



**UN/UAE High Level Forum (HLF) 2017**

**Global Space Partnership for  
Sustainable Development Goals (SDGs)**

United Nations Office for Outer Space Affairs

6-7 November 2017, Dubai



## ❖ Part I Justification

## ❖ Part II Areas of Action

## ❖ Part III Organization and Partners



# A Challenging 2030 Agenda for Sustainable Development

- ❑ UNGA resolution 70/1 of 25 September 2015, entitled “Transforming our world: the 2030 Agenda for Sustainable Development”.
- ❑ Requires new approaches to remove existing barriers and to solve issues that prevent countries to make progress towards and finally achieve the SDGs.



**17 Goals**

**169 Targets**

**232 Indicators**



## Global Partnership is important for SDGs

- ❑ **Goal 17** calls for strengthening the means of implementation and revitalizing the Global Partnership for Sustainable Development.
- ❑ **UNGA resolution 70/224** of 22 December 2015, entitled “Towards global partnerships: a principle-based approach to enhanced cooperation between the United Nations and all relevant partners”, recognized the importance of the contributions of all relevant partners, in particular the private sector, and outlined recommendations for enhancing cooperation between UN and the private sector.
- ❑ The United Nations enters an era of **increasing resource constraints**. The 2030 Agenda can only be realized with a strong commitment to partnerships at all levels between governments, the private sector, civil society and others.



# Implementation of the 2030 Agenda

- ❑ The **political steering and oversight process**: the **High-level Political Forum (HLPF)** ensures the political oversight of the overall process and leverages and coordinates the many UN efforts, and those of international organizations and other partnerships.
- ❑ **Specific processes for SDGs Indicators**
  - The **High-level Group for Partnership, Coordination and Capacity-Building** for statistics for the 2030 Agenda for Sustainable Development (**HLCG-PCCB**), provides strategic leadership for statistical monitoring and reporting.
  - The **Inter-Agency and Expert Group on SDG Indicators (IAEG-SDGs)** develops and implement the global indicator framework for the goals and targets of the 2030 Agenda. It has three Working Groups, including one on geospatial information.



## Diverse Roles of Space in Helping Countries

- Promote ..... public-private cooperation to exploit the contribution to be made by a wide range of data, including Earth observation and geo-spatial information, while ..... (Art 76 of the UNGA resolution on Agenda 2030 )
- Earth Observations from space directly contribute to almost all SDGs.
- The access to ICTs and to GNSS services are necessary elements of Economic Growth, Social Inclusion, and Environmental Sustainability.
- Space Exploration is important for innovation and technical advancement.
- Space Treaties and related legal system sustain peace and equality.
- And more, Space Education, Planetary Defense.....

SDG 1: No poverty							
SDG 2: Zero hunger							
SDG 3: Good health and well-being							
SDG 4: Quality education							
SDG 5: Gender equality							
SDG 6: Clean water and sanitation							
SDG 7: Affordable and clean energy							
SDG 8: Decent work and economic growth							
SDG 9: Industry, innovation and infrastructure							
SDG 10: Reduced inequalities							
SDG 11: Sustainable cities and communities							
SDG 12: Responsible consumption and production							
SDG 13: Climate action							
SDG 14: Life below water							
SDG 15: Life on land							
SDG 16: Peace, justice and strong institutions							
SDG 17: Partnerships for the goals							



## Countries Need Support

- ❑ The 2030 Agenda poses challenges to countries, in particular developing countries.
- ❑ Realizing the SDGs is not what few countries or few sectors alone can achieve. It requires a global effort with the leading players in each sector being involved and taking responsibility and it would also imply novel ways in governance and new means to connect policy makers to data, information and knowledge.
- ❑ Space as an innovative approach should answer to countries needs. However, space related infrastructure, data, information and integrated services will play crucial roles only if they become an essential and integral part of this whole-society effort to achieve the SDGs.





