

## **United Nations/Austria Symposium**

"Space: A Tool for Accessibility, Diplomacy and Cooperation"

## Programme

Graz, Austria, 2 – 4 September 2019

Organized by

The United Nations Office for Outer Space Affairs

Co-organized by

The Government of Austria

With the support of

JOANNEUM RESEARCH Forschungsgesellschaft mbH, Graz University of Technology, AUSTROSPACE, City of Graz, State of Styria, Austrian Federal Ministry for Transport, Innovation and Technology, Austrian Federal Ministry Europe, Integration and Foreign Affairs,

NPOC Space Law Austria, European Space Agency (ESA) and German Aerospace Center (DLR)

#### Honorary Committee (in alphabetical order):

S. Di Pippo Director, Office for Outer Space Affairs, United Nations

P. Ehrenfreund Chair of the Executive Board, DLR

H. Kainz Rector of Graz University of Technology

M. Kowatsch President, AUSTROSPACE, Austria

J-Y. Le Gall Director, CNES

S. Nagl Mayor, City of Graz, Austria

W. Pribyl CEO, JOANNEUM RESEARCH, Austria

I. Schädler Director, Ministry for Transport, Innovation and Technology, Austria

H. Schützenhöfer Governor, Federal State of Styria, Austria

G. Sellner Ambassador, Ministry for Europe, Integration and Foreign Affairs, Austria

J. Wörner Director General, ESA

#### Programme Committee (in alphabetical order):

J. Del Rio Vera UNOOSA
I. Duvaux-Béchon ESA

M.H. Fuchs Ministry for Europe, Integration and Foreign Affairs
A. Kleinsasser Ministry for Transport, Innovation and Technology

O. Koudelka JOANNEUM RESEARCH and Graz University of Technology

I. Marboe University of Vienna and NPOC Space Law AustriaM. Mischkulnig Ministry for Transport, Innovation and Technology

Y. Okumura UNOOSA

J. Ortner International Space University

L. St-Pierre UNOOSA

C. Steinkogler University of Vienna and NPOC Space Law Austria

I. Vlachopoulou UNOOSA

#### Local Organizing Committee (in alphabetical order):

A. Fuchs-Fehringer Graz Tourism
N. Hofer City of Graz

O. Koudelka JOANNEUM RESEARCH and Graz University of Technology

D. Müller JOANNEUM RESEARCH M. Schaffer JOANNEUM RESEARCH

#### General Information

The UN/Austria Symposium is one of the long-standing activities that are performed under the Programme of Space Applications of the United Nations Office for Outer Space Affairs. It has been organized in Graz since 1994, marking this year the 25<sup>th</sup> anniversary of the first Symposium entitled "Enhancing Social, Economic and Environmental Security through Space Technology". Since then, more than 2,000 participants have attended the Symposiums.

The Symposiums have had several themes, from security to youth, and to space industry, with the latest on the use of space for the Sustainable Development Goals. On the occasion of the 25<sup>th</sup> anniversary, it is time to look back at the recommendations and achievements of the Symposium series.

The topic proposed for this year is "Space: A tool for Diplomacy, Cooperation and Development". The duration of the Symposium will be 2.5 days, from 2 to 4 September.

It will build upon the past 24 years of UN/Austria Symposiums, using two of the four pillars of the UNISPACE+50 and Space2030<sup>1</sup> process to structure the sessions, namely, Space Diplomacy and Space Accessibility:

- Space Diplomacy aims at providing a view of how space functions as a tool for cooperation and diplomacy. It is expected that presentations will also cover space-related policies relevant to cooperation and development. Therefore, two sessions with roundtable discussions to engage the audience will be held on this topic.
- Space Accessibility aims at providing a view on user needs and solutions. The block devoted to solutions will be split in two parts, namely space-derived services for development and global solutions for local problems.

Based on the success of last year and following the same approach, the UN/Austria Symposium will encompass the legal and policy aspects together with the technical views.

