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Chair: Mr. Pieris

(Sri Lanka)

The meeting was called to order at 10.10 a.m.

Agenda item 99 (jj)

Joint panel discussion of the First and Fourth Committees on possible challenges to space security and sustainability

Co-Chair Pieris: It is my singular pleasure to co-chair this meeting with the Chair of the Fourth Committee, His Excellency Ambassador Mohamed Al Hassan of Oman. We have agreed to take turns in guiding the proceedings of the meeting. Accordingly, I will chair the first half of our proceedings, and my co-Chair, Mr. Al Hassan, will preside over the second half.

I warmly welcome everyone to this joint meeting of the First and Fourth Committees, convened pursuant to resolution 76/55. A particularly warm welcome is extended to the Director and Deputy to the High Representative for Disarmament Affairs, Mr. Adedeji Ebo; the Acting Director of the United Nations Office for Outer Space Affairs, Mr. Niklas Hedman; and our distinguished panellists: Mr. Omran Sharaf, Chair of the Committee on the Peaceful Uses of Outer Space; Mr. Hellmut Lagos, Chair of the Open-ended Working Group on Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours; Mr. Nayef Al-Rodhan, of the Geneva Centre for Security Policy, who is joining us remotely; Mr. Wang Guoyu of the Beijing Institute of Technology, who is also joining us remotely; and Ms. Jennifer Warren of the Satellite Industry Association.

The question of how best to preserve outer space exclusively for peaceful purposes is a subject that has been considered by both Committees, respectively, over the years. The First Committee has addressed the subject under agenda item 97, "Prevention of an arms race in outer space", as well as under sub-item (cc), "Transparency and confidence-building measures in outer space activities", of agenda item 99, "General and complete disarmament". The Fourth Committee considers it under agenda item 45, "International cooperation in the peaceful uses of outer space". This joint meeting provides an integrated forum for members of both Committees to consider the issue together. The programme for today's joint panel discussion was circulated in advance; as noted therein, the meeting today will consider the general topic of possible challenges to space security and sustainability.

I now invite Mr. Ebo to address the Committee.

Mr. Ebo (United Nations Office for Disarmament Affairs): I very much appreciate the opportunity to address members of the First and Fourth Committees at this joint meeting. I am personally delighted to be here with the co-Chairs. I have never been to a meeting with Ambassador Pieris in which I have not picked up a philosophical lesson. And I am delighted to have met Ambassador Al Hassan, with whom I have already had an interesting exchange. I look forward to visiting him soon. I would also like to thank the United Nations Office for Outer Space Affairs for its continuing and productive partnership and close cooperation.

We are meeting at a time of multiplying conflicts among the major military Powers. The prospects of

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those conflicts spilling over into active hostilities in new domains, including outer space, have never been greater. In his report *Our Common Agenda*, the Secretary-General observes that,

“Outer space has traditionally been acknowledged as a global common, beyond the jurisdiction of any one State. The potential for its peaceful, secure and sustainable use would benefit all humanity today and into the future. Governance arrangements for outer space, including the Committee on the Peaceful Uses of Outer Space, were established in an era of exclusively State-based activity and provide only general guidance on managing traffic in outer space, the permanent settlement of celestial bodies and responsibilities for resource management. ... Space assets have transformed the way we live and outer space systems are vital for understanding and solving global problems, such as implementation of the Sustainable Development Goals and climate action. Many of these developments are driven by actors in the private sector. [Some developments] also pose new risks to security, safety and sustainability. Increasing congestion and competition in outer space could imperil access and use by succeeding generations. Our governance and regulatory regimes require updating in line with this new era to preserve outer space as a global common.” (A/75/982, para. 90)

Preserving outer space as a realm free of conflict and weaponization remains an urgent priority. That is why the Secretary-General intends to convene a multi-stakeholder dialogue on outer space as part of the Summit of the Future to be held in 2024. The purpose of that dialogue is not to replace the decision-making roles that States must play in shaping the future of international governance. It is rather an opportunity to elevate intergovernmental arrangements to a higher political level and to instil a sense of urgency in existing workstreams. We therefore hope that this joint meeting will facilitate broad discussion among Member States on the preparations for and outcomes of that Summit, as well as on the role of the relevant United Nations bodies. Such joint meetings have demonstrated the importance of bringing all relevant parties of the outer space policy community together to share their respective experiences and ensure the coordination of efforts. They have also served as a means for facilitating multi-stakeholder dialogue and engaging with the

private and non-governmental sectors. I therefore look forward to the presentations by the panellists. I hope that the following interactive dialogue among Member States will provide us with guidance on this phase of preparations for the Summit, to be held in 2024.

Co-Chair Pieris: I give the floor to the representative of the Russian Federation, who wishes to speak on a point of order.

Mr. Vorontsov (Russian Federation) (*spoke in Russian*): We are compelled to take the floor. Although we would have preferred to take the floor before the Director and Deputy to the High Representative for Disarmament Affairs, we are still willing to do so now. Before proceeding with our programme of work, we want to share our thoughts on the draft programme of work for the joint meeting of the First and Fourth Committees on outer space issues.

We believe that the General Assembly and its Committees are first and foremost platforms for intergovernmental exchanges. It is from that perspective that we have considered the draft agenda for this joint meeting. We believe that the agenda should focus on an exchange of views among States. While approaches are to be articulated by non-governmental entities, we believe that we should hear non-governmental organizations articulating their approaches after we have had an exchange of views among delegations. Furthermore, we are gravely concerned about the fact that the draft agenda for the joint meeting was submitted by the Secretariat. However, it was not discussed with States during its preparation. As a result, a number of issues have arisen, in particular for the delegation of the Russian Federation.

As I have already mentioned, the draft agenda was submitted by the Secretariat. However, in such a context, the Secretariat should play a strictly administrative and complementary role to Member States. At the same time, the agenda must be agreed upon by States and should not provoke objections or raise any issues among States. For our part, at an early stage on the margins of the First Committee, we raised questions with respect to several issues. In particular, we do not understand what criteria were used in appointing the speakers representing industry and academia as the panellists for this meeting. We believe that there is a lack of balance in terms of the presence of representatives of non-State bodies, especially in terms of geographical representation. The joint panel that has been invited is

not representative of developing countries, although we would also like to hear from such panellists. Moreover, we have already had the honour and opportunity to hear a number of the specialists in various other relevant forums, specifically in the context of the Open-ended Working Groups and the Committee on the Peaceful Uses of Outer Space. We cannot accept such a state of affairs, as it raises significant and well substantiated questions for us with regard to the added value of briefings and presentations of reports by non-governmental entities at this meeting, especially given that we have very limited time, including for intergovernmental discussions.

We would therefore prefer to have a balanced discussion on the First and Fourth Committee issues related to the security of outer space activities. Given the fact that further discussion of the draft agenda may take time away from the consideration by the Member States of substantive issue, and taking into account our limited time, we are prepared to show some flexibility at this joint meeting of the First and Fourth Committees. We would nevertheless like to have some clarification from the Secretariat and the two co-Chairs with regard to the issues that we have just raised. We call on the Secretariat to take into account our concerns and ensure that they are considered when it prepares the next joint meeting of the First and Fourth Committees in 2024. We sincerely do not want to see the current situation repeated. If that were the case, the Russian Federation would have to take decisive measures in order to put an end to such practices and prevent imbalanced briefings and presentations of reports, which also risk leading to imbalanced discussions at these joint meetings.

Co-Chair Pieris: I give the floor to the representative of Cuba, who wishes to speak on a point of order.

Ms. Carral Castelo (Cuba) (*spoke in Spanish*): Cuba is grateful for the opportunity afforded by this joint panel discussion between the First and Fourth Committees on such an important topic, which is a priority on both Committees' agendas. We believe that it is imperative that such discussions continue in the future. However, my delegation is concerned about the process that was used in selecting the expert panellists, which does not mean that we harbour any concerns about any one of them. Rather, my delegation is concerned about the procedure that was followed under this agenda item. We would have liked to have seen prior consultations among Member States to decide on this process. We note once again that the necessary

equitable geographical representation was not taken into account for this process. We are also unclear about the selection criteria used for appointing the panellists at this joint debate and precisely where the mandate to choose and appoint the colleagues who will be briefing us today originates.

Co-Chair Pieris: I give the floor to the representative of Syria, who wishes to speak on a point of order.

Mr. Al Ashkar (Syrian Arab Republic) (*spoke in Arabic*): I will be brief. I would like to echo the concerns expressed by my colleagues, the representatives of Cuba and the Russian Federation, with regard to the process of selecting experts and speakers for this joint meeting. My delegation believes that there is a need to take geographical balance into account so as to cover all aspects related to the topics under discussion in this meeting and in order to be more inclusive.

Co-Chair Pieris: I would like to make a few observations. As a collective response to the issues raised, the observations that were just made are well taken, in the sense that there is always a better way of doing things. Rest assured, on my and my co-Chair's behalf, that whatever decision has been made, it has been made in the best interest of the First Committee. Were I to put it in jurisprudential terms, it was not an abdication of members' authority. Members should bear in mind the fact that the matters that were raised were also raised at the Bureau level. They were considered. There was a mechanism that was put in place. I am sure that members are privy to that mechanism. The Bureau wrote a letter to the regional groups, requesting nominations for the exact same reason that was just brought up. It requested them to nominate an appropriate candidate to voice their views, together with the three people who are listed. I assure members that the Bureau was very accommodating. The Bureau members realized that that was a better plan.

Unfortunately, we did not receive a positive response to our request. There were no nominations. Perhaps that was owing to time constraints. We even suggested that whoever wanted to speak from the regional groups would be able to do so remotely to make it even easier for them. Rest assured that there is no undercurrent to the procedure, but that the subject has been approached with a very open mind. Of course, different members will express different views. But a consensus was reached on the fact that we could extend

the whole canvas of speakers by a much greater number. Unfortunately, we have not been successful in that endeavour. I am happy that members have expressed their views in no uncertain terms. I am confident that the Committee members' views will be well taken on board and that they will be reflected in the positions that we take in the future.

Co-Chair Al Hassan (*spoke in Arabic*): I would like to welcome everybody to this meeting. As co-Chairs of this joint meeting of the First and Fourth Committees, we discussed that topic in a very objective manner. As Chair of the Fourth Committee, I would like to emphasize what my colleague, the Chair of the First Committee, has said about the consultations and the opportunity for nominations that we provided to delegations, which did not materialize as requested.

However, I would like to note in that regard that I completely agree with the statements of the representatives of the Russian Federation, Cuba and the Syrian Arab Republic. In fact, the discussions that we undertake are owned by Member States. It is a Member State-driven exercise. I very much thank them for the flexibility that they have demonstrated and reassure them that the co-Chairs will seriously take into account all their comments. The points they have raised will be taken into consideration at our upcoming meetings. I would also like to assure them that the Chairs of the First and Fourth Committees are duty-bound to reflect the positions of Member States. Any decision that is adopted in that regard must be based on the consent of Member States, which have the right to express their points of view.

Co-Chair Pieris: I now invite Mr. Hedman to address the Committee.

Mr. Hedman: It is my pleasure to address this joint panel discussion of the First and Fourth Committees on the topic of possible challenges to space security and sustainability.

The holding of joint meetings of the First and Fourth Committees in 2015 (see A/C.1/70/PV.13), 2017 (see A/C.1/72/PV.11), 2019 (see A/C.1/74/PV.20) and today is proof of the joint commitment of the United Nations Office for Outer Space Affairs (UNOOSA) and the United Nations Office for Disarmament Affairs. Closer cooperation and coordination between our Offices were set in motion by the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities and subsequent resolutions. For

decades and as a secretariat, UNOOSA has been at the forefront of assisting member States of the Committee on the Peaceful Uses of Outer Space (COPUOS) in the global governance of outer space activities. As a United Nations entity, UNOOSA has also built up a robust capacity-building programme covering outer space science, technology, law and policy as a means to bridge the capabilities gap among countries. We are empowering efforts through a range of capacity-building and awareness-increasing activities, including in the field of space sustainability, particularly for the benefit of developing countries.

