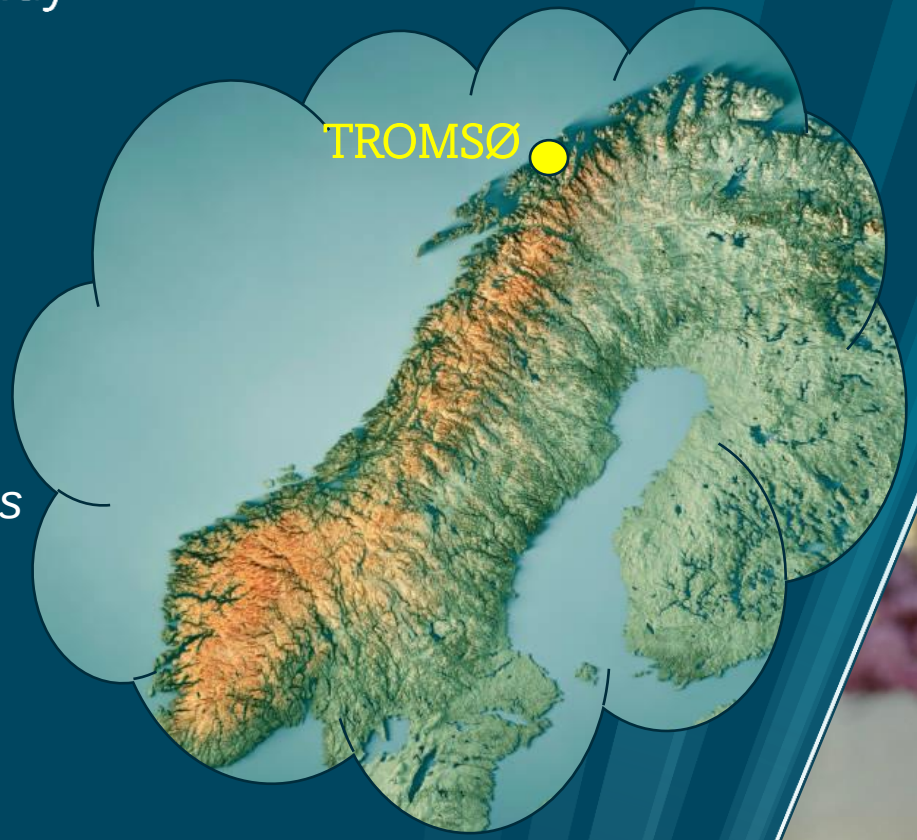
UiT The Arctic University of Norway




# PEEX group at UiT

*Smart Energy for Smart Arctic Cities*

Prof. Igor Esau

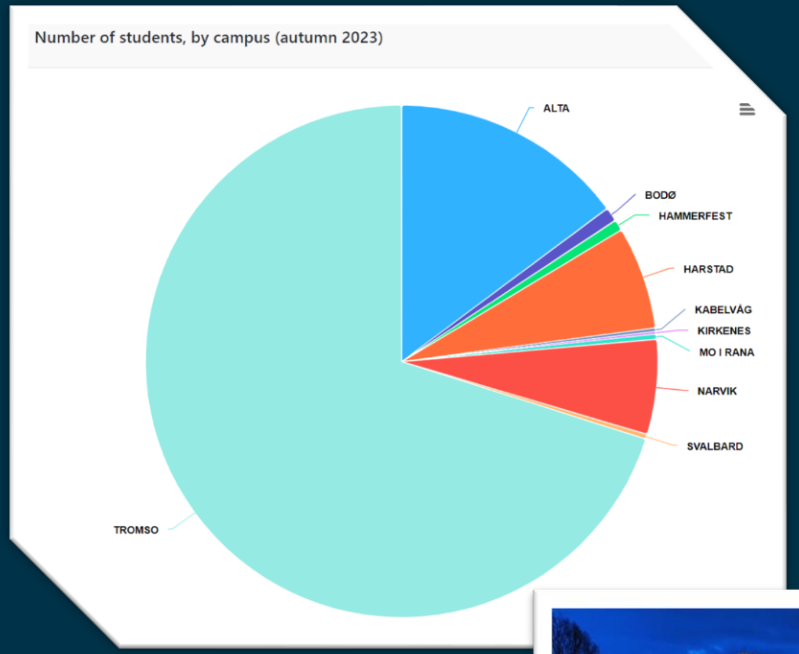
*Renewable energy group*

*Department of Physics and Technology*

*UiT – The Arctic University of Norway, Tromsø, Norway*

# UiT – The Arctic University of Norway

- Funded in 1968
- Total students: 16.700
- Total campuses: 10
- Total employe number: 3.700
- Research and education staff: 1.700
- Total budget: 11 milliard NOK
- PhD defenses per year: 110
- Research and Education focus on Northern Europe and the Arctic
- THE ranking is 301-400 (https://en.uit.no/om/rangeringar)
- QS ranking is 367
- Eallju (in saami) – Developing the High North: UiT's strategy towards 2030 (https://en.uit.no/om/strategi2030)

