratories



CO<sub>2</sub>-laboratory, Tiller



Formation Physics



Multiphase Flow, Tiller



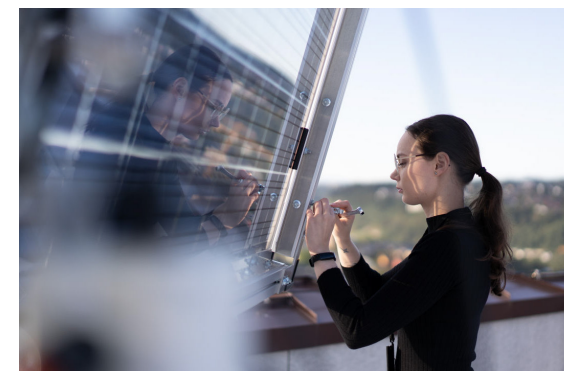
Mass spectrometry



Materials characterisation



Nanotechnology



Solar cells



Metal production



Advanced membranes



Material technology



Biotechnology





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