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**Committee on the Peaceful  
Uses of Outer Space****Report on the United Nations/Austria Symposium on Space  
for Sustainable Development Goals, Stronger Partnerships  
and Strengthened Collaboration****(Graz, Austria, 17–19 September 2018)****I. Introduction**

1. In the outcome document of the United Nations summit for the adoption of the post-2015 development agenda, entitled “Transforming our world: the 2030 Agenda for Sustainable Development”, Member States were called upon to exploit the contribution to be made by a wide range of data, including Earth observation and geospatial information, in order to support the sustainable development of nations and regions.
2. The 2030 Agenda for Sustainable Development consists of 17 Sustainable Development Goals, which include targets to be reached by 2030. The achievement of the Goals requires the right tools. It also requires a concerted effort on the part of all stakeholders, and the need for partnerships is stressed in Goal 17 (“Strengthen the means of implementation and revitalize the global partnership for sustainable development”).
3. Space technology is one of several technologies essential for the successful implementation of the 2030 Agenda. Space technology enables the provision of data, information and services that, directly or indirectly, contribute to the achievement of the Goals, or to assessing and monitoring progress towards that aim.
4. Established in 1971, the United Nations Programme on Space Applications, implemented by the Office for Outer Space Affairs, assists Member States in building capacity in the use of space science, space technology and space applications in support of sustainable development and promotes international space cooperation for the benefit of Member States. Since its inception, the Programme’s emphasis has been on the development and transfer of knowledge and skills to developing countries and countries with economies in transition. As part of the Programme, the Office is promoting the utilization of space technology, data and applications to assist in the achievement of the Sustainable Development Goals, and in the monitoring of progress to that end. As part of that work, the Office for Outer Space Affairs, jointly with the European Global Navigation Satellite Systems Agency, published early in 2018 a report entitled “European Global Navigation Satellite System and Copernicus: Supporting the Sustainable Development Goals — Building Blocks towards the 2030 Agenda”.



5. In that general context, the United Nations/Austria Symposium on Space for Sustainable Development Goals, Stronger Partnerships and Strengthened Collaboration was organized jointly by the Office for Outer Space Affairs and the Government of Austria. The Graz University of Technology and the National Point of Contact for Space Law Austria were appointed as the local organizers of the event.
6. The Symposium has been held in Graz, Austria, as a scientific conference of international significance since 1994. The 2018 Symposium was the twenty-fourth in a series that has covered a wide range of topics, such as climate change, space weather and small satellites. In 2017, the Symposium successfully incorporated discussions on legal aspects, pursuing a holistic approach to capacity-building. Following the success of the Symposium in 2017, the 2018 Symposium also included a session on policy and legal aspects.
7. The Symposium was organized with the support of the European Space Agency (ESA), the German Aerospace Centre (DLR), Austrospace, Joanneum Research, the National Point of Contact for Space Law Austria, Graz University of Technology, the city of Graz, the Federal Province of Styria, and the Ministry for Transport, Innovation and Technology. The Symposium was hosted by the Graz University of Technology.
8. The present report contains information on the background, objectives and programme of the Symposium, and provides a summary of the observations and recommendations made by the participants. The outcomes and recommendations emanating from the Symposium provide input to the work of the Office for Outer Space Affairs, in support of the Sustainable Development Goals and other global agendas.

## **A. Background and objectives**

9. In September 2015, the United Nations, through a deliberative process involving its 193 Member States, adopted a new set of goals to be achieved over the following 15 years to end poverty, protect the planet and ensure prosperity for all. Those goals are part of a new sustainable development agenda: the 2030 Agenda for Sustainable Development.
10. The 2030 Agenda has defined 17 Sustainable Development Goals with 169 associated targets related to sustainable development and associated indicators. The Goals are accepted by all countries — developed and developing countries alike — and are applicable to all, considering different national realities, capacities and levels of development, and respecting national policies and priorities.
11. Governments have the primary responsibility for follow-up and review, at the national, regional and global levels, in relation to the progress made in implementing the Goals and targets over the 15-year period. The implementation of the 2030 Agenda contains a strong emphasis on data collection, with clearly defined methodologies in support of monitoring and measuring the indicators and the progress towards achieving the targets.
12. In the outcome document of the United Nations summit for the adoption of the post-2015 development agenda, space technologies are specifically mentioned. Since the adoption of the Goals, space technologies have been viewed as being integral to their achievement.
13. One of the distinctive characteristics of space measurements is their capacity to take non-invasive, repeatable objective measurements, which enables a more equitable and fair decision-making process. In order for the 2030 Agenda to be successful, the use of space services needs to become the norm. A global partnership is needed to ensure that countries are fully aware of the potential uses of space in both the implementation of activities aimed at the achievement of the Sustainable Development Goals and the monitoring of progress. Such a partnership is also necessary to ensure that the needs of all countries are taken into account, in order to

reduce existing gaps when designing and operating new space-based infrastructure, since the capabilities of using such technology, data and applications are uneven.

