

**TECHNICAL DATASHEET**  
**| CRITICAL TECHNOLOGIES |**

# EXTREME ENVIRONMENT, CRITICAL TECHNOLOGIES.

ESA signs contract with Venturi Space for a study related to future lunar rover technologies

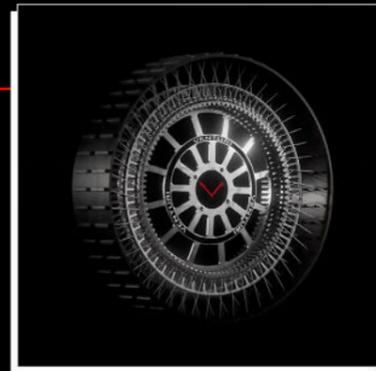
The European lunar rover **MONA LUNA** will serve as the **test platform** for this campaign. The Venturi Space technologies aim to deliver **high efficiency** and traction on the loose regolith and uneven terrain found on the Moon's surface, while tolerating **extreme temperatures** (-240 °C to +130 °C).



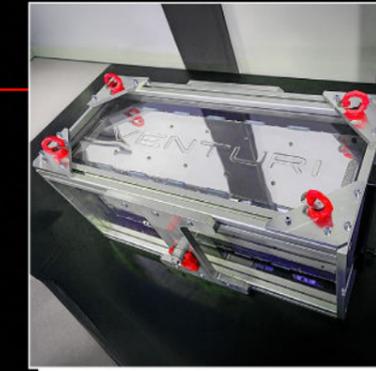
## HYPER-DEFORMABLE WHEELS

- Diameter of **930 mm**;
- **192 cables** acting like spokes;
- Flexible tyre tread;
- Outer ring fitted with springs.

As part of a strategic partnership with the North American company Venturi Astrolab, the Venturi Space wheel **successfully completed a series of tests** under a **NASA ACO** (*Announcement of Collaborative Opportunity*).



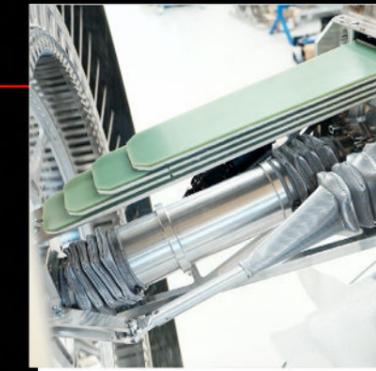
DISCOVER  
THE VENTURI WHEEL



## HIGH PERFORMANCE BATTERIES

Validation testing will also be carried out on the **power supply** and **thermal control subsystems**, to confirm their ability to withstand the **long lunar night**.

