

8 June 2016

English only

---

**Committee on the Peaceful  
Uses of Outer Space**  
Fifty-ninth session  
Vienna, 8-17 June 2016

**UNISPACE+50: Thematic priorities and the way ahead  
towards 2018**

**Note by the Secretariat**

**Contents**

	<i>Page</i>
I. Introduction . . . . .	2
II. UNISPACE+50 segment of the Committee on the Peaceful Uses of Outer Space in 2018 . . . . .	5
III. Preparatory work for UNISPACE+50 (June 2016-June 2018) . . . . .	7
IV. Thematic priorities of UNISPACE+50 . . . . .	9



## I. Introduction

### *For action by the Committee at its fifty-ninth session*

In accordance with the plan of work for UNISPACE+50 (see A/AC.105/L.297, para. 29 (a)), the Committee on the Peaceful Uses of Outer Space at its fifty-ninth session should agree on the **thematic priorities (I) - (VII), including their objectives and mechanisms**, which are put before the Committee in the present conference room paper 3, in the box-text of chapter IV, for endorsement.

### *Overview*

In accordance with the plan of work for UNISPACE+50, contained in document A/AC.105/L.297 and endorsed by the Committee on the Peaceful Uses of Outer Space at its fifty-eighth session in 2015, the Committee and its Scientific and Technical Subcommittee and its Legal Subcommittee, at their respective sessions in 2016, should identify and agree on thematic priorities for UNISPACE+50 (see A/AC.105/L.297, para. 29 (a)).

The present document has been prepared by the Secretariat in accordance with the above referenced plan of work of UNISPACE+50 and as mandated by the Legal Subcommittee at its fifty-fifth session in 2016, requesting the Secretariat to prepare a conference room paper containing consolidated list of thematic priorities, proposals for workplans and deliverables for those thematic priorities in order to assist delegations to prepare for UNISPACE+50 (document A/AC.105/1113, Annex 1, paragraph 11).

This consolidated list of recommended thematic priorities by the Scientific and Technical Subcommittee and Legal Subcommittee at their respective sessions in 2016, as contained in Chapter IV of the present document, is now before the Committee for its further consideration and final agreement at its fifty-ninth session.

In accordance with the request by the Committee at its fifty-eighth session in 2015, that the Secretariat is to report to the Committee and its Subcommittees, at their respective sessions in 2016, on the progress made in the preparatory work (A/70/60, para. 352), the present conference room paper also contains information on other organizational matters for UNISPACE+50 segment of the Committee in 2018 for further consideration by delegations leading up to 2018 and is intended to assist delegations in preparatory work for UNISPACE+50 in 2018.

In accordance with the plan of work, as endorsed by the Committee at its fifty-eighth session in 2015 (A/AC.105/L.297) and the General Assembly resolution 70/82, it is imperative for the Committee at its fifty-ninth session in 2016 to agree on the thematic priorities and other organizational matters related to UNISPACE+50, as elaborated in this document, in order to allow for the timely and efficient preparations for UNISPACE+50 in 2018, by the Committee and its subsidiary bodies, and by the Office for Outer Space Affairs.

***Background and mandates***

1. In accordance with the General Assembly resolution 70/82, which in its preamble welcomes the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50), to be commemorated in 2018, as an opportunity to consider the current status and chart the future of the contribution of the Committee on the Peaceful Uses of Outer Space to global space governance, the Committee and its subsidiary bodies have set in motion the preparatory work for UNISPACE+50 segment of the Committee in 2018, to be held in conjunction with the Committee's sixty-first session, which is to take place in Vienna from 20 to 29 June 2018.
2. Furthermore, the General Assembly in its resolution 70/82 notes with satisfaction that the Committee, at its fifty-eighth session, endorsed the plan of work of UNISPACE+50, as contained in the note by the Secretariat, entitled "Fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space: theme of the sessions of the Committee on the Peaceful Uses of Outer Space, its Scientific and Technical Subcommittee and its Legal Subcommittee in 2018" (A/AC.105/L.297). In accordance with this plan of work of UNISPACE+50, the Committee, its Scientific and Technical Subcommittee and its Legal Subcommittee, at their respective sessions in 2016, should identify and agree on thematic priorities for UNISPACE+50 (see A/AC.105/L.297, para. 29 (a)).
3. At the fifty-third session of the Scientific and Technical Subcommittee, held in Vienna from 15 to 26 February 2016, the Subcommittee agreed on a set of six thematic priorities, as contained in the Report of the Scientific and Technical Subcommittee at its fifty-third session, document A/AC.105/1109, Annex 1, paragraph 8. Furthermore, the Legal Subcommittee at its fifty-fifth session, held in Vienna from 4 to 15 April, agreed on a thematic priority, as contained in the Report of the Legal Subcommittee at its fifty-fifth session, document A/AC.105/1113, Annex 1, paragraph 10.
4. As part of the plan of work of UNISPACE+50 (see A/AC.105/L.297, para. 15 (a)), the Committee on the Peaceful Uses of Outer Space at its fifty-eighth session further agreed that the Secretariat should begin the preparatory work in the lead-up to UNISPACE+50 in 2018, in close consultation with the group composed of the members of the bureau of the Committee and its subsidiary bodies (the "Group of 15"), which together with the chairs of the working groups of the Committee and its subsidiary bodies and the Director of the Office for Outer Space Affairs would serve as the steering committee for the preparations for UNISPACE+50 (see Report of the Committee at its fifty-eighth session, document A/70/20, para. 351).
5. The present document has been prepared by the Secretariat in accordance with the plan of work of UNISPACE+50, document A/AC.105/L.297 and as mandated by the Legal Subcommittee at its fifty-fifth session in 2016 (document A/AC.105/1113, Annex 1, paragraph 11), requesting the Secretariat to prepare a conference room paper containing a consolidated list of thematic priorities, as agreed by the Scientific and Technical Subcommittee and the Legal Subcommittee at their respective sessions in 2016, proposals for work plans and deliverables for those thematic priorities in order to assist delegations to prepare for UNISPACE+50. The present document also contains information on other organizational matters for

UNISPACE+50 segment of the Committee in 2018 for further consideration by delegations.

