

# Space Sustainability: Bridging Initiatives and Perspectives

When: Thursday, March 27, 2025 to Friday, March 28, 2025

Where: Lausanne, Switzerland

## Agenda Outline and Concept (as of March 12, 2025)

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### Context:

2025 marks a pivotal year for space sustainability discussions, with several major events including the biennial ESA Space Debris Conference and the 7<sup>th</sup> Summit for Space Sustainability (co-hosted by Secure World Foundation). In this context, this workshop aims to bridge various ongoing initiatives and perspectives in the field of space sustainability. While building on educational foundations like the EPFL Space Sustainability course, the focus of this workshop is on addressing the critical challenges of space as a finite resource, including orbital congestion and collision risks, through a multi-stakeholder approach to sustainable practices.

### Overview:

This collaborative one-and-a-half-day workshop is co-organized by the Secure World Foundation, the EPFL Space Center, and the EU COST network FOGOS, and in partnership with the ITU, the Swiss Federal Department of Foreign Affairs and the ERC project PlanetStewards. It will convene experts, policymakers, and social scientists to conduct a comprehensive analysis of existing space sustainability capacity-building initiatives. The event aims to evaluate current approaches, identifying where they complement each other and where gaps exist, while introducing fresh perspectives to advance the field. By bringing together diverse stakeholders, the workshop seeks to strengthen the connection between theoretical frameworks and practical implementation in space sustainability.

### Objectives

1. Evaluate and compare existing capacity building initiatives
2. Identify synergies and gaps in current approaches
3. Incorporate social science approaches to the assessment of space sustainability
4. Develop viewpoints for future capacity building efforts

### Expected Outcomes

1. Bridge between academic learning and practical initiatives in space sustainability
2. Identification of best practices and novel insights from interdisciplinary perspectives
3. Review of barriers and opportunities in information sharing around specific space sustainability issues, and synthesis of findings in draft outline for policy paper

## Workshop Structure

### Day 1 – Thursday 27th March: 14h00-18h00

#### **1400-1800: Session 1: Stakeholder Mapping**

The workshop will begin with a stakeholder mapping exercise, focusing on identifying the different meanings and approaches to sustainability among different stakeholder types, including from local to national, regional, and inter-governmental. The mapping of these differences provides an overview of where conflicts or convergence may arise in the realm of policymaking in view of the various versions of space sustainability. The stakeholder mapping will derive a tentative scheme that serves as input to discussions on the second/main day of the workshop, highlighting the challenges in achieving a more inclusive approach to space sustainability addressing peace/ security, environmental concerns, and equity.

#### 1400 - 1500: Introduction and plenary discussion

- Brief introduction & aims of the stakeholder mapping exercise.
- A preliminary map based on previous work done, showing which governance instruments are prioritizing which sustainability aspects
- Discuss with participants and restructure as necessary

#### 1500-1545: Deep dive on peace/ security

Participants are asked to move into three break-out groups: (1) local level, (2) national level, and (3) inter-governmental/ international level. They then proceed with a 25 or 30-minute discussion.

- Focusing on instruments prioritizing peace and security, participants discuss within each break-out group the effectiveness of those instruments, what are neglected, and how are issues of peace/ security related to environmental concerns and equity.
- Plenary with a rapporteur from each break-out group to summarize in 5 mins.

#### 1545-1600: Coffee Break

#### 1600-1645: Deep dive on environmental concerns

Participants are asked to move into three break-out groups: (1) local level, (2) national level, and (3) inter-governmental/ international level. They then proceed with a 25 or 30-minute discussion.

- Focusing on instruments prioritizing environmental concerns, participants discuss within each break-out group the effectiveness of those instruments, what are neglected, and how are issues of environmental concerns related to peace/security and equity.
- Plenary with a rapporteur from each break-out group to summarize in 5 mins.

#### 1645-1730: Deep dive on social equity

Participants are asked to move into three break-out groups: (1) local level, (2) national level, and (3) inter-governmental/ international level. They then proceed with a 25 or 30-minute discussion.

- Focusing on instruments prioritizing social equity, participants discuss within each break-out group the effectiveness of those instruments, what are neglected, and how are issues of social equity related to peace/security and environmental concerns.
- Plenary with a rapporteur from each break-out group to summarize in 5 mins.