For over four decades, UNOOSA has been mandated to maintain the central Register of Objects Launched into Outer Space, under the 1975 Convention on Registration of Objects Launched into Outer Space. The Register functions as the core mechanism for treaty-based transparency and confidence-building and will be key to underpinning new and novel space missions, such as megaconstellations, active debris removal and in-orbit transfer of ownership.

In recent years, we have seen exponential growth in notifications on the change of status of space objects in orbit, information on re-entry events and the orbiting of space objects, and similar information to enhance the safety of space operations. Any action to meet space security and sustainability concerns, in its broader perspective, must relate to the fundamental development needs of all nations and people.

The 2030 Agenda for Sustainable Development, with its 17 Sustainable Development Goals, accentuates how the future role of space exploration, science and technology — and their applications — should be further manifested as indispensable tools in our efforts to address global challenges to all humankind. This is a central area for COPUOS and UNOOSA.

Today there are gaps in access to space and solutions we generate from activities in orbit. We must strive to make access to the benefits of space solutions genuinely universal. As we look ahead, there is no future where space will not be a critical tool. Last year, in 2021, the General Assembly adopted the "Space2030" Agenda: space as a driver of sustainable development (resolution 76/3). Next year, the summit of the Sustainable Development Goals will be held. Then we look towards the Summit of the Future in 2024.

Related to that, the Secretary-General's report, *Our Common Agenda* (A/75/982), gives UNOOSA

incentives to continue the path in delivering capacity-building and increasing awareness on space tools for development needs.

I look forward to the panel discussion and following interactive dialogue today. We have a common interest in maintaining outer space for peaceful purposes. That must be our key objective, from a space-related perspective, in securing peace, prosperity and sustainable development for all humankind. Building sustainability on Earth through sustainability in space is becoming increasingly crucial.

In conclusion, allow me to invite all delegations to remain in this conference room after this meeting for our lunchtime event at 1 p.m. in Conference Room 4, our event on space for sustainable development on Earth, observing the ongoing exhibition here at the United Nations on space for our planet.

Co-Chair Pieris: I now have the pleasure to turn to our panellists, who have been asked to limit their statements to no more than seven minutes.

The Committee will first hear a presentation by Mr. Omran Sharaf, Chair of the Committee on the Peaceful Uses of Outer Space.

Mr. Sharaf: It is an honour for me to address the joint panel discussion of the First and Fourth Committees, in my capacity as Chair of the Committee on the Peaceful Uses of Outer Space (COPUOS), on possible challenges to space security and sustainability and to provide an orientation to the work of the Committee and its subsidiary bodies.

The United Nations has been at the centre of international cooperation in space activities since the beginning of the space age. COPUOS came into being as a result of the recognition by the General Assembly, in its resolution 1348 (XIII), in 1958, of the importance of using outer space for peaceful purposes and of the need to promote international cooperation in the conduct of space activities.

Already in 1959, COPUOS was established as a permanent body under the General Assembly, whose resolution 1472 (XIV) reaffirmed the role of the Committee and requested that the Committee review international cooperation, study space-related activities that could be undertaken under United Nations auspices, encourage and assist with national space research programmes and study legal problems that might arise from the exploration of outer space.

Because of its mandate and positioning at the centre of global governance, the Committee played a key role in the organization of the three United Nations Conferences on the Exploration and Peaceful Uses of Outer Space held to date, at which the practical benefits of space science and technology and their applications were examined, with special emphasis on the needs of developing countries and the contributions of space science and technologies and their applications in support of global and regional development agendas and in gaining benefits for society at large.

Each of the United Nations Conferences on the Exploration and Peaceful Uses of Outer Space was held in a different context owing to the continuous growth in space activities, their diversification and the emergence of new actors. Nonetheless, the mandate of the Committee remained flexible enough to ensure progress in implementing the recommendations of the Conferences, while also gradually strengthening the mandates of the Committee and its Scientific and Technical Subcommittee and Legal Subcommittee, as well as the United Nations Office for Outer Space Affairs.

The Committee and its Subcommittees are positioned as global platforms for international cooperation in the peaceful uses of outer space and dialogue among major spacefaring nations and emerging space nations. That is confirmed by the fact that the number of States that have become members of the Committee has increased from the initial 24 States at its establishment as a permanent body in 1959 to its current 100 States members.

Owing to its unique mandate and position at the centre of international cooperation in the peaceful uses of outer space and the global governance of outer space activities, consistent with international law, the Committee and its Legal Subcommittee and Scientific and Technical Subcommittee have a distinguished historical record in the establishment and further development of the United Nations legal instruments governing outer space activities.

The five United Nations treaties on outer space are the 1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies; the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space; the Convention on International Liability

for Damage Caused by Space Objects; the Convention on Registration of Objects Launched into Outer Space, and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies. Other instruments include the non-legally binding declaration of legal principles adopted by the General Assembly in its resolution 1962 (XVIII) of 1963, which was the precursor to the Outer Space Treaty, and the four sets of principles on outer space activities.

Moreover, the Space Debris Mitigation Guidelines of the Committee, the Safety Framework for Nuclear Power Source Applications in Outer Space and the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee, represent important instruments of a non-legally binding nature. There are also important resolutions on the concept of the launching State, registration practice and national space legislation, supporting States in the implementation of their rights and obligations under the treaties on outer space.

Over more than 60 years of governance and diplomacy on the peaceful uses of outer space, the space activities of States, international intergovernmental organizations and non-governmental entities have increased, and space science and technology and their applications today are contributing immeasurably to sustainable development. The Committee and its Subcommittees, through their agendas and the work of working groups and experts, constantly monitor advances in space technologies and the rapidly evolving space agenda, with a view to developing new mechanisms reflective of the complexity of space activities. To address those developments, the Committee and its Subcommittees continue to foster multilateralism and common ground in areas including the long-term sustainability of outer space activities, space debris mitigation and remediation measures, space exploration, utilization of space resources, space traffic management and a range of items addressing the importance of space science and technology applications to meet the Sustainable Development Goals.

Deliberations are being undertaken within several working groups under multi-year work plans, such as those on the use of nuclear power sources in outer space, long-term sustainability of outer space activities, status and application of the five United Nations treaties on outer space, definition and delimitation of outer space, and on legal aspects of space-resource activities.

To give a concrete example, over the years, the Committee has considered different aspects of the long-term sustainability of outer space activities. In 2010, the Scientific and Technical Subcommittee added an agenda item on this topic to its agenda. Under this item, and through its dedicated working group and with subsidiary expert groups, Committee members engaged in in-depth debates and negotiations, covering such critically important topics as space debris, space situational awareness, space weather and regulatory regimes.

In 2019, COPUOS adopted the Guidelines for the Long-term Sustainability of Outer Space Activities. While voluntary in nature, the Guidelines represent an invaluable political consensus. They comprise a compendium of internationally recognized measures for, and commitments to, ensuring the long-term sustainability of outer space activities and, in particular, enhancing the safety of space operations.

The Committee serves as the principal forum for continued institutionalized dialogue on issues related to the implementation and review of the Guidelines, and a new working group on the long-term sustainability of outer space activities is now working to identify and study challenges and consider possible new guidelines; share experiences, practices and lessons learned from voluntary national implementation of the adopted Guidelines; and raise awareness and build capacity.

Last year, COPUOS further reaffirmed its role as a unique platform for advancing multilateralism in outer space activities as it submitted to the General Assembly at its seventy-sixth session the Space 2030 agenda and implementation plan, which is a forward-looking strategy for reaffirming and strengthening the contribution of space activities and space tools to the achievement of global agendas, addressing the long-term sustainable development concerns of humankind. The Space 2030 agenda, adopted by the General Assembly by consensus (resolution 76/3), also importantly contributes to charting the future contribution of COPUOS to the framework for the global governance of outer space activities. The Space 2030 agenda demonstrates the commitment of States Members of the United Nations to promoting the implementation of the United Nations treaties on outer space, as well as the implementation of related principles and General Assembly resolutions, and to ensuring the long-term sustainability of outer space

activities and the preservation of the space environment for peaceful uses.

In the Space 2030 agenda, Member States address changes in the undertaking of outer space activities at a time when new technologies have emerged and when an increasing number of participants, representing both governmental agencies and non-governmental entities, including industry and the private sector, are becoming involved in ventures to explore and use outer space and carry out space activities. These commitments also include ensuring that the Committee and its Subcommittees, supported by the Office for Outer Space Affairs, in their role as unique platforms for international cooperation in the peaceful uses of outer space, continue, as appropriate, to respond to such changes.

Co-Chair Pieris: I now invite the Committee to view a pre-recorded statement by Mr. Hellmut Lagos, Chair of the Open-ended Working Group on Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours.

A pre-recorded video statement was shown in the Conference Room.

Co-Chair Pieris: I now give the floor to Professor Nayef Al-Rodhan of the Geneva Centre for Security Policy, who is joining us via video link.

Mr. Al-Rodhan: My talk will be on some conceptual frameworks regarding the geopolitics, governance and potential sustainability of outer space. Within the realm of seven minutes, I will try to be very quick, but if there are any outstanding issues, I will be happy to address them in the question-and-answer session.

Why is outer space important? Most of what I will say is self-evident but, for re-emphasis, I will say it anyway. Outer space is an inspirational, critical and consequential domain for our collective future. It is also critical to cooperation in the geopolitical realities and geostrategic imperatives of all States. Humankind is becoming increasingly and irreversibly dependent on outer space for its daily needs, both in peace and in war. Such needs range from economic prosperity to security, navigation, diplomacy, the Sustainable Development Goals, supply chains, the cyberdomain and arms control, among others.

Outer space is what we call a frontier risk, which means that it is pivotal to our collective future. It is also an innovation frontier, with huge spin-offs of technological innovations that are useful to all of us. It

is also a global commons, so it belongs to everyone, and it is therefore the responsibility of everyone to keep it safe and secure. However, it is becoming increasingly congested, contested and competitive. Any disruption in outer space, whether accidental or intentional, will therefore be highly consequential and will have an impact on all space assets, regardless. As I said earlier, outer space is everyone's responsibility, opportunity and potential problem. We are therefore all in it together.

There is also an intimate interplay between space security and terrestrial security. In addition, there is an intimate interplay between space sustainability and disruptive technologies, such as artificial intelligence and cybersecurity. If outer space becomes critically unsafe, it will therefore not be selectively unsafe, but it will be unsafe for everyone.

What are the big issues in outer space? Most members know all about them, but I will say them anyway. They include space debris, including anti-satellite tests, especially in low-Earth orbit; the critical and dangerous militarization of outer space, as there is unfortunately an ongoing space arms race; space-traffic management; gaps in space law; a lack of trust, transparency and cooperation; a lack of binding, and even non-binding, agreements since the adoption of the significant Outer Space Treaty in 1967, 55 years ago; the exponential increase in space assets, especially on the part of the private sector; occasional malign activities in outer space, including kinetic hits, hacking, jamming and even spoofing; and of course economic competition and the race for resources.

The following are some positive developments. Through its various instruments, the United Nations is to be commended for its relentless efforts over the past few decades through the General Assembly and in Geneva and in Vienna, through both the Conference on Disarmament and the Committee on the Peaceful Uses of Outer Space, for their excellent work. As mentioned, the United States is to be commended for its unilateral ban on anti-satellite tests. I am hopeful that many countries will join that effort. Russia, China and the European Union are to be commended for their continued efforts over the past two decades in attempting to find a consensus on norms and conduct in space. There has been no success so far, but their efforts deserve our gratitude and encouragement. The United Kingdom Government is also to be commended for its inspired General Assembly Open-ended Working Group, and we heard from the Director just now.

What are the geopolitical and governance imperatives going forward, on outer space? We need immediate attention to space-traffic management. That seems to be a low-hanging fruit, although it may not be as low-hanging as we would like to think. However, it is something that should be attended to urgently. We need urgent efforts to declutter space, especially low-Earth orbit. That needs financial, diplomatic and technological cooperative efforts among all stakeholders, including the private sector. We need trust-building measures — bilateral, multilateral and track 1.5 and track 2.0 dialogues — using existing United Nations intergovernmental instruments and mandates. Any other modalities would also be welcome. We need efforts to develop codes of conduct and urgently demilitarize space.

