



# NTNU Faculties

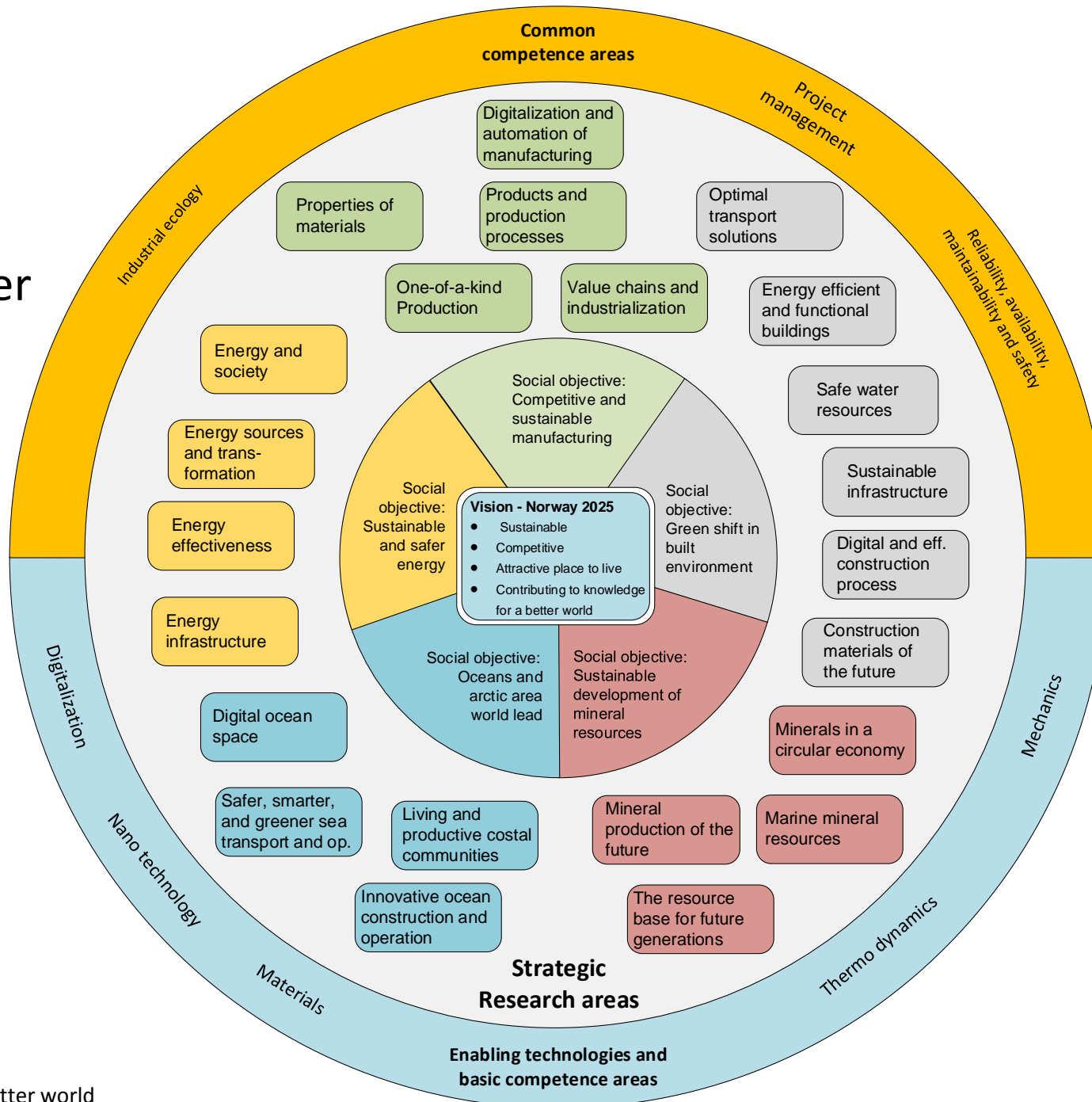
(5 faculties involved in BRU21, initiated because of the rapid decrease in oil price)

	Norsk navn	Engelsk navn
Fak A	Fakultet for ingeniørvitenskap	Faculty of Engineering
Fak B	Fakultet for naturvitenskap	Faculty of Natural Science
Fak C	Fakultet for informasjonsteknologi og elektroteknikk	Faculty of Information Technology and Electrical Engineering
Fak D	Det humanistiske fakultet	Faculty of Humanities
Fak E	Fakultet for medisin og helsevitenskap	Faculty of Medicine and Health Sciences
Fak F	Fakultet for samfunns- og utdanningsvitenskap	Faculty of Social and Educational Sciences
Fak G	Fakultet for økonomi	Faculty of Economics and Management
Fak H	Fakultet for arkitektur og design	Faculty of Architecture and Design

# IV Reserch Map 2018-2022

(Meets NTNU Vision:  
Knowledge for a better  
World  
and UN SD Goals)

**IV Role in Society:**  
Technology for  
Sustainability,  
Innovation and  
strengthened  
Competitiveness



# Sustainable and Reliable Energy, overall goal (meets UN sustainable Development Goal 7)

- 'Sustainable' implies that environmental and climate impacts are understood and handled throughout the entire energy chain
- 'Sustainable' also means that the use of energy contributes to sustainable social development
  - Contributes to human needs as food, health, house, clothing, safety, work, recreation and communication.
  - Taking into account increasing population
- 'Reliable energy' implies security of supply
  - Energy is supplied to the end user at the right time and in the right quantity
  - Balance between consumption, production and capacity of energy storage
  - The risk of accidents is reduced and the extent of possible accidents is limited

# BRU21 – Technology for the Future

BRU21 stands for “Better Resource Utilization” (both cost and income side) and address “technologies for the future for the O&G industry”.

- ❑ What are the major challenges for the O&G industry on the Norwegian Continental Shelf in the future
- ❑ Where do you see “break-through technologies” in order to build future petroleum fields safely and environmentally friendly at an oil prices at 30 \$ (break-even price)
- ❑ How can NTNU contribute to deliver future technologies and education in O&G in order to meet these challenges. BRU21 across Faculties and Departments at NTNU.

NTNU organized “fact finding” meetings with 41 oil and gas companies, service companies, OG21, NØROG, NPD, PTIL and MPE during 2016:

## BRU21 Conference

We invite all companies and organizations that we visited to a BRU21 Conference  
30 May 2017



September 15, 2005

Update

**BRU Project 2005**

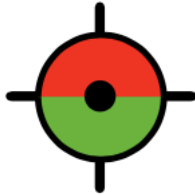
A strategic plan for focused petroleum research at NTNU

Better Resource Utilization

 **NTNU**  
Innovation and Creativity

The poster features a circular image of a rocky, mountainous landscape. A large blue arrow points from the top right towards the center, containing the word 'Update'. The year '2005' is written vertically on the right side, with a dashed arrow pointing down to it. The text 'BRU Project 2005' is prominently displayed in the center, followed by the subtitle 'A strategic plan for focused petroleum research at NTNU' and the tagline 'Better Resource Utilization'. The NTNU logo and name are at the bottom right.

# Companies & Institutions Visited by NTNU - 2016



TEEKAY



Lundin



MAERSK OIL



VNG Norge



REPSOL



## Technology Road Map

– Major areas for the R&D in the future:

- 1) Automation and digital solutions
- 2) Barents sea province
- 3) Field development and area strategies
- 4) Environmental friendly O&G production
- 5) New business models for oil companies and suppliers
- 6) Late field challenges and decommissioning