

# RSE at UiT The Arctic University of Norway

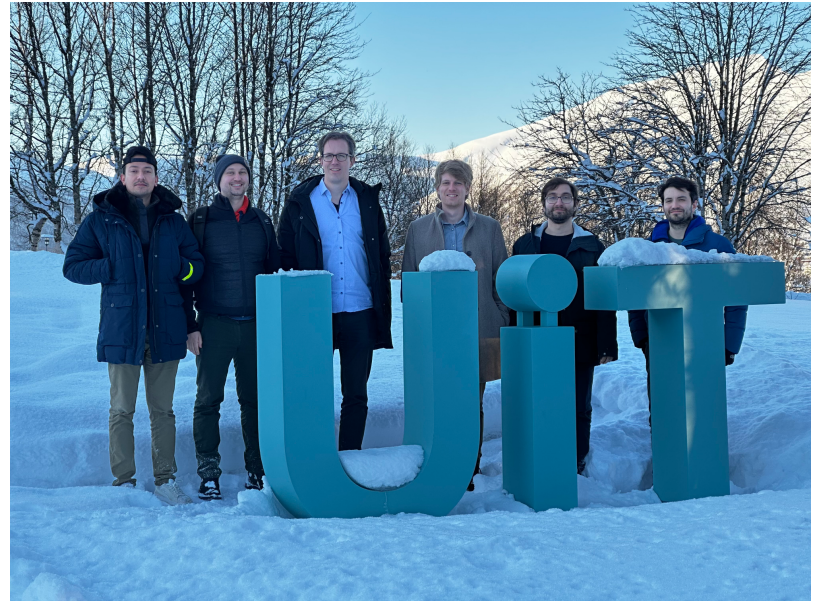
Gregor Decristoforo

OxRSE group meeting 5.11.2025



# Who we are: [research-software.uit.no](https://research-software.uit.no)

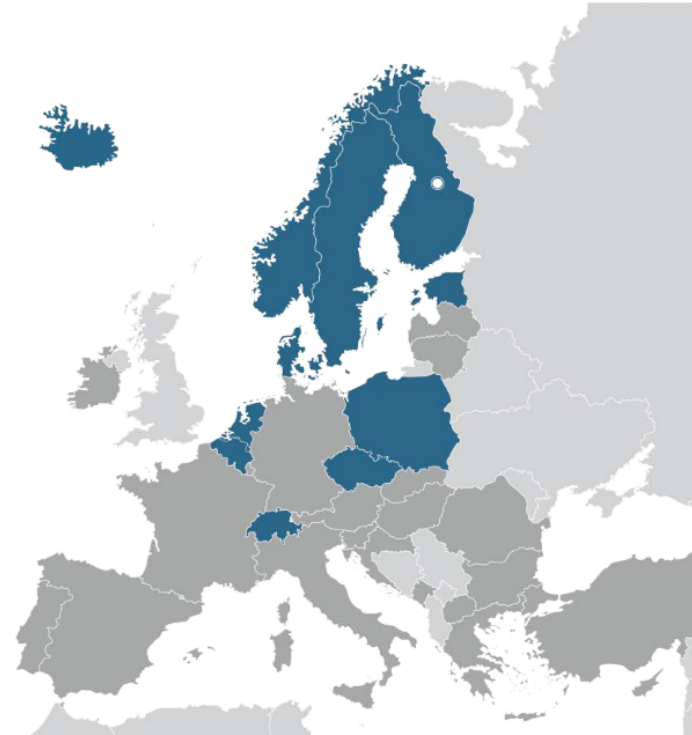
- Northern-most RSE group in the world
- We have grown to 6 part time RSEs
- We started 2.5 years ago
- Grown out of HPC group
- (Still) part of IT department



