



SKAO Regional Centre United Kingdom



SKAO Regional Centre Network



UK SKA Regional Centre

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on behalf of the full UKSRC team

UK's Science Regional Centre (UKSRC)

A facility for the UK radio astronomy community:
Enabling UK science community to lead the exploitation of SKA data
Maximising the UK's return on the UK's SKAO investment.

UKSRC infrastructure and services:
Supporting and facilitating UK science



Global SRC Network:
Developing and delivering the global SRCNet.

SKAO Regional Centre United Kingdom



THE UNIVERSITY
of EDINBURGH



University of
Hertfordshire **UH**

MANCHESTER
1824

The University of Manchester

UCL

UKRI
Science and
Technology
Facilities Council

RAL-Space
Scientific Computing

uk | SRC

ukSRC: a facility that delivers services to UK researchers

...essential added value for the UK. Key services beyond SRCNet.

Common/global
Science support
(MVP)

Globally federated
services

*...essential national
infrastructure needed for
UKSRC (& SRCNet)...*



Maximising UK Science delivery
Science support – UK;
RD&I – continuous development;
Community development, training etc

UK federated & distributed
UK-based infrastructure & services
(storage, compute)

UK SKAO community

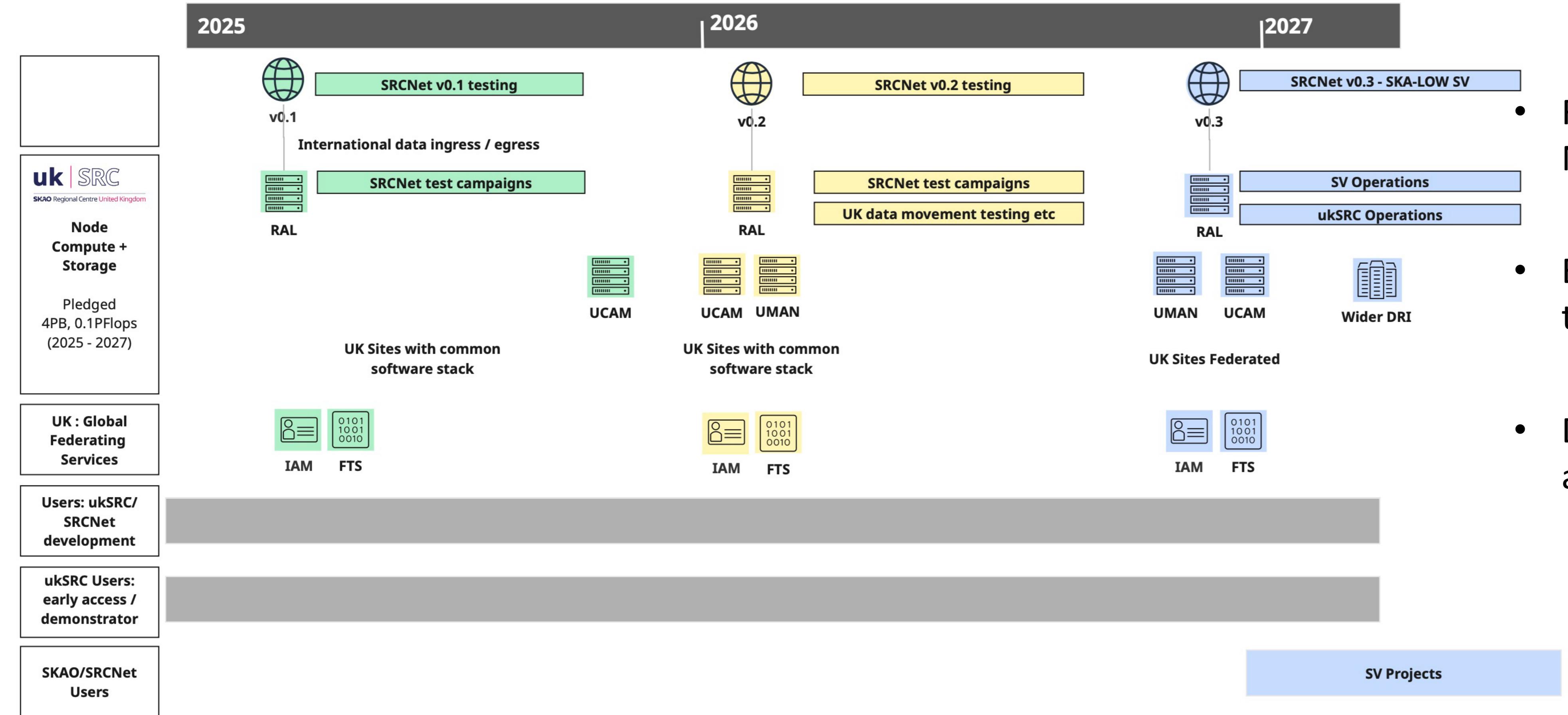
- Future SKAO users
- Pathfinder users
- Precursors users