We need to increase the engagement of all States, no matter how small they are, even if they have no space assets whatsoever. We need a change in the geopolitical mindset from the traditional zero-sum security dilemma paradigm, which does not work, and has never worked in human history, to what I have called multi-sum security paradigms and a theory of international relations paradigm, which I have called realism paradigm, in which absolute gains and non-conflictual competition are allowed, because the world is increasingly and instantly connected and becoming deeply interdependent.

My final words and take-home messages are a call for action from all multi-stakeholders, Governments, non-governmental organizations, intergovernmental organizations, the private sector and even civil society, to ensure the peaceful use of outer space and to focus on the cooperative, scientific and economic promise of outer space. There is a special call to States because, while it is understandable, the national interest of every State governs State behaviour, especially in a self-help global system with no overarching authority that arbitrates or enforces such behaviour in a just, equitable and impartial way. However, the most certain way to ensure a sustainable national interest is it to reconcile it with transnational, global and planetary interests. Doing otherwise would be the most certain way to bring destruction, conflict and collective harm because — and I will repeat what I said earlier — if outer space becomes critically unsafe, it will not be selectively unsafe but unsafe for everyone. I think we owe it to ourselves and to our children to have a safe and prosperous global order today and an inspired adventure

into the cosmos and our responsible, prosperous and sustainable place in it.

Co-Chair Pieris: I thank Mr. Al-Rodhan for his statement.

I now give the floor to Professor Wang Guoyu of the Beijing Institute of Technology, who is joining us via video link.

Mr. Wang Guoyu (Beijing Institute of Technology): It is my pleasure and honour to share the following views regarding the recognition of space security, safety, sustainability and stability. I will speak about why and how to define those terms, as well as briefly address the challenges to space security and the way forward.

According to general diplomatic practice, space security matters are supposed to be discussed in the First Committee or in the Conference on Disarmament, whereas space safety is always associated with the peaceful use of space and should therefore be addressed in the Committee on the Peaceful Uses of Outer Space and the Special Political and Decolonization Committee (Fourth Committee). However, the blurred line between space security and safety brings the risk of an overlapping of work among those bodies and has become an obstacle to the due development of space diplomacy and governance. In addition, space sustainability should be taken as the ultimate goal of space governance, and space stability should be the ultimate goal of space security governance. By comparison, space stability deserves more attention than it has received.

As to space security and space safety, space security refers to being free from space threats caused by intentional acts, regardless of whether they cause any damage. Space safety refers to being free from space damage caused by any intentional or unintentional act, or by omission or natural reasons. In the chart I am showing everyone right now, the overlapping part of the two concepts refers to the concern of freedom from damage caused by intentional acts. In that regard, I would like to make the following points about space security and space safety.

First, their scopes cross and overlap on a particular scale. Secondly, space security and space safety are in different dimensions, as they pertain to the status of the threat and the result of damage, respectively. Thirdly, space global governance over a single matter in practice could contain both space security and space

safety concerns. For instance, the governance of large constellations is a matter of safety in general. However, it could also fall within the ambit of arms control or prevention of an arms race in outer space whenever evidence shows it is being used to generate space threats, for example, in the case of a State maliciously approaching another State's space object or conducting other operations of a military nature.

In conclusion, space safety should be defined as the status of space assets and activities being free from damage. As to space security, it should be defined both from a national and an international perspective. National space security is defined as the state of space assets, activities and interests being free from threats or any other adverse effects made by others' deliberate behaviours, for instance, unfriendly, provocative and malicious space operations, and the capability to implement corresponding safeguards and responses. International space security is about how to prevent misunderstandings, misperceptions and conflicts among States and prevent the escalation of disputes, disorder and conflicts in space.

As to space sustainability, it includes three elements: maintaining an activity at a certain rate or level, equitable utilization and self-restraint. Self-restraint could be taken as a subsequent requirement of the previous two elements, which means that one is not supposed to always take full advantage of one's space freedom and rights. Taking the rapid deployment of large constellations as an example, actors should duly consider the interests of others, particularly those of developing countries. To that end, space sustainability should be defined as the state of peaceful, safe, secure, equitable and effective exploration and use of space in the spirit of freedom and self-restraint.

As to space stability, I define it as the state of being free from space conflicts, particularly space armed conflicts and space warfare. As to the function and characteristics of space stability, first, it should be taken as the primary standard for evaluating the pros and cons of an international initiative on the prevention of an arms race in outer space, in terms of whether it is conducive to pursuing or preserving space stability. Secondly, compared with space sustainability, space stability mainly focuses on a subjective perspective, which means that in the space game, no player is really willing to change the status quo of space relations, and no one should ambitiously and inappropriately change the status, for instance, by

pursuing space superiority. Thirdly, there are three principles suggested for space security governance in relation to space stability. The first principle is comprehensiveness: all kinds of challenges should be considered comprehensively. The increasing risks of an arms race in space and of the weaponization of space and its conversion into a battlefield should be borne in mind when examining each particular issue. The second principle is the equilibrium of interests: during the rules-making process, different interests should be reflected in a balanced way, particularly the interests of the developing countries. The third principle is self-restraint, which means refraining from taking hostile positions and policies and from carrying out unfriendly, provocative and even malicious actions that could bring misunderstanding and misperception, even if they are not expressly prohibited under international law.

As to the main challenges to outer space security — given the time constraints, I will just briefly touch on four challenges. The first challenge is the lack of accurate and common understandings of the key terms I just mentioned. The second challenge is the lack of strategic understandings. The third challenge is the lack of necessary mechanisms, such as a military hotline. And the fourth challenge is the lack of common recognition about the applicability of *lex lata* — whether or how general international law applies in space scenarios is still an unsettled issue.

Based on everything I have mentioned, it might not be reasonable or practicable to define the lines of the work of the various United Nations bodies based on the dichotomies of safety and security or intentional and unintentional acts, since there are always overlaps between them with respect to a single topic, as in the case of strategic management. On the other hand, that simply reflects the trends of space global governance. Security and non-security concerns, as well as military and non-military affairs, are being more and more interacted and integrated. As a matter of fact, that also reflects the dual-use nature of space technology.

In that context, adaptative changes need to be made within the framework of the United Nations. Today's joint meeting between the First and Fourth Committees is a timely response to those challenges and provides the platform for exchanging views among the relevant forums. However, it is not enough. Two suggestions should be considered. First, there should be a regular joint-meeting mechanism established among the First Committee and the Fourth Committee, as well as

the Sixth Committee — the legal one — considering that there are more and more legal questions to be clarified, except those under international space law. The applicability of general international law in space is an urgent but unsettled issue. Secondly, a joint working group or expert group should be established under the existing joint meeting mechanism of the First and Fourth Committees, composed of designated experts from delegations, to discuss from a more comprehensive perspective topics such as space-traffic management, space crisis management and control, large-constellation management, planetary defence, and the exploitation and utilization of space resources.

Co-Chair Pieris: I now give the floor to Ms. Jennifer Warren of the Satellite Industry Association.

Ms. Warren: It is a true honour to represent the Satellite Industry Association before such a distinguished gathering and to add a private sector voice to the discussions and deliberations. For those unfamiliar with the Satellite Industry Association, we represent more than 60 space companies engaged in every facet of the space industry — from telecommunications, the Internet of Things and broadband to future applications such as in-orbit servicing, space transportation and space exploration. It is a very broad-based association.

I want to emphasize our satellite communications members and the role that they play as a major contributor to ensuring the availability of critically important connectivity to every point on the globe. It is a means by which national Governments' and the International Telecommunication Union's goal of the universal availability of Internet access can be ensured for all, regardless of geography.

Today, of the more than 5,000 active satellites in orbit, the majority are commercial, with constellations of thousands of satellites planned for launch over the next decade by global service providers, regional service providers and launch providers located around the world. From every vantage point, Satellite Industry Association member businesses and companies are heavily invested in and dependent upon space being a reliably viable destination. I really want to emphasize the inherent business interest in preserving the viability of space as a destination. Space is a place to do business and is very important, as Professor Wang said. There is no sectorized or separate safety for one use and not the others. There are no commercial or Government lanes of space — it is a shared area. We therefore

have a common interest in preserving and ensuring the long-term sustainability of that destination for the investments that are being made, as well as the research and innovations. It is a natural imperative for us.

We are building on the good work of the Committee on the Peaceful Uses of Outer Space (COPUOS), with the guidelines for the long-term sustainability of outer space activities. The Satellite Industry Association has built upon those guidelines and has established our own space safety working group. We are working to integrate the guidelines, which we support, into best practices and principles that we can emulate and model for others, as well as perhaps evolving them into frameworks for rating systems to determine whether missions are sustainable or not. The Satellite Industry Association has supported the development of those types of rating systems. In the United States, we would call it the “good housekeeping seal of approval”, which could be secured by operators, manufacturers and the proponents of new missions as a way of proving and demonstrating the sustainability of their approach.

In addition to the long-term sustainability guidelines — which we have supported and which various members of the industry have submitted to the United States Government, with comments on implementation that we believe have been shared with COPUOS — the industry is also active at national administration levels. For example, some delegations may be aware that the Federal Communications Commission of the United States just adopted a new five-year post-mission disposal regulation. The industry has supported that and is supporting the disposal of satellites as soon as practicable after end of life, whether in five years or sooner.

In keeping with existing international standards, guidelines and expected norms of outer space behaviour, Satellite Industry Association members that design outer space objects with a planned atmospheric re-entry are typically promoting the design, construction and operation of spacecraft that offer a high probability of successful disposal and minimize the amount of potential debris that could strike the ground in the final re-entry phase. It is not just about what happens in space but also about how space affects the Earth. In taking that approach, commercial satellites generally fall well within the internationally recognized casualty risk threshold, and the re-entry of a commercial satellite has never caused a human casualty.

I think that the inclusion of the private sector and as broad a grouping within the private sector as can be brought together in this dialogue — and, hopefully, future dialogues — on a multi-stakeholder basis will help facilitate the alignment of the guidelines of both government and commercial sustainability initiatives. As I said before, we all have to be in the same space and, unlike with air space, there are no different lanes that can be segmented.

Approximately two years ago, we adopted space safety principles, and it might be useful to share those before I go into a few of the challenges that we want to highlight here today. Our space safety principles fall into three general thematic baskets: what an operator can do pre-launch; what an operator can do during regular operations; and then what the operator community — not a single operator but the community of operators — needs to undertake to do.

I will give a couple of examples of pre-launch activities. We have been advocating that commercial operators consider space sustainability in the selection of a manufacturer and launch service provider for a variety of reasons: to ensure minimization of the likelihood of failure and debris generation; to ensure that they can be tracked, whether geographically or non-geographically and by active or passive means; and to choose designs that limit the impact on other outer space operators in the event that a spacecraft becomes derelict. There are many more examples on our website that I encourage anyone to take a look at, but that is an example of a set of pre-launch activities that fall to the operator.

During operation, operators should also try, for example, to update positional information as soon as practicable, even right after launch. That is because we know that there is a short-lived value of the pre-launch conjunction assessments, which are critical as the orbital planes become increasingly congested. We want to make sure that any derelict satellite impacts on orbit are minimized. How do we do that? During regular operations, the operator needs to assume responsibility to monitor its spacecraft for their health and status and to detect anomalies before they become serious. Operators should take steps to prevent unsuccessful — or rather enable successful — disposal. Rules for disposal must be implemented before the mission ends. Waiting until the event of a failure is too late. It must be ensured that security protocols are in place to prevent unauthorized actors from taking control of spacecraft or ground

systems. Again, those are things that need to be not just planned for, but executed during operations.

Collaboration on data-sharing is one of the areas that we know is a challenge, but we are stepping up to do the best we can as the commercial community. It is important to increase the fidelity and transparency of data sources used for conjunction assessments. We fully support the timely dissemination of transparent, cost-effective and accurate space debris monitoring information to all international space actors, drawing upon a wide array of operator data sources — commercial, government and academic, because academic institutions are playing an increasing role in space.