# A Global Partnership in Space is Needed

- ❑ Establish a **direct link** between Space and SDGs implementation through one authoritative organization;
- ❑ Identify **countries' needs** (“space assets users’ needs”) and foster the **availability** of Space Systems capacity to meet them; this is a critical gap not currently addressed at the right level - global and interdisciplinary.
- ❑ Coordinate and complement the ongoing supporting actions at different levels thus improving the **cost effectiveness** of the global process.





## A New Global Partnership in Space

- ❑ Synergy and concerted efforts are important for effective use of constrained resources by all countries. International space cooperation should be unified and strengthened to better contribute to global sustainable development.
- ❑ UNOOSA and COPUOS, based on their unique mandate within the UN System, are committed to help countries achieve SDGs by fostering availability and facilitating countries' access to and use of all “needed space assets”.
- ❑ A new, global Partnership, under UNOOSA coordination and COPUOS oversight appears to be the most appropriate solution to consider.



## A Unique Partnership

- ❑ COPUOS: the General Assembly's only committee dealing exclusively with international cooperation in the peaceful uses of outer space.
- ❑ UNOOSA: the Secretariat of COPUOS and its subsidiary bodies; leading the UN-Space, an inter-agency mechanism for outer space related matters among UN system entities.
- ❑ Under the framework of COPUOS and as UNOOSA the leading partner, the Partnership can bring together the greatest variety of stakeholders and encompass all related areas of space. The Partnership will be unique in helping countries get comprehensive support from space to address their needs in achieving SDGs.



# The Global Space Partnership for SDGs

- ❑ Global Partnership for the Coordination of Development, Operation and Utilization of the Space related Infrastructure, Data, Information and Services in support of the 2030 Development Agenda.
- ❑ A strengthened coordinating role of United Nations vis-à-vis the global space community.
- ❑ UNOOSA as the leading Partner and the COPUOS as the “decision making body” of reference.
- ❑ Objective: identify the **countries’ needs** and foster the **availability of space systems capacity** to meet these needs; **solve problems/overcome existing gaps and constraints** that prevent countries to make full use of space assets; and improve (through coordination of existing efforts) the **cost effectiveness** of the ongoing global actions.



## Participation of the new partnership to the SDGs process

- ❑ Active within the Executive Committee of Economic and Social Affairs Plus, in promoting the idea of the Partnership and the expected benefits;
- ❑ Making a clear connection with the High-level Political Forum (HLPF), accepting actions and providing regular reporting;
- ❑ Becoming a key actor in the SDGs indicators process;
- ❑ Actively participating and contribute to the processes supporting resource mobilization;
- ❑ Becoming part of collaborative mechanisms such as UN-Water, UN-Oceans, by coordinating the availability of Space Assets.
- ❑ Working closely with countries on pilot projects and capacity building, enhancing current initiatives such as UN-SPIDER.

The long term perspective would be that the global partnership would become the authoritative entity and the reference for countries for matters associated to countries' access to space assets.



❖ **Part I Justification**

❖ **Part II Areas of Action**

❖ **Part III Organization and Partners**



## Areas of Action

- ❑ At the Policy level, that Space Assets are recognized as key components for SDGs implementation and that this is explicitly referred to in high level documents;
- ❑ At Coordination & Planning level, active participation to all Fora, Committees, Working Groups and processes dealing with Space Assets contribution to SDGs, making sure that suitable actions are agreed and put in place for their actual use; and
- ❑ At Implementation level, delivering the outputs coming from its core processes, improve/complement mechanisms already in place, identify and foster implementation of new ones, coordinate capacity building actions and recommend gap-closure actions.