14. Despite often going unnoticed, the use of space technology and the availability of space-based services is widespread. Space assets and technologies can be used to support most, if not all, of the Sustainable Development Goals.

15. The main objective of the Symposium was to present initiatives and elaborate road maps and concrete deliverables that could serve as guidance, in order to stress the role of space technologies, data and applications in the 2030 Agenda. The objectives were as follows:

(a) Elaborate the streamlining of user needs and their link to global agendas, such as the 2030 Agenda, the Sendai Framework for Disaster Risk Reduction 2015–2030 and the Paris Agreement;

(b) Prepare a space systems road map that highlights how those systems can contribute to the global agendas;

(c) Discuss the portfolios available for the sharing of information, which cover the following subjects:

(i) Data and service access;

(ii) Space systems;

(iii) Capacity-building;

(d) Enhance existing and forge new partnerships for capacity-building and providing institutional support;

(e) Promote the participation of women and youth in space science;

(f) Provide recommendations and elaborate a road map on how space can contribute to sustainable development.

16. Although the objectives listed in paragraph 15 were very ambitious for a three-day symposium, there was an expectation that the Symposium would serve as a validation of those needs and would also act as a starting point for a dialogue on those topics.

## **B. Attendance**

17. Owing to the focus of the Symposium on the role of space technologies, data and applications in progress toward the Sustainable Development Goals, the majority of participants were representatives of one of the following four communities:

(a) National statistics institutes, as the entities reporting on the progress toward the achievement of the Goals;

(b) Space agencies, as the providers of the space infrastructure, data and applications necessary to support the implementation of the Goals;

(c) United Nations entities, as custodians of the relevant indicators;

(d) Service providers and industry, as providers of value-added services that can assist States in reaching targets.

18. The selection of participants and preparation for the Symposium were carried out by the organizers in cooperation with a programme committee composed of international experts and local organizers. The participants were selected on the basis of relevant background and experience in the implementation of activities related to the Sustainable Development Goals.

19. The Symposium was attended by more than 80 participants, 40 per cent of which were women. The following Member States were represented: Australia, Austria, Brazil, Cabo Verde, Cameroon, China, France, Germany, Ghana, Italy, Japan, Lao

People's Democratic Republic, Libya, Mexico, Nigeria, Pakistan, Paraguay, Portugal, Rwanda, Senegal, Slovenia, Switzerland, the United Kingdom of Great Britain and Northern Ireland and the United States of America.

20. Representatives of the following United Nations entities also attended the Symposium: Food and Agriculture Organization of the United Nations, United Nations Environment Programme, United Nations Industrial Development Organization, United Nations Institute for Training and Research and World Bank. The following space agencies were represented: Mexican Space Agency (AEM), Italian Space Agency (ASI), French Space Agency (CNES), ESA, Japan Aerospace Exploration Agency, National Aeronautics and Space Administration, National Space Research and Development Agency and Space and Upper Atmosphere Research Commission.

21. In order to provide guidance on reporting for the Sustainable Development Goals, representatives of the statistical service entities of Cabo Verde, Cameroon and Ghana also attended the Symposium. Representatives of the Copernicus Marine Environment Monitoring Service and Copernicus Atmosphere Monitoring Services were also in attendance, since such services could assist in measuring some of the Goal indicators.

### **C. Programme**

22. The programme of the Symposium was developed by the Office for Outer Space Affairs in cooperation with the international programme committee of the Symposium, which included members of the following: ESA; Austrian Ministry for Europe, Integration and Foreign Affairs; Austrian Ministry for Transport, Innovation and Technology; DLR; Joanneum Research; Graz University of Technology; and National Point of Contact for Space Law Austria.

23. The programme was specifically designed to produce recommendations on five different areas supporting the global agendas, in particular the 2030 Agenda for Sustainable Development. The areas covered were user needs, space system capacity, space-derived products and services, contribution to policy definition processes and capacity-building. A working group was established for each subject area and dedicated sessions were held.

