

**The Office for Outer Space Affairs
bringing space-based tools and
applications at the heart of the 2030
Agenda for Sustainable Development**

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United Nations Office at Vienna

www.unoosa.org



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The United
Nations Office
for Outer
Space Affairs
– Who are we?

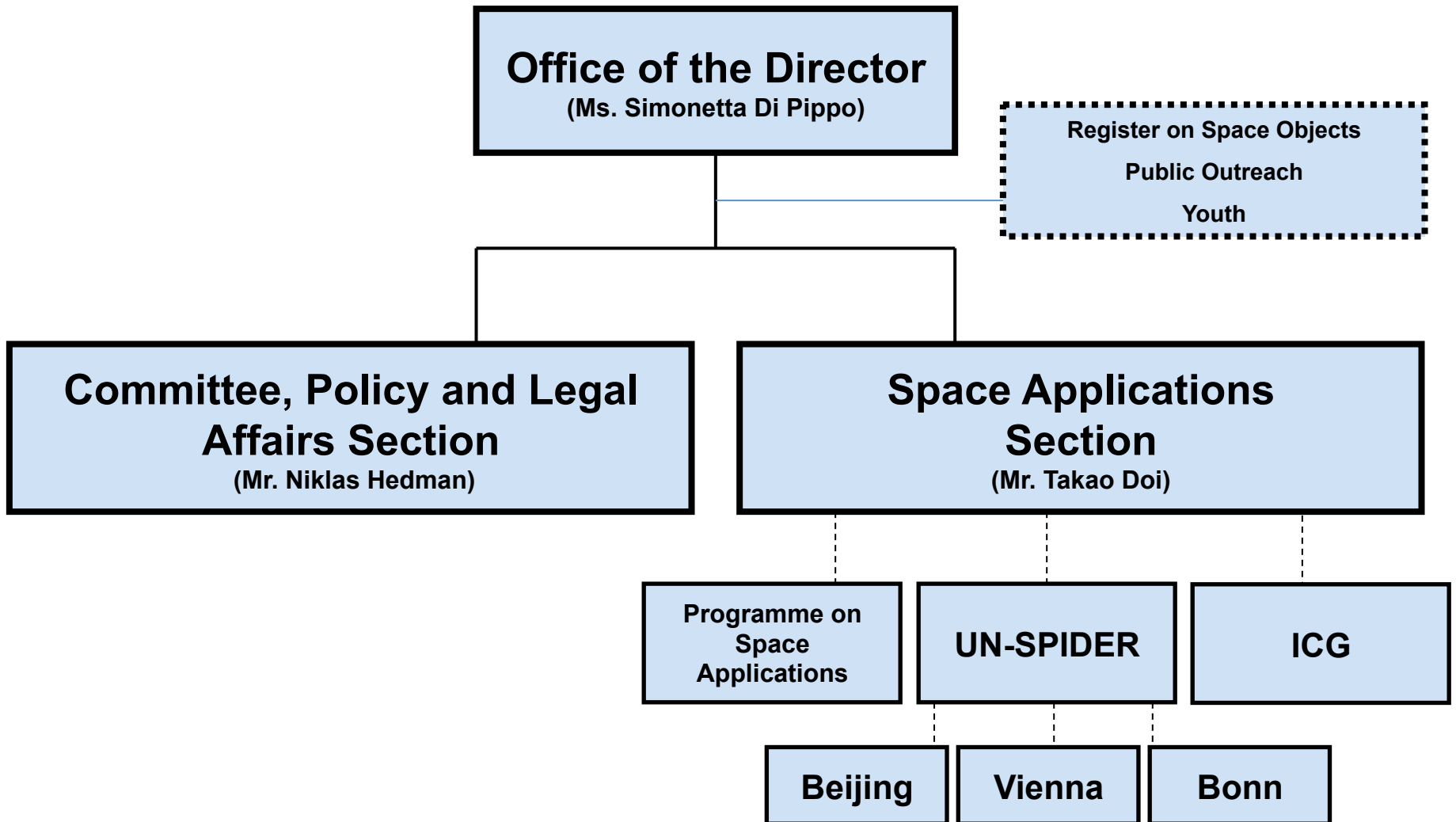


United Nations Office for Outer Space Affairs: Mandate

- The Office **implements** the decisions of the **General Assembly** and of the United Nations **Committee** on the Peaceful Uses of Outer Space (COPUOS);
- Performs **functions** of substantive **Secretariat** of the Committee on the Peaceful Uses of Outer Space and its Scientific & Technical Subcommittee and Legal Subcommittee;
- **Coordinates** the inter-agency coordination within the United Nations on the use of space technology (**UN-SPACE**);
- **Maintains** coordination and cooperation with space agencies and intergovernmental and non-governmental organizations involved in space-related activities;
- **Implements** the United Nations **Programme on Space Applications**;
- Is **responsible for** the implementation of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (**UN-SPIDER**) programme;
- Maintains the **Register of Objects Launched into Outer Space** as per the Convention on Registration of Objects Launched into Outer Space which was enacted in 1976.



