

# SKA Regional Centre VO

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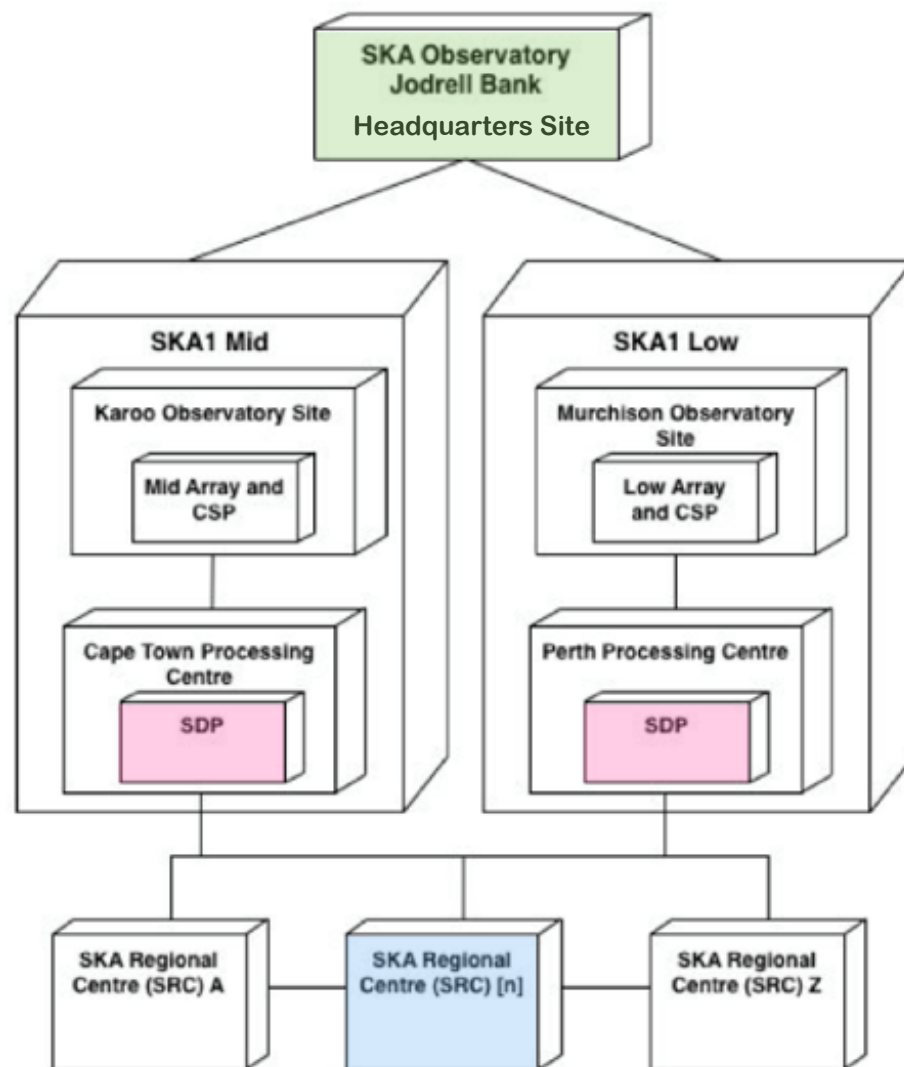
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Pickmere, Cheshire, in the e-Merlin array



# European SKA Regional Centre

- SKA is adopting a model quite like WCLG
  - CSP  $\approx$  HLT
  - SDP  $\approx$  Tier-0
  - SRC  $\approx$  Tier-1
- But SRCs are themselves distributed
  - So more like the NDGF distributed Tier-1
- EU-funded AENEAS project designing European SRC
- skatelescope.eu VO for using the grid





# LOFAR

- LOFAR radio telescope is an array across the Netherlands and at several sites across Europe
- Like e-Merlin, LOFAR is a pathfinder project for SKA
- Data mostly processed by a mix of large HPC resources and desktop class machines
- Our aim is to see whether we can use skatelescope.eu VO, GridPP DIRAC, and grid CPU and storage instead





## Work so far

- Want to test scalable workflows, not just do the work
- Using LOFAR application software from cvmfs
  - `/cvmfs/softdrive.nl/lofar_sw/`
- Importing LOFAR data from Groningen in grid jobs
  - `wget` data then add to DIRAC File Catalogue and grid storage
- Run LOFAR applications on the data in DIRAC jobs
  - Input data specified in JDL and provided to WN by DIRAC using DFC and grid storage
  - Run at Manchester and DataCentred (OpenStack) so far, using Manchester storage



## Next steps

- Understand CPU-features dependencies of LOFAR code
- Continue scaling up number of jobs / data files
  - Just a handful in tests so far
- Finish the whole of a LOFAR processing chain to produce an image
- Extend to more sites
  - Need storage at each site to demonstrate job/data matching
  - Need 10-20 TB space per site for useful tests
- Use other components of WLCG ecosystem (e.g. GGUS)
- Feed experience into AENEAS design work