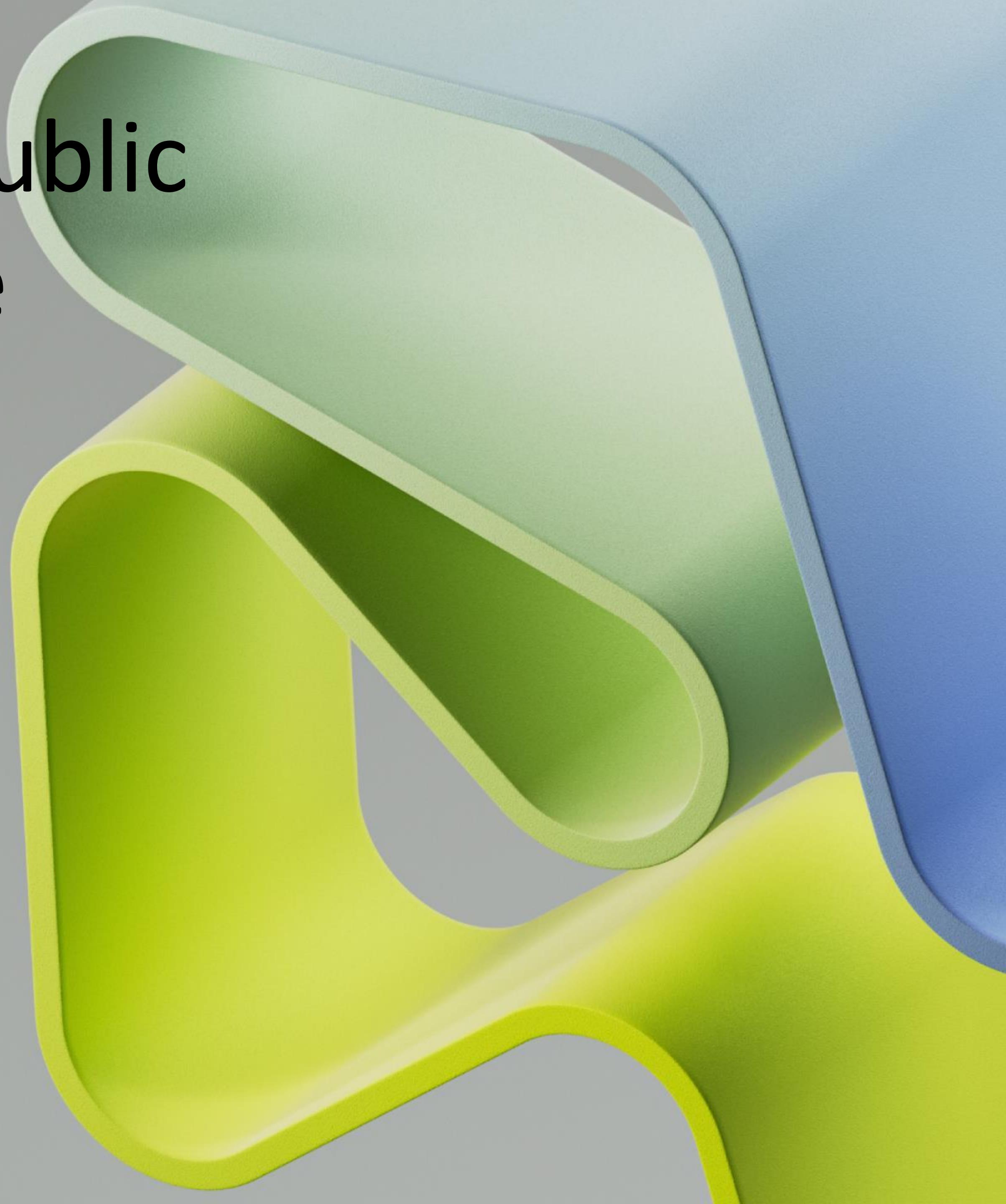


The strategic role of public funding of RD&I in the energy transition

Rune Volla

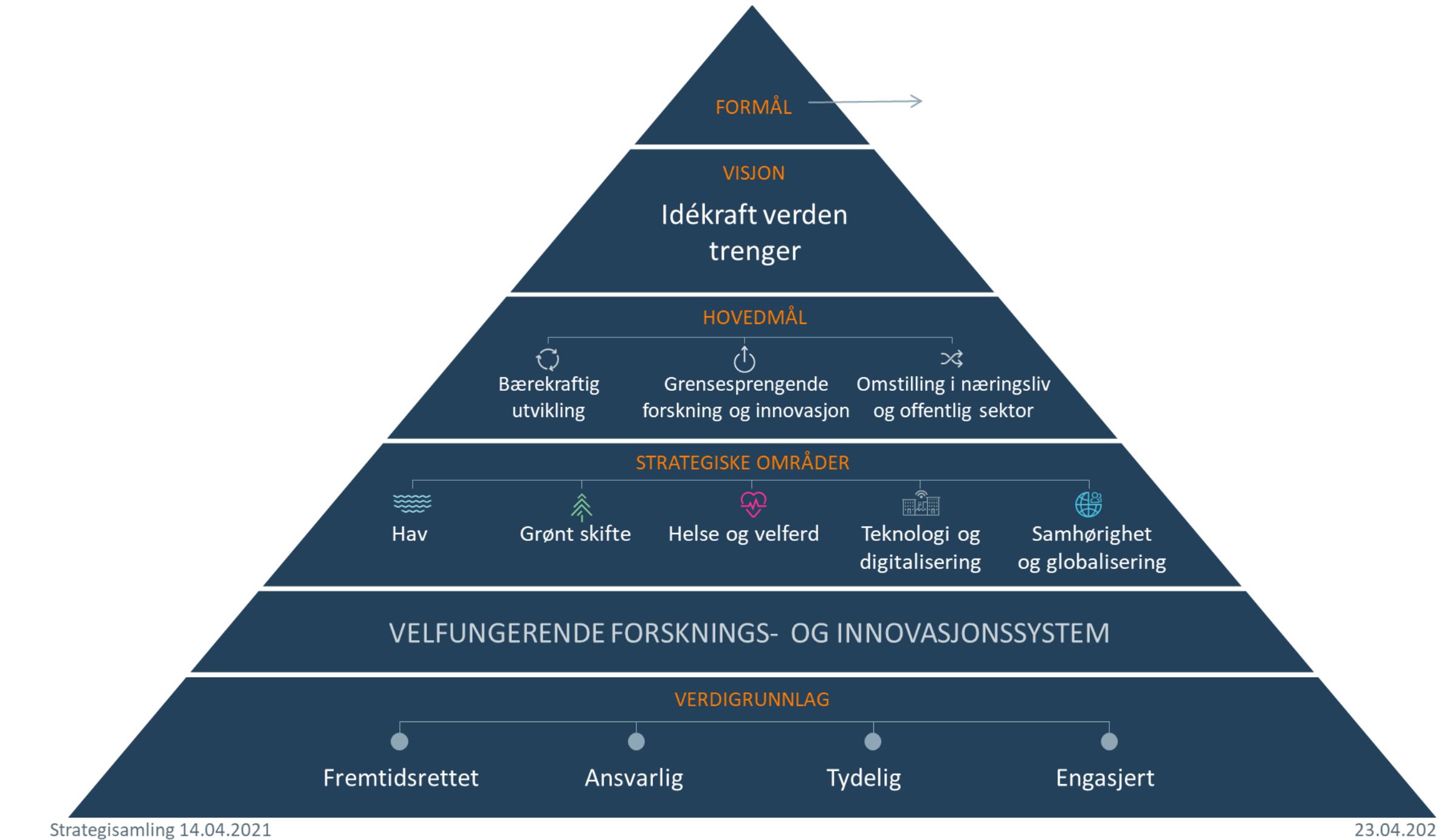
The Research Council of Norway

Rune Volla, rv@rcn.no



The role of the Research Council

- Science adviser for the government
 - R&I funding for all ministries
 - Coordination of sector responsibilities for research for the ministries
 - Portfolio management
 - Annual total budget around 11 bill. NOK

