OSCARS
Open Science Clusters' Action for Research & Society

Funded Project

Creating a FAIR open Science Pipeline for high-resolution LOFAR imaging (COPLI)

Presenter: Jurjen de Jong, Leiden Observatory

Implemented by

Universiteit Leiden
The Netherlands

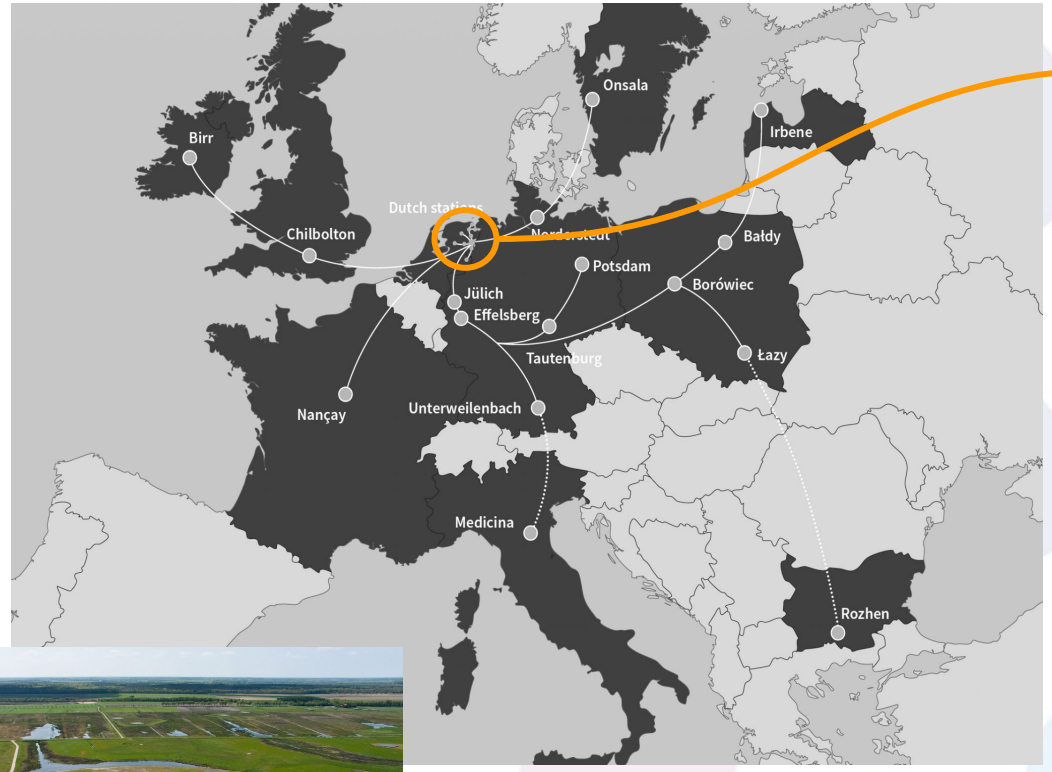
Sterrewacht Leiden

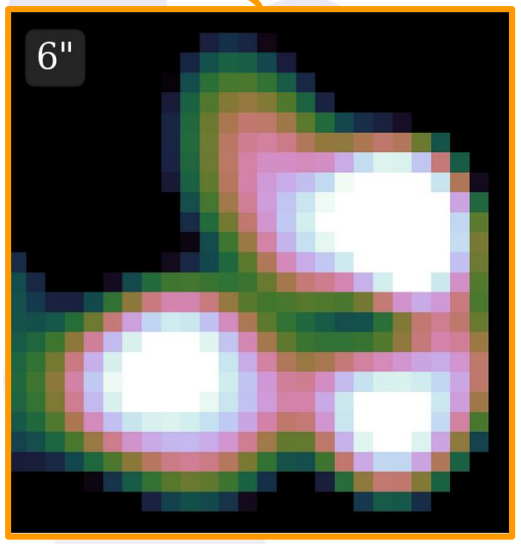
SURF

ASTRON
Netherlands Institute for Radio Astronomy

Funded by the European Union

CHALLENGE ADDRESSED





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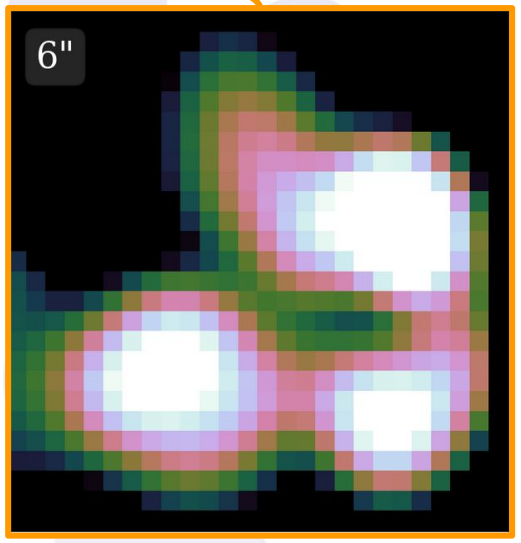
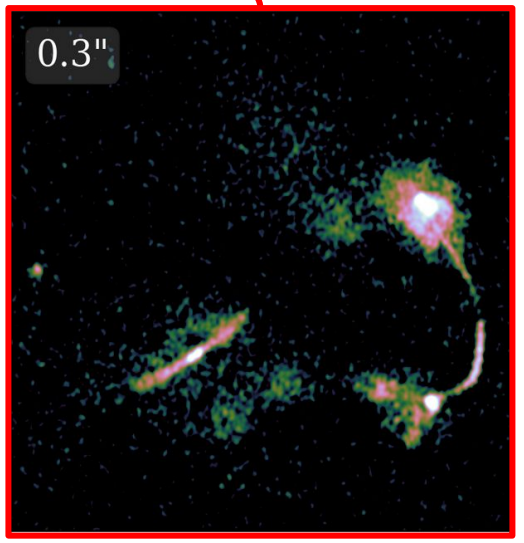




