



United Nations  
World Geospatial  
Information Congress  
联合国世界地理信息大会

# United Nations World Geospatial Information Congress

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## Space for the Sustainable Development Goals

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# United Nations Office for Outer Space Affairs (UNOOSA)

## Vision

Bringing the benefits of space to humankind

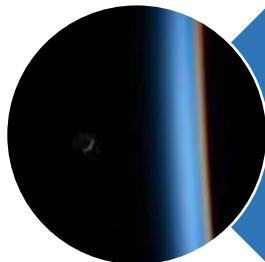
## Mission Statement

Promote international cooperation in the peaceful uses of outer space to achieve sustainable development goals



Image credit: Digital Globe/Maxar Technologies

# Roles and Responsibilities



**CAPACITY BUILDER:** UNOOSA brings the benefits of space to humankind by building space capacity for non-space-faring countries



**GLOBAL FACILITATOR:** UNOOSA plays a leading and facilitating role in the promotion of peaceful uses of outer space



**GATEWAY:** UNOOSA is the UN agency on space matters and coordinates UN activities using space-related technology to improve human conditions globally.

## UNOOSA: the UN home of space

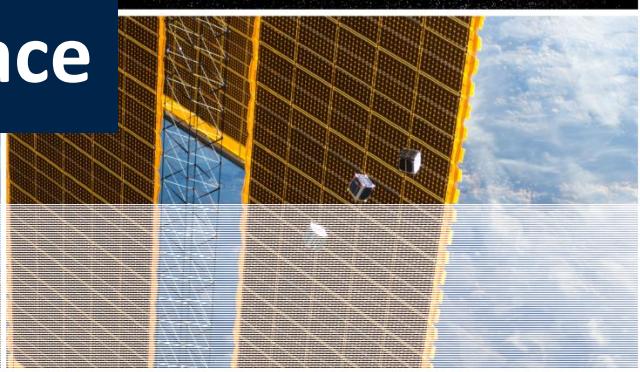
17 PARTNERSHIPS  
FOR THE GOALS



UNOOSA, as the only UN entity dedicated to space affairs, works with a range of partnerships from across the space sector:

- **National Governments** (bilaterally and through the UN Committee on the Peaceful Uses of Outer Space (COPUOS) and the UN General Assembly)
- National and Regional **Space Agencies**
- **Private entities** from across the space sector
- **Civil Society**, including academia and other NGOs
- Other **UN entities** in Vienna, New York, Geneva and in the field.





# (R)Evolution in Space

## (R)Evolution in space

- Total **global space value** –\$384 Billion, estimates in 30 years ranging from \$1 to \$3 trillion
- **Private companies** are **major drivers** in the space sector
- **Growing dependency** on space infrastructure
- Number of **space actors growing rapidly**
- Global space governance of **COPUOS** and **UNOOSA** will continue to serve as forum to discuss changes and solutions to the regulatory framework of the space environment.
- **Growing need** to keep space environment stable and sustainable.
- **COPUOS membership growing** at a quick pace
  - 87 Member States + 5 new Member States in 2019, a 20% increase over the last five years and one of the fastest growing UN Committees.
  - Currently COPUOS Member States collectively represent over 6 billion people

**Space is a “global commons”:** The advancements of space technology benefit all member states of the UN in one way or another.

## UN perspectives: future space trends

- Space is climbing to the **top of political agendas around the world**.
- Non-space faring nations have **access to critical space infrastructure** without owning them.
- Renewed energy towards the maintaining **effective governance** of space with developments through entities such as COPUOS and UNOOSA.
- We need to bring **the private sector** to the table when addressing such regulatory developments
- With clear set of rules, a good organization and effective global space governance, **space economy** can reach its **full potential**



# UNISPACE+50

- UNISPACE+50 included a **symposium**, a **COPUOS High- level segment**, side events, and a week-long exhibition.
- Major step for global space governance and towards the successful fulfilment of **SDG targets and Space2030**
- **800 participants** from across the international space sector

UNISPACE  
+50



## HIGHLIGHTS

**30 head or high ranking representatives of Space Agencies attended**

**UNOOSA signed several agreements with governments, space agencies and private companies**

**Live in-flight call with astronauts on the International Space Station**

Space agencies to support elaboration of “Space2030” and are keen on working with the United Nations