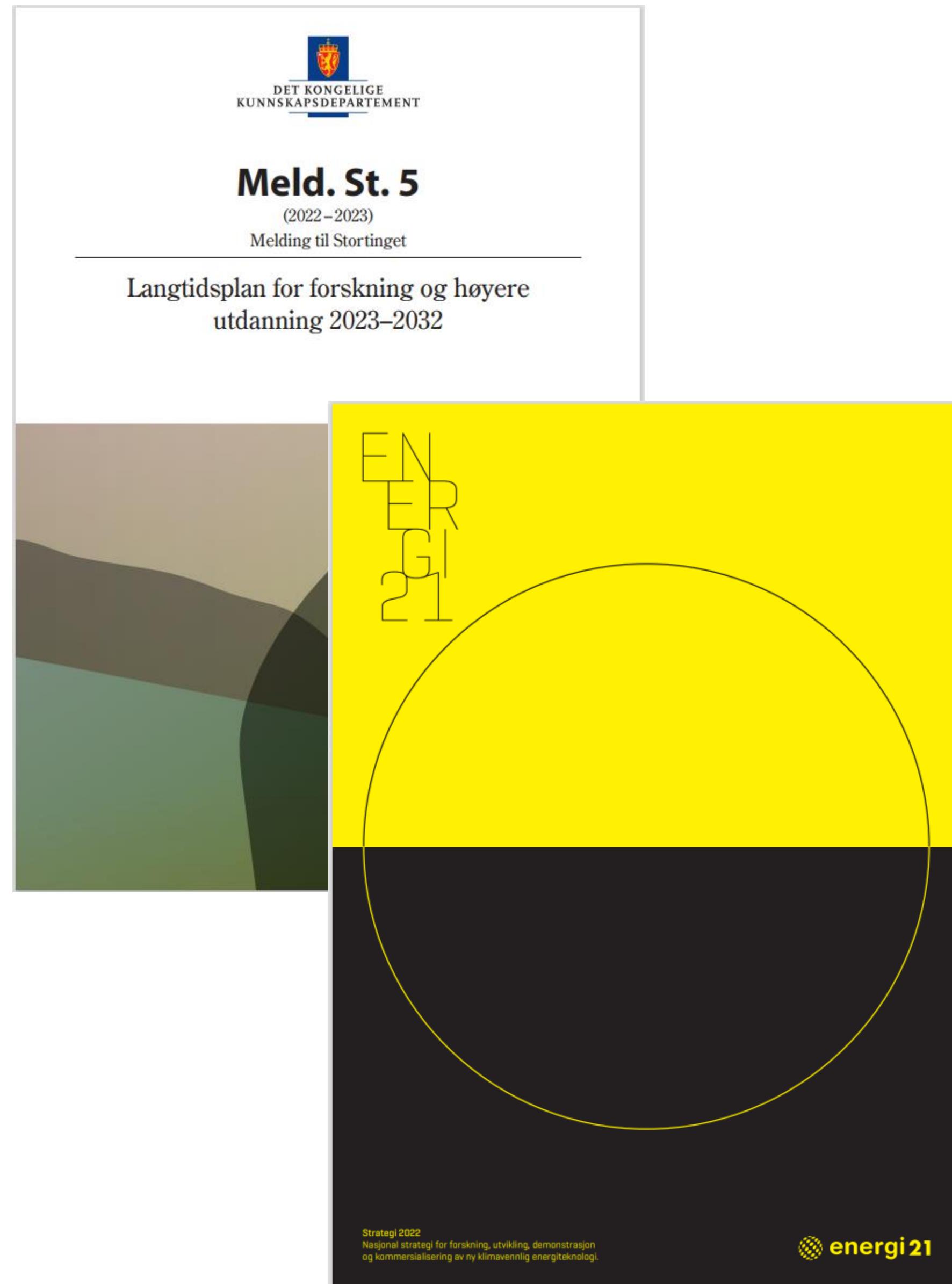


Norwegian priorities

▪ Long term plan on research and higher education 2023 – 2032

- Climate, Environment and Energy / one of six thematic priorities.
- Special priorities on research:
 - Green and just transition
 - Social and cultural sustainability in the green transition
 - Norwegian eco systems
 - Renewable energy solutions, low emission technology and CCS
 - Circular solutions and sustainable use of bio resources
 - High north, arctic and Antarctic

▪ Energi 21 - National strategy for research and innovation within new climate friendly energy technology



RCN's targeted instruments for energy RD&I are strategic coordinated efforts (2022)

ENERGIX

NOK 600 mill.

Renewable energy and energy efficiency



CLIMIT

NOK 80 mill.

