Second Space Capacity Allocation For The Sustainability Of Space Activities Workshop

Fostering Space Sustainability: Interdisciplinary Frameworks for Policy and Investment

VENUE & DATE

Politecnico di Milano
June 4th 2026

PRESENTED BY

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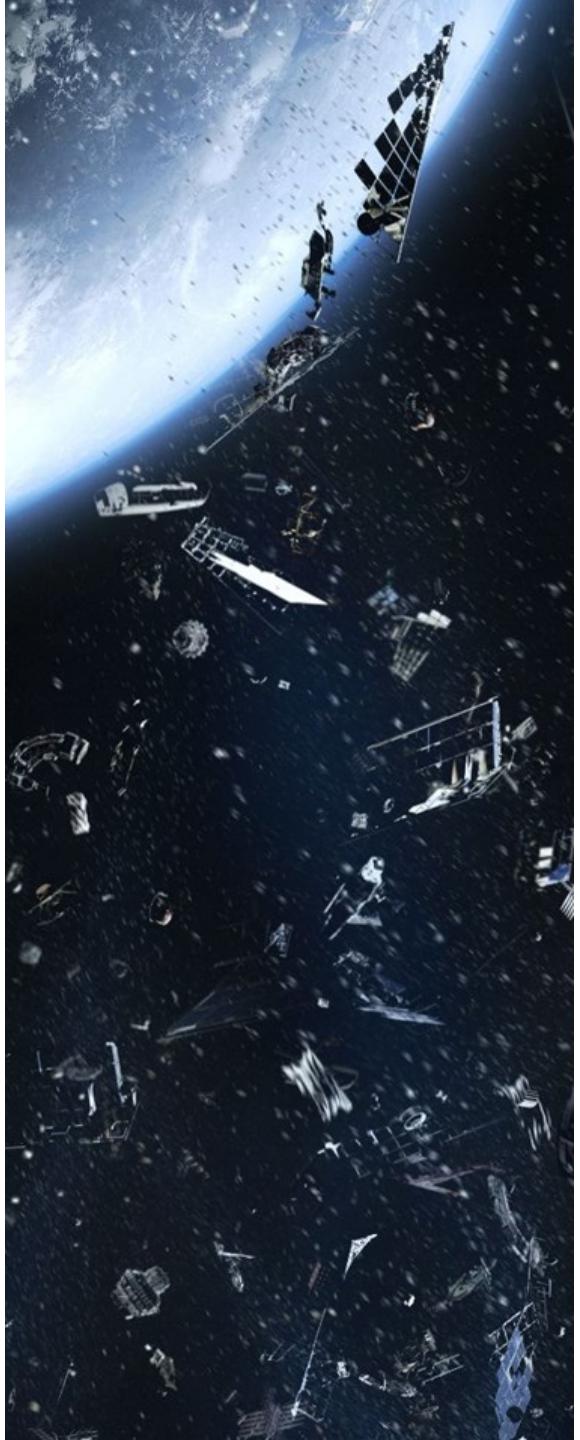
École polytechnique fédérale de Lausanne

INTRODUCTION

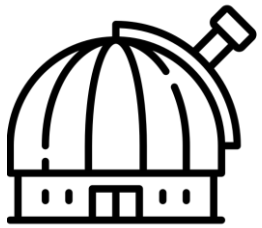
- What are the different perception around space sustainability and challenges by non-central stakeholders such as the ITU and investors?
- Bring other perspective from an international organisation perspective, ITU and radio spectrum management
- Economic incentives and investors perspective on space sustainability



Sustainable Space Hub

Sustainable Space Hub

A hub to pioneer and steward the Swiss space sustainability field by fostering relationships, creating interdisciplinary collaborations and building expertise between institutions.



