



UNOOSA Space Camp

09:30 - 13:00, 18 November 2024







AGENDA

- UNOOSA's Strategy and Roles Committee on the Peaceful Uses of Outer Space & Capacity-Builder
- 2. Intersessional Discussion on UNISPACE IV
- 3. COPUOS Feedback Survey
- 4. Upcoming Space Sustainability Days

HEAD

Session One

UNOOSA's Strategy and Roles
The Committee on the Peaceful Uses of Outer
Space & Capacity-Builder



Introductory Remarks and Presentation of UNOOSA's Strategy

Aarti Holla-Maini

Director of the UN Office for Outer Space Affairs (UNOOSA)





UNOOSA



CONVENER



CAPACITY
BUILDER

Facilitate global cooperation among UN Member States



To develop new space policy through COPUOS - the Committee on the Peaceful Uses of Outer Space The sole UN agency dedicated entirely to Space



A gateway between technology & Member States to support their needs & the SDGs Access to space-data & information & training



Empowering States to use space solutions to address national priorities



Space: Part of our Daily Lives

⇒ Communications:

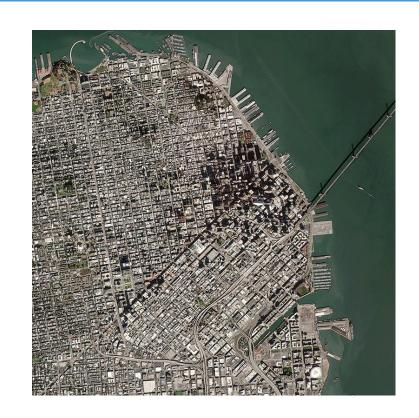
- TV & radio broadcasting
- Internet applications: telemedicine, remote learning, ATMs, financial inclusion ...

⇒ Satellite Navigation:

In cars & phones

⇒ Earth Observation for multiple apps:

- Agriculture & food security
- Weather forecasting
- Climate action, urban planning
- Disaster risk reduction & management
- Water management





Climate Change





26 of the 54 Essential Climate Variables can only be measured from space



Agriculture | Biodiversity | Deforestation





Space applications support sustainable agriculture & prevent deforestation



Disasters / Emergencies



Satellite
applications are
often the only
communications
when disaster
strikes

Healthcare





Space applications bring healthcare to those who have none

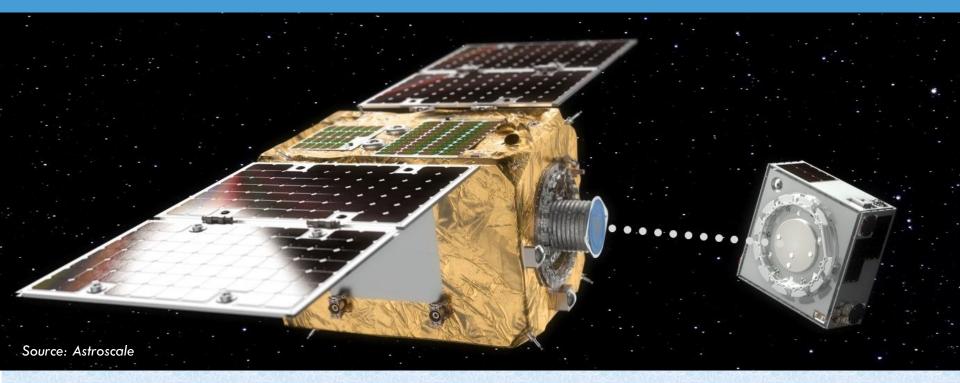




Space applications enable education for remote, isolated communities



Space Sustainability



Pro-active efforts required to support space sustainability



A world that fully captures the benefits of space technology, data and services

Implementing a Strategy based on Member States priorities:

Space Sustainability

Ensure Space is Safe & Sustainable for Future Generations

Climate Action

Drive Climate Action through Space

Sustainable Development Goals

Advance progress on the Sustainable Development Goals through use of space

Developing Countries

Ensure developing countries/Africa can contribute to & benefit from space

Stakeholder Engagement

Accelerate achieving the goals by strengthening engagement with non-governmental actors

Outlook 2025 - 2030

2023-2024: LISTEN & STRATEGISE

- Priority areas identified
- > 5-year proposals with needs & deliverables being elaborated
- Organisation structure reviewed to fit requirements

2025-2030: IMPLEMENT & DELIVER

- Socialise to (i) raise funds & (ii) attract new COPUOS members
- Designed to secure existing older mandates AND
- Grow staff contingent to address newer mandates & priorities



Snapshot of ProposalsSpace Sustainability

1 Comprehensive Space Sustainability Program with focus areas

- Supporting COPUOS delegates:
 - ⇒ Deep dives to enhance understanding of critical issues
 - ⇒ Discussions, debates & workshops with external experts
 - ⇒ Addressing critical issues such as: STC & collision avoidance / on-orbit servicing (OOS) / environmental impact of space (with UNEP) / hazard zones for launches (with ICAO) / LTS Project Phase 5 / Registration Project
 - ⇒ Facilitating engagement with relevant external stakeholders e.g. to accompany the work of ATLAC
- Supporting Member States:
 - ⇒ Comprehensive Space Law Toolkit

USB

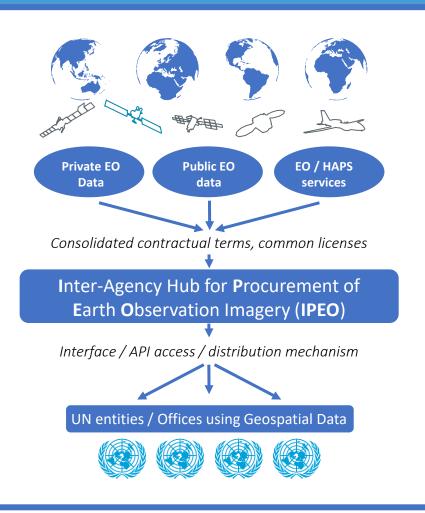
Simulation Exercises

Focussed Workshops

Surveys & Reports

Presentations & Debates

Toolkits



Snapshot of ProposalsSpace4Climate/SDGs

- Securing Affordable Access to Space Data
- Increase value for money (reduce expenses or increase geospatial data)
- Make global geospatial data available at right time in right format to whichever UN entity AND end user who needs it

Already receiving multiple requests for data

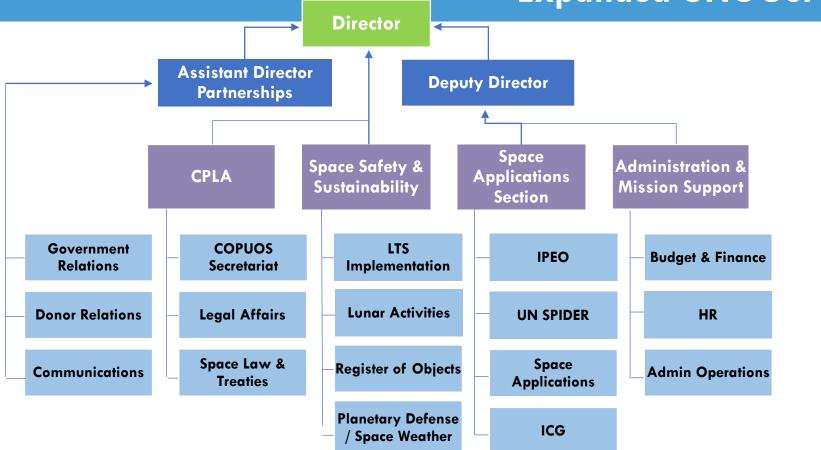
"as the space experts"