CO₂ Capture and Storage



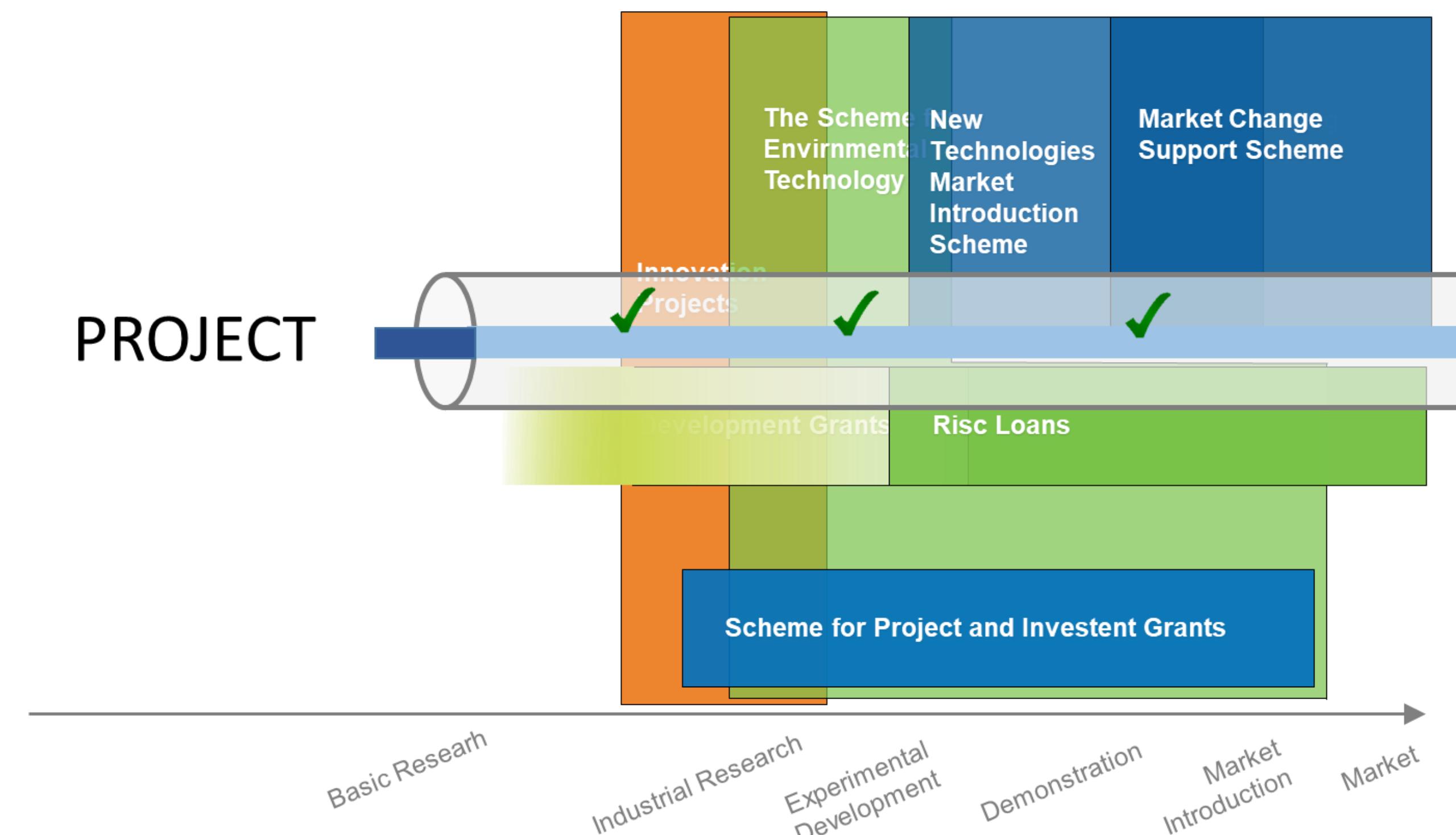
Centres for Environmental-friendly Energy Research - FME

NOK 230 mill.



