UNITED NATIONS
Office for Outer Space Affairs

# CEU SUN 2016
# OOSA Introduction and the Programme on Space Applications

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**Budapest, 4th July 2016**



## I. United Nations and Outer Space

## Benefits from Space Activities


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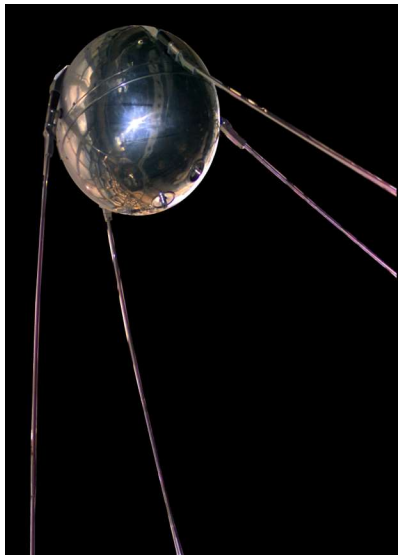
## Beginning of the Space Age

- Launch of Sputnik-I (4 October 1957)
- Important questions:
  - How to prevent the extension of the cold war arms race into outer space?
  - What should be the rules and regulations for activities in outer space?
  - How to ensure that space activities benefit all humankind?
- Agreement that the purposes and principles of the United Nations should also apply to activities in outer space



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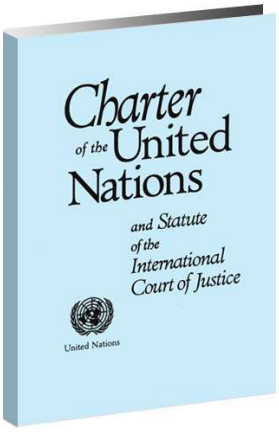
## United Nations and Outer Space - Mandate

- Article 1
  - *Maintain international peace and security*;
  - *Develop friendly relations among nations* ... and to take other appropriate measures to strengthen universal peace;
  - *Achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character* ...; and
  - *Be a centre for harmonizing the actions of nations* in the attainment of these common ends.
- Article 56
  - Take *joint and separate action in cooperation* with the Organization for the achievement of these purposes ...




As cited in para. 35 of the report of the Ad Hoc COPUOS meeting (A/4141)

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## Committee on the Peaceful Uses of Outer Space

- **1958: UN General Assembly resolution 1348(XIII)**
  - Outer space to be used for peaceful purposes only and to be exploited to the benefit of mankind
  - Established an ad-hoc Committee on the Peaceful Uses of Outer Space (COPUOS) as an appropriate body for international cooperation
- **1959: UN General Assembly resolution 1472 (XIV)** reaffirmed the role of COPUOS and mandated the Committee to:
  - Review international co-operation
  - Study space-related activities that could be undertaken under United Nations auspices
  - Encourage and assist with national space research programmes
  - Study legal problems which may arise from the exploration of outer space

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## Committee on the Peaceful Uses of Outer Space

- Scientific and Technical Subcommittee (STSC)
- Legal Subcommittee (LSC)
- 83 Member States and >30 organizations with permanent observer status (one of the largest UN Committees)
- Decision-making based on consensus
- Reports to the Fourth Committee of the General Assembly and adopts an annual resolution on "International cooperation in the peaceful uses of outer space"

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## 83 COPUOS Member States

- Albania
- Algeria
- Argentina
- Armenia
- Australia
- Austria
- Azerbaijan
- Belarus
- Belgium
- Benin
- Bolivia
- Brazil
- Bulgaria
- Burkina Faso
- Cameroon
- Canada
- Chad
- Chile
- China
- Colombia
- Costa Rica
- Cuba
- Czech Republic
- Ecuador
- Egypt
- **El Salvador**
- France
- Hungary
- Germany
- Ghana
- Greece
- India
- Indonesia
- Iran
- Iraq
- **Israel**
- Italy
- Japan
- Jordan
- Kazakhstan
- Kenya
- Lebanon
- Libyan Arab Jamahiriya
- Luxembourg
- Malaysia
- Mexico
- Mongolia
- Morocco
- Netherlands
- Nicaragua
- Niger
- Nigeria
- **Oman**
- Pakistan
- Peru
- Philippines
- Poland
- Portugal
- **Qatar**
- Republic of Korea
- Romania
- the Russian Federation
- Saudi Arabia
- Senegal
- Sierra Leone
- Slovakia
- South Africa
- Spain
- **Sri Lanka**
- Sudan
- Sweden
- Switzerland
- Syrian Arab Republic
- Thailand
- Tunisia
- Turkey
- **United Arab Emirates**
- United Kingdom of Great Britain and Northern Ireland
- United States of America
- Ukraine
- Uruguay
- Venezuela
- Viet Nam

Status as of June 2016, see http://www.unoosa.org/oosa/en/ourwork/copuos/members/evolution.html

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## 34 COPUOS Observer Organisations

**Intergovernmental Organizations**

- Asia Pacific Space Cooperation Organization (APSCO)
- Association of Remote Sensing Centers in the Arab World (ARSCAW)
- Centre for Remote Sensing of the North African States (CRTEAN)
- European Organization for Astronomical Research in the Southern Hemisphere (ESO)
- European Space Agency (ESA)
- European Telecommunications Satellite Organization (EUTELSAT)
- International Mobile Satellite Organization (IMSO) previously INMARSAT
- International System and Organization of Space Communications (INTERSPUTNIK)
- International Telecommunications Satellite Organization (ITSO) previously INTELSAT