Ability to secure significant discounts for

MSs



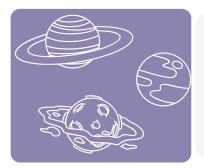
Future Structure for an Expanded UNOOSA





COPUOS Discussions Endorsed by Pact for the Future

A Call to Action by Heads of State to COPUOS: Safe and sustainable use of space plays a critical role in the achievement of the 2030 Agenda:



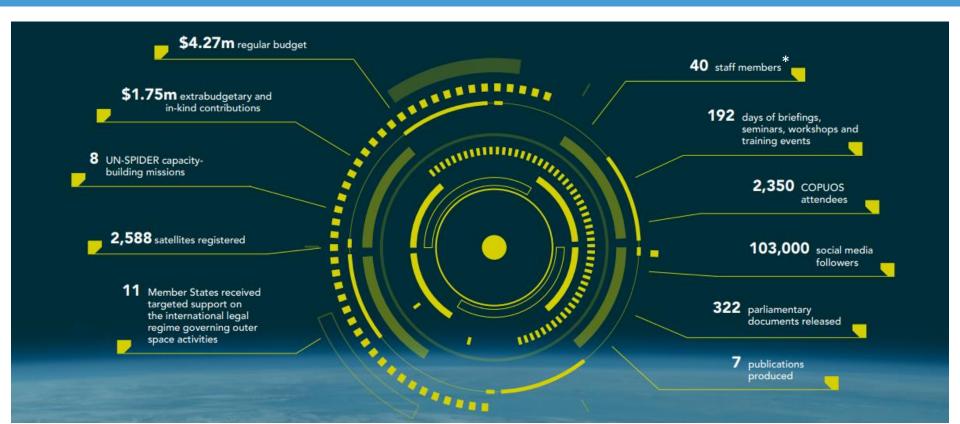
Action 56. "We will Strengthen international cooperation for the exploration and use of Outer Space for Peaceful Purposes and for the benefit of all Humanity"

We decide to:

- a) Reaffirm the importance of the widest possible adherence to and full compliance with the 1967 Outer Space Treaty and discuss the establishment of new frameworks for space traffic, space debris, and space resources through the Committee on the Peaceful Uses of Outer Space.
- b) Invite the engagement of relevant private sector, civil society, and other relevant stakeholders, where appropriate and applicable, to contribute to intergovernmental processes related to the increased safety and sustainability of outer space.

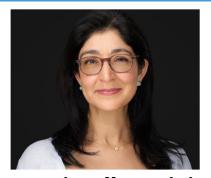


UNOOSA in Numbers 2023





Meet the Team



Aarti Holla-Maini



Driss El Hadani

Director

- Senior advisor to SG
- Plans and oversees UNOOSA work program
- Provides strategic direction
- Determines operational priorities

Deputy Director

- Supports Director in managing office
- Provides expert advice & support research for all UNOOSA activities/ programs
- Manages UN-affiliated Regional Centres

OD Portfolio

(Office of the Director)

- Strategic engagement and Partnership development
- External Relations and communications
- Program Management and Administration
- Treaty Responsibilities
- UN Space Objects Registers
- World Space Forum
- Space4Women
- Space Sustainability
- Space for Climate Action
- Space Economy
- Space for Youth
- Registration

OD Team

- Francesco De Bellis
- Khrystyna Ladenhauf Kleindienst
- Rodrigo Lordelo (50%)
- Matthew Miller
- Andrew Peebles (60%)
- Natercia Rodrigues
- Robert Wickramatunga
- Markus Woltran
- Interns and Consultants



Meet the Team

CPLA Portfolio

(Committee, Policy & Legal Affairs Section)

- COPUOS and Working Groups
- STSC and Working Groups
- LSC and Working Groups
- SMPAG and IAWN
- UN-Space
- Space Law and Policy
- Space Law for New Space Actors
- Space Sustainability
- Global Health
- Advice and technical and legal assistance on international space law and policy and on the treatybased functions of UNOOSA
- General Legal Advice
- Legal Agreements

CPLA Team

- Takemi Chiku
- Aygul Duysenhanova
- Rosanna Hoffmann
- Tanya Keusen
- Romana Kofler
- Kurian Maniyanipurathu
- Michael Newman
- Yukiko Okumura
- · Hinata Oshima
- Andrew Peebles (40%)
- Interns and Consultants

SAS Portfolio

(Space Applications Section)

- Program on Space Applications
 - Basic sciences
 - Basic space technology and human space technology
 - Climate Change
 - Environmental monitoring, and natural resources management
- Precision Farming & Agriculture
- Global Navigation Satellites Systems (GNSS)
- Space Weather
- Access to Space
- Space4Water
- Space4Persons with Disability

SAS Team

- Xing Yi Ang
- Jorge Del Rio Vera
- Anne-Claire Grossias
- Nina Kickinger
- Rodrigo Lordelo (50%)
- Ahmed Osman
- Nathalie Ricard
- Mami Sasamura
- Chris Sto. Domingo
- Interns and Consultants



Meet the Team

UN-SPIDER Portfolio

(United Nations Platform for Space-based Information for Disaster Management and Emergency Response)

- Disaster risk reduction and emergency response
- Vienna, Bonn and Beijing
- Regional Support Officers

UN-SPIDER Team

Vienna

- Lorant Czaran
- Jumpei Takami
- Interns and Consultants

Bonn

- Juan-Carlos Villagran
- Interns and Consultants

Beijing

- Head (Vacant)
- Yuan Gao
- Tang Tong
- Interns and Consultants

ICG Portfolio

(ICG Secretariat)

- International Committee on GNSS (ICG)
- Providers Forum
- Working Groups
- Global Navigation Satellites Systems (GNSS)
- Space Weather

ICG Team

- Sharafat Gadimova
- Patrick Gindler

Introduction to the Committee on the Peaceful Uses of Outer Space

Takemi Chiku

Chief, Committee, Policy, and Legal Affairs Section (CPLA)



What is COPUOS?

