

# Prospecting Technologies

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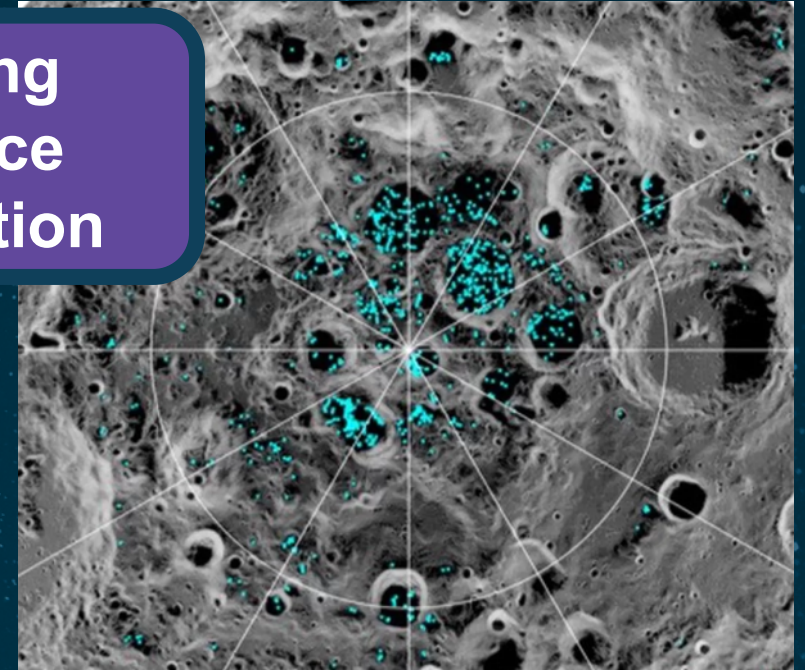
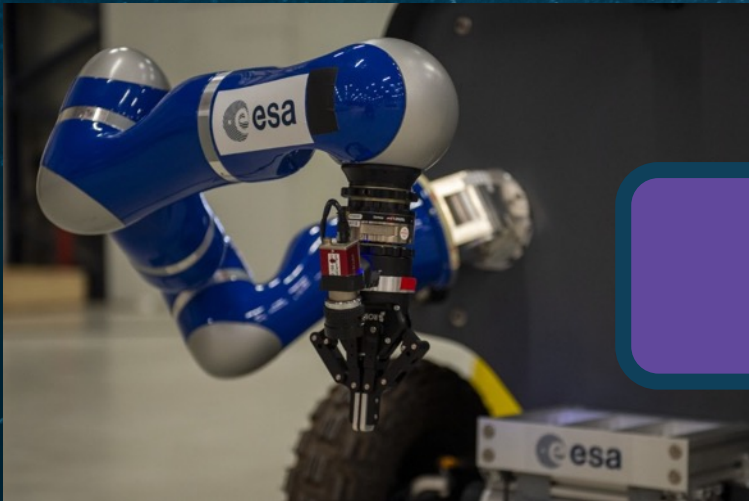
# Prospecting – a key step in ISRU

Classifying  
resources

Mapping  
resource  
distribution

Lunar  
Prospecting

Proof of  
concept





# ESA-ESRIC SPACE RESOURCES CHALLENGE - OVERVIEW

ESA, in partnership with ESRI, embraces Challenge Driven Innovation, launching the first robotics SPACE RESOURCES CHALLENGE

We are asking **European industries and research institutions**:  
which are the best technological solutions for prospecting  
resources on the Moon? Which missions architectures can be  
more efficient in the task of surveying large areas for water and  
metals?

We hope to engage also entities outside the space business, from domains like mining and automotive.