Status as of June 2016

**Non-governmental Organizations**

- African Association of Remote Sensing of the Environment
- African Organization of Cartography and Remote Sensing (AOCRS)
- Association of Space Explorers (ASE)
- Committee on Earth Observation Satellites (CEOS)
- Committee on Space Research (COSPAR)
- European Association for the International Space Year (EURISY)
- European Space Policy Institute (ESPI)
- Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation
- Inter-Islamic Network on Space Sciences and Technology
- International Academy of Astronautics (IAA)
- International Association for the Advancement of Space Safety (IAASS)
- International Astronautical Federation (IAF)
- International Astronomical Union (IAU)
- International Institute for Applied Systems Analysis (IIASA)
- International Institute of Space Law (IISL)
- International Law Association (ILA)
- International Society for Photogrammetry and Remote Sensing (ISPRS)
- International Space University (ISU)
- National Space Society (NSS)
- Prince Sultan Bin Abdulaziz International Prize for Water (SIPW)
- Scientific Committee on Solar-Terrestrial Physics (SCOSTEP)
- Secure World Foundation (SWF)
- Space Generation Advisory Council (SGAC)
- The Planetary Society (TPS)
- World Space Week International Association (WSWA)

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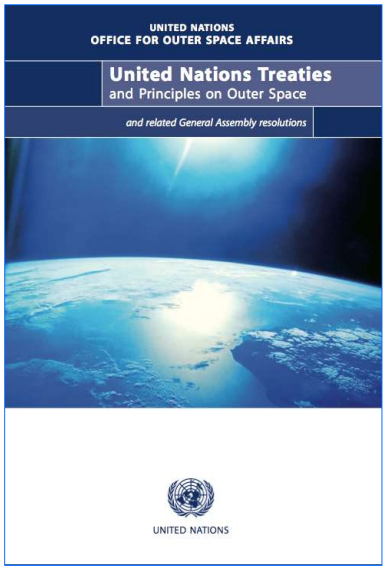
## COPUOS Accomplishments

- How to prevent the extension of the cold war arms race into outer space?
  - Principle of the Peaceful Uses of Outer Space
- What should be the rules and regulations for activities in outer space?
  - Outer Space Treaties
- How to ensure that space activities benefit all humankind?
  - International Cooperation
  - United Nations Programme on Space Applications

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## COPUOS Current Issues

- Scientific and Technical Subcommittee (STSC)
  - Working Group (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
  - Expert Groups on space weather and global health
  - International Asteroid Warning Network (IAWN) & Space Mission Planning Advisory Group (SMPAG)
- Legal Subcommittee (LSC)
  - WG on the Status of United Nations Treaties on Outer Space
  - WG on the Definition and Delimitation of Outer Space
  - WG on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space

| | | | |
|---|---|---|---|
| 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 |

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## Office for Outer Space Affairs

- Originated as a small expert unit in the UN Secretariat to service the Ad Hoc COPUOS meeting in 1959
- Eventually transformed into the United Nations Office for Outer Space Affairs (UNOOSA)
- Relocated from New York to the UN Office at Vienna (UNOV) in 1993
- 25 staff members (scientists, lawyers, political scientists), plus several seconded staff and interns
- Offices in Bonn, Germany and Beijing, China

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## Vienna, Austria

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## United Nations Office at Vienna

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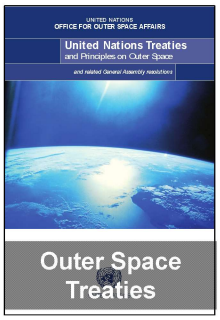
# II. United Nations Programme on Space Applications

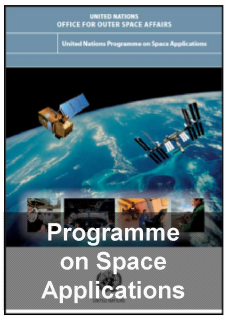


## United Nations Office for Outer Space Affairs

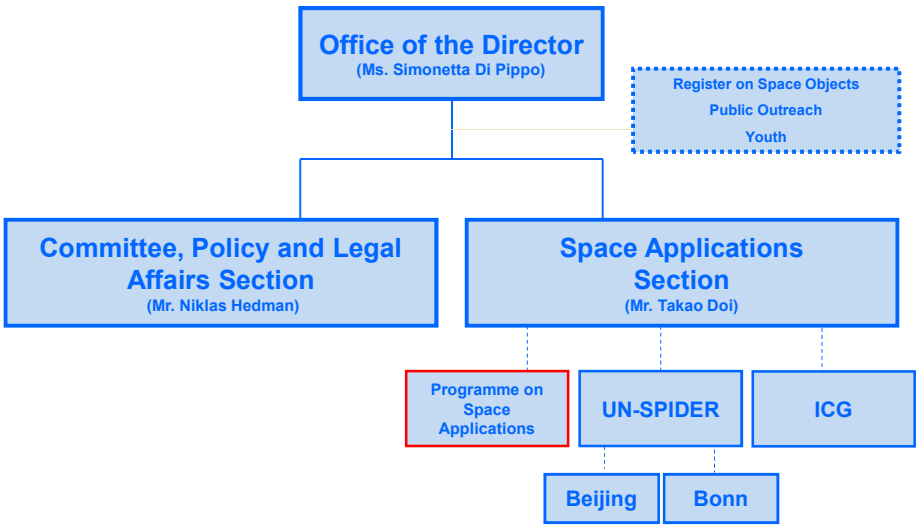






## Office for Outer Space Affairs

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## United Nations Programme on Space Applications


- Established in response to recommendations of the first UNISPACE conference in 1968
- Creation of the position of the United Nations Expert on Space Applications to promote space applications
- Operational from 1971 and implemented by OOSA
- UNISPACE conferences held in 1982 and 1999 updated the mandate of the Programme

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## Mandate of the Programme

- Promote International Cooperation
- Support Capacity Building
- Disseminate Information
- Conduct Technical Advisory Services

United Nations General Assembly Resolution 37/90 ( § 7), http://www.unoosa.org/oosa/en/ourwork/psa/mandate.html

