

Consensus has been reached by the radio astronomy community around the world that the next major facility in the field should be an array of antennas working at centimetre to meter wavelengths, with one million square meters of collecting area. Designated the Square Kilometer Array (SKA), this extremely sensitive telescope will have 30 times the collecting area of the largest telescope built so far, and will be a key facility in attacking many of the most important questions in astrophysics.

From the start, the SKA has been conceived as a global endeavour. A meeting in Sydney in 1997 signalled the start of a concentrated effort to develop SKA technology. On the organisational side, astronomical institutes in 11 countries (Australia, Canada, China, India, Italy, the Netherlands, Poland, Sweden, UK, and the USA) formed regional consortia and, in August 2000, signed a Memorandum of Understanding to establish an International SKA Steering Committee (ISSC) and carry out cooperative technology development for the SKA. The ISSC coordinates the technical studies and site testing activities around the world, and has initiated preparation of a detailed science case. It meets twice per year and is supported by a secretariat, and a full-time project director.

The ISSC is working to a timeline that includes informing governments of the project (perhaps via the OECD Global Science Forum) and presenting a management plan late this year, an initial selection of promising technological concepts as well as the location of the array in 2005, the final selection of concept in 2007, world-wide coordinated proposals to governments for construction money in 2008, start of construction in 2010, and operational status in 2015.

There are many technological, political, financial and organisational challenges inherent in this international mega-science project. For example, account has to be taken of different funding cycles, different prior investment histories, different scientific interests, different stages of SKA-specific technology development, and different decision-making cultures in the various regions of the world. Radio astronomy does not have the benefit of an inter-governmental organisation like ESO or CERN to coordinate international decision-making and manage the construction and operation of a major facility like the SKA. This presents a challenge to create an organisational and management structure for the SKA that is "light" but sufficient.