Pilot-E – Mission-oriented fast track since 2016

- Missions → call for investments → domestic demand
- possibilities for new green businesses
- PILOT-E – Tool for fast tracking projects
- a possibility for larger more complex projects – larger consortia – faster from idea to market



International R&I co-operation to accelerate the energy transition

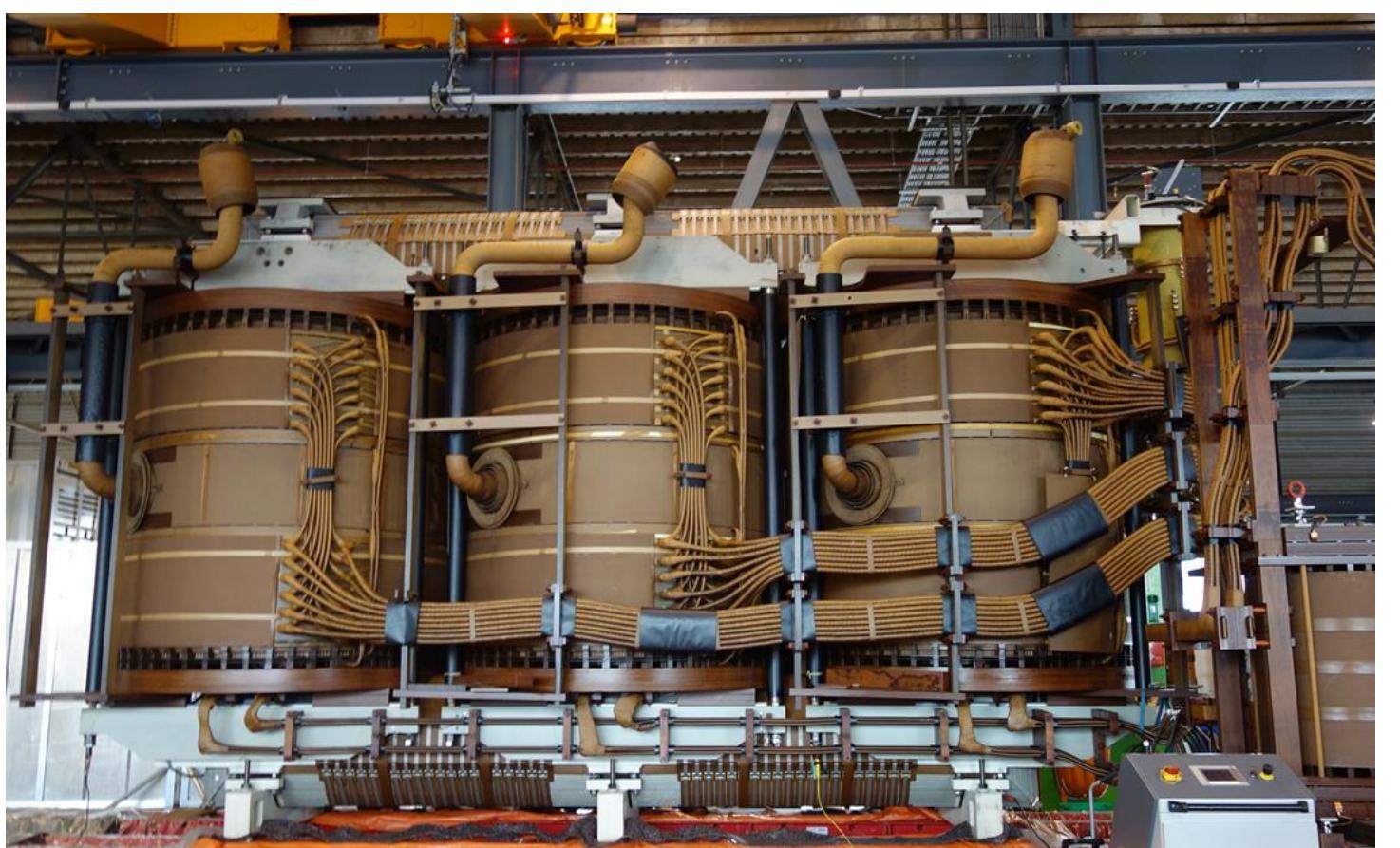
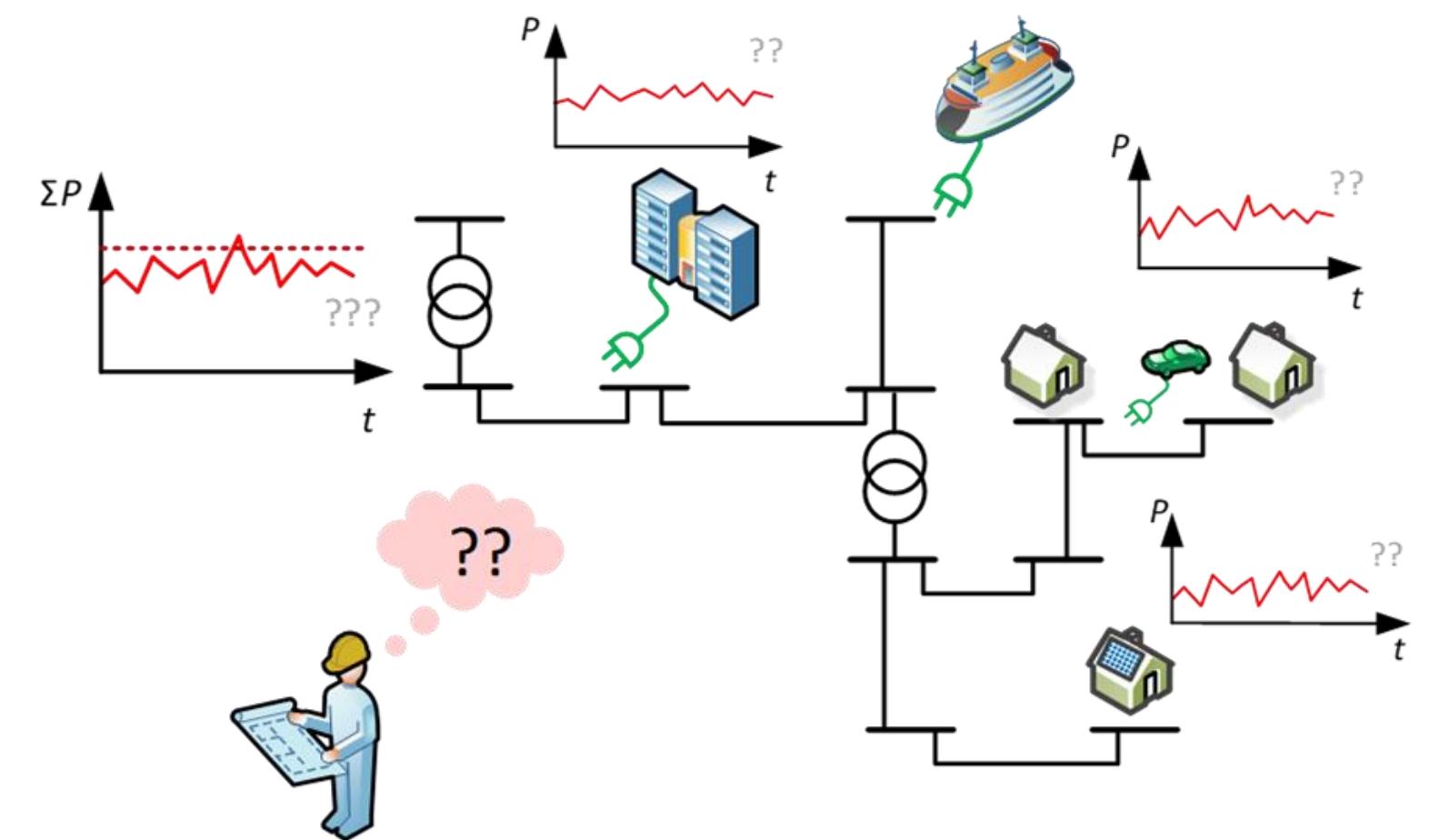
International co-operation is a wide umbrella - a variety initiatives with different purposes:

