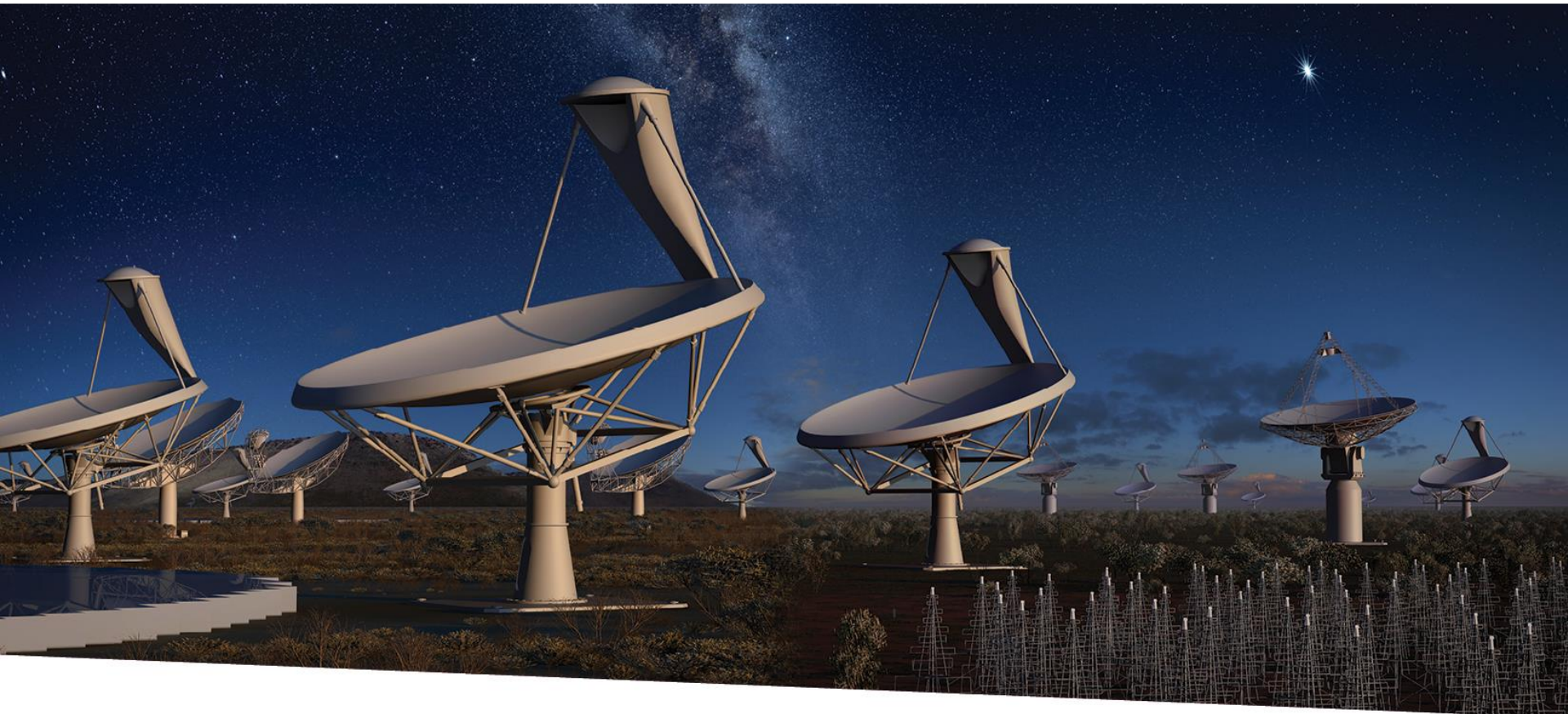


# SKA Procurement Workshop



**SQUARE KILOMETRE ARRAY**

Exploring the Universe with the world's largest radio telescope

**John Bancroft**  
27-28 January 2015

# Background 1

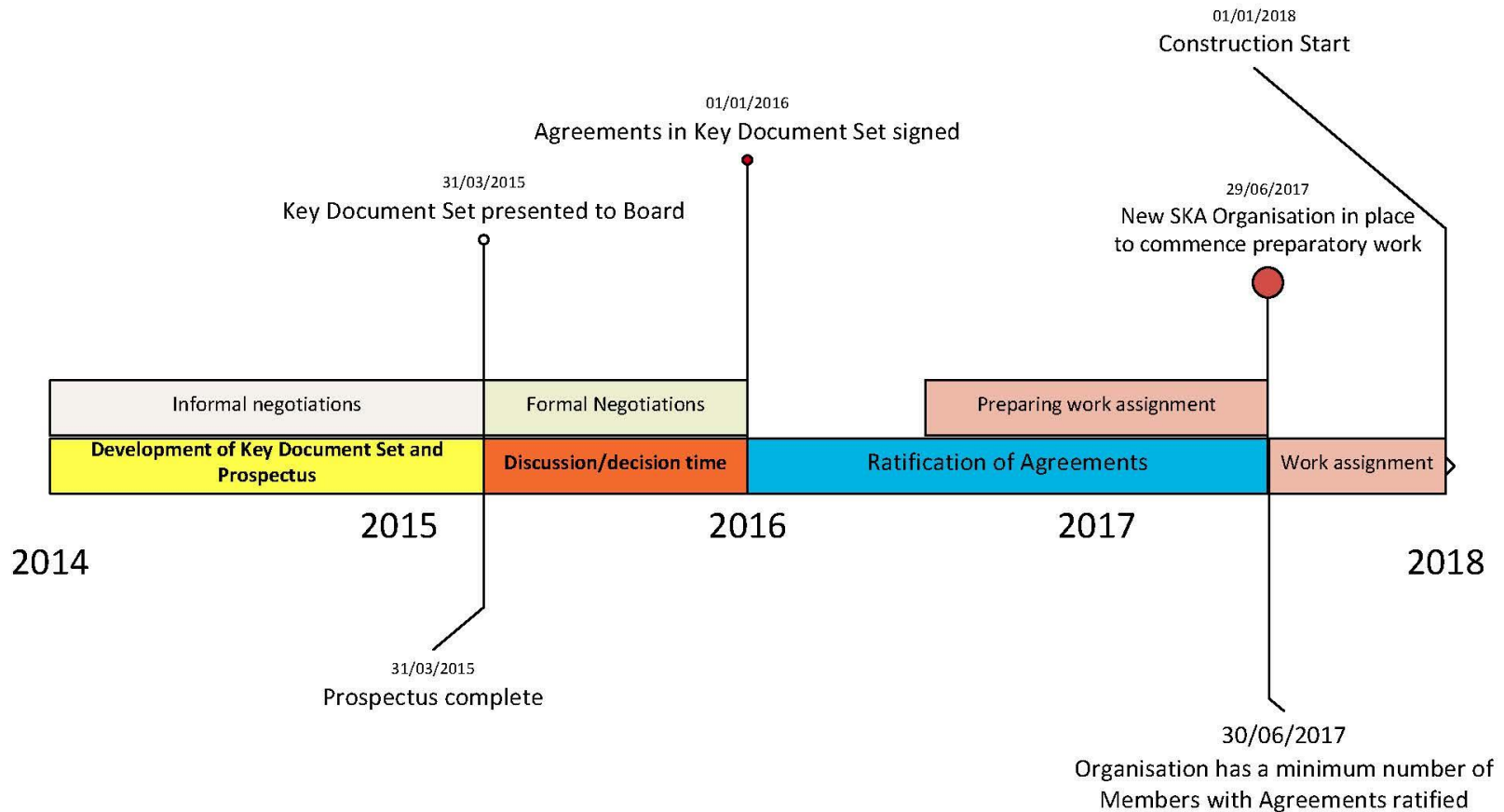
## SKA Phase 1:

- CAPEX €650M
- NZ portion is 2% or €13M.....~NZ\$20M
- NZ not yet signed up

## Objective of attendance at meeting

- To promote a procurement strategy that would maximize the potential ROI for NZ
  - Avoid any disadvantages
  - Access all opportunities
  - Open up opportunities even for what we cannot deliver....

# Procurement policy in the timeline



- Re-baselining complete: March 2015
- CDR: June 2016

# Background 1

Last Board discussion on procurement in October 2014:

The suggestion was made to hold an “expert workshop”, to test the principles and the emerging understanding of the process.....with people experienced in research infrastructure procurement and industry engagement, inside SKA and more broadly.

## Background 2

- The primary challenge areas are:
  - Cash & in-kind procurement processes
  - “Competition” issues
  - “Juste-retour” and balancing Members’ return on investment (ROI)
- SKA Board discussion and agreement of high-level principles in March 2014
- Further discussion to establish next level of principles in October 2014
- Move to expert workshop.....this meeting!