Deliver services for
SKAO + existing / future Radio
astronomy facilities

Science service (data storage,
compute, science support) for
UK radio astronomy and testbed
for SRC development :
...e-MERLIN to LOFAR2.0,
MeerKAT, HERA, ..etc. and
SKAO....

ukSRC [now to 2027] – UK-wide multi-site node

Progress towards developing a multi site ukSRC Node

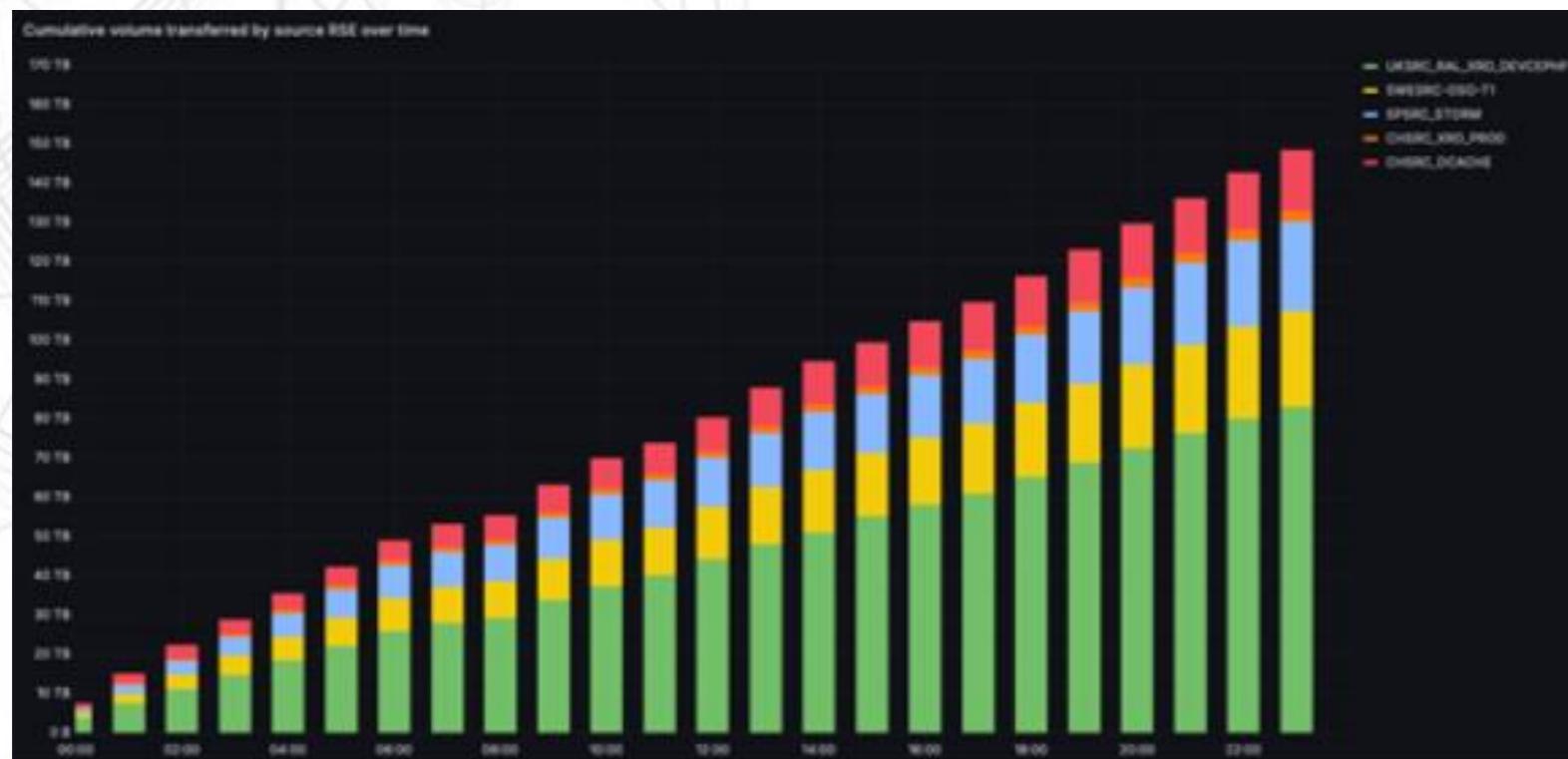


- Resilient, and federated ukSRC Node
- Ensure sustainable scalability to meet the growing needs
- Delivery of services for SRCNet and UK users

