1 Identification

1.1 Session ID 156

1.2 Session Title International Space Safety Governance

1.3 Session Date and Time 27 September, 09:00 EDT

1.4 Convenor name Taro Kuusiholma

2 Speakers and Panelists

Please list all speakers and panellists, including their names, titles, and organisational affiliations.

2.1 Speaker 1

2.1.1 Name: Taro Kuusiholma

2.1.2 Organisation name: International Association for the Advancement of Space Safety (IAASS)

2.1.3 Type of organisation: NGO

2.1.4 Title of the presentation: Moderator (Convenor)

2.1.5 Summary of the presentation (max 200 words):

2.2 Speaker 2

2.2.1 Name: Tommaso Sgobba

2.2.2 Organisation name: International Association for the Advancement of Space Safety (IAASS)

2.2.3 Type of organisation: NGO

2.2.4 Title of the presentation: Panelist

2.2.5 Summary of the presentation (max 200 words):

2.3 Speaker 3

2.3.1 Name: Paul Wilde

2.3.2 Organisation name: U.S. Federal Aviation Administration Commercial Space Transportation (FAA AST)

2.3.3 Type of organisation: Government

2.3.4 Title of the presentation: Panelist

2.3.5 Summary of the presentation (max 200 words):

2.4 Speaker 4

2.4.1 Name: Liu Hao

2.4.2 Organisation name: Beijing Institute of Technology (BIT) School of Global Governance

2.4.3 Type of organisation: Academic institution

2.4.4 Title of the presentation: Panelist

2.4.5 Summary of the presentation (max 200 words):

2.5 Speaker 5

2.5.1 Name: Andrea Harrington

2.5.2 Organisation name: McGill University, Institute of Air and Space Law

2.5.3 Type of organisation: Academic institution

2.5.4 Title of the presentation: Panelist

2.5.5 Summary of the presentation (max 200 words):

2.6 Speaker 6

2.6.1 Name: Mark Glissman

2.6.2 Organisation name: United States Space Force

2.6.3 Type of organisation: Government

2.6.4 Title of the presentation: Panelist

2.6.5 Summary of the presentation (max 200 words):

2.7 Speaker 7

2.7.1 Name: Toru Yoshihara

2.7.2 Organisation name: The Japan Aerospace Exploration Agency (JAXA)

2.7.3 Type of organisation: Government

2.7.4 Title of the presentation: Panelist

2.7.5 Summary of the presentation (max 200 words):

3 Content

3.1 Session Abstract (max. 500 words)

The International Association for the Advancement of Space Safety (IAASS) UNGA79 Science Summit two hour virtual session “International Space Safety Governance” ‘Why Is It Needed? Harmonizing Safety Standards around the World' consists of two panels: 1) 'The need for space safety governance' and 2) 'Harmonizing space safety standards around the world'.

Panel 1 is aimed to create awareness of the issue of space safety governance and the need to establish for space a UN agency for example on the model of ICAO (the UN Special Agency for civil aviation) or ITU (International Telecommunication Union) to ensure and advance inter alias space safety and space traffic management etc. Speakers: Dr. Mark Glissman (USSF/USAF), Dr. Andrea Harrington, (Director of McGill IASL), and Prof. Liu Hao (Beijing Institute of Technology). Moderator: Taro Kuusiholma

Panel 2 is aimed to inform and discuss on two initiatives: A) Called ICSSS (International Coordination on Space Safety Standards) of IAASS in cooperation with The Aerospace Corp. consisting in establishing a forum of national regulators and relevant authorities for the harmonization of national regulations as a first step towards more consolidated regulatory playing field, and B) the development of a Space Safety Institute as a support organization to national regulators and industry. Speakers: Dr. Paul Wilde (FAA AST), Tommaso Sgobba (IAASS), Toru Yoshihara (Japan Aerospace Exploration Agency (JAXA)). Moderator: Taro Kuusiholma

3.2 Project Objectives

List the key objectives your session or project aimed to achieve.