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## Implementation of the Programme

- Conferences and Workshops on thematic priorities:
  - Biodiversity/Ecosystems
  - Climate Change
  - Disaster Management
  - Environmental Monitoring and Natural Resource Management
  - Global Health
  - Global Navigation Satellite Systems
  - Satellite Communications
- Basic Space Science Initiative (BSSI)
- Basic Space Technology Initiative (BSTI)
- Human Space Technology Initiative (HSTI)
- Support the Regional Centres for Space Science and Technology Education, affiliated to the United Nations
- Administrate Long-Term Fellowship Programmes

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## Programme Activities 1971-2015

- 305 Expert Meetings/Seminars/Workshops/Conferences
- 75 countries, more than 21,000 participants
- Topics covered: COSPAS/SARSAT, Environmental Monitoring, Global Navigation Satellite Systems, Mountain Regions, Natural Resources Management, Socio-Economic Benefit, Space Law, Space Science and Technology, Tele-Health/Tele-Medicine



# III. Opportunities for Capacity Building

## Programme Activities 2016

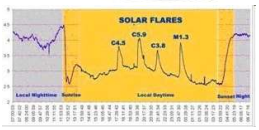
| Activity | Location, Date |
|---|---|
| UN/Costa Rica Workshop on Human Space Technology | San José, Costa Rica<br>7-11 March 2016 |
| UN/India Workshop on the Use of Earth Observation Data in Disaster Management and Risk Reduction; Sharing the Asian Experience | Hyderabad, India<br>8-11 March 2016 |
| UN/Kenya Workshop on Space Technology and Applications for Wildlife Management and Protecting Biodiversity | Nairobi, Kenya<br>27-30 June 2016 |
| UN/Austria Symposium on Integrated Space Technology Applications for Sustainable Development in Mountain Regions | Graz, Austria<br>12-14 September 2016 |
| UN/International Astronautical Federation Workshop on Space Technology for Socio-Economic Benefits | Guadalajara, Mexico<br>23-25 September 2016 |
| UN/Nepal Workshop on the Applications of Global Navigation Satellite Systems | Kathmandu, Nepal<br>5-9 December 2016 |
| UN/Islamic Republic of Iran Workshop on the Use of Space Technology for Dust Storm and Drought Monitoring in the Middle East Region | Tehran, Iran<br>5-9 November 2016 |
| UN/United Arab Emirates High Level Forum: Space as a Driver for Socio-Economic Sustainable Development | Dubai, United Arab Emirates<br>20-24 November 2016 |

See http://www.unoosa.org/oosa/en/ourwork/psa/schedule/schedule.html

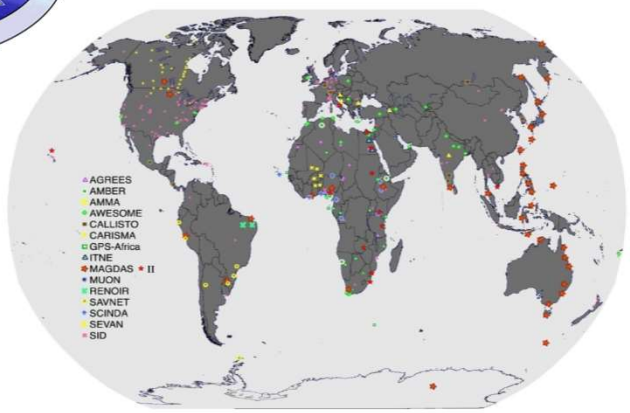


## Basic Space Science Initiative (BSSI)

- Int. Space Weather Initiative (2010-2012)
- Coordination of ISWI Instrument Networks
- Deployment and operation of 14 ground-based, world-wide instrument networks



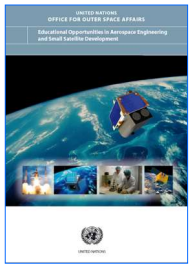


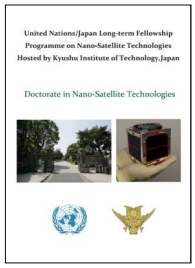



http://www.unoosa.org/oosa/en/ourwork/psa/bssi/index.html

## Basic Space Technology Initiative (BSTI)

- Objective:
  - Support capacity building and international cooperation in basic space technology development, particularly in the field of small satellite development
- Projects:
  - Annual international space technology symposiums
  - Long-term fellowship programme
  - Space engineering education curriculum




http://www.unoosa.org/oosa/en/ourwork/psa/bsti/index.html

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## Human Space Technology Initiative (HSTI)

- Objectives:
  - Create awareness among Member States on the benefits of human space technology and its applications;
  - Promote international cooperation in human space flight and space exploration-related activities;
  - Support capacity-building in microgravity research and education
- Projects:
  - Zero-Gravity Instrument Project (ZGIP)
  - Drop Tower Experiment Series (DropTES)
  - KiboCube – Satellite Deployment from ISS

http://www.unoosa.org/oosa/en/ourwork/psa/hsti/index.html

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## Kibo-CUBE Launch Opportunity

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Office for Outer Space Affairs

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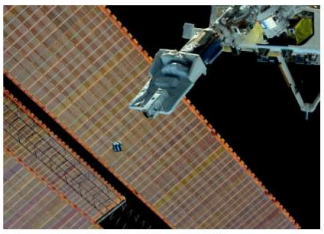
Our Work > Programme on Space Applications > HSTI > International Cooperation > KiboCUBE

### The United Nations/Japan Cooperation Programme on CubeSat Deployment from the International Space Station (ISS) Japanese Experiment Module (Kibo) "KiboCUBE"

BACKGROUND

The United Nations Office for Outer Space Affairs (UNOOSA) and the Japan Aerospace Exploration Agency (JAXA) are pleased to announce the *United Nations/Japan Cooperation Programme on CubeSat Deployment from the International Space Station (ISS) Japanese Experiment Module (Kibo) "KiboCUBE"*.