UNISPACE  
+50

United Nations could provide an appropriate framework for more frequent high-level meetings of the worldwide Space Agencies



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**Dedicated resolution endorsed by COPUOS for adoption at the 2018 UNGA, inviting MS to develop the “Space2030”**



**UNISPACE**  
**+50**

**UNOOSA signed agreements**  
with governments, space agencies and private companies

# UNISPACE+50 result: the Space2030 agenda

- Crucial to **underpin the mutual benefits** that space provides to humankind worldwide
- Outline a comprehensive and inclusive long-term vision for space.
- First document of this magnitude dealing with space activities **in support of three global frameworks**
- Special focus on **non-state actors** as major drivers of the future space sector
- Aim to **strengthen international cooperation** in the peaceful uses of outer space to bridge the space divide

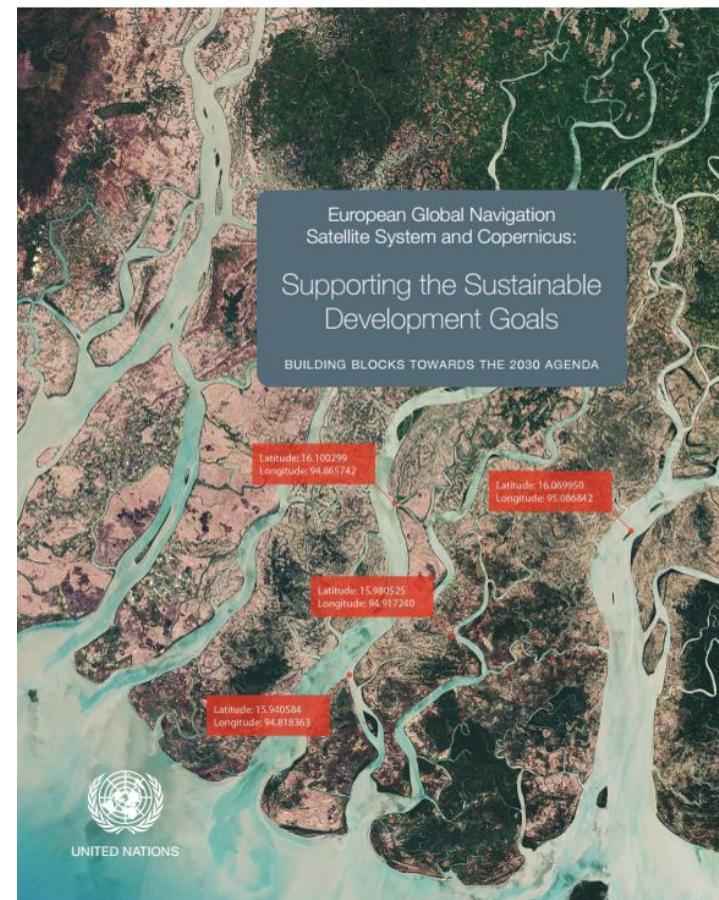


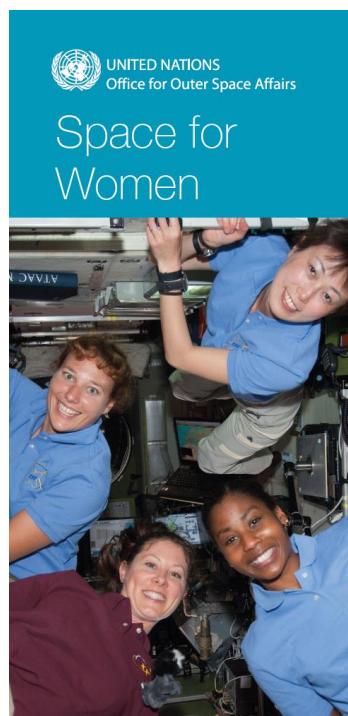
## UNOOSA Publication

### Supporting the Sustainable Development Goals: Building blocks towards the 2030 agenda

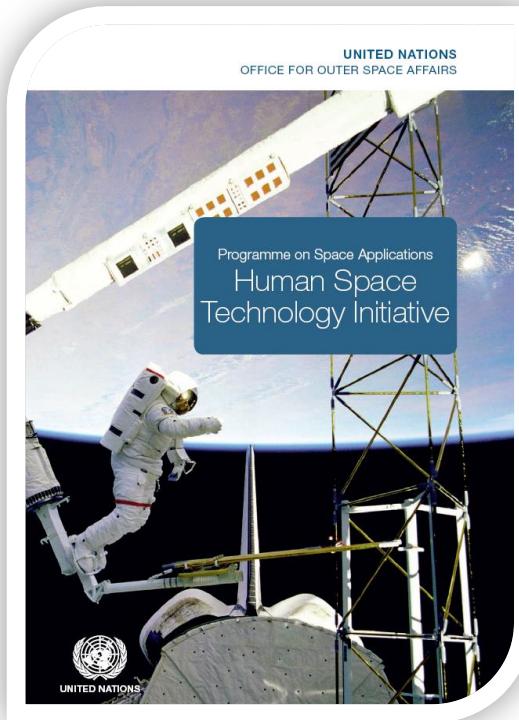
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- In January 2018, UNOOSA and European GNSS Agency (GSA) published a report that investigates the role of space technologies in fulfillment of SDGs
- Research found that 65 of the 169 SDG targets (**almost 40%**) are reliant on Copernicus and EGNSS space systems.
- This report is **supported by 38 cases and best practices** exemplifying how space technologies contribute to achieving the SDGs