Measure

Understand

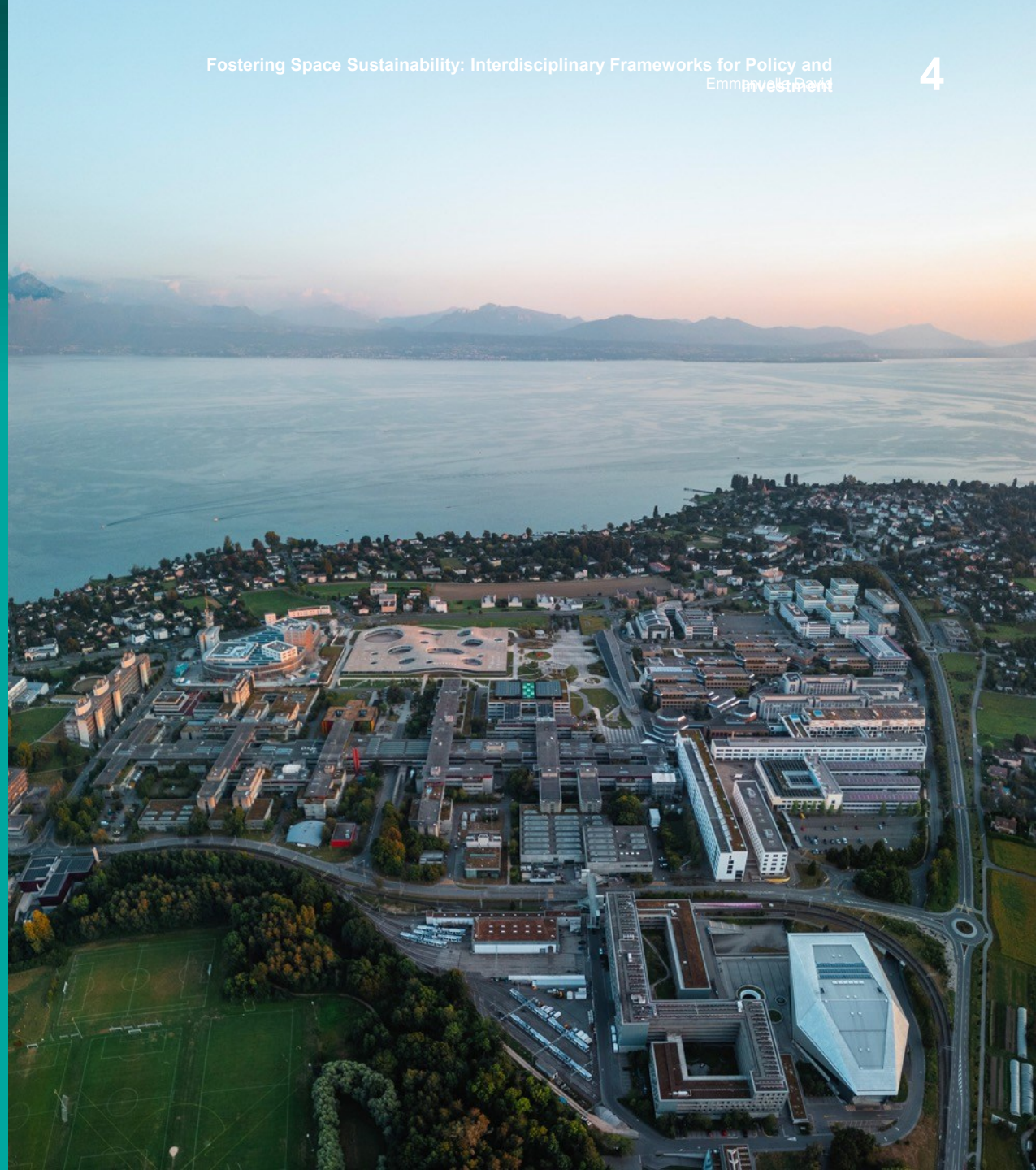
Act

OUTLINE

Policy Making Challenges at the ITU

Economic incentives from an investors perspectives

Analysis of the frameworks and how the apply for space capacity management

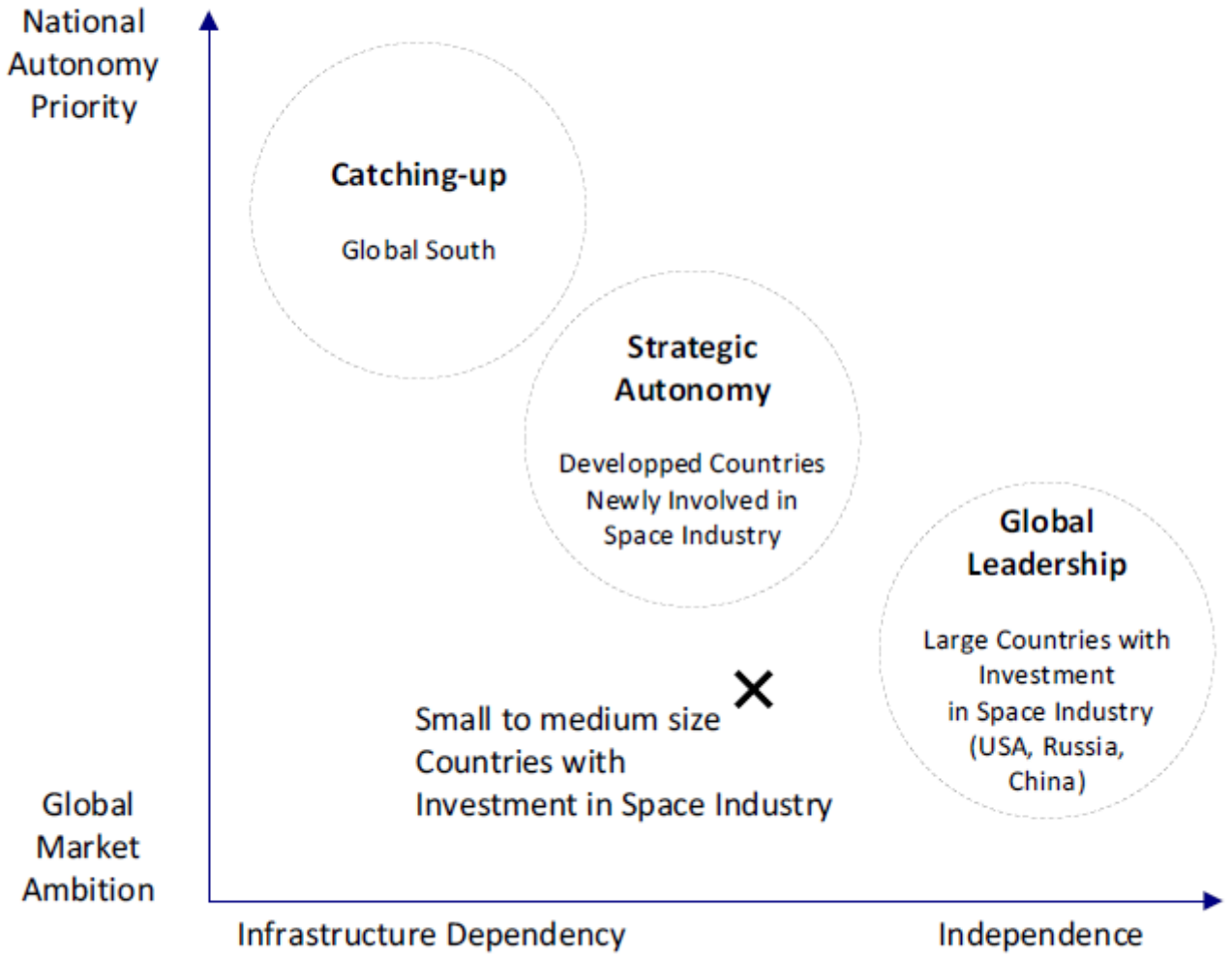


How to ensure equitable access to outer space?

Increase of NGSO Filling → ← First come first serve tension

Equitable access to outer space: specifying new regulatory needs for radio spectrum management, Xiao-Shan Yap to be published ITU

Figure 1. Global development trends in the satellite constellation infrastructures for global internet access.