KiboCUBE is the dedicated collaboration between UNOOSA and JAXA in utilizing the ISS Kibo for the world. KiboCUBE aims to provide educational or research institutions from developing countries of United Nations membership with opportunities to deploy, from the ISS Kibo, cube satellites (CubeSats) which they develop and manufacture.



*Deployment of a CubeSat from the ISS. Photo: NASA/JAXA*

Our Work
Secretariat of COPUOS
Programme on Space Applications
- PSA News
- Expert on Space Applications
- Fellowships
- Schedule of Activities
- BSSI
- BSTI
- HSTI
  - International Cooperation
    - KiboCUBE
  - Outreach
  - Capacity-Building
    - ZOP
    - DropTES
- Thematic Priorities
- Regional Centres
- Publications
- Reports

- http://www.unoosa.org/oosa/en/ourwork/psa/hsti/kibocube.html
- Call Deadline: 31 March 2016

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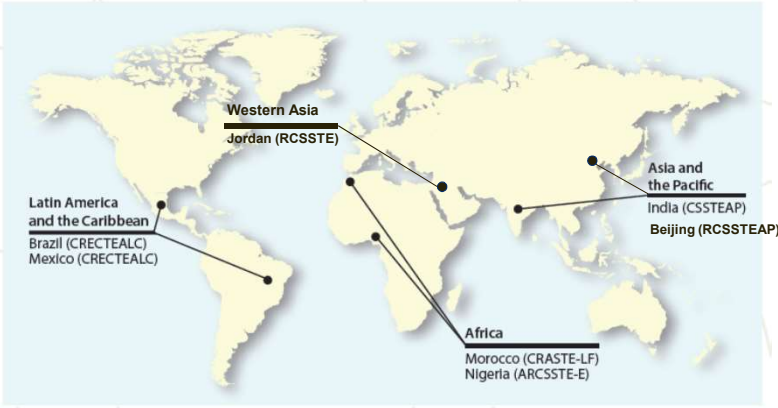
## Regional Centres, affiliated to the United Nations

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## United Nations Education Curricula


- Remote Sensing and Geographical Information Systems
- Satellite Communications
- Satellite Meteorology and Global Climate
- Space and Atmospheric Sciences as well as data management
- Global Navigation Satellite Systems
- Space Law
- Space Engineering (under development)



## International Committee on GNSS (ICG)

- Global Navigation Satellite Systems (GNSS) and their applications are overarching, enabling space technologies
- ICG Membership is open to GNSS providers or users of GNSS services
  - 9 nations and the European Community
  - 15 organizations ( UN system entities, IGOs, NGOs)
- Regular ICG meetings
  - Adopted the ICG Work Plan and Terms of Reference
  - Established a Providers Forum
- http://www.unoosa.org/oosa/en/ourwork/icg/icg.html

ICG International Committee on Global Navigation Satellite Systems

## UN-SPIDER

- United Nations Platform for Space-based Information for Disaster Management and Emergency Response
- Ensure that all countries and regional and international organisations have access to and develop the capacity to use all types of space-based information to support the full disaster management cycle
- Building on existing capabilities
- http://www.un-spider.org


