



# Ensuring the Sustainability of Outer Space: the Role of Space Law and Policy

Organised by the Austrian NPoC of ECSL & Austrian Ministry for Climate Action (BMK)

## The SPACEWAYS Project



\*This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 101004208.

**UN COPUOS, 2 June 2022**  
**Tanja Masson-Zwaan, Leiden University**  
*(remarks are made in a personal capacity)*

# Why STM is essential

- Space is a shared environment and requires shared solutions
- STM is an important tool for **safety, sustainability & security** of space operations
- But an isolated STM strategy cannot fulfil these goals
- National governments/ space agencies are essential in the efforts to establish STM
- At the moment no common approach exists among spacefaring nations, but several States are undertaking steps, led by the USA
- The EU has a role to play



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# Importance of STM for the EU and its assets

- **A strong role of the EU in STM is increasingly important; Europe must find a cohesive voice and contribute to shaping the global debate around STM, building on EC Joint Communication “An EU Approach for Space Traffic Management” of Feb. 2022**
  - Expansion of Galileo & Copernicus; launch of the Secure Connectivity system
  - 10% of the EU’s total GDP is enabled by satellite navigation
  - EU owns 30+ satellites in orbit, investment in space programmes of €14+ billion (2021-2027)
  - EU SST Consortium/Partnership provides services to over 250 satellites
    - Important component for a strong role in STM, data availability is key



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# The SPACEWAYS project

- Horizon 2020 project, Jan. 2021 - June 2022
- To assess the technical and policy-related issues associated with the notion of Space Traffic Management (STM) and propose a set of policy recommendations to EU stakeholders
- To characterise and understand the context of STM, especially its international & domestic dimensions
- Focus on 2 main aspects of STM:
  - Analysis of European capabilities and technology gaps
  - Policy, legal and economic assessment of this domain

→ **Resulting in recommendations and guidelines to the EC**



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# SPACEWAYS' objectives

- Create a link with stakeholders' needs and communities
  - Assess European technical capabilities with respect to STM requirements
  - Assess the legal, policy and economic framework for STM
  - Propose guidelines and best practices for STM in line with European interests
  - Contribute to the widest dissemination of guidelines & recommendations produced by the project
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- Recommendations for a Successful European Approach to STM
    - Translate project results into a coherent set of **actionable and impactful recommendations** to pave the way for a successful approach to STM in Europe
    - Propose options & action plans for the development of a full-fledged approach to STM in Europe
    - Recommendations based on the policy and technical analyses carried out

# SPACEWAYS Partners

The strength of SPACEWAYS lies in the partnership between **major European research institutes** and **European Space Industry players**



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# Stakeholder Engagement

- To ensure that the study outputs are embraced by the entire European space community, **external stakeholders** have been actively involved through the **stakeholder engagement program**, and regular contacts with our industrial partners
- 6 workshops with 100+ participants from 24 European entities were held
  - Institutional actors (national agencies, ministries, IGOs, EU institutions)
  - Public and private satellite operators
  - Space Surveillance and Tracking (SST) service providers
  - R&D related entities (SME, start-ups, non-profit organisation)



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# Assessment of the current legal, policy and economic framework

The main objective was to provide a baseline upon which to build our recommendations

- Assessment of the current **legal** framework
- Assessment of the **policy-level** framework and challenges
- Assessment of the **economic** viability and European competitiveness
- Assessment of lessons learned from the existing **ATM** model (analogies and limitations)



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# Assessment of the current legal framework

- Topics analysed:
  - Setting the scene
    - Current state and future development of the space sector
  - Regulatory challenges and analogies with other fields of international law
    - Maritime, airspace
  - Legal framework:
    - International: UN, ITU (hard/soft law) / National: EU members and others (questionnaire)
  - Other actors' work on STM
    - IADC, CCSDS industry initiatives
- Some conclusions:
  - Although certain elements of STM are present at various levels, there is a clear need for further action to reach a comprehensive framework for STM
  - The EU can play an important role in that process, within its defined competences



# Some concluding remarks

(made in a personal capacity)

- The EU should show its acceptance of international space law to strengthen its position as a responsible actor in outer space
  - The EU should reinforce its image as a credible partner for negotiating future agreements on space safety and sustainability at the international stage.
  - UN COPUOS is a relevant and appropriate platform to discuss STM multilaterally, but parallel discussions with interested States will also bring value
  - The EU is a permanent observer; most EU members are members of COPUOS & are parties to the major space treaties
  - Coordination with / involvement of ESA is also necessary
- **Actionable and impactful recommendations** to pave the way for a successful approach to STM in Europe are currently being finalized





Thank you for your attention!

## About SPACEWAYS



[SPACEWAYS\\_H2020](#)



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[www.spaceways-h2020.eu](http://www.spaceways-h2020.eu) (see 'STM Briefs')

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