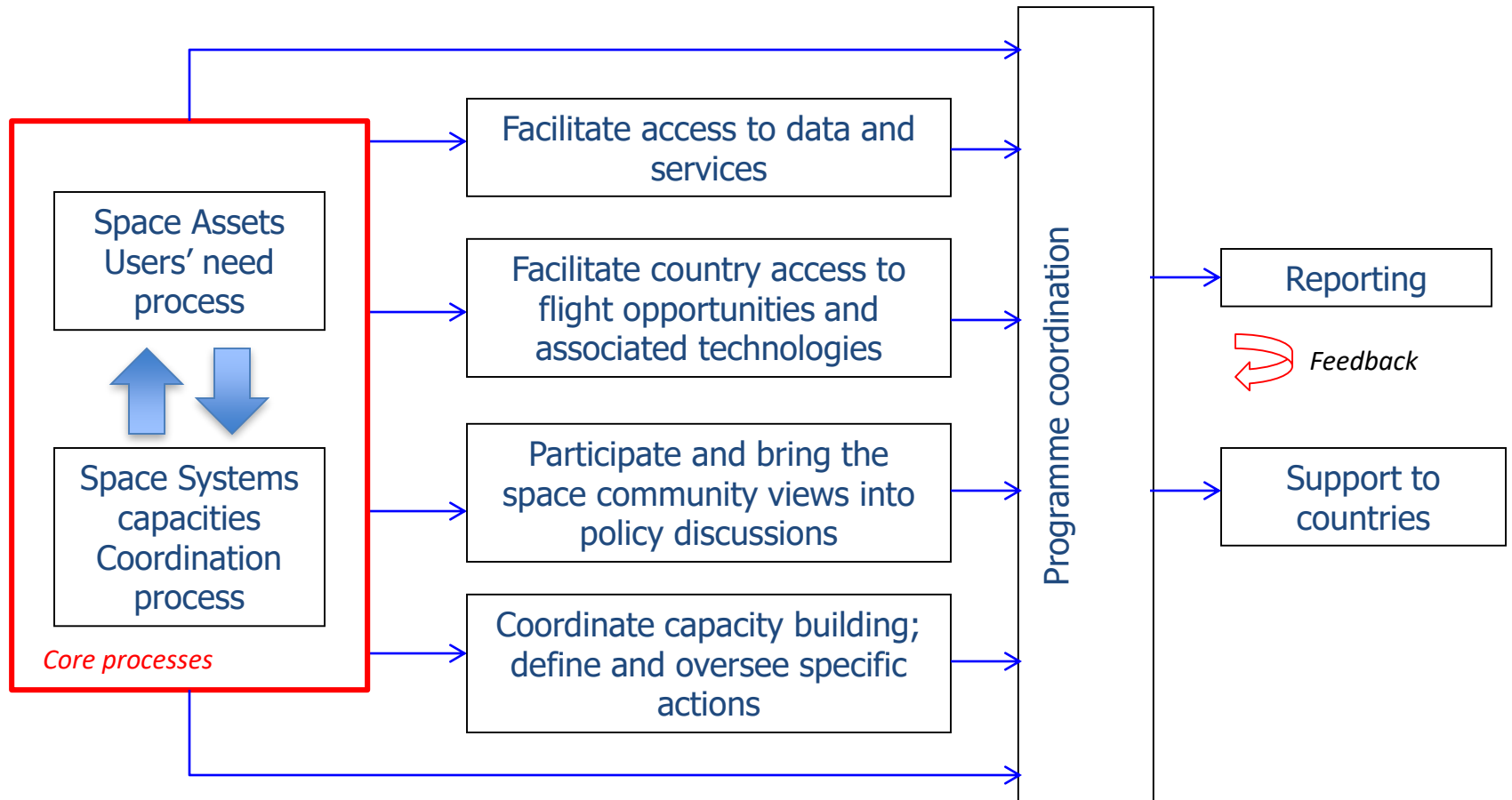
## Major Activities

- Management and Coordination.
- User needs process.
- Space systems capacity coordination.
- Access to space assets.
- Contribution to policy definition processes.
- Capacity building.

