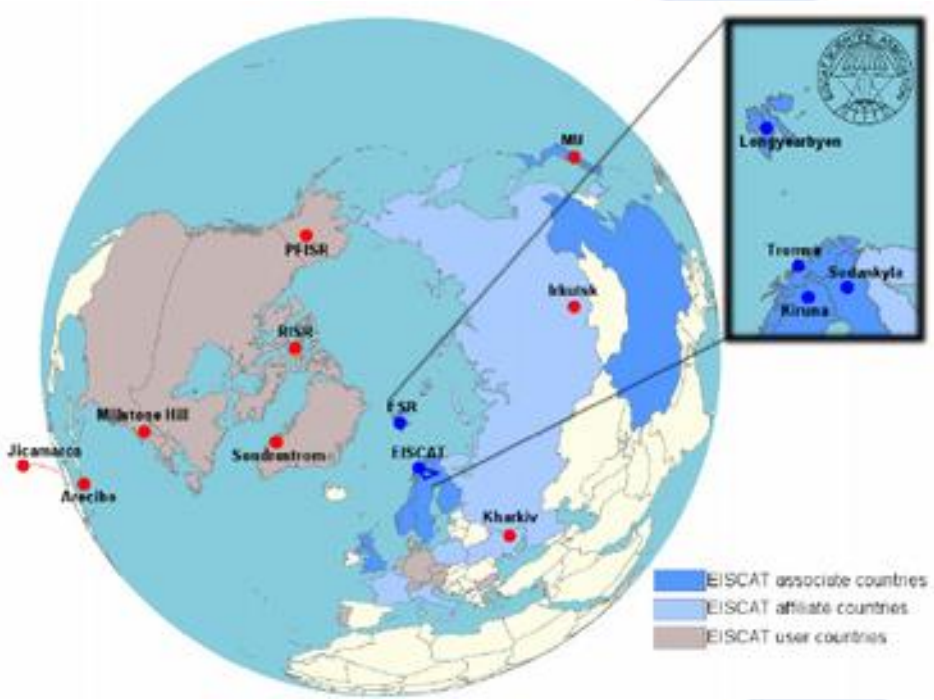
EISCAT_3D Competence Centre

Ingemar Häggström & EISCAT_3D CC team

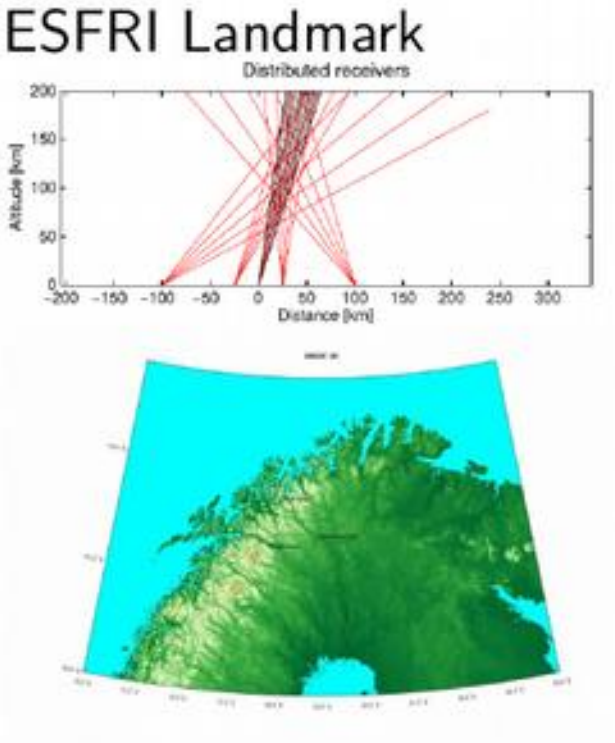
EISCAT

Mainland radars since 1981

Svalbard radars since 1995



EISCAT 3D, the new research radar for atmosphere, ionosphere and near Earth space



EISCAT_3D project status

Antenna, Receiver, Transmitter units ordered

Transmitter control in negotiation

Site computing clusters in study

EISCAT_3D data

- Data levels
  - L1, Raw voltage
  - L2, Spectral data (power, can be integrated in time/space)
  - L3, Ionospheric physical parameters

