

**Space technologies for the post-2015
development agenda
– UN processes and UNOOSA's role**

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The United Nations Office for Outer Space Affairs

– Who are we?

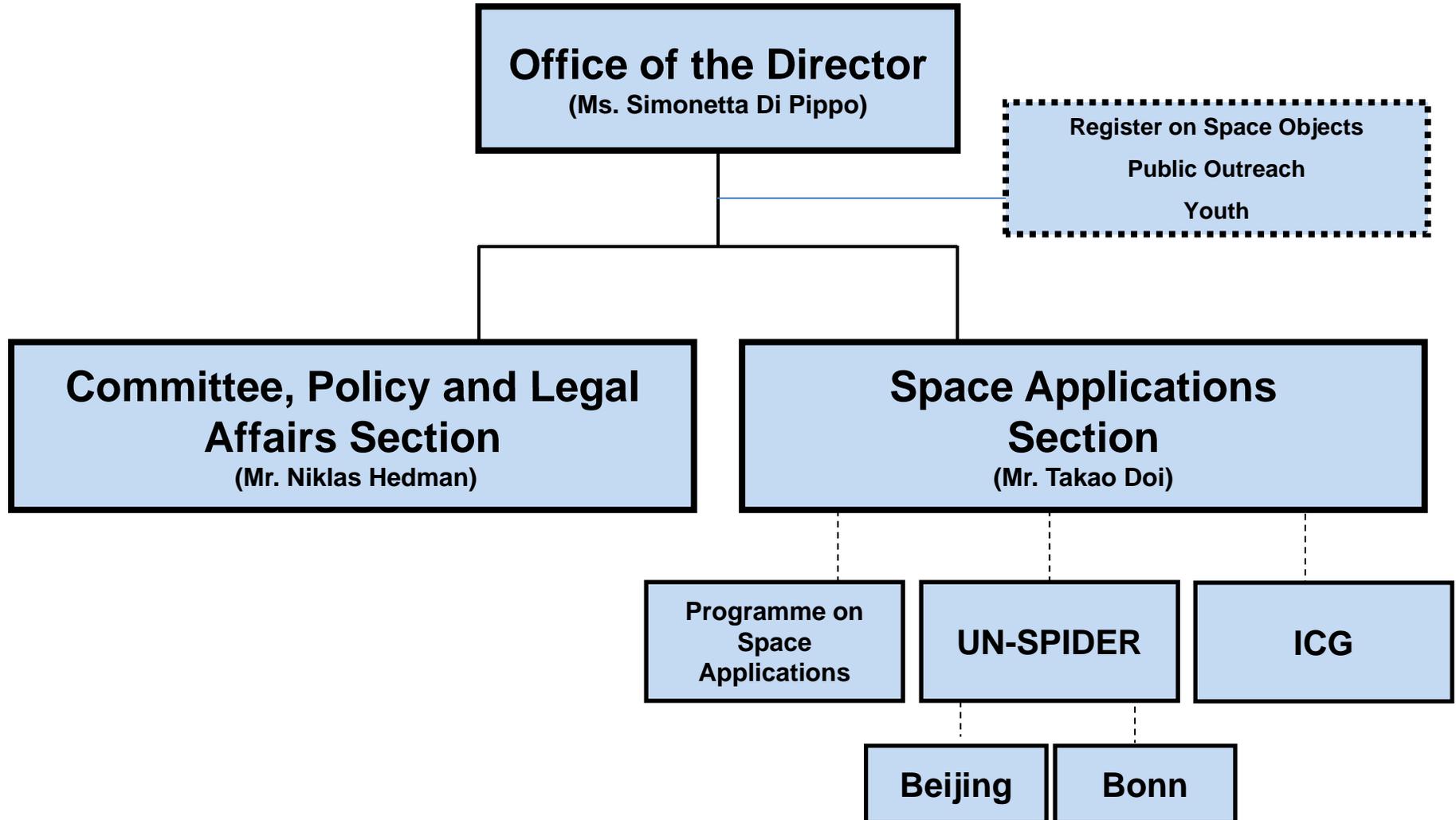


United Nations Office for Outer Space Affairs: Mandate

- 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



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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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ESCAP
Economic and Social Commission for Asia and the Pacific



DLR
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.



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25-27 September 2015

United Nations Summit on the Sustainable Development Goals

In New York, USA, Member States will agree on a new set of goals to replace the Millennium Development Goals





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



Space and Sustainable Development

- United Nations Conference on Sustainable Development (Rio+20)
 - Outcome document: “The Future We Want” [GA resolution 66/288]
 - High-level Representatives of States and Governments expressed their conviction of:

§274 [...] **the importance of space-technology-based data**, in situ monitoring and reliable geospatial information **for sustainable development** policymaking, programming and project operations. In this context, we note the relevance of global mapping and recognize the efforts in developing global environmental observing systems, including by the Eye on Earth Network and through the Global Earth Observation System of Systems. We recognize **the need to support developing countries** in their efforts to collect environmental data.



Sustainable Development Goals: the relevance of space technology



 Direct

 Indirect



UNOOSA's engagement in the context of the SDGs

Efforts to promote the use of space-based applications to:

- **Monitor the environment (land, oceans)**
- **Development in urban / rural areas**
- **Applications in agriculture, ecosystems, etc**



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30 November – 11 December 2015

COP 21

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



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**Climate Change
agreement:
No explicit role for
space technologies
in the official draft
yet**



UNOOSA's engagement in the context of climate change

Efforts to promote the use of space-based applications in:

- **Essential climate variables (ECVs), work already advanced**
- **Mitigation, work already advanced**
- **Adaptation, in process**
- **Loss and Damage, in process**

And to contribute to monitor the implementation of the new climate change



Moving ahead strategically

- **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



Conclusion

- The Millennium Development Goals have been the most aspirational ambitions of modern society so far. Some countries achieved many goals, while others are not on track.
- With the fast approaching 2015 target date for Millennium Development Goals, focus is shifting to the post-2015 development agenda, where “Global Sustainable Development” not only implies the use of space tools, but also requires that space-related activities as well as outer space itself continue to be sustainable in the long-term.
- To contribute to the fulfilment of the Sustainable Development Goals, the Office uses a multi-dimensional approach ranging from capacity building to being a gateway to space information for disaster management and emergency response.
- Strategic choices will be mandatory in this respect, with consideration given to driving strategy pillars, such as space economy, space society, space accessibility, and space diplomacy.

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Thank You

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