24. The sessions, one for each topic, allowed for specific presentations on the activities of different entities in those areas. Each session included a presentation of the results of the working group as well as sufficient time for discussion among participants.

25. In addition to the working groups and sessions, a high-level discussion panel was organized on the first day of the Symposium. Participants included representatives of CNES, Eurisy, the National Statistics Institute of Cameroon, ESA, the Earth Observation Data Centre for Water Resources Monitoring in Austria and the Copernicus Marine Environment Monitoring Service. Three keynote speeches were given, providing a broad view of how space could contribute to the global agendas, in particular the 2030 Agenda.

26. Participants were requested to provide their five most relevant user needs in the context of the Sustainable Development Goals. Those user needs were collected by the Office and are summarized in the present report.

27. The Symposium was advertised and promoted on various websites and social media platforms.

## II. Summary of the programme

28. The Symposium was opened with a welcome ceremony, followed by two keynote speeches, the high-level panel and a session to prepare the participants of each working group.

29. A summary of each session in the programme, including the results of each working group, is provided below.

### A. Opening session

30. Members of the organizing committee gave a welcoming address. Speakers highlighted the long tradition and the importance of the symposiums organized by the Office for Outer Space Affairs and the Government of Austria. Speakers included representatives of Joanneum Research; National Point of Contact Space Law Austria; the Austrian Ministry for Transport, Innovation and Technology; the Austrian Ministry for Europe, Integration and Foreign Affairs; Austrospace; ESA; the Austrian Research Promotion Agency; the city of Graz; the Federal Province of Styria; and the Office for Outer Space Affairs.

31. The welcome ceremony was followed by two presentations that set the tone and established the objectives for the Symposium, highlighting the importance of the contribution of space to the Sustainable Development Goals at the country, regional and global levels. The presentations stressed the need for concrete realizations of the contribution of space to the global agendas.

32. The participants of the high-level panel expressed their points of view on the different areas where space could contribute to the achievement of the Goals, stressing that the entire space value chain, from the satellites to the downstream services, could support those aims. It was noted that collecting the needs of end users and making those needs available to the satellite and service developers was crucial.

33. It was noted that space catalogues listing the space projects and applications linked to the Goals, similar to the ESA catalogue on the Goals and the space solutions compendium, would be a major contribution to helping users understand what resources were available. Participants also stressed the capacity of the Office to bridge gaps and act as a broker between users and providers, connecting the different actors.

34. A presentation by the representative of the Office was aimed at familiarizing participants with the UNISPACE+50 process, establishing the necessary linkages with the objectives of the Symposium. A presentation was also made by a representative of the Graz University of Technology, setting the stage for human capacity-building in aerospace science and technologies and describing the expectations of the Symposium.

35. Key issues highlighted by all speakers during the opening session included the role of universities in supporting space-related human capacity-building and the need for stronger cooperation and coordination among all stakeholders.

### B. User needs

36. The objectives of the working group on user needs were as follows:

- (a) Understand existing processes for the collection of user needs;
- (b) Expand those processes as necessary;
- (c) Identify practices for capturing the information and updating repositories of user needs.

37. A comprehensive picture on global space user needs does not exist. Although the Group on Earth Observations (GEO) has a working group on user needs and gap

analysis, it is specific to Earth observation and does not cover other technologies. The GEO Blue Planet and the Atlantic International Research Centre are jointly conducting a study on user needs in Africa and Latin America. However, it is necessary that transdisciplinary approaches are adopted when trying to identify the best suited solution to a particular need.

38. The regional centres for space science and technology education, affiliated to the United Nations, and the regional support offices of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) could facilitate the user-needs study process.

39. The needs of developing countries are not being sufficiently taken into account when developing space systems, products and services. The establishment of knowledge networks, allowing a more direct dialogue between end users and the development community, was regarded as very important. These knowledge networks will focus on raising awareness of the needs of developing countries.

40. The link between space and the 2030 Agenda will be established in a clear and comprehensive manner. The Sustainable Development Goals are an excellent basis for the categorization of user needs that can be later addressed. Catalogues of space solutions linked to the Goals could be the starting point for users.

41. Presentations during the session demonstrated that the use of space information was uneven. Space was used for different applications, which varied depending on the expertise and priorities of the country. A common trend was observed on the use of Open Data Cubes as a means of making information available and usable at the country or regional levels, in order to foster the development of applications and services.

42. UN-SPIDER was presented as an example with regard to the process of collecting user needs through technical advisory missions and follow-up. UN-SPIDER has been collecting user needs for more than 10 years.

