



**Committee on the Peaceful
Uses of Outer Space****Thematic priority 7. Capacity-building for the twenty-first century****Note by the Secretariat****I. Introduction**

1. The fiftieth anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50), in 2018, will serve as an occasion to consider the status of the Committee on the Peaceful Uses of Outer Space, its subsidiary bodies and the Office for Outer Space Affairs of the Secretariat, and to define the future role of those bodies in promoting international cooperation in the peaceful uses of outer space and in shaping global governance of outer space activities.
2. In preparation for UNISPACE+50, the Committee, at its fifty-ninth session, in 2016, endorsed seven thematic priorities (A/71/20, para. 296), among them thematic priority 7, entitled “Capacity-building for the twenty-first century”.
3. Thematic priority 7 is probably the most cross-cutting and horizontal of the seven thematic priorities, and is aimed at strengthening the holistic use of space as a driver of and contributor to global frameworks and agendas such as the 2030 Agenda for Sustainable Development, the Sendai Framework for Disaster Risk Reduction and the Paris Agreement on climate change.
4. The present note outlines the strategy of the Office for Outer Space Affairs in carrying out its work, as mandated under thematic priority 7, towards strengthening capacity-building for the twenty-first century, as a fundamental pillar of the “Space2030” agenda and its strategic objectives.

II. Background

5. The Office has the mandate to promote international space cooperation and to assist Members States with capacity-building in the use of space science and technology and their applications. For this purpose, the Programme on Space



Applications, implemented by the Office, was established in 1971.¹ Since its inception, the Programme has made substantial progress in furthering knowledge and experience of space applications around the world, through the organization of dedicated workshops and the establishment of fellowships.² The Programme's emphasis has been on the development and transfer of knowledge and skills to developing countries and countries with economies in transition. The mandate of the Programme was further strengthened at the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).³

6. Following UNISPACE III, the Programme was structured around three initiatives, the Basic Space Science Initiative, the Basic Space Technology Initiative and the Human Space Technology Initiative, as well as several thematic areas, encompassing environmental monitoring, natural resource management, satellite communications for tele-education and telemedicine applications, disaster risk reduction, the use of global navigation satellite systems (GNSS), and biodiversity and wildlife management, among others.

7. More than 20,000 attendees have benefited from activities organized by the Office since the establishment of the Programme on Space Applications in 1971. More than 57 countries have hosted workshops, and 40 countries have conducted technical advisory missions under the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER).

8. The capacity-building activities are supported by the regional centres for space science and technology education, affiliated to the United Nations.

9. As a result of UNISPACE III, the Office also implements UN-SPIDER, established in 2006⁴ as a programme within the United Nations to provide universal access for all countries and relevant international and regional organizations to all types of space-based information and services relevant to disaster management to support the full disaster management cycle by being a gateway to space information for disaster management support, serving as a bridge to connect the disaster management and space communities and being a facilitator of capacity-building and institutional strengthening, in particular for developing countries. To that end, UN-SPIDER has conducted technical advisory missions in 40 countries.

10. Also as a result of UNISPACE III, the Office has, since 2001, been organizing on a regular basis capacity-building activities in space law and policy, for which 10 dedicated major workshops have been held in cooperation with Member States.

11. The Office acts as the executive secretariat of the International Committee on Global Navigation Satellite Systems (ICG), a body that was established on a voluntary basis for the purpose of promoting cooperation on matters of mutual interest related to civil satellite-based positioning, navigation, timing and valued-added services, as well as compatibility and interoperability among GNSS systems and their increased use in support of sustainable development.

12. On the basis of these mandates, the Office has conducted hundreds of activities, including conferences, workshops, seminars and technical assistance missions, and has provided long-term fellowship opportunities for experts from developing countries, contributing to worldwide capacity-building in space science and technology and their applications.

¹ In its resolution [2601 A \(XXIV\)](#), the General Assembly endorsed the recommendation of the Committee on the Peaceful Uses of Outer Space for the appointment by the Secretary-General of a qualified individual with the full-time task of promoting the practical applications of space technology. Initial activities in what was later to be called the United Nations Programme on Space Applications commenced in May 1971 with an expert meeting of the United Nations Panel on Remote Sensing Systems for Earth Resource Surveys.

