



**Magiczny
Kraków**

Krakow hosts the 10th edition of the European Rover Challenge

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As part of the September Mars rover competition, the European Rover Challenge, a facility that recreates the surface of Mars, has been built. Weeks of work by planetary geologists, logistics experts and organizers created a several-hundred-ton structure of nearly 900 m², which will be the arena for the teams participating in this year's ERC. This is the first time this event is being held in Krakow. It will take place on 6-8 September at the AGH University of Science and Technology.

The created strip of the Red Planet has been called the Marsyard. Here, future space engineers can learn how to safely operate, on the surface of another planet, the Martian robots they have constructed. This is one of the objectives of the European Rover Challenge, a prestigious space-robotic event which has been organized for ten years in Poland by the European Space Foundation. This year, the event will be held in Krakow for the first time.

The Marsyard is made from several hundred tons of red porphyry from the Zalas mine. This is a rock that is found in the vicinity of Krakow, and perfectly reflects some of the properties of the surface of Mars. Around a dozen or more people were involved in the preparation and construction of the Red Planet surface in Krakow: scientists, technicians, and project partners.

“Moving the surface of Mars to Krakow is an exciting project and quite a large logistical operation. The theoretical work was done several months ago. We analyzed satellite images of the Red Planet and selected characteristic areas that we could recreate on Earth. We are now trying to make Marsyard as geologically realistic as possible, and also attractive, while ensuring that it is suitable to conduct the rover competition safely” says Dr. Anna Losiak, planetary geologist and ERC Chief Science Officer.

This year's ERC is special not only because of its tenth anniversary, but also because of changes related to the location chosen for the competition – both in Poland and on Mars. The event is being held for the first time in Krakow, and will be devised in cooperation with AGH, which will host the Martian games. The games will be held in a different part of the Red Planet than the previous competitions.

“The previous competitions were inspired by northern locations on Mars, especially those where Mars mission rovers landed. This year, we will be in a completely different location to work on the surface of Valles Marineris, the largest canyon in the Solar System, which is no less than 4,000 km long, 8 km deep and up to 400 km wide. It's a gigantic geological structure and one of the most interesting places on the Red Planet, especially in the context of research and its future, since it's a potential location for a future Martian base” – explains Dr. Anna Łosiak.

At the same time as the rover competition, the ERC will hold a popular-science conference with presentations given by specialists from global space agencies and companies. Experts will talk about the future of space exploration, settlement plans, and the impact of space technologies on everyday life on Earth.



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This year's European Rover Challenge will be held on 6-8 September at the AGH University of Science and Technology in Krakow. The event is open to all fans of Mars, space, and space technology. There will be an ERC Inspiration Zone for visitors, with free workshops and the possibility to carry out scientific experiments in the exhibitors' booths. Business guests will also find something interesting. This year's ERC will feature one of eight European CASSINI Matchmaking meetings, thanks to a partnership with the European Union Space Program Agency (EUSPA). This is a networking platform that allows young startups to obtain assistance with preparing for meetings with investors and corporations, increasing their ability to attract equity funding, and establish partnerships.

The tenth European Rover Challenge is being organized by the European Space Foundation and the AGH University of Science and Technology in Krakow. The event is under the honorary patronage of the Minister of Education, the European Space Agency (ESA), the International Astronautical Federation (IAF), the Deputy Marshal of Lesser Poland, and the Space Sector Employers Association. The project is financed from the state budget by the Minister of Education and Science under the "Social Responsibility of Science II" Program. The partners of the event are CASSINI Matchmaking, the U.S. Consulate General in Krakow, Mars Society Poland, the Polish Space Professionals Association (PSPA), MathWorks, 3Dconnexion, Pyramid Games, Peace Patrol, the Empiria and Knowledge Foundation, and the Business in Małopolska Center, with financial support from the Lesser Poland Region. The Porphyry and Diabase Mines Company, Kopalnie Porfiru i Diabazu, is the program partner supporting the construction of Marsyard.

The European Rover Challenge (ERC) is an annual international competition for Martian robots for teams from all over the world. The competition, similarly to the University Rover Challenge, is part of the Rover Challenge Series – a league of the world's most prestigious robotics competitions. The ERC is also the largest robotics and space event in Europe aimed at the world of science and business, the new technology sector, and the general public. The competition has been organized since 2014 in Poland. More information about the ERC is available at www.roverchallenge.eu.