Satellite Industry Association operators have been increasingly participating in international standards bodies to try to advance data exchange needs and help to establish the right tools and algorithms, et cetera. A very important element is to encourage operators — regardless of ownership and whether they are commercial, academic or government — to have channels of communication that are open 24 hours a day, seven days a week, 365 days a year, regardless of holidays and the like, and to ensure that it is a two-way communication. When a satellite operator sends information, it is important to know not only that the information is received but also that it is understood. Communication back and forth is really important. We do not only want it to be notifications but also want to ensure that it is understood so that any unintended consequences can be avoided.

Collaboration on space-weather research and the impact of space weather on satellite operations is another area where we believe more data-sharing and education are needed. The ability to mitigate space weather's impact on satellite infrastructure, such as outages, is very important. For us, the three important areas are space-weather education, pre-launch and operational sustainability measures and spectrum access. I often hear spectrum access being referred to as the prevention of harmful interference. That is part of it, but not the definition of it. Protection from harmful interference is very important, but from our perspective, ensuring that there is adequate spectrum to accommodate both today's and tomorrow's users is an area that needs increased collaboration among all Government stakeholders in space as well as United Nations bodies. The World Meteorological Organization, the International Telecommunication

Union and the First and Fourth Committees of the United Nations should work together to ensure that spectrum access is available for the variety of needs and missions that Governments, industry and academic institutions have for space. It is not a given that there is adequate spectrum for the future of space. That level of collaboration and cooperation would be highly desirable.

On the space-weather front, as I said earlier, we believe that in addition to sharing data on space-weather research, education should be provided for new entrants by countries with satellite operators, space exploration and other activities. We are trying to educate ourselves, but there is a lot of knowledge within national Governments. It is important to help each nation's new entrants understand the risks and how to mitigate them, because one failure or impact can have an effect on many and can make an area less useful than it might otherwise be.

In conclusion, I will say that one of the values we hope for, including by seeing the private sector engaging as much as possible with member States through dialogues such as this, is understanding where the technology innovations are under way today, whether in higher fidelity, space situational-awareness data, active debris-removal technologies and satellite servicing, new automated collision-avoidance capabilities or new propulsion technologies. Those are just examples of where industry is investing and could have an impact on policy discussions and directions. We are therefore committed to that and would welcome the ability to work with members and our friends and operators from around the world going forward. I look forward to questions.

Co-Chair Pieris: On behalf of all delegations here, I would like to thank our panellists for their thought-provoking statements today. I would like to take just a couple of minutes to leave members considering what I believe is the way forward.

The discussions today clearly highlighted that international regulation of the uses of outer space warrants very careful and rigorous consideration. Other technological areas that also pose a threat to global security, due to an even greater lack of regulation, are advancements in cyberspace and artificial intelligence. Like outer space, those evolving sectors also share the nexus between new technologies and their effect on warfare in the twenty-first century.

Unfortunately, with regard to outer space, the legal jurisprudence increasingly sees a growing trend that outer space will be used not only to facilitate armed conflict, as it already does, but could ultimately become a theatre of war, despite the efforts of the international community — that is, ourselves. As we heard today, the potential military uses of outer space and its possible weaponization represent what is in my view one of the most politicized and complex issues of our generation. It is therefore incumbent on all stakeholders, including ourselves, to find a pathway forward in order to meet the challenges of the twenty-first century.

The twenty-first century has not only created new spacefarers but has now brought companies and individuals, as we heard from Ms. Warren, that have the capacity to utilize space technologies outside the usual confines of a regulated industry. That is what she has been telling us about. It is therefore imperative to establish an appropriate and acceptable regulatory regime. However, the form that adherence to that might take is still very hazy and unclear. Over time, regulation may manifest itself through more mandatory, soft-law agreements between States, as are made all the time here. But the long-term development of customary international law in relation to space-specific principles would create more binding obligations and decrease the threat that space assets currently pose to global security. In the short term, States are taking it on themselves to create national laws and regulate State space technology. However, those are focused primarily on laws that regulate space technology and on commercial developments, as opposed to military uses of outer space.

Ultimately, what must we do? In my view, in order to effectively implement laws that govern outer space, such regulation would have to be executed by States themselves in order to create international standards for the regulation of outer space. Until that occurs, I respectfully posit that we must remain conscious and continue to hold on to the fundamental sentiment of our humanity, even in space. That must underpin space law in order to avoid what at present may be inconceivable scenarios. I just want to leave members with that thought.

I shall now hand over to my co-Chair, the Chair of the Fourth Committee.

Co-Chair Al Hassan (*spoke in Arabic*): I thank Mr. Pieris, Chair of the First Committee. I greatly

appreciate his foresight and valuable remarks on the risks of turning outer space into an arena for armaments or an arms race.

There can be no doubt that outer space is part of the common heritage of humankind. We in the United Nations have a duty to ensure that all States currently engaged in space activities, and those that will be engaged in them in the future, can benefit from that common heritage. It has been said that outer space is not a race in which those that arrived there first have all the right to benefit from it, while those that show up later cannot. I want to underscore how important it is to take that dimension into consideration. I would also like to emphasize that the United Nations is an institution for all. It serves everyone. I would like to emphasize the sentiments of some of today's speakers and what my colleague Ambassador Pieris rightly said earlier, which is that all of us in the Organization must work together and encourage the ideas, proposals and recommendations that come from all States. We must strengthen the channels for international cooperation in outer space.

Having thanked all the panellists for their statements and interaction and their willingness to answer all questions, I now have the honour to co-chair the second part of our discussions in an interactive dialogue among Member States and our panellists. There will be no set list of speakers, but it is my hope that delegations wishing to take the floor will do so by pressing the microphone button on their consoles. Due to the limited time available to us for this meeting, all delegations taking the floor are kindly requested to keep their interventions concise and limited to no more than five minutes. In that regard, delegations are encouraged to deliver summarized versions of their interventions and to submit their full written statements to the e-statements web portal.

As noted in the programme, a co-Chairs' summary of the interactive dialogue among delegations will be prepared and issued in due course. The floor is now open for statements, comments and questions from representatives of Member States.

Ms. Hendriksen (United Kingdom): I am pleased to be speaking on behalf of the European Union and the following 44 countries: Albania, Australia, Belgium, Bulgaria, Canada, Chile, Colombia, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Guatemala, Hungary, Iceland,

Italy, Japan, Latvia, Lithuania, Luxembourg, Malta, Montenegro, the Netherlands, New Zealand, Nicaragua, Norway, Poland, Portugal, the Republic of Korea, Romania, San Marino, Slovakia, Slovenia, Spain, Switzerland, Türkiye, the United States of America, Ukraine and my own country, the United Kingdom. At the outset, we thank the co-Chairs for organizing this timely discussion of our efforts to ensure the security and long-term sustainability of outer-space activities. Our thanks also go to the panellists for their contributions.

There is an important distinction between the discussions in the Conference on Disarmament in Geneva and the Disarmament Commission here in New York on national security activities, and those in the Committee on the Peaceful Uses of Outer Space (COPUOS) in Vienna on the peaceful uses of outer space, a distinction that is mirrored in the General Assembly between its First and Fourth Committees. On the other hand, as is recognized in resolution 76/55, under which this meeting is convened, both those Committees and their subsidiary bodies have vital and complementary roles to play in ensuring that human activity in outer space is safe, secure and sustainable so that space systems can continue to deliver benefits to humankind into the future. For example, the deliberate destruction of space systems can have major effects not only on security but also on the space environment, and can create unnecessary hazards to human space flight as well as a broad range of other space missions. We therefore welcome our coming together today to discuss issues of joint interest to the two Committees.

Since the previous joint meeting of the First and Fourth Committees in October 2019 (see A/C.1/74/PV.20), we have come a long way in raising awareness about space security and threats to space systems. At that meeting, many of us called for the start of a new, inclusive conversation on how to address threats to space systems. That call led the following year to the adoption of resolution 75/36, entitled "Reducing space threats through norms, rules and principles of responsible behaviours", and the resultant July 2021 report of the Secretary-General (A/76/77). That was followed by the adoption of resolution 76/231, which established the Open-ended Working Group on Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours to take those ideas forward. Our countries are pleased with the start that the Open-ended Working Group has made and warmly

commend its Chair, Mr. Hellmut Lagos Koller of Chile, for the inclusive, transparent and creative way in which he has steered it. Discussions in the meetings so far have confirmed the broad cross-regional interest in space security from both spacefaring and future spacefaring countries. We believe that the discussions are already making a positive contribution to our common goal of preventing an arms race in outer space and promoting transparency and confidence among States.

In particular, we welcomed the overwhelming recognition and affirmation during the discussions that international law, including the Charter of the United Nations, applies in relation to activities in outer space. Those binding international rules provide a foundation for activities in the space domain, but there is a clear need to work for greater specificity and collective understanding on how they apply to certain conduct. We affirm the applicability of international humanitarian law in space and note that the affirmation does not in itself permit or encourage resorting to force. Rather, it reminds States that certain conduct is never lawful, even during armed conflict.

For years, the debate on the prevention of an arms race in outer space was deadlocked between two views — one being that a single comprehensive legally binding instrument was needed, and the other that such a notion was not realistic. We believe we are moving beyond that. While many States consider legally binding instruments to be the ultimate goal of our work, it is increasingly recognized that they are not the only measure at our disposal. As the Secretary-General states in his 2021 report,

“Possible solutions to outer space security can involve a combination of binding and voluntary norms, rules and principles.... It is encouraging that Member States reaffirm that voluntary norms, rules and principles, including non-binding transparency and confidence-building measures, can form the basis for legal measures. It is hoped that work in each of these areas can continue to be pursued in a progressive, sustained and complementary manner” (A/76/77, para. 47).

Voluntary and collectively established norms of responsible behaviour, combined with enhanced mutual understanding, dialogue and transparency, and sharing of space-domain awareness, will help to reduce risks of misunderstanding and unintended escalation.

Furthermore, there is increasing recognition that the development and implementation of behavioural norms, such as the work to establish the commitment made by an increasing number of States to refraining from conducting destructive direct-ascent anti-satellite missile testing, can be valuable steps towards the eventual negotiation of legally binding instruments. Historically, that is the path that international space law has followed. The international community began by developing non-binding principles and norms, and treaties followed thereafter. By demonstrating the effectiveness of voluntary measures over time, we can gradually build up our confidence to translate them into legally binding norms and rules. That is an important step. In a contested and competitive world, it is vital that we can trust the rules that we make, that they are practically implementable and that States will comply with them.

That is why the ongoing national implementation efforts and development of best practices concerning the 21 Guidelines for the Long-term Sustainability of Outer Space Activities, adopted by COPUOS in 2019, are so important. The nearly decade-long effort to arrive at an agreed preamble and guidelines represents a significant evolution in the development of voluntary measures to ensure the safe and sustainable use of space for all countries. The pursuit of this work by COPUOS represents an opportunity for long-lasting progress through ongoing dialogue and practical implementation. We see the Working Group on the Long-term Sustainability of Outer Space Activities and the Open-ended Working Group as distinct but complementary. Taken together, they will enhance the overall safety, sustainability and security of outer space.

Co-Chair Al Hassan (*spoke in Arabic*): I would like to respectfully remind representatives that owing to the limited time available, they should do everything possible to comply with the five-minute time limit so that we can all interact and speak in this meeting. Austria, Switzerland, Costa Rica, Portugal, the Netherlands, Argentina, the Russian Federation, India, the United Arab Emirates, China, El Salvador, France, the United States of America, the Republic of Korea, the Islamic Republic of Iran and Pakistan currently remain on the list of speakers, and of course any other delegation that wishes to inscribe its name on the list can do so.

Ms. Sellner (Austria): I thank the co-Chairs of the First and Fourth Committees.

Austria supports the statement of the United Kingdom, which we just heard. In addition, I would like to highlight the following issues. I would like to express my gratitude to the First and Fourth Committees for once again enabling the holding of this joint panel discussion, giving us the possibility to better coordinate the important roles of the United Nations entities dealing with the various aspects of the use of outer space.

