

Session Program

Oct 16 - 19, 2023



2023 Clean Space Industry Days

Ecodesign for Space

ESTEC
Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands

Tue, October 17

9:30 AM

Ecodesign for Space: ESA's Ecodesign and Sustainability Spotlight

Session | **Location:** ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands

9:30 - 9:40 AM

Opening of the Ecodesign sessions by Dietmar Pilz, ESA Director of Technology, Engineering and Quality

9:40 - 10:10 AM

ESA's EcoDesign Journey

Speaker

Sara Morales Serrano

10:10 - 10:30 AM

Building bridges between organizational GHG assessment and environmental footprint at system level: the ESA Green Agenda

Speakers

Aurélie Gallice-Tanguy, Marta Caterina Salieri Lopez

10:30 - 10:50 AM

Environmental Regulations and their Impact on the European Space Sector

Speaker

Mr Premysl Janik

11:00 AM

11:30 AM

Ecodesign for Space: LCA in Projects Key Takeaways

Session | **Location:** ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands

11:30 AM - 12:00 PM

"Overview of Life Cycle Assessment and EcoDesign Activities for Large Space Missions at Thales Alenia Space"

Speaker

Marco Giuliani

12:00 - 12:30 PM

Key learnings when applying an iterative LCA approach during the different development phases of a space mission

Speakers

An Vercalsteren, Stefanie De Smet

12:30 - 1:00 PM

ESA Space Segment LCA Studies by Airbus DS: Challenges and Insights

Speaker

Catarina Val

1:00 PM

2:00 PM

Ecodesign for Space: Navigating the ESA LCA Database: A User's Guide

Session | **Location:** ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands

2:00 - 2:30 PM

Introduction to ESA's LCA Database

	<p>Speakers Estefania Padilla Gutierrez, Sara Morales Serrano</p>
3:30 PM	<p>2:30 - 3:30 PM ESA LCA DB End-User Experience</p>
	<p>Speakers ELENA ROCCO, Mr Ionut Grozea</p>
4:00 PM	<p>Ecodesign for Space: Improving Ecodesign Methodologies Session Location: ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands</p>
	<p>4:00 - 4:20 PM Evaluation of current DQ Methodology</p> <p>Speaker Floor Bagchus</p>
	<p>4:20 - 4:40 PM</p> <p>A Consensus-Based Single-Score for Life Cycle Assessment of Space Missions</p> <p>Speaker Marnix Verkammen</p>
	<p>4:40 - 5:00 PM</p> <p>Uncertainty in Environmental Life Cycle Assessments of Launch Vehicles</p> <p>Speaker Guillermo Joaquin Dominguez Calabuig</p>
5:30 PM	<p>5:00 - 5:20 PM</p> <p>The impact of re-entering satellites on atmospheric chemistry and Earth's climate</p> <p>Speaker Laura Schumacher</p>

Wed, October 18

9:30 AM

Ecodesign for Space: Exploring Environmental Hotspot Allocation: An Interactive Session

Session | **Location:** ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands | **Conveners:** Sara Morales Serrano, Estefania Padilla Gutierrez, Maarten Cauwe

11:00 AM

11:30 AM

Ecodesign for Space: Tools and Strategies for ecodesign in space

Session | **Location:** ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands

11:30 - 11:45 AM **The Ecobox project - developing a toolbox for Ecodesign**

Speakers

Ariane Bouilly, Perrine Cau

11:45 AM - 12:00 PM

Ecodesign criteria for R&T and technology assessment in Airbus Defence and Space

Speaker

Luca Briganti

12:00 - 12:10 PM

SEEDS tool, a Simplified Ecodesign Evaluation for new Development in Space

Speaker

Perrine Cau

12:30 - 12:50 PM

Rapid Life Cycle Assessment Software for Future Space Systems' Design - The Assessment and Comparison Tool

Speaker

Mr Mathieu Udriot

1:00 PM

3:00 PM

Ecodesign for Space: Green propellants

Session | **Location:** ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands

3:00 - 3:20 PM **Single Score Methodology for Space LCA**

Speaker

Lily Blondel

3:20 - 3:40 PM

Comparative life cycle sustainability assessment of novel monopropellant systems.

Speaker

Pepijn Deroo

3:40 - 4:00 PM

Water Propulsion - The Ultimate Green Technology

Speaker

Mr Malte Wurdak

4:30 PM	<p>4:00 – 4:20 PM</p> <p>Laser beam melting for the manufacturing of rocket engine parts: a study of the environmental impacts</p> <p>Speakers Laurence Rozenberg, Mathilde Jullienne, Noémie Boucherit</p>
5:00 PM	<p>Ecodesign for Space: Launchers</p> <p>Session Location: ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands</p>
	<p>5:00 – 5:20 PM</p> <p>Ariane 6 & P120C Process improvements contribution to a more sustainable European Launcher manufacturing</p> <p>Speaker Nicoletta Wagner</p>
	<p>5:20 – 5:40 PM</p> <p>Comparison of the Environmental Impact of Production and Launch Emissions of Different Common Launcher Architectures and Propellants</p> <p>Speaker Jan-Steffen Fischer</p>
6:00 PM	<p>5:40 – 6:00 PM</p> <p>MaiaSpace's update on the implementation of LCA and ecodesign in the development of a semi-reusable minilauncher</p> <p>Speaker Loïs Miraux</p>
6:00 PM	<p>Ecodesign for Space: Ecodesign Sessions Wrap-up</p> <p>Session Location: ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands</p>
6:30 PM	

Thu, October 19

9:30 AM

Ecodesign for Space: Space Life Cycle Perception Board Game

Session | **Location:** ESTEC, Keplerlaan 1, 2201 AZ Noordwijk, The Netherlands

11:00 AM

9:30 - 11:00 AM

Space LCP Board Game