### **C. Space systems supporting the global agendas**

43. The objectives of the working group on space systems supporting the global agendas were as follows:

(a) Identify systems that could contribute to the global agendas and the steps necessary to ensure their continuity;

(b) Raise awareness of the resilience of and the gaps not covered by space assets;

(c) Identify mechanisms to ensure that the information is updated.

44. The working group was organized to voice the contribution of the space agencies present in the meeting. The majority of the participants in the working group were representatives of the space agencies present at the Symposium, together with representatives of private sector entities that operate space assets.

45. The working group concluded that all space activities had the potential to contribute to the global agendas, although the contribution could vary depending on the activity. The most discussed space activity was Earth observation, although it was recognized that satellite telecommunications, navigation satellites, experiments in human space missions and other space activities also had the potential to contribute to the achievement of the Sustainable Development Goals.

46. The Space Climate Observatory was mentioned as an example of space infrastructure that could play an important role in the global agendas — with regard to Goal 13 (“Take urgent action to combat climate change and its impacts”) — by providing a tool to support decision-making processes. Integration of space-based infrastructure with in situ sensors or airborne platforms (e.g., drones) could provide additional benefits for specific applications.

47. The participants in the working group emphasized the need for continuity in the contribution of space assets to global agendas. That continuity needed to be twofold — including both the instruments and the data — in order to ensure compatibility of the data archive. Funding was seen as a key factor in ensuring continuity and Governments were urged to take action to ensure adequate provisions to support that aim.

48. It was noted that data policies were key to ensuring the widespread use of data and, although open and free data policies could help stimulate the development of services and applications, payment for services or data could also stimulate developments stemming from private companies. To that end, it was proposed to create a common fund to cover the costs of data and services.

49. One of the biggest problems faced by space systems was the underutilization of existing space resources and duplication of efforts, when there was no additional value added for the end user. Coordination between various space agencies, national and international, was desirable. In order to facilitate coordination, a detailed database on space assets needed to be developed.

50. It was noted that space was an important tool for achieving the Sustainable Development Goals and that there should be appropriate incentives provided for implementing space systems with that aim in mind, including awards and letters of recognition. The creation of international forums, bringing together researchers, scholars, academics and decision makers at the ministerial level, could be a tool for the sharing of knowledge on space systems and best practices.

51. The incorporation of the 2030 Agenda in the goals of space agencies was recommended to raise awareness and increase the visibility of the space contribution. The Goals were identified as a useful tool for the classification of the impact of activities, and it was noted that several space agencies were already incorporating them into their goals and projects. It was recommended that that practice be extended to other institutions.

52. The session on space infrastructure focused on the importance of Earth observation to the measurement of the indicators associated with the Goals. The need for continuity of observations and long-term Earth observation programmes were regarded as crucial.

53. It was noted that end users needed to be more involved in the definition of space systems in order to ensure that products were fit for purpose. Targeted capacity-building activities were necessary in order to raise awareness and spread the use of best practices.

#### **D. Space-derived products and services for the global agendas**

54. The objectives of the working group on space-derived products and services supporting the global agendas were as follows:

- (a) Identify products and services that could contribute to the global agendas and the steps necessary to ensure their continuity;
- (b) Identify potential issues preventing the adoption of products;
- (c) Identify a mechanism that could assist member States in finding products and services related to their needs vis-à-vis the global agendas.

55. The working group identified space-based technology applications used for agricultural monitoring, security, communication, Earth observation and weather monitoring as being the products and services that could best contribute to the monitoring and achieving the Sustainable Development Goals. However, a number of problems and challenges were identified on the end-user side, which prevented more widespread use.

56. It was noted that information was not accessible in a form that was user-friendly. The data available for use in decision-making had either limited precision or was expensive.

57. It was also noted that development of human capacity in the usage of space-derived products and services was uneven, especially in developing countries. In addition, there was a lack of access to such products and services.

58. The working group recommended that an independent and open access platform should be created. Such a platform needed to list the space solutions available for end users wanting to use space technologies, data and applications, for purposes of meeting the objectives of the global agendas. The platform needed to also incorporate guidelines and best practices in the use of products and services.

59. The process to incorporate data into the platform needed to be transparent and it was recommended that a group of experts from universities, space agencies and industry should keep track of the status of the catalogue. The utilization of user feedback to categorize the information in the catalogue would need to be carefully assessed by a team of experts. Regular updates of the data, together with a change log, were crucial to ensuring transparency. The platform would need to contain different kinds of information in order to meet the needs of different types of users.