- Strategic approach
- Joint funding through the EU framework programmes
- Global efforts to include the world in the energy transition
- The targeted co-operation to promote Norwegian (and European) know-how and technology for export



TSO and DSO - Research, Development and Innovation

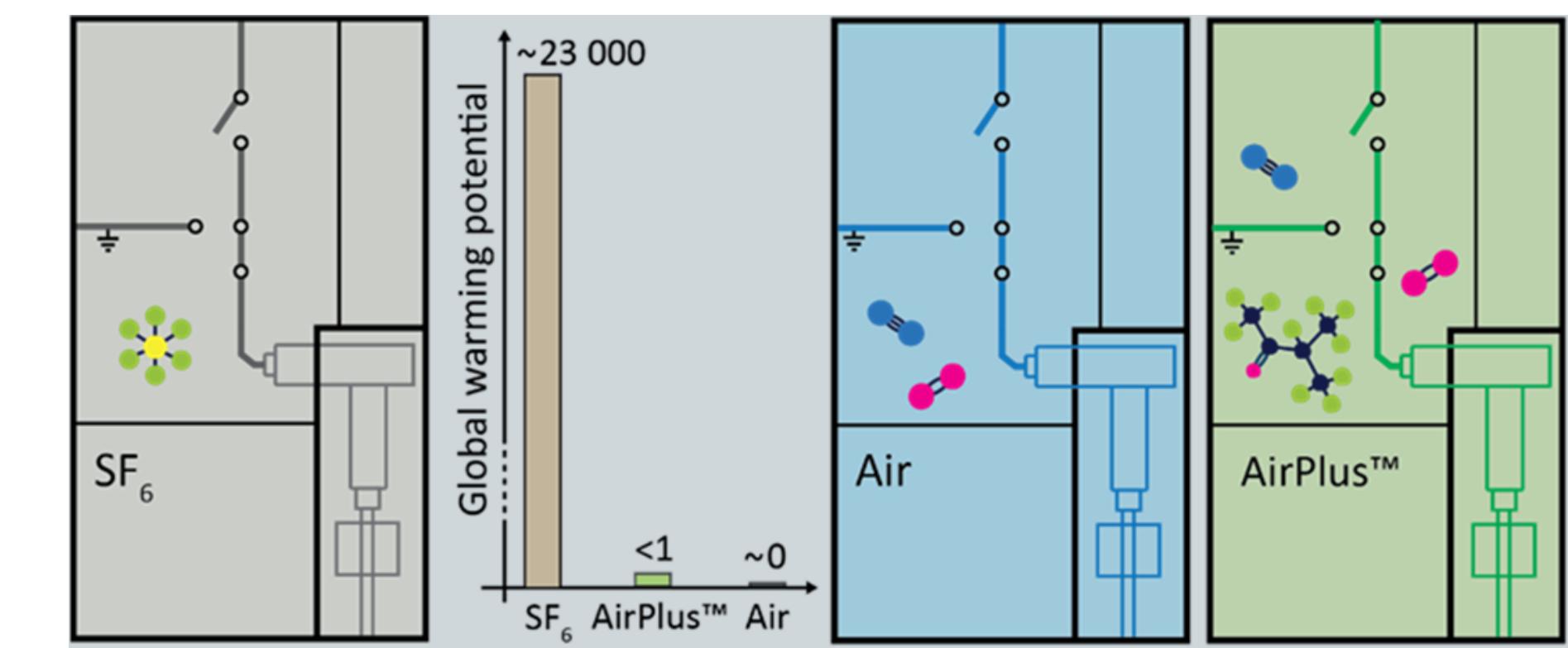
- Broad and complementary co-operation between TSO and DSOs and between DSOs
- Addressing long-term technology and competence needs and shorter-term innovative solutions
- Established application processes and well-prepared applications
- Broad project scope using state of the art technologies
- Recently strong focus on grid optimization and flexibility



Commitment to long-term research and innovation – Environment Friendly Gases for Switchgears

A series of projects starting from 2007:

- New Materials for Medium Voltage Switchgear (2007-2010)
- Air insulated switchgear technology (2009-2014)
- Current interruption in air-filled medium voltage load break switches (2014-2017)
- Electrical insulation with low-GWP gases (2015-2019)
- Short-circuit Current Making in Medium Voltage Switches with Environmentally Friendly Gas (2017-2022)
- Cost-effective Rotational Switch for SF₆-free Gas Insulated Switchgears (2020-2024)
- Dielectric solutions for solid insulating components in eco-efficient medium-voltage switchgear (2021-2023)
- New gases for GIS - long-term reliability and fundamental understanding of insulation properties (2021-2025)



Dielectric solutions for solid insulating components in eco-efficient medium-voltage switchgear

Idékraft verden trenger