Subsidiary Organ of the United Nations General Assembly

 1959: Established as the Committee on the Peaceful Uses of Outer Space (with 24 member States)

Mandate

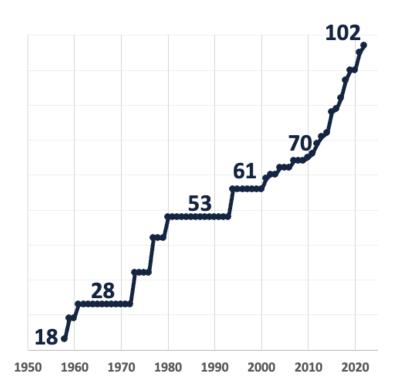
- Review international cooperation in the peaceful uses of outer space
- Identify space-related activities that could be undertaken by the UN
- Organize the mutual exchange / dissemination of information on outer space research; encourage space research programmes
- Study legal problems arising from the exploration of outer space.



Growth of COPUOS

Unique global forum for international cooperation in space activities





COPUOS Membership

Algeria, Angola, Benin, Burkina Faso, Cameroon, Chad, Egypt, Ethiopia, Ghana, Kenya, Libya, Mauritius, Morocco, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, Sudan, Tunisia

Bahrain, Bangladesh, China, Cyprus, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Jordan, Kazakhstan, Kuwait, Lebanon, Malaysia, Mongolia, Oman, Pakistan, Philippines, Qatar, Republic of Korea, Saudi Arabia, Singapore, Sri Lanka, Syrian Arab Republic, Thailand, United Arab Emirates, Uzbekistan, Viet Nam

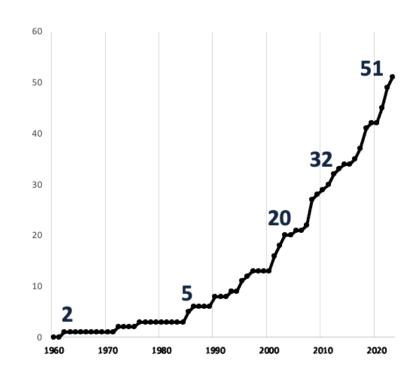
Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Czechia, Hungary, Poland, Romania, Russian Federation, Slovakia, Slovenia, Ukraine

Argentina, Bolivia (Plurinational State of), Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela (Bolivarian Republic of)

Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Israel, Italy, Luxembourg, Netherlands (Kingdom of the), New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Türkiye, United Kingdom, United States of America

Permanent Observers

- Requested by the General Assembly (Res. 1721 (XVI), 1961):
 - Maintain close contact with governmental and nongovernmental organizations concerned with outer space matters
- Contributions to the work of COPUOS from a wide range of international IGOs & NGOs





51 Observers

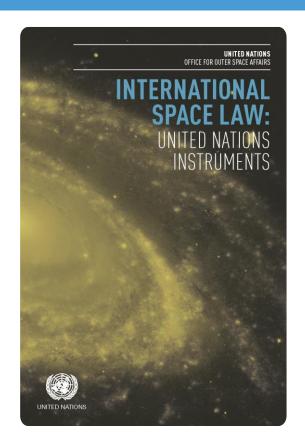
- Access Space Alliance
- African Association of Remote Sensing of the Environment (AARSE)
- African Organization of Cartography and Remote Sensing (AOCRS)
- The Asia-Pacific Space Cooperation Organization (APSCO)
- Association International Research Centre for the Development of the Atlantic
- Association of Space Explorers (ASE)
- Association of Remote Sensing Centres in the Arab World (ARSCAW)
- CANEUS-International Committee on Earth Observation Satellites (CEOS)
- <u>Centre Regional de teledetection des Etats de l'Afrique du</u> Nord (CRTEAN)
- Committee on Space Research (COSPAR)
- European Association for the International Space Year (EURISY)
- · European Astronomical Society
- European Organisation for Astronomical Research in the Southern Hemisphere (ESO)
- European Science Foundation, represented by the European Space Sciences Committee (ESF)
- European Space Agency (ESA)
- European Space Policy Institute (ESPI)

- European Telecommunications Satellite Organization (EUTELSAT-IGO)
- European Union (EU)
- For All Moonkind
- Hague Institute for Global Justice
- International Academy of Astronautics (IAA)
- International Air Transport Association (IATA)
- International Astronautical Federation (IAF)
- International Astronomical Union (IAU)
- Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation
- International Association for the Advancement of Space Safety (IAASS)
- IIASA: International Institute for Applied Systems
 Analysis (IIASA)
- International Institute for the Unification of Private Law (UNIDROIT)
- International Institute of Space Law (IISL)
- International Law Association (ILA)
- International Mobile Satellite Organization (IMSO)
- Inter Islamic Network on Space Sciences and Technology (ISNET)
- International Organization of Space Communications (INTERSPUTNIK)

- International Organization of Standardization (ISO)
- International Peace Alliance (Space)
- International Society for Photogrammetry and Remote Sensing (ISPRS)
- International Space University (ISU)
- International Telecommunication Satellite
 Organization (ITSO)
- Moon Village Association National Space Society (NSS)
- Open Lunar Foundation
- Prince Sultan Bin Abdulaziz International Prize for Water (PSIPW)
- Scientific Committee on Solar-Terrestrial Physics (SCOSTEP)
- Secure World Foundation (SWF)
- Space Generation Advisory Council (SGAC)
- Square Kilometre Array Observatory
- Three Country Trusted Broker
 The Planetary Society (TPS)
- UNISEC-Global: University Space Engineering Consortium-Global (UNISEC-Global)
- WSWA: World Space Week Association



COPUOS: Delivering Results





Treaties

Outer Space Treaty of 1967
Rescue Agreement of 1968
Liability Convention of 1972
Registration Convention of 1975
Moon Agreement of 1979



Principles

Declaration of Legal Principles on Outer Space Activities 1963 Broadcasting Principles 1982 Remote Sensing Principles 1986

> Nuclear Power Sources Principles 1992

Declaration on International Cooperation for the Benefits and in the Interest of All States 1996



Operational Guidelines: "The treaties of our times"

UNITED NATIONS OFFICE FOR OUTER SPACE AFFAIRS

GUIDELINES
FOR THE LONG-TERM
SUSTAINABILITY
OF OUTER SPACE
ACTIVITIES OF THE
COMMITTEE ON THE
PEACEFUL USES OF
OUTER SPACE

Resolutions

- Launching State 2004
- Registration Practice 2007
- National Space Legislation 2013

Other Documents

- Space Debris Mitigation Guidelines 2007
- Safety Framework for NPS 2009
- Guidelines for the Long-term Sustainability of Outer Space Activities 2019