# LUMI is a very **fast** computer in Europe

L U M I

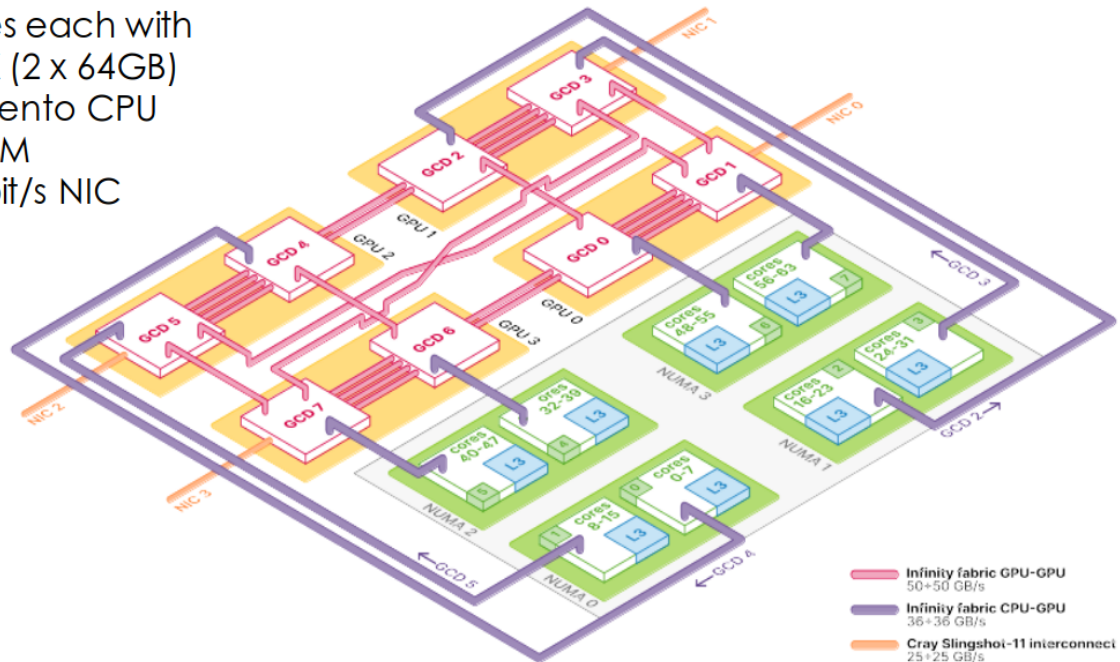
- 9<sup>th</sup> fastest computer in world (TOP500)
- Operated by LUMI consortium
  - 11 countries collaborating
  - 50 % financed by EuroHPC JU
- Located in Kajaani, Finland
- Distributed LUMI user support team (LUST)
  - One full time employee equivalent from each country
  - Offer email support, courses, workshops, ...
  - Responsible of software stack



# GPU nodes are the center of LUMI

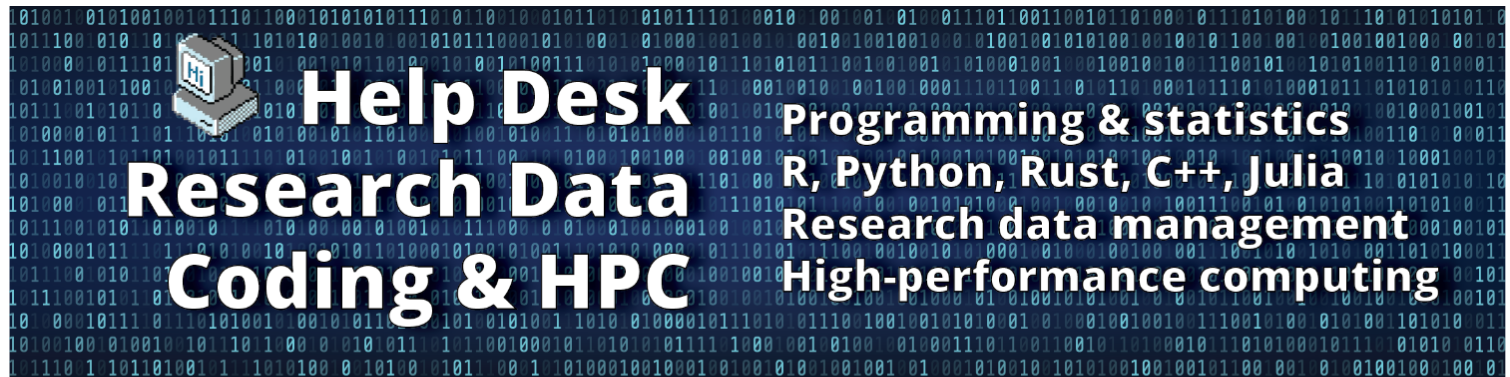
LUMI

2978 nodes each with  
4 x MI250X (2 x 64GB)  
1 x AMD Trento CPU  
512 GB RAM  
4 x 200 Gbit/s NIC



