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# Towards a regime for Space Traffic Management – governance perspective

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## **IISL and STM**

- Ongoing trilateral IAA-IAF-IISL comprehensive project on STM.

- STM as session theme in numerous IISL Colloquia on Space Law at International Astronautical Congresses.

 - IISL participation in pathbreaking IAA studies on STM of 2006 and 2018.

- STM as topic of the 2015 IISL/ECSL Symposium at the UNCOPUOS Legal Subcommittee leading to the establishment of an agenda item on STM from 2016.



## **STM multilateral and national**

- Multilateral: setting harmonized norms, rules and standards.

- National: implementing through national legislation and regulation, authorization and supervision.

 If the multilateral approach is not taken quickly, single national legislation/regulation may determine rules/standards internationally thus extraterritorial extension without multilateral development.



### **Ref. national obligations**

Recent position paper by the IISL Board of Directors on authorization and continuous supervision of commercial space activities (July 2021).

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Statement by the Board of Directors\* of the International Institute of Space Law (IISL) on the Consideration of the Interests of the Public and other Stakeholders in the Authorization and Continuing Supervision of Commercial Space Activities

Outer space holds unprecedented opportunities for all countries to conduct activities for societal benefit and commercial gain across the globe. The commercial sector is at the forefront of developing many new capabilities, products and services that will lead to new kinds of commercial space activities, including activities on the Moon and other celestial bodies. These space activities should be developed in accordance with the rule of law, for peaceful purposes, and in a manner that is sustainable for the present and future generations. Among the activities proposed to be conducted are the placement of various types of artefacts, human and animal remains on the Moon, advertising and entertainment displays in Earth orbit, and the launch of large constellations of satellites. The Board of Directors of the International Institute of Space Law (IISL) is of the opinion that there is growing importance for national regulators responsible for the authorization and continuing supervision of outer space activities to give careful consideration to the interests of all stakeholders, including the scientific community and the public, regarding the consequences of authorizing such activities for the future exploration and peaceful uses of outer space, including the Moon and other celestial bodies. Consideration should also be given as to whether there are adequate mechanisms in place to ensure compliance with the Outer Space Treaty (OST) and other applicable regulations and international guidelines for space debris mitigation, space sustainability, and planetary protection to ensure that the activities are conducted with due regard to the corresponding interests of all other States Parties to the Outer Space Treaty.

19 July 2021

The views expressed in this Statement represent a consensus of the Members of the IISL Board of Directors acting in their personal capacity, and do not necessarily reflect the views of any entities with which they may be affiliated.



### Key governance aspects

- Data acquisition, data sharing, notification rules.
- Technical standards, authorization, licensing, supervision.
- Traffic rules to/in/from orbit.
- Responsibility and liability.
- Arbitration, enforcement.
- Institutional setup.



# STM governance approach I: incremental bottom-up approach

- Co-existence of regulatory instruments of different nature and purpose may constitute the building-blocks of STM emerging from single fields of regulation,
- allows individual solutions at domestic level,
- flexibility to tackle key issues in a comparatively timely manner, but at the risk of fragmentation.

**Topics identified in the study:** 5.3.1.1 SSA 5.3.1.2 Private human spaceflight 5.3.1.3 Debris mitigation and remediation 5.3.1.4 Development of standards for space safety 5.3.1.5 Traffic rules 5.3.1.6 Practices for the management of space resources 5.3.1.7 National space legislation 5.3.1.8 Organisational aspects



## STM governance approach II: top-down approach

 Creating a comprehensive and inclusive STM regime: legal norms (evolvement of existing space law) + institutional management.

"ITU approach" as a possible model:

Level 1: **Outer Space Convention (OSC)** ... comparable to the ITU Constitution and Convention... rarely updated;

Level 2: **Outer Space Traffic Rules (OSTR)** ... comparable to the ITU Administrative Regulations... reviewed and updated regularly; Level 3: **Outer Space Traffic Technical Standards (OSTTS)** ... comparable to the ITU Standards... reviewed and updated regularly with the involvement of also non-governmental stakeholders.

Step	Activity	Years	Date
1	Multi-year Workplan on STM in UNCOPUOS LSC to	4 (2019 plus 4)	2023
	prepare mandate for a State conference open to all		
	States Parties to the five treaties plus all other MS of the		
	UN to negotiate an STM regime		
2	Plenipotentiary conference	7 (2019 plus 11)	2030
3	Open for signature	1 (2019 plus 12)	2031
4	Ratifications/Entry into force	3 (2019 plus 15)	2034



### Maintaining the rule of law in outer space!



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