COPUOS Structure

Scientific and Technical Subcommittee

3 - 14 February 2025

Legal Subcommittee

5 - 16 May 2025

Committee on the Peaceful Uses of Outer Space

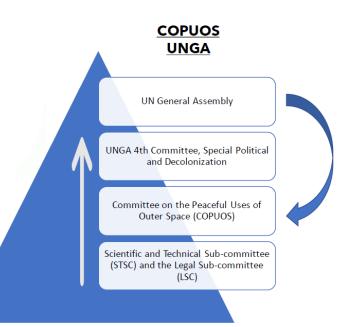
25 June - 4 July 2025

Consideration by General Assembly Fourth Committee

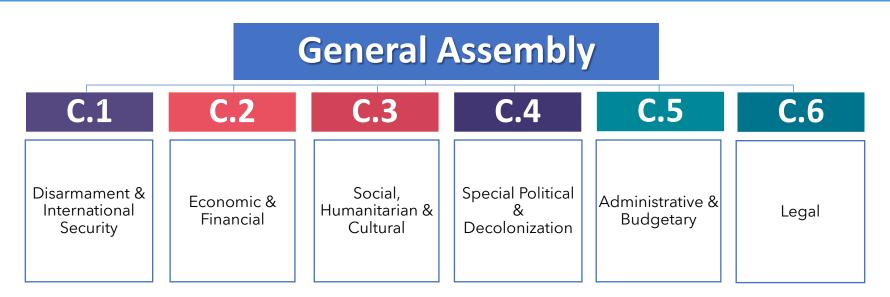
End October-beginning November 2025

Action by General Assembly

mid-December 2025



COPUOS and General Assembly Main Committees



- **C.6** Repertory of Practice of United Nations Organs
- C.4 International Cooperation in the Peaceful Uses of Outer Space
- C.1 and C.4 Joint panel discussions on possible challenges to space security and sustainability



COPUOS Working Groups

COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

Scientific & Technical Subcommittee (STSC)

WG of the Whole

WG on the Use of Nuclear Power Sources in Outer Space

WG on the Long-Term Sustainability of Outer Space Activities

Legal Subcommittee (LSC)

WG on the Status and Application of the Five UN Treaties on Outer Space

WG on the Definition and Delimitation of Outer Space

WG on Legal Aspects of Space Resource Activities

COPUOS Bureau

2024-2025 2026-2027

COPUOS Chair	Sherif Mohamed Sedky (Egypt) Rafiq Akram (Morocco)	Teodoro Valente (Italy), nominated by Western European and Other States				
COPUOS 1st Vice-Chair	Juan Francisco Facetti Fernandez (Paraguay)	Melita Župevc (Slovenia), nominated by Eastern European States				
COPUOS 2nd Vice-Chair / Rapporteur	Hasan Abbas (Pakistan)	To be nominated by African States				
STSC Chair	Ulpia-Elena Botezatu (Romania)	Pakorn Apaphant (Thailand) and Yaqoob Alqassab (Bahrain), nominated by Asia-Pacific Group				
LSC Chair	Santiago Ripol Carulla (Spain)	To be nominated by Latin American and Caribbean States				

COPUOS Bureau Rotation Scheme

Regional group	First year: 2004 (agreement in 2003) ^b	Second year 2005 (agreement in 2003) ^b	Third year: 2006 (agreement in 2004) ^b	Fourth year: 2007 (agreement in 2004) ^b	Fifth year: 2008 (agreement in 2006) ^b	Sixth year: 2009 (agreement in 2006) ^b	Seventh year: 2010 (agreement in 2008) ^b	Eighth year: 2011 (agreement in 2008) ^b	Ninth year: 2012 (agreement in 2010) ^b	Tenth year: 2013 (agreement in 2010) ^b	First year: 2014 ^a (agreement in 2012) ^b	Second year: 2015 (agreement in 2012) ^b
Group of African States	Chairman of the Committee	Chairman of the Committee	Second Vice- Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Chairman of the Scientific and Technical Subcommittee	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee
Group of Asian States	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Scientific and	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee
Group of Eastern European States	Scientific and	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Chairman of the Scientific and Technical Subcommittee	Chairman of the Scientific and Technical Subcommittee
Group of Latin American and Caribbean States (GRULAC)	First Vice-Chairman s of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Scientific and	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee
Group of Western European and Other States (WEOG)	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee	Chairman of the Committee	Chairman of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Second Vice-Chairman and Rapporteur of the Committee	Chairman of the Scientific and Technical Subcommittee	Chairman of the Scientific and Technical Subcommittee	First Vice-Chairman of the Committee	First Vice-Chairman of the Committee	Chairman of the Legal Subcommittee	Chairman of the Legal Subcommittee

^a The system of rotation will follow the same sequence after the tenth year of the cycle; thus, the distribution of responsibilities will be the same in 2014 as in 2004, the same in 2016 as in 2006 etc.

b Year in which agreement is to be reached within the regional groups and among the members of the Committee.

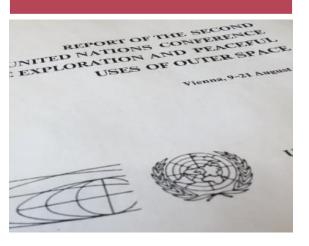


UNISPACE Conferences

UNISPACE I 1968



UNISPACE II 1982



UNISPACE III 1999





2018 50th anniversary of UNISPACE I Space2030" Agenda





Space 2030 Agenda: Space as a driver of sustainable development



- Adopted by the General Assembly in its Resolution 76/3 in 2021
- Strategic Vision: reaffirm and strengthen the contribution of space tools to achieve global development agendas (2030 Agenda for Sustainable Development, Sendai Framework for Disaster Risk Reduction, Paris Agreement)
- Implementation Plan:
 - i) Partnerships
 - **ii) Tools** (mechanisms, projects, platforms, initiatives)
 - iii) Resources (voluntary)
- Mid-term review (2025) is an opportunity to showcase space solutions and identify capacity-building needs; final review (2030)



Topics addressed by COPUOS





STSC Working Groups

Working Group of the Whole

- Chair: Prakash Chauhan (India)
- Secretary: Aygul Duysenhanova
- •Space for sustainable development:
- ✓ Space technology and its applications, including the UN Programme on Space Applications
- Future role and method of work of the Committee
- Draft provisional agenda for the following session

Working Group on the Use of Nuclear Power Sources in Outer Space

- Chair: Leopold Summerer (Austria)
- Secretary: Romana Kofler
- Implementation of the Safety Framework for Nuclear Power Sources (NPS) in Outer Space
- Potential future uses of NPS in outer space, esp. those involving nuclear reactors
- New five-year workplan (2024-2028), w/intersessional meetings
- ✓ Challenges to the implementation of the Safety Framework

Working Group on the Long-Term Sustainability of Outer Space Activities

- Chair: Umamaheswaran R. (India)
- Secretary: Tanya Keusen
- Equal importance and equitable time on the three elements of the mandate:
- ✓ Challenges to the long-term sustainability of outer space activities
- ✓ Experiences and lessons learned implementing the adopted Guidelines for the Long-term Sustainability of Outer Space Activities
- ✓ Raising awareness and building capacity in the framework of the Guidelines.
- 5-year workplan, results in 2026
- Latest intersessional, 12-13 Nov. 2024



LSC Working Groups

Working Group on the Status and Application of the Five UN Treaties on Outer Space

- Chair: Franziska Knur (Germany)
- Secretary: Yukiko Okumura
- Implementation of article XI of the Outer Space Treaty
- States to inform the Secretary-General of the United Nations, the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of activities in outer space, including the Moon and other celestial bodies
- New three-year work plan (2025 2027)
- Sharing information on:
- Status of international agreements relating to space activities
- Schematic overview of national regulatory frameworks for space activities