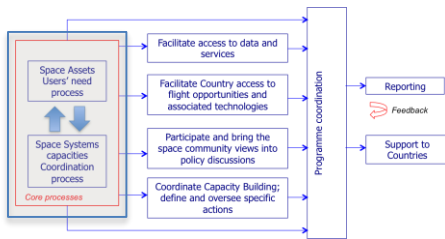
*The first three areas constitute the core Partnership's processes, while for the other areas the Partnership will mainly play a facilitating/supporting role.*



# Schematic flow of Partnership's activities



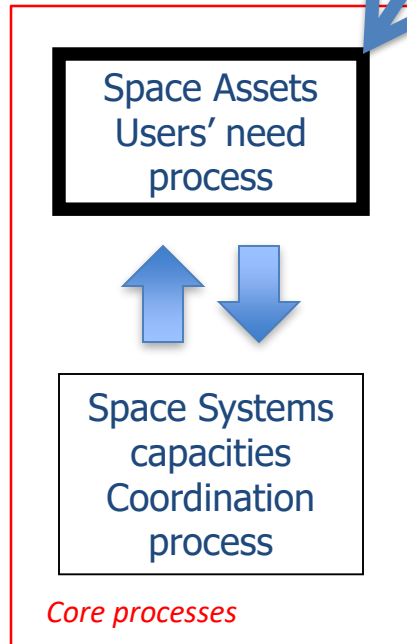
# Schematic flow of Partnership's activities



With organizations active in similar processes that foresee the full involvement of end-users (countries) and that are linked to the SDG implementation and monitoring processes.

Such as, *inter alia*:

- All UN-supported resolutions (SDGs, Sendai, ..),
- all UN Conventions (UNFCCC, UNCCD, UNCBD,..);
- UN Organizations, programmes, specialized agencies and initiatives, such as FAO, UNEP, UNDP, WMO, WHO, UN-HABITAT, UN-GGIM ...
- ITU, GEO, CEOS (already proposed Partners)
- GFCS (Global Framework for Climate services)

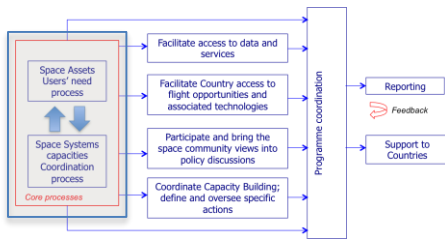


## Deliverables

A report (every two years?) identifying a global set of “Space Assets user needs” in support of SDGs achievement constituting the technical/programmatic reference to obtain commitments from:

- Space Assets providers
- for countries and organizations to identify/fill gaps

# Schematic flow of Partnership's activities



The process will build on and will include on going processes aiming (partially or totally) at the same objectives, such as:

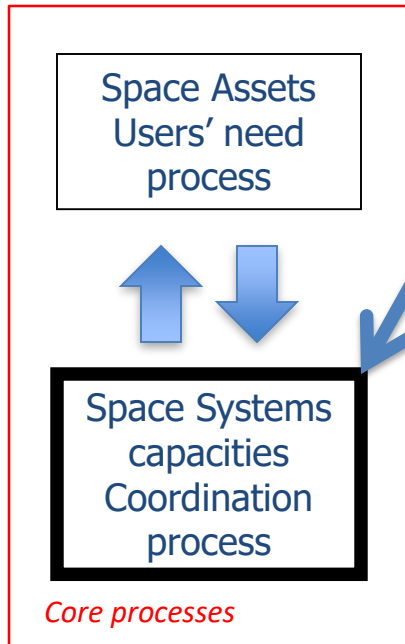
- CEOS, CGMS, ICG, ITU
- ITSO(International Telecommunications Satellite Organization)
- Working Group on the Long term Sustainability of Outer Space Activities (COPUOS/TSC)
- Other major public and private space systems developers and operators

## Deliverables

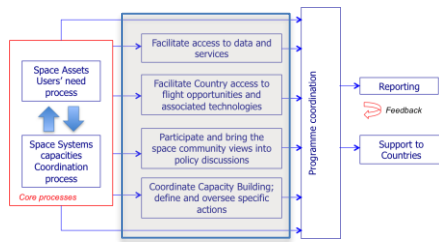
A periodic consultation mechanism with major agencies/actors active in each domain, culminating in a yearly forum; and