6. The consolidated list of recommended thematic priorities of the Scientific and Technical Subcommittee and Legal Subcommittee at their respective sessions in 2016, as contained in Chapter IV of the present document, is now before the Committee for its further consideration and final agreement at its fifty-ninth session, held in Vienna from 8 to 17 June 2016.

7. In accordance with the plan of work, as endorsed by the Committee at its fifty-eighth session in 2015 (A/AC.105/L.297) and the General Assembly resolution 70/82, it is imperative for the Committee at its fifty-ninth session in 2016 to agree on the thematic priorities and other organizational matters related to UNISPACE+50, as elaborated in this document, in order to allow for the timely and efficient preparations for UNISPACE+50 in 2018, by the Committee and its subsidiary bodies, and by the Office for Outer Space Affairs.

8. It is foreseen that the Committee and its Scientific and Technical Subcommittee and Legal Subcommittee should coordinate and cooperate in arriving at a common output through the UNISPACE+50 process. In achieving this objective, the Office for Outer Space Affairs, including in its capacity as the Secretariat of Committee and its Subcommittees, will develop the necessary draft outlines and proposals for workplans and procedures under each of the thematic priorities, for consideration and further action under each of the proposed mechanisms, as appropriate (see chapter IV below).

#### ***UNISPACE+50 Steering Committee***

9. In the process of identifying UNISPACE+50 thematic priorities, the role of the Steering Committee of UNISPACE+50, established by the Committee on the Peaceful Uses of Outer Space at its fifty-eighth session (A/70/20, para. 351) and acknowledged by the General Assembly in its resolution 70/82 of 9 December 2015 operative paragraph 14, should be noted.

10. As noted in its resolution 70/82, the General Assembly welcomes the establishment of the steering committee for the preparations for UNISPACE+50 composed of the members of the bureaux of the Committee and its subsidiary bodies (the Group of 15), the Chairs of the working groups of the Committee and its subsidiary bodies and the Director of the Office for Outer Space Affairs, and encouraged the Steering Committee to work with other experts, as appropriate (A/RES/70/82, para.14).

11. At its four meetings held thus far,<sup>1</sup> the Steering Committee discussed both thematic and organizational aspects of UNISPACE+50 in 2018, agreeing that UNISPACE+50 is an opportunity to articulate a long-term vision for Space. The Steering Committee discussed what should constitute main elements of UNISPACE+50 thematic priorities and the importance of UNISPACE+50 process to seek synergies with the outcomes of the key UN Summits in 2015 (the 2030 Agenda

---

<sup>1</sup> Detailed account of the meetings by the UNISPACE+50 Steering Committee will be made available in a written statement by the Chair of the Steering Committee, to be presented to the fifty-ninth session of the Committee on the Peaceful Uses of Outer Space. The Statement will have annexed the Terms of reference of the Steering Committee.

for Sustainable Development, the Sendai Framework for Disaster Risk Reduction 2015-2030, the Paris Agreement on climate change) in terms of space activities' impact in support of the implementation of these frameworks.

12. In terms of organizational aspects, the Steering Committee noted the importance of careful planning, design and structure of UNISPACE+50 and its embedding into the regular work of the Committee and its Subcommittees. The Steering Committee further noted that UNISPACE+50 should take into account the variety of space activities, discuss the current developments of all relevant topics, include all the diverse actors and be able to reach an active engagement of the developing countries. The Steering Committee also underlined the importance to actively involve the Committee's permanent observers as well as the industry sector, as appropriate, in the UNISPACE+50 process.

## II. UNISPACE+50 segment of the Committee in 2018

### *Dates and format of UNISPACE+50 in 2018<sup>2</sup>*

- In 2018, the sixty-first session of the Committee on the Peaceful Uses of Outer Space has been scheduled to take place from 20 to 29 June 2018 in the Vienna International Centre, M-Building, Board Room B.
- The first two days of the Committee's session, 20 and 21 June 2018, will be assigned to UNISPACE+50 segment.
- Two days prior to the session, 18 and 19 June 2018, will be allocated for symposiums and outreach events.

13. UNISPACE+50 aims to become a major milestone for designing a vision for the Committee on the Peaceful Uses of Outer Space to strengthen its unified efforts at all levels and among all relevant stakeholders in shaping the global "Space 2030" agenda.

14. In accordance with the plan of work of UNISPACE+50, as endorsed by the Committee at its fifty-eighth session, the format to mark UNISPACE+50 requires a different and more simplified approach than that used for the past UNISPACE conferences due to the current nature of space affairs and financial situation (A/AC.105/L.297, para. 15).