UN-SPIDER in Vienna | UN-SPIDER Beijing Office | UN-SPIDER Bonn Office



## UN-SPIDER Network of Regional Support Offices

## UN-SPIDER Technical Advisory Missions


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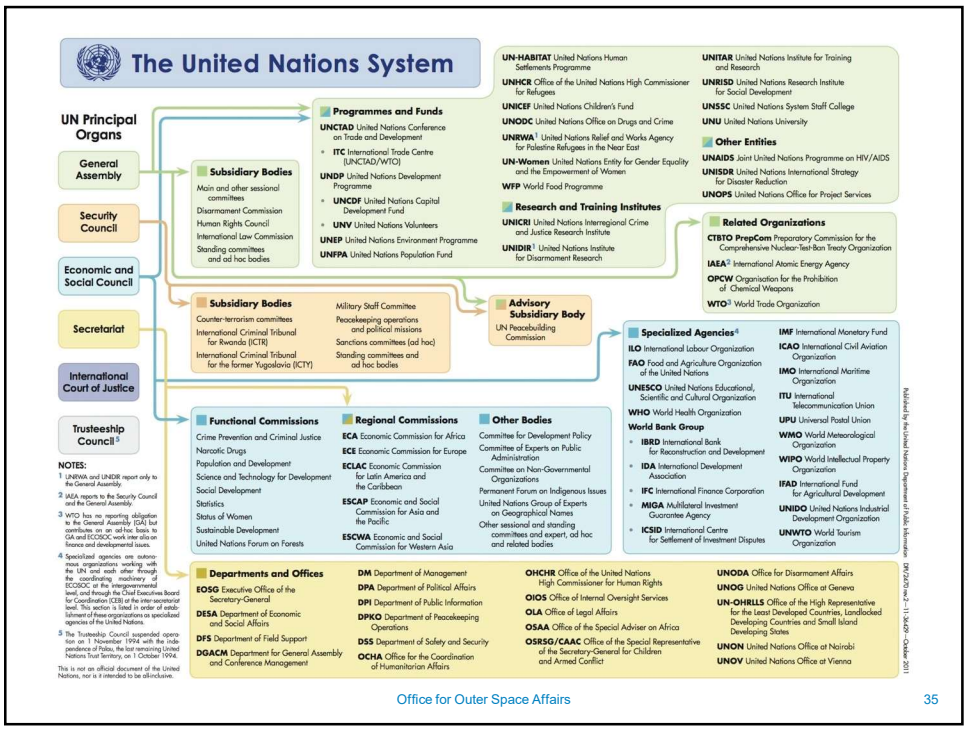
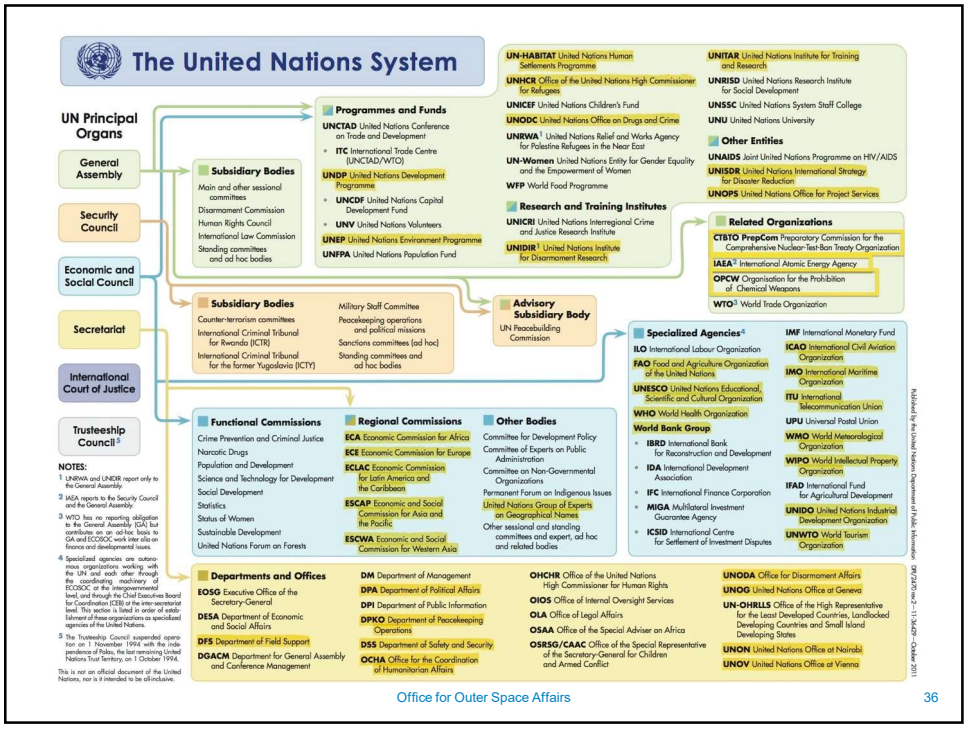
# IV. Outer Space in the United Nations System: UN-Space


The United Nations System
UN Principal Organs
General Assembly
Security Council
Economic and Social Council
Secretariat
International Court of Justice
Trusteeship Council[5]
Subsidiary Bodies
Main and other sessional committees
Disarmament Commission
Human Rights Council
International Law Commission
Standing committees and ad hoc bodies
Programmes and Funds
UNCTAD United Nations Conference on Trade and Development
ITC International Trade Centre (UNCTAD/WTO)
UNDP United Nations Development Programme
UNCDF United Nations Capital Development Fund
UNV United Nations Volunteers
UNEP United Nations Environment Programme
UNFPA United Nations Population Fund
UN-HABITAT United Nations Human Settlements Programme
UNHCR Office of the United Nations High Commissioner for Refugees
UNICEF United Nations Children's Fund
UNODC United Nations Office on Drugs and Crime
UNRWA[1] United Nations Relief and Works Agency for Palestine Refugees in the Near East
UN-Women United Nations Entity for Gender Equality and the Empowerment of Women
WFP World Food Programme
Research and Training Institutes
UNICRI United Nations Interregional Crime and Justice Research Institute
UNIDIR[1] United Nations Institute for Disarmament Research
UNITAR United Nations Institute for Training and Research
UNRISD United Nations Research Institute for Social Development
UNSSC United Nations System Staff College
UNU United Nations University
Other Entities
UNAIDS Joint United Nations Programme on HIV/AIDS
UNISDR United Nations International Strategy for Disaster Reduction
UNOPS United Nations Office for Project Services
Related Organizations
CTBTO PrepCom Preparatory Commission for the Comprehensive Nuclear-Test-Ban Treaty Organization
IAEA[2] International Atomic Energy Agency
OPCW Organisation for the Prohibition of Chemical Weapons
WTO[3] World Trade Organization
Subsidiary Bodies
Counter-terrorism committees
International Criminal Tribunal for Rwanda (ICTR)
International Criminal Tribunal for the former Yugoslavia (ICTY)
Military Staff Committee
Peacekeeping operations and political missions
Sanctions committees (ad hoc)
Standing committees and ad hoc bodies
Advisory Subsidiary Body
UN Peacebuilding Commission
Specialized Agencies[4]
ILO International Labour Organization
FAO Food and Agriculture Organization of the United Nations
UNESCO United Nations Educational, Scientific and Cultural Organization
WHO World Health Organization
World Bank Group
IBRD International Bank for Reconstruction and Development
IDA International Development Association
IFC International Finance Corporation
MIGA Multilateral Investment Guarantee Agency
ICSID International Centre for Settlement of Investment Disputes
IMF International Monetary Fund
ICAO International Civil Aviation Organization
IMO International Maritime Organization
ITU International Telecommunication Union
UPU Universal Postal Union
WMO World Meteorological Organization
WIPO World Intellectual Property Organization
IFAD International Fund for Agricultural Development
UNIDO United Nations Industrial Development Organization
UNWTO World Tourism Organization
Functional Commissions
Crime Prevention and Criminal Justice
Narcotic Drugs
Population and Development
Science and Technology for Development
Social Development
Statistics
Status of Women
Sustainable Development
United Nations Forum on Forests
Regional Commissions
ECA Economic Commission for Africa
ECE Economic Commission for Europe
ECLAC Economic Commission for Latin America and the Caribbean
ESCAP Economic and Social Commission for Asia and the Pacific
ESCWA Economic and Social Commission for Western Asia
Other Bodies
Committee for Development Policy
Committee of Experts on Public Administration
Committee on Non-Governmental Organizations
Permanent Forum on Indigenous Issues
United Nations Group of Experts on Geographical Names
Other sessional and standing committees and expert, ad hoc and related bodies
Departments and Offices
EOSG Executive Office of the Secretary-General
DESA Department of Economic and Social Affairs
DFS Department of Field Support
DGACM Department for General Assembly and Conference Management
DM Department of Management
DPA Department of Political Affairs
DPI Department of Public Information
DPKO Department of Peacekeeping Operations
DSS Department of Safety and Security
OCHA Office for the Coordination of Humanitarian Affairs
OHCHR Office of the United Nations High Commissioner for Human Rights
OIOS Office of Internal Oversight Services
OLA Office of Legal Affairs
OSAA Office of the Special Adviser on Africa
OSRSG/CAAC Office of the Special Representative of the Secretary-General for Children and Armed Conflict
UNODA Office for Disarmament Affairs
UNOG United Nations Office at Geneva
UN-OHRLLS Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
UNON United Nations Office at Nairobi
UNOV United Nations Office at Vienna
NOTES:
1 UNRWA and UNIDIR report only to the General Assembly.
2 IAEA reports to the Security Council and the General Assembly.
3 WTO has no reporting obligation to the General Assembly (GA) but contributes on an ad-hoc basis to GA and ECOSOC work inter alia on finance and developmental issues.
4 Specialized agencies are autonomous organizations working with the UN and each other through the coordinating machinery of ECOSOC at the intergovernmental level, and through the Chief Executives Board for Coordination (CEB) at the inter-secretariat level. This section is listed in order of establishment of these organizations as specialized agencies of the United Nations.
5 The Trusteeship Council suspended operation on 1 November 1994 with the independence of Palau, the last remaining United Nations Trust Territory, on 1 October 1994.
This is not an official document of the United Nations, nor is it intended to be all-inclusive.
Published by the United Nations Department of Public Information DPI/2470 rev.2—11-36429—October 2011