Austria welcomed the establishment last year of the Open-ended Working Group on Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours. I would like to emphasize once again the importance of ensuring a peaceful, safe, secure and sustainable outer-space environment. Fortunately, thanks to that and other forums, outer space has not become a battlefield, and we must continue our common endeavour to ensure that it never will be. But beyond norms, rules and principles of responsible behaviour relating to threats by States to space systems, there are so many other challenges that we have to tackle if we want to keep outer space safe and secure.

On the occasion of the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space, it was stated that the Committee on the Peaceful Uses of Outer Space (COPUOS) is the primary United Nations body for coordinating and facilitating international cooperation in space activities. It has an overall mandate to strengthen the international legal regime governing outer space and work towards improving the conditions for expanding international cooperation in using outer space for peaceful purposes. The sheer increase in space activities is becoming a challenge for their safe and sustainable conduct. As many satellites were launched worldwide in 2021 as in all of space history's previous years combined. More than 50 new satellites are launched every week, most by private companies for commercial purposes, and there will be even more in the future. Apart from encouraging Member States to sign the United Nations treaties on outer space if they have not yet done so, I would like to emphasize the importance of registering space objects launched into outer space according to the relevant conventions in order to keep an overview of their activities.

We regard outer space as a global commons. Its exploration and use should be carried out for the benefit and in the interests of all, leaving no one behind, and by that I am also referring to future generations. We

therefore welcomed the adoption of the 21 Guidelines for the Long-term Sustainability of Outer Space Activities and support the ongoing work of the Working Group on the Long-term Sustainability of Outer Space Activities and its endeavour to ensure that we can conduct space activities in a safe and sustainable outer-space environment for the long term.

Space has become an essential part of our economies and societies. At the national level, we work hard to demonstrate the potential and benefits of space solutions in various policy areas. We will need a stable and predictable outer-space environment if we are to develop the space sector further and reap the benefits for everyone everywhere in the world. Further agreement on the sustainable and peaceful use of outer space is therefore urgently needed. We also have to further develop the existing regulatory frameworks with regard to the growing participation of non-governmental entities and private-sector actors, among others, so that we can define and establish solid international practices in the implementation of long-term sustainability in outer-space activities, the future exploration, exploitation and utilization of space resources and the international coordination of space traffic.

Last year, the General Assembly adopted the "Space2030" Agenda (resolution 76/3), which is related to the Guidelines for Long Term Sustainability and was thoroughly negotiated by COPUOS until a consensus was reached among its 100 Member States. It not only reflects the pursuit of the Sustainable Development Goals in outer space but provides for the use of outer-space applications to achieve the Sustainable Development Goals on Earth. After dedicating last year's World Space Forum to the use of space solutions for climate action, this year's World Space Forum, organized by the Office for Outer Space Affairs together with the Republic of Austria, will be dedicated to the 2030 Agenda for Sustainable Development in general, with regard to the preparation of the Sustainable Development Goals summit to be held in September of next year.

In the Secretary-General's proposals in *Our Common Agenda* (A/75/982), as well as the follow-up consultations, a multi-stakeholder dialogue on outer space was identified and supported as one of the high-level tracks in preparation for the Summit of the Future in 2024. Austria stands ready to support that process and to dedicate next year's World Space Forum to the preparation of the Summit.

Let me conclude by expressing Austria's continuing commitment to the peaceful use of outer space and to international cooperation in this multilateral framework on the use of space solutions for sustainable development around the world.

Co-Chair Al Hassan (*spoke in Arabic*): Before I give the floor to the next speaker, I would again like to appeal to all speakers in this interactive joint meeting to observe the time limit, because we have a long list of speakers and would like to hear from all of them.

Ms. Archinard (Switzerland) (*spoke in French*): At the outset, let me thank the Office for Outer Space Affairs and the Office for Disarmament Affairs for organizing this meeting and the speakers for their statements.

Switzerland aligns itself with the joint statement delivered by the United Kingdom and would like to add some comments in its national capacity and in addition to its statements made in the First and Fourth Committees. Given the limited time available, I will make a shorter statement, but both the full text of my statement and an English translation will be made available.

First, Switzerland would like to reiterate its adherence to the respective mandates of the various bodies dealing with space issues in the United Nations, and welcomes the holding of this meeting. Indeed, it contributes to harmonizing approaches, avoiding duplication and ensuring the complementarity and coherence of the different avenues of work. These objectives require interdisciplinary dialogue and regular meetings between the disarmament and space communities.

Secondly, let me address concretely the topic of this meeting by mentioning an example of space activities that has resonance in terms of both international security and the long-term sustainability of outer space activities — active debris removal and on-orbit service activities or, more generally, rendezvous and proximity operations. Those activities have the potential to contribute to a more sustainable use of space and to a better conservation of the orbital environment, as noted in guideline D.2 for the long-term sustainability of outer space, adopted in 2019 by the Fourth Committee. We believe that it is important that the Committee on the Peaceful Uses of Outer Space (COPUOS) continue to study the scientific, technical and legal aspects related to those activities, such as the coordination in

the identification of objects to be approached or the regulation of this type of operations between States.

On the other hand, the technology and control necessary for rendezvous and proximity operations activities can also be used for hostile purposes to seize, disrupt or even destroy an adversary's satellite. Close proximity can appear threatening if not there is notification or it is not coordinated. Transparency and notification are therefore very important if we are to avoid misinterpretation. These aspects are the responsibility of the forums dealing with international security and disarmament, be it the First Committee, its subsidiary entities or the Conference on Disarmament.

Thirdly and lastly, Switzerland would like to thank the Secretary-General for his *Our Common Agenda* (A/75/982) report and for the identification of several challenges relating to the uses of outer space. We share the objective of strengthening global governance of space activities in order to contribute to maintaining peace and stability in space and to enable its safe and sustainable use in the long term. To that end, Switzerland will continue its involvement in the Open-ended Working Group on Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours and at COPUOS. In the latter, the work on the long-term sustainability of space activities remains fundamental and could pave the way for the first elements of coordination of space traffic, which Switzerland would welcome. The work of COPUOS also contributes significantly to the implementation of the Sustainable Development Goals, for example in the fields of health or climate change. That is why we believe that COPUOS could contribute to the preparation of the multi-stakeholder dialogue and the Summit of the Future.

Ms. Chan Valverde (Costa Rica) (*spoke in Spanish*): Costa Rica appreciates this fourth joint meeting between the First and Fourth Committees on the challenges to outer space security and sustainability. This is the only forum in which we are currently discussing aspects related to the sustainability of space activities in all their dimensions.

The ability to continue conducting space activities indefinitely in the future in such a way as to achieve the objectives of equitable access to the benefits of the peaceful exploration and use of outer space is crucial in order to meet the needs of present and future generations. In that regard, Costa Rica wishes

to highlight three fundamental aspects regarding the sustainability of space activities.

First, space activities are necessary for the achievement of the Sustainable Development Goals (SDGs). Approximately 60 per cent of SDG indicators require space activities for their implementation or for monitoring progress on them. Space contributes to development, and we must ensure that this can be done in a sustainable manner.

Secondly, we must look after space as much as we look after our planet, and we must work together to keep it free of debris. We cannot create an artificial divide between environmental protection on Earth and outside of it. Even though some States are far ahead of others in space exploration, we must not lose sight of the fact that outer space is the global commons of humankind. As such, we have a responsibility to take care of it. It is also our responsibility to avoid a space tragedy in our global commons. Outer space is a resource for the benefit of all humankind.

Thirdly, it is impossible to guarantee the sustainability of activities in space without ensuring that they are carried out exclusively for peaceful purposes. The placement of weapons in outer space is unacceptable under any circumstances or pretext of first, second or third use.

The governance of outer space is governed by criteria established under different circumstances, when only a few States carried out space activities. Today outer space is more democratic. Many States have ventured into space development, and various sectors of society participate in such activities, including academia and, of course, the private sector. It is urgent to adapt space governance to our new reality, with the participation of each and every one of the actors involved. Space is the global commons of humankind, and it is everyone's responsibility to ensure its sustainability.

Mr. Ferreira Silva Aranda (Portugal): I endorse the statement just delivered by the representative of the United Kingdom and would also like to commend the co-Chairs for convening this joint meeting of the First and Fourth Committees.

As others mentioned before me, outer space is a global commons. As such, it requires a comprehensive and cross-cutting approach. It is a global commons, indeed, the security and sustainability of which we need to protect because we want to achieve the fundamental

objectives of the United Nations, including international peace and security and sustainable development for all nations.

I mentioned the aspects of security and sustainability, but I also take good note of what Mr. Wang referred to as the concept of space security, space safety, space sustainability and space stability, as well as his proposals regarding the possibility of further and deeper joint cooperation between our Committees. For this reason, and for many other reasons, we believe that we need an open dialogue among all nations and in all United Nations-related forums to ensure a sustainable use of outer space for the benefit of humankind as a whole, and with that objective in mind, and notwithstanding the discussions on international binding instruments, we favour the development of norms, rules and principles of responsible behaviours. In this context, let me also reaffirm that we welcome all the initiatives from Member States to refrain from performing destructive-missile anti-satellite tests, as they affect the space ecosystem created for the benefit of all.

We also believe it is paramount to continue the discussions in a complementary way within the Committee on the Peaceful Uses of Outer Space and its subcommittees, the Disarmament Commission and the open-ended working group, so as to achieve the objective of a safer and prosperous outer space. Portugal also welcomes the work plan and methods of work for the working group on legal aspects of space-resource activities, as Portugal is eager to see the good pace of the work on this topic continue in strong cooperation with all delegations. We also welcome the establishment of the terms of reference, methods of work and work plan of the working group on the long-term sustainability of outer space activities, as we are actively committed to the long-term sustainability of outer space.

We have done an internal assessment of the implementation of the 2019 long-term sustainability guidelines, and the results were very satisfactory. Indeed, the Sustainable Development Goals are being pursued as a comprehensive part of the Portuguese Space Agency and its strategy. It is also reflected in several initiatives, including one of the Agency's flagship projects: the Artificial Intelligence Moonshot Challenge launched at the recent Lisbon summit under the motto "A sustainable space for a sustainable Earth". As the representative from Costa Rica just mentioned, sustainable Earth and sustainable space are indeed one, and these proposals are focused on the

promotion of sustainable oceans and the sustainable management of terrestrial and space resources using artificial intelligence.

In the next decade, we will see massive transformation of the space sector with new public and private actors, new international collaborations and new ways of facing space exploration, for which we need to be prepared and plan ahead. Portugal is already home to companies that are providing data, on-ground sensors and services to monitor space debris, which will soon be able to provide collision avoidance capabilities to satellite operators. That is why we would also like to commend the co-Chairmen for inviting stakeholders to participate in today's meeting, as we are firm believers in the benefits of inputs from the academic and private sectors and from civil society.

Like others before me, such as the representatives of Austria and Switzerland, let me state that we support the Secretary-General's *Our Common Agenda* (A/75/982), in particular his idea of a stronger, more networked and inclusive multilateral system anchored within the United Nations, encompassing multi-stakeholder dialogue on outer space. In this context, and in conclusion, let me state that Portugal will contribute to this dialogue by organizing an international conference on management and sustainability of space activities in the first half of 2024 on the road to the Summit of the Future later that year, and we also count on all participants' cooperation in this regard.

Mr. In den Bosch (Netherlands): The Netherlands welcomes this joint panel discussion of the First and Fourth Committees on possible challenges to space security and sustainability. Further to the statement made by the United Kingdom, I would like in my national capacity to highlight three challenges and close with a question for the briefers.

The first challenge is posed by the complexity to make a sharp distinction between safety and space security, as was already explained in one of the briefings, since both concepts relate to the unrestricted access to space and to space assets. The inherently dual-use nature of space assets further contributes to space safety and space security becoming increasingly intertwined. This is apparent, for example, in the issue of rendezvous and proximity operations, because the technology to service and refuel a satellite in orbit is comparable to the technology required for core-orbital and anti-satellite operations. A step-by-step approach

based on responsible behaviour, without excluding the possibility of a legally binding instrument in future, is the most pragmatic way forward. By such an approach, we can improve space security and sustainability while avoiding unnecessary restrictions on space capabilities used for technological and socioeconomic development.