Working Group on the Definition and Delimitation of Outer Space

- Chair: Ian Grosner (Brazil)
- Secretary: Tanya Keusen
- 2021: LSC agreement to reconvene every second year (next meeting = 2025)
- Information on national legislation/practices relating to the definition and/or delimitation of outer space and airspace
- Proposals regarding the need to define and delimit outer space, or justifying the absence of such a need
- Questionnaire: space traffic management, suborbital flights
- Practical cases that would warrant definition/delimitation

Working Group on Legal Aspects of Space Resource Activities

- Chair: Andrzej Misztal (Poland)
- Vice Chair: Steven Freeland (Australia)
- Secretary: Michael Newman
- Collect information on activities in the exploration, exploitation and utilization of space resources
- Study the existing legal framework
- Assess benefits of further development of a framework
- Develop a set of initial recommended principles
- Identify areas for further work, which may include the development of potential rules and/or norms
- Five-year workplan (2023-2027)

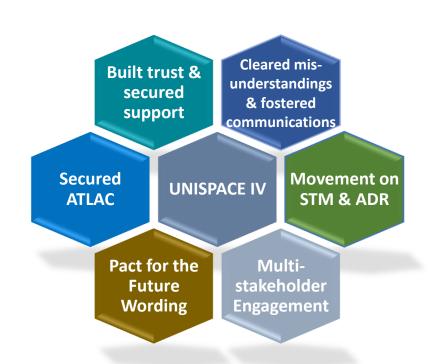


Stocktake Year 1

WHAT HAVE WE ACHIEVED?

COPUOS continues to deliver results!

UNOOSA is back! An expanding office that listens, responds, works as a team, is pro-active, 'leans in' & produced a strategy



Fourth Committee

- International Year of Asteroid Awareness and Planetary Defence, 2029
 - Dedicated resolution adopted by the General Assembly's Fourth Committee (A/C.4/79/L.6)
- Establishment of Action Team on Lunar Activities Consultation (ATLAC)
 - Mandate, terms of reference, methods of work
 - Improving consultations related to lunar activities
- Proposal to hold a fourth United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE IV) in 2027
 - Proposal noted with appreciation; on-going consultations



We Want You!

Benefits of Joining COPUOS...

- Enhance your national expertise in using space-based applications and space law.
- Understand the role space can play for socio-economic development.
- Exchange good practices and lessons learned in the application of space science and technology, as well as space policy and law.
- Network with other established or emerging spacefaring nations on the civil use of space and develop partnerships.
- Contribute to the development of international space law.

No additional fee!





w to join the Committee on the Peaceful Uses of Outer Space (COPUOS)

The Committee on the Peaceful Uses of Outer Space (COPUOS) is a subsidiary organ of the United Nations General Assembly's (UNGA) Fourth Committee, based in Vienna, COPUOS was established in 1959 and is serviced by its Secretariat, the UN Office for Outer Space Affairs

The membership of COPUOS has grown from 24 in 1959 to 102 States members in 2022. The historical evolution of COPUOS's membership is here.

COPUOS has consensually negotiated the Treaties, Principles, Guidelines, and resolutions that form the global governance of outer space activities. This legal framework underpins national

COPUOS addresses important topics such as: sustainable development; space debris mitigation and remediation: the long-term sustainability of outer space activities; space resource utilization: space traffic management; space and global health; and capacity-building.

Membership of COPUOS will allow your country to:

- . Enhance your national expertise in using space-based applications and space law.
- · Understand the role space can play for socio-economic development.
- · Exchange good practices and lessons learned in the application of space science and technology, as well as space policy and law.
- · Network with other established or emerging spacefaring nations on the civil use of space.
- · Contribute to the development of international space law.

COPUOS holds six weeks of annual sessions: the Scientific and Technical Subcommittee (STSC); the Legal Subcommittee (LSC); and the main session. The UNGA adopts COPUOS' consensus-













UNOOSA as a Capacity-Builder

Mandates, 2024 Programmes, and Projects





United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)

Emily Wallis UN-SPIDER



UN-SPIDER

WWW.UN-SPIDER.ORG



Technical Advisory Support

UN-SPIDER supports countries in assessing their capacity in the use of space technologies in all phases of disaster management



Capacity-building

UN-SPIDER facilitates capacity-building and institutional strengthening - offline and online



Fostering cooperation

UN-SPIDER fosters
alliances and creates
fora where the space
and disaster
management
communities can meet



Knowledge management

The UN-SPIDER
Knowledge Portal is an
online hub for
discovering, accessing
and learning to create
space-based
information products

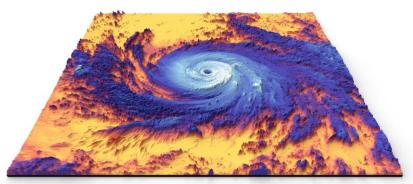


UN-SPIDER

WWW.UN-SPIDER.ORG

UN-SPIDER helps communities benefit from space solutions for disaster-risk management

- Technical Advisory Mission (TAM)
- Institutional Strengthening Mission (ISM)
- Expert Missions (EM)



Credit: NASA

IMPACT



capacity-building missions

supported countries

40[†] TAMs do

TAMs delivered

Namibia, Mozambique, Zimbabwe, Zambia, Gabon, Cameroon, Ghana, Nigeria, Togo, Burkina Faso, Tunisia, Sudan, Cap Verde, South Africa, Mozambique, Ethiopia, Sudan, Algeria, Philippines, Armenia, LAO, Nepal, Tonga, Myanmar, Sri Lanka







International Committee on Global Navigation Satellite Systems (ICG)

Sharafat Gadimova

Scientific Affairs Officer, ICG



The ICG's vision is to ensure the best satellite-based positioning, navigation and timing for peaceful uses for everybody, anywhere, any time.



United Nations Office for Outer Space Affairs

In deliberations within ICG, global and regional system providers agreed that at a minimum, all GNSS signals and services must be **compatible** ("do no harm"). To the maximum extent possible, open signals and services should also be **interoperable** ("better together than separate") in order to maximize benefits to all GNSS users.

- ⇒ Education and Training programmes for capacity building, including the use of GNSS technologies as tools for scientific applications
- ⇒ Regional workshops on applications of GNSS and ISWI (in 2024: the Philippines and Germany)



United Nations Office for Outer Space Affairs

ICG is holding annual meetings to review and discuss developments on GNSS, including GNSS science and innovative technology applications and future commercial applications.



