

AusSRC

Update for first SRCSC meeting



AusSRC Update

- **Landscape** - following 2016 SKAO DFAP
 - April 2017 - ERIDANUS (ICRAR/SHAO/CSIRO, www.eridanus.net.au)
 - ANZSCC - 2017 formed AusSRC Working Group
 - ANZSCC - 2018 formed AusSRC Management Committee
 - Australian Academy of Science Decadal Plan for Astronomy mid-term review 2020
 - **Projects**
 - AusVO (2004) -> All Sky VO (ASVO) = TAO(Melbourne - few FTE)+SkyMapper(ANU - few FTE)+Data Central(AAO - few FTE)+MWA ASVO Archive (few FTE) + CASDA (ASKAP archive - 5-10 FTE)
 - Astronomy Australia Limited (AAL) Astronomy Data and Computing Services (\$1-2 million per year)
 - ERIDANUS (\$100k/year)
 - RIALTO (ICRAR+CSIRO joining SKA pre-con execution framework prototype (DALiuGE) and ASKAP SOFT (\$2 million 3 years)
 - AusSRC (\$4 million, 3 years, 6 new FTEs)
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AusSRC MC ToR

Australia has pursued its potential engagement in an Australian SKA Regional Centre (AusSRC) through the ANZSCC, the initial work of the ANZSCC Regional Centre Working Group (2016/17), the Federally funded ERIDANUS Project (2017+), workshops with China on international regional centre development (2017/18), national workshops on regional centre community requirements and industrial engagement (2017/18) and Australian participation in the SKA Regional Centre Coordination Group (SRCCG 2017/18). To receive, consolidate and act upon these insights and requirements, and to define the cost and scope of a SKA-capable regional centre for Australia, the ANZSCC wishes to create an AusSRC Management Committee.

The AusSRC Management Committee will:

- Report to the ANZSCC
- Initially consist of representatives from ICRAR, CSIRO, MWA, ASKAP and Pawsey
 - o Peter Quinn (Chair)
 - o Sarah Pearce (Deputy Chair)
 - o Melanie Johnston-Hollitt
 - o Juan Carlos Guzman
 - o John Reynolds
 - o Steven Tingay
 - o Ugo Varetto
 - o Andreas Wicenec
- **Manage a program of work, funded by the Federal Government and other collaborative arrangements, directed towards**
 - o **Defining architectures, technologies and systems relevant to an AusSRC through relevant tests and prototypes at the national level, in particular focussing on the needs of the precursor telescopes MWA and ASKAP, and working with Pawsey and others. Timescale 2018 – 2021**
 - o **Defining architectures, technologies and systems relevant to an AusSRC at an international level, engaging with China, the SKA Regional Centre Co-ordination Group and other international regional centre efforts. Timescale 2018 – 2021.**
 - o **Engaging with other parts of the Australian astronomy community to ensure a coherent approach to data management.**
 - o **Delivering a business case to the Federal Government for an investment in a staged deployment of an AusSRC at a scale relevant to SKA-1. Timescale 2020**
- Hold regular meetings (average once every two months)

AusSRC Update

- **Experience -**
 - VO
 - Astronomy archives (ESO, ALMA, ASKAP, MWA, DataCentral)
 - Large scale data flow and processing design and construction (ESO, MRO, Pawsey)
 - **Institutions -** ICRAR, CSIRO, Swinburne, AAO
 - **Infrastructure -** Pawsey + NCI (MPI : 1-2 Pflop, 50 PByte, \$70 million refresh), gStar (Swinburne)+Bracewell (CSIRO) GPU resources, AARNET 100Gb/s links, Murchison Radio-astronomy Observatory (MWA and ASKAP data flow 5-10 PByte/year)
 - **Mandate -** lead AusSRC effort, report to ANZSCC and Federal Government
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AusSRC Update

- **Desired SRCSC Outcomes -**
 - Common vision for an operational SRC/SKAO network
 - A common vision that involves sharing, learning from and merge national experiences - do not reinvent
 - Decisions on the definition of functions, interfaces, user groups and requirements
 - Mutual supported business case developments
 - Defined, built and executed valid prototypes and demos
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