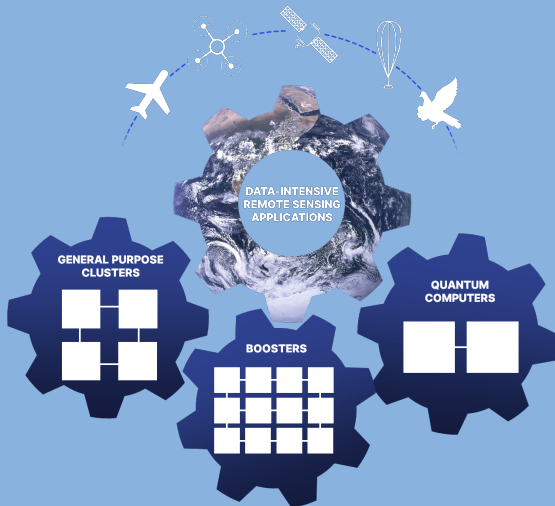# SIMULATION AND DATA LABORATORY AI AND ML FOR REMOTE SENSING

- **Interdisciplinary research between large-scale Remote Sensing (RS) applications, advanced machine learning and deep learning methods and cutting-edge computing technologies**

- **Dissemination of knowledge at universities and international conferences and events**

- **Supervision at different academic levels and community support**

- **Research projects funded by EU and publication activities**

Research

Applications and interdisciplinary transfer	Data-intensive RS applications that rely on high processing and data storage capabilities
Key methodologies	Parallel and scalable machine learning and deep learning methods
Foundation and lab environment	High Performance Computing · Cloud Computing · Quantum Computing

Academic Function

Education Events and Invited Sessions

- Sessions on "Quantum computing next generation HPC" and "Scalable Parallel Computing for Remote Sensing"
- Tutorial on "End-to-End Machine Learning with Supercomputing and in the Cloud"

IGARSS
Pasadena, California 2023
https://igarss2023.org

Summer School on "High-Performance and Disruptive Computing in Remote Sensing"

GRSS https://hdc-rs.com

MSc Course

Machine Learning for Earth Observation powered by Supercomputers

UNIVERSITY OF ICELAND

Projects

Applications in Funded Projects

Seismic Imaging with RS
RAISE
Center of Excellence
https://coe-raise.eu

Land-Cover Mapping at Large Scale
ADMIRE
https://admire-eurohpc.eu
EUPEX
https://eupex.eu

Quantum Computing for Earth Observation
eesa
https://www.fz-juelich.de/en/ias/jsc/projects/qc4eo