15. The format proposed is as follows:

(a) UNISPACE+50 will be held in conjunction with the sixty-first session of the Committee on the Peaceful Uses of Outer Space, scheduled to take place from 20 to 29 June 2018 in Vienna;

(b) UNISPACE+50 segment of the Committee in 2018 will be held on the first two days of the sixty-first session of the Committee, on 20 and 21 June 2018. All Member States of the United Nations and the broader space community, including United Nations entities, other international intergovernmental and non-

<sup>2</sup> The dates are tentative, pending finalization of the Calendar of Conferences for 2018.

governmental organizations and the private sector, should be invited to participate in the UNISPACE+50 segment of the Committee's sixty-first session in June 2018;

(c) High-level dignitaries, including the United Nations Secretary-General will be invited to attend the UNISPACE+50 segment of the Committee on 20 and 21 June 2018;

(d) Additional two days ahead of the sixty-first session of the Committee, 18 and 19 June 2018, will be allocated for a symposium and outreach event to present the roadmap for a "Space 2030" vision, including the strategic output of UNISPACE+50 through its thematic priorities and their deliverables, to a wider audience, engaging with all relevant stakeholders, including industry, private sector, civil society, and media, in an all-inclusive manner to foster global space governance for the 21st century; and

(e) An exhibition is to be organized by the Office for Outer Space Affairs, in cooperation with member States and other stakeholders, dedicated to Space for sustainable development in the Rotunda, Vienna International Centre, from 18 to 29 June 2018.

16. UNISPACE+50 segment of the Committee in 2018 should result in a dedicated General Assembly resolution addressing the following, *inter alia*:

(a) UNISPACE+50 vision, presented under the four pillars of space economy, space society, space accessibility and space diplomacy, which will serve as a blueprint for action in shaping the global "Space 2030" agenda and as a facilitator for the attainment of the 2030 Agenda for Sustainable Development;

(b) Mission statement of the Committee on the Peaceful Uses of Outer Space for its unique role in global space governance for the benefit of all countries;

(c) Objective, background and rationale for the UNISPACE+50 process and outputs;

(d) Plan of Action, containing decisions on agreed thematic priorities and related activities, directions for their implementation and expected time-bound results, including any additional or repositioned mandates of the Office for Outer Space Affairs and corresponding resources, in order to strengthen the delivery of adequate services in particular for the benefit of developing countries;

(e) Identification of mechanisms for strengthening the common coordinated delivery of the Committee and its subsidiary bodies in view of the need for enhanced common outputs of the Committee as a whole.

17. A final draft of a dedicated General Assembly resolution should be presented for endorsement at the UNISPACE+50 segment during the sixty-first session of the Committee in June 2018. The negotiations on a draft resolution should start during the 2017 cycle of the sessions of the Committee and its Subcommittees.

18. The UNISPACE+50 outcome resolution, endorsed at the UNISPACE+50 segment of the Committee in 2018, should be put before the General Assembly's seventy-third session as part of its plenary debate item. This follows the example of the 2004 General Assembly plenary debate under the item "Review and implementation of the recommendations of the third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (see document A/INF/59/3,

Programme of work of the General Assembly at its fifty-ninth session, item 23), which resulted in the General Assembly resolution A/RES/59/2, containing further actions for implementation of the UNISPACE III recommendations.

### **III. Preparatory work towards UNISPACE+50 (June 2016 – June 2018)**

19. In accordance with the plan of work of UNISPACE+50 (A/AC.105/L.297), the preparatory work for UNISPACE+50 and its final outcomes should be shaped throughout the period towards 2018 by taking into account the work carried out by the Committee and its subsidiary bodies, including processes under related agenda items, the role of symposiums being held regularly during the sessions of the two Subcommittees, contributions by States members of the Committee and permanent observers of the Committee, and contributions from other relevant conferences and activities addressing global space governance, as further elaborated below, such as the series of the High-Level Forum organized by the Office, as well as by the programme of work of the Office for Outer Space Affairs.

#### ***High-Level Forums: Space as a driver for socioeconomic sustainable development***

20. In the lead-up to UNISPACE+50, a three-year series (2016-2018) of the High-Level Forum (HLF) “Space as a driver for socioeconomic sustainable development” will be an opportunity for the collective space community to provide guidance and recommendations for the UNISPACE+50 blueprint. The Forums represent a unique opportunity for the collective space community to address the cross-sectoral impact of integrating economic, environmental, social, policy and regulatory dimensions of space in pursuance of global sustainable development and are as such closely related to UNISPACE+50 thematic priorities.

21. The series of the High-Level Forum is seen as a platform driving the debate on the role of space science, technology and applications in fostering global development and will as such also provide an opportunity: (i) to get in contact with Government, non-governmental and intergovernmental organization officials responsible for space technology development and applications around the world; and (ii) to build a community to implement projects and initiatives with a particular focus on the space sector for the economy, society and diplomacy of a nation.

22. The first High-Level Forum: “Space as a driver for socioeconomic sustainable development” is scheduled to be held from 20 to 24 November 2016 in the United Arab Emirates. In order to focus on the substantive input to be appropriately translated in recommendations and food for thought for discussion on the potential of space innovations for addressing new and emerging sustainable development challenges, the space agenda topics will be grouped in categories of increased value for our stakeholders: space economy, space society, space accessibility and space diplomacy

23. The Forums’ structured debate under the four pillars of space economy, space society, space accessibility and space diplomacy should also serve as a mechanism to present to Member States and other stakeholders, in a clear way, the deliverables and benefits of each of the UNISPACE+50 thematic priority under these four pillars. The pillars constitute UNISPACE+50 vision and represent a blueprint for action in

shaping the global “Space 2030” agenda as well as facilitators for the attainment of the 2030 Agenda for Sustainable Development (see also paragraph 36 of the present document).

