







PROGRAMME

United Nations/United Arab Emirates High Level Forum

"Space as a driver for socio-economic sustainable development"

Organized by the

United Nations Office for Outer Space Affairs

and the

United Arab Emirates

Hosted by the

United Arab Emirates Space Agency and the Mohammed Bin Rashid Space Centre

6 – 9 November 2017

Dubai, United Arab Emirates

Monday, 6 November 2017		
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Venue: Grand H <i>Road</i>	Venue: Grand Hyatt Dubai Hotel Conference Centre, <i>Sheikh Rashid Road, Oud Metha Road</i>	
08:00 – 17:00	On-site registration	
	Opening and welcome remarks	
Gran	d Hyatt Dubai Hotel Conference Centre: Al Ameera Ball Room	
09:00 - 09:30	Welcome and opening addresses	
	■ Mohammed AL-AHBABI, Director General, United Arab Emirates Space Agency	
	■ TBC, Mohammed Bin Rashid Space Centre	
	■ Simonetta DI PIPPO, Director, United Nations Office for Outer Space Affairs	
09:30	Setting the scene, Simonetta DI PIPPO, United Nations Office for Outer Space Affairs	
10:00	Assessing synergies between GNSS and Earth-observation in the development and market penetration of applications, Simonetta DI PIPPO, United Nations Office for Outer Space Affairs and Carlo des DORIDES, European GNSS Agency	
10:25 – 10:45	Coffee Break	
	Session 1: Space Economy	
guarantee acces	otions and arguments on why space is important for society, the need to ss to space activities, and the need for a cooperative regulatory anism for cooperation to ensure the benefits of space for societies.	
Moderator: Andr	re RYPL, Brazil	
Rapporteur: Man	kus WOLTRAN, United Nations Office for Outer Space Affairs	
10:45	■ The Luxembourg SpaceResources.lu Initiative: Vision, Goals, Challenges, Actions, <i>Georges SCHMIT</i> , Luxembourg	
11:00	■ ESA Grand Challenge: A Space 4.0 Initiative, <i>Luca DEL MONTE</i> , <i>ESA</i>	
11:15	"New Space": Private capital and public support enabling growth of a wider array of "Space Players", Paola LEONI, Italy	
11:30	 Enabling the Space Revolution - A Historic Opportunity for Humanity, Rick TUMLINSON, Deep Space Industries 	
11:45	 Community in Space: A Complimentary Campaign to Establishing the Global Framework of Principles and Policies to 	

	Improve the Community to be built in the Space Domain, Jose OCASIO-CHRISTIAN, LLC
12:00	 Global Space Facility 4 Development - GSF4D: Operational CORPUS Fund and Facility to Deliver Commitments for Space2030 towards SDGs, Milind PIMPRIKAR, CANEUS International
12:15	 New Generation Recoverable Satellite - An Advanced Space Platform for Space Environment Utilization, Xin LIU and Chen JIWEI, Tan MEI, CAST, China
12:30	 New Space Industry, Talal AL QAISI, UAE Embassy Trade & Commercial Office
12:45	■ Adnan ALRAIS, MBRSC
13:00 – 14:00	Lunch Break

Session 2: Space Society

The attainment of the goals set by the 2030 Agenda for Sustainable Development with the support of space and how space can be a driver for social and economic sustainable development.

Moderator: Luc ST-PIERRE, United Nations Office for Outer Space Affairs
Rapporteur: Romana KOFLER, United Nations Office for Outer Space Affairs

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14:00	 Human space activities for SDGs, Chiaki MUKAI, Japan Aerospace Exploration Agency
14:15	 The new SpaceLand Center in Mauritius: benefits for Asian and African Countries, Celeste PETRAROLI and Carlo VIBERTI, SpaceLand
14:30	■ Raweewan NUTPRAMOON, Thailand (TBC)
14:45	 UAE space sector contribution to the Sustainable Development Goals (SDGs), Noora AL RAFI and Mariam AL ZAROUNI, United Arab Emirates
15:00	■ Antoine GEISSBUHLER, Switzerland
15:15	■ Global partnership, Giovanni RUM, Italy
15:30	 Geospatial solutions for sustainable development, Bruce MCCARRON, United Nations Development Programme
15:45	 Moon Economic Forum / Lunar Development Initiative, Sebastian STRAUBE, Interstellar Ventures
16:00	 Economic social and legal aspect of space activities in Africa: example of Morocco, Mohamed Said RIFFI TEMSAMANI, Morocco
16:15 – 16:30	Coffee Break