# Background 3

## Aims of the meeting

- To consider the range of issues
- To generate an initial process flow chart which aims to highlight the primary challenges
- To agree a set of principles for presentation to the SKA Board
- For the participants to exchange views from national standpoints, from a basis of understanding derived from other projects and precedents
  - ESO procurement processes
  - TMT
  - ITER
  - European Spallation Source
  - Plus others from SKA experience

# Agreed Principles 1

- That the procurement policy be developed around the principles of openness, competitiveness and transparency, noting the requirement for Member States to receive a level of return proportional to their investment.
- No Member shall be disadvantaged
- That such principles as set out above should be applied to both cash and in-kind contributions.
- That procurement should be a centralised process managed by the SKA Organisation, with the SKA Organisation having responsibility for the valuation of in-kind contributions according to principles within a framework agreed by the Board.
- The procurement/work assignment process will be based on the development of a “Cost Book”, which will inform the development of a procurement plan;

# Agreed Principles 2

- The development of the procurement plan will take account of Members' views and aspirations for involvement in specific areas of work, in accordance with the Board's principles of "juste retour" and return on investment;
- The process will allow the ability to manage both central (cash) procurements and in-kind (local) contributions
- Both central and in-kind procurement and work assignment processes will be enacted according to the Board's principles on transparency and openness;
- The in-kind process should be based on an Expression of Interest process and subsequent evaluation and valuation;
- A 'Procurement Committee' will be established to participate in the oversight and valuation steps in the procurement/work assignment process
- Contributions to SKA in the construction phase are likely to be a mix of cash and in-kind offers from Members.



# Agreed Principles 3

- There will be some minimum cash contribution necessary, at a level to be determined by the SKAO;
  - required to enable the continued operation of the central SKAO activities
  - also to manage the delivery of various work packages that are most appropriately centrally procured;
- Some form of pre-qualification and supply chain quality assessment will be necessary as part of the process,
  - undertaken by the SKA Office (with “Buyer’s Friend” help provided by Members when and where appropriate);
- Responsibility for risk apportionment and management of contingency will be an important consideration and will be handled contractually;
- A new model of coordination between the central project and the external partners will be needed for all aspects of procurement within the project, e.g. on
  - Member structures and coordination within the project
  - Industry engagement approaches

# Assumptions and issues

- There is no automatic right to contribute in-kind
- Everyone has to commit to contribute to centralised activity
- There will be a pre-qualification process, especially for industry
- There will be a work breakdown structure (WBS) and Cost Book
  - Calculating cash vs in-kind within the Cost Book:
  - Negotiating/determining work-shares:
    - Noting the tension with respect to “low IP” vs “high IP” work package allocation when considering ROI
- SKAO management and oversight of central contracts and in-kind activities
- Risk management and contingency: balancing apportionment of risks and controlling/managing project dynamics via Procurement and other Contracts

# Outstanding Questions

- How to value in-kind contributions?
- What is the national role (offices and organisation) in in-kind activities?
- What organisation is necessary to support central procurement? Almost certain to be an international Treaty Organisation (.....e.g. due to procurement rules)
- How to maximise industrial participation?
- What is meant by “competitiveness”?
- What role will the WP Consortia have going forward?
- What will the criteria be for selection in the pre-qualification process?

# Outcomes 1



1. In the preparatory stage, the SKAO is to develop a project execution plan for SKA1. It will then develop a “Cost Book” (a costed work breakdown structure (WBS) for the project).
2. Within the Cost Book there will be a indication of which work areas are selected for in-kind delivery and which can only be/should only be procured as centrally-funded and managed contracts.
3. There should be a discussion in which Members identify their aspirations, expectations and requirements for participation in the programme.
  1. This step is the one that will permit a rational alignment between work assignments arising from the Cost Book and desired Member in-kind contributions. It is assumed that early in this process Members are comfortable in indicating their positions on cash and in-kind contributions.
4. The process shall follow the SKA Board’s principle that it shall be competitive and transparent, with no Member being disadvantaged.



# Outcomes 2



1. *Members not bidding for a work-package may provide funded “Buyer’s Friend” support to the SKAO for the procurement of that work-package as an in-kind contribution. This will reduce the standing resource needed by the SKAO through the procurement process and therefore the minimum cash contribution from Members.*
2. *The Work-Package Consortia represent a valuable resource that should not be discarded through the procurement process.*
3. The pre-qualification process for suppliers shall be independently audited
  1. The criteria for selection in this process shall be agreed up front
4. The valuation process for the Cost Book (and hence the value of a given contribution) shall, if the contents of the work package are uniquely available and therefore not possible to value competitively, rely on a “World Market Value” calculation . This value is therefore not necessarily related to the cost of delivery.
  1. This process shall be independently audited