***A global United Nations workshop/conference on each of the thematic priorities, hosted by member States***

24. Following the endorsement of thematic priorities of UNISPACE+50 at the fifty-ninth session of the Committee on the Peaceful Uses of Outer Space in June 2016, a series of global United Nations workshops/conferences corresponding to each of the thematic priority and hosted by different States members of the Committee is proposed to be held in the period from June 2016 throughout 2017 to present to Member States and other space-related regional and international stakeholders, each of the thematic priority, its objectives and deliverables, and engage them further in their implementation process.

25. Member States of the Committee are invited to express their willingness to host such activities at their earliest convenience to the Secretariat.

26. The recommendations and official results, coming out of these United Nations activities listed above should be injected in the UNISPACE+50 process through the reporting mechanism under the items where UNISPACE+50 is being discussed in the Committee and its Subcommittees.

***UN-Space dedicated UNISPACE+50 session in 2017***

27. In accordance with the plan of work of UNISPACE+50 (A/AC.105/L.297), the Inter-Agency Meeting on Outer Space Activities (UN-Space), under the leadership of the Office for Outer Space Affairs, will align its activities in the upcoming period leading to the UNISPACE+50 in 2018.

28. In this regard, a dedicated UNISPACE+50 session of UN-Space is envisioned to be held in 2017.

***Capacity-building and outreach efforts***

29. In the period leading up to UNISPACE+50 in 2018, the Office for Outer Space Affairs will align its capacity-building activities with UNISPACE+50 through the United Nations Programme on Space Applications, UN-SPIDER, its capacity-building programme on space law, and, as appropriate, in cooperation with the regional centres on space science and technology education, affiliated to the United Nations.

30. The Office for Outer Space Affairs will also present to the Committee and its Subcommittees in 2017 a plan of outreach activities to increase awareness of the importance of UNISPACE+50. A presentation of a branding proposal for UNISPACE+50 will be made at the fifty-ninth session of the Committee in June 2016.

***UNISPACE+50 exhibition in 2018***

31. The Office for Outer Space Affairs also plans, in cooperation with member States and other stakeholders, to organize a UNISPACE+50 exhibition, to be held in conjunction with the sixty-first session of the Committee on the Peaceful Uses of Outer Space in 2018.

32. The exhibition, intended to address the theme of Space for sustainable development, is planned to be held from 18 to 29 June 2018 in the Rotunda, Vienna International Centre.

***Multi-Donor Strategic Support to UNISPACE+50 initiative***

33. In fostering global partnerships and engaging the space community at large, the Office for Outer Space Affairs has launched the Multi-Donor Strategic Support to UNISPACE+50 initiative, which seeks to provide support for the UNISPACE+50 process to prepare, structure, and implement activities in the promotion of space-based applications and technologies for innovative and timely actions to support Member States in meeting objectives of the global development agenda. Member States' support, starting from 2016 after the COPUOS session would be beneficial to allow the Office for Outer Space Affairs to perform all the preparatory activities fulfilling the expectations.

34. The Office for Outer Space Affairs invites member States and permanent observers of the Committee to support the Office's Multi-Donor Strategic Support initiative, which seeks to provide flexible, coordinated and predictable funding on a voluntary basis, in order to strengthen the Office's current funding structure and budget, enabling the Office to prepare, structure and implement activities in support of UNISPACE+50.

#### **IV. Thematic priorities of UNISPACE+50**

35. The UNISPACE+50 thematic priorities and their objectives were recommended by the Scientific and Technical Subcommittee at its fifty-third session (document A/AC.105/1109, Annex 1, paragraph 8) and by the Legal Subcommittee at its fifty-fifth session (document A/AC.105/1113, Annex 1, paragraph 10), for further consideration and endorsement by the Committee on the Peaceful Uses of Outer Space at its fifty-ninth session. These thematic priorities are based on the cross-cutting areas, which are representative of the unique role and the strategic work of the Committee, its subsidiary bodies and the Office for Outer Space Affairs in the use of space for peaceful purposes for more than half a century: governance; capacity-building; resiliency; interoperability; and space for sustainable development.

36. UNISPACE+50 thematic priorities and their long-term deliverables will clearly align with the 2030 Agenda for Sustainable Development, in the areas where stronger space governance and supporting structures are required to protect the space environment and secure the long-term sustainability of outer space activities to ensure that benefits of this modern collaborative space governance strongly support nations in implementing the 2030 Agenda and reaching its goals.

37. Taking these ongoing and future challenges in the space arena into account, the Scientific and Technical Subcommittee and the Legal Subcommittee recommended, at their respective sessions in 2016, the following thematic priorities, to be considered by the Committee at its fifty-ninth session; objectives of which, are presented below:

- (1) Global partnership in space exploration and innovation

- (2) Legal regime of outer space and global space governance: current and future perspectives
- (3) Enhanced information exchange on space objects and events
- (4) International framework for space weather services
- (5) Strengthened space cooperation for global health
- (6) International cooperation towards low-emission and resilient societies
- (7) Capacity-building for the twenty-first century

38. UNISPACE+50 thematic priorities are mutually interlinked and each will provide an opportunity to address several deliverables. Their implementation and time-bound results will be elaborated in further detail by the mechanisms in place under each of the thematic priority during the 2017 cycle of the meetings of the Committee and its Subcommittees.