60. The session on space-derived products and services presented various products developed by United Nations entities, as well as the Copernicus Marine Environment Monitoring Service and the Copernicus Atmosphere Monitoring Service.

61. The session demonstrated the extensive use of space-based information in monitoring progress toward the achievement of the Sustainable Development Goals. A number of services were presented by United Nations entities. A representative of the Food and Agriculture Organization of the United Nations made a presentation on two software applications — Earth Map and Collect Earth — that could be utilized to visualize, access and analyse Earth observation data. A representative of the United Nations Institute for Training and Research made a presentation on the Common Sensing project, which targets Goals 9 (“Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation”) and 13. A representative of the United Nations Environment Programme made a presentation on the Global Surface Water Explorer and the mapping of coastal and inland waters, which target Goals 6 (“Ensure availability and sustainable management of water and sanitation for all”) and 14 (“Conserve and sustainably use the oceans, seas and marine resources for sustainable development”). Lastly, a representative of the World Bank made a presentation on the rural access index linked to Goals 9 and 11 (“Make cities and human settlements inclusive, safe, resilient and sustainable”).

62. A representative of the Office for Outer Space Affairs made a presentation on UN-Space, an inter-agency mechanism on the utilization of space-related technologies to enable discussions on current and future activities. Given the extensive use of such technologies, the mechanism helps to identify duplications and gaps in efforts, as well as synergies, among the activities of different entities.

## **E. Contribution to policy definition processes**

63. The objectives of the working group on policy definition processes, and in particular with regard to environmental protection and the principles relating to remote sensing of the Earth from outer space, were as follows:

(a) Identify gaps in practices and the Principles Relating to Remote Sensing of the Earth from Outer Space related to Principle X;

(b) Collect good practices on remote sensing distribution practices.

64. Several terms mentioned in Principle X were discussed among the participants of the working group. There was agreement on the definition of “natural environment”; however, other terms such as “protection of the environment”,

“harmful”, “information” and “disclose the information” triggered a lively discussion, showing that there is a lack of shared understanding on those particular terms.

65. The working group helped raise awareness among participants that there was a need to clarify the language in Principle X of the Principles Relating to Remote Sensing of the Earth from Outer Space to further contribute to the achievement of the Sustainable Development Goals. Furthermore, there was general agreement among the participants of the working group that the discussion should be continued and not be limited to Principle X but encompass also other Principles relevant to the achievement of the Goals. Therefore, it was recommended to continue work on the Principles, with a view to raising awareness on the possible discrepancies in their interpretation.

66. The presentations made during the session were focused on different aspects of implementation of space policy by different actors and possible methods of implementation in relation to the Goals. Space policy affects a wide range of actors, including space agencies, research institutions, industry and other institutions making use of space technology, data and applications. Space policy is tightly linked to the budget allocated for its implementation.

## **F. Capacity-building on space for the global agendas**

67. The objectives of the working group on capacity-building for the global agendas were as follows:

- (a) Create a visual representation of the distribution of capacity-building initiatives;
- (b) Identify the potential existence of gaps;
- (c) Develop a mechanism to address any gaps identified;
- (d) Link the mechanism to the Sustainable Development Goals.

68. Participants agreed on the difficulty of capturing the extent of capacity-building globally. The visual representation of the captured capacity-building activities worldwide indicated visible gaps in their distribution, notably in Africa, Latin America and the Caribbean, and the Middle East. It was noted that a lack of resources was the main obstacle towards a more even distribution of activities and therefore, there was a need for a mechanism to bridge the gaps and assist in the dissemination of information on available activities to interested parties.

69. The mechanism proposed by participants was an interactive platform to be operated by the Office for Outer Space Affairs, building upon existing initiatives and tools capitalizing on the connections of the Office with the broader space community. It was recommended that the capacity-building initiatives included in the platform should be able to be tagged according to the Sustainable Development Goals they are targeting.

70. Participants requested the initiation of a pilot project followed by a phased implementation, and recommended that the Office present the project during the fifty-fifth session of the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space.

## **G. Keynote speech**

71. The Chair of the executive board of DLR delivered a keynote speech, highlighting the different applications in which space was already contributing to the Sustainable Development Goals. It was noted that the amount of data produced by all the space missions was in the order of hundreds of gigabytes per day. That enormous amount of data could feed artificial intelligence algorithms to unprecedented levels, helping to uncover new applications that could benefit end users. The availability of

cloud computing was enabling access to computing resources that were only available in data centres, which has created an ecosystem that makes it easier and faster to deliver new applications from developed and developing countries.

