



## SKA Organisation

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## Notes from the Chair of the SKA Board

**28<sup>th</sup> Meeting of the Board of Directors of SKA Organisation  
held at SKA HQ, Jodrell Bank, UK.  
12-13 November 2018**

Catherine Cesarsky, Chair of the Board, welcomed directors and invited guests to the 28th Meeting of the Board of Directors of SKA Organisation. She thanked the UK on behalf of the Board for delivering the SKA HQ extension. The Board was particularly delighted with the new Council Chamber in which this meeting was held.

### Director-General's Report

Philip Diamond reported on project Health, Safety and Environmental (HSE) issues. Since the last Board meeting, there have been no significant reportable accidents or incidents recorded at SKA HQ. In terms of project safety, formal HSE reviews for Element Critical Design Reviews (CDRs) are ongoing. The Project Safety Management Plan (Rev 2) and the Environmental Management Plan (Rev 1) are now expected to be released in 2019Q1. A recent SKA staff engagement survey indicates high staff satisfaction in terms of safety.

Engagement with potential new members, to both SKA Organisation and the future SKA Observatory, continues. Representatives from Germany, Japan and Switzerland were in attendance at this meeting.

The Board was updated about key strategic issues facing the SKA with regards to the establishment of the SKA Observatory as an Inter-Governmental Organisation (IGO). These include signing of the SKA Observatory Convention (now expected to take place in 2019Q1), formation of the Council Preparatory Task Force (CPTF), the funding schedule, procurement and SKA Regional Centres.

### Science

Robert Braun, Director of Science, reported the imminent release, after final quality checks, of the first release of science data challenges. It will focus on source finding, identification and characterisation, with results to be compared to a simulation input catalogue. It is expected that subsequent data challenges will be released every six months or so.

More than 300 people have registered an interest in attending the SKA General Science Meeting and Key Science Workshop on 8-12 April 2019. The SKA Office's science team is looking at options to accommodate this number of participants.

### Engineering

Joseph McMullin, Programme Director, presented his Engineering Report. He stated that Element CDRs are progressing well, with TM having completed element CDR close-out actions and SaDT, INAU, INSA and CSP working towards close-out. The outstanding element CDR meetings are scheduled as follows: DSH (pre-CDR: 26-27 November 2018), LFAA (11-13 December 2018), SDP (15-18 January 2019) and AIV (4-6 March 2019).



The Board discussed the report and noted that the SKA Office is working with partner institutions to integrate Element designs with the full System. This process of design adoption will include the establishment of the System design baseline based on Level 1 Requirements (Rev 11), integration of Element CDR deliverables, and establishment of a technical review pack for System CDR. This work will be reviewed internally at the Adoption Design Review. The System CDR meeting has been rescheduled to November 2019, with close-out by February 2020. By the time of close-out of System CDR, Level 1 Requirements (Rev 12) will have been agreed together with a detailed plan on how to proceed.

Dr McMullin reviewed the construction cost status and reported that the estimated cost of the SKA-1 Design Baseline is €816.2M (2017 €); this figure compares to the cost cap of €691.0M (2017 €) for the Deployment Baseline. A construction planning workshop will be held at SKA HQ on 28-29 November 2018 which will undertake basic mappings of Element cost information to the construction Work Breakdown Structure. The aim is to finalise the Deployment Baseline cost book by March 2020, and the final Construction Proposal cost book by June 2020 as part of the submission. The Board noted the updated SKA-1 construction cost estimate for the Design Baseline.

Andrea Ferrara, Chair of the Science and Engineering Advisory Committee (SEAC), presented his report of the Committee's meeting at SKA HQ on 29-30 October 2018. The SEAC's discussions included: (i) project status, (ii) CDR process, (iii) LFAA, (iv) early construction opportunities, (v) SKA Regional Centres (SRCs), (vi) organisational structure and functional plan of the SKA Observatory, and (vii) Recruitment. The SEAC made a number of recommendations, which were discussed by the Board. Prof. Diamond thanked the SEAC for its report and responded on behalf of the SKA Office.

Dr McMullin presented an update on Bridging activities, which will cover the period from the end of formal consortium activities, i.e. successful closure of Element CDRs, to the start of the construction of SKA-1. Two sets of bridging priorities have been defined. Priority 1 (P1) tasks will be undertaken in 2018-19 and focus on close out of remaining work in qualifying SKA-1 designs and preparations for the System CDR and draft Construction Proposal. Priority 2 (P2) tasks, such as preparation of the procurement pack, will be undertaken in 2019-20. There are currently 66 P1 tasks owned by 22 Task Managers requiring an estimated 112 people-years of effort. A further 36 P2 tasks remain to be further defined and initiated. The Board discussed the Bridging update and directors were invited to support their contributing organisations ("Consultants") in engaging with the process of forming new (NEC4) agreements and to perform the Bridging work.

Dr McMullin presented a report on early construction opportunities, formerly termed the early production arrays. The aim is to facilitate early deployment of infrastructure at the host sites, early evaluation of pre-production equipment to prepare for industrialisation, and early commissioning and verification of a minimal system. This approach will help the development of methods and working practise for full production. The proposed Array Assembly 0.5 (AA0.5) will enable astronomical commissioning observations to start approximately 12-18 months in advance of the original plan. AA0.5 will provide key risk mitigation activity for the project execution and potentially reduce the construction schedule. It was agreed that the SKA Office will organise a workshop to socialise the planning of, and the opportunities arising from AA 0.5. The Board discussed this report and noted that detailed planning is underway.