A yearly report highlighting the situation in terms of:

- gaps in the availability of systems/data/services and threats to ensure their continuity;
- Accomplishments;
- recommended actions
- open issues



# Building on existing initiatives



Facilitate access to data and services

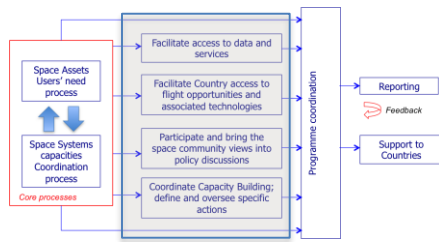
Facilitate Country access to flight opportunities and associated technologies

Participate and bring the space community views into policy discussions

Coordinate Capacity Building; define and oversee specific actions

- UN Sustainable Development Solutions Network (SDSN)
- Global Partnership for Sustainable Development Data (GPSDD)
- Africa Space Policy and Strategy
- UN-SPIDER
- UNOOSA DigitalGlobe Agreement
- UN Committee of Experts on Global Geospatial Information Management (UN-GGIM)
- UNEP Live
- UNITAR/UNOSAT Programme
- Group on Earth Observations (GEO)
- BRICS Remote Sensing Satellite Constellation
- UNOOSA/CNSA MoU on Earth Observation Satellite Data
- International Charter Space and Major Disasters
- Committee on Earth Observation Satellites (CEOS)
- Coordination Group for Meteorological Satellites (CGMS)
- Radiant (formerly OIN - Open Imagery Network)
- International Telecommunications Satellite Organization (ITSO)
- Telecommunications Industry Association
- Emergency Telecommunications Cluster
- Smart Sustainable Development Model Initiative (SSDM, led by ITU)
- International Committee on Global Navigation Satellite System (ICG)
- UNOOSA/UNDP Cooperation Agreement (in process)

# Building on existing initiatives



Facilitate access to data and services

Facilitate Country access to flight opportunities and associated technologies

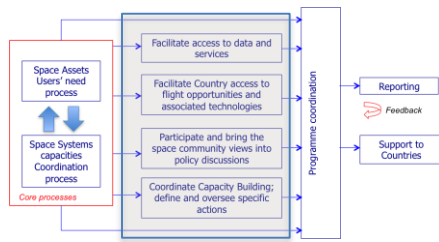
Participate and bring the space community views into policy discussions

Coordinate Capacity Building; define and oversee specific actions

UNOOSA initiatives as a starting point:

- ZGIP clinostat microgravity plant growth experiment
- DropTower Experiment Series (DropTES)
- KiboCube small satellite programme with JAXA
- UNOOSA/Sierra Nevada Corporation
- UNOOSA/CMSA on the use of China's manned space station and use of India space infrastructure under discussion
- Small Satellite Manufacturing Facility at MIHAN- Maharashtra (CANEUS)

# Building on existing initiatives



Facilitate access to data and services

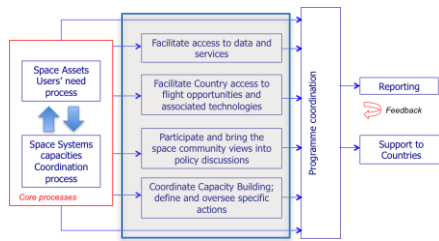
Facilitate Country access to flight opportunities and associated technologies

Participate and bring the space community views into policy discussions

Coordinate Capacity Building; define and oversee specific actions

- SDG Implementation process
- Africa space policy and strategy
- Peaceful use of outer space led by COPUOS/UNOOSA and UNISPACE+50 in 2018
- Management of the RF spectrum (led by ITU)
- Data access policies, to progressively remove existing barriers
- UN Conventions, by regularly reporting to the different COPs and to provide authoritative advice on the benefits stemming from the use of Space assets