² General Assembly resolution [37/90](#) contains the mandate of the Programme on Space Applications.

³ General Assembly resolution [54/68](#).

⁴ General Assembly resolution [61/110](#).

13. Also in the context of capacity-building, the International Asteroid Warning Network (IAWN) and the Space Mission Planning Advisory Group (SMPAG)⁵ were established in 2014 to provide for a coordinated international response to the threat posed by near-Earth objects, and are aimed at ensuring the sharing of information in relation to the discovery, monitoring and physical characterization of potentially hazardous near-Earth objects, with a view to enabling all countries, in particular developing countries with limited capacity in predicting and mitigating the impact of near-Earth objects, to recognize potential threats and emphasize the need for effective emergency response and disaster management efforts in the event of such threats. The Office acts as the permanent secretariat of SMPAG.

14. All of the above-mentioned cooperation and coordination mechanisms and programmes, UN-SPIDER, ICG, IAWN and SMPAG, are concrete outputs of UNISPACE III that are being either implemented or supported by the Office.

15. In 2016, the General Assembly, in its resolution [71/90](#), emphasized the central role of the Office in fostering capacity-building in the use of space science and technology and their applications and in providing assistance to developing countries, at their request, in the development of national space policy and legislation in conformity with international space law, as well as in the strengthening of institutional capacity in space activities.

16. UNISPACE+50 will provide a unique opportunity to review the existing mandates and to consider if and how they could be streamlined to ensure that future capacity-building activities contribute to sustainable development, in particular to the successful implementation of the 2030 Agenda for Sustainable Development, and as an integral part of the “Space2030” agenda, which is a comprehensive and inclusive long-term vision for strengthening the contribution of space activities and space tools to the achievements of the internationally agreed development goals, and for strengthening global governance of outer space activities.

17. In 2017, the Office carried out a wide range of activities in preparation for UNISPACE+50, with particular focus on thematic priority 7. The main activities were:

(a) The United Nations/Austria Symposium on the theme “Access to space: holistic capacity-building for the twenty-first century”;

(b) The United Nations/Russian Federation Workshop on Human Capacity-building in Space Science and Technology for Sustainable Social and Economic Development;

(c) The United Nations/Italy Workshop on the Open Universe Initiative;

(d) The United Nations Expert Meeting on Space for Women, organized jointly with the United Nations Entity for Gender Equality and the Empowerment of Women;

(e) The UN-SPIDER technical advisory mission to Nepal;

(f) The United Nations/South Africa Symposium on Basic Space Technology, on the theme “Small satellite missions for scientific and technological advancement”.

III. Objectives and challenges in the context of thematic priority 7

18. The objectives under thematic priority 7, on capacity-building for the twenty-first century, as agreed by the Committee in 2016 (see [A/71/20](#), para. 296), are the following:

⁵ General Assembly resolution [71/90](#).

(a) Define new innovative and effective approaches to overall capacity-building and development needs as a fundamental pillar of global space governance;

(b) Strengthen comprehensive capacity-building and outreach activities of the Office for Outer Space Affairs;

(c) Develop infrastructure for cross-sectoral and integrated applications, with combined scientific, technical, legal and policy outputs;

(d) Enhance existing partnerships and forge new ones to strengthen and deliver targeted capacity-building and technical advisory activities based on needs assessments;

(e) Promote efforts to encourage science, technology, engineering and mathematics education, especially for women in developing countries.

19. The growing number of countries involved in space activities and making use of space technology and applications is evidence of the increasing role that space-related activities play in solving global problems. There are a number of opportunities and challenges in ensuring that all nations can fully exploit the benefits of space.

20. In particular, the following challenges have been identified under each objective:

(a) Define new innovative and effective approaches to overall capacity-building and development needs as a fundamental pillar of global space governance: space can contribute to the monitoring and achievement of the Sustainable Development Goals, however there is no harmonized mechanism for utilizing the full potential of space. There is a need for coordinated efforts among space-related organizations to systematically integrate space-based solutions into the implementation mechanisms of the 2030 Agenda for Sustainable Development;

(b) Strengthen comprehensive capacity-building and outreach activities of the Office for Outer Space Affairs:

