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Contribution by Saudi Arabia

to the CSTD 2019-2020 priority theme on "Exploring space technologies for sustainable development and the benefits of international research collaboration in this context

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The Kingdom of Saudi Arabia has made great efforts in the past years to transfer and localize space science and technology and to promote it in numerous vital fields. Saudi Arabia has cooperated with many countries and space organizations in space activities due to its belief that international cooperation in space activities is an important means of sustainable development. The start was when Saudi Arabia joined the first commercial global satellite communications systems INTELSAT and INMARSAT. Also, we have developed a sustainable program for satellite technology and applications aiming to ensure the qualification of Saudi scientists, engineers and specialists as well as localization of advanced space technologies and the establishment of an advanced infrastructure to support and sustain a space industry in the Kingdom.

In 1976, Saudi Arabia has contributed in the establishment of the Arab Satellite Communications Organization- "Arabsat" to provide satellite communications and direct broadcasting services to all member states of Arab countries and then launched the first Arabic satellite **«Arabsat A1»** in 1985, which was the first steps of the Kingdom's ambitious in the world of space and satellites. Starting with the rise of **His Royal Highness Prince Sultan bin Salman bin Abdulaziz Al Saud** to space in 1985 as the first Arab and Muslim astronaut in a scientific team on the US space shuttle **«STS 51G»**, which was the nucleus for the establishment of the Institute of Space Research and **«Saudi Center for Remote Sensing»** as part of King Abdulaziz City for Science and Technology (KSCST) which over the years has worked in the field of space and launch of 15 satellites, including: What was launched recently.

This was followed by launching two satellites in December, 2018 called (SaudiSat A5, B5) which aimed to provide support in Earth observation field. Also launched the first geostationary satellite (SGS-1) which consider one of the new generation communications satellites that serve broadband. Subsequently, in addition to these efforts, the Kingdom established **the Saudi Space Commission** in late 2018, and the appointment of the first Arab and Muslim astronaut, **HRH Prince Sultan bin Salman bin Abdulaziz Al Saud** as Chairman of its Board of Directors.

The creation of the Saudi Space Commission came as reflection of Saudi Arabia's Vision 2030 to regulate and develop everything related to the Kingdom's space sector, in a manner that ensures the interests of the Kingdom and its benefits, enhances security and protection from any sector-related risks, and encourages and motivates research and industrial activities related to space field.

The main functions of the Saudi Space Commission will include setting plans, policies, and programs related to the space sector, the preparation and implementation of the Saudi National Space Strategy, the organization and development of satellite systems, including satellites for space communications services, the collection of information on the Earth's surface and the environment, organize and develop global navigation satellite systems for locations, movements and time, developing the requirements for the development and implementation of space sector infrastructure and operation, and organization of missions related to space science and exploration, cooperation with governmental bodies and similar bodies in other countries and international organizations with regard to their competence.

In addition, Saudi Arabia has concluded several agreements and memorandums of understanding in the field of outer space technology and its applications with a number of leading space countries who are in line with the Kingdom's policy and commitments as well as the Kingdom's policy and commitments to the five United Nations treaties and principles on outer space and to promote the use of space technologies at the national and international levels in the service of humanity.

The National Center for Remote Sensing Technology, which falls under, King Abdul-Aziz City for Science and Technology (KACST) - a scientific governmental institution that supports and aims at enhancing scientific applied research, adopts essential trends in scientific research and technical development in line with the national scientific technology policy in the Kingdom of Saudi Arabia. The Policy outlines the priorities in the field of scientific research and technology development in accordance with the requirements of national security and sustainable development. The center also works on transferring and adapting advanced technologies in the field of remote sensing. In addition, it conducts scientific and applied research and coordinates with universities and scientific centers to secure suitable manpower to serve the Kingdom's development plans.

Among other activities, the center also conducts the following:

 Contributes to scientific research in the field of remote sensing techniques and spatial information, as well as receives satellite images from various satellites and ground stations.

- Provides consultancy to other agencies\institutes in areas which the center is competent and knowledgeable.
- Contributes to the identification of national specifications of geospatial information systems and its development and controls to exchange and update information.
- Performs correction and generation of satellite images for various users.
- Carries out digital analysis & classification of satellite image data using specialized programs.

Industry 4.0 (Space 4.0) may open new opportunities and more space for all. The private sector is growing in Saudi Arabia with startups and SMEs using remote sensing data and developing application based on remote sensing data and utilizing big data and IOT.

Finally, Saudi Arabia is always keen on building bridges of mutual cooperation and we hope our goals will be achieved in a world of security, stability, prosperity, and good for all humanity, and we hope that the work of this session will be successful.