Source: Own elaboration.

Policy recommandations

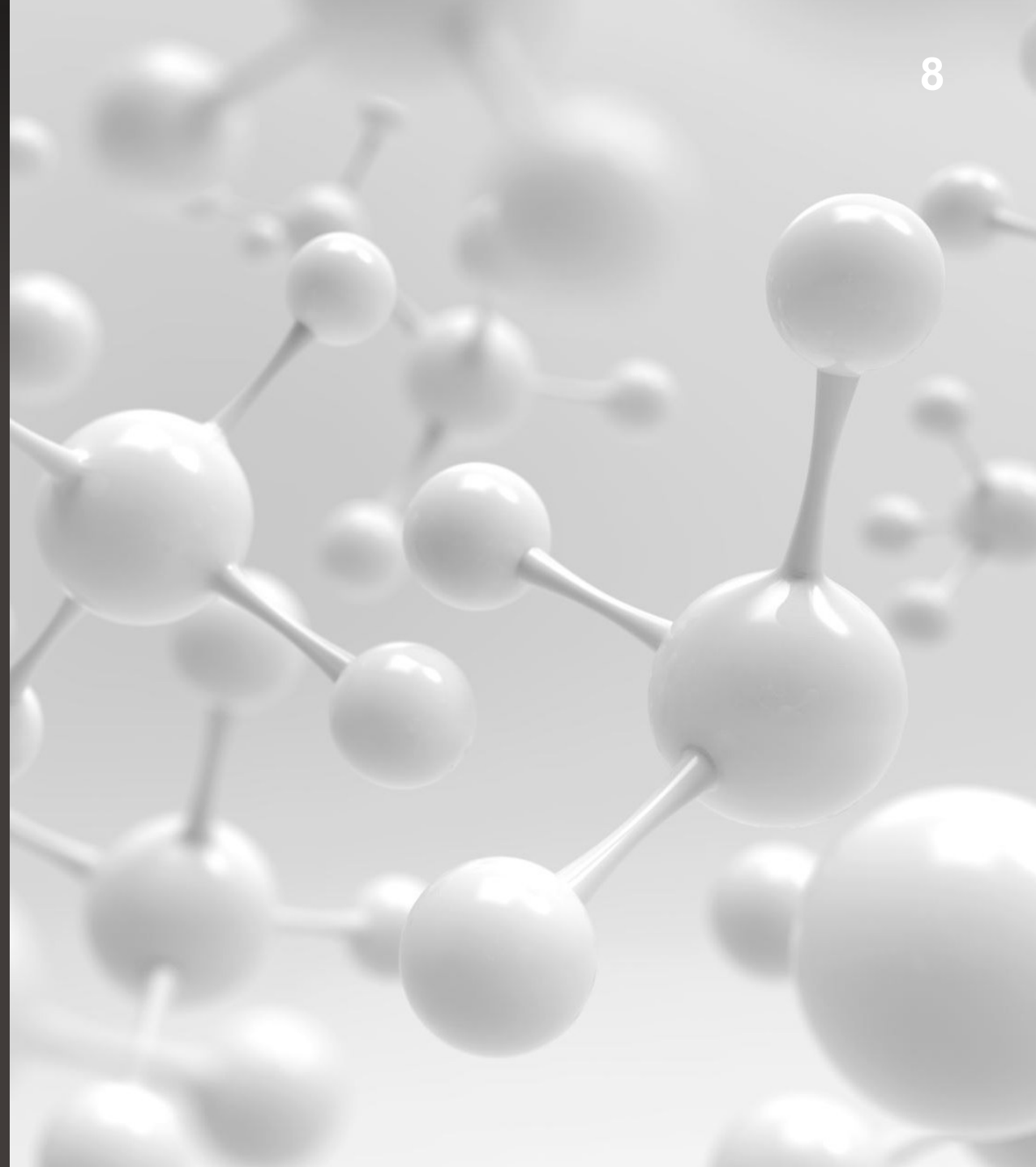
Flag duplicate/Split ITU filings

Reform first-come, first served for LEO

Shared infrastructure as a leveller

From Governance to Finance-

How can we support the consideration of space sustainability in private investment practices to support a sustainable growth of space activities, while delivering both financial and impact returns in a fragmented regulatory environment?