***For action by the Committee at its fifty-ninth session***

In accordance with the plan of work for UNISPACE+50 (see A/AC.105/L.297, para. 29 (a)), **these thematic priorities (I) - (VII), their objectives and mechanisms**, as contained in the box-text below, are put before the Committee for endorsement.

As mandated by the Legal Subcommittee at its fifty-fifth session in 2016, requesting the Secretariat to prepare a conference room paper containing consolidated list of thematic priorities, proposals for workplans and deliverables for those thematic priorities in order to assist delegations to prepare for UNISPACE+50 (document A/AC.105/1113, Annex 1, paragraph 11), each of the thematic priority also contains further elements on rationale, expected outcomes and proposed tentative time-frame, which are to be elaborated by the mechanism in place under each of the thematic priority.

## I. Global partnership in space exploration and innovation

**Objective:** Raise awareness of space exploration and innovation as essential drivers for opening up new domains in space science and technology, triggering new partnerships and developing capabilities that create new opportunities for addressing global challenges. Foster dialogue with space industry and the private sector. Promote cooperation between spacefaring nations and emerging space nations. Allow space exploration activities to become open and inclusive on a global scale. Identify governance and cooperation mechanisms to support this objective.

**Proposed mechanism:** New action team to be established to develop a plan of activities to be approved at UNISPACE+50 in 2018 and to propose a mechanism for coordinating global space exploration efforts. Action team, to be led by States members of the Committee on voluntary basis, with the Office for Outer Space Affairs to provide substantive and secretariat support. The Office can build on successful experiences dealing with international mechanisms, for example in acting as the Executive Secretariat of the International Committee on Global Navigation Satellite Systems (ICG), which has been established by an action team originating from UNISPACE III.

**Rationale:** Space exploration represents the ultimate challenge in humanity's quest to explore new frontiers and expand our understanding of our place in the context of our Universe. Space exploration and the innovation it entails are essential drivers for opening up new domains in space science and technology, triggering new partnerships and developing capabilities that create new opportunities for addressing global challenges. The contribution of space technology to sustainable development in particular, a goal of primary importance to the United Nations, cannot be overstated. Innovation and knowledge derived from space exploration furthermore contribute directly to economic growth, delivering high returns on investment and generating new opportunities for job creation, as well as underpin societal well-being. Though the precise nature of future benefits from space exploration is not easily pre-defined, current trends suggest that significant advantage may be found for areas such as, among others, new materials, health and medicine, transportation, and computer technology.

Many of the exploration and spaceflight achievements of the past half-century would not have been possible without international cooperation. The Committee on the Peaceful Uses of Outer Space has a broad membership, including space faring nations, emerging space nations and countries that are still embarking on building their space infrastructures, as well as an impressive number of space-related intergovernmental and non-governmental organizations actively supporting the work of the Committee. Therefore the Committee is a natural platform for developing a coordination mechanism to ensure that all nations, both developed and developing, at governmental and non-governmental level, involving the private sector, the civil society and the young generations can benefit from space exploration and innovation. This view is shared by the International Space Exploration Forum (ISEF) in its declaration approved in January 2014, stating that "the Committee on the Peaceful Uses of Outer Space is an important venue in which spacefaring and non-spacefaring nations alike can continue to discuss important issues regarding expanding humanity's horizons in space and furthering the objectives of the 1967

Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space”.

**Expected results:** Improved governance and a cooperation mechanism to support this objective: an international space exploration coordination mechanism to be created for coordinating contributions of Member States in the execution of the global exploration roadmap, and facilitating the exchange of data and information, ensuring standards, compatibility and interoperability.

In doing so, it is important to take stock of the good practices of other coordination mechanisms, such as ICG, to allow the broadest participation possible to the quest of exploring the Solar System with humans. The already well-developed mechanisms of coordination, such as the International Space Exploration Forum (ISEF) and the International Space Exploration Coordination Group (ISECG), should be included in the process. An involvement of private companies through a formalized body/process should also be considered in this respect.

**Tentative proposed time-frame:**

- 2016: Action team should be decided upon at the session of the Committee in 2016 and established by the end of 2016.
- 2017: Plan of work to be prepared.
- 2018: Plan of work to be endorsed.

\* \* \* \* \*

## II. Legal regime of outer space and global space governance: current and future perspectives

**Objective:** Promote the universality of the five United Nations treaties on outer space. Assess the state of affairs of those treaties and their relationship with other relevant international instruments, such as principles, resolutions and guidelines governing space activities. Analyse the effectiveness of the legal regime of outer space in the twenty-first century, with a view to identifying areas that may require additional regulation. Conduct an evaluation by:

(a) Developing the questionnaire of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space to encompass an assessment of the legal regime of outer space as a pillar of global space governance. The questionnaire should be used in the period leading up to 2018 to assist the Legal Subcommittee in addressing the status and scope of, and possible gaps in, the legal regime of outer space;

(b) Studying potential future legal and institutional initiatives intended to ensure that outer space is explored and used for peaceful purposes and that access to outer space remains open and free for the benefit of all countries, in order to ensure that international space law is a relevant part of global space governance in the twenty-first century in the light of the significant scientific developments and technical advances that have affected space activities;

(c) Studying legal mechanisms to foster an international regime of responsibility and liability to cope with present and future challenges to the safety, security and sustainability of outer space activities, including mechanisms for space traffic management and an enhanced exchange of information on space objects and events. Specific consideration is to be given to current practical concerns of the international community, such as in-orbit collisions and interferences. In particular, there should be an assessment of the need for enhanced registration and notification procedures and their institutional requirements under the registration and notification platform maintained by the Office for Outer Space Affairs;

(d) Identifying, by 2018, the criteria for developing, by 2020, a guidance document to be issued by the Committee on the Peaceful Uses of Outer Space with essential information on the state of affairs of the legal regime governing outer space, including relevant instruments applied through national regulatory frameworks and international mechanisms for cooperation. Such a document should serve as valuable guidance for States wishing to become a party to the five United Nations treaties on outer space; and

(e) Considering means to strengthen the Legal Subcommittee as the prime multilateral body with mandate to promote the progressive development of international space law, including procedural and institutional improvements and closer cooperation with the Scientific and Technical Subcommittee.