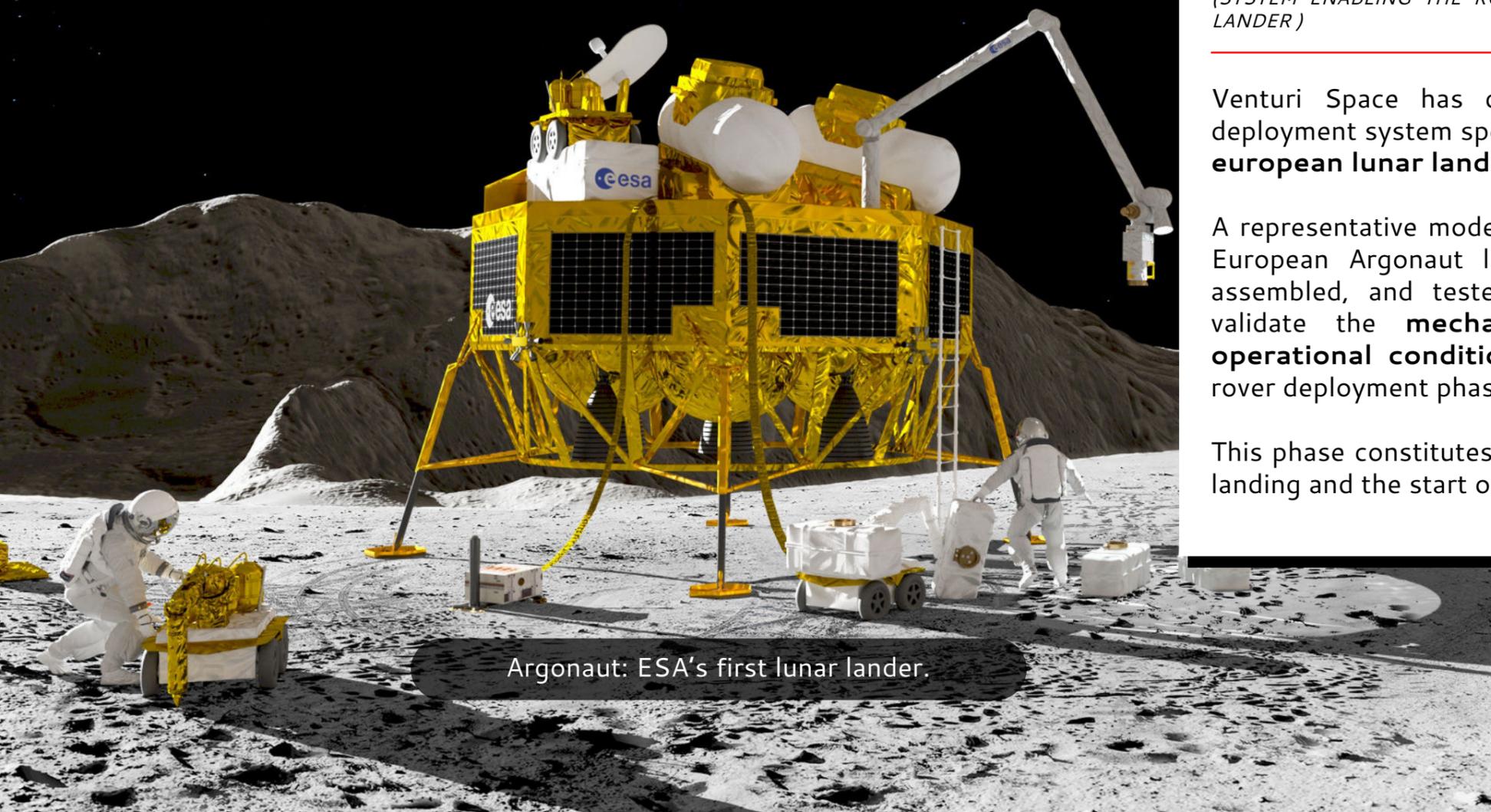
DISCOVER  
THE 209 LABORATORY



## SUSPENSIONS

Thanks to its four wheel-drive and four-wheel steering system, along with passive-damping suspension, MONA LUNA **climbed** and **descended slopes** of up to **33 degrees**.

CONTROLLED DESCENT,  
MISSION SECURED.



Argonaut: ESA's first lunar lander.

### EGRESS SYSTEM

(SYSTEM ENABLING THE ROVER TO DESCEND FROM THE LANDER)

Venturi Space has developed an innovative deployment system specifically designed for the **European lunar lander Argonaut**.

A representative model of the geometry of the European Argonaut lander will be designed, assembled, and tested by **ESA** in order to validate the **mechanical interfaces** and **operational conditions** associated with the rover deployment phase.

This phase constitutes a **critical step** between landing and the start of surface operations.



MONA LUNA  
FIRST RIDE!



## PRESS CONTACT

Fabrice Brouwers  
HEAD OF COMMUNICATIONS  
+33 (0)6 40 61 00 80  
[fbrouwers@venturi.com](mailto:fbrouwers@venturi.com)

## CONTACT

7, rue du Gabian  
98 000 MONACO  
+377 99 99 52 00  
[info@venturi.com](mailto:info@venturi.com)  
[www.venturi.space](http://www.venturi.space)



@venturi



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