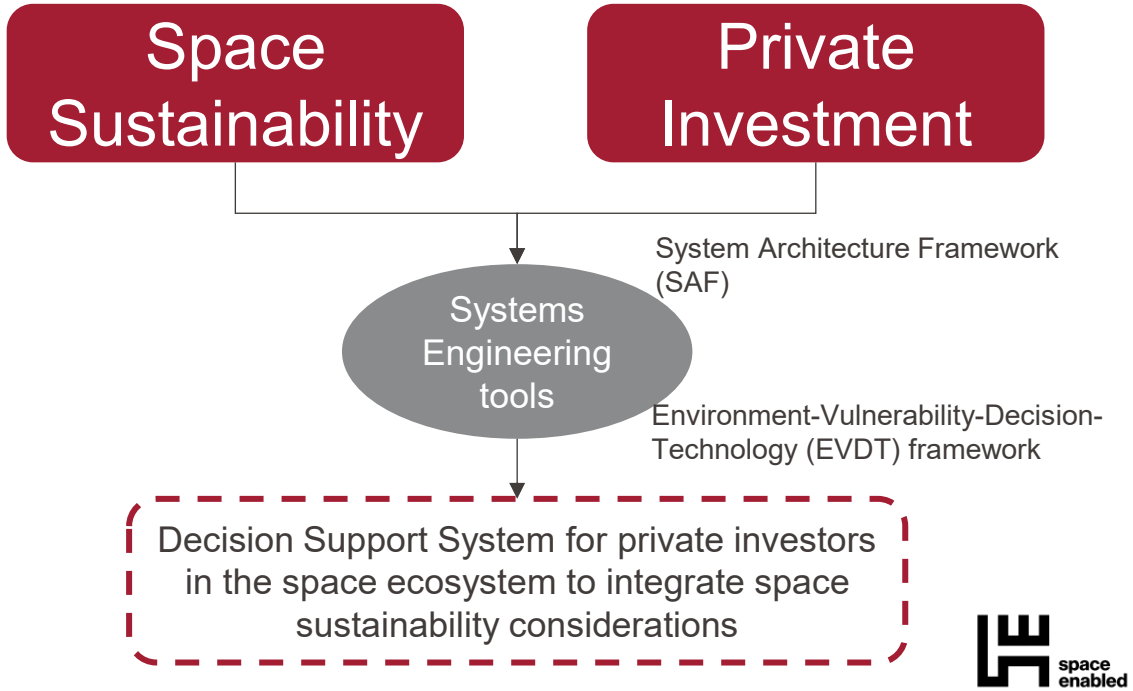


Research Focus & Methods

1. Commercial traction for space technologies as financial business plans become viable, attracting important private capital sources