Presentation Session 3: Policies and strategies for promoting sustainable development

(PARALLEL SESSIONS)

Presentation Session 3A: Policies and strategies for promoting sustainable development (in parallel)

Room: Al Ameera 1

Moderator: Sebastian STRAUBE, Interstellar Ventures

Rapporteur: Yeshey CHODEN, Bhutan

16:30	 Considerations on how to maximize the use of space technology in support of the Sustainable Development Goals, Krystal WILSON, Secure World Foundation
16:40	 Remote sensing applications in support of public sector in Lebanon, Ghaleb FAOUR, Lebanon
16:50	 Growing knowledge and experience in space technology in Kazakhstan, Assyl BAKASHEVA, Kazakhstan
17:00	■ The development of satellite communications in Lao PDR, Singthong KHAMONE, Lao PDR
17:10	 Applications of space technology for socio-economic benefits in Mongolia, Damdinsuren AMARSAIKHAN, Mongolia
17:20	 National space policy alignment with SDGs, Naser BIN HAMMAD, UAE Space Agency
17:30	Adjourn
17:30 – 19:30	Side event session Global Partnership

Presentation Session 3B: Policies and strategies for promoting sustainable development (in parallel)

Room: Al Ameera 3

Moderator: Ganiyu AGBAJE, Nigeria

Rapporteur: Zhu ZIHUA, Space Generation Advisory Council

16:30	■ Turkish space program, <i>Kuzu LOKMAN</i> , <i>Turkey</i>
16:40	 Space technology for sustainable development in Sudan - Initiative at University of Khartoum, Rayan IMAM, Sudan
16:50	 Characterization of locations and durations of ionospheric irregularities causing GNSS signals scintillation over the low latitude regions in Africa, <i>Joseph OLWENDO</i>, <i>Kenya</i>
17:00	 Space-based geospatial information for food security, Basuti BOLO, Botswana
17:10	 Application of remote sensing for disaster and social risk management in MENA regions, Iskander TLILI, Tunisia
17:20	■ Abdulla BU SHEHAB, MBRSC
17:30	Adjourn

17:30 – 18:00	(Informal meeting of the sessions moderators/rapporteurs to prepare conclusions and recommendations for the Forum's consideration).
17:30 – 19:30	Side event session Global Partnership

Tuesday, 7 November 2017

Session 4: Space Accessibility

The various factors of access to space, space technology data and facilities, and the importance of joining a global effort in the development of the entire space arena for the benefit of humanity.

Moderator: Michael SIMPSON, Secure World Foundation Rapporteur: Du HUI, United Nations Office for Outer Space Affairs 09:00 Dream Chaser Mission, Luciano SACCANI, Sierra Nevada Corporation's Space Systems 09:15 ■ Taner KODANAZ, Digital Globe 09:30 The Secure World Foundation's Handbook for New Actors in Space: best practices, capacity transfer, and integrating new actors into the governance domain of space, Christopher JOHNSON, Secure World Foundation 09:45 Lessons learned from end users: the Eurisy strategy to connect space and society, Dominique TILMANS, EURISY 10:00 Sustainability and security at sea in the context of the EU's Copernicus Earth observation program, Herman GREIDANUS, European Commission 10:15 Building the foundations for an international and cross-sector collaboration for a sustainable and permanent return to the lunar surface, Angeliki KAPOGLOU, Moon Village Association 10:30 Pete WORDEN, Breakthrough Initiatives 10:45 Khaled AL HASHEMI, UAE Space Agency

Presentation Session 5: Capacity-Building and Information Dissemination (PARALLEL SESSIONS)

Presentation Session 5A: Capacity-Building and Information Dissemination (in parallel)

