

SKA Regional Centre Steering Committee (SRCSC) **Terms of Reference**

Introduction

It is currently estimated that the SKA Observatory will generate 600 PB of calibrated science data products each year. This data rate is unprecedented in observational astronomy. The infrastructure for transporting such large data volumes to users around the world, and the computational resources that are required to enable users to turn those data into scientific results, are not within the current planned scope of the SKA project and demand imaginative solutions.

In April 2016, the SKA Board received the report of the Data Flow Advisory Panel (DFAP). The Board endorsed the DFAP's proposed strategy of a collaborative network of SKA Regional Centres (SRCs) to provide the essential functions that are not within the scope of the SKA project: specifically, computational capacity for re-processing and science analysis, provision of an SKA Science Archive, and local user support. The collaborative relationship between the Observatory and the regionally-funded SRCs was suggested to be based on a resource pledging arrangement and governed by Memoranda of Understanding. The Board also approved the formation of the SRC Coordination Group (SRCCG) to take this concept forward.

The SRCCG was duly formed later that year and has carried out its work in a number of areas: requirements, networking, archiving, etc. In parallel with this coordination work, several SRC regions commenced conceptual work that has made good progress and is, in some cases, leading to the early implementation of prototype SRCs.

This evolution from conceptualisation to implementation requires a parallel evolution of the SRCCG to a new body that will continue to take this work forward on a global basis. In November 2018, the SKA Board approved the formation of the SRC Steering Committee (SRCSC).

Principles

In July 2016, the SKA Board amended a set of guiding principles for observatory operations that it had originally approved in 2014. The relevant principle for this aspect of the Observatory is:

21. The SKA Observatory will coordinate a network of SKA Regional Centres that will provide the data access, data analysis, data archive and user support interfaces with the user community.

Beneath this, a number of more specific principles have been proposed that underpin the form of collaboration needed. The SKA Observatory and the SRCs will be jointly responsible for:

- a) maximising the quality of SKA data delivered to users;
- b) the production of Advanced Data Products;

- c) ensuring that the approved science programme can be accommodated within available resources; and
- d) ensuring the availability of a platform of distributed services across computational and data infrastructures to support the user community to deliver SKA science.

The scientific success of the total international investment in the SKA will depend in part on the successful establishment of this collaboration.

Mission

The mission of the SRCSC is to define and create a long-term operational partnership between the SKA Observatory and an ensemble of independently-resourced SKA Regional Centres.

The SRCSC will be superseded in due course by the operational partnership that is formed as a result of its work.

Reporting

The SRCSC will report to the SKA Director-General (DG). The SRCSC will provide a written report to the DG for each meeting of the SKA Board (and, in due course, the SKA Observatory Council) covering progress, plans, issues and risks. The Chair of the SRCSC may be invited, on occasion, to present the SRCSC's report in person.

Form and Function

The SRCSC will function as a round-table partnership, consisting of the SKA Office and individuals appointed by the SKA partners in response to a solicitation from the DG. Some partners may wish to combine their efforts and appoint a joint member. Appointees to the SRCSC must have the mandate to initiate work, to commit resources, and to take decisions necessary to achieve the SRCSC mission. Decisions will be by consensus. The terms of individual SRCSC members will not be limited; members may rotate at any time at the discretion of their sponsoring organisation.

Within the overall framework of its mission, the SRCSC will normally carry out its work by initiating sub-groups to focus on specific areas. The sub-groups will be chaired by an SRCSC member but may also comprise individuals who are not themselves members of the SRCSC.

The SRCSC Chair will be selected from and by the members of the SRCSC and will serve for a maximum of two years.

The SRCSC Secretary will be a staff member from the SKA Office appointed by the DG.

The SRCSC will meet at least once every three months. At least one meeting each year will be face-to-face.

All costs associated with the participation of individual SRCSC members (e.g., travel to attend meetings) will be borne by that member's sponsoring organisation. Costs incurred by agreed activities of the SRCSC as a whole, on behalf of the entire collaboration, will be considered on a case-by-case basis.

Initial Membership

Australia	Peter Quinn
Canada	Severin Gaudet
China	An Tao
France	Jean-Pierre Vilotte
Germany	Hans-Rainer Klöckner
India	Yogesh Wadadekar
Italy	Andrea Possenti
The Netherlands	Michiel van Haarlem
Portugal	Domingos Barbosa
South Africa	Simon Ratcliffe
Spain	Lourdes Verdes-Montenegro
Sweden	John Conway
United Kingdom	Anna Scaife
SKA Organisation	Antonio Chrysostomou Rosie Bolton (SRC Project Scientist)