OOSA structure





Committee on the Peaceful Uses of Outer Space

- Committee on the Peaceful Uses of Outer Space (COPUOS)
 - Scientific and Technical Subcommittee (STSC)
 - 3 Working Groups (Whole; Use of Nuclear Power Sources in Outer Space; Long-term Sustainability of Outer Space Activities): Expert Groups on space weather; global health
 - Legal Subcommittee (LSC)
 - 3 Working Groups (Status of United Nations Treaties on Outer Space; Definition and Delimitation of Outer Space; and Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space)
- Current issues - Space agenda today:

Space and
climate change

Disaster
Management

Space debris
mitigation

National space
legislation

International
mechanisms for
cooperation

Long-term
sustainability of
outer space activities

Definition and
delimitation
of outer space

Space applications
for socioeconomic
development

Near-Earth
objects

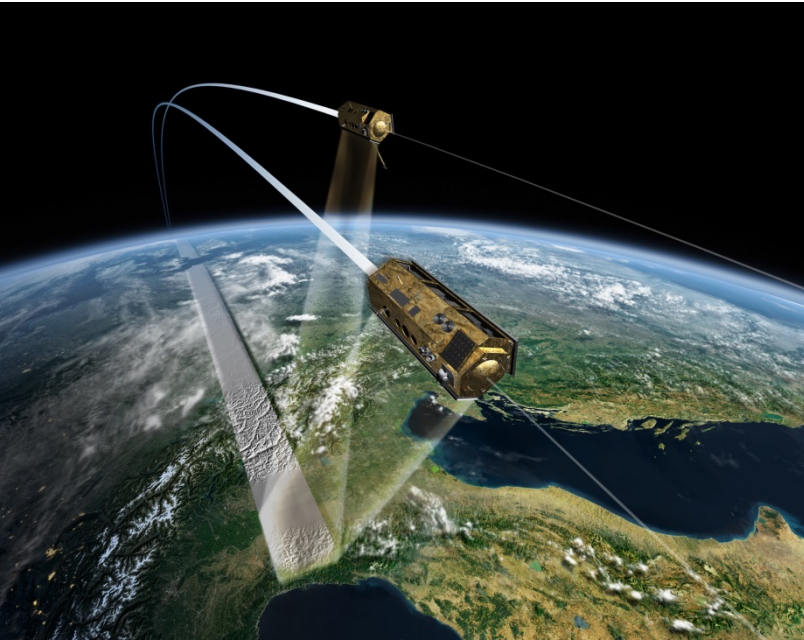
Global Navigation
Satellite Systems

Space
Weather

GGE-report



UN-SPIDER: Mission statement



„Ensure that all countries have access to and develop the capacity **to use all types of space-based information** to support the **full disaster management cycle.**“

General Assembly Resolution 61/110 (2006)



2015: New goals for sustainable development

- March: Sendai Framework for Disaster Risk Reduction
- September: Sustainable Development Goals
- December: New climate change agreement





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14-18 March 2015

Third UN World Conference on Disaster Risk Reduction

187 Member States met in Sendai, Japan to agree on a new global framework for disaster risk reduction for the period 2015-2030





**What is the role
of space
technology in
the Sendai
Framework?**



Added value of EO for DRR

- **cost savings** based on reliable risk information that relies in particular on Earth observations.
- The **combinations of satellite EO data with other sources of data** improve the quality of the information provided to end users, including decision-makers
- Satellite EO offers the **consistent coverage and scope to provide a synoptic overview** of large areas, repeated regularly
- Satellite EO can be used to **compare risk across** different countries and time scales
- EO data can be used to **represent complex dynamics and processes** through detailed, unbiased and up-to-date risk maps and models.
- Satellite data offers a **unique means to monitor the progress of the implementation of the post-2015 Framework** for Disaster Reduction, using globally comparable metrics.



Priority 1: Understanding disaster risk

National and local levels

- 24(c) Develop, update periodically and disseminate, as appropriate, location-based disaster risk information, including risk maps, to decision makers, the general public and communities at risk to disaster in an appropriate format by **using, as applicable, geospatial information technology**;
- 24(f) Promote real-time access to reliable data, **make use of space and in situ information**, including geographic information systems (GIS), and use information and communications technology innovations to enhance measurement tools and the collection, analysis and dissemination of data;

Global and regional levels

- 25(c) Promote and enhance, through international cooperation, including technology transfer, access to and the sharing and use of non-sensitive data, information, as appropriate, communications and **geospatial and space-based technologies and related services. Maintain and strengthen in situ and remotely-sensed earth and climate observations. [...]**
- 25(g) [...] **disseminate risk information with the best use of geospatial information technology**; [...]