Room: Al Ameera 1

 $11:00 - 11:\overline{15}$

Moderator: Krystal WILSON, Secure World Foundation

Coffee Break

Rapporteur: Angeliki KAPOGLOU, Moon Village Association

11:15 • Global PPP effort to create small satellites development facilities

	to provide access to space, space technology data and facilities, Milind PIMPRIKAR, CANEUS International
11:25	 Where space can play a role in Bhutan? Yeshey CHODEN, Bhutan
11:35	 Organization of scientific research in international space projects, Denis RAKOV, Russian Federation
11:45	 Artiom ANISIMOV, EOS Data Analytics (TBC)
11:55	 Online launch booking system for small satellites that works, Andrey MAXIMOV, Precious Payload Inc.
12:05	■ The Open Universe Initiative, <i>Paolo GIOMMI</i> , <i>Italy</i>
12:15	 UAE Initiatives towards space capacity-building, Sheikha AL MESKARI, UAE Space Agency
12:25 – 13:30	Lunch Break

Presentation Session 5B: Capacity-Building and Information Dissemination (in parallel)

Room: Al Ameera 3

Moderator: Funmilola OLUWAFEMI, Nigeria

Rapporteur: Rayan IMAM, Sudan

11:15	Maximizing the benefits of the UN Regional Centre for Space Science and Technology Education for SDGs, Ganiyu AGBAJE, African Regional Centre for Space Science and Technology Education, Nigeria
11:25	 SGAC Asia-Pacific's ten-year outline on promoting future space collaboration among the next generation, Zihua ZHU, Space Generation Advisory Council
11:35	 Women as Ambassadors for Space Science Education and Outreach in Nepal, Manisha DWA, Nepal
11:45	 Space Agenda, a social media tool for global space-related events, Halit MIRAHMETOGLU, SpaceAgenda
11:55	 Expanding space accessibility via capability-building and innovation, Danielle WOOD, United States
12:05	 Space for Peace: space technologies as means to achieve the Sustainable Development Goals for a peaceful country, Edgard RODRIGUEZ, Colombia
12:15	■ Amel AMIN, UAE Space Agency
12:25	 Mahmoud HUSSAIN, Egypt's National Authority for Remote Sensing and Space Sciences
12:35 – 13:30	Lunch Break

Session 6: Space Diplomacy

The attention of governments to the need for regulatory frameworks and mechanisms at national, regional and global levels, as well as the role of international mechanisms for cooperation in the peaceful exploration and use of outer space.

Moderator: Kenneth	HODGKINS,	United States of America
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Rapporteur: Niklas HEDMAN, United Nations Office for Outer Space Affairs

13:30	 Improved global space governance and new opportunities for the future, Kuan-Wei CHEN, Canada
13:45	 UNISPACE+50 and beyond, Andre RYPL, Brazil
14:00	 North-South and cross-industry cooperation for space exploitation, Magda COCCO and Isabel ORNELAS, VdA
14:15	 Global partnership for Space Exploration, Miyake MASAZUMI, Japan
14:30	 Space sustainability and global space governance - the potentials of on-orbit servicing operations, Szewai CHIU, United Kingdom
14:45	■ The National Space Policy's overarching principle of space activities contributing to economic growth and socio-economic development, <i>Nomfuneko MAJAJA</i> , <i>South Africa</i>
15:00	 Development of an International Framework Space Weather Services for UNISPACE+50 in the context of the Space2030 agenda, Ian MANN, Canada
15:15	 Long-term sustainability of space activities, Naser AL RASHEDI, United Arab Emirates
15:30	Omran SHARAF, United Arab Emirates
15:45 – 16:00	Coffee Break

Presentation Session 7: International Initiatives and Case Studies (PARALLEL SESSIONS)

Presentation Session 7A: International Initiatives and Case Studies (in parallel)