- If these practices were implemented on a larger scale, they would contribute to the achievement of **SDG targets ahead of their deadlines**





## UNOOSA and the SDGs



Space is a **cross-cutting technology**, contributing in one way or another to the achievement of **all 17 SDGs**



# UNOOSA programmes and projects: UN-SPIDER



## Knowledge Portal

The UN-SPIDER Knowledge Portal is a web-based tool for information, communication, data and supporting the use of space-based science, technology and data for disaster risk reduction and emergency response



## Fostering Cooperation

UN-SPIDER fosters alliances and creates forums where both space and disaster management communities can meet



## Capacity Building

UN-SPIDER facilitates capacity building and institutional strengthening, including the development of curricula and an e-learning platform (e-SPIDER)



## Technical Advisory Support

UN-SPIDER provides support to countries in assessing national capacity and in evaluating disaster and risk reduction activities, policies and plans

## UN-SPIDER Case Study: Vietnam

- 2013 – UN-SPIDER Technical Advisory Mission
- 2014 – Follow up (Geospatially Enabling Communities Collaboration)
- 2018 – UN-SPIDER/UNOOSA support to produce:
  - Establishment of Geoinformatics Division
  - MoU between WRD - VAST – JAXA to benefit Disaster Management
  - SOPs for emergency mapping



## Access to Space for All: opening space to everyone

### Research:

- ZGIP-Zero Gravity Instrument Project
- DropTES experiments



### Access to the ISS:

- KiboCUBE
- Airbus



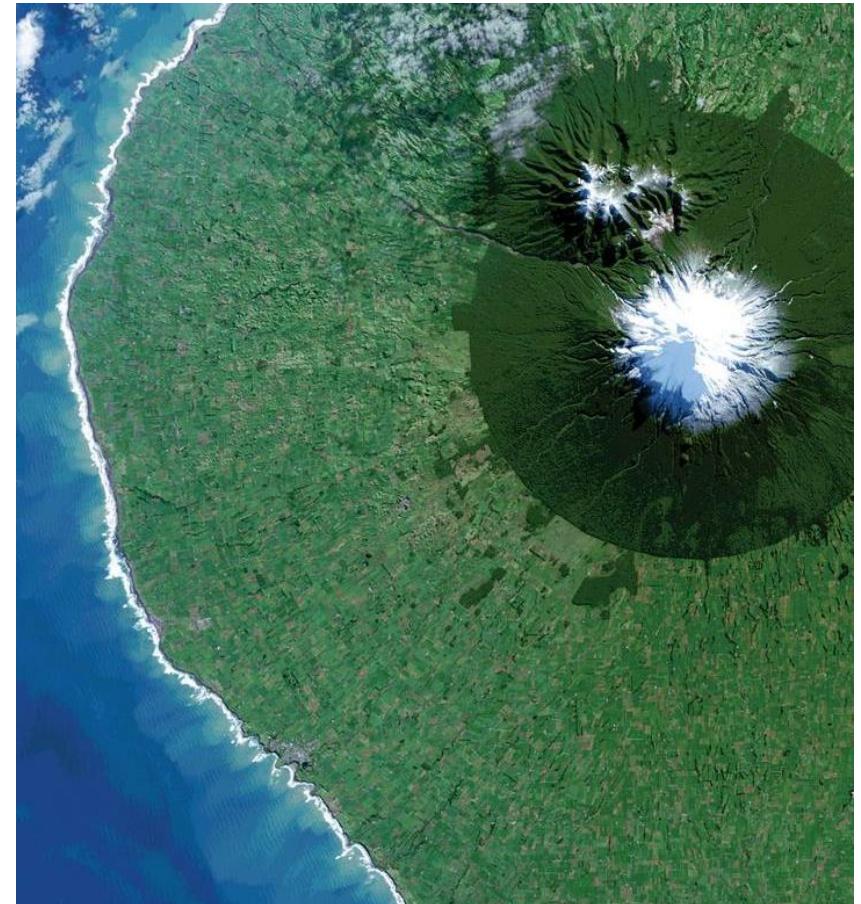
### Orbital Opportunities:

