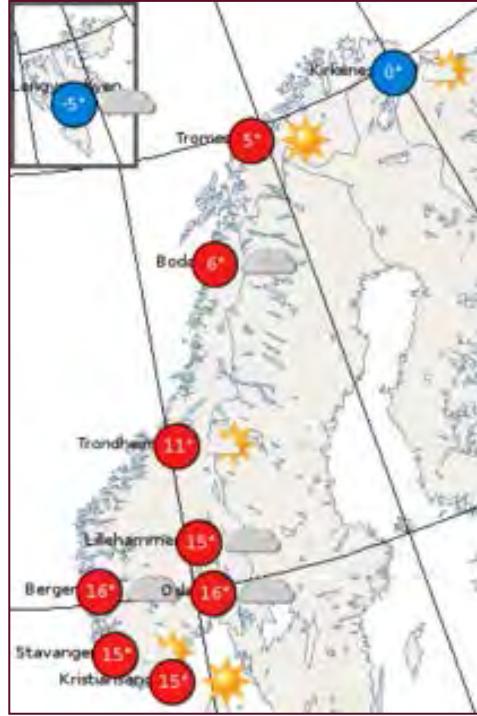




# From nuclear to energy institute



Temperatures on May 5th 2008  
were fairly typical for this time of spring,  
although slightly above average  
in the southermost part of the country.

# Western Norway



## Ålesund

## **Oil and gas**

**Oil production has been a big part of the Norwegian economy since the 1970s, with a dominating state ownership**



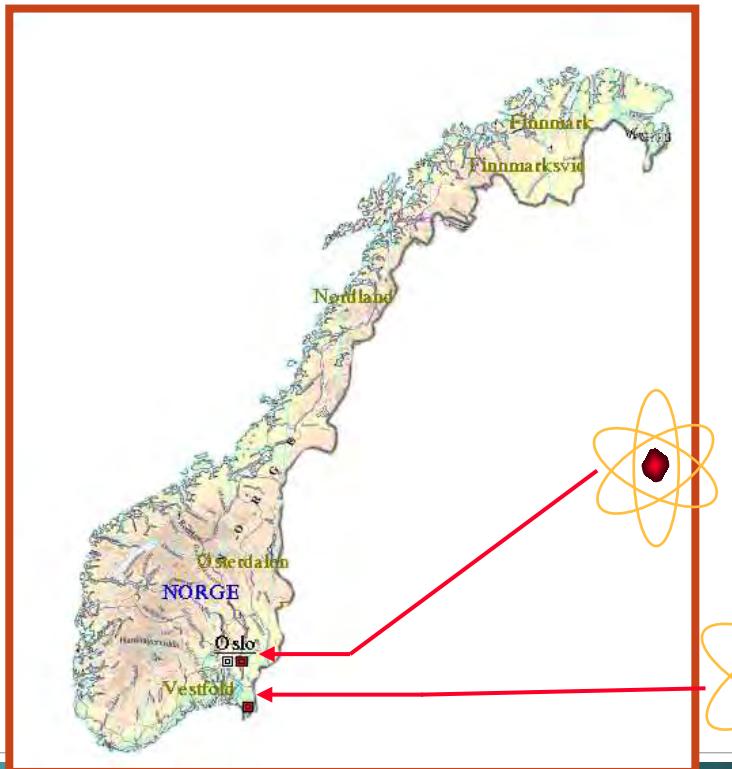
**Export revenues from oil and gas have risen to 45% of total exports and constitute more than 20% of the GDP**

**Norway is the fifth largest oil exporter and third largest gas exporter in the world**

**The Government Pension Fund of Norway controls assets valued at US\$200 billion.**

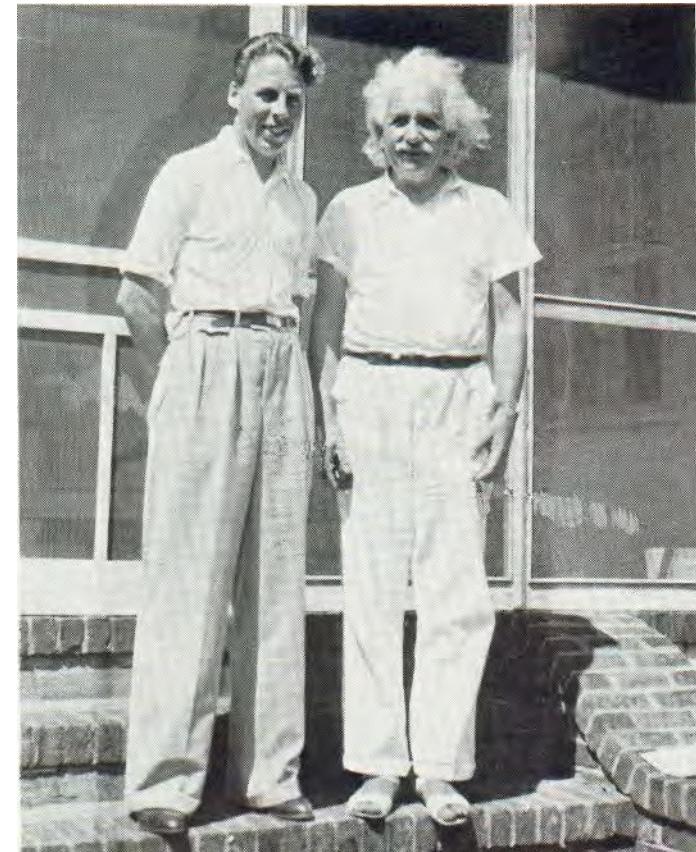
# Vision

IFE's vision is to be an internationally leading energy research institute.