SOLUTION

01	**Improve data processing strategies**	• High-quality images • Reduce computational cost • Reduce data volume cost
02	**Develop automated open FAIR data processing pipeline**	• Findable → Output data traceable • Accessible → Open-source software • Interoperable → Running on various HPC systems • Reproducible → Proper logging of processing steps
03	**Generate science-ready products**	• Findable with DOIs, PIDs • Available in the VO • HIPs format

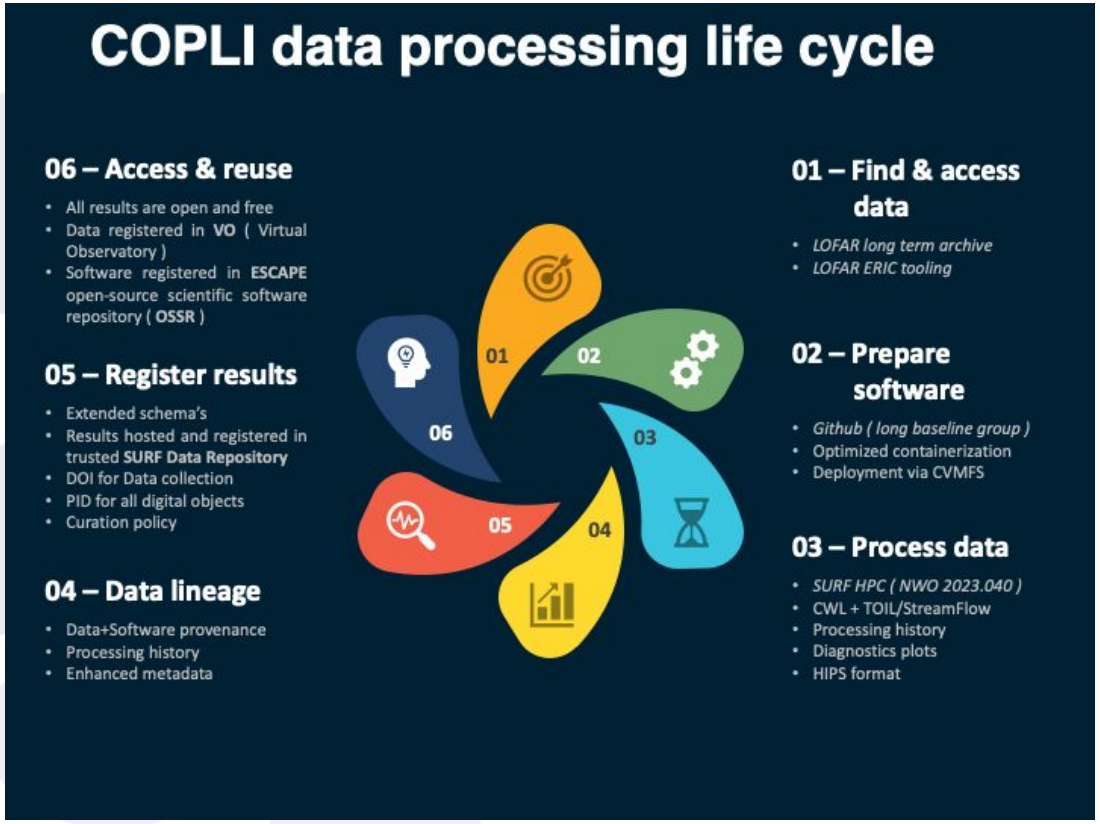
RESULTS

OSCARS

01	Improve data processing strategies	✓ High-quality images ✓ Reduce computational cost ✓ Reduce data volume cost
02	Develop automated open FAIR data processing pipeline	■ Findable → Output data traceable ✓ Accessible → Open-source software ✓ Interoperable → Running on various HPC systems ■ Reproducible → Proper logging of processing steps
03	Generate science-ready products	■ Findable with DOIs, PIDs ■ Available in the VO ✓ HIPs format

RESULTS

- Publicly available pipeline and software
  - de Jong et al. (2025)
  - Van der Wild et al. (submitted)
- Science products in an open accessible repository with associated metadata and data provenance (EOSC)
  - de Jong et al. (in prep.)



Who has been doing it?

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