



SKA update

ATUC

30 October 2019

Australia's National Science Agency





Opening of new SKA HQ





Preparation for Treaty Organisation

Council preparatory taskforce (CPTF)

- Provisional Observatory Council
 - 7 signatories attend plus 9 observer countries
 - Focus on Tier 2 documents (sit below top Convention, Finance and P&I policy)
 - IP, Access, Operations
 - Procurement policy
 - Initial funding schedule
- Transition to SKA Observatory Intergovernmental Organisation

Ratification

- Netherlands first country to ratify
- Australia in process – Parliamentary Committee hearing held
- Need 3 host countries plus two others to ratify
- Expect first Council meeting mid-2020





Bridging - Transition to construction

- Final design work in preparation for procurement
 - CSIRO involved in Site infrastructure, DSP, computer networking & timing, integration & commissioning, software
- Schedule
 - System CDR December 2019
 - Implement changes from CDR Feb – March 2020
 - Construction proposal to Council mid-2020
 - Approval by late 2020
 - Procurement document creation Q3-Q4 2020
- Construction - 2021



Cost estimates

- Restructure of costings to make Observatory costs clearer
- Construction cost now 918 mEuro (excluding Observatory costs)
 - Cost cap 691 mEuro
- Deployment baseline
 - Will depend on actual funds available
 - Options
 - Scale current deployment baseline
 - Stop deployment at Array Assembly 3 (half of antennas)
 - Change technology choices to save costs

CDR Status – Jun 2019



Element	RRN Submission	CDR Submission	CDR Meeting	CDR Close*
TM	29 January 2018	28 Feb 2018	17-20 Apr	14 Jul 2018
SaDT & SAT	17 January 2018	28 Feb 2018	15-18 May 2018	Jan 2019
INAU	19 March 2018	30 April 2018	27-29 June 2018	Dec 2018
INSA	19 March 2018	30 April 2018	2-4 July 2018	Feb 2019
CSP	18 May 2018 - PSS Element CDR - PST Element CDR - CBF Low - CBF Mid	30 Jun 2018 (includes LMC sub-element)	25-28 Sep 2018	Feb 2019
MeerKAT Integration			22 Oct 2018	29 May 2019
SDP Pre-CDR	09 Mar 2018	25 Apr 2018	20-22 Jun 2018	
SDP CDR	17 Sep 2018 <small>Green: Successful phase</small> <small>Red: Changes since April Board</small>	31 Oct 2018	15-18 Jan 2019	02 May 2019
LFAA re-planned AIV	15 Oct 2018 Oct 2018	05 Nov 2018 30 Nov 2018	11-13 Dec 2018 04 Mar 2019	30 Sep 2019 15 Jun 2019
DSH Pre-CDR	17 Sep 2018	28 Sep 2018	26-27 Nov 2018	30 Jun 2019
DSH CDR	<u>TBD</u>	<u>TBD</u>	<u>TBD</u>	<u>(Pre)</u> <u>TBD</u>
System CDR		13 Sept 2019 (Internal)	9-12 Dec 2019	March 2020