<sup>1</sup> A/AC.105/1204, Source: https://cms.unov.org/dcpms2/api/finaldocuments?Language=en&Symbol=A/AC.105/1204

#### Objectives

The ultimate goal of the Symposium is to connect the space community with the diplomatic community that is now preparing the Space2030 Agenda for the years to come. The objective is to foster dialogue between the diplomatic community and those communities using space, as well as promoting and advancing knowledge on space related activities and services as a tool for diplomacy and cooperation, to stimulate access to space related services that are available and accessible by different countries.

The individual objectives are the following:

- To discuss the role of UNOOSA in implementing capacity-building activities, particularly in developing countries.
- To raise awareness in the diplomatic community on available space-related activities, services and cooperation programs.
- To enable discussion on the use of space-related technologies for development and cooperation.
- To explore available services, demonstrating how they can be accessed and used to support development at country level according to the national priorities and the Sustainable Development Goals.
- To showcase space-related services/applications/facilities and policies and how they are used in different countries.

#### Programme of the Symposium

The program is designed to cover the aforementioned objectives and deliver the expected outputs. Sessions might be added or modified depending on the availability of speakers.

The programme includes plenary sessions and sufficient time for discussions among participants to identify the priority areas where pilot projects should be launched and examine possible partnerships that could be established. The programme is as follows. Please note that is a draft version and the order of speakers and split in sessions may be subject to some changes:

# Monday, 2 September 2019 Morning

08:30- 09:00	Registration of Participants
--------------	------------------------------

Morning Session	Welcome Addresses & Welcome Ceremony Moderators: Otto Koudelka / Irmgard Marboe	
09:00-10:00	Local music and welcoming speeches by organizers	
10:00-10:05	Group Picture	
Morning Session	Keynote Speech	
10:05-10:20	Keynote Speech: Setting the Scene	
	Simonetta Di Pippo	
	United Nations Office for Outer Space Affairs  Panel Session: 25 Years of UN/Austria Symposium	
Morning Session	Moderator: Jorge Del Rio Vera/ Rapporteur: Yukiko Okumura	
10:20-11:25	Maria Helene Fuchs – Federal Ministry for Europe, Integration and Foreign Affairs	
	Niklas Hedman – <b>United Nations Office for Outer Space Affairs</b>	
	Andrea Kleinsasser – Federal Ministry for Transport, Innovation and Technology	
	Otto Koudelka – Graz University of Technology	
	Irmgard Marboe – NPOC Space Law Austria	
	Stephan Mayer - Austrian Research Promotion Agency, Aeronautics and Space Agency	
11:25- 12:00	Coffee Break – Ice Breaker	
	Colours for badges - 15 groups — UNOOSA supervise  Group getting all the colours (or same colours)	
	Space Diplomacy: Space as a Tool for Cooperation and Development (Round Table)	
Morning Session	Strengthening COPUOS and its subcommittees	
g session	Moderator: Niklas Hedman / Rapporteur: Jorge Del Rio Vera	
12:00-12:45	Marius Ioan Piso – Chair of the Committee on the Peaceful Uses of Outer Space (2020-2021)	
	Andre Rypl – Chair of the Committee on the Peaceful Uses of Outer Space (2019)	
	Pontsho Maruping – Chair of the Scientific and Technical Subcommittee (2018-2019) – COPUOS	
	Andrej Misztal – Chair of the Legal Subcommittee (2018-2019) – COPUOS	
Awni Moh'd Khasawneh – Chair of the Space2030 Agenda Working Group		
	Dumitru-Dorin Prunariu— Vice-Chair of the Space2030 Agenda Working Group	
12:45-13:45	Lunch Break	

