



*****UNDER EMBARGO UNTIL TUESDAY 12 MARCH 12:00CET*****

Founding Members sign SKA Observatory treaty

Rome, Italy, Tuesday 12th of March 2019 - Countries involved in the Square Kilometre Array (SKA) Project have come together in Rome for the signature of the international treaty establishing the intergovernmental organisation that will oversee the delivery of the world's largest radio telescope.

Ministers, Ambassadors and other high-level representatives from over 15 countries have gathered in the Italian capital for the signature of the treaty which establishes the Square Kilometre Array Observatory (SKAO), the intergovernmental organisation (IGO) tasked with delivering and operating the SKA.

Italian Minister of Education Marco Bussetti who presided over the event, said “

Seven countries signed the treaty today, including Australia, China, Italy, The Netherlands, Portugal, South Africa and the United Kingdom. India and Sweden, who also took part in the multilateral negotiations to set up the SKA Observatory IGO, are following further internal processes before signing the treaty. Together, these countries will form the founding members of the new organisation.

Dr. Catherine Cesarsky, Chair of the SKA Board of Directors, added “Rome wasn't built in a day. Likewise, designing, building and operating the world's biggest telescope takes decades of efforts, expertise, innovation, perseverance, and global collaboration. Today we've laid the foundations that will enable us to make the SKA a reality.”

The SKA will be the largest science facility on the planet, with infrastructure spread across three continents on both hemispheres. Its two networks of hundreds of dishes and thousands of antennas will be distributed over hundreds of kilometres in Australia and South Africa, with the Headquarters in the United Kingdom.

Together with facilities like the James Webb Space Telescope, CERN's Large Hadron Collider, the LIGO gravitational wave detector, the new generation of extremely large optical telescopes and the ITER fusion reactor, the SKA will be one of humanity's cornerstone physics machines in the 21st century.

Prof. Philip Diamond, Director-General of the SKA Organisation which has led the design of the telescope added: "Like Galileo's telescope in its time, the SKA will revolutionise how we understand the world around us and our place in it. Today's historic signature shows a global commitment behind this vision, and opens up the door to generations of ground-breaking discoveries."

It will help address fundamental gaps in our understanding of the Universe, enabling astronomers from its participating countries to study gravitational waves and test Einstein's theory of relativity in extreme environments, investigate the nature of the mysterious fast radio bursts, improve our understanding of the evolution of the Universe over billions of years, map hundreds of millions of galaxies and look for signs of life in the Universe.

Two of the world's fastest supercomputers will be needed to process the unprecedented amounts of data emanating from the telescopes, with some 600 petabytes expected to be stored and distributed worldwide to the science community every year, or the equivalent of over half a million laptops worth of data.

Close to 700 million euros worth of contracts for the construction of the SKA will start to be awarded from late 2020 to companies and providers in the SKA's member countries, providing a substantial return on investment for those countries. Spinoffs are also expected to emerge from work to design and build the SKA, with start-ups already being created out of some of the design work and impact reaching far beyond astronomy.

Over 1,000 engineers and scientists in 20 countries have been involved in designing the SKA over the past five years, with new research programmes, educational initiatives and collaborations being created in various countries to train the next generation of scientists and engineers.

Guests from Canada, France, Malta, New Zealand, the Republic of Korea, Spain and Switzerland were also in attendance to witness the signature and reaffirmed their strong interest in the project. They all confirmed they are making their best efforts to prepare the conditions for a future decision of participation of their respective country in the SKA Observatory.

The signature concludes three and a half years of negotiations by government representatives and international lawyers, and kicks off the legislative process in the signing countries, which will see SKAO enter into force once five countries including all three hosts have ratified the treaty through their respective legislatures.

SKAO becomes only the second intergovernmental organisation dedicated to astronomy in the world, after the European Southern Observatory (ESO).

Supporting statements

The Hon Karen Andrews MP, Minister for Industry, Science and Technology, Australia

Zhang Jianguo, Vice Minister, Ministry of Science and Technology (MOST), China

Prof. Nichi D'Amico, President of the Italian National Institute for Astrophysics (INAF), Italy

Ingrid van Engelshoven, Minister of Education, Culture and Science, The Netherlands

Prof. Manuel Heitor, Minister of Science, Technology & Higher Education, Portugal

Ms Mmamoloko Kubayi-Ngubane, Minister of Science and Technology, South Africa

Chris Skidmore MP, Minister of State for Universities, Science, Research & Innovation, UK

Dr. Gregory G. Fahlman, Senior Advisor to the Vice-President, Emerging Technologies, Herzberg Astronomy and Astrophysics Research Centre, National Research Council Canada

Dr. Guy Perrin, Deputy Director CNRS-INSU, Head of Astronomy & Astrophysics Division, France

Dr. Saku Tsuneta, Director General, National Astronomical Observatory of Japan

The Hon Evarist Bartolo MP, Minister for Education and Employment, Malta

Prof. Lee Hyung Mok, President, KASI, South Korea

Inmaculada Figueroa, Deputy Vice-Director General of Internationalisation of Science & Innovation, Ministry of Science, Innovation and Universities, Spain

Her Excellency Ms. Rita Adam, Ambassador of Switzerland in Italy

Dr. Tony Beasley, Director, National Radio Astronomy Observatory, USA

Dr. Xavier Barcons, Director General, European Southern Observatory

Prof. Ewine van Dishoeck, President, International Astronomical Union

About the IGO

- The objective is to form a long-term, stable organisation that can build and operate the SKA internationally over 50+ years.
- The SKA Observatory is established by treaty negotiated by authorised state representatives, and composed of sovereign states as members.
- It involved a multilateral treaty negotiation over three and a half years.
- The SKA Observatory will enter into force once the treaty is ratified by five countries including all three hosts.
- The SKA Observatory joins the European Southern Observatory (ESO) as the only two IGOs in the world dedicated to astronomy.
- Negotiations were hosted by the Italian Government in Rome through the National Institute for Astrophysics (INAF).

About the SKA

The Square Kilometre Array (SKA) project is an international effort to build the world's largest radio telescope. The SKA is not a single telescope, but a collection of telescopes, called an array, to be spread over long distances. It will be constructed in Australia and South Africa with a later expansion in both countries and into other African countries.

The design has been led by the SKA Organisation based near Manchester, UK and supported by more than 1,000 engineers and scientists in 20 countries. The SKA Organisation is transitioning to the SKA Observatory, an intergovernmental organisation established by treaty, to undertake the construction and operation of the telescope.

The SKA will conduct transformational science and help to address fundamental gaps in our understanding of the Universe including the formation and evolution of galaxies, fundamental physics in extreme environments and the origins of life in the universe.

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