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International Criminal Tribunal for the former Yugoslavia (ICTY)
Military Staff Committee
Peacekeeping operations and political missions
Sanctions committees (ad hoc)
Standing committees and ad hoc bodies
Advisory Subsidiary Body
UN Peacebuilding Commission
Specialized Agencies[4]
ILO International Labour Organization
FAO Food and Agriculture Organization of the United Nations
UNESCO United Nations Educational, Scientific and Cultural Organization
WHO World Health Organization
World Bank Group
IBRD International Bank for Reconstruction and Development
IDA International Development Association
IFC International Finance Corporation
MIGA Multilateral Investment Guarantee Agency
ICSID International Centre for Settlement of Investment Disputes
IMF International Monetary Fund
ICAO International Civil Aviation Organization
IMO International Maritime Organization
ITU International Telecommunication Union
UPU Universal Postal Union
WMO World Meteorological Organization
WIPO World Intellectual Property Organization
IFAD International Fund for Agricultural Development
UNIDO United Nations Industrial Development Organization
UNWTO World Tourism Organization
Functional Commissions
Crime Prevention and Criminal Justice
Narcotic Drugs
Population and Development
Science and Technology for Development
Social Development
Statistics
Status of Women
Sustainable Development
United Nations Forum on Forests
Regional Commissions
ECA Economic Commission for Africa
ECE Economic Commission for Europe
ECLAC Economic Commission for Latin America and the Caribbean
ESCAP Economic and Social Commission for Asia and the Pacific
ESCWA Economic and Social Commission for Western Asia
Other Bodies
Committee for Development Policy
Committee of Experts on Public Administration
Committee on Non-Governmental Organizations
Permanent Forum on Indigenous Issues
United Nations Group of Experts on Geographical Names
Other sessional and standing committees and expert, ad hoc and related bodies
Departments and Offices
EOSG Executive Office of the Secretary-General
DESA Department of Economic and Social Affairs
DFS Department of Field Support
DGACM Department for General Assembly and Conference Management
DM Department of Management
DPA Department of Political Affairs
DPI Department of Public Information
DPKO Department of Peacekeeping Operations
DSS Department of Safety and Security
OCHA Office for the Coordination of Humanitarian Affairs
OHCHR Office of the United Nations High Commissioner for Human Rights
OIOS Office of Internal Oversight Services
OLA Office of Legal Affairs
OSAA Office of the Special Adviser on Africa
OSRSG/CAAC Office of the Special Representative of the Secretary-General for Children and Armed Conflict
UNODA Office for Disarmament Affairs
UNOG United Nations Office at Geneva
UN-OHRLLS Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
UNON United Nations Office at Nairobi
UNOV United Nations Office at Vienna
NOTES:
1 UNRWA and UNIDIR report only to the General Assembly.
2 IAEA reports to the Security Council and the General Assembly.
3 WTO has no reporting obligation to the General Assembly (GA) but contributes on an ad-hoc basis to GA and ECOSOC work inter alia on finance and developmental issues.
4 Specialized agencies are autonomous organizations working with the UN and each other through the coordinating machinery of ECOSOC at the intergovernmental level, and through the Chief Executives Board for Coordination (CEB) at the inter-secretariat level. This section is listed in order of establishment of these organizations as specialized agencies of the United Nations.
5 The Trusteeship Council suspended operation on 1 November 1994 with the independence of Palau, the last remaining United Nations Trust Territory, on 1 October 1994.
This is not an official document of the United Nations, nor is it intended to be all-inclusive.
Published by the United Nations Department of Public Information DPI/2470 rev.2—11-36429—October 2011

