

**Economics Legislation Committee**  
**ANSWERS TO QUESTIONS ON NOTICE**  
Industry, Innovation and Science Portfolio  
2016-17 Supplementary Budget Estimates  
20 October 2016

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**DEPARTMENT:** DEPARTMENT OF INDUSTRY, INNOVATION AND SCIENCE

**TOPIC:** SKA Project Update

**REFERENCE:** Written Question – Senator Carr

**QUESTION No.:** SI-66

1. At what stage is the SKA project at? When is construction scheduled to start?
2. Is the total funding envelope across all the member nations still EURO 650 million?
3. Has the Australian Government made any funding decisions at yet? If not when will the Australian Government be asked to make a funding decision?
4. Who is Australia's representative on the Board?
5. Who is our science representative?
6. Has the final SKA treaty been finalised?

**ANSWER**

1. The SKA Organisation and its partner organisations around the world (in Australia including CSIRO, the International Centre for Radio Astronomy Research (ICRAR), other universities and a number of firms) are currently working through the detailed design and technology development process for SKA Phase 1. Earlier in 2016, the SKA Phase 1 design achieved the level of engineering readiness known as 'Preliminary Design Review' or PDR. The current timeline is for the design to achieve the next stage of engineering readiness, 'Critical Design Review' or CDR in 2018 (with some sub-systems reaching CDR in 2017). At the CDR stage, the project will be ready to finalise a build ready design and construction plan. On this engineering schedule, construction of the base infrastructure for SKA Phase 1 could potentially commence by the end of 2018, with the telescope systems rolled out over the subsequent three to five years.

In parallel with the engineering process, the member countries are working to establish the necessary project governance, policy and funding environment. The ten current member states are currently involved in the negotiation of a treaty, the SKA Convention, which will establish an intergovernmental organisation (IGO), the SKA Observatory, to take the project into the construction and operations phases. The members are also negotiating to determine a project budget and funding shares.

The construction schedule will be influenced by the timeframe to establish the IGO and for the necessary financing to be in place. To provide an indicative timeline, we currently expect: treaty negotiations to be finalised (i.e. for agreement between officials to be reached) in February 2017; the member governments to commence their treaty approval processes soon after; sufficient member states to have received approval to sign the SKA Convention in order for it to enter into force in early 2018; the SKA Observatory (IGO) to be established and operational by mid-2018.

2. The agreed funding envelope for SKA Phase 1 construction is currently €650 million (which the SKA Organisation Board has noted equates to €674 million when indexed to current prices). However the member countries are still considering the issue of project scope and budget and have not reached final agreement. A key reason is that as the engineering process advances, the costings for the SKA Phase 1 baseline design are becoming more mature.

3. The Government has made a conditional allocation to the construction and operations costs of SKA Phase 1 as part of the National Innovation and Science Agenda package. The allocation is conditional on a satisfactory outcome from the treaty and funding negotiations, with final decisions to be made when all the necessary information is available. As noted above, it is expected that the SKA Convention will be ready for Government consideration in early 2017. It is not clear yet when the funding negotiation will be completed, though indicatively this may be later in 2017.
4. Ms Patricia Kelly, Director General IP Australia, is Australia's voting representative on the SKA Organisation Board.
5. Dr Sarah Pearce, Deputy Director, CSIRO Astronomy and Space Science is the Australian Science Representative to the SKA Organisation Board.
6. As noted above, the SKA Convention treaty negotiation is expected to be agreed by officials in early 2017 (when a fifth negotiation meeting is scheduled). Following the fourth meeting in September 2016, relatively few matters remain to be resolved. Of course the treaty is not final until it is signed by a sufficient number of member states to enter into force. The prospective member countries have a range of approval processes and timelines they follow, making it difficult to provide a confident estimate of timeframe for entry into force. However our working assumption is that this could happen in early 2018.