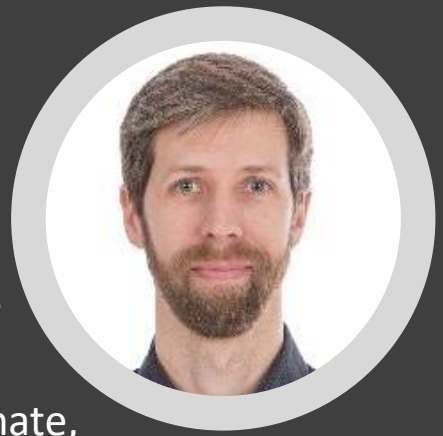



# Smart Energy for Smart Arctic Cities

- Renewable Energy Group (https://en.uit.no/forskning/forskningsgrupper/gruppe?p_document_id=398128)
- Research and education activity at the Department of Physics and Technology
- 5-years integrated master study program (civil engineering)
- 2-years master program in climate and energy

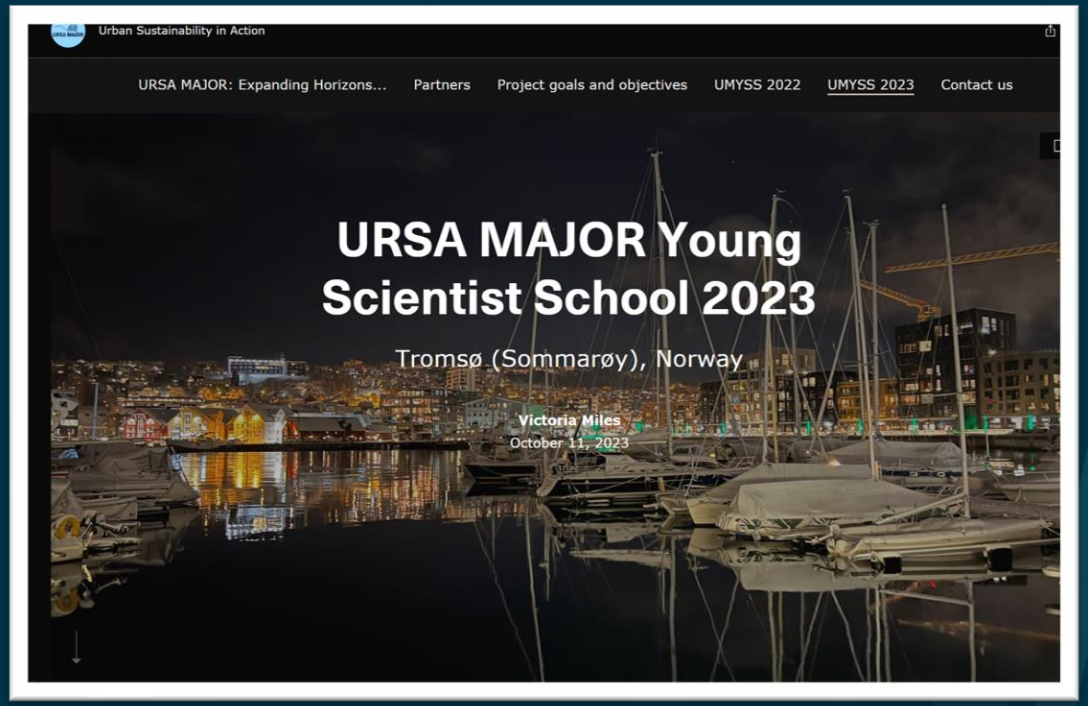
# Renewable Energy Group

- **Prof. Matteo Chiesa**
  - Material physicist works on (nano)technologies for adaptation of construction materials to cold climate
- **Prof. Igor Ezau**
  - Atmospheric physicist works on local and urban climate, planetary boundary layers, modeling
- **Prof. Yngve Birkelund**
  - Applied statistician works on WRF wind modeling, statistical signal theory, high-order statistical analysis
- **Prof. Tobias Boström**
  - Applied energy scientist works on solar energy, hybrid energy systems, electric vehicles, energy storage
- **Dr. Johannes Fjell Home**
  - SMART Senja project, industrial batteries



# Research, networking, and education

- URban Sustainability in Action: Multi-disciplinary Approach through Jointly Organized Research schools (URSA; https://storymaps.arcgis.com/stories/a9f3fe078d864ddc8b83d8b183eff0b2)
- Smart Senja – The energy system for the future (https://smartsenja.no/)
- Arctic Center for Sustainable Energy (https://uit.no/research/arc)




- We work with:
  - Meteorological mesoscale and numerical weather prediction models AROME-Arctic, Enviro-HIRLAM, WRF, PALM
  - Energy models WAsP, WindSim, PVSys
- We educate students in renewable energy, climate, and sustainable development programs with the focus on Boreal Climate regions and the Arctic