(i) Although access to data and technology is becoming more open and less costly, the gap between countries that have developed space-related capabilities and technologies and those that have not, the so-called “space divide”, is widening. The space divide manifests itself in many aspects of space-related activity, for example, in the use of data or the launching of satellites. There is a need to effectively address the space divide by identifying the most disadvantaged countries, creating opportunities for access to space and strengthening existing opportunities;

(ii) Establishing long-term plans with countries with a view to understanding their needs and providing tools to target those needs is still a challenge, in particular in situations where it is difficult for a country to determine how space could be utilized to address a specific problem, such as understanding how space could help in monitoring and achieving the Sustainable Development Goals;

(iii) As the development of space applications and technologies is complex, space capacity-building requires long-term support strategies at the country level. Therefore, countries engaging in long-term capacity-building activities with the Office could benefit most;

(iv) The proliferation of online resources presents both an opportunity and a challenge in itself. There is an abundance of available online courses, however some are only offered for a limited period of time, while others are not updated to include the latest methods, which makes it difficult for students to find the most pertinent and adequate resources;

(c) Develop infrastructure for cross-sectoral and integrated applications, with combined scientific, technical, legal and policy outputs:

- (i) There is a need for increased interdisciplinary exchange, including on both the technical and legal aspects of space matters. At the United Nations/Austria Symposium, participants encouraged the Office to foster holistic, cross-sectoral capacity-building efforts;⁶
- (ii) Goal 4 of the Sustainable Development Goals (Quality education), calls for an increase in the supply of qualified teachers, including through international cooperation. The increased supply includes teachers in primary and secondary education and those who train government officials. The challenges are to ensure that all trainers and educators are exposed to an effective and inclusive learning environment equipped with the necessary tools and materials, and to disseminate those at the regional and country levels;
- (iii) To better address regional development, improved utilization of the Office's existing regional resources is needed, such as through strengthening the services of the regional centres for space science and technology education, affiliated to the United Nations, as well as expanding the network of regional centres and the Office's regional presence;
- (iv) The availability of open data infrastructure is also a challenge. While there have been steps towards increasing the amount of data that is available openly, there are numerous data archives that remain unused owing to legal or technical constraints. The challenges of providing access to more data and increasing the visibility of archives for use by students and practitioners is an ongoing problem; vast amounts of data are becoming available openly, but at the same time even greater amounts of data are being created;
- (d) Enhance existing partnerships and forge new ones to strengthen and deliver targeted capacity-building and technical advisory activities based on needs assessments:
- (i) In order to provide a portfolio of services and new innovative capacity-building opportunities based on the requirements and long-term development strategies of Member States, there is a need to engage with multiple actors, as the number of entities carrying out activities in space, including those from industry and the private sector, is growing dramatically;
- (ii) The capacity-building efforts of the Office in the particular field of operations need increased collaboration. Triangular cooperation, encouraged by the General Assembly,⁷ provides an opportunity to strengthen targeted capacity-building efforts and should be further implemented by the Office;
- (e) Promote efforts to encourage science, technology, engineering and mathematics education, especially for women in developing countries: although the situation has improved slightly in recent years, the imbalance in the numbers of men and women working in science, technology, engineering and mathematics, in particular in developing countries, remains a challenge.

IV. Road map for implementation

21. The present road map for implementation of the objectives under thematic priority 7 of UNISPACE+50, on capacity-building for the twenty-first century, has been developed taking into account its cross-cutting nature.

22. The road map was developed through an iterative process in which initiatives were progressively refined on the basis of internal and external consultations. The Office has taken steps towards implementing the particular initiatives associated with each of the objectives of thematic priority 7. The present section describes the

⁶ A/AC.105/1162, para. 39 (u).

⁷ Resolution 67/227, paras. 3 and 5.

initiatives proposed for each objective and the steps that have been taken towards their implementation, if any.

A. Initiatives under the objective “New innovative and effective approaches to overall capacity-building and development needs as a fundamental pillar of global space governance”

23. With a scope that includes, but is not limited to, capacity-building, the global space partnership for the Sustainable Development Goals being developed by the Office will serve to integrate the efforts of space-related organizations into the implementation mechanisms of the Sustainable Development Goals in order to utilize the full potential of space to help countries monitor and achieve the Goals.

