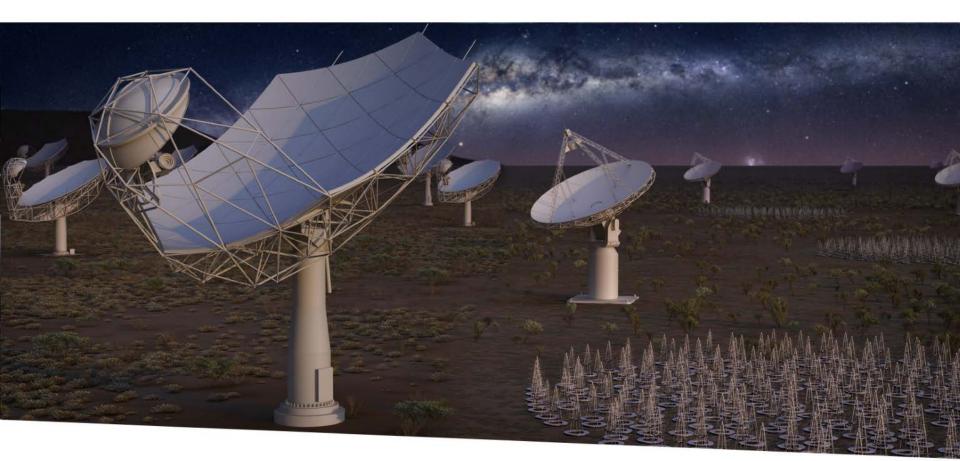
# **Early Production Arrays**





#### SQUARE KILOMETRE ARRAY

Exploring the Universe with the world's largest radio telescope

Alistair McPherson, Deputy Director-General 7<sup>th</sup> March 2018

### **Conduct at Meetings**



SKA Organisation is committed to making its science, training and public outreach activities productive and enjoyable for everyone, regardless of gender, sexual orientation, disability, physical appearance, body size, race, nationality or religion. We will not tolerate harassment of individuals associated with our activities in any form.

This code applies to all scientists, students and staff who are members or associates of SKA Organisation in all their professional conduct. It also applies to participants and instructors in SKA Organisation training programmes, workshops, conferences and all other events or activities sponsored or organized by SKA Organisation.

#### Please follow these guidelines:

- 1. Behave professionally. Harassment and sexist, racist or exclusionary comments or jokes are not appropriate. Harassment includes sustained disruption of talks or other events, inappropriate physical contact, sexual attention or innuendo, deliberate intimidation, stalking, and photography or recording of an individual without consent. It also includes offensive comments related to gender, sexual orientation, disability, physical appearance, body size, race or religion.
- 2. All communication should be appropriate for a professional audience including people of many different backgrounds. Sexual or sexist language and imagery is not appropriate.
- 3. Be kind to others. Do not insult or put down other attendees.

https://www.skatelescope.org/ska-organisation-code-of-conduct-for-meetings/

## **Aim of EPA Meeting**



The aim of the meeting is to discuss the outline plans and to give an indication on what contribution the members could give to allow a paper to be delivered to the next board.

On the assumption that the paper and plan are approved, then the detail of the planning can commence. The plan clearly shows a planning phase at the beginning.

#### Aim of EPAs



The aim of the Early Production Arrays is to reduce risk for the delivery of the construction phase and increase the probability that performance cost and schedule are maintained.

## **Why Early Production Arrays**



Representative end-to-end systems based on the SKA reference designs, that are the result of system CDR. The EPAs will be prototype integrated systems built on a realistic infrastructure

The objective of the EPA is to reduce the risks associated with the rollout of the telescope in terms of cost, design and performance.

The impact of the EPA will increase when as many sub-systems as possible (hardware and software) are available for integration into the Early Production Array, even if in rudimentary or prototype form.