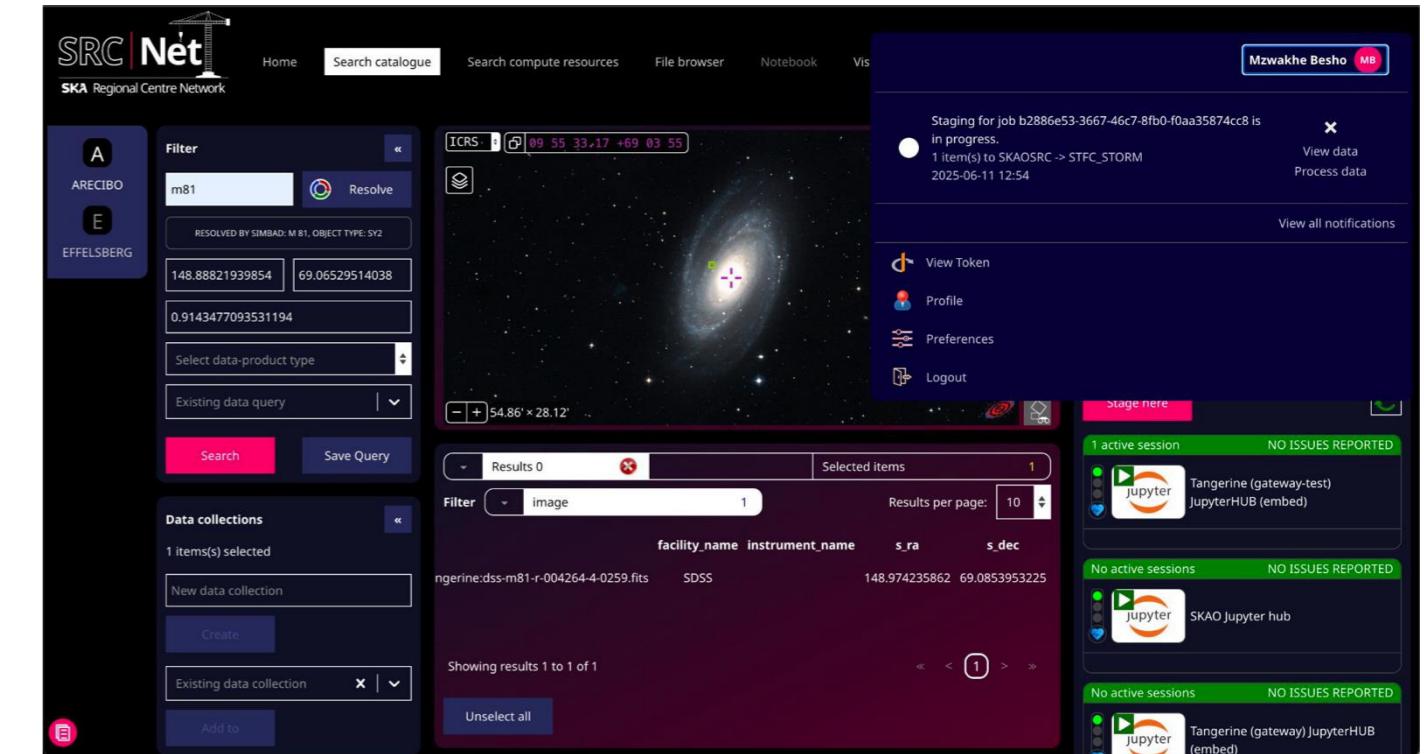
ukSRC contributing to the SRCNet

Federated Infrastructure & Operations

- SRCNet v0.1: accredited nodes in Spain, Switzerland, SKAO, Sweden, UK, China, Japan, Canada and Italy
- Current UK node pledge: 4PB storage, 0.1PFLOPS compute
- UK provides Global Services that underpin federation: FTS, SKA-IAM,
- UK leading data movement and science test campaigns which validate the federated network and provide a focus to build operational competency and culture.



Data Movement Test Campaign: 150TB replication challenge in 24hours. ukSRC contributions are in green.