Room: Al Ameera 1

Moderator: Nomfuneko MAJAJA, South Africa

Rapporteur: Manisha DWA, Nepal

16:00	 Progress of BRICS Remote Sensing Satellite Constellation, Hui JIANG, China
16:10	 Application of spatial information technology in disaster mitigation and disaster relief, Xijin FENG, China
16:20	 Use of satellite images for monitoring and evaluation of development projects and programmes in inaccessible area - Case

	of North Mali, Aboubacar TOURE, UNDP Mali	
16:30	 Monitoring environmental variables and earth system phenomena from space using nanosatellite technology, Kleber NACCARATO, Brazil 	
16:40	 Space as cosmic laboratory, Andrea V. MACCIO, Abu Dhabi NYU 	
16:50	■ Meera ALSHAMSI, United Arab Emirates	
17:00	 Use of space applications, Abdulla AL MARAR, United Arab Emirates 	
17:10	Adjourn	
17:00 – 17:30	(Informal meeting of the sessions moderators/rapporteurs to prepare conclusions and recommendations for the Forum's consideration).	
17:30 – 19:30	Side event session Global Partnership (as needed)	
Presentation Sea	ssion 7B: International Initiatives and Case Studies (in parallel)	
Room: Al Ameero	a 3	
Moderator: Rick	TUMLINSON, Deep Space Industries	
Rapporteur: Bas	uti BOLO, Botswana	
16:00	 Microgravity research and applications: roles in economic prosperity and poverty reduction, <i>Funmilola OLUWAFEMI</i>, <i>Nigeria</i> 	
16:10	 Preserving human history in space - a path to sustainable development and peace, Michelle HANLON, For All Moonkind, Inc., United States 	
16:20	■ Spaceflight meets geriatrics, Nandu GOSWAMI, Austria	
16:30	■ Enrico FLAMINI, Italy	
16:40	 Cyber Security Law, its regulation and relevance for outer space, Pavan DUGGAL, India 	
16:50	 Directed Energy & Kinetic Systems – the new threats for the critical space infrastructure, Marius Eugen OPRAN, Romania 	
17:00	 Thor's Hammer: ASATs, cyberspace and human development, Roy BALLESTE, United States 	
17:10	Adjourn	
17:00 – 17:30	(Informal meeting of the sessions moderators/rapporteurs to prepare conclusions and recommendations for the Forum's consideration).	

17:30 – 19:30	Side event session Global Partnership (as needed)	
Wednesday, 8 November 2017		
08:00 – 08:45	Special Session: Space Debris	
	How serious is the space debris threat? How can we leverage the international efforts towards mitigation of space debris?	
	Moderator: Sumaya AL HAJERI, United Arab Emirates Space Agency	
	■ Khaled AL HASHEMI, UAE Space Agency	
	 Niklas HEDMAN, United Nations Office for Outer Space Affairs 	
	■ Michael LINDSAY, One-Web	
	■ Michael SIMPSON, Secure World Foundation (TBC)	
Ţ	JNISPACE+50 SEGMENT OF HIGH LEVEL FORUM	
09:00	Introductory Remarks:	
	■ Chairman, United Arab Emirates Space Agency	
	■ TBC, Mohammed Bin Rashid Space Centre	
	 Simonetta DI PIPPO, United Nations Office for Outer Space Affairs 	
09:30	 Presentation of Summary of the Sessions held on 6 and 7 November 2017 	
	 Presentation of the recommendations of the "Global Partnership" side event 	
10:00	 Atchaka SIBUNRUANG, Minister of Science and Technology, Thailand 	
order for the in		
Moderator: Simo	onetta DI PIPPO, United Nations Office for Outer Space Affairs	
Rapporteur: Mai	kus WOLTRAN, United Nations Office for Outer Space Affairs	
10:10 – 11:00	PANELLISTS:	
■ Space in	the 21st century - a view from Europe, Didier LENOIR, European Union	
■ Salem AI	. MARRI, Assistant Director General for Science & Technology Sector	
■ Global p United St	artnership in space exploration and innovation, Kenneth HODGKINS, ates	
Realizing	Space2030 through multilateral cooperation - APSCO's Perspective,	

Xinjun LI, Asia-Pacific Space Cooperation Organization

 Space cooperation in Latin America, Rosa Maria RAMIREZ DE ARELLANO HARO, Incoming Chair of COPUOS

11:00 – 11:15	Discussions and recommendations for UNISPACE+50 and Space2030
11:15 – 11:30	Coffee Break

HIGH LEVEL PANEL: International Cooperation and Challenges towards UNISPACE+50 (continues)

