

# Space Resources in Luxembourg: Growing and Supporting European Expertise

Kathryn Hadler  
Director, ESRIC

## 33 PEOPLE

20 researchers  
4 engineers  
3 commercialisation  
specialists  
3 Masters interns

ESRIC's current activities include:

- 20 projects or programmes
- 50% in partnership or funded by ESA
- 3 funded by the FNR



## RESEARCH

Lunar geoscience    Regolith handling  
Beneficiation    Microwave processing  
Reduction and electrolysis    Dust mitigation  
Gas purification    In-space recycling

In partnership with ESA

## GROUND-BASED SUPPORT

Dusty Thermal Vacuum Chamber  
Ground-Based Pilot Plant

## TECH DEMONSTRATORS

Oxygen production from  
lunar regolith

## BUSINESS

Start-up Support Programme  
Space Resources Accelerator

## COMMUNITY

Space Resources Week  
ESA & ESRIC Challenge



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# Space Resources Week

**LUXEMBOURG  
SPACE  
RESOURCES  
WEEK 2026  
04-07 MAY**

**2026**

**490** participants on-site

**10** tech demonstrations

**2** parallel sessions

**20** sponsors

**190** speakers

**80** posters



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## Themes and key takeaways from SRW:

- There is a greater focus on **construction**, not reflected in the number of talks
- **Strategic materials** such as REEs are present in **prospecting** sessions
- The ESA-funded **lunar g parabolic flight** resulted in a significant amount of scientific output; testing of technology in a **relevant environment** is critical
- The legal session, particularly planetary protection, created a lot of discussion
- “Consolidate the market”

# ESRIC's programmes of support



# ESA & ESRIC Space Resources Challenge



## Innovation-driving challenges

### Challenge 1 (2021-2022)

- Theme: Remote prospecting on the Moon
- Field trial: Luxembourg
- Prize: 500k EUR technology development contract with ESA and ESRIC

### Challenge 2 (2024-2025)

- Theme: Lunar excavation and beneficiation
- Field trial: LUNA
- Prizes:
  - 500k EUR technology development contract with ESA
  - 250k EUR technology development contract with LSA

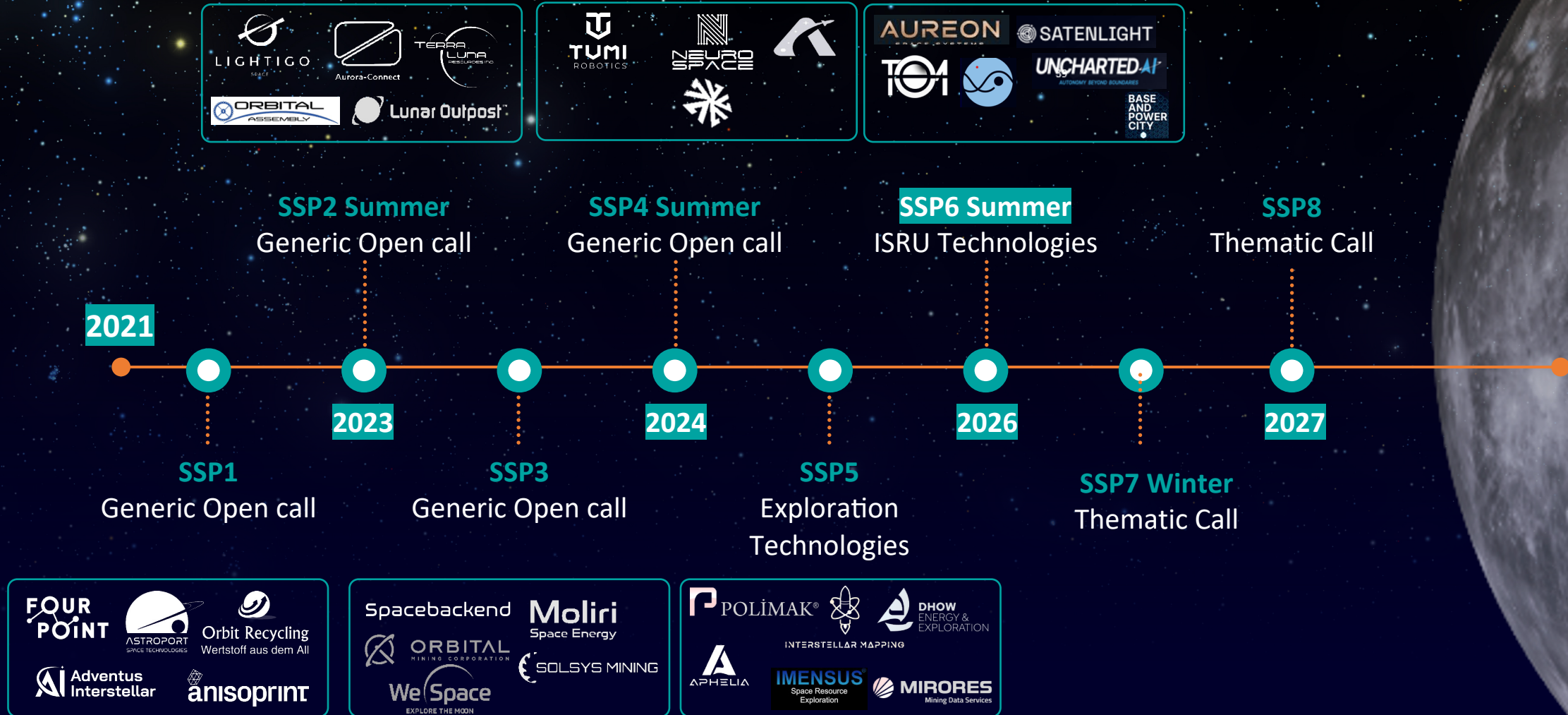
### Challenge 3 (2026-2027)

