COSPAR
COMMITTEE ON SPACE RESEARCH

EXPLORE

1st of-its-kind simulated Mars mission in Alentejo challenges European high school students

PRESS RELEASE

MEDIA ADVISORY
For Immediate Release

Alqueva, Portugal, 16 June 2025: **The ground-breaking EXPLORE project is set to launch its first analog mission 23-27 June 2025, near Monsaraz, Portugal. Nine young Europeans from three different countries will experience life in an isolated and challenging environment that will simulate Mars—in the heart of the Alentejo region. The mission is part of the European project EXPLORE (EXpeditionary Program for Learning OppoRtunities in analog space Exploration), an EU co-funded Erasmus+ program which aims to bring the future of space exploration into classrooms. At the end of the mission, on 27 June, there will be a press conference that will include the opportunity to photograph and interact with the team.**

Photo: Left, a student from Professor Agostinho da Silva School Group, Sintra, Portugal having donned the space suit, and right, students from Ellinogermaniki Agogi, Greece, with the rover they assembled in preparation for the first EXPLORE mission

High school students stepping out of their comfort zone

This mission is a collaborative effort of several partners dedicated to advancing space education and research: the Austrian Space Forum (OeWF), NUCLIO, Ellinogermaniki Agogi (EA), the Committee on Space Research (COSPAR) and OLA–Observatório do Lago Alqueva. During this exceptional opportunity, nine high school students, three from each participating country (Austria, Greece, and Portugal), will step out of their comfort zones for five days in an isolated and challenging environment in the wilds

of the Alentejo region, Portugal. They will live in a specifically designed habitat, operate rovers–small robotic vehicles–and conduct experiments. Like true analog astronauts, they will leave their habitat wearing the Delta suit, bringing them as close as possible to the experience of living and working in space.

Analog missions are simulations conducted in environments on Earth that share characteristics with the extreme conditions of space, such as those found on Mars or the Moon. These missions are crucial for testing equipment, procedures, and the psychological and physiological effects of isolation on crews before actual space travel. They also offer the opportunity to find solutions to technical or medical (psychological) challenges humans face living on Earth. In summer the site near Monsaraz offers a barren landscape of reddish earth similar to that of Mars and is thus the perfect location for an analog mission.

Through this mission, students will have the unique opportunity to learn about space exploration and its significance in our daily lives, understand the importance of preserving the Earth's environment with hands-on experience, improve their digital skills, become problem solvers, learn to collaborate, and get acquainted with state-of-the-art digital solutions. Their educators have been introduced to innovative student-centred methodologies that facilitate the integration of digital content into their curricula.

A historic moment

Leader of the project, Gernot Grömer, Director of the Austrian Space Forum (OeWF), says: "*With the EXPLORE analog mission, we're not just replicating a Mars expedition—we're cultivating the next generation of explorers, scientists, and critical thinkers. This is the first time European high school students will lead such a complex analog mission, and we expect them to surprise us with their creativity and resilience. This is a historic moment—not only to see the future of space exploration in action, but to meet the young minds who may one day walk on Mars.*"

Angelika Mara, a student from Ellinogermaniki Agogi taking part in the mission, says "*Joining the EXPLORE project feels like stepping into the future of learning—where curiosity meets innovation, and dreams of space become hands-on reality. I'm thrilled to be part of a mission that not only simulates Mars but also ignites the explorer within us all.*"

End-of-Mission Press Conference:

A press conference will be held on Friday 27 June 2025, 12h-13h, to witness the mission closure as the student analog astronauts leave the mission habitat. Media representatives will be able to submit questions in person or remotely. The press conference will include unique photo opportunities and the possibility to interact with the EXPLORE 1 mission team. The media present will also be able to engage in a variety of hands-on activities to get a feel of what it is like to be an astronaut, and a close-up look at the EXPLORE toolkits.

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To register for the End-of-Mission Press Conference, please email: leigh.fergus@cosparhq.cnes.fr by 25 June 2025. Once registered you will receive the zoom link for remote attendance.

Requests for one-to-one interviews of project lead Gernot Grömer (OeWF), NUCLIO director Rosa Doran, and OLA director Leonel Godinho should be addressed to Leigh Fergus: leigh.fergus@cosparhq.cnes.fr

Media contact: leigh.fergus@cosparhq.cnes.fr +33 668907110

About the Alqueva Mars Analog Station

The Alqueva Mars Analog Station, located at OLA – Observatório do Lago Alqueva, is Europe's only permanent open-air simulation station for planetary surface field campaigns with both the habitation and Mission Support Infrastructure at that level. It is complementary to the ESA/DLR LUNA facility in Cologne, Germany, or the EUfunded SHEE habitat at the International Space University, France. It can be used for scientific research, for testing and validating new technologies and products as well as for education, outreach and teambuilding. Further details by contacting alquevahab@oewf.org

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About Erasmus+

Co-funded by the European Union

Erasmus+ is the EU's programme to support education, training, youth and sport in Europe. It has an estimated budget of €26.2 billion. This is nearly double the funding compared to its predecessor programme (2014-2020). The 2021-2027 programme places a strong focus on social inclusion, the green and digital transitions, and promoting young people's participation in democratic life. It supports priorities and activities set out in the European Education Area, Digital Education Action Plan and the European Skills Agenda. The programme also supports 4/5 the European Pillar of Social Rights; implements the EU Youth Strategy 2019-2027; and develops the European dimension in sport.