11:30 – 12:30 **PANELLISTS:**

- Societal challenges of global dimension Space for Sustainable Development Goals, Friedrich Erwin Rudolf DÄUBLE, Germany
- Mohammed Nasser AL-AHBABI, United Arab Emirates Space Agency
- Space2030 and the SDGs: Seeking to broaden benefits through synergy, Michael SIMPSON, Secure World Foundation
- Bernhard SCHMIDT-TEDD, Chair of the Working Group on the Status and Application of the five United Nations Treaties, Legal Subcommittee of COPUOS
- International cooperation and challenges towards UNISPACE+50, *Pontso MARUPING*, *South African Council for Space Affairs*
- David KENDALL, Chair of COPUOS

12:30 – 13:00	Discussions and recommendations for UNISPACE+50 and Space2030
13:00 – 13:45	Lunch Break
13:45	Technical Tour: An informative technical tour to Sharjah Astronomy center will be organized for the Forum participants.
18:30	Gala Dinner

Thursday, 9 November 2017

08:00 - 08:45	Special Session: Empowerment of Youth in Space Exploration Sector
	Moderator: Heyam AL BLOOSHI, United Arab Emirates Space Agency
	Youth representatives from UAE Space Agency, MBRSC, Yahsat, Thuraya, Khalifa University, Sharjah University, UAE University, NY University, American University of Sharjah, Space Generation Advisory Council

HIGH LEVEL PANEL: Space as an Arena for Innovation, Integration and Investment

Space2030 as an opportunity for innovation, integration and investment in order to generate the widest participation possible to promote space technology to address issues that are transnational in their nature and to deal with global concerns; and to strengthen unified efforts at all levels and among all relevant stakeholders of the space sector in addressing the overarching long-term development concerns of society with concrete deliverables pertaining to space for development.

Moderator: Naser AL RASHEDI, United Arab Emirates Space Agency

Rapporteur: Luciano SACCANI, Sierra Nevada Corporation's Space Systems

09:00 – 10:30 **PANELLISTS:**

- Fostering innovation and technology transfer in support of socio-economic development, Gerd GRUPPE, German Aerospace Center, Germany
- Gale ALLEN, National Aeronautics and Space Administration
- Donato GIORGI, Centre National D'études Spatiales
- Mylswamy ANNADURAI, Indian Space Research Organization Satellite Centre
- Piero MESSINA, European Space Agency
- Chiaki MUKAI, Japan Aerospace Exploration Agency
- Mohamed AL JUNAIBI, UAE Space Agency
- Andrey AFONIN, ROSCOSMOS
- Enrico FLAMINI, Italian Space Agency

10:30 – 10:45	Discussions
10:45 - 11:00	Coffee Break
HIGH LEVEL PANEL: Space as an Arena for Innovation, Integration and Investment	

HIGH LEVEL PANEL: Space as an Arena for Innovation, Integration and Investment (continues)

11:00 – 12:30 **PANELLISTS:**

- Omran SHARAF, Emirates Mars Mission (Hope Probe) (TBC)
- Anond Snidvongs, Executive Director, Geo-Informatics and Space Technology Development AgeTourency (GISTDA), Thailand
- Jean-Jacques TORTORA, European Space Policy Institute
- Frode MAURING, United Nations Development Programme in UAE
- OG Peace Mission 2020 Space diplomacy in the age of New Space, Namira SALIM, Space Trust
- Marius-Ioan PISO, Romanian Space Agency
- Activating the Next Generation, Clémentine DECOOPMAN, Space Generation Advisory Council

■ Amer AL SAYEGH, MBRSC			
■ Luc ST-H	 Luc ST-PIERRE, United Nations Office for Outer Space Affairs 		
12:30 – 12:45	Discussions		
12:45	Review and approval of the recommendations for UNISPACE+50		
	Moderator: Niklas HEDMAN, United Nations Office for Outer Space Affairs		
	Rapporteur: Romana KOFLER, United Nations Office for Outer Space Affairs		
13:30	Concluding Remarks		
	■ Simonetta DI PIPPO, United Nations Office for Outer Space Affairs		
	 Mohammed Nasser AL-AHBABI, United Arab Emirates Space Agency, United Arab Emirates 		
	Adjourn		