# Building on existing initiatives



Facilitate access to data and services

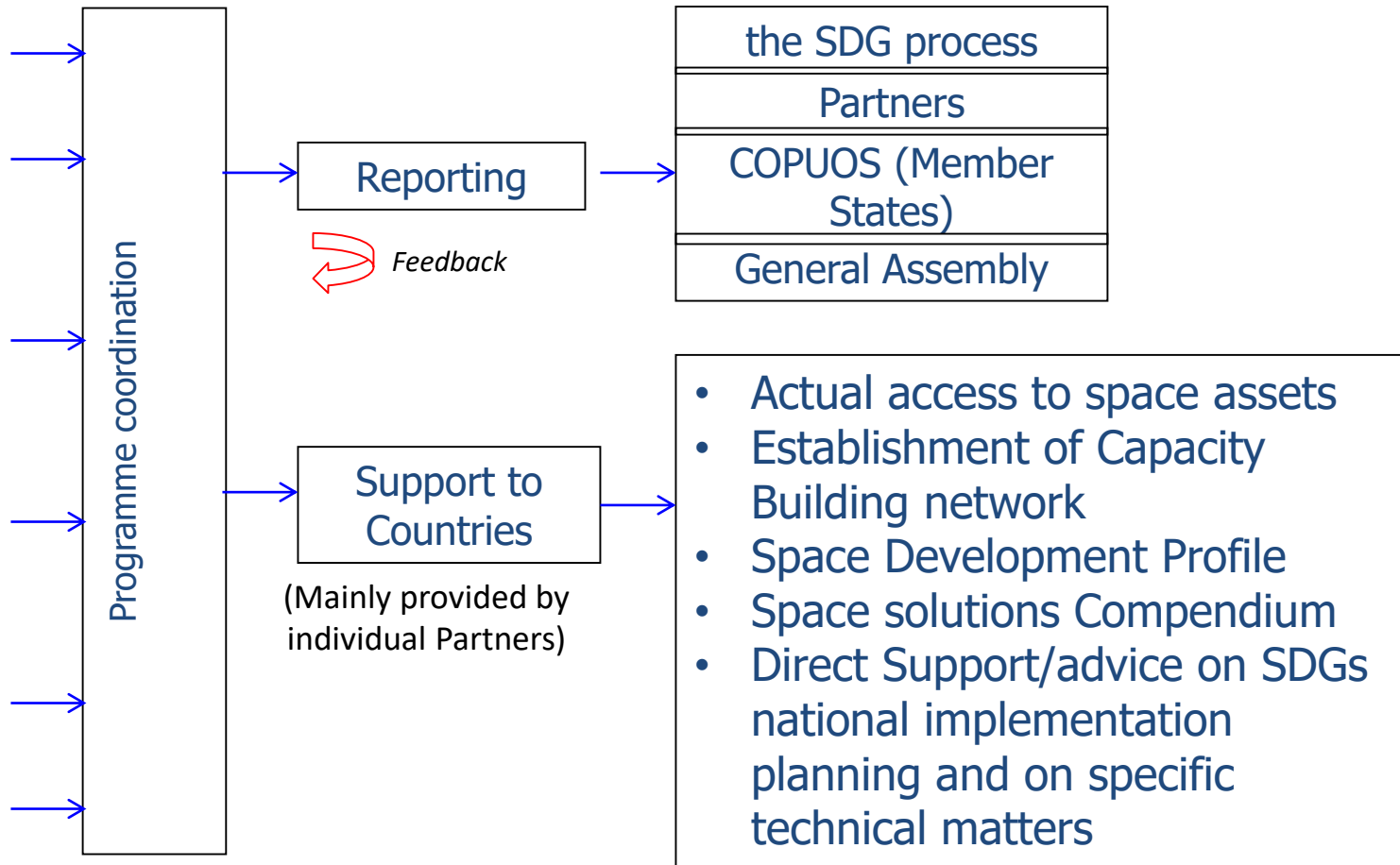
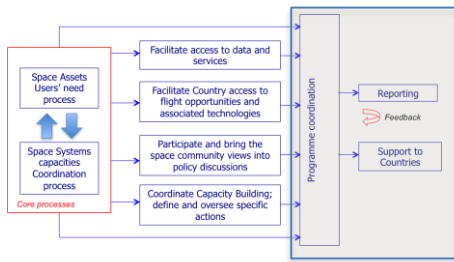
Facilitate Country access to flight opportunities and associated technologies