The second challenge is posed by the lack of consensus on the current overall legal framework for safety, security and sustainability in space. Collectively, the five United Nations outer space treaties form the foundation for effective space governance, and we call on all States Members of the United Nations to accede to each of these treaties without further delay and to incorporate these treaties into their national space laws. Further, we call on all States to utilize the mechanisms foreseen in these treaties to ensure maximum transparency by duly registering their space activities. It is obvious to us that international humanitarian law applies in outer space, as it does on Earth, and that all States must carry out activities in outer space in accordance with international law.

The third challenge is how to further increase the synergy between the various multilateral forums involved in ensuring a safe, secure and sustainable space. These forums have their own mandates and roles, but can simultaneously benefit from available expertise, ideas and documented outcomes. In striving for greater synergy, we should take great care not to overpoliticize discussions in Vienna, nor overjuridicize discussions in Geneva.

Today's joint panel discussion is one way to promote this synergy. Another example is space surveillance and tracking (SST). SST has already proven its value to improving space safety by providing collision-avoidance guidance and information on re-entries and fragmentation. But effective and objective SST has further potential for monitoring space activities and verifying compliance with international agreements.

Let me conclude by saying that geopolitical and technological developments that are making space congested, contested and competitive continue at a fast pace and require our urgent attention. We need to avoid any undue delays resulting from debates that are merely procedural in nature. Instead, we should focus on substance both here in New York and in Vienna.

Referring again to the issue of increasing synergy, as was also mentioned by Mr. Al-Rodhan, allow me to

conclude with a question to the briefers: what further practical possibilities are there to increase synergy, especially with a view to strengthening cross-regional cooperation and interaction?

Mr. Alvarez (Argentina) (*spoke in Spanish*): Argentina welcomes the holding of today's joint panel discussion of the First and Fourth Committees.

Beyond the respective competencies of each Committee, Argentina is convinced that, to the extent that there is dialogue and synergy between the two Committees and that duplication of efforts is avoided, the work of the General Assembly will be more efficient. My country favours a balance between the specificity of each forum in accordance with its respective mandate, on the one hand, and the coordination and joint collaboration between them, on the other, with space matters not being treated as watertight compartments, taking into consideration, rather, the natural interrelationship between the peaceful uses of outer space and the threats to such uses.

Space activity is essential to the well-being of humankind. A conflict in outer space would have catastrophic consequences and endanger all uses and users. There are a number of emerging threats from space activity, intentional or unintentional, that could have dire consequences and quickly escalate into conflict or affect cybersecurity. In this regard, let me point out four elements for discussion.

First, we note the exponential increase in the number of satellites in orbit and, as a result, the potential for interference in the services they provide or possible collisions that might generate enormous economic losses. Secondly, in the current context of space activity and technological development, numerous actors, both from the private sector and academia, are involved, so that States alone should not be considered as capable of developing technologies that generate threats to space systems and their applications. Thirdly, the development of the space industry makes it possible to think of scenarios in which the exploitation of resources from the moon and asteroids is possible for those actors that have the technology and the means to do so. Fourthly, issues relating to the cybersecurity of space systems, the testing, placement and use of weapons in space, deliberate kinetic attacks and anti-satellite testing are all concerns relating to the physical security of operational space objects and to international peace

and stability. Moreover, all these issues have an impact on the sustainability of outer space activities.

In conclusion, Argentina reiterates its strict adherence to and respect for the principles and agreements that should govern the activities of States in the exploration and use of space, including non-militarization and the strict use of space for the improvement of living conditions and peace among the peoples that inhabit our planet, and regional and universal cooperation in the development of space activities that should be within the reach and for the benefit of all humankind, without regard to anyone's degree of economic or scientific development.

Mr. Vorontsov (Russian Federation) (*spoke in Russian*): On 10 October, we marked the fifty-fifth anniversary of the entry into force of the Outer Space Treaty. This document was and remains a cornerstone of the international outer space law regime. Unfortunately, a number of countries continue to push the idea that the Treaty is incomplete or that it is not fit for purpose in today's world. They are suggesting a ready recipe to fix the situation: the adoption of norms, rules and principles of responsible behaviours in outer space, reflecting a well-known Western idea that there should be a rules-based order juxtaposed with international law.

Let us remind ourselves that the Outer Space Treaty clearly states how we are to conduct our space activities as States and how this should be done exclusively in the interests of international peace and security. Nevertheless, a number of countries — first and foremost, the United States — have stated openly that the purpose of their space policy is to achieve military supremacy in orbit. Washington and its allies have adopted doctrines proclaiming outer space as yet another operating environment, which boils down to it being a new arena for armed confrontation.

They are pursuing the deployment of weapons in outer space, including strike capabilities. Moreover, NATO has been openly using strictly civilian outer space infrastructure for military objectives in areas of armed conflict. Private commercial systems are being used directly to support hostilities, for instance, for intelligence-gathering for directing troops. The collective West has opportunities that are global in their coverage, and which, in fact, have the potential to be used absolutely anywhere on our planet.

The overwhelming majority of States Members of the United Nations do not have any effective measures

to counteract this situation. NATO therefore feels that it can do anything it pleases. This state of affairs is absolutely unacceptable. The practice of using civil satellites and groups for military purposes presents grave risks for the international efforts aimed at the peaceful use of near-Earth space. It threatens multiple socioeconomic processes on planet Earth on which the well-being of billions of people hinges, specifically for people in developing countries. The long-term sustainability of outer space activities is thereby also threatened.

Our American and European colleagues do not seem to be concerned about this fact. The United States and their allies are trying to divert the international community's attention from their military preparations that are under way in outer space by waging various foreign policy campaigns such as the initiative to introduce a moratorium on specific types of anti-satellite systems. While this idea of the United States might be outwardly attractive, it does not actually hold water or stand up to criticism. These selective measures are not enough for ensuring the comprehensive security of outer space activities for all participants.

We see no alternative but to pool the international community's efforts to prevent an arms race in outer space. In this regard, the adoption by States Members of the United Nations of an obligation to completely exclude outer space from the arms race is particularly topical. It would be optimal to introduce this obligation through a multilateral, legally binding instrument, which would then cover the placement of all types of arms in orbit. An excellent basis for this could be the draft treaty on the prevention of the placement of weapons in outer space and of the threat or use of force against outer space objects, introduced by China and the Russian Federation.

The peaceful exploration of outer space is a key goal of humanity, and this is something on which the Committee on the Peaceful Uses of Outer Space (COPUOS) and the Conference on Disarmament are working. We are in favour of these two bodies resolving any issues related to the security of outer space activities in keeping with the United Nations mandates with which they have been endowed and avoiding any duplication.

Against this backdrop, we are disappointed that the overwhelming majority of Member States have agreed with the initiative that was imposed on them

to set up an open-ended working group on so-called responsible behaviours, which was granted a mandate that basically duplicates the work being done by COPUOS and the Conference on Disarmament. We also do not understand how strengthening COPUOS is helped by the convening in 2023, as part of the so-called Summit of the Future, the multilateral dialogue on outer space, with the involvement of non-governmental space-related bodies. We get the impression that the modalities and the format of this event are not likely to help us to achieve the space-exploration outcomes that would be acceptable to all.

International cooperation on peaceful space exploration should fully support the step-by-step development of humankind. Already today, we can hardly manage our everyday lives without space technologies, which is why we stand ready to cooperate with all countries without exception, working hand in hand to develop practical means and approaches to preserving outer space as our common heritage.

Co-Chair Al Hassan (*spoke in Arabic*): I would like to note that there are 30 minutes remaining, or even less, before the end of this morning's meeting. We still have important statements to hear from the delegations, after which I will give the floor to the panellists to respond to the questions asked.

As we still have approximately 10 speakers on our list, I would request all speakers to be as succinct as possible, in order to give everybody the opportunity to speak and in view of the fact that this is the only meeting we have on this specific topic. It should be kept in mind that the complete version of statements will be entered into the record of this interactive meeting.

Mr. Setia (India): My delegation congratulates the co-Chairs and thanks them and the panellists.

As a major spacefaring nation, India has made significant strides in developing advanced outer space applications and technologies that provide a critical backbone for the country's economic and social infrastructure. India is opposed to the weaponization of outer space and has consistently advocated preserving outer space as an ever-expanding frontier for cooperative endeavour rather than conflict. India supports the substantive consideration of the prevention of an arms race in outer space, and we remain committed to a legally binding instrument on the prevention of an arms race in outer space that is comprehensive in scope,

universally acceptable, verifiable and multilaterally negotiated in the Conference on Disarmament.

We share the concerns about potential dangers arising from space debris to the safety and long-term sustainability of outer space. India has implemented several measures and practices to the maximum extent possible and practicable, including the United Nations and Inter-Agency Space Debris Coordination Committee's Space Debris Mitigation Guidelines, passivation of upper stages, collision on launch assessments, space object proximity analysis for operational satellites, post-mission disposal of geostationary satellites to supersynchronous graveyard orbits and end-of-life deorbiting of low-earth orbit satellites to rocket stages.

India considers space situational awareness as an integral and indispensable part of safe and sustainable national space operations. Through the Indian Space Research Organisation, India has established a system for safe and sustainable space operations management and a network for space-object tracking and analysis in order to enhance national space-object monitoring capabilities and to ensure that India's outer space activities are conducted in a safe and sustainable manner.

We feel that issues relating to space debris in general must be discussed and further developed in relevant forums, such as the Committee on the Peaceful Uses of Outer Space and the Inter-Agency Space Debris Coordination Committee. India continues to play an active role in the deliberations at the Committee on the Peaceful Uses of Outer Space, where it chairs the Working Group on the Long-term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee. India places high importance on international cooperation for promoting peaceful uses of outer space. We conduct an eight-week capacity-building programme on nanosatellite development as an initiative of the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space. Two courses were conducted in 2019, with 60 officials from 33 nations, and a third course has commenced, with approximately 32 officials from 22 nations.

Mr. Al Qasim (United Arab Emirates): As the world witnesses a disruptive technological revolution and the emergence of the new space economy, it is critical now, more than ever, to advance global conversations on the sustainable exploration and exploitation of outer space. The United Arab Emirates recognizes the importance

of international cooperation and preserving outer space for peaceful uses, including the development of international guidelines and standards governing outer space activities. We strongly believe that the international community should remain committed to the peaceful exploration and use of outer space and to refraining from conducting space activities that contradict international obligations, including those that may jeopardize the ability of Member States to freely use and explore outer space.

We share the concern about existing threats to space assets and the risks of an arms race in space. In that context, we reaffirm our commitment to develop measures and means to ensure outer space safety and security. States with emerging space programmes should be given the chance to develop their space programmes in order to support sustainable socioeconomic development. Careful attention should therefore be given when drafting legally binding and non-legally binding principles that govern technological advancement. The United Arab Emirates affirms its commitment to international efforts in disarmament and non-proliferation. We encourage all Member States to work with full transparency and confidence-building measures to ensure the peaceful and sustainable use of outer space.

Finally, the United Arab Emirates reiterates the importance of continuing to take steps to ensure the safety and security of space activities. We also urge the international community to continue to consider the broader perspective of space security and associated matters with stability and responsible behaviour in space activities, as well as to promote multilateral and regional cooperation.

Our delegation would like to thank you, Sir, for giving us the floor. I once again reiterate our unwavering support for the collective efforts of this Committee in working towards safe and equitable space access and exploration.

Mr. Li Song (China) (*spoke in Chinese*): The Chinese delegation attaches great importance to the joint meeting of the First and Fourth Committees on outer space, which enables all countries to explore outer space security issues from different perspectives and to address the security implications of space activities in an integrated manner.

Outer space security and sustainability issues are becoming increasingly intertwined, arms control in outer space and the peaceful use of outer space are

increasingly overlapping, and the actors are more diversified. As a result, global governance in outer space is facing new realities and new challenges. It is therefore more necessary than ever to strengthen coordination and cooperation among United Nations entities on global space governance. In that regard, the United Nations Summit of the Future is an important opportunity for multilateral efforts in the coming years. In that connection, China would like to share the following three points.