24. The global space partnership was proposed at the sixtieth session of the Committee. The Office has carried out a feasibility study on the proposed partnership, defining its fundamental components. Among them, with particular relevance to capacity-building, is the process for coordinating capacity-building efforts. The process addresses capacity-building activities associated with the development, operation and utilization of space-related infrastructure, data, information and services worldwide for the purposes of policy- and decision-making.

25. The capacity-building component will be complemented by targeted actions aimed at closing gaps and by undertaking pilot projects with the full involvement of developing countries. The component can be supported by tools such as the space solutions compendium and new initiatives such as the alliance of regional centres for space science and technology education, affiliated to the United Nations, and the proposed capacity-building network.

26. The feasibility study also outlined potential funding scenarios and a recommended short-term strategy for the success of the global space partnership.

27. A global space fund for development is proposed, based on examples of existing United Nations funding mechanisms, to support the coordination and implementation of activities of the global space partnership.

B. Initiatives under the objective “Strengthen comprehensive capacity-building and outreach activities of the Office for Outer Space Affairs”

28. Under this objective, the Office proposes the development of the space for development profile and the space solutions compendium and, coupled to them, collaboration with countries in the development of long-term capacity-building activities. In addition, the Office proposes increasing both the reach of the Office and awareness of space-related matters through online content.

29. The space for development profile will consist of a list of indicators that enable an initial assessment of a given country’s strengths and weaknesses with respect to space development. The initial set of indicators can mostly be measured on the basis of open data; however, the set can be expanded to include indicators related to a given country’s space-related strategic objectives that the country is interested in monitoring closely. The space for development profile is complemented by the space solutions compendium, which is a list of space-related solutions that individual countries can employ, in line with their space strategies.

30. The space for development profile will provide a list of indicators, whereas the space solutions compendium will provide a list of solutions. Both can be used by individual countries to monitor progress and find solutions to enhance their capabilities. The space solutions included in the compendium will also be linked to the global agendas, such the 2030 Agenda for Sustainable Development. Therefore,

by means of the compendium, it will be possible to identify which space solutions could be employed to monitor or achieve the Sustainable Development Goals.

31. To fine-tune these tools, a pilot project has been carried out and a partnership has been established with the European Space Agency to incorporate the Agency's solutions into the space solutions compendium. The compendium is open for contributions, and as the inclusion of more solutions will make it more complete, any provider, subject to a prior internal review process, may submit its space solutions for inclusion in the compendium.

32. The work on the space for development profile and the space solutions compendium lays the groundwork for the establishment of long-term capacity-building development plans, in close collaboration with the countries requesting assistance for that purpose. The plans would have a typical duration of five years, with annual assessments conducted by means of the profile. The long-term development plans would be the primary means for delivering targeted capacity-building solutions tailored to the needs of countries and for reducing the space divide.

33. As part of its existing capacity-building efforts, the Office could include a series of workshops aimed at developing the specific capabilities prioritized by individual countries. It would be possible to capitalize on existing online courses and materials, and further promote those of the Office, by including them in the space solutions compendium, as a way to help students and practitioners find the latest and most relevant courses and good practices related to their areas of expertise. In that regard, the space solutions compendium is expected to serve as a resource for finding space-related training courses and materials.

34. The Office already has a record of providing information and resources in a variety of forms, including recommendations available on the UN-SPIDER portal, presentations from workshops organized by the Office, guides for teachers, curricula, examples of good practices and other materials. Developing online content and ultimately making it available through massive open online courses (MOOCs) represents the next step and would increase the reach of the Office's benefits, especially if the Office were to partner with satellite telecommunications providers to reach remote locations or areas where there is no access to broadband Internet connections.

35. Ultimately, the implementation of MOOCs will provide increased access to the online resources generated by the Office, thereby further promoting the benefits of space, and will lead to the creation of new content adapted to the needs identified by the Office, thus contributing to Goal 4 of the Sustainable Development Goals, on quality education. The implementation of MOOCs has already been addressed (see [A/AC.105/1102](#), para. 81); however, a lack of resources has prevented its implementation.

C. Initiatives under the objective “Develop infrastructure for cross-sectoral and integrated applications with combined scientific, technical, legal and policy outputs”

36. As a response to the challenges posed by this objective, and for the purposes of increasing the reach of the Office and offering additional educational resources and opportunities, the Office proposes the creation of a capacity-building network and a space information and training centre, as well as to continue its work on the Open Universe initiative. Additionally, strengthening the capacity and increasing the number of regional centres for space science and technology education, affiliated to the United Nations, has been requested.

