



Netherlands Institute for Radio Astronomy



SRC Landscape in the Netherlands



- ASTRON operates LOFAR and WSRT/Apertif
 - Processing in Groningen at CIT
 - Distributed archive at SURFsara in Amsterdam, Jülich, Poznan
- SURF SURFsara, SURFnet National eScience Infrastructure
- Nikhef High Energy Physics (CERN, WLCG), Gravitational Waves (ET), KM3NeT
- Universities of Amsterdam, Groningen, Leiden, Nijmegen
 - CIT in Groningen hosts LOFAR CEP
- Funding through
 - NWO, Ministry, EC, Regional Funds

ASTRON plans for Science Data Centre



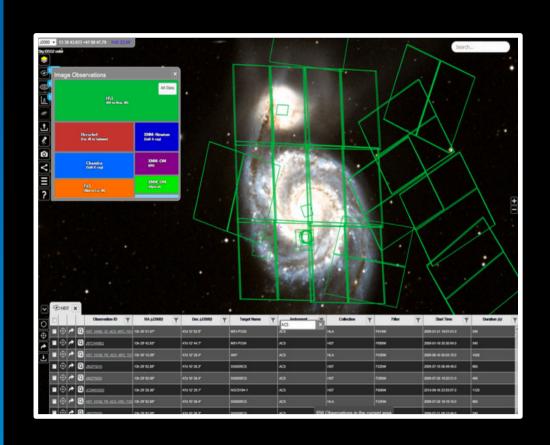
- Support for both SKA and (parts of) LOFAR
- Hosts/runs NL SRC node
 - NL SRC "part of" European SRC/Global SRC "Alliance"
- Technology development for SKA, LOFAR
 - with international partners and industry
 - funding in part from SKA ODP
- Shares infrastructure with other disciplines
 - part of European Open Science Cloud
- Provides user support for SKA, LOFAR
- Platform for multi-wavelength and multi-messenger, data science

SRC Related Activities at ASTRON



- ASTRON operates LOFAR/ILT and Westerbork/Apertif
- Ongoing projects:
 - ASTRON Data Portal
 - Science Delivery Framework
- EC H2020 Projects
 - ASTERICS
 - AENEAS
 - ESCAPE
 - EOSCpilot & EOSC Hub
- ASTRON Science Data Centre

ASTRON DATA PORTAL



- ADP ASTRON Data Portal will provide access to:
 - data collections of current instrument operated by ASTRON + those that will become operational in the (near) future
 - metadata associated with the collections
 - added value services such as analytics, visualization, pipelines
- Requirements and high level implementation plan

SCIENCE DELIVERY FRAMEWORK

- Goal: maximize scientific return of observing facilities
- ➤ Whv?
 - ➤ Data products of RO pipeline are FAR from science → need more advanced reduction pipelines in production.
 - now large amounts of data moved between computing facilities → need to exploit data where it resides.
 - ➤ Archive portal does not optimally expose data → Need to improve data access, discovery, and analysis.