**Proposed mechanism:** Existing Working Group on the Status and Application of the Five United Nations Treaties on Outer Space of the Legal Subcommittee.

**Rationale:** In their contribution to strengthening the overall space governance, the Committee, and in particular its Legal Subcommittee, have been instrumental in the development of the legal regime governing activities in outer space for peaceful purposes. Moreover, the Committee, and in particular its Legal Subcommittee, have been looking at States' practices in implementing the existing regulations in their national legislations, which has led to the creation of valuable databases on national legislation relevant to peaceful exploration and uses of outer space, while the ongoing review by the Legal Subcommittee and its dedicated working group on international mechanisms for cooperation, which concludes in 2017, has revealed the breadth, diversity and important elements of the mechanisms utilized in space cooperation, which all constitute important elements of the overall governance of space. In order to continue to ensure that outer space is explored and used for peaceful purposes and that access to outer space remains open and free for the benefit of all countries and that international space law is a relevant part of global space governance, potential future legal and institutional initiatives should be examined further.

**Expected outputs:** Guidance document for States wishing to become a party to the five United Nations treaties on outer space; identified areas that may require additional consideration and attention, including on the basis of responses to the questionnaire under consideration in the Working Group.

**Tentative proposed time-frame:**

- 2018: Identification of criteria for developing a guidance document with essential information on the state of affairs of the legal regime governing outer, including relevant instruments applied through national regulatory frameworks and international mechanisms for cooperation.
- 2020: A guidance document to be issued by the Committee on the Peaceful Uses of Outer Space.

\* \* \* \* \*

### III. Enhanced information exchange on space objects and events

**Objective:** Define and develop requirements for enhanced information exchange and notification procedures under the United Nations Register of Objects Launched into Outer Space, taking into account the recommendations contained in the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189) and the future guidelines for the long-term sustainability of outer space activities specifically addressing risk reduction notification needs. Identify cooperation mechanisms to support this objective. Encourage capacity-building and outreach activities on transparency and confidence-building measures.

**Proposed mechanism:** New agenda item to be established in 2017 under the Legal Subcommittee, entitled “Enhanced information exchange and notification procedures on space objects and events” with a working group under a multi-year workplan covering the period 2018-2020, and coordinating its work with the Scientific and Technical Subcommittee.

**Rationale:** Under the Outer Space Treaties and Principles, which form the foundation of the present legal regime for global space governance, the Secretary-General has responsibilities related to the effective dissemination and exchange of technical information on space objects. As a consequence, the treaty implementation mechanisms by the Office for Outer Space Affairs are presently oriented towards information gathering, verification, dissemination and exchange. These international oversight functions, carried out by the United Nations, are a key component of transparency and confidence-building in outer space activities. With the increasing number of States, international intergovernmental organizations and other stakeholders in the space arena involved in outer space activities and space operations, and increasing capabilities for in-orbit manoeuvres, relocation and controlled re-entry, the effective dissemination of information is of growing interest and concern. This new situation needs to be correctly reflected in the mechanisms set up under the obligations of the Secretary-General under the legal regime on outer space, including the United Nations Register of Objects Launched into Outer Space, thereby allowing the Secretary General and the Office for Outer Space Affairs to better serve Member States.

**Expected outputs:** Expanded utility of the Register, enhanced notification procedures under the space treaties and principles governing space activities, developed outreach and capacity-building in this area, and increased efficiency in the way these functions are carried out.

**Tentative proposed time-frame:**

- 2017: Establishment of a working group of the Legal Subcommittee.
- 2018: Working group to start its work based on a proposal for a detailed workplan outlined in the intersessional period preceding the session of the Legal Subcommittee in 2017.
- 2020: Enhanced mechanisms for information exchange and notification procedures with supporting infrastructure established through decision by the General Assembly based on the model of resolution 62/101 on registration practice.

\* \* \* \* \*

## IV. International framework for space weather services

**Objective:** Strengthen the reliability of space systems and their ability to respond to the impact of adverse space weather. Develop a space weather road map for international coordination and information exchange on space weather events and their mitigation, through risk analysis and assessment of user needs. Recognize space weather as a global challenge and the need to address the vulnerability of society as a whole. Increase awareness through developed communication, capacity-building and outreach. Identify governance and cooperation mechanisms to support this objective.

**Proposed mechanism:** Existing Expert Group on Space Weather of the Scientific and Technical Subcommittee, to be substantively supported by the Office for Outer Space Affairs. Space weather related activities to be implemented also through the capacity-building activities of the Office and through the role of the Office as the Executive Secretariat of the International Committee on Global Navigation Satellite Systems (ICG). Taking into account the existing workplan of the Expert Group (as contained in document A/AC.105/1088, para 169).

