# UKSRC
# SRCNet v0.1

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# UK SKA Regional Centre –
# A developing  Research Infrastructure

UK SRC infrastructure and services:

Supporting and facilitating UK science

Global SRC Network:

Developing and delivering the global SRCNet.

UK SKA Regional Centre

UNIVERSITY OF CAMBRIDGE

THE UNIVERSITY of EDINBURGH

Durham University

University of Hertfordshire UH

MANCHESTER 1824
The University of Manchester

UCL

UKRI Science and Technology Facilities Council | Scientific Computing

# UKSRC Response context

- **Consortium of 7 institutions**
  - Project funded by Science and Technology Facilities Council a part of UK Research & Innovation
  - Initial 2 year project ~25FTE in total – 1st phase runs to end of 2025

- **Part of STFC IRIS infrastructure**
  - Shared infrastructure for STFC science (HEP, Astronomy, facilities)
  - Manages capital allocations
  - Provides users for any unused capacity

- **Network Connections**
  - STFC-RAL – 200Gbs to JANET and GEANT, and IPv6 capabilities.
    - Internal resilient and scalable 400Gps networking
  - Similar connectivity between other UK Sites: Cam, Man, Dur etc  (10-100gbps)  via JANET

- **Resource allocations in place for SRCNet v0.1 and 0.2)**

- **Expertise**
  - STFC-RAL draws on experience and expertise in deploying and operating globally federated data storage facilities at many 10s of PB scale as WLCG Tier 1

# UKSRC Response highlights

- **Storage**: Included 4PB in our current (FY24/25) procurement/deployment plans.
  - Based on 2023 top-level roadmap requirements - Up to 20PB by end of 2025
  - Deployments at STFC-RAL
    - New ceph storage platform sharing configuration and service management with existing ECHO and Deneb data stores at RAL

- **Compute**: 0.175 PFLOPS - **Primarily STFC-RAL**
  - Deploying into STFC OpenStack cloud (~50000 physical cores)
  - Access to existing resources initially to enable quicker deployment
  - Supplement at other UK sites possible

- **Support Resources**:
  - > 1FTE at RAL from dedicated UKSRC staff supported by existing STFC cloud and storage operations teams
  - Across the UKSRC project we have effort (~25-30FTE) for all aspects of the project - some of which can support other aspect of SRCNet 0.1 deployment

- **Network testing:** Demonstrated data transfer requirements with South Africa and Australia

# UKSRC Response highlights (cont)

## Software :

- Able to deploy software & services as required

- Will continue providing global services

  - SKA-IAM

  - File Transfer Service

  - Supporting deployment of perfsonar for automated network monitoring across SRCNet v0.1 nodes

- Orchestrator to deploy, manage and scale services e.g. Kubernetes

- Monitoring services - again leveraging existing tools where appropriate

https://www.uksrc.org

Joint mailing list: STFC UK SKA Observatory
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uk-ska-regional-centre-uksrc

UK SKA Regional Centre (UKSRC)

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Register for Science Data
Challenge 3b – Inferences
*Coming soon …*