- Sierra Nevada Corporation
- Chinese Space Station



## Space Solutions for the Pacific

- Project objectives:
  - Link space users and space solution providers;
  - Raise awareness of the needs of developing countries;
  - Contribute to the planning of future global space development such as the “Space2030” agenda.
  - Strengthen UNOOSA links with Pacific Island Countries and other key regional stakeholders.
- Initial phase will run from October 2018 – November 2019.
- Deliverable: a publicly accessible space user needs report and space for development profiles drafted for Pacific Island Countries



# UNOOSA partnering across the UN

Recent highlights:

**Executive Office of the Secretary General (EOSG):**

October 2018, UNOOSA invited to join core ‘Reference Group’, responsible for supporting implementation of the Secretary General’s UN-Wide ‘New Technologies’ strategy

**Department of Economic and Social Affairs (DESA):**

In 2018, UNOOSA participation at STI Forum and the High Level Political Forum (HLPF) in New York.

*Next joint activity, December 2018, DESA Expert Group Meeting on “Role of public institutions on the transformative impact of new technologies”, convened by the Digital Government Branch (DGB), Division for Public Institutions and Digital Government (DPIDG).*

# UNOOSA and the Belt and Road Initiative

June 2018, UNOOSA/China National Space Administration (CNSA) signed a declaration of intent to cooperate on the Belt and Road ‘Space Information Corridor’ to achieve the SDGs using space technology and its applications.

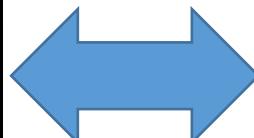
The declaration outlines joint efforts to support countries along the Belt and Road, and other developing countries, through UNOOSA/CNSA cooperation on :

- Access data and data sharing for monitoring SDG indicators.
- Development integrated space solutions for sustainable development.
- Access to ground and in-orbit space facilities.
- Capacity building on satellite-related technologies development.



## UNOOSA and global space partnership

- Within its current mandates, UNOOSA is building the components to lead a global partnership for the SDGs.
- A multi-stakeholder partnership, complementary to the Global Partnership for Sustainable Development.
- To expand upon the existing links between space and the SDGs, and streamline the efforts of the space community in helping countries achieve the SDGs.



# UNOOSA Open-Source Information Platforms

- UN-SPIDER Knowledge Portal:  
Space4DisasterManagement

[un-spider.org](http://un-spider.org)

- Space4Water Portal in collaboration with Prince Sultan Bin Abdulaziz International Prize for Water. *Launched in October 2018*

[space4water.org](http://space4water.org)

- Space4SDGs Portal (Under Construction)

[space4sdgs.org](http://space4sdgs.org)

- Space Solutions Compendium (Open Database) – in collaboration with ESA
- Global space user need repository – Under Planning



## UNOOSA Space4SDGs events

- 24-27 April 2019, Changsha, UN/China Forum on Space Solutions: Realizing the Sustainable Development Goals. Featured with match-making among space users and providers.
- Co-organized by UNOOSA and the China National Space Administration (CNSA), the Forum will also contribute to the Belt and Road Initiative to benefit countries along the Belt and Road.

*Apply for the event via:*

<http://www.unoosa.org/oosa/en/ourwork/psa/schedule/2019/2019-un-china-forum-on-spacesolutions.html>



# THANK YOU



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