## **H. Poster sessions**

72. The poster sessions provided an opportunity for participants who were not included in the thematic sessions to present their work. Presenters included attendees from India, the Lao People's Democratic Republic, Nigeria, Paraguay and the United States. The presentations addressed issues related to activities in space technologies and science for socioeconomic development that were connected to the achievement of the Sustainable Development Goals.

## **III. Observations and recommendations**

### **A. Observations**

73. It was recognized that the contribution of space to the monitoring and achievement of the global agendas was significant, although the largest contribution comes from Earth observation. With regard to monitoring the indicators associated to the Sustainable Development Goals, the contributions of other space-related technologies should be considered. To secure that contribution, continuity of space infrastructure, data and applications should be pursued.

74. It was noted that, with regard to end users, the uptake of space technologies, data and applications was uneven, a fact that could be related to the geographical distribution of capacity-building activities, which tend to be concentrated in certain locations. The regions with the least coverage were Africa, Latin America and the Caribbean, and the Middle East, which could be the result of limited resources, compared with other regions. It was noted that uneven distribution was also affecting the design of space systems, because user needs from developing countries were less likely to be incorporated into the design.

75. Participants noted that the utilization of space-based products and services by end users faced several challenges. It was difficult for users to find out how space technology, data and applications could be utilized to address their needs. Furthermore, even when solutions were available, the information was not disseminated in a user-friendly manner. As a result, users were not always aware of the services available. It was also noted that there was an underutilization of existing space assets; therefore, additional effort was needed to ensure full utilization.

76. Cost was regarded as a challenge, since space-based products and services were perceived to be expensive, and users were demanding increased access to open and free data. However, such access would reduce profits, which could result in a lack of investment from industry for the development of new products and services.

77. It was recognized that there was no common understanding on some of the terms mentioned in the Principles Relating to Remote Sensing of the Earth from Outer Space, specifically Principle X, and there was a need to clarify the language.

### **B. Recommendations**

78. The recommendations of the five sessions were combined to eliminate any overlaps. The following recommendations were agreed:

(a) The construction of knowledge networks to enable a more direct dialogue between end users and the developer community is regarded as very important, in particular to raise awareness on the needs of developing countries;

(b) The Office for Outer Space Affairs needs to capitalize on ongoing user-need collection mechanisms such as the technical advisory missions carried out within the UN-SPIDER programme. The regional centres in space science and technology education, affiliated to the United Nations, and the UN-SPIDER regional support offices can facilitate the user-need study process. In addition, in order to increase the visibility of the user needs collected, it is recommended that the Office is engaged with other international actors in their user-need collection mechanisms;

(c) In order to raise awareness on the capabilities of space in support of the global agendas, the establishment of catalogues of solutions is recommended. Users could use such catalogues as starting points when trying to identify solutions for their needs;

(d) It is also recommended that space agencies incorporate the 2030 Agenda for Sustainable Development into their goals, with a view to raising awareness and increasing the visibility of the space contribution. It is also recommended that awards are created to recognize and incentivize the contribution of space systems towards the global agendas. The creation of international forums at the ministerial level that engage with other stakeholders could serve as a platform to raise awareness of such contributions;

(e) Space agencies represented at the Symposium recommended the development of a global database of space assets as a means of helping to reduce and identify possible gaps in a timely fashion and to identify opportunities for cooperation;

(f) Capacity-building activities related to space should be better disseminated. It is therefore recommended that an interactive platform should be developed, which includes all such activities, building upon existing initiatives and capitalizing on the connections between the Office for Outer Space Affairs and the broader space community;

(g) It is recommended that the language of the Principles Relating to Remote Sensing of the Earth from Outer Space should be clarified in order to raise awareness of the possible discrepancies in their interpretation.

## IV. Conclusions

79. The Symposium provided the opportunity to exchange views among experts from 24 countries, raising awareness on the contribution of space to the global agendas, in particular the 2030 Agenda for Sustainable Development. The Symposium also functioned as a platform for the presentation of a wide range of initiatives related to the Sustainable Development Goals and for the formulation of recommendations.

80. There was consensus on the importance of utilizing space technology, data and applications to assist in the achievement of the Sustainable Development Goals and in the monitoring of progress to that end. However, it was recommended that a number of mechanisms be created to help streamline the dissemination of information to end users.

81. The Office was urged to implement the recommendations made in support of the global agendas and to engage with other international actors in efforts to achieve that aim.