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UNOOSA's engagement in WCDRR

Promote the potential of
space technologies for
disaster risk reduction



UNOOSA's engagement in WCDRR

- Working session: “Earth observations and high technology to reduce risks”
working session
- Public forum: “New global framework for sharing of space technology and data standards to serve nations’ disaster management needs”
- Working session: „Early Warning“
- White Paper “A global partnership for Earth observation to support nations in their disaster risk reduction efforts”
- White Paper “International network for multi-hazard early warning systems (IN-MHEWS): a multi-stakeholder partnership for promoting a holistic and integrated approach to early warning systems and services for disaster risk reduction and resilience”



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Global partnership



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UN-SPIDER



MEXT
MINISTRY OF EDUCATION,
CULTURE, SPORTS,
SCIENCE AND TECHNOLOGY-JAPAN



UNOSAT
satellite imagery for all
www.unosat.org



UNITED NATIONS
ESCAP
Economic and Social Commission for Asia and the Pacific



Deutsches Zentrum
für Luft- und Raumfahrt
German Aerospace Center



GFDRR
Global Facility for Disaster Reduction and Recovery



Disaster Management Centre



Global partnership: Voluntary commitments

- **Continue facilitating the dialogue among stakeholders** in EO, satellite-based technologies and the global community of DRR experts and policy makers;
- **Serve as a collective source and repository of information** on efforts carried out worldwide by the EO and the satellite-based technology communities, including surveys and guidelines to improve the applications of existing and emerging technology to monitor hazards, exposure and risks;
- **Generate policy-relevant advice** to contribute to the integration of EO and satellite-based technologies into development process and public policies relevant to DRR;
- **Facilitate the use of EO and related satellite-based technology** to monitor progress in the implementation of the post-2015 framework for DRR.



Global partnership: A synergy framework for the integration of Earth observation into disaster risk reduction

- **Commitment of partners** involved in space, satellite technology and other Earth observation technologies to work together **to respond to the requirements** of the global DRR community to implement the post-2015 framework for DRR.
- The definition of the priority actions **will be refined following the Sendai conference** in consultation with national and international stakeholders. The partners are committed to work within a synergy framework, open to partners, providers and users equally, so that **specific requirements and user needs can find a collaborative response by mobilising the potential of all EO expertise available globally.**
- The activities can be: technical, scientific, national capacity building, data and information policy, etc.



25-27 September 2015

United Nations Summit on Sustainable Development Goals

People

end poverty and hunger and to ensure that all human beings can fulfil their potential in dignity and equality and in a healthy environment.

Planet

protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change.

Prosperity

all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.

Peace

foster peaceful, just and inclusive societies which are free from fear and violence.

Partnership

mobilize the means required to implement this Agenda.





What is the role
of space
technology in
the Sustainable
Development
Goals?





Space and Sustainable Development

- TRANSFORMING OUR WORLD: THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT
 - 17 Sustainable Development Goals
 - a plan of action for people, planet and prosperity
 - seeks to strengthen universal peace in larger freedom
 - recognises that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development

“The spread of information and communications technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies, as does scientific and technological innovation across areas as diverse as medicine and energy”



Sustainable Development Goals: the relevance of space technology



Direct

Indirect



COP 21, December 2015

In Paris, France, Member States will decide on a new international agreement on the climate, applicable to all countries, with the aim of keeping global warming below 2°C



International Academy of Astronautics (IAA) Heads of Space Agencies Summit, 18 September 2015, Mexico City

Draft Declaration states that satellite observations are an essential tool for:

- understanding the evolution of our climate;
- informing mitigation efforts;
- helping develop adaptation strategies on local and regional scales;
- direct monitoring of forest management and GHG emissions; and
- key element of a global measuring system aimed at verifying the reality of commitments



Future of UNOOSA: High Level Forum Preparatory meeting 19 November 2015

- Space economy that creates and provides value
 - Space creating economic growth and new markets
 - The importance of space activities for economic sustainable development
- Space society in a social sustainable environment
 - Benefitting of and social attention to state-of-art technologies and space based services
 - Extension of the socio-economic prospects and evolving social setting
- Space accessibility for the benefit of every human being
 - Capacity-building and enhanced access to space for everyone
 - Tools and platforms to facilitate more open and free access to and exchange of space-based data and information
 - More attention of the Governments to regulatory and legislative actions
- Space diplomacy to establish knowledge-based international partnerships
 - Cooperation in space can improve international relations
 - Use of space for improving international relations



Future of UNOOSA: UNISPACE+50

- In 2015 the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS, for which UNOOSA is the Secretariat), adopted the **UNISPACE+50 initiative**
- UNISPACE+50 seeks to **develop stronger space governance and supporting structures at all levels**
- It builds on the **2030 Agenda for Sustainable Development**
- UNISPACE+50 will consider ways and means for **strengthening the role of the UNOOSA** and the Committee within the United Nations system and the global space community
- It prioritises improved governance, capacity-building, resilience, interoperability of systems and space for sustainable development.

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Thank You

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