1. Expansion of the network of regional centres for space science and technology education, affiliated to the United Nations

37. It has been recommended that the reach of the regional centres for space science and technology education, affiliated to the United Nations, should be extended, in particular through the creation of new regional centres in regions with large geographical areas. In that connection, Member States are encouraged to support the establishment of new regional centres in order to increase the reach of the centres to all regions. To that end, the Russian Federation has proposed the creation of a regional centre for space science and technology education, affiliated to the United Nations, serving the Russian-speaking countries.

38. New centres will be established in accordance with the procedures followed in establishing the existing regional centres and will not require contributions from the Office once they become operational.

2. Alliance of regional centres for space science and technology education, affiliated to the United Nations

39. At the annual meeting of Directors of the regional centres for space science and technology education, affiliated to the United Nations, which was held on the margins of the sixtieth session of the Committee, representatives of the regional centres proposed the creation of an alliance of regional centres for space science and technology education. The alliance was proposed as a sustainable resource-sharing platform to further strengthen the overall capacity of all regional centres. To that end, each regional centre is encouraged to cooperate with top universities, research institutes and enterprises in the Member States it serves and to share its resources with the other regional centres as a way to strengthen the capabilities of each individual regional centre.

40. The Office was encouraged to continue working with the group of educators that developed the space law curriculum and the Directors of the regional centres for space science and technology education, affiliated to the United Nations, in order to bolster the use of the curriculum at the regional centres, and in carrying out studies at the country level in cooperation with relevant entities in support of capacity-building efforts in space law and policy.

41. The capacity-building activities of the Office related to space law and policy should involve more targeted technical and legal assistance to countries, upon their request. In that regard, it is also important to consider capacity-building activities in the context of space security, in particular transparency and confidence-building measures for outer space activities, given the role of the Office in discharging the responsibilities of the Secretary-General under the United Nations treaties and principles on outer space. The development of a cross-sectoral approach to scientific, technical, legal and policy concerns in capacity-building activities and advisory assistance is a key objective. Such an approach is also being considered under thematic priority 2 of UNISPACE+50, on the legal regime of outer space and global space governance: current and future perspectives.

42. The capacity-building activities will support the 2030 Agenda for Sustainable Development and can be carried out with the existing resources, although a review is proposed for 2020 to re-evaluate the resources needed.

3. Capacity-building network

43. In addition to the alliance of regional centres, the Office proposes the establishment of a capacity-building network that would integrate activities aimed at promoting the use of space and providing space-related educational opportunities, with an emphasis on those supporting the Sustainable Development Goals. The network could provide research opportunities and hands-on training programmes, including student exchange programmes and programmes delivered in working environments.

44. The capacity-building network would support the mandate of the Office and would be opened for the participation of any type of entity wishing to obtain membership, in particular universities, museums, institutions, non-governmental organizations and governmental entities. The network was proposed at the annual meeting of Directors of the regional centres for space science and technology education, affiliated to the United Nations. At the United Nations/Austria Symposium and the United Nations/Russian Federation Workshop, recommendations were made in support of the implementation of the network. The establishment of the proposed capacity-building network would support the 2030 Agenda for Sustainable Development.

45. Without prejudice to their capacity to develop regional networks, the regional centres should be part of the capacity-building network in order to support and raise awareness of the role of space in monitoring progress towards achieving the Sustainable Development Goals.

4. Space information and training centre

46. Given that the initiatives presented under this objective are expected to increase the number of trainers and educational opportunities available in space-related areas, and in respect of the spirit of Goal 4 of the Sustainable Development Goals, on quality education, there is a need to ensure that trainers share common experiences and standards. To that end, it is proposed that a space information and training centre should be created, which would serve as a “train-the-trainers” facility and a venue where trainers could share their experiences and difficulties with one another.

47. The space information and training centre would also be a resource centre for good practices and new information and materials relating to space and the Sustainable Development Goals, serving as a primary resource for the regional centres and the capacity-building network.