Participate and bring the space community views into policy discussions

**Coordinate Capacity Building; define and oversee specific actions**

- UN-SPIDER training courses/Technical Advisory Missions/Workshops
- Space Applications Programme
- Space curricula (space law and GNSS)
- Regional Centres for Space Science and Technology Education (affiliated to the United Nations)
- Fellowships on GNSS, Nano-satellite Technologies
- Center of Excellence on Space Sciences & Technologies for Development at Andhra Pradesh (CANEUS)
- UNITAR/UNOSAT initiatives
- .....

# Reporting and country support







❖ **Part I Justification**

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## Possible Organizational Arrangement

- ❑ The Partnership is set up through a number of UNOOSA bilateral agreements (one with each partner), all referring to a common set of programmatic documents agreed by all partners.
- ❑ Member States are who the Partnership is serving. They can also directly involve through COPUOS.
- ❑ The main organizational elements are constituted by a Programme Office and supporting initiatives.
  - The Programme Office is led by UNOOSA and it is structured, in addition to the management and coordination function, into five major areas.
  - Initiatives, such as the Space for Development Profile and the Space Solutions Compendium, support the Partnership's objectives and serve as important tools.



## Key partners

- ❑ Major UN entities and other global/regional organizations dealing with space assets are considered to be the main Partners. Other public institutions can join the Partnership through specific agreements. Initial list:
  - UNOOSA - United Nations Office for Outer Space Affairs
  - CEOS - Committee on Earth Observation satellites
  - GEO - Group on Earth Observations
  - ICG - International Committee on GNSS
  - ITU - International Communication Union
  - WMO - World Meteorological Organization
  - UNITAR - United Nations Institute for Training and Research
  - UNDP – United Nations Development Programme



## Participation of the private sector

- ❑ Possibly, a **standing network** of private actors, recognized by the Partnership such as the one established within the UN-GGIM (PSN Private Sector Network of UN-GGIM), with the intention to facilitate a direct connection and communication for the private sector to work with Member States.
- ❑ Direct **cash** or **in-kind** contributions to Partnership's activities, such as pilot projects, implementation of infrastructure and or services, policy discussions and decisions.



# Definition and progressive implementation

## **Step 1 – Partnership definition and approval. 2017 –June 2018**

Complete the feasibility assessment and prepare all documents defining the partnership for their approval/endorsement.

## **Step 2 - Partnership Build-up phase. July 2018 –July 2021**

This phase will include a progressive implementation of the different activities, giving priority to management and coordination and to the core processes. At the end of step 2, the Partnership is assumed to work at full scope.

## **Step 3 – “normal operations”. July 2021 onwards**

Governance and main processes in place and functioning. Partnership has acquired the expected authoritative role in coordinating availability of space assets in support of SDGs and in fostering/facilitating their use.



## Near term Objective

- ❑ Reaffirm that Space Assets are key enablers for SDGs achievement;
- ❑ Recommend an increased role for UNOOSA (and COPUOS) to ensure that the “space assets users’ needs” are met and that space infrastructure, data and services are actually available and used by all the countries;
- ❑ Make all the necessary preparations within the UNISPACE+50 process to have the Partnership **acknowledged and supported** in June 2018; this will also include the definition of necessary changes in the fixed terms of COPUOS agenda as well as the definition of increased responsibilities for an **“augmented” mandate** for UNOOSA.

UNISPACE  
+50 

THANK YOU



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