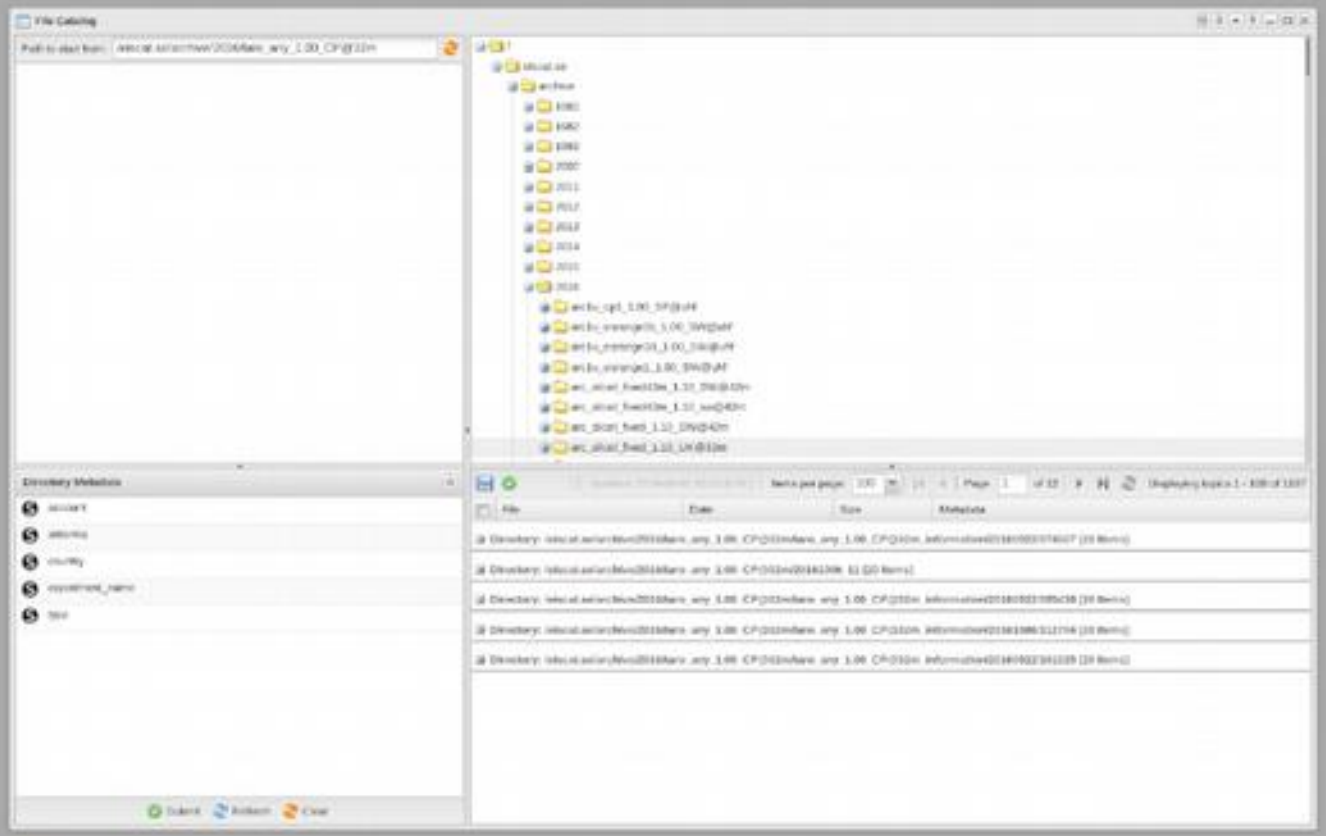
    other products (atmospheric pars, meteors, space debris)
- Access control according to EISCAT statutes (Blue book)
  - Data embargo rules for L1 and L2 data
    - Access limited to member and association in two steps for first four years
    - Overview L3 data are open from day0
    - Rules of the road for publication
- Data identification and citation

EISCAT_3D Competence Centre

- deploy and integrate necessary tools, services and infrastructures
  - Data management and processing
- DIRAC interware
  - integration component
  - a single access point towards e-Infrastructures
- EUDAT's B2 services
  - unify the data management
  - discovery system across different storages
  - storage access management
- EGI and INDIGO services
  - deploying the software stack on HPC/HTC systems including release management
- provide secondary services for production operation
  - user authentication and access control

