Leveraging a Circular Economy for Space Sustainability: Government Roles and Economic Impacts

Engage with the future of space sustainability—your participation could help shape the next era of space exploration.

The accumulation of space debris has emerged as a critical challenge to space exploration. Based on groundbreaking economic studies by MITRE, this presentation unveils a transformative approach to addressing this issue: the circular economy for space sustainability.

Key Insights:

Circular Economy in Space

- Explore an innovative framework centered around repurposing and recycling materials from decommissioned satellites and spent launch vehicles.
- Learn how this approach can turn space debris from a liability into an asset, fueling new economic opportunities.

Government's Role

- Discover how government actions—through funding, regulatory reforms, and incentives—can stimulate sustainable economic development in space.
- Understand the pivotal role governments play in creating a collaborative international model that harmonizes policies for space sustainability.

Economic and Technological Innovation

- Explore the economic implications of the latest advancements in debris-tracking, robotic capture mechanisms, and on-orbit servicing essential for material reclamation.
- Get insights into the cost-benefit analysis of implementing a circular economy model in space, highlighting how material recapture could become profitable in the space industry.

Socio-Economic Impacts

- Learn about the potential for job creation, skill development, and international collaboration in a sustainable space economy.
- Understand the environmental and sustainability benefits of a circular space economy, ensuring the long-term viability of space operations.

Actionable Recommendations

- Walk away with practical solutions for policymakers, industry leaders, and stakeholders on how to implement a circular economy in space.
- Explore the vision for a future where space operations are efficient, sustainable, and economically viable.

Why This Matters

The sustainability of space operations is not just a technical challenge but a pressing economic and environmental imperative. By aligning circular economy principles with the unique challenges of space logistics, this presentation offers a roadmap for new business opportunities and the sustainable utilization of space resources.

MITRE



Session Details

Session: Space Economy - Sustainable Operations and Government Roles
Date: October 16
Time: 10:47 AM
Location: Brown Hall 2

Presenters

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