**Rationale:** In order to effectively alert, warn or distribute forecasting information before, during and after severe space weather events, space weather services must be standardized, coordinated, evaluated, as well as be interoperable and be globally accessible and delivered to decision makers and stakeholders. Furthermore, an effective communication mechanism as well as necessary awareness raising initiatives are still absent. As there is an increasing global dependence on technologies possibly impacted by space weather, such as communication and navigation satellites, the societal need to strengthen space weather services is imperative.

**Expected outputs:** Creation of an international coordination mechanisms of operational space weather services, including monitoring, forecasting, awareness raising, with the overall goal to protect life, property and critical infrastructure; improved collection, exchange and delivery of space weather data as well as improved operational analysis, modelling and forecasting methods through the establishment of best practices, improvement of accuracy, reliability and interoperability.

**Tentative proposed time-frame:**

- 2017: Creation of a user platform to identify user requirements and to promote synergies between the various communities/activities addressing space weather impacts to be discussed at the meetings of the International Space Weather Initiative (ISWI) Steering Committee and the planned workshop.
- 2018: Creation of international coordination mechanisms of operational space weather services.

\* \* \* \* \*

## V. Strengthened space cooperation for global health

**Objective:** Improve the use of space technologies and space-based information and systems in the global health domain. Promote enhanced cooperation and sharing of information in emergencies, epidemics and early warning events, as well as on environmental parameters. Enhance capability in integrating health data in disaster management plans. Strengthen capacity-building in advancing space technologies in global health efforts. Identify governance and cooperation mechanisms to support this objective.

**Proposed mechanism:** Existing Expert Group on Space and Global Health of the Scientific and Technical Subcommittee, to be substantively supported by the Office for Outer Space Affairs. Space and global health related activities to be implemented also through the capacity-building activities of the Office, and taking into account the existing workplan of the Expert Group (as contained in document A/AC.105/1088, Annex I, para. 7).

**Rationale:** There is a need for strengthening international cooperation in better using space technologies for global health, in particular since a number of disaster management activities related to or strongly linked with the public health sector require space-based support and better geospatial data availability. International, regional and national initiatives from the United Nations system, international organizations, non-governmental organizations collect, organize and analyse in situ data on environmental factors impacting negatively on public health. In many instances, space-based Earth observation can provide synoptic or detailed views essentials to a better understanding of those factors. For example, developing higher resolution models of pollutants dispersion, or smoke from forest fires can help design alert systems or develop mitigation measures to reduce instances of allergies, respiratory problems, etc. Similarly, mapping changing conditions of water bodies or mapping the evolving demand for clean water can help tackle water-borne diseases. Capabilities in developing countries and methods for these examples and others need to be developed, streamlined into public health programmes through outreach and capacity building efforts.

**Expected outputs:** Strengthened capacity-building in advancing space technologies in global health efforts and enhanced capability in integrating health data in disaster management plans. Initiatives under “Strengthened space cooperation for global health” should develop and/or adapt climate and hydrographic models specifically to provide information for public health programme managers. Campaigns for data collection and analysis should be designed for hot spots or recurring events (e.g. forest fires) and targeted capacity building programmes be developed and funded to cover a minimum number of countries per year. Additional efforts to facilitate technology transfers should be strengthened, such as those supporting the international space station programme, including in areas of telemedicine, water purification systems, health indicators monitoring and others.

**Tentative proposed time-frame:**

- 2016: The Office engages with the Expert Group on Space and Global Health of the Committee to coordinate further the implementation of this thematic priority.

- 2018: A compilation of practices and initiatives, current or planned (concepts, science, capacity building, and operations), as defined in the scope of work of the Expert Group.
- From 2018: Maintenance of an active community of practice interested to pursue capacity building activities and enabling a growing network of experts engaged in applying space sciences and technologies for socio-economic benefits.
- From 2019: Delivery of a series of national and regional training programmes on space-based applications on tele-medicine applications, air and water monitoring programme for public health, and others.

\* \* \* \* \*

## VI. International cooperation towards low-emission and resilient societies

**Objective:** Define synergies between climate change mitigation efforts, disaster risk reduction and global development. Develop a road map for enhanced resiliency of space-based systems and the affiliation of existing and future Earth observation, global navigation satellite system and telecommunication constellations for disaster risk reduction and climate change monitoring and mitigation. Improve integrated space applications approaches and the interoperability of space-based systems and ground/in situ systems. Provide requirements to new developers for coverage in geographical areas not sufficiently monitored or applications that need further development. Identify governance and cooperation mechanisms to support this objective.

**Proposed mechanism:** The Office for Outer Space Affairs to undertake the work under this thematic priority and report regularly to the Committee and its Subcommittees on the work under this thematic priority.

**Rationale:** Building resilient societies through better coordination and forging of global partnerships is one of the key challenges in the 21st century and an integral part of meeting the commitments, set by the three key United Nations global summits in 2015, the Sendai Framework for Disaster Risk reduction 2015-2030, the 2030 Agenda for Sustainable Development and the Climate Summit (COP 21). There is a growing need for an effective use of space tools for meeting sustainable development goals and targets, building resilient societies, and monitoring and mitigating climate change. Space-based technology and applications have the potential to facilitate an integrated planning at the national and regional levels for these three set of commitments. The importance of the relationships between a changing climate, the vulnerability to hazards and the sustainable development expectations of a nation is hard to grasp only from statistics or to properly understand where different national authorities have different roles on these three agendas. The construction of common core datasets, standardised and integrated information analyses supported by solid space-based Earth observation, accurate locational information from GNSS, often made more accessible through modern telecommunication systems, allow for knowledge-based decision-making that would otherwise be impossible or fragmented.