48. The proposed centre should also facilitate knowledge transfer, raise awareness of the uses and benefits of space, in particular in the context of sustainable development, and assist countries in the preparation of long-term action plans for space capacity-building.

49. In addition, considering that the cost of organizing a workshop in a particular country is typically split between the Office and the host country, the proposed space information and training centre could reduce the country’s financial burden. Placing the centre at the disposal of Member States would allow those with fewer resources to hold workshops there; moreover, the centre could potentially be used as a venue for activities addressing the specific needs and concerns of individual countries.

50. The space information and training centre would be created in a two-step process. The first step would be to establish a temporary facility serving a limited number of countries, as a way to reduce costs. The second step would involve a strategic evaluation of the centre’s effectiveness, to be carried out in 2020, on the basis of which a decision on its future would be taken, including the possibility of establishing it as a permanent facility. Additional funds would be required for the initial operation of the centre, including for the purchase of 20 laptop computers, as well as associated software, if no open-source alternatives are possible. The temporary centre would be staffed subject to the available resources of the Office.

5. Open Universe initiative

51. Although the quantity of data available openly is increasing, at the same time, even greater quantities of data are being generated, catalogued and stored, remaining unused owing to legal or technical constraints.

52. The Office is engaged in facilitating full and open access to space-derived data. In that connection, the Office is partnering with the Italian Space Agency on the Open Universe initiative, aimed at providing access to astronomical data. Several workshops have been organized under this initiative in order to gather

recommendations on the next steps to be taken towards its development and to establish partnerships.

53. This initiative serves to increase the amount and visibility of available data, as well as the scientific outputs that result from their increased availability and use.

D. Initiatives under the objective “Enhance existing partnerships and forge new ones to strengthen and deliver targeted capacity-building and technical advisory activities based on needs assessments”

54. Partnerships are a central element for the achievement of the 2030 Agenda for Sustainable Development. The space sector is also moving towards greater use of partnerships, in particular private-public partnerships, to address the new challenges of space exploration. Therefore, space-related private sector entities are regarded as essential partners, opening the door to a new way of working.

55. The Committee has acknowledged the need for greater engagement with industry and the private sector, and that the Office should pursue greater engagement with industry and private sector entities to further their support for and contributions to the overall work of the Office (A/72/20, para. 326).

56. The Office is working to establish a global compact for space focused on the space sector, which would serve as a forum through which the space sector could partner with the Office, receive guidance on the outcomes of the Committee, and establish links, through the Secretariat, to the Committee, associated expert groups, action teams and working groups.

57. The global compact for space could also serve as the entry point for the private sector to the space solutions compendium, in which solutions addressing the global agenda proposed by the private sector could be included.

58. The global compact for space will be developed starting with a call for interest, to be issued at UNISPACE+50. The outcome of the call will set the stage for a dialogue between the Office and interested potential partners, which in turn is expected to lead to the establishment of the global compact for space in 2019. Once established, the Compact is expected to become the main mechanism for collaboration between the Office and the private sector.

59. Strengthening existing partnerships and working to create new ones are essential activities in the ongoing implementation of triangular (or trilateral) cooperation, in which the Office channels the assistance of an interested party to create and/or develop capabilities in a developing country, thus reducing the space divide.

60. Coupling triangular cooperation with the use of the space for development profile to develop long-term plans for capacity-building will serve to multiply the benefits of cooperation for all parties. Results will be measured against the indicators defined in the space for development profile, or an agreed extension of it. A set of solutions agreed on in advance could be used to create or improve capabilities that would be maintained through the commitments established in the long-term plan. Such cooperation would ensure the sustainable, rather than transitory, development of capabilities, benefiting all parties.

61. The matching of partners with developing countries would be done through calls for interest. For example, a developing country working with the Office on a long-term capacity-building plan could request the Office to prepare a call for interest seeking support for the implementation of the plan, or part of it.

62. A party interested in the development of specific capabilities could request that the Office seek out developing countries interested in developing those capabilities. The matching process would be done through the space for development profile.

63. The first call for interest of this type is expected to be issued by the date of UNISPACE+50, which is also when it is expected that the space for development profile will have been completed for most of the countries and work on the long-term capacity-building plans will have commenced. The number of calls for interest issued will depend on the number of requests received.