## Two Goals:

- 1) **identify technologies** for a future ESA mission post 2027
- 2) engage the space resources **community** gathering around ESRIC



# CALL FOR ACTION



ESA and ESRI are asking **YOU** to create an operational concept and prototypes to help us solve the issue of prospecting lunar resources

Check challenge call on  
OSIP

Submit your paper  
proposal on OSIP

Selected?  
We invite 10  
teams to the  
next step

Showcase your prototype in our  
Lunar analogue terrain in the  
Netherlands

3 May

31 July

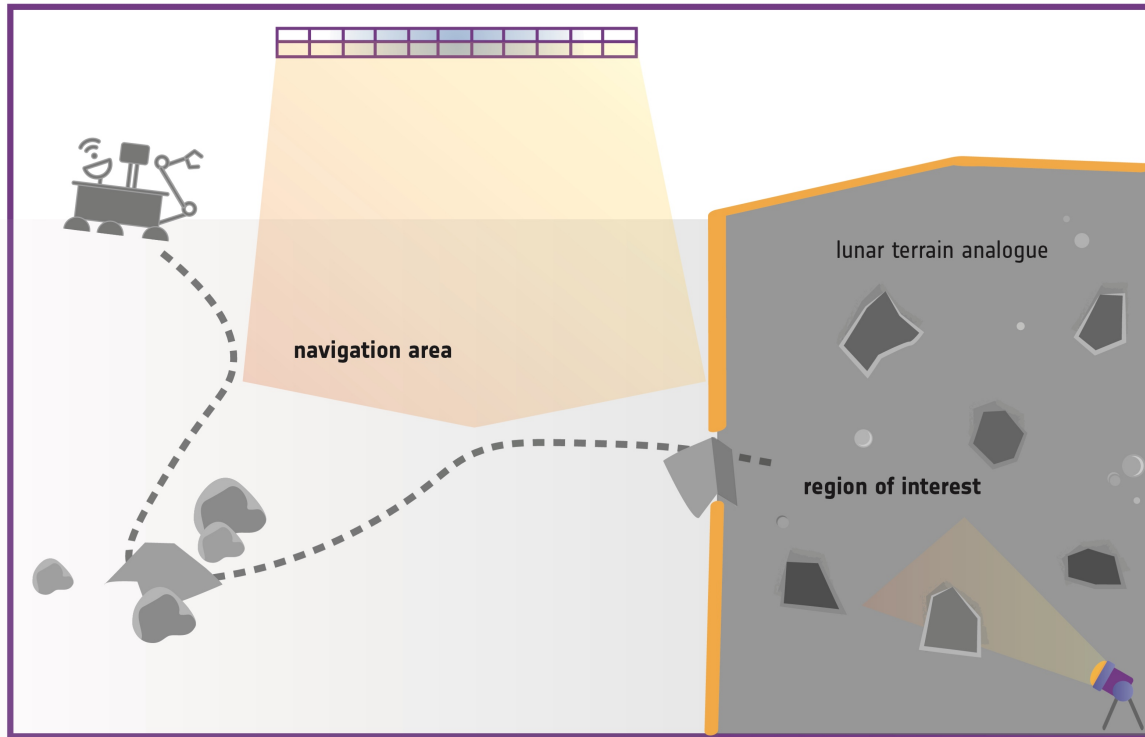
15 Aug.