## Planning for Operations

Gary Davis, Director of Operations Planning, reported on the plans to develop the SKA1 Operations Plan. It is anticipated that a draft Operations Plan will be presented to the Board at its next meeting (26-27 March 2018). An independent Operations Review of the full Operations Plan will be held in late-2019 or early-2020. The final Operations Plan will be submitted to the SKA Observatory Council in 2020Q1, together with the Construction Proposal. The Board noted this report.

Prof. Davis presented an update on planning for the SKA Regional Centres (SRCs). He referenced a study by the SRC Coordination Group (SRCCG) on the global academic network and the intercontinental fibre cable systems used by the international research and education community. The SRCCG recommends that the SKA Observatory should purchase dedicated bandwidth on links from SKA-Mid and SKA-Low to the northern hemisphere in order to provide a global network for SKA science. The Board discussed this report as well as cost estimates for, and computational requirements of, the SRCs.

Peter Quinn, Executive Director, ICRAR, presented a proposal on the evolution of the SRCCG to the SKA Regional Centre Steering Committee (SRCSC), a partnership of emerging SRCs and the SKA Office. The SRCSC will guide the definition, creation and support of a long-term operational ensemble of computational/data-intensive infrastructure and supporting services, as well as enable the successful completion of all SKA science programmes and the long-term curation and functionality of the SKA Science Archive. SRCSC members must have the authority to commit resources and initiate working group studies. The Board discussed the proposal and supported the formation of the SRCSC.

## Procurement

Ian Hastings, Head of Procurement Services, and Ben Hopkinson, Procurement Policy Lead, set out the planned approach to SKA-1 construction procurement. The Board noted the overview of segmentation and the procurement model, the SKA In-Kind model and delivering the SKA Observatory Convention procurement principles.

## Policy

Daan du Toit, Chair of the Strategy and Business Development Committee (StratCom), reported on the Committee's meeting in Rome, Italy on 11-13 October 2018.

The Board was informed about StratCom's discussions on: (i) establishing the Council Preparatory Task Force (CPTF), (ii) the initial funding schedule for the construction phase, (iii) procurement and IP, (iv) the scope of Associate Membership of the SKA Observatory, and (v) transition planning. The Board discussed the report and approved the appointment of Michel Perault as Member of StratCom representing CNRS-France.

Theresa Devaney, Transition Co-ordinator, reported on the status of planning for the transition from the SKA Organisation to the SKA Observatory. She reviewed the key transition planning highlights in terms of legal issues, governance issues, change/people management, continuous improvement and establishment of the SKA Observatory as an operational entity. The Board noted the key transition planning highlights and agreed with StratCom's initial assessment of key transition issues and risks.



## Communications

William Garnier, Director of Communications, Outreach and Education, stated that the most comprehensive brand work to date is underway. This work involved six surveys, with 359 respondents from 38 countries, social media polls and interview of 'Science Ambassadors'. The Board noted that the SKA core messages seem to have been communicated effectively within, and beyond, the SKA community, but further work is needed to analyse the large volume of data collected.

## Administration and Governance

Alistair McPherson presented a Business Plan Extension to 2020 and the Board unanimously recommended approval of this Business Plan as the basis for setting the 2020 Budget and requested that 2020 funding be approved at the Members' meeting on 25 March 2019. In addition, the Board discussed the proposed organisational design for the SKA Observatory and unanimously supported further development of the favoured option presented.

Fiona Davenport, Head of Human Resources (HR), presented an update on implementation of the HR plan for 2018. A review of current attraction and recruitment channels has identified the need for a multi-channel route to improve the quality and diversity of candidates.

A staff engagement survey was conducted earlier this year and follow-up staff workshops have now been completed; an action plan is being developed following this feedback. Furthermore, the SKA community has now been informed about the creation of SKA Organisation's Ethical Champions and their role.

The SKA Organisation's application for Athena SWAN accreditation was commended but not awarded, primarily because data was required over a longer period than was available. Athena SWAN is a UK charter with the aim of advancing the representation of women in science, technology, engineering, medicine and mathematics.

Implementation of an Enterprise Resource Planning (ERP) system at SKA HQ, with associated processing mapping and development of workflows in the HR module, is underway.

Colin Vincent, Chair of the SKA Finance Committee, presented a report of the Finance Committee meeting on 17 October 2018. Following the Committee's recommendation, the Board approved SKA Organisation's 2019 Budget. A more detailed indicative budget for 2020 will be submitted once funding for 2020 has been confirmed.

Effective from 1 January 2019, the Board appointed David Luchetti as Chair of the Finance Committee and Bishen Singh as Vice-Chair. In addition, the Board appointed Sebastien Borel (CNRS, FR) as member and agreed for Colin Vincent (STFC, UK) to revert back to member following completion of his term as Chair.

The Board confirmed the following future Board meetings:

- SKA-BD-29: 26-27 March 2019 (SKA HQ);
- SKA-BD-30: 10-11 2019 (SKA HQ); and
- SKA-BD-31: 19-20 November 2019 (Nice, FR).

Catherine Cesarsky  
Chair, Board of Directors  
SKA Organisation  
22 November 2018