- ⇒ Establishment of the WG on Lunar Positioning Navigation and Timing: GNSS in Earth orbit will serve a meaningful role in Lunar PNT, particularly for vehicles in transit between the Earth and Moon, & supplement Lunar PNT services in the lunar activity
- ⇒ Workshop on Cislunar PNT, 11-13 February 2025, VIC



19th meeting of ICG, October 2025, Republic of Korea



Space Applications Section

Nathalie Ricard
Scientific Affairs Officer, SAS

ACCESS TO SPACE FOR ALL

Mandate (SGB/2020/1)

- (a) Promoting the use of space science and technology and their applications towards achieving the SDG, particularly in developing countries;
- (b) Planning and implementing the **United Nations Programme on Space Applications** to build national capability in the areas of basic sciences, basic space technology and human space technology, and to promote integrated space technology applications in the areas of global health, disaster management, climate change, humanitarian assistance, environmental monitoring, and natural resources management.

References: Office's vision and mission, Space2030 Agenda, SD Agenda/SDGs.





ACCESS TO SPACE FOR ALL

Partnering to offer access to space research facilities, infrastructure, & information



helps countries deploy their first satellite from the ISS

(Guatemala, Mauritius, Moldova, Kenya)



enables students to conduct experiments in micro- & hyper-gravity

through fellowships, workshops, webinars, ...



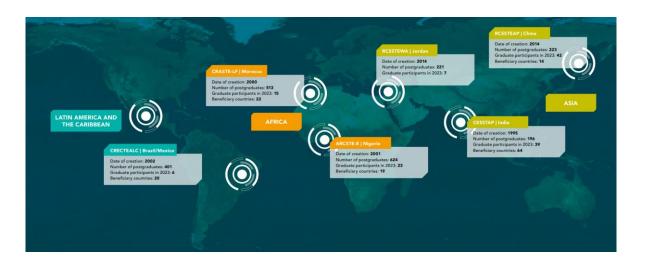
contributes to the SDGs

Goal 4 on Quality Education,
Goal 8 on Decent Work and Economic Growth,
Goal 9 on Industry, Innovation and Infrastructure



Programme on Space Applications (PSA), 53 years in 2024

- PSA provides capacity-building, education, research and development support and technical advisory services reducing the gap between the industrialized and developing countries.
- PSA is implemented by Member states of COPUOS (permanent item at STSC and COPUOS).
- 6 Regional Centres for Space Science and Technology Education, affiliated to the UN.





Space4Women

Women's skills, perspectives and ideas are essential for innovation and maximizing space solutions' impact on society. We must <u>listen</u> to them and <u>empower</u> them.



Workstreams of the Space4Women Programme

- Annual Expert Meeting
- Space4Women Mentorship
- Capacity-building









United Nations Office for Outer Space Affairs

Space4Water

The Space4Water Project fosters collaboration and knowledge exchange to address the water challenge. It helps you tap into the full potential of space-based technology and data for any water related topic.

> 150 featured actors are actively using space-based technology and data to address water issues.

Stakeholder meetings allow the community to meet and exchange

- identifying shared objectives;
- addressing user needs;
- matchmaking gaps and solutions.





















Supporting inclusive and sustainable growth of the global space economy



Increase global awareness and understanding of how space sector growth can reinforce socio-economic development, in line with the 2030 Agenda.



Help countries scale up economic growth by developing thriving space ecosystems.



Enhance cooperation across the space sector, incl. public and private stakeholders, to foster inclusive and sustainable growth.

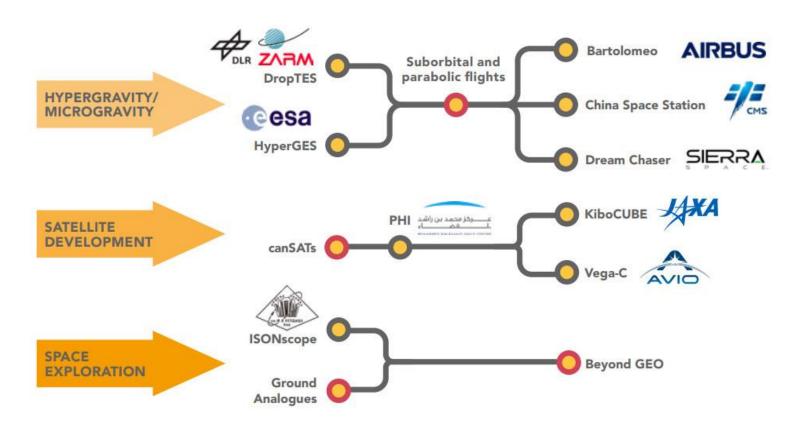


Online E-Learning - Introduction to the Space Economy





Access to Space for All





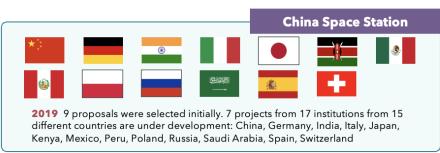
Access to Space for All

Who has been awarded?

- Hypergravity/Microgravity Track





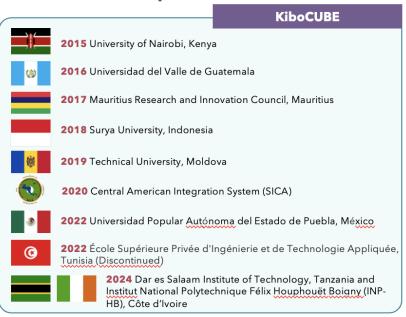






Access to Space for All

- Satellite Development Track







- Space Exploration Track

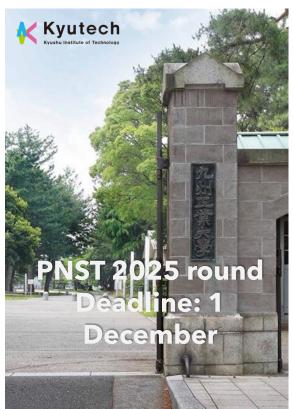


As of October 2024, 37 awardees have been selected, involving 50 entities from 37 countries. 5 CubeSats launched, 8 microgravity & 4 hypergravity experiments have been conducted, and 76 scholarships have been granted through PNST.



Open Opportunities









UN Register of Objects Launched into Outer Space & Registration Project

Andrew Peebles

External Relations Officer



UN Register

- UNOOSA maintains the Register of Objects Launched into Outer Space on behalf of the Secretary-General
- Two Mechanisms to register
- Since the beginning of the space age, more than 14,000 satellites have been launched, and 85% of them have been registered with the UN.
- 100,000 satellites could be launched over the next decade.
- New and Novel Missions and future space activities.
- National Focal Point







Registration Project

January - November 2023 Interview Series > National Focal Point Meeting > Stakeholder Study

- Need to "know who's who in the Zoo" and "bridge knowledge gap" by helping industry to understand national registration processes and international obligations to register.
- Different approaches on who the 'State of Registry' should be given the broad array of space activities (governmental, industry, and academia).
- Predictability Robust licensing, authorization and registration processes have contributed towards a safe and sustainable use of outer space, and economic growth.

"Registration is the fundamental element of understanding who owns what in space."

- Important for liability,
- Industry consortiums to enhance regulation practice,
- Key Transparency and Confidence Building Measure (TCBM) - Both military and civilian satellites are registered with the UN.
- Countries make best use of UN templates for submission.