- Theme: Lunar construction
- Field trial: LUNA
- Prizes:
  - TBD

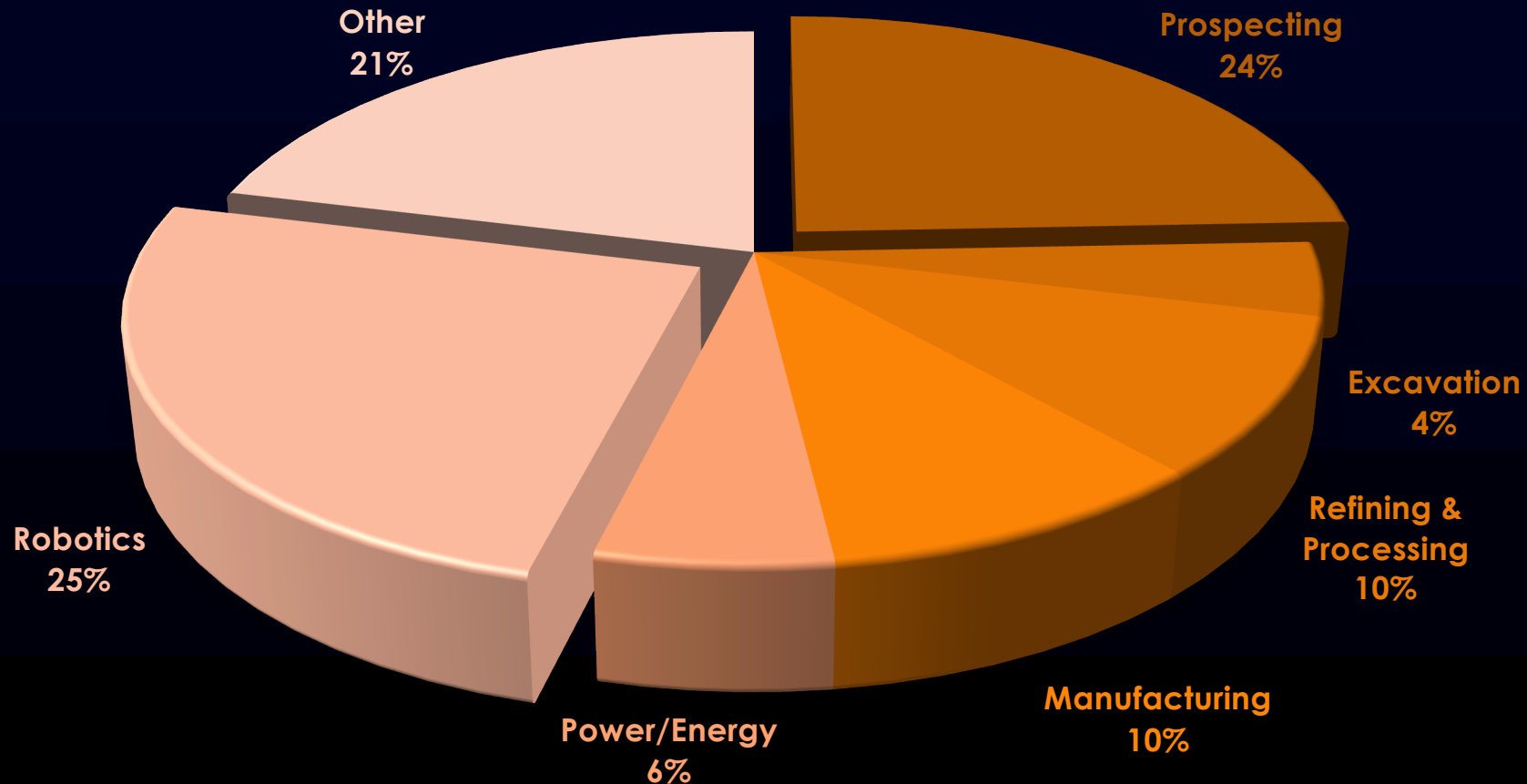




## Start-up Support Programme | 26 supported projects



## Value Chain of Operations | Applications received



# ESRIC Start-up Support Programme

## Success stories

### Spacebackend



Spacebackend recently raised **€1.8 million in a pre-seed round** led by investors including Bynd **Venture Capital**, Athos Capital and Draper B1 to accelerate its AI-driven platform for aerospace hardware integration.

