



**STATEMENT BY THE SQUARE KILOMETRE ARRAY OBSERVATORY**

The 61<sup>st</sup> session of the Legal Subcommittee of the United Nations Committee on the  
Peaceful Uses of Outer Space

**AGENDA ITEM 4: General Exchange of Views**

**Read by:** Tim Stevenson (SKAO Head of Mission Assurance)

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Chair and distinguished delegates,

Thank you for allowing me the floor. On behalf of the Square Kilometre Array (SKA) Observatory (SKAO), I am pleased to address the 61<sup>st</sup> Session of the Legal Subcommittee of COPUOS. We would like to acknowledge the contribution of Ms Simonetta Di Pippo as Director of UNOOSA and wish her all the best in her future endeavours; And express our gratitude to Mr Niklas Hedman and the Secretariat for arranging this hybrid meeting under such challenging circumstances.

Chair,

The Square Kilometre Array Observatory (the “SKAO”) is an international intergovernmental organization headquartered in the United Kingdom and created by the entry-into-force on the 15th of January 2021 of our multilateral constitutive *Convention Establishing the Square Kilometre Array Observatory*. The Observatory Convention has been ratified by Australia, China, Italy, the Netherlands, Portugal, South Africa, Switzerland and the United Kingdom. We currently have cooperation agreements with scientific institutions in four other countries, pending their accession to the Observatory Convention. All our Members, Cooperating Partners, and Observers participate in COPUOS.

Chair,

The SKA Observatory will be a unique research infrastructure, enabled by a global collaboration of member governments and scientists. Facilities such as ours examine the most fundamental questions in science. What happened in the earliest days of the Universe? What were the properties of the first stars and galaxies? How did they evolve from that earliest time to what we see now, at radio wavelengths, through the optical, to the highest energy gamma ray wavelengths? What is this mysterious force that we call dark energy, accelerating the expansion of our Universe? Can we probe the characteristics of earth-like planets around other stars? Tantalisingly, can these instruments potentially detect the evidence for life elsewhere in the Universe?

Chair,

Radio astronomy instruments are extremely sensitive to artificial radio signals from terrestrial, aerial or space born transmitters. To avoid interference, radio astronomy relies on special spectrum bands protected by the Radiocommunication Sector of the ITU (ITU-R), of utmost importance for specific observations and calibration purposes. Radio observatories also locate their instruments in areas as remote as possible (ideally protected by national legislation as “radio quiet zones”), and significantly radio astronomy continuously advances radio receiver technology, increasing in resilience and flexibility, and software techniques to mitigate the effects of interference. The combination of these mitigations has allowed radio astronomy to make great advancements in our knowledge of the Universe. A few recent examples include obtaining the first real image of a black hole by the Event Horizon Telescope (EHT), the most detailed observation of the centre of our galaxy in L-band by the MeerKAT telescope in South Africa; and the discovery of a new kind of astronomical objects with an 18-minute period rotation by the Murchison Widefield Array (MWA) telescope in Western Australia.

The issues we have described here, and described by other delegations at this meeting, highlight the need for coordinated dialogue between COPUOS Member States and relevant actors within their domains.

In this regard, we believe it may be time to consider whether orbital space should not be considered an additional ecosystem within the human environment of Earth, in order to permit protection from environmental treaties/legislation, and enable a new framework of legal protection.

Chair,

The SKAO supports the United Nations General Assembly initiative of 2022 as the International Year of Basic Sciences for Sustainable Development, and is a Member of the Steering Committee for the International Year. Sustainability is one of the SKAO’s foundational values, with the Observatory and its partners contributing to many of the 17 Sustainable Development Goals. We will ensure that the SKAO operates in a manner

which is aware of, and minimises, its environmental footprint, and that its activities are conducted in an ethical and sustainable manner, respecting the Indigenous communities and cultures around our telescope sites and around our partnership.

We recognize and acknowledge the Indigenous peoples and cultures that have traditionally lived on the lands on which our facilities are located.

We strive not to neglect our responsibility towards the environment. In South Africa, the land acquired for the SKA Project is a protected area which has been declared a new national park (Meerkat National Park), under management from SANParks. The Meerkat National Park allows for the creation of multi-disciplinary research platforms, enhancing heritage, archaeological, ecological, aquatic, flora and fauna conservation efforts and promoting resource management through the removal of alien invasive trees. The Australian SKA site also has a rich and diverse flora and fauna heritage. CSIRO, in conjunction with the Western Australian Government, has commenced collating and analysing decades of data on the flora in the region. This research will be used to provide advice to a multitude of agencies and working groups on the impact of grazing activities and climate change in the broader region, as well as with a specific view on assisting with future activities on land and water management.

Building the SKA will produce a cohort of highly accomplished engineers and scientists, who will be capable of applying their talents to a broad range of areas of great benefit to our Member State economies and societies. However, through its broader impacts, the SKAO is helping to address global challenges by contributing to some of the United Nations' Sustainable Development Goals (UN SDGs) to achieve a better and more sustainable future for all by 2030.

The SKA member countries have education embedded in their development from the earliest stages, inspiring young people in time for them to become users of the telescope or engineers and scientists working with the SKA, and potentially encouraging more people to develop the STEM skills needed to maintain and grow the knowledge-based economy. Apart from bursaries for tertiary education, summer schools were hosted in our Member

the People's Republic of China, inter alia to practise data processing techniques on the Chinese prototype SKA Regional Centre using data from SKA precursor and pathfinder telescopes, learning new techniques and providing valuable feedback to the data centre's design in the process.

Chair,

We already gave statements under Agenda Item 13: General exchange of views on the legal aspects of space traffic management; And Agenda item 14: General exchange of views on the application of international law to small-satellite activities.

I thank you, chair.