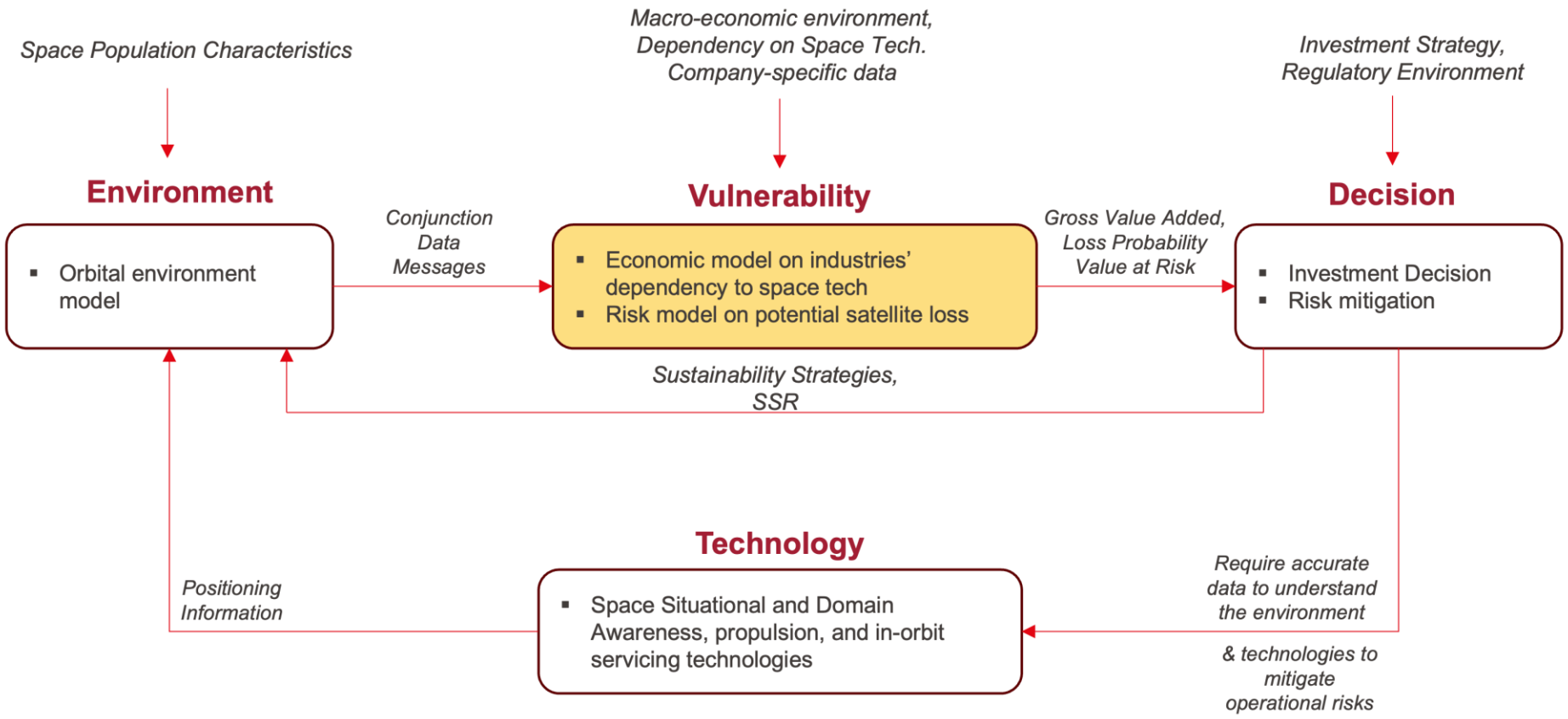
2. Increased orbital density of Anthropogenic Space Objects (ASOs) poses non-negligible

   conjunction risks in Low-Earth Orbit (LEO)