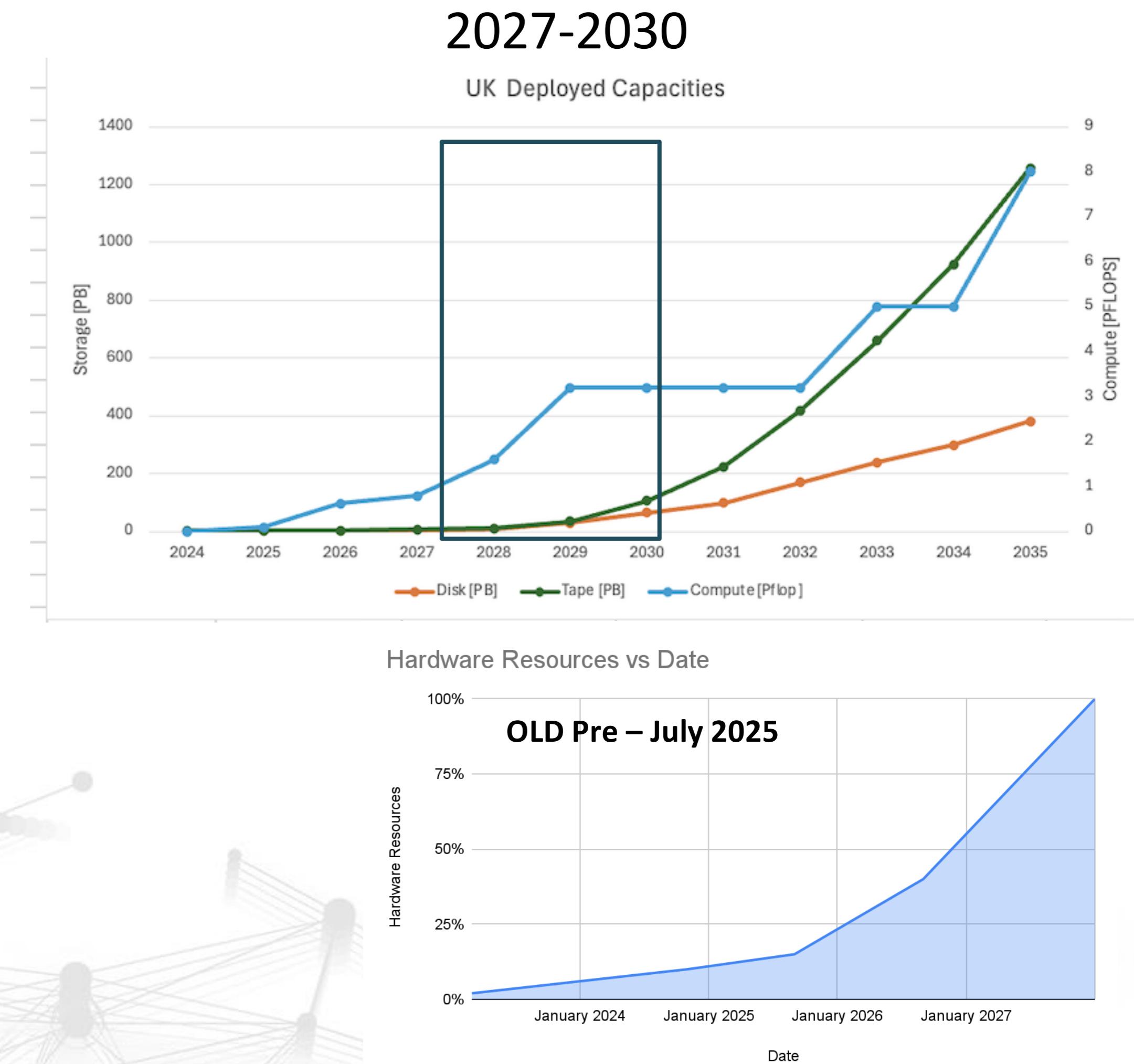
SRCCnet Science Gateway

People

- The ukSRC's strategy is to pledge effort at the minimum requested level, providing flexibility for ukSRC and SRCNet. Target pledge in 15-20% (scaled to SRCNet total request).
- The ukSRC provides ~14–21% of the requested effort, sourced from 20–26 individuals. Contributions span Development, Science Delivery & Operations inc. 10 leadership roles. The UK is well placed to influence development across the SRCNet.
- UK maintains consistent contributions and consistent staffing in the SRCNet