### Monday, 2 September 2019 Afternoon

Afternoon Session	Space Diplomacy: Space as a Tool for Cooperation and Development Facilitators: Irianna Vlachopoulou, Jorge Del Rio Vera / Rapporteur: Yukiko Okumura		
13:45-15:55	(Interactive session)		
	4 groups – 3 questions		
15:55-16:15	Coffee Break		
Afternoon Session	Keynote Speech		
16:15-16:30	Space Climate Observatory		
	Laurence Monnoyer-Smith Centre National d'Etudies Spatiales (CNES)		
Afternoon Session	Space Accessibility: User Needs  This session is organized around mini-sessions to give visibility to a set of selected topics		
Arternoon Session	Moderator: Joachim Post / Irianna Vlachopoulou Rapporteur: Jorge Del Rio Vera		
16:30-17:00	Space for Small Island Developing States (SIDS)		
	Irianna Vlachopoulou – United Nations Office for Outer Space Affairs		
	Wolf Forstreuter – Pacific Community (SPC)		
Mohamed Shareef - Ministry of Communication, Science and Technology, Republic of M			
	Q&A (15 mins)		
17:00-17:30	Space for Agriculture		
	Yeshey Choden – Ministry of Information & Communications (Bhutan)		
	Michal Babacek – European Global Navigation Satellite Systems Agency		
	Dumitru-Dorin Prunariu – <b>Romanian Space Agency</b>		
	Q&A (15 mins)		
17:35-18:00	Space for Inclusiveness		
	Beatriz Garcia – Institute on Detection Technologies and Astroparticles (Argentina)		
	Claudia Kessler – Die Astronautin (Germany)		
	Clementine Decoopman – Space Generation Advisory Council		
	Q&A (15 mins)		
18:00	Closure		

18:10	Transfer to the City Centre	
18:25	Guided Tour through the Old City of Graz	
	Andreas-Hofer-Platz	
20:00	Reception hosted by the Mayor of the City of Graz, Mayor Siegfried Nagl	
	Assembly Hall of the City Parliament of Graz	

### Tuesday, 3 September 2019 Morning

08:3	30-09:00	Registration of Participants
------	----------	------------------------------

	Constant Association Uses New York 11	
Manustra - Caratan	Space Accessibility: User Needs (continuation)	
Morning Session	This session is organized around mini-sessions to give visibility to a set of selected topics	
09:00-09:30	Moderator: Laurence Monnoyer-Smith / Irianna Vlachopoulou Rapporteur: Jorge Del Rio Vera  National Space Law	
09.00-09.50		
	Edgar Khachatryan – Security Council Office of the Office of the RA Prime Minister (Armenia)	
	Yukiko Okumura – United Nations Office for Outer Space Affairs	
	Peerapat Akarakupt - Geo-informatics and Space Technology Development Agency (Thailand)	
	Q&A (15 mins)	
09:30-10:00	Disaster Management and Emergency Response	
	Alejandro Jose Roman Molinas – Paraguay Space Agency	
	Armin Schuller – Permanent Mission of Canada to the United Nations	
	Omid Shekoofa – Iranian Space Research Center	
	Joachim Post – German Aerospace Center	
	Q&A (15 mins)	
Morning Session	Keynote Speech	
10:00-10:20	Keynote Speech: Space research and technology for sustainable development	
	Pascale Ehrenfreund	
	German Aerospace Center	
10:20-10:50	Coffee Break / Poster Session	
	Space Accessibility: Space-Derived Services for Development	
Morning Session	Moderator: Irianna Vlachopoulou / Rapporteur: Yukiko Okumura	
10:50-11:05	The European Space Agency Catalogue of Solutions for the SDGs	
	Isabelle Duvaux-Bechon	
	European Space Agency	
11:05-11:20	Research Capacity for the Evolution of Copernicus – boosting the Copernicus academy	
	Barbara Riedler	
	Copernicus Academy	
11:20-11:35	Space Diplomacy: A tool for sustainable development in Sub-Saharan Africa	
	Bamanga Adamou Oumarou	
	Ministry of External Relations Cameroon	
11:35-11:50	Dynamics of Space-based Collaborative Projects	
	Etim Offiong	
	African Regional Centre for Space Science and Technology Education in English (Nigeria)	