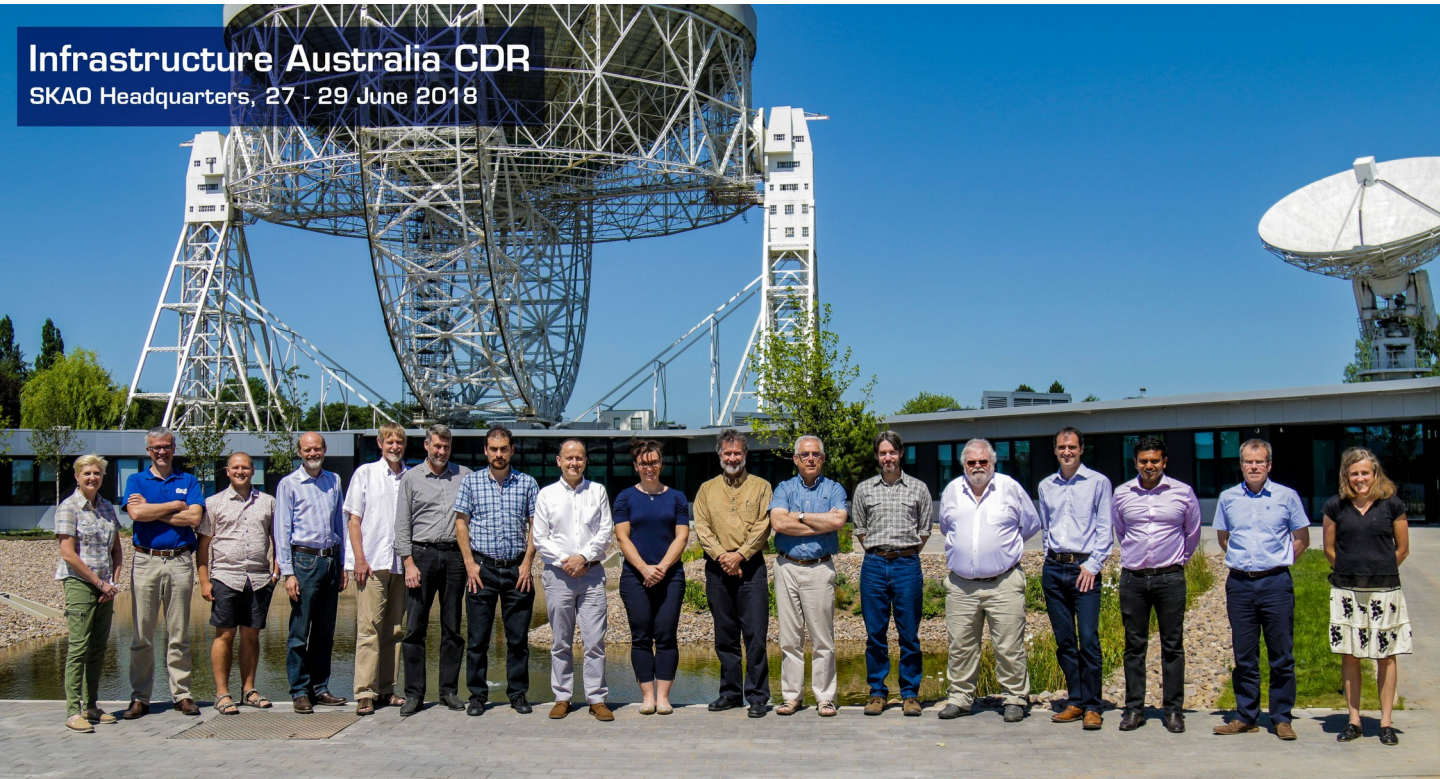
* Baseline close dates



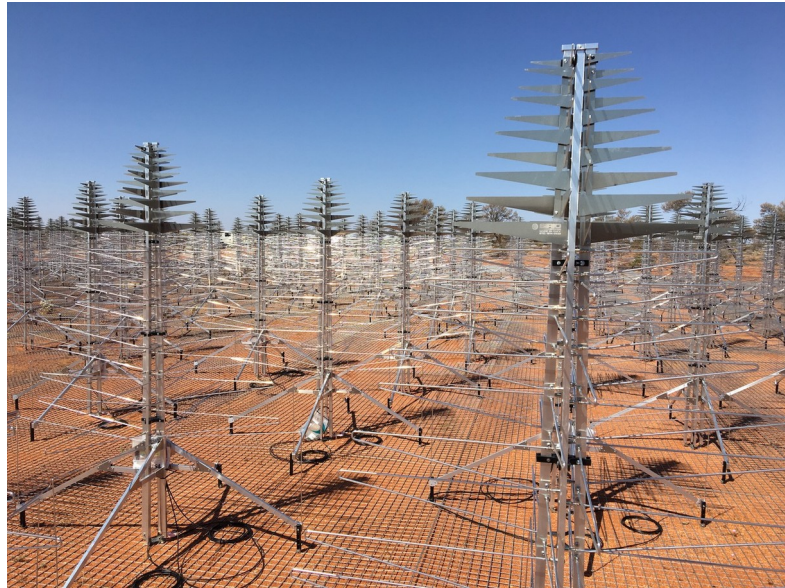
The Team

Infrastructure Australia CDR

SKAO Headquarters, 27 - 29 June 2018



Bridging Station Calibration Task (Full 256 Station deployment)



SKA Construction priorities

- Council Preparatory Task Force has agreed provisional allocations
- Key Australian allocations
 - **Infrastructure** – CSIRO as contract manager
 - **Field node** (collaboration with infrastructure) – Italy, Curtin, UK, India, Netherlands, China etc.
 - **Digital systems** (correlator and beamformer) –Netherlands and CSIRO
 - **Assembly, Integration and Verification** – CSIRO lead partner
 - **Software** – UWA, CSIRO and Swinburne minor partners
- Majority of work to be delivered through industry contracts
- In-kind or cash – Australian preference currently cash

Operations

- High level MoU under discussion covers:
 - Governance
 - Staffing
 - Australian Director employed by SKAO
 - Most other staff CSIRO
 - Budget
 - Site management, HSE, local stakeholders
- Key issues
 - Recruitment
 - Procurement
- New Head Operations starts now – Lewis Ball



Site establishment

- Heritage Surveys
 - Surveys still progressing – some areas of deep significance found
- ILUA
 - Largely agreed
 - Awaiting creation / agreement on Proscribed Body Corporate
 - Internal Wajarri exercise
- Site Entity
 - Initial funds received
 - Recruitment commenced





Thank you

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Second level
Third level
Fourth level
Fifth level

We acknowledge the Wajarri Yamatji as
the traditional owners of the observatory
site