#### 1730-1800: Overview & prep for the next day

Return to the overall mapping where organizers and participants jointly put together the three aspects of sustainability addressed by the three levels of governance instruments. Discuss gaps and challenges based on these findings.

18:30-20:30 : Aperitive-reception hosted by the Swiss Federal Department of Foreign Affairs at the Montreux Jazz Café @EPFL

## Day 2 – Friday 28th March: 09h00-17h00

### **09:00-12:30: Session 2: From Theory to Practice**

This session will begin with a set of presentations on several featured initiatives each focused on enhancing space sustainability capacity in one or more dimensions.

- [UNOOSA's Awareness-raising and Capacity-building Activities](#) on LTS Guidelines- Aarti Holla-Maini, Director of the United Nations Office for Outer Space Affairs (UNOOSA)
- [ITU Space Sustainability Portal](#) - Veronique Glaude, Senior Radiocommunication Engineer · International Telecommunication Union
- [European Space Agency's Space Debris Charter](#) and technical booklet - Marie Le Pellec, Space Sustainability Engineer · European Space Agency (ESA)
- EU commission - Vera Pinto, Policy Coordinator at Directorate General for Defense Industry and Space, European Commission
- ESPI capacity building - Alberto Rueda Carazo, Research Fellow at European Space Policy Institute (ESPI)
- COST Action "[Futures-Oriented Governance of Outer Space](#)" (FOGOS) network- Florian Rabitz, Kaunas University of Technology
- World Economic Forum initiatives - Nikolai Khlystov, Lead, Space Technology, C4IR Physical Technologies, World Economic Forum
- [ERC PlanetStewards](#) - Xiao-Shan Yap, Assistant Professor, Utrecht University
- [ERC GreenSpecies](#) - Martina Rusconi, Politecnico di Milano
- Secure World Foundation's [Handbook for New Actors in Space](#)- Ian Christensen, Senior Director, Private Sector Programs, Secure World Foundation
- Space Sustainability Rating - Emmanuelle David, Vice-President, Space Sustainability Rating Association
- EPFL Space Sustainability Hub, [EPFL Space Sustainability course](#) - Emmanuelle David, Executive Director, EPFL Space Center.

These presentations will be followed by interactive discussion on applying concepts to real-world initiatives lead by Johannes Schmied, FOGOS

### **12:30 - 14:00: Lunch**

### **14:00-15:30: Session 3: Barriers and Opportunities in Info sharing for Space Sustainability**

In-order to make progress on addressing specific space sustainability challenges, improved information sharing practices are necessary. Drawing on the stakeholder mapping conducted in the prior day this session would discuss perspectives on information sharing needs and challenges in two specific areas of space sustainability effort:

- 1400 - 1430: *Panel - Improving Space Traffic Coordination:* Benjamin Guyot, Spacetalk; Aurélie Gillet, EU-SST; Ian Christensen, Secure World Foundation (moderator)
- 1430 - 1500: *Panel - Environmental Impacts of Space Activities: Life-Cycle Assessment and Other Needs:*
- 1500-1530: *Interactive Discussion*

Discussion would consider what might incentivize actors (both governmental and nongovernmental) to increase information sharing in these two areas of sustainability efforts, what might discourage

them from doing so, the kind of purposes to be served through information sharing, and the principles that underpin these coordination or assessment efforts (e.g. sustainable for whom). Drawing on interdisciplinary perspectives, the discussion will also consider the differences between "data" and "info" sharing in this context (e.g. under which conditions should data become useful, actionable, and accessible due to ethical obligations). It would furthermore explore how the types of products and initiatives discussed in the prior sessions can be most useful in addressing these specific challenges.

**15:30-16:00: Coffee Break**

**16:00-17:00: Session 4: Synthesis and Outcomes**

Collaborative development of key findings and outcomes.

*This event is based upon work from COST Action < FOGOS, CA CA23118 >, supported by COST (European Cooperation in Science and Technology). COST (European Cooperation in Science and Technology) is a funding agency for research and innovation networks. Our Actions help connect research initiatives across Europe and enable scientists to grow their ideas by sharing them with their peers. This boosts their research, career and innovation.*