E. Initiatives under the objective “Promote efforts to encourage science, technology, engineering and mathematics education, especially for women in developing countries”

64. The main initiative under this objective is the Space for Women project, aimed at attracting women to space-related careers. Gender equality is embedded in the work of the Office; however, the lack of participation of women in science, technology, engineering and mathematics studies and the professional space field, compared to that of men, has led the Office to create a project addressing the issue.

65. As a starting point in the effort to achieve equal opportunity and gender equality in the field of outer space and to promote education in the fields of science, technology, engineering and mathematics, the Office will take the lead in managing and implementing the Space for Women project.

V. Key milestones for thematic priority 7

66. In order to ensure optimal implementation of the proposed projects, initiatives and objectives under the thematic priorities of UNISPACE+50, and to strengthen the delivery of services, in particular for the benefit of developing countries, there is a need for a strategy regarding additional or reprioritized mandates of the Office.

67. The Office has laid the groundwork for the success of the projects and initiatives described in the present note by seeking partnerships and developing initial activities and pilot projects for UNISPACE+50, and has identified key milestones in their execution.

68. The present section summarizes the key milestones for the activities proposed in section IV above:

(a) *Global space partnership for the Sustainable Development Goals*. In the lead-up to UNISPACE+50, the objective is to engage key partners. A review of the implementation schedule is envisaged to take place in 2021;

(b) *Space for development profile and space solutions compendium*. A pilot project has been carried out and recommendations were made during the United Nations/Austria Symposium on the theme “Access to space: holistic capacity-building for the twenty-first century”. A partnership with the European Space Agency has been established;

(c) *Online content and massive online open courses*. The first step will be to incorporate existing online resources into the space solutions compendium. The second step will be to develop massive online open courses to fill the gaps identified in the space solutions compendium;

(d) *New regional centres for space science and technology education, affiliated to the United Nations*. The new centres are to be proposed by Member States and approved by the Committee in accordance with established procedures;

(e) *Alliance of regional centres for space science and technology education, affiliated to the United Nations*. The alliance was proposed at the meeting of Directors of the regional centres held on the margins of the sixtieth session of the Committee; it is currently being implemented;

(f) *Capacity-building network*. The network was proposed at the meeting of Directors of the regional centres held on the margins of the sixtieth session of the

Committee and was further elaborated during the United Nations/Austria Symposium and the United Nations/Russian Federation Workshop. A call for interest is set to be issued prior to UNISPACE+50;

(g) *Space information and training centre*. Implementation of the centre is expected to follow a two-step approach. For the first step, a temporary centre serving a limited number of countries would be established between 2018 and 2020. For the second step, a review would be conducted in 2020 to inform the decision on whether to establish a permanent centre;

(h) *Global compact for space*. A call for interest aimed at engaging interested private sector entities is set to be issued at UNISPACE+50;

(i) *Triangular cooperation on long-term capacity-building*. This initiative is to be coupled with the space for development profile and the space solutions compendium. The first call for interest is set to be issued at UNISPACE+50. Additional calls will be issued depending on the number of requests received;

(j) *Space for Women project*. Development and implementation of the project will be led by the Office.

VI. Conclusions

69. In order to achieve the objectives under thematic priority 7, on capacity-building for the twenty-first century, the provision of additional resources through the mechanisms formulated under the initiatives established for that purpose is required.

70. The use of a results-based management approach based on the space for development profile and the space solutions compendium will enable the Office to provide more targeted assistance to countries in the development of long-term capacity-building plans, in line with their individual development strategies and with the possibility of triangular cooperation.

71. Thematic priority 7 is crucial for bridging the gap between countries that have access to space and those that do not — the space divide; if no action is taken on this priority, there is a threat that the gap will widen.

72. The development of partnerships will not only require additional resources but also the development of a framework that enables the Office to seek additional resources. To that end, the establishment of the proposed global compact for space would provide the mechanism for cultivating partnerships with the private sector. Triangular cooperation will be the mechanism used to engage with the public sector.

73. On the basis of the Office's assessment, there is no need for an additional mandate to implement the objectives under thematic priority 7, as all the activities proposed could be executed under the Office's current mandate; however, additional resources would be required.

74. In order to fully achieve the objectives defined under thematic priority 7, the Office recommends that all the initiatives proposed in the present note should be implemented.