## Examples of Space Applications Use in the UN

| United Nations Entity | Space-related Activities |
|---|---|
| Department of Peacekeeping Operations (DPKO) | Establishment of GIS units in major United Nations Peacekeeping Missions, base mapping |
| International Strategy for Disaster Reduction Secretariat (ISDR) | PreventionWeb (www.preventionweb.net), Hazard and vulnerability profiles |
| Office for the Coordination of Humanitarian Affairs (OCHA) | ReliefWeb (www.reliefweb.int), End-user support for disaster response (ICT kits) |
| United Nations Office on Drugs and Crime (UNODC) | Illicit Crop Monitoring Programme |
| Food and Agriculture Organization of the United Nations (FAO) | GeoNetwork, AsiaCover, AFRICOVER Land Cover Mapping and Global Land Cover Network (GLCN), Global Terrestrial Observing System (GTOS), Advanced Real Time Environmental Monitoring Information System (ARTEMIS) |
| International Civil Aviation Organization (ICAO) | World Area Forecast , Aircraft emergency locator systems in co-ordination with COSPAS-SARSAT, Global Navigation Satellite System (GNSS) for navigation, Frequency spectrum issues in co-ordination with ITU and IMO |
| International Maritime Organization (IMO) | Maritime navigation, Satellite communications |
| International Telecommunications Union (ITU) | Radio regulations governing the use of the radio-frequency spectrum and satellite orbits, Telecommunications and remote sensing for disaster management |

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## Examples of Space Applications Use in the UN

| United Nations Entity | Space-related Activities |
|---|---|
| United Nations Educational, Scientific and Cultural Organization (UNESCO) | UNESCO Space Education Programme, World Climate Research Programme (Intergovernmental Oceanographic Commission of UNESCO) |
| World Health Organization (WHO) | Health Mapping Project |
| World Meteorological Organization (WMO) | WMO Space Programme and the space-based Global Observing System (GOS) |
| World Bank Group | Co-financing of space applications-based projects, Environmental monitoring, project assessments, GFDRR |
| Economic and Social Commission for Asia and the Pacific (ESCAP) | Regional Space Applications Programme (RESAP) |
| International Atomic Energy Agency (IAEA) | Safety of space nuclear power sources (NPS) |
| Office of the United Nations High Commissioner for Refugees (UNHCR) | Refugee Camp Mapping |
| World Food Programme (WFP) | Vulnerability Analysis and Mapping (VAM) |
| United Nations Institute for Training and Research (UNITAR) | Operational Satellite Applications Programme (UNOSAT) |
| CTBTO (Preparatory Commission) | Global Communications Infrastructure |

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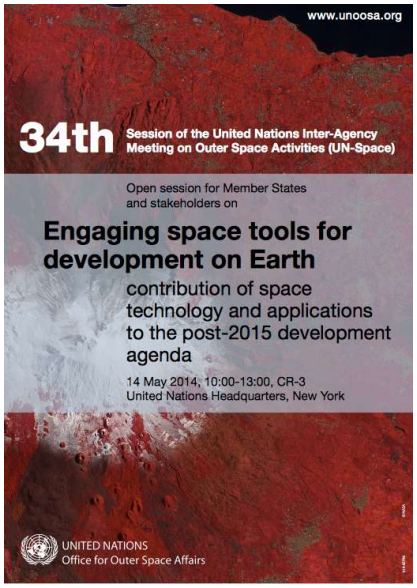
## UN Coordination of Outer Space Activities




- Originated as a Sub-Committee on Outer Space Activities of the Administrative Committee on Co-ordination in 1974
- Annual Inter-Agency Meeting on Outer Space Activities (UN-Space)
- Participation of up to 26 UN entities
- Bi-annual Report of the UN Secretary General and other special reports
- See http://www.uncosa.unvienna.org

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## Special Reports of UN-Space

| Year | Document | Topic |
|---|---|---|
| 2015 | A/AC.105/1091 | Space for global health<br>Special report of the Inter-Agency Meeting on Outer Space Activities on the use of space science and technology within the United Nations system for global health |
| 2013 | A/AC.105/1042 | Space for agriculture development and food security<br>Special report of the Inter-Agency Meeting on Outer Space Activities on the use of space technology within the United Nations system for agriculture development and food security |
| 2011 | A/AC.105/991 | Space and climate change<br>Special report of the Inter-Agency Meeting on Outer Space Activities on the use of space technology within the United Nations system to address climate change issues |
| 2009 | A/AC.105/941 | Space benefits for Africa: contribution of the United Nations |
| 2005 | A/AC.105/843 | New and emerging technologies, applications and initiatives for space-related inter-agency cooperation |

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# V. UNISPACE+50



UNISPACE+50

## Towards UNISPACE+50 in 2018

**2018** marks the 50th anniversary of the first UN Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE), held in Vienna in 1968

**Committee on the Peaceful Uses of Outer Space (COPOUS)** decided in June 2015 to use this milestone anniversary to renew and strengthen its mandate as a **unique platform for interrelationship between major space faring nations and emerging space nations**, supported by the UN Office for Outer Space Affairs (**UNOOSA**)