# Outcomes 2

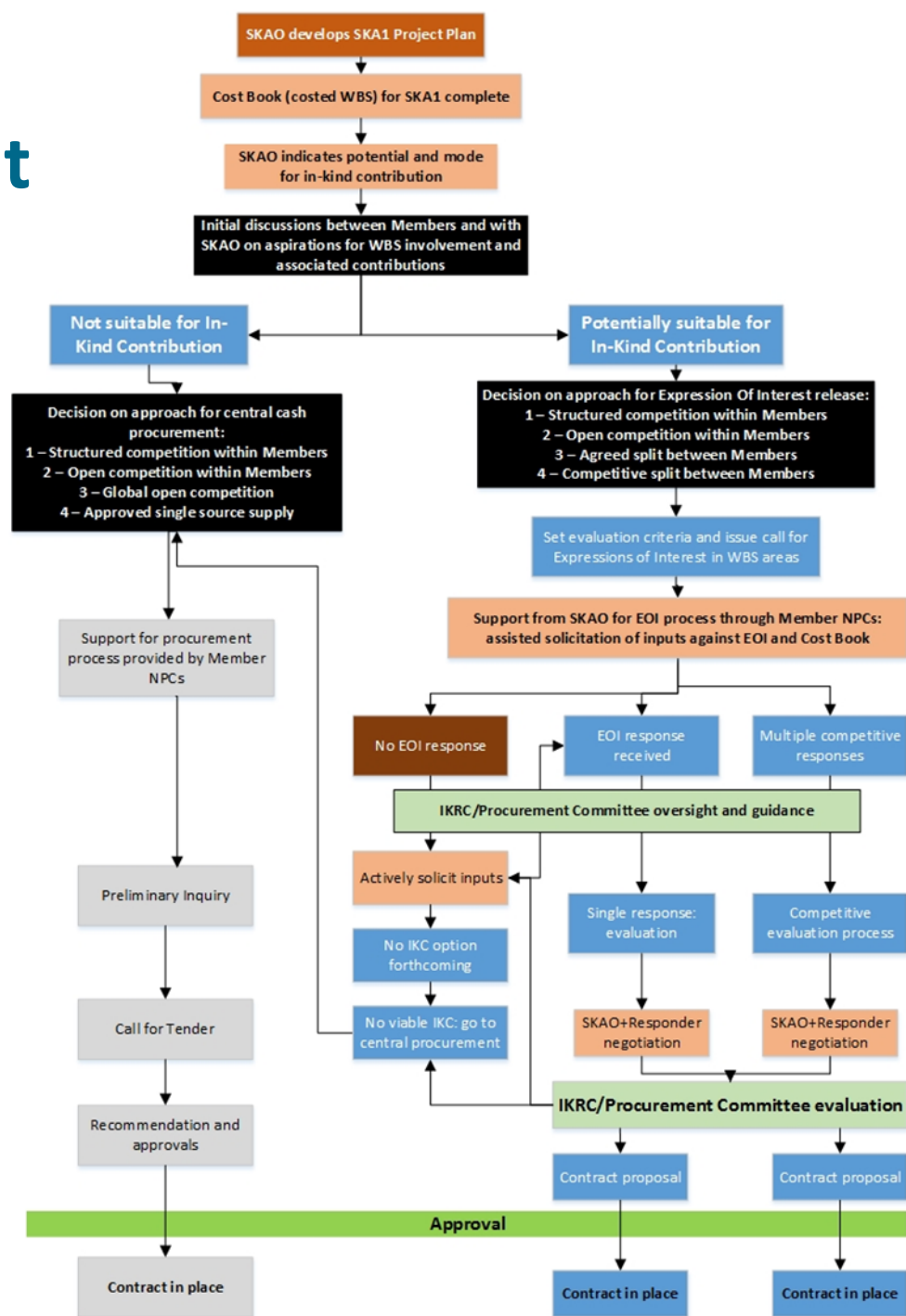


1. Calls for bids shall be tailored according to agreed definitions of cash or in-kind contributions in the Cost Book. E.g.
  1. Cash Calls for Bids shall be issued to all Members
  2. In-kind Calls for Bids shall be issued to a (published) subset of Members
2. Any/all Calls for Bids shall be opened out to non-Members where the Members are unable to supply or procure the supply of the item
3. *Calls for bids shall be issued via ILOs (Industrial Liaison Officers) in each Member, according to stated interests and the nature of the item (e.g. cash or in-kind)*

*NB: All Members will need an ILO. This needs to be an individual with broad experience and expertise in industry liaison and a good familiarity with the Project*
4. *The SKAO needs to cease being a Company Limited by Guarantee in the UK to avoid UK and EU procurement rules leading to disadvantage for non-EU Members*



# Possible procurement flowchart



# Possible Contract Flow