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

About EXPLORE:

The EXPLORE project provides resources such as physical and virtual mission toolkits, teachers' professional development, a summer school for educators, intensive mission training for students, and information on analog missions to support its educational goals.
Website: https://explore-project.eu
Social media: www.facebook.com/EXPLOREprojectEU and www.instagram.com/exploreprojecteu/

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About the Austrian Space Forum (OeWF)

The Austrian Space Forum is one of the world's leading institutions conducting Mars analog missions, thus paving the way for the future human exploration of the Red Planet. Experts from a broad variety of disciplines as well as the spaceflight sector constitute the core of the OeWF's continued endeavours that on a regular basis include national and international institutions from science and industry to work at the cutting edge of scientific research. In doing so the Austrian Space Forum is using its excellent contacts to opinion leaders, politics and media to further and internationally propagate Austrian top-level research. The Austrian Space Forum also contributes significantly to inspiring and educating young people in the sectors of science, technology and engineering. The OeWF offers internships to students and pupils, its experts supervise scientific papers on a regular basis. Media Contact: Mag. Monika Fischer, OeWF Media Team Lead: monika.fischer@oewf.org For more information, visit www.oewf.org

About the Committee on Space Research (COSPAR)

COSPAR, the largest international scientific society dedicated to promoting global cooperation in space research, was established in 1958. It serves as a neutral platform for scientific dialogue among scientists from around the world. Today, COSPAR comprises 48 national scientific institutions and 13 international scientific unions, with 14,000 space scientists actively participating in its activities, including attending assemblies, contributing to 8 Scientific Commissions and 16 panels and task groups, and publishing in its two scientific journals. COSPAR's core mission is to facilitate dialogue and encourage international collaboration among space stakeholders across the globe. It operates through scientific commissions, panels and task groups that encompass all disciplines of space science, from Earth and atmospheric sciences to planetary science, astrophysics, solar and space plasma physics, and life and microgravity sciences. A recent focus has been on strengthening ties between science and industry. This was achieved by forming the Committee on Industry Relations, which includes 18 leading aerospace companies worldwide. The Committee advises COSPAR on integrating industry capabilities into its activities, ensuring mutual benefits for both science and industry. COSPAR's network and connections with space organisations and decision-makers allows efficient communication and dissemination about the project to a very large audience worldwide, backed by an experienced staff member and science outreach experts available through its constituency. https://cospar.world

About NUCLIO

NUCLIO is a non-profit association and an NGO for development created in 2001 that focuses on the promotion of innovation for a better future. The team is composed of a group of scientists, teachers, and researchers devoted to innovation in education, science education, psychology of education and science outreach. The work done by the team in the field on innovation in education

includes the promotion of student-centred approaches, STEAM learning, Maker skills and the Digital transition, Democracy and participatory activities, Inclusion and Diversity, Design Thinking, Scientific Research in the Classroom, Open Schooling and Innovative student Assessment (among others). An official training centre recognised by the Portuguese Ministry of Education, NUCLIO is also the coordinator of the Galileo Teacher Training Program, one of the largest astronomy education efforts in the world, the Galileo Teacher Training Program, endorsed by the International Astronomical Union and UNESCO. The program has already reached over 70,000 teachers from over 120 nations. NUCLIO is the coordinator of the Portuguese Language Expertise Centre for the International Astronomical Union (PLOAD) where, and among other roles, has the responsibility of bringing innovation and capacity building to Portuguese speaking nations and communities across the world. NUCLIO has therefore contributed its expertise in accompanying the teachers involved in EXPLORE, helping them become Space Coaches.
http://nuclio.org

About Ellinogermaniki Agogi

Ellinogermaniki Agogi (EA) is one of the most innovative schools in Europe. It has 2500 students (ages 5 to 18 years old) and 250 teachers in different disciplines. EA has a very strong vision-generated interest and rich research and development activity in the fields of Inquiry Based Science Education (IBSE), Project Based Learning (PBL), and STEM education in combination with digital, online based learning environments and tools that use virtual reality, augmented reality and story-based education. EA is continuously modernizing STEM education by promoting and creating user-driven learning environments for students and offering numerous opportunities for teachers' professional development to be prepared and thrive in the landscape of unprecedented challenges and opportunities in the 21st century. EXPLORE has benefited from their experience in creating and testing engaging material for EXPLORE, ensuring that students are on-board right from the start.
www.ea.gr

About Biosky, Lda

OLA (official name BIOSKY) provides access to a professional astronomical observatory and educational programs related to astronomy. OLA is located in a special region in Portugal known for its dark skies and dry and extreme weather conditions during most of the school year. It hosts the perfect conditions for the creation of the analog site necessary for the EXPLORE project.
http://olagoalqueva.pt/

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