Dirac file catalogue

- CLI
- Web interface



EISCAT_3D CC status

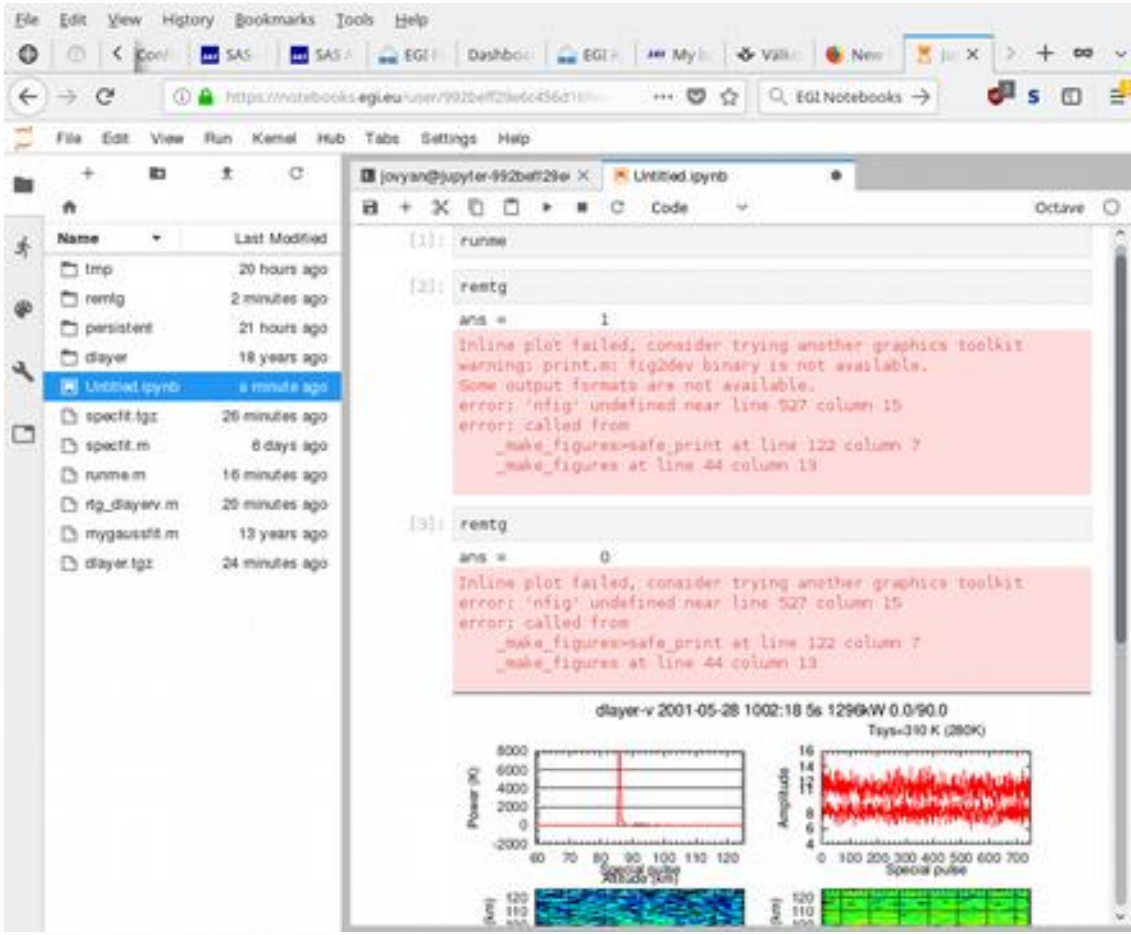
- Dirac file catalogue (L1+L2)
- B2share entries (L3)
- User authentication development
  - EGI Checkin
  - QQ service for CN users in progress
- Job submission
  - Deployed on cPouta cloud, CSC
  - Docker containers
  - Existing EISCAT user software (Octave, C)

Job definition file

```
[
    Executable = "run_rtg_docker.sh";
    Arguments = "";
    JobName = "my_job_name";
    Site = "Cloud.CSC.fi";
    CPUTime = 86400;
    InputSandbox = {
        "run_rtg_docker.sh",
        "LFN:/eiscat.se/archive/2016/...
    }
    OutputSandbox = {"output/*"};
]
```

JupyterLab - Octave

- Use of EGI Notebook
  - Using the RTG docker SW
- Run RTG interactively
  - Develop/Refine analysis code
- Working User code
  - input for CC docker



Thank you

Any questions?