27 Nov.

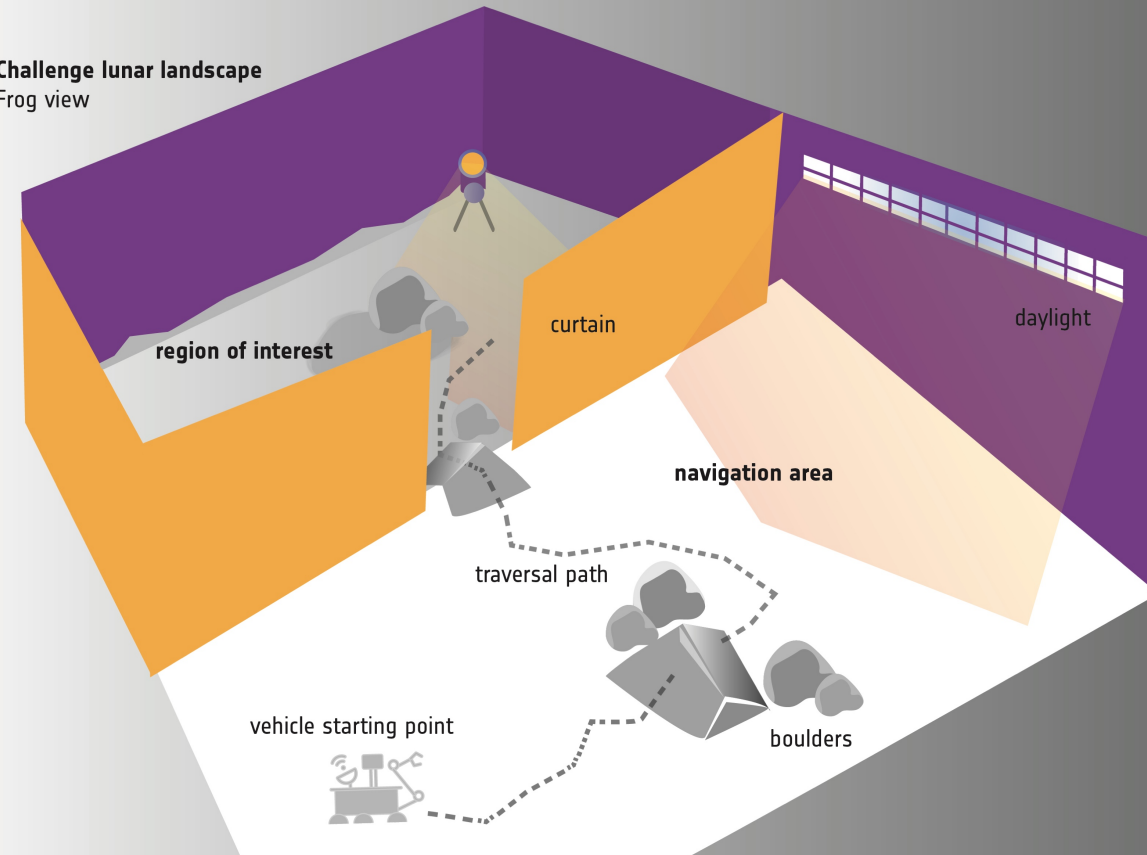


# The Challenge – showcase your technology on our lunar analogue terrain

Challenge lunar landscape  
Bird's eye view



Challenge lunar landscape  
Frog view





# Competition Prizes (\*)



## NL, Dec. 2021: 5 Winners

*Each* receive €75.000 development contract from ESA and is invited to final round in Luxembourg

## LUX, Oct. 2022: 1 Winner


€375.000 technology development contract with LUXEMBOURG  
€200.000 technology development contract with ESA to TRL4

(\*) ESA funding conditional internal approval, expected end Apr. 2021



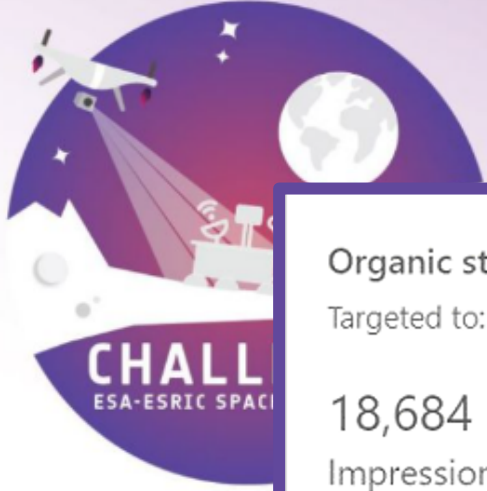
# Keep in touch on LinkedIn





European Space Agency - ESA  
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#ESA & #ESRIC are happy to announce the new robotic  
#SpaceResourcesChallenge: 75K€ contract shall be awarded to each of the 5 best  
teams of the first phase in November 2021.  
...see more



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21


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Your post posted on March 29, 2021  
106 reactions • 20 comments

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Massimo Sabbatini  
Erasmus Innovation Centre Manager at the European Space Agency in the NL  
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esa  
esric



→ THE EUROPEAN SPACE AGENCY

7



3 May

Human & Robotic Space Exploration

## ESA-ESRIC Space Resources Challenge



Submit Your Idea



HOME

THE CHALLENGE

PRIZES

APPLY



To be launched

ESA and ESRIC are looking  
for new technologies to  
tackle the first stage of  
planetary exploration:  
**PROSPECTING**

SCROLL





Held online, registration for attendance will open on the 7<sup>th</sup> of May.

## Programme:

- Eligibility Rules
- Prospecting Goals
- Mission Scenario
- Boundary Conditions
- Challenge Rules
- Q&A



Early questions? Email [SpaceResourcesChallenge@esa.int](mailto:SpaceResourcesChallenge@esa.int)  
(*though we will not spoil any details...*)