First, we must focus on the most fundamental space threats and advanced negotiations on an outer space arms control treaty. While there are multifaceted threats to the security and sustainable use of outer space, the weaponization of outer space and the rising risk of an arms race remain the greatest and most fundamental threat. If outer space were to become a battlefield, its security and sustainable use will not be possible.

It is the long-standing consensus of the international community to negotiate and conclude a treaty on the prevention of the weaponization of, and an arms race in, outer space, address the loopholes in the existing legal system and ensure that outer space is used exclusively for peaceful purposes. That is also the fundamental way to maintain the security and ensure the long-term sustainable use of outer space.

China calls on all countries to actively support draft resolution A/C.1/77/L.70, to be submitted in the First Committee this year, establish a United Nations Group of Governmental Experts on the Prevention of an Arms Race in Outer Space and continue discussions on the elements of an international legal instrument on outer space on the basis of the work of the previous United Nations Group of Governmental Experts in 2018 and 2019.

Secondly, we must strengthen communication and collaboration among various platforms and processes in order to form effective synergies in outer space governance. For a long time now, the First and Fourth Committee, the Committee on the Peaceful Uses of Outer Space (COPUOS), the Conference on Disarmament (CD), the United Nations Disarmament Commission (UNDC) and other multilateral entities have carried out a lot of fruitful work on outer space issues within their respective mandates.

At the same time, the emergence of some new processes has led to different platforms and processes stepping on each other's toes. Outer space security

issues should be dealt with by the First Committee, CD, UNDC and other disarmament mechanisms, while safety issues arising from the peaceful use of outer space should continue to be managed by COPUOS. Various United Nations platforms and processes must strengthen communication and coordination, focus on their core mandates and avoid overstepping their mandates and duplicating work. This joint meeting of the First and Fourth Committees should play just such a role in a more active and effective manner by providing a platform for communication and collaboration among relevant United Nations entities and contribute to better effectiveness in outer space governance.

Thirdly, we must promote the broad and equal participation of all Member States so as to ensure the fairness and inclusiveness of the international rule-making process for outer space, in which it is important to strike a balance between security and the peaceful use of outer space and ensuring that all countries enjoy the equal right to the peaceful use of outer space, including by paying special attention to the interests of developing countries and emerging spacefaring countries, rejecting ideological bias, double standards and unilateral sanctions and avoiding the overuse of security threats and other pretexts to hinder other countries' peaceful space activities. We are already halfway through the Open-ended Working Group process. Frankly speaking, the various parties have their own ideas. It remains to be seen whether the process will reach a consensus, pool all parties' ideas and knowledge, fully respect and take into account the views of developing countries and truly reflect the positions and demands of all in an equal and balanced manner, all of which requires further effort by every Member State. China will continue to work with all parties to actively realize the concept of building community with a shared future in outer space and further contribute to the maintenance of outer-space security and its long-term sustainable use.

Co-Chair Al Hassan: In order to allow the panellists time to respond to our questions, I once again appeal to all delegations remaining on my list to limit their statements to the time allotted. I assure them that all their written statements will be uploaded in their entirety to the e-statement web portal.

Ms. Rodríguez Acosta (El Salvador) (*spoke in Spanish*): First of all, let me express El Salvador's appreciation for the organization of this joint panel

discussion to address the potential challenges relating to the safety and sustainability of outer-space activities.

In the interests of saving time, we will ask only the questions that we have for the joint panel. We would like to ask the panellists for their views on the process of updating the guidelines for the long-term sustainability of outer-space activities (A/74/20, annex II), in view of current and future challenges posed by the development of scientific and economic activities involving space resources. Similarly, how can international cooperation in building and developing the capacities and the transfer of technology to developing countries be strengthened in order to achieve the main goals of long-term sustainability of outer-space activities? The complete version of this statement will be made available on the e-statement web portal.

Mr. Hwang (France) (*spoke in French*): As you have requested, Sir, I will be brief. In the spirit of dialogue, I will speak to the joint statement delivered by my colleague from the United Kingdom. In that regard, I would first like to thank you, Sir, and your co-Chair for your choice of panellists. I think you made an excellent, comprehensive and balanced choice. I would like to make four brief observations, and I apologize if they seem simplistic.

My first comment based on this debate, which is self-evident, is that we are dealing with a subject that covers both civilian and military issues. And I agree with my Chinese colleague that the two issues overlap. My second comment, which is related to the first, is the fact that we have the conceptual means to address those overlaps, which relate to the safety of outer space, on the one hand, and its security, on the other. My third concerns the fact that space safety and security have a different rationale. We cannot put hostile activities or behaviour in outer space, including intentionally creating space debris, in the same category as the fallout caused by incidents involving failed satellite infrastructure. They are not the same thing. The goal, however, is the same, which is to enable free access to space for all States. There is therefore no duplication of United Nations processes, contrary to what the Russian delegation believes. My fourth comment is that solidifying space security and ensuring space safety will depend on two distinct but complementary normative — I repeat, normative — rationales. It goes without saying that the normative framework that we must envisage for the future has to include industry. And we should be creative in that area. As you mentioned, Sir, there is the

issue of weaponization. In my country's view, talking about weapons in space creates difficulties, since the concept of what constitutes a weapon is evolving, especially where new technologies are concerned.

I thank you once again, Sir, as this is exactly the type of meeting that we need to strengthen United Nations coordination on distinct but complementary processes.

Co-Chair Al Hassan (*spoke in Arabic*): I thank the representative of France for respecting the time limits. I once again remind delegations that their full statements will be uploaded to the e-statement web portal.

Ms. McKernan (United States of America): The United States aligns itself with the statement previously made by the United Kingdom on behalf of 42 delegations. We also welcome the opportunity to make several additional comments regarding challenges to space security and sustainability.

We particularly appreciate the efforts of the bureaux and secretariats of both the First and Fourth Committees to organize a very informative panel discussion that has included the perspectives of the commercial space industry. As we have seen in the three years since the previous joint panel discussion (see A/C.1/74/PV.20), the commercial space sector continues to push forward the frontier of space technologies and applications. The resulting capabilities create new industries and jobs, such as in clean energy technology and broadband access, providing increased opportunities for sustainable development. Commercial space operators also play a leading role in the development of technical standards and operational best practices for safe and sustainable space activities. For the United States, the commercial space industry is a key partner in efforts to promote the implementation of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space (COPUOS) and its guidelines for the long-term sustainability of outer-space activities (A/74/20, annex II). That collaboration, as well as a growing number of cooperative endeavours with other nations, contributes to strengthening global governance of space activities.

The Space Priorities Framework and National Security Strategy of the United States reaffirm our long-standing commitment to upholding and strengthening a rules-based international order for outer space. The United States will continue to participate in efforts across the United Nations system to advance international cooperation in the peaceful uses of

outer space and improve trust among States through transparency and confidence-building measures, such as norms, rules and principles of responsible behaviour for space activities. In particular, the United States was pleased to join the consensus last year on resolution 76/3, entitled “The ‘Space2030’ Agenda: space as a driver of sustainable development”, which highlights the unique role of COPUOS and the Office for Outer Space Affairs in advancing international space cooperation on space sustainability and associated capacity-building. The United States looks forward to discussions next year in COPUOS and its subcommittees on planning for a multi-stakeholder dialogue on space as part of the Summit of the Future, in September 2024. The multi-stakeholder dialogue and preparatory events can serve as an important opportunity for Member States to bring together Governments and other leading space actors and take stock of a broad range of challenges to space security and sustainability, as well as opportunities for international cooperation to address current and emerging issues.

In order to enable more thorough discussions, we urge all Member States to fully implement the COPUOS Space Debris Mitigation Guidelines and guidelines for the long-term sustainability of outer space activities. Those guidelines serve as cornerstones for protecting the space environment and advancing key principles for international cooperation in the peaceful uses of space. It is essential that all nations fully implement them to ensure that governmental, as well as commercial and other private-sector activities, are conducted consistently with those guidelines, which were adopted by consensus.

The full implementation of COPUOS guidelines also supports distinct and complementary efforts in United Nations disarmament forums, focused on transparency and confidence-building measures to reduce space threats through rules, norms and principles of responsible behaviour for national security space activities. As my delegation noted yesterday in the First Committee (see A/C.1/77/PV.22), the United States welcomes the progress of the Open-ended Working Group on Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours, established pursuant to resolution 76/231. We also support continued discussions on space transparency and confidence-building measures in the Conference on Disarmament and the United Nations Disarmament Commission.

Finally, the United States encourages other delegations to support a new First Committee draft resolution, sponsored by the United States and 33 other delegations, which calls on all States to commit to refraining from conducting destructive direct-ascent anti-satellite missile tests (A/C.1/77/L.62). That commitment can serve as an urgent initial measure aimed at preventing damage to the outer-space environment, while also contributing to the development of further measures for the prevention of an arms race in outer space.

Ms. Jeogin (Republic of Korea): First, the Republic of Korea would like to welcome today’s joint meeting to address possible challenges to space security and sustainability, as it is important to have a practical and holistic approach in dealing with the issue of outer space.

The Republic of Korea supports the joint statement delivered earlier today by the representative of the United Kingdom.

I would like to take this opportunity to emphasize the commitment of the Republic of Korea, as a spacefaring nation, to ensuring a secure, safe and sustainable space environment. In that regard, the Republic of Korea would like to recall that it announced its commitment to refraining from conducting destructive direct-ascent anti-satellite missile testing during the thematic debate of the First Committee (see A/C.1/77/PV.22).

The Republic of Korea fully supports and has taken an active part in the Open-ended Working Group process over the past year. We believe that the current discussion will contribute to reducing space threats through norms, rules and principles of responsible behaviours in outer space. In addition, the Republic of Korea is firmly committed to the peaceful uses of outer space and would like to highlight the significant roles and efforts of the Committee on the Peaceful Uses of Outer Space and the United Nations Office for Outer Space Affairs. As the Republic of Korea makes progress in its space capability, it will further strengthen international cooperation in the peaceful uses of outer space.

In conclusion, the Republic of Korea reaffirms its strong commitment to the peaceful and sustainable use of outer space and assures everyone that its space activities are fully in line with that spirit.

Mr. Ghelich (Islamic Republic of Iran): At the outset, I would like to thank all the speakers and panellists today for their valuable remarks and input. In that regard my delegation would like to re-emphasize the significance of an equitable geographic distribution of briefers. We hope that any issues with the participation of representatives from developing nations will receive the attention they require to be resolved.

Today the world is experiencing a surge in space technologies. In the circumstances, the rise in the number of conflicts in outer space and the activities of some Governments aimed at dominating or seeking superiority in that area have revealed the inadequacy of existing instruments, not only in the face of new challenges to the security of outer space but also to the promotion of its peaceful uses and exploration. Some States have raised the concept of responsible behaviour in response to that inadequacy. However, while it is an attractive political gesture, we believe that concept is a subjective, oversimplified, vague and unclear phrase that is driven by political expectations. In that regard, we note that the norms are usually based on expectations and not on support for the pursuit of legal agreements.

As we have seen from past experience, basing behaviours on norms rather than legal agreements can become a tool for some countries to evade their responsibility and put the blame on others. It introduces double standards, political divisions, technical barriers and abusive unilateral restrictions as pretexts for creating obstacles to the peaceful use of outer space. In view of the fact that some countries are rapidly developing their military space assets and programmes, the threat of weaponization is the most critical challenge to outer space that we face and must be urgently addressed. In that way, efforts to reduce and prevent threats through concrete, legally binding instruments are more urgent, effective, efficient and necessary than merely responding regarding the irresponsibility or otherwise of real or emerging threats as they arise.