# RSE service levels

- **Help Desk:**  
2 hours on (almost) every Wednesday at the UiT Library (UB 244)  
**FREE** (first come/first serve)
- **Individual Consultations:**  
One-on-one with an RSE engineer  
Initial consultation free, afterwards 600 kr/hr (5-hour minimum)
- **Extended Collaborations:**  
Part-time or full-time contracts with the RSE group  
Include us in your grant applications! - 600kr/hr



**Help Desk**  
**Research Data**  
**Coding & HPC**

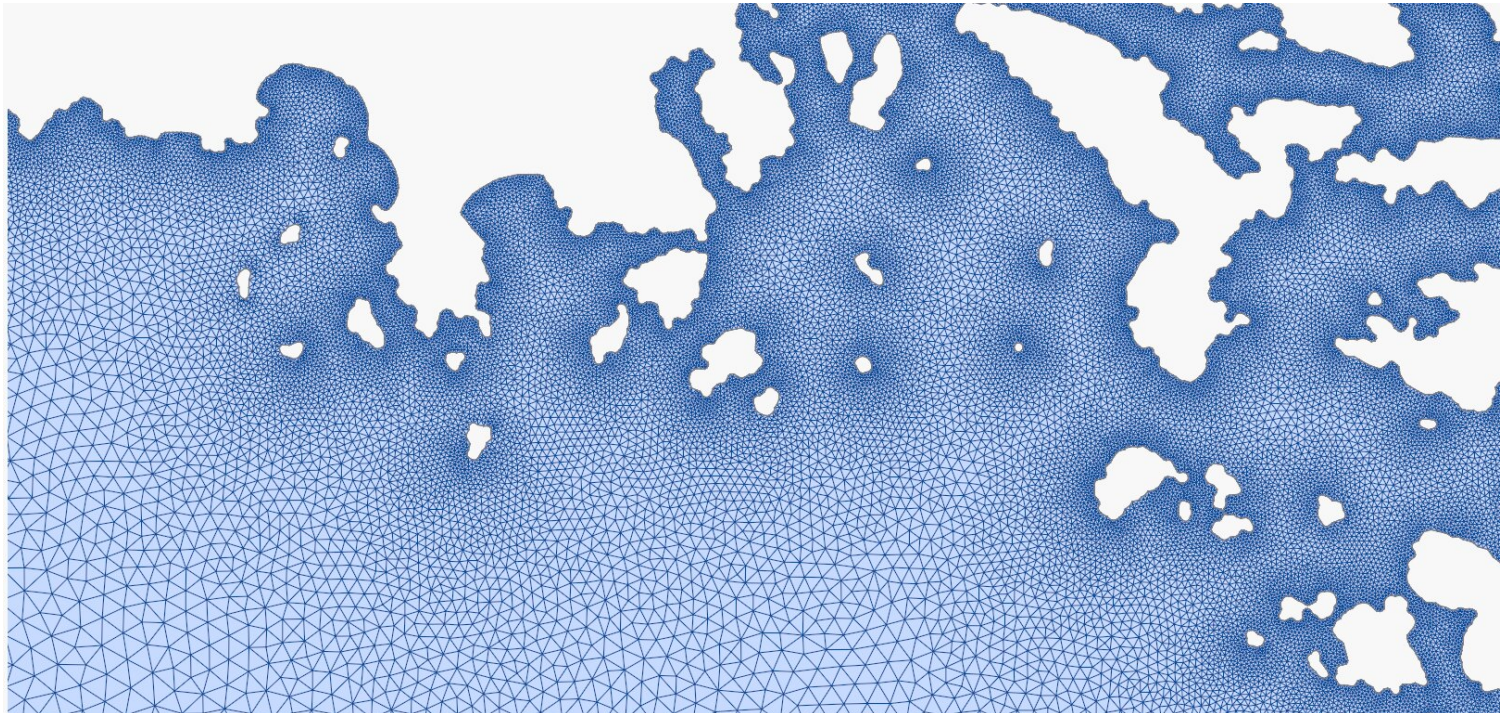
**Programming & statistics**  
**R, Python, Rust, C++, Julia**  
**Research data management**  
**High-performance computing**

