

Scientists begin Mars exploration in a deep mine

April 4 2014

This week, twenty European scientists will gather at Boulby mine in the UK to begin testing technologies for the exploration of Mars and hunting for deep subsurface life that will aid scientists in their search for extraterrestrial life.

The scientists are part of an exciting new European [space exploration](#) programme called MASE (Mars Analogues for Space Exploration) which will investigate how life adapts to Mars-like environments, such as the deep subsurface.

Boulby Mine, a 1.3 km-deep potash mine on the North East coast of England, offers the ideal environment to test procedures and technology required for the surface and subsurface exploration of Mars, whilst carrying out a programme of scientific research to understand life in the deep subsurface of the Earth. In the process of doing this, new insights will be gained in technology transfer from the space exploration sector to the mining industry to improve mining safety and profitable mineral extraction, ensuring that space exploration and technologies directly benefit life here on Earth.

As a Mars analogue environment, Boulby mine's ecosystem has particular features and organisms that are of great interest for astrobiology in general and the MASE project in particular.

Professor Charles Cockell, scientific coordinator of the MASE programme and Director of the UK Centre for Astrobiology said, 'If we

want to successfully explore Mars, we need to go to Mars-like places on Earth. The deep, dark environment of Boulby mine is the ideal place to understand underground life and test space technologies for the exploration of Mars. In the process, we hope to aid the transfer of high technology from space exploration to safe, effective mining'.

The MASE programme is scientifically coordinated by the UK Centre for Astrobiology, which, in conjunction with Boulby Mine and the Science and Technology Facilities Councils (STFC) Boulby Underground Laboratory, also runs the MINAR (Mine Analogue Research) programme at Boulby, a programme to study how space technologies can be transferred into the mining sector at the same time as being used to explore the deep subsurface for [life](#).

The MASE FP7 project and the related MINAR programme activities at Boulby are made possible by the cooperation of and support from the Boulby Mine operators, Cleveland Potash Limited, and the mineral owners of the substantial undersea mineral deposits, The Crown Estate.

The Press conference will take place on Friday April the 4th in the morning and will be broadcasted and tweeted. Journalists from Europe will attend and will not only have the opportunity to visit the mine and the BISAL Laboratory but also to interview the MASE experts who will be attending the event.

Provided by European Science Foundation

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