Security challenges in outer space are a concern shared by all humankind, and preventing an arms race in outer space should be an obligation for all countries. While some States have declared outer space a new arena for warfare and are developing military capabilities, establishing military space forces and seeking hegemony and superiority through advanced military technologies in outer space, efforts to address their actions by setting non-legally binding norms are a waste of time. For the sake of preserving the security

of outer space, all such actions should be regulated through legally binding norms rather than by resorting to arbitrary and judgmental norms in the face of responsible or irresponsible behaviour.

The Islamic Republic of Iran has supported the introduction of a draft treaty on the prevention of an arms race in outer space as a basis for establishing an ad hoc committee to negotiate a legally binding treaty in the Conference on Disarmament. We also actively participated in the Group of Governmental Experts on Further Effective Measures for the Prevention of an Arms Race in Outer Space, established in 2017, and in its meetings held in 2018 and 2019. Unfortunately, a certain State has stood against consensus in the Group and prevented consensus on its report at the United Nations. Selective approaches, such as those based on behaviours, are unacceptable, as they result in politically arbitrary judgments and discriminatory measures without legal frameworks. Without legal certainty, especially on whether a behaviour in space is legal, it will be impossible to decide whether it is irresponsible or not.

In conclusion, as we are in an era of renewed exploration and use of outer space, with active programmes aimed at sending humans to remote places in outer space and launches planned for thousands of new satellites, we are seeing new threats to security, safety and sustainability. Our regulatory regimes are therefore in urgent need of updating in line with this new era if we are to preserve outer space as a global commons.

Lastly, we respectfully request that the co-Chairs' joint report, to be prepared later, accurately reflects our wishes.

Mr. Galindo (Brazil): I would like to commend the organization of today's joint panel discussion between the First and Fourth Committees. From my delegation's perspective, it is important not to lose sight of the complementary nature of the work of both Committees while acknowledging their specific mandates.

As was pointed out in the thematic debate on outer space, space assets are of critical importance to societies and the economies of all countries, in a wide range of activities.

Due to the increasing reliance on space generally, any disruption taking place in that environment could seriously compromise the prospects for the sustainable

use of Earth orbits for peaceful purposes for future generations. Furthermore, activities that are considered irresponsible and unsustainable have the potential to be perceived as threats to space security, which could lead to misinterpretation and escalation.

Brazil attaches particular importance to ensuring that this meeting promotes a reflection on the need to address the intentional creation of space debris. As many speakers have underscored, outer space has become increasingly congested, and the promotion of the safety of space assets consequently represents a real challenge. In that regard, the body of recommendations issued by the Committee on the Peaceful Uses of Outer Space represents a crucial contribution to safeguarding outer space's accessibility and safety.

From a security viewpoint, Brazil participates actively in the ongoing discussions in the Open-ended Working Group on Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours, which can potentially formulate voluntary norms and rules grounded in the existing legal framework that could form the basis for the future adoption of legally binding instrument on the prevention of an arms race in outer space. Brazil's support for that process is based on the idea that an environment of trust must be created in order to lay the proper foundations for future negotiations on a treaty.

For my delegation, the main step to be taken in that direction is the prohibition of destructive anti-satellite tests. As we have said before, the development, testing and eventual use in conflict of destructive anti-satellite weapons remains the most serious current threat to the security and sustainability of outer space. Such weapons are a key driver of mistrust and instability in space, while their testing generates significant persistent debris, leading to substantial contamination of the orbital environment and heightening the risk of collisions with space objects. We hope that the commitment to ending such testing would be a significant first step towards an improved environment for negotiations on outer-space security, and notably on the prevention of an arms race in outer space.

A complementary approach is key to ensuring that outer space remains open, safe, secure and sustainable in the long term. My delegation is committed to the continuation of discussions and negotiations that bring together all aspects that affect the way in which we use outer space by adopting a comprehensive approach

aimed at building confidence among States, bridging differences and enabling us to fulfil our mandate to negotiate a legal instrument on the prevention of an arms race in outer space.

Co-Chair Al Hassan (*spoke in Arabic*): I reiterate the appeal of the co-Chairs to all delegations to be brief.

Mr. Omar (Pakistan): We welcome the initiative to hold this joint panel discussion of the First and Fourth Committees on outer space-related issues. We thank the panellists for their useful presentations and appreciate the substantive exchange of views so far.

As a space-emerging nation, Pakistan has a modest but growing space programme. We share the concerns about the increasing threats to the security and sustainability of outer space. It is also evident from today's discussions that the spectrum of threats to outer space has widened and become even more complex. Judging by any objective matrix, there is a heightened arms race in outer space and a higher weaponization of its environment than ever before, with attendant risks to peaceful uses.

Outer space is a global commons and all celestial bodies, including the moon, remain the common heritage of humankind. They are to be explored and used for peaceful purposes only and in the interests of all countries, remaining accessible to all nations without discrimination, irrespective of their level of scientific, technical or economic development. There is international consensus on preventing an arms race in outer space, which we continue to firmly believe is in the shared and collective interests of all countries. Worrisomely, both of those fundamentals — which have long underpinned the international community's approach to and use of outer space — are increasingly being challenged, threatened and in certain cases undermined.

Apart from the challenges posed by an increasingly congested and contested outer space — particularly with respect to space traffic management and debris mitigation, which remain important for the long-term sustainability of outer-space activities — there are troubling trends in the security arena that some are increasingly framing as a new normal. The threat posed by the placement of weapons is being magnified by the growing integration of weapons technologies platforms and dedicated structures in the nuclear, cyber, conventional and outer-space realms. The development and deployment of missile defence systems and their

amalgamation with outer-space systems, anti-satellite weapons and directed-energy weapons represent some of the most prominent forms of such threats, both to outer space and to planet Earth. The increasing blurring of the lines between peaceful and military uses of outer space, including the growing fusion between civilian intelligence and military institutions and endeavours, is well documented.

The situation clearly underscores how urgent it is to upgrade the existing normative and legal architecture governing the security dimensions of outer space in order to address those growing threats and risks. It is imperative to plug the well-known gaps by concluding a treaty on the prevention of an arms race in the Conference on Disarmament. While recognizing the value of transparency and confidence-building measures in promoting trust among States, Pakistan does not see such measures as a substitute for legally binding treaty-based obligations.

Fortunately, there are several multilateral institutions with distinct mandates to deliberate on and develop a set of measures to ensure that outer space remains a global commons for all peoples and States. We fully support the role of each platform in line with their mandates and purviews. The discussions in various forums also point to the necessity of avoiding the pitfall of focusing on peripheral issues alone, at the cost of core questions surrounding security in outer space. If there is to be one at all, the starting parameter of responsibility towards outer space today should be the ratification and adherence to all five core international treaties on outer space.

Space is a finite and fragile resource and must continue to be generally treated as a global commons. It goes without saying that space security as an end can hardly be ensured without credible and legally binding tools to guard outer space from increasing threats. Neither does it appear viable to solve the problem of outer-space security in a piecemeal, selective or partial manner. A holistic approach to security in outer space, including the various dimensions I have touched on, remains the most practical option. It may also have the added advantage of being for the benefit and in the interest of all States.

Mr. Makarevich (Belarus) (*spoke in Russian*): I thank the co-Chairs for giving me the opportunity to express Belarus's opinion. I will be brief and concise.

We note with regret that multilateral efforts aimed at maintaining international peace and security continue to be held hostage to politicized approaches by key world Powers at the expense of the principles of consensus and multilateralism. We are witnessing an erosion of the multilateral system accompanied by increasing tensions and confrontation, as well as the destruction of systemic arms-control instruments, including in outer space. We would like to draw delegations' attention to the need to resume a broad-based international dialogue to restore trust at both the regional and global levels.

We reiterate our steadfast support for the draft treaty developed by Russia and China on the prevention of the placement of weapons in outer space and the use or threat of force against space objects. We once again underscore the crucial importance of the international initiative for a political commitment on the principle of no first placement of weapons in outer space. We call on all States to join that initiative.

We also call on all States to abandon the practice of imposing red lines when discussing outer space-related issues. We believe that the best way to generate convergence on the issue is to hold an expert-level dialogue. Belarus is prepared to engage in open, comprehensive, mutually respectful dialogue with all States on the issue on an equal footing.

Co-Chair Al Hassan (*spoke in Arabic*): We have heard the last statement in our interactive dialogue. I will now invite our panellists to respond to the comments and questions raised. I give the floor to my brother Mr. Omran Sharaf, Chair of the Committee on the Peaceful Uses of Outer Space.

Mr. Sharaf: I would like to thank all of today's speakers for their questions and comments on our topic of discussion. I do not want to take up a lot of everyone's time, but for some final remarks, and based on some of the discussions that took place today, I would like to highlight a few points.

When it comes to the work that is being done in Vienna and in Geneva, I think it is very important to always maintain very clear distinctions between the responsibilities and scope of work of the Committee on the Peaceful Uses of Outer Space (COPUOS), the Open-ended Working Group on Reducing Space Threats through Norms, Rules and Principles of Responsible Behaviours, the Office for Disarmament Affairs and the Office for Outer Space Affairs (UNOOSA) in general.

Those distinctions are also important in helping us to move forward and get things done. However, there are areas of discussion regarding outer space — one example being space debris — in which things being discussed are to some extent related to each other in the discussions taking place in Vienna and in Geneva. When we talk about the sustainable development of outer-space activities, including their sustainability and safety, then the discussion is obviously in Vienna. And when we talk about security, it is in Geneva. However, space debris is discussed in both places.

One option that Member States could therefore consider would be to promote communication and cooperation between the two groups, in Vienna and Geneva. An example of that could be having the COPUOS Chair or members from UNOOSA attending as observers on a platform such as this one, to discuss certain things, listen to the discussions and promote communication between the two groups. But again, those are decisions that are made by Member States, and in order to move that forward, I assume that Member States will have to discuss it among themselves and decide on it. Those are just general comments from my side. I do not know whether we can open the floor for questions — I am not sure if we have enough time for that.

Co-Chair Al Hassan: I now give the floor to Ms. Jennifer Warren from the Satellite Industry Association if she would like to respond or make any comments. However, we have exhausted our time. I would ask everyone to speak English, because we may lose the interpreters.

Ms. Warren: I realize we are very short of time, but I thought the question — I think it was from the representative of El Salvador — about capacity-building was one that might be of great common interest, because the space industry is very focused on the need for the development of talent. As with many industries, there is a shortage of that, and we are working very hard to develop talent through a number of different resources. I thought I would just highlight a couple of resources right now, if I may. One is the International Astronautical Federation (IAF), which I am sure many members are familiar with. It has early-career and recent graduation programmes, as well as internships and mentorships, while its national affiliates have chapters that do that as

well. That is just at an organizational level, but a lot of individual space companies have their own programmes at the high school, community college and college levels for advancing science, technology, engineering and mathematics, including in space-specific areas, through programming, apprenticeships, internships, sponsorships and scholarships. So a lot of entities are trying to put resources in that effort, and I am happy to follow up with anybody who would like further indicators.

Co-Chair Al Hassan: I thank Ms. Warren for her comments.

I now give the floor to Mr. Wang Guoyu.

Mr. Wang Guoyu: I will try to be clear and brief, since it is one o'clock in the morning here in Beijing. First, I would like to address the issue of the asset initiative. To be honest, I am not very convinced that the initiative would promote space security smoothly or effectively.

Co-Chair Al Hassan: I am sorry to interrupt you, Mr. Wang Guoyu, but we have no more interpretation and we will have to end the meeting here.

We have heard the last speaker from the panel. As I mentioned previously, a summary of the interactive dialogue among delegations this afternoon will be prepared and issued in due course. Before concluding our work, I would like to thank all delegations for the insightful remarks we heard on the subject and indicative themes of our joint panel discussion today, and for the cooperation and support extended to myself and Ambassador Mohan Pieris of Sri Lanka in our capacity as co-Chairs.

The next meeting of the First Committee will take place this afternoon at 3 p.m. sharp in this conference room. The Committee will continue its thematic discussion under the cluster “Disarmament machinery”. The Special Political and Decolonization Committee (Fourth Committee) will reconvene tomorrow morning, also in this conference room, at 10 a.m., to continue its consideration of the agenda item “International cooperation in the peaceful uses of outer space”.

The meeting rose at 1.20 p.m.