11:50:12:05	Novel Satellite Architectures for Very Low Latency EO Data Products that Meet Societal Needs  Murray Kerr  Elecnor Deimos
12:05:12:20	Student initiatives and international collaboration: a launchpad for future space engineers  Moritz Novak  TU Wien Space Team
Demo session	
12:20-13:00	Space Solutions Compendium: Requirement Gathering Nina Kickinger / Isabelle Duvaux-Bechon UN Office for Outer Space Affairs / European Space Agency
13:00-14:00	Lunch Break

### Tuesday, 3 September 2019 Afternoon

14:00-14:30	sonoUno, data exploration through the sonorization: an opportunity of multiple learning Beatriz Garcia Institute on Detection Technologies and Astroparticles (Argentina)	
Afternoon Session	Space Accessibility: Global Solutions for Local Problems  Moderator: Isabelle Duvaux-Bechon / Rapporteur: Irianna Vlachopoulou	
14:30-14:45	The diversity of applications in free use of CBERS series satellite images for local problem solving in  Brazil  Henrique Fernandes Nascimento  Brazilian Space Agency	
14:45-15:00	High resolution space borne image data for documentation of coastal and low island change Wolf Forstreuter Pacific Community (SPC)- Geoscience, Energy and Maritime Division Geoinformatics	
15:00-15:15	Capacity-Building in Education of Space Education in Regional Centre for Space Science and  Technology Education in Asia and the Pacific  Tian Jin  Electronic Information and Engineering School at Beihang University (China)	
15:15-15:30	Protecting animals before harvesting from UAV and GNSS  Jakub Karas  Upvision	
15:30-15:45	Actionable EO-based information for humanitarian and development intervention at local scale –  experiences from working with NGOs  Lorenz Wendt  University of Salzburg (Austria)	
15:45-16:00	EGNOS and Galileo: Free and Open Services improving our Lives  Michal Babacek  European GNSS Agency	
16:00-16:30	Coffee Break / Poster Session	
Demo session		
16:30-17:15	The use of gr-satellites to receive Kenyan satellite 1 KUNS PF  Daniel Estevez  Independent Researcher	
17:15-18:00	Debris Risk Assessment and Mitigation Analysis (DRAMA): Towards Sustainable Use of Outer Space Stijn Lemmens European Space Agency	
18:00	Closure	

18:00	Transfer to the Hotel	
19:00	ransfer from the Hotel to the Centre of Graz - Burgring	
19:30	Reception hosted by the Governor of Styria, Governor Hermann Schützenhöfer Staterooms of Grazer Burg	
21:30	Transfer to hotel from Burgring	

# Wednesday, 4 September 2019 Morning

08:30-09:00	Registration of Participants
-------------	------------------------------

Morning Session		
09:00-09:15	Space for Water Portal Nina Kickinger United Nations Office for Outer Space Affairs	
Demo session		
09:15-10:00	Quick Guide on Access to Space for All: How to apply Jorge Del Rio Vera United Nations Office for Outer Space Affairs	
10:00-10:15	Coffee Break / Poster Session 3	
Morning Session	Round Table: Accessing Space in the 21 <sup>st</sup> Century  Moderator: Jorge Del Rio Vera / Rapporteur: Cordula Steinkogler	
10:15-11:45	Luc St-Pierre - United Nations Office for Outer Space Affairs  Akihiro lwaki – Permanent Mission of Japan to the United Nations in Vienna  Otto Koudelka – Technical University Graz  Luis Diego Monge Solano - Central American Association for Aeronautics and Space	
11:45	Closing Ceremony	
13:00-14:00	Lunch	
14:00	Transfer to the Hotel	

## Poster Presentations (This section is work in progress)

Title	Presenter
	Hannes Mayer
Space diplomacy – From Pushinka to KiboCUBE	Competence Centre for Space Law and Space Policy at
	Karl-Franzens-University Graz
Space policy formulation as a strategic tool for improve	Victoria Valdivia
measures of transparency and confidence building on outer	Subdirection of Space Affairs – Operations Directorate
space field	(Chile)