Registration Project

Capacity Building Priorities

- 1. increased national expertise on space law and institutional understanding of the process for notifying the United Nations of objects launched into outer space.
- 2. enhanced engagement with, and communication among, the National Focal Point Network
- 3. promoting robust regulation and training at the national level with domestic space actors.
- 4. Increased synergies and collaboration between international organizations.

Phase Two of the Registration Project has kicked off...

Capacity-Building Events, National Focal Point Meeting and Registration Toolkit





Global Space Law Project

Rosanna Hoffmann

Legal Officer, CPLA

Why National Space Law?

of outer space traditionally subject matter of public international law

With technological and economic developments increased number of States & non-governmental entities take part in space activities

Privatization and commercialization in the last decade involves new space actors (not subject matter of int. space law)

NSL as the continuation, concretion and implementation of international space law for enhancing the safe and <u>sustainable</u> use of outer space



Why National Space Law Benefits Emerging Space Actors

- **1. Compliance with International Treaties**. Ensures the country adheres to international obligations, such as the Outer Space Treaty, Liability Convention, and Registration Convention.
- **2. Responsible Space Actor**. Strengthens diplomatic ties, enhances global standing and fosters the peaceful uses of outer space.
- **3. Facilitates Private Sector Growth**. By providing predictable legal environment, NSLs encourage private investment & commercial space ventures.
- **4. Supports SDGs**. NSLs implement the sustainable use of outer space, addressing issues like space debris and space traffic management, while supporting SDGs through regulating activities such as climate monitoring and disaster response.
- **5. Empowers National Space Agencies and Regulators**. Defines roles and responsibilities.





The Global Space Law Project

Mandate: "Requests UNOOSA to assist countries in developing national space laws and policies in line with international space law."



i.e. Resolution on the 50th Anniversary of the Outer Space Treaty; Space2030 Agenda Resolution and annual resolutions on International Cooperation in the Peaceful Uses of Outer Space, which collectively emphasize the importance of helping countries develop national space laws in line with international standards



The Global Space Law Project

Space Law Technical Advisory Missions

tailored legal and policy assistance to help countries in drafting, refining and implementing their national space law/policy, ensuring alignment with international space law frameworks

Capacity-Building Tools

- ASTRO database: collection of nat. laws and policies
- **E-learning modules**: four modules on national space law (open access)

Four-Stage Method

- 1. Research & Assessment, tailor-made legal and policy assistance
- 2. Preparation and stakeholder engagement (cross-governmental approach)
- 3. On-site Space Law TAM, incl. on ground training sessions with government officials and high-level political engagement
- 4. Follow-up, continue support and evaluation

Upcoming: Toolkit on Space Law, Regulation and Policy

- **Comprehensive guide**: offers foundational principles and best practices for drafting nat. space laws and policies.
- Living resource: Regularly updated to address emerging issues, space sustainability, space resources, STM, and more.

Impact



Gaps Identifying Exercise

2023: Advised on refining their draft space law, with focus on authorization, supervision, liability and insurance, incl. high-level political engagement. Currently public consultation ongoing, leading to final adoption



Treaty Ratification and REG

2022: Supported ratification of the REG; all 9 satellites are registered with the UN, and a national registry is in place

2024: showcasing the benefits of ratifying the LIAB and assisting with identifying space regulator to start drafting process



Space Policy

Ongoing TAMs since 2020: Assisted in drafting national space policy, second policy to be adopted very soon.

Encouraged steps towards a national space law in TAM 2024.



57 Requests

pelspo

Space Law for New Space Actors Project Requests by Region





One Moon for All

Michael Newman

Legal Officer, CPLA

Objective

Context and Background:

- Growing international focus on lunar activities, driven by the anticipation of over 100 lunar missions planned by 2030.
- COPUOS in June 2024 established the Action Team on Lunar Activities Consultation (ATLAC)
 - Ensure that lunar activities are conducted peacefully, safely, and sustainably.

Objective:

- The "One Moon for All" program aims to support the work of ATLAC and States members in managing and coordinating lunar activities.
- The program's objective is to enhance international cooperation, build capacity, and ensure that lunar exploration and use are conducted in a manner that benefits all humanity.



Activities

The program will focus on four main components:

- **Facilitating ATLAC**: Providing a Rapporteur and Secretary to support ATLAC's meetings and activities, and later, assisting with the implementation of ATLAC's recommendations and convening lunar industry.
- **Capacity Building**: Organizing Technical Advisory Missions to help Member States develop lunar policies and familiarize themselves with lunar activities, including licensing and regulatory frameworks.
- **High-Level Dialogues**: Convening experts from space agencies, private sectors, and scientific communities to discuss critical issues related to lunar safety and sustainability.
- **Supporting Member States**: Collaborating with countries interested in partnering with UNOOSA to advance their lunar initiatives and align them with the program's goals.

Supporting the "One Moon for All" program offers Member States several strategic benefits:

- Leadership in Global Lunar Policy: Countries that contribute to and participate in the program will be at the forefront of shaping international lunar policies.
- **Capacity Building**: Member States will gain access to resources and expertise that will help them develop their own lunar missions and policies.
- **Enhanced Collaboration**: Participation fosters stronger international ties and collaboration, ensuring that all nations, regardless of their current space capabilities, have a voice in the future of lunar exploration.

"One Moon for All" is a timely and essential initiative that positions UNOOSA and participating Member States as leaders in the global effort to ensure the Moon's peaceful, safe, and sustainable use.



Earth Observation Procurement Secretariat (EOPS)

Andrew Peebles

External Relations Officer, OD



- Earth Observation (EO) imagery is fundamental to the operations of the UN and Member States.
- Inconsistent licensing across UN entities
 - duplicate payments, increased administrative burden, reduced possibility of sharing data internally & externally with MSs
- **UN2.0 & Inter-Agency Synergies** October 2023 42nd annual session of UN-SPACE requested UNOOSA to improve coordination of commercial satellite imagery across the UN system, in order to save costs and reduce redundancies.

Enhanced efficiency to drive better service





The Solution



Set up a dedicated project team/Secretariat.



Oversee the negotiation of multi-user licensing contracts with satellite imagery providers to streamline procurement across UN entities.



Develop an IT infrastructure and global procurement policy: Draft and implement a standard procurement policy for all UN entities to ensure coordinated and efficient acquisition of Earth Observation data.

Consolidated contractual terms, common licenses Inter-Agency Hub for Procurement of Earth Observation Imagery (IPEO) Interface / API access / distribution mechanism UN entities / Offices using Geospatial Data

A Small Secretariat and Procurement Hub that would coordinate a "Netflix of Images" for the UN System & Make Savings for States.



ENHANCED OPERATIONAL SUPPORT

Unified, near-real-time EO data access for peacekeeping, humanitarian, climate & other missions.



COST & EFFICIENCY GAINS

Savings for Member States. Consolidated demand, lower licensing cost & reduced administrative burden.



LONG-TERM VISION

One coordinator for EO data supporting UN-wide operational capabilities







Session Two

Intersessional Discussion on UNISPACE IV

Andrew Peebles External Relations Officer, OD





What is a UNISPACE?