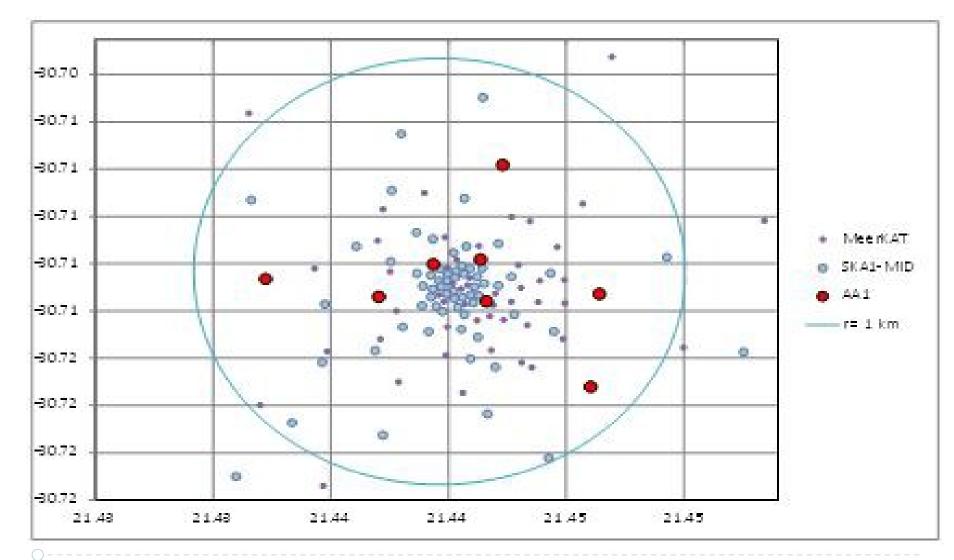
#### **Objectives**



- Relieves the critical path of the construction schedule by allowing the 'Industrialisation phase' to move forward in time.
- It creates continuity for some teams involved during the preconstruction phase
- It allows early site integration with other SKA teams
- The scope of the work is almost fully within the planned construction work; thus no additional cost is imposed on the project.
- It allows an early demonstration of a working SKA array to mitigate the political risk of having a long inactive period on site.



#### **Proposed Locations for EPA\_Mid**

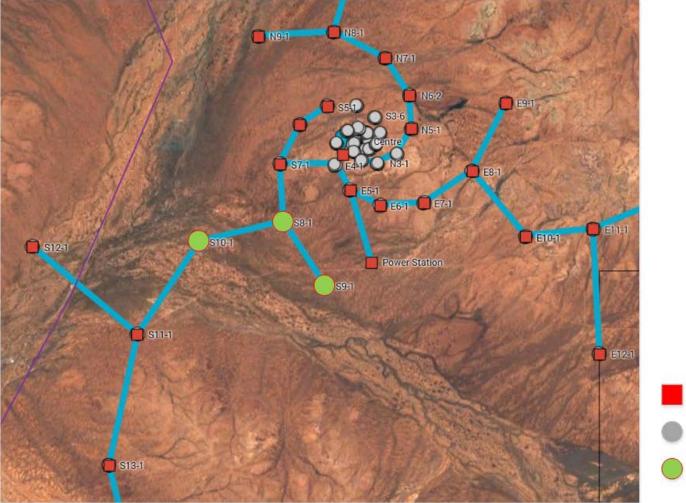


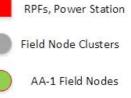
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#### Footer text

#### **Proposed locations for EPA\_Low**







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#### Progress



- Draft Plan from SKA-SA and Proposal from Aus
- Clarification meetings with both
- Distributed briefing pack for EPA-Mid and EPA-Low
- Scoping of Risk Mitigation
- Estimation of required size and locations
- Draft Plans
- Estimate of potential contributions
- Meetings with parties involved 7-9 March

### Costings



- Cost estimates from Cost Book
- Valuation Methodology
- Construction Credits
- Risk to Cost Cap

## Agenda – Wednesday 7 March



Time	Торіс	Lead
0900	Introduction	Alistair McPherson
0930	EPA Overview, Objectives & Risks	Joe McMullin
1015	Coffee	
1045	Funding	Alistair McPherson
1115	Towards Interferometry	Robert Laing
1200	Lunch	
1315	SKA-Low EPA Plan	Andre van Es
1400	Discussion	
1530	Coffee	
1600	Discussion	

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### Agenda – Thursday 8 March



Time	Na	Lead
0900	SKA-Mid EPA Plan	Mark Harman
0945	Discussion	
1015	Coffee	
1045	Discussion	
1200	Lunch	
1315	Management of EPA National Contributions	Alistair McPhesron
1400	Construction Credits	Tim Stevenson
1530	Coffee	
1600	Discussion	

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