Kjeller

Halden



Gunnar Randers, IFE's founder

# A proud history

- Independent foundation established in 1948
- Built one of the world's first nuclear reactors (JEEP I, 1951)
- Organised the world's first international scientific conference on nuclear technology in 1953
- Developed the world's first colour screen based control room (OPCOM, 1972)
- Developed the technology enabling multiphase transportation of oil, water and gas (Olga, 1980)
- Developed the technology that made it possible to trade electricity on the stock market (Nordpool, 1993)



*Nobel Prize Laureates Sir John Cockcroft and Nils Bohr, King Haakon and Crown Prince Olav at the opening of the JEEP I-reactor at Kjeller 28th nov. 1951*

# Institute for Energy Technology

- R&D in a broad scope of energy technology
- 600 employees (Kjeller and Halden)
- Turnover: NOK 1 billion
- Contract research
- Internationally oriented



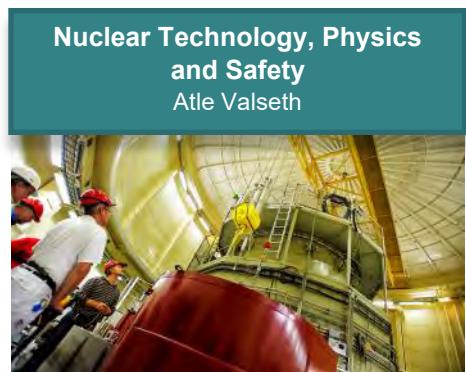
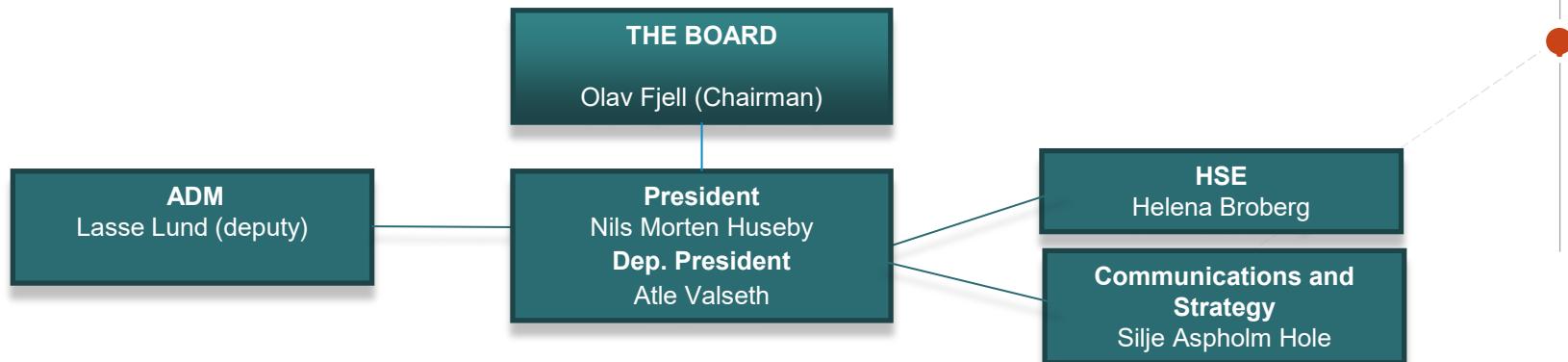
JEEP II reactor, Kjeller



# Main goals for IFE

- Develop profitable, safe and environmental friendly technology within petroleum extraction, energy production and use.
- Maintain and further develop national expertise within reactor safety, radiation protection and nuclear technology.
- Utilise the Institute's unique nuclear safety expertise in other spheres of society.
- Conduct basic research based on the JEEP II reactor at Kjeller.





# Halden Project 2014-2017

- International research on safety under OECD/NEA administration
- 20 member countries
- More than 100 participating organisations
- Three-year programme periods
- 70% international financing
- Norway's largest international R&D project (about MNOK 150 annually)



# IFE, big laboratories and advanced experimental capacities at hand



# Nuclear Technology, Materials Characterisation with Neutrons & Safety

- Main areas
  - Operation of the Kjeller- and Halden research reactors
  - Fuel and material technology
  - Safety at reactor plants
  - Basic scientific research in physics
- 177 employees
- Turnover: MNOK 300



# Safety Man-Technology-Organisation

- Main areas
  - Man-Technology-Organisation
  - Control room technology
  - VR-technology
- Hammlab & VR-center:  
Halden MTO-center
- 68 employees
- Turnover: MNOK 92



# The Isotope Laboratories

- Main areas
  - Production and quality control of radiopharmaceuticals
  - Control and distribution of radiopharmaceuticals to Norwegian hospitals
  - Research and development
  - Quality assurance
  - 128 employees
- Turnover MNOK 352



# Petroleum Technology

- Main areas
  - Reservoir and exploration technology
  - Process and fluid flow technology
  - Corrosion technology
- 55 employees
- Turnover: MNOK 99



# Energy and Environmental Technology

- Main areas
  - Renewable energy; solar cell technology, wind energy, hydrogen as energy carrier
  - Energy systems analysis
  - Carbon capture and storage (CCS)
  - Battery technology
  - Radioactive waste management
- 66 employees
- Turnover: MNOK 144



*IFE, research for a better future*