**Expected outputs:** Road map for enhanced resiliency of space-based systems and the affiliation of existing and future Earth observation, global navigation satellite system and telecommunication constellations for disaster risk reduction and climate change monitoring and mitigation. The road map must align itself on the goals, targets and indicators of the 3 agendas, while proposing solutions that can be integrated in decision-making for planning or response to change. This integration must be supported by outreach activities increasing the awareness of decision-makers on their benefits. This coordination will help identify and understand the many coordination mechanisms established inside and outside the United Nations system in the framework of implementing the new global agendas; identify and prioritize the mechanisms that are most relevant to the work of the Committee and the Office and where their work can achieve the highest impact. Partnerships must be developed to develop an open catalogue of solutions where commitments from

the space actors facilitate access to data, information, products and services. The 3 agendas do call for such partnerships and the thematic priority “International cooperation towards low-emission and resilient societies” is one opportunity to develop this commitment.

**Tentative proposed time-frame:**

- 2016: Coordination between the Office for Outer Space Affairs and relevant entities to ensure synergies between climate change mitigation efforts, disaster risk reduction and global development and plan for the road-map.
- 2018: A roadmap for enhanced resiliency of space-based systems on the one hand, and of populations and infrastructures on the other hand, built on applications of Earth observation, global navigation satellite system and telecommunication constellations for disaster risk reduction and climate change monitoring and mitigation/adaptation, promoting integrated development where relevant.
- 2020: A strategy for an international coordination of constellation of constellations of satellites in support to the implementation of the 2030 Agenda.

\* \* \* \* \*

## VII. Capacity-building for the 21st Century

**Objective:** Define new innovative and effective approaches to overall capacity-building and development needs as a fundamental pillar of global space governance. Strengthen comprehensive capacity-building and outreach activities of the Office for Outer Space Affairs. Develop infrastructure for cross-sectoral and integrated applications, with combined scientific, technical, legal and policy outputs. Enhance existing partnerships and forge new ones to strengthen and deliver targeted capacity-building and technical advisory activities based on needs assessment. Promote efforts to encourage science, technology, engineering and mathematics education, especially for women in developing countries.

**Proposed mechanism:** The Office for Outer Space Affairs to undertake the work under this thematic priority and report regularly to the Committee and its Subcommittees on the work under this thematic priority.

**Rationale:** Since the establishment of the United Nations Programme on Space Applications in 1971 on the recommendation of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE I) in 1968 the workshops organised by the Office for Outer Space Affairs welcomed over 18.000 participants. UNISPACE+50 represents an opportunity to define new work areas, especially in serving developing countries and addressing the 2030 Agenda for Sustainable Development and the Office's potential contribution to the implementation of the Sustainable Development Goals. The definition of new and effective approaches to overall capacity-building and development will lead to a strengthened state-of-the-art capacity-building and outreach programme of the Office as a whole.

The role of the Office for Outer Space Affairs as the United Nations expert entity on the broader perspectives of the use of space science and technology and their application, including legal and policy requirements, will be given an imperative position to raise awareness on the benefits of space-based technology with a special focus on developing countries.

The Office will put a special emphasis on promoting the work of the United Nations affiliated Regional Centres for Space Science and Technology as well as the UN-SPIDER network of Regional Support Offices, fully in line with the overarching goal of the United Nations to strengthen regional activities. The experiences built, and the knowledge accumulated on the needs of nations, by the Programme on Space Applications and UN-SPIDER, provide a solid basis to broaden both the number of recipient countries of capacity building activities as well as the number of subjects that can be covered through an extended and updated action plan in the Office.

**Expected outputs:** Targeted capacity-building and technical advisory activities based on needs assessment. Aligning capacity-building with the 2030 Agenda for Sustainable Development and addressing new arising thematic areas, as well as revamping the Office's vision of "Bringing the benefits of space to humanity". Delivering capacity-building in support of the 4 pillars space economy, space society, space accessibility and space diplomacy, as a way to connect the Office's capacity-building and outreach objectives to the "Space 2030" agenda. Develop specific programmes to support other thematic priorities such as for: space

applications for the Sustainable Development Goals; space applications for global public health; and space applications for space weather services. Strengthened capacity-building activities on space law and policy, including outreach on transparency and confidence-building measures in outer space activities.

Activities must help governments to equip themselves with the technical and policy capabilities to integrate space technology and applications in their strategic planning towards the 2030 Agenda for Sustainable Development and to further the UNISPACE+50 process.

Particular attention is to be given to the need for enhanced capacity-building outputs based on needs assessment and integration of scientific, technical, legal and policy related activities of the Office. New innovative approaches such as the UN-SPIDER Technical Advisory Missions (TAMs) will be assessed as tools for other areas under the Office's mandate. The provision of technical assistance, expert assistance and support for research and advisory services will be assessed in meeting demands for enhanced operational activities under the Office's capacity-building programme.

**Tentative proposed time-frame:**

- 2017: Upgraded capacity-building strategy of the Office for Outer Space Affairs and first plan of activities for 2017, based on needs assessment
- 2018: A new capacity-building strategy presented to member States
- 2018: A "Space for Women" project to be initiated.
- 2020: Consolidated engagement with tertiary education institutions on space science and technology in support of the 2030 Agenda goals with particular focus on Science, Technology, Engineering and Mathematics (STEM) and women in developing countries, and engaging a strengthened network of Regional Centres for Space Science and Technology Education, affiliated to the United Nations.