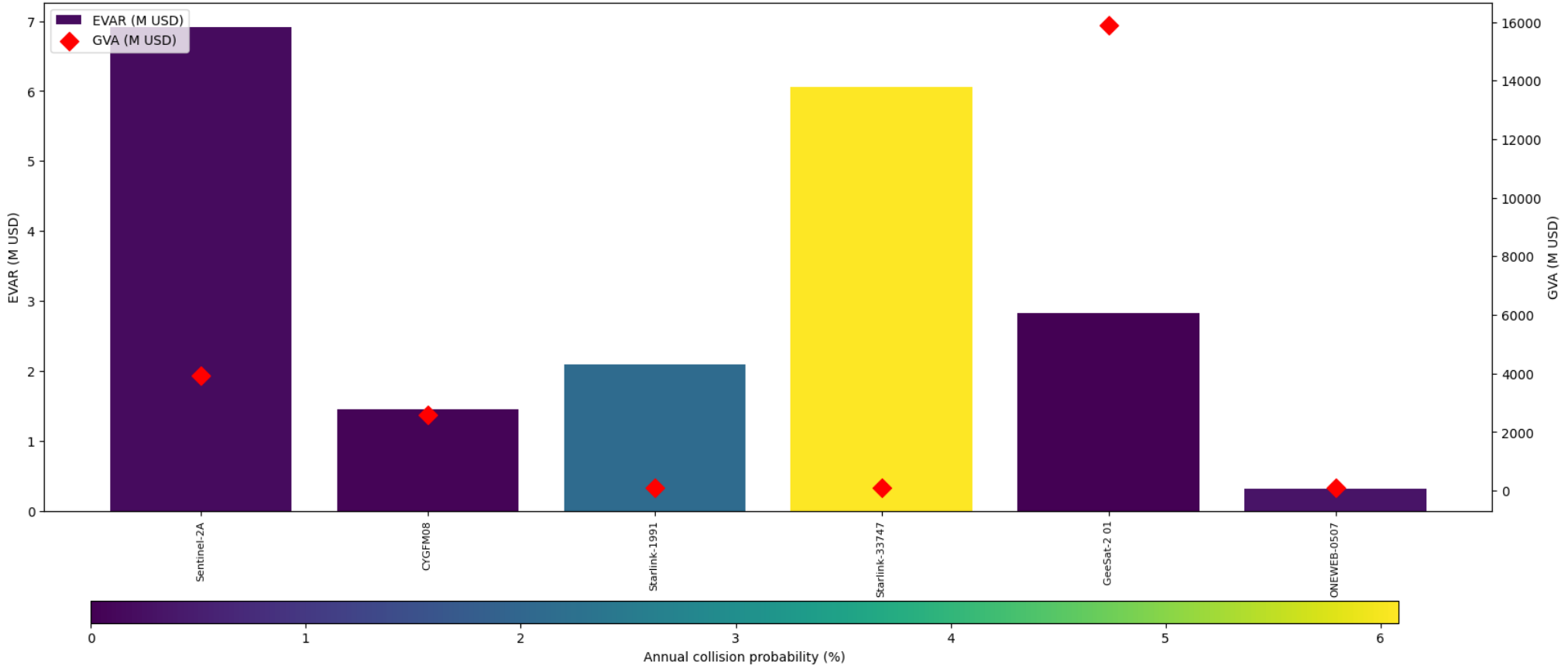


Credits: Sebastien Bellenger, Master Thesis

Environment- Vulnerability- Decision and Technology Framework



Economic value at risk

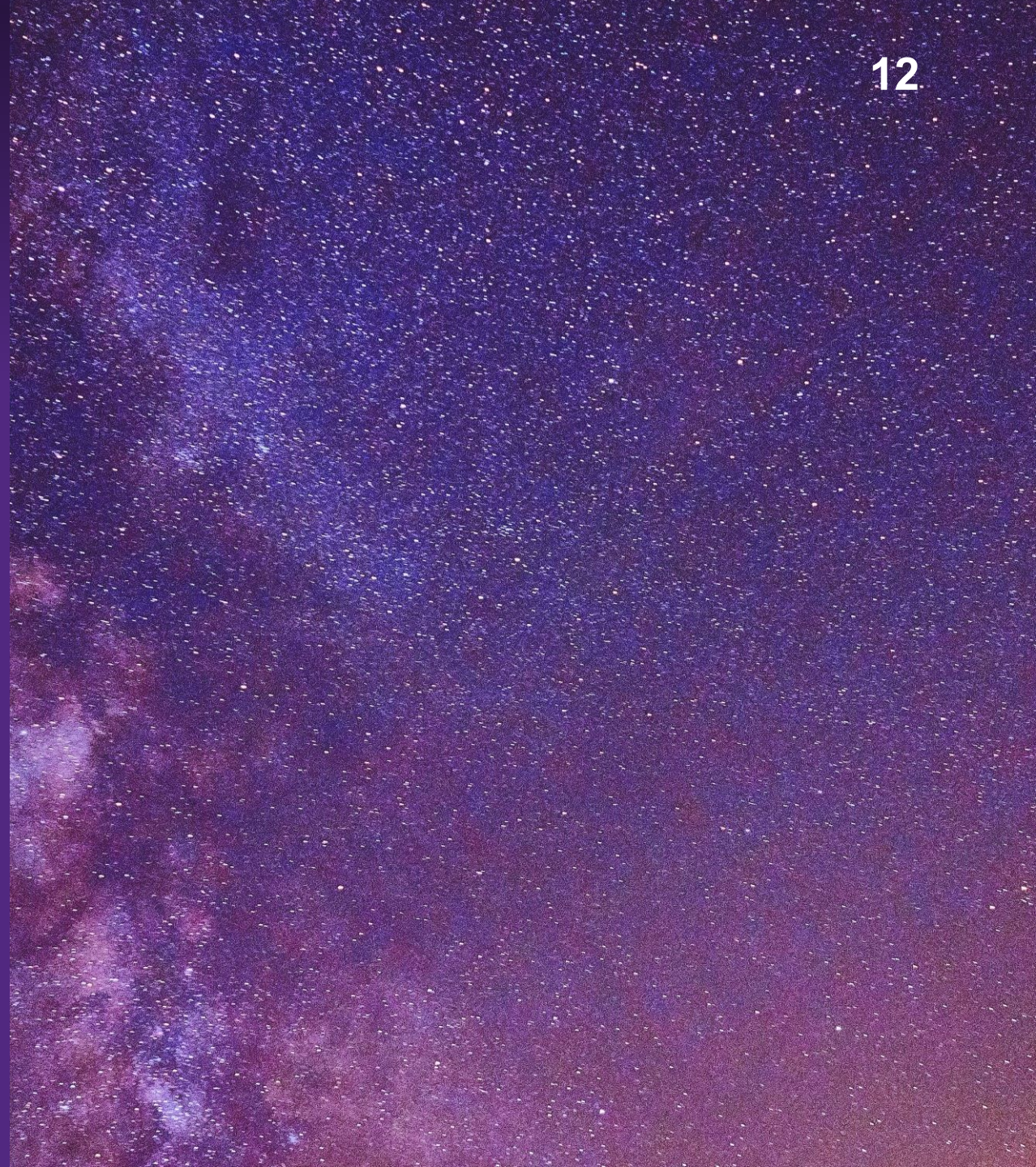


GVA: Gross Value Added *EVAR: Economic Value at Risk*

Economic exposure is driven by both orbital risk and downstream service dependency — current investment frameworks price neither.

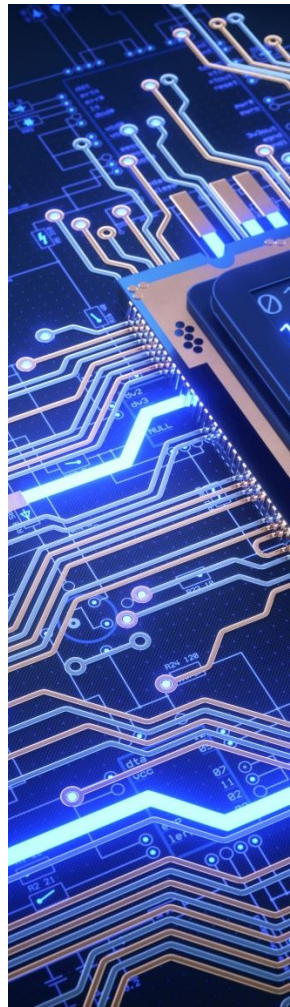
Conclusion

Space Capacity Management Framework



Analysis of the frameworks and how the apply for space capacity management

- Looked at a policy framework- ITU regulations and its limitations- Filling tensions, first come first serve, need for shared infrastructure
- Investors perception- a definition of what is the economic investement at risks
- In //, developement in Europe of regulations (general ESG and more sector specific such as the EU Space Act and the PEFCR)
- Definition of Space Capacity needs to serve multiple scenarios (countries catching up, strategic autonomy and global leadership) while also sustaining economic value



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EVENT

Thank you for your attention !

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