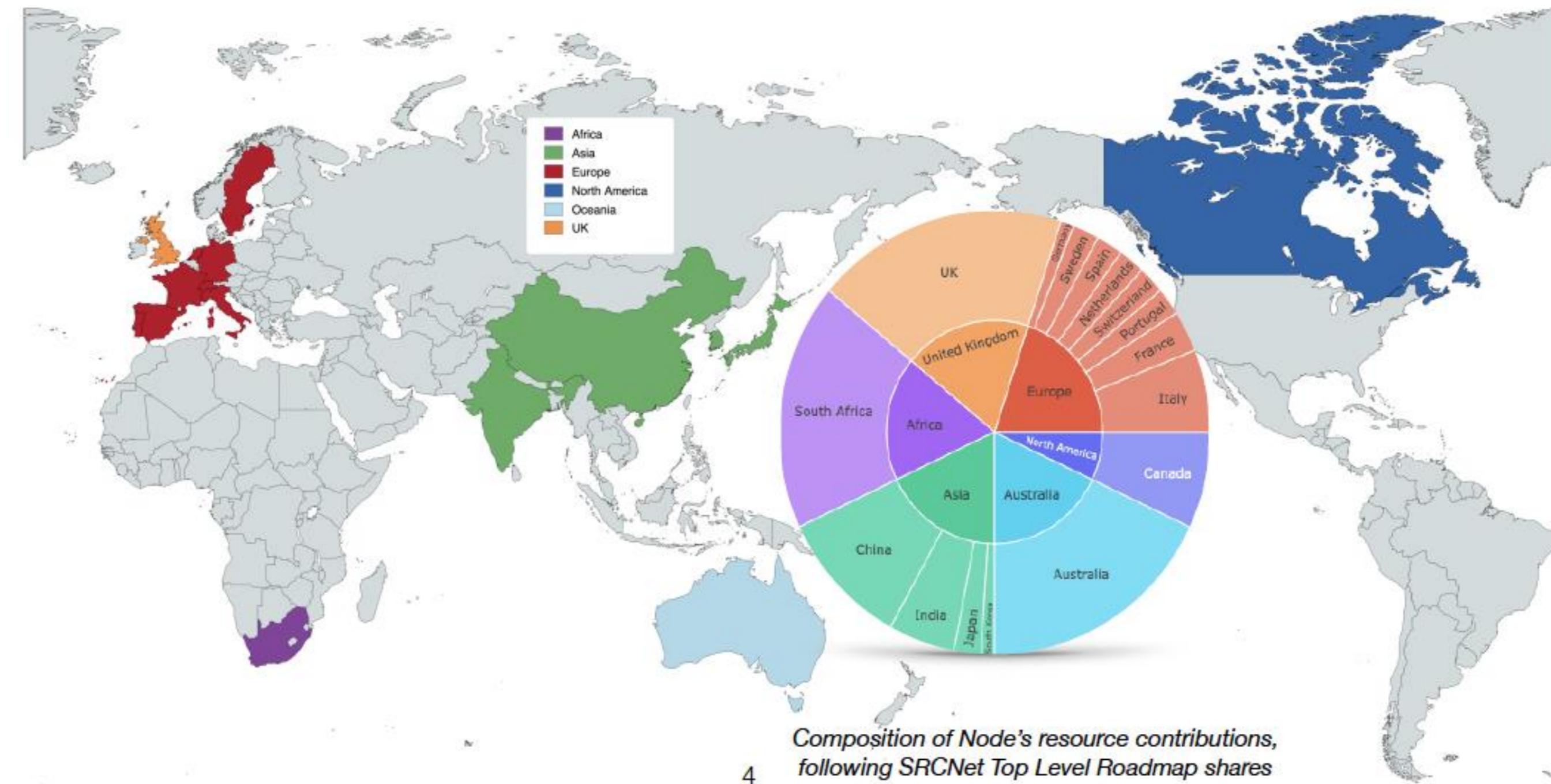
ukSRC (2027-2030)

- ukSRC[2027-2030]
 - Transition from development to operational phases
 - Essential SKAO/SRCNet Delivery
 - Deliver services through SKAO SV to first operations
 - Support UK radio astronomy → readiness to exploit SKAO
 - Infrastructure capability across UK sites – major infrastructure rollout now 2030+ (reduction in planned infrastructure spend compared to pre-SKAO timeline changes).
 - Testbed development and early services utilising SKA pathfinder/precursor data
 - Community support toward KSP development



ukSRC and the global SRCNet

- Current modelling assumes a Regional Centre share of storage proportional to their country construction share
 - ~6 similar global regions (Canada smaller)
 - The 3 host countries – Australia, South Africa, and the UK dominate as single country entities



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**UK
RI**  **Science and
Technology
Facilities Council**