@UN Photo

➢**UNISPACE+50 will articulate a long-term vision for Space**

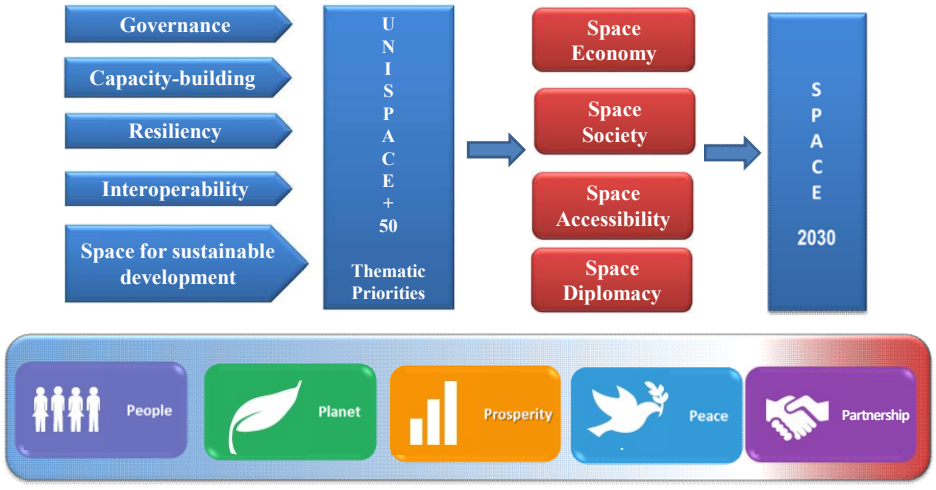
## 2018 UNISPACE+50 will:

- **Take stock of the contributions of the three UNISPACE conferences** (UNISPACE I, held in 1968, UNISPACE II, held in 1982 and UNISPACE III, held in 1999) to global space governance;
- Consider the development of **stronger space governance** and supporting structures at all levels, taking into account the 2030 Agenda for Sustainable Development and the new sustainable development goals;
- Consider **international mechanisms & frameworks**, which are reflective of an evolving and more complex space agenda that includes the **broader concept of space security**, the **expanding commercial space sector** and the **long-term sustainability of outer space activities**;
- Consider **mechanisms and processes for resiliency and interoperability**, such as in the field of **disaster risk reduction**, taking into account the Sendai Framework for Disaster Risk Reduction 2015-2030, and other coordination efforts, such as relating to the **near-Earth object impact threat** and **space weather**;
- Consider **mechanisms and platforms for space cooperation and coordination** at the international, regional, interregional and national levels towards stronger space governance and global partnerships.

## As a blueprint towards Space 2030, UNISPACE+50 aims to:

- Define its outputs, taking into account **the evolving and complex Space agenda**. **Broader concept of space security**. **Expanding commercial space sector. Space exploration.**
- **Engage all key stakeholders in the space arena**, including governmental and non-governmental actors, commercial sector, civil society, young generation and public at large
- Build synergies with the outcomes of the key UN Summits in 2015, the **2030 Agenda for Sustainable Development,** the **Sendai Framework for Disaster Risk Reduction 2015-2030** and the outcomes of the **2015 Paris Climate Summit** (COP21)

## UNISPACE+50 Process



## UNISPACE+50 Process

- 2016: COPUOS and its Subcommittees (Scientific and Technical, and Legal ) will define UNISPACE+50 **thematic priorities** based on the following **cross-cutting areas, where COPOUS has made its major contributions**:
  - **Space governance** (UN treaties and principles on outer space, COPUOS guidelines GA resolutions on outer space)
  - **Capacity-building** (in the use of space science and technology and their applications for the benefit of all countries)
  - **Resiliency** (disaster risk reduction, near-Earth objects, space weather )
  - **Interoperability** (including work done by the International Committee on Global Navigation Satellite Systems (ICG) and other current and new coordination mechanisms, such as IAWN, SMPAG)
  - **Space for sustainable development** (efforts by the Committee and its member States as well as UNOOSA to meet the 2030 Agenda for Sustainable Development)

## UNOOSA works towards UNISPACE+50 deliverables under 4 pillars:

**SPACE ECONOMY / SPACE SOCIETY / SPACE ACCESSIBILITY / SPACE DIPLOMACY**

- These pillars will guide our preparations towards **UNISPACE +50** and beyond
- A series of **High-level Fora "Space as a Driver for Socioeconomic Sustainable Development"** will address deliverables under these 4 pillars
- **States and space community** at large are invited to actively engage in this process

# KEY DATES

- 2016: **20 – 24 November 2016**: 1st High Level Forum "Space as a driver for socioeconomic sustainable development", Dubai, United Arab Emirates
- 2017: 2nd HLF
- 2018: 3rd HLF

**2018: UNISPACE+50: 18-29 June 2018**

High-level events (18-19 June) and opening 20 June

**www.unoosa.org**

## UNISPACE Conferences

- UNISPACE I (1968)
  - Establishment of the United Nations Programme on Space Applications
- UNISPACE II (1982)
  - Expansion of the mandate of the UN Programme on Space Applications
  - Establishment of the Regional Centres for Space Science and Technology Education, affiliated to the United Nations
- UNISPACE III (1999)
  - Establishment of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER)
  - Establishment of the International Committee on Global Navigation Satellite Systems (ICG)
  - International Charter Space and Major Disasters
  - Establishment of the Space Generation Advisory Council (SGAC)

## UNISPACE+50

- In 2015 the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), adopted the **UNISPACE+50 initiative**
- UNISPACE+50 will be held in 2018 and seeks to **develop stronger space governance and supporting structures at all levels**, building on the **2030 Agenda for Sustainable Development**
- UNISPACE+50 will consider ways and means for **strengthening the role of UNOOSA and COPUOS** within the United Nations system and the global space community
- It prioritises improved governance, capacity-building, resilience, interoperability of systems and space for sustainable development.



## Path Towards UNISPACE+50

- UNISPACE+50 to be prepared through a series of High Level Fora on the theme “Space as a Driver for Socio-Economic Sustainable Development” to be held 2016-2018
- Four Pillars will guide the preparation of UNISPACE+50:
  1. Space Economy
  2. Space Society
  3. Space Accesibility
  4. Space Diplomacy
- Thematic Priorites for UNISPACE+50 have been identified
- “Fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space: theCommittee on the Peaceful Uses of Outer Space and globalspace governance” (A/AC.105/C.1/2016/CRP.4)
- See http://www.unoosa.org/oosa/en/ourwork/unispaceplus50/index.html

## Thank you for your attention!

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