- ⇒ UNISPACE I (1968), II (1982), III (1999) and III + 5 (2003), UNISPACE+50 (2018)
- ⇒ UNISPACE III > Political Declaration > 33 recommendations > operationalised in the lead up to UNISPACE III + 5 through the creation of 12 Action Teams > Long-term outcomes = ICG, Space & Global Health Network, UN-SPIDER, IAWN/SMPAG.



Mandate



The **67th session of the Committee on the Peaceful Uses of Outer Space** (2024) noted with appreciation a proposal to hold a fourth United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE IV) in 2027 and looked forward to further consultations on the proposal during the intersessional period and at the sixty-second session of the Scientific and Technical Subcommittee (A/79/20, para. 350).



Pact for the Future (22 September 2024) encourage[d] the Committee on the Peaceful Uses of Outer Space to further consult on the proposal to hold a fourth United Nations conference on the Peaceful Exploration of Outer Space (UNISPACE IV) in 2027 (Resolution 79/1, Action 56).

Once in a quarter century opportunity to raise space to the highest levels of governments.

2027 - A Pivotal Year for COPUOS

- 70th Session of COPUOS
- 60th Anniversary of the Outer Space Treaty

Workstreams converge & will deliver results

- **Space Resources WG** Finalization of a set of initial recommended principles.
- Action Team on Lunar Activities Consultation 3 year (+1 if needed) workplan
- Follow-up on the Pact for the Future, which called for COPUOS to discuss the establishment of new frameworks for space traffic, space debris, and space resources through the Committee on the Peaceful Uses of Outer Space.
- Long-Term Sustainability of Outer Space Activities
- Space 2030 Agenda



The road from Space Camp to COPUOS

- Secretariat could circulate a Food for Thought Paper
- Collect priorities or views of Member States
- STSC's 'Future Role of the Committee' Agenda Item could discuss.

Logistical considerations

 STSC would need to take a decision to host UNISPACE IV, with further elaboration of objectives, possible workstreams, modalities and agenda at the LSC and COPUOS. Key opportunity for Member States to: keep COPUOS central to the development of global space governance, scale space solutions; and respond to the priorities of the space sector.





Session Three

COPUOS Feedback Survey

Andrew Peebles
External Relations Officer, OD





COPUOS 2024 Feedback

UNOOSA collected feedback on the 2024 COPUOS cycle

- ⇒ **Purpose**: To gather feedback from member states on improving the COPUOS experience and services provided by the Secretariat.
- ⇒ **Background**: Invitation Circular circulated in July 2024. Feedback received from a diverse set of member states following the recent COPUOS cycle.
- ⇒ Note: This feedback is summarized and anonymized for confidentiality.



Positive Highlights

COPUOS 2024 received overwhelmingly positive feedback

Chairmanship & Secretariat: Widely praised for effective session management and proactive issue resolution.

Diplomatic Efforts: Pre-session diplomatic efforts by UNOOSA were valued for preventing issues.

Informal Consultations: Informal consultations and working groups were particularly effective for focused discussions.

Lunar Conference: Received high appreciation for fostering high-level discussions and industry engagement.

"The Lunar Conference was a great use of the first two days of the COPUOS week. We felt that it made the most of people being out in Vienna and brought seniors together for useful conversations.

It was also incredibly useful to hear from industry at the lunar conference and more work should be undertaken to ensure industry views are heard at COPUOS. We also valued the pre-work that was done before the session to resolve controversial issues."

Suggestions for Time Management and Agenda Improvements

- ⇒ **Stricter Time Limits**: Requests for strict enforcement of time limits to avoid lengthy sessions.
- ⇒ **Agenda Consolidation**: Suggestions to combine related agenda items (e.g., space and water, space and climate change).
- ⇒ **Efficient Session Structure**: Calls for flexibility in agenda management to allow more informal engagement.



Enhancing Procedural Clarity

- ⇒ Clearer Rules of Procedure: Need for updated, clearer procedural guidance, particularly on rights of reply and procedural points.
- ⇒ Improved Access to Procedural Information: Requests for regular briefings on procedural rules and online access to updated guidelines.
- ⇒ **Role of Chair and Secretariat**: Strengthen Chair and Secretariat authority to manage procedural matters effectively.



Increasing Engagement and Accessibility

- ⇒ Interactive Formats: Interest in proactive discussion panels and dynamic technical presentations to encourage deeper engagement.
- ⇒ Improved Timing for Presentations:

 Reschedule technical presentations to avoid conflicts, ensuring greater attendance and value.



Suggestions for Logistical and Administrative Support

- → Meeting Rooms: Requests for more spaces for bilateral meetings and streamlined room booking processes.
- ⇒ Advance Document Circulation: Desire for earlier distribution of proposals and documents for better session preparation.
- ⇒ **Support for New Delegates**: Proposals for optional introductory sessions to familiarize new delegates with COPUOS rules and procedures.



Next Steps?

We want to continue this exchange!

- ⇒ **Feedback survey is still live.** Want to hear from as many of you as possible.
- ⇒ **Informal Consultations** December and January
- → Non-paper for discussion at the STSC under the Agenda Item "Future Role of the Committee".
- ⇒ Simplifying the Compendium on rules of procedure and methods of work related to the United Nations COPUOS and its subsidiary bodies.

Floor is open...

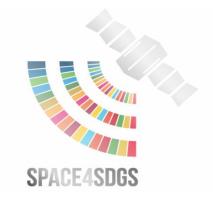






Session Four

Space Sustainability Efforts



United Nations Space Bridge (USB)

First USB held October 29 in New York

- ⇒ Who: Representative participation by operational experts from both government and industry.
- ⇒ **What:** Open, frank discussion among stakeholders under Chatham House Rule to assess current situation, areas of general agreement, and issues requiring further efforts.
- ⇒ What Next: UNOOSA will circulate a report of key themes, observations, and recommendations in coming weeks to feed into COPUOS deliberations. Leads into Space Sustainability Days.



UN Space Sustainability Days

Scheduled January 30-31 at VIC in Vienna

- ⇒ **Space Sustainability Workshop**: 3-hour event to elevate common understanding of basic space traffic terminology and concepts. Will be held twice and open to all delegations.
- ⇒ **Simulation Exercise**: Opportunity for 25 x 2 delegates to participate in real-life scenarios that highlight risks and realities of space safety. Offered twice, with participation coordinated through regional groups, to be outlined in coming circular.
- ⇒ **Debrief**: Open to all delegations to discuss what has been learned in the workshop and simulation exercise



LTS Project

"Awareness-raising and capacity-building related to the implementation of the LTS Guidelines" Project

Latest:

- ⇒ Space Situational Awareness Training Events, 3 & 4 June 2024
- ⇒ E-learning course available in English, French, Spanish
- ⇒ LTS Guideline Publication all UN languages
- ⇒ Long-term sustainability of outer space activities <u>information</u> <u>repository</u> (coming in 2025)







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