**Wednesdays 14:00–16:00**  
**UB 338 (University library)**



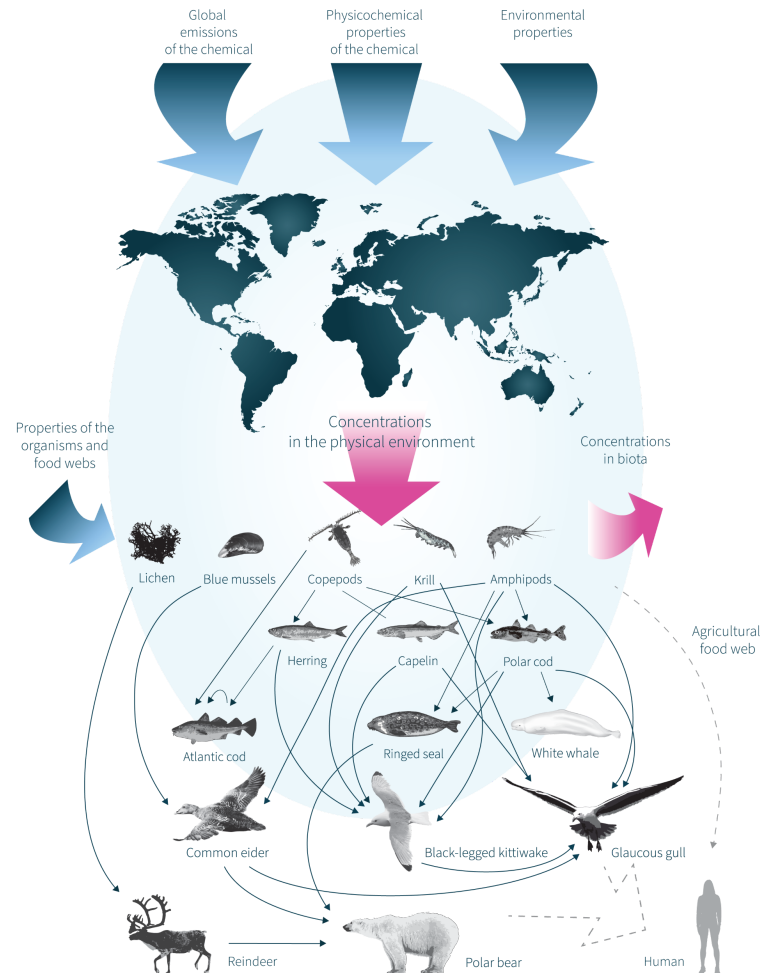
# Example 1

Speed-up of grid mesh generation for oceanography code from days to seconds by a code rewrite from Matlab to Python+Rust using a more optimal algorithm



# Example 2

- Bioaccumulation model for organic contaminants developed for arctic ecosystems
- Translated 10k lines of 20+ year old Visual Basic code to Python



# Our challenges

- Visibility to researchers
- Convincing higher-ups RSE is important
- Prioritize RSE work over other duties
- Dedicated statistics support
- **Dedicated funding for RSE work**

# Future plans

- Get involved in grant applications
- Standardize application for RSE services at UiT
- Exchange with other European RSE groups
- Employ people as dedicated RSEs (not HPC engineers)
- **Organize Nordic RSE conference 2026**



source: [www.fjellheisen.no](http://www.fjellheisen.no)

Welcome to Nordic-RSE Tromsø | June 9-10, 2026