Climate/Energy-tech startup Radiant (formerly **Neamine**) raised **€2 million in early 2026** from Hexa and **business angels** to scale its solar thermal technology for decarbonising industrial heat and build its first industrial demonstrator.



TerraEye (formerly: **Four Point**) came through an **acquisition by Abu Dhabi-based International Resource Holding**, providing **liquidity for early investors** and enabling the company to scale its AI-driven mineral exploration platform globally.

**Tumi Robotics Space**, selected by Luxinnovation for the **Fit-4-Start accelerator**, secured **€150,000 in non-dilutive public funding** to support the development and scaling of its space robotics technology.





# ESRIC's DTVC

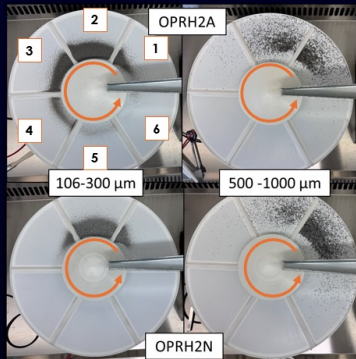
Testing in a relevant environment



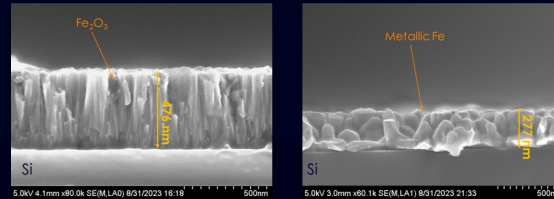


# Research

## Size classification



## Plasma H reduction



## H reduction: 1 kg scale



## Water purification and capture

## Vacuum Temperature Swing Adsorption



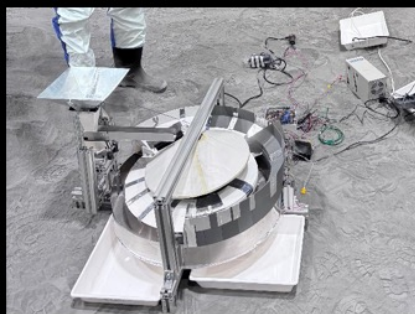
## Regolith handling and beneficiation

## Oxygen and Metals Production

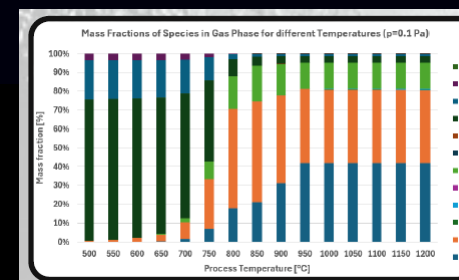
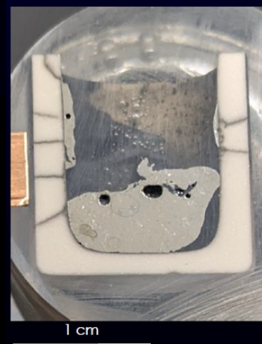
## Molten salt electrolysis

## Metal production & use

## Salt reclamation

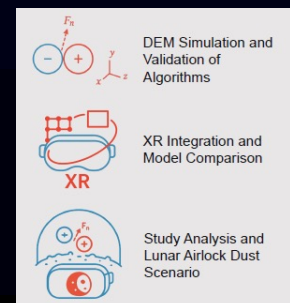


## Size classification (field trial)

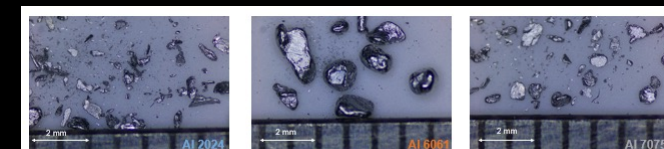


## Dust modelling

## Designing for the Environment



## Hardware recycling



(a) Shredded space grade Al alloys (microscope)

# We are growing: Join us!



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**DC-26002 HEAD OF IN SITU RESOURCE  
UTILISATION GROUP**

📄 Permanent contract

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**DC-26003 HEAD OF SPACE RESOURCES  
INNOVATION ECOSYSTEM GROUP**

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**SD-26075 SENIOR R&T TECHNICIAN -  
DUSTY THERMAL VACUUM CHAMBER**

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[www.esric.lu](http://www.esric.lu)

**Get in touch!**  
[contact@esric.lu](mailto:contact@esric.lu)

The esric logo is centered over a background image of Earth from space, showing the horizon and a satellite. The logo consists of the word 'esric' in a white, lowercase, sans-serif font. The 'i' is stylized with a red dot and a blue dot.

## European Space Resources Innovation Centre

Our mission is to support human and robotic space exploration and contribute to the development of a sustainable in-space economy through pioneering research, commercial innovation, and by building a vibrant, global space resources community.