3.2.1 Objective 1: Advance the science and application of Space Safety by improving the communication, dissemination of knowledge and cooperation between stakeholders in this and related fields. Inhance and encrease understanding and awareness of the Space Safety discipline. Promote and advance the development of Space Safety science, knowledge and professionals.

3.2.2 Objective 2: Advocate the establishment of efficient space safety governance and regulatory framework at international and national levels for the civil use of outer space. The expanding human space-faring community, as well as the on-going developments in the field of commercial human spaceflight raises the issue and need of establishing international safety standards, and in particular, systems interoperability standards, to allow mutual aid in case of emergencies during ascent/descent, on-orbit, and on extraterrestrial bodies. As inherently hazardous high-tech developments go, the space industry generally has a commendable safety record, but clearly much more could and should be done.

3.2.3 Objective 3: to provide an equivalent minimum level of protection for the citizens of all nations from the risks posed by launching, over-flying, and re-entering of space systems; Facilitate that the development, building and operation of space systems be carried out in accord with common ground and flight safety rules, procedures and standards based on the status of knowledge and the accumulated experience of all space-faring nations. To that end the Association seeks to facilitate the sharing of design and operational information on space systems in the form of lessons learned for the purpose of enhancing safety; Seek to harmonize and/or establish common international traffic control rules used by launching nations for launch, on-orbit and re-entry operations to prevent collisions or interference with other space systems and with air traffic; Collaborate to protect the ground, sea, air and space environments from chemical, radioactive and debris contamination caused by space operations.

4 Planned Impacts of the science and innovation presented in you session

4.1 Contribution to the SDGs

The SDGs provide a comprehensive framework for addressing the world's most pressing challenges and promoting sustainable development globally. Select the Goal/s that your project contributes to (max 3 SDGs)

9. **Industry, Innovation, and Infrastructure**: Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.

16. **Peace, Justice, and Strong Institutions**: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable, and inclusive institutions at all levels.

17. **Partnerships for the Goals**: Strengthen the means of implementation and revitalize the global partnership for sustainable development.

5 Contribution to the UN Summit of the Future

5.1 Main challenges (max 200 words)

(Main challenges and difficulties experienced in implementing the science to contribute to the Sustainable Development Goals and provide recommendations to address the same whole.)

Global Space governance and standardization present significant challenges, particularly when considering their role in contributing to the United Nations Sustainable Development Goals (SDGs)like 9, 16 and 17. These challenges arise from the complex, multidisciplinary nature of space activities, the involvement of numerous stakeholders with various goals and policies, and the rapid pace of technological advancement.

Main challenges include inter alias fragmented international regulatory framework, efficient and timely coordination among nation states and diverse stakeholders, scientific collaboration and capacity building, space debris and environmental sustainability and public engagement and awareness.

Addressing these global challenges requires a concerted cooperative effort at both national and international levels to create flexible, inclusive, just and forward-looking governance frameworks. This involves strengthening international communication, cooperation, coordination and updating different ‘hard and soft’ legal instruments, standardization (institutions) and ensuring that space activities are conducted in a manner that supports the achievement of the SDGs.

5.2 Additional goals (max 200 words)

(Additional goals, beyond the Goals, which are considered priorities)

Space safety governance and standardization are critical to ensuring that space activities are conducted responsibly, sustainably, and for the benefit of all humanity. Here are some of the most important additional goals and topics to to consider: The need to revisit, possibly update and expand existing treaties, such as the Outer Space Treaty, to address emerging challenges like space resource mining and private sector activities etc. In the longer run harmonize national and regional space laws with internationally accepted – to a point - common standards to ensure consistency and reduce legal ambiguities. All in all international cooperation and collaborationis vital: Space is a global commons, and its governance requires international cooperation and coordination to address current and new challenges that transcend national borders, such as space debris, planetary defense, exploration of outer space and sustainable use of space resources
Possible solution(s): Strengthen institutions like the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) to foster international dialogue and collaboration.

Found a global 'Space Safety Institute' or the like in order to develop globally accepted common international space safety standards.
Promote joint missions, data and knowledge sharing, and focusing on capacity-building initiatives among spacefaring and non-spacefaring nations.