UNEXMIN Concludes as a Horizon 2020 Success Story

The target of the Horizon 2020-funded UNEXMIN project was to develop an autonomous and multi-platform Robotic Explorer with tools for the exploration and 3D mapping of the thousands of historic and now flooded deep mines that pepper Europe and which are today inaccessible and closed.

The project organised its final conference on 26 September 2019 in Brussels and gathered nearly 80 participants from across Europe. The event offered the unique opportunity to present the project's main deliverables, while showcasing the UX-1 robot at Nemo 33, Europe's deepest diving pool. The audience comprised policymakers from the European Commission's DG GROW and EASME, academics from various European research institutions, representatives from mineral exploration and exploitation companies and robotics and ICT experts.

Since the project's inception in 2016, the consortium has successfully trialled the robot's navigational systems at five different European sites and real time map-building and basic autonomy of the robots were achieved. During the tests, the prototype robots succeeded in collecting valuable geological and archaeological information using visual, UV, multispectral and other scientific instruments.

Besides a detailed presentation of UNEXMIN's technological achievements, the conference allowed for high-level discussions on the EU's raw materials policies, how the project supports both these policies and European industrial innovation, and the capabilities and possible future application of the exploration system. As underlined by Marcin Sadowski, Head of the Raw Materials sector at the European Commission's Executive Agency for Small and Medium-Sized Enterprises (EASME), UNEXMIN is considered as a "success story" of the EU's Research and Innovation programme Horizon 2020. The project's future looks bright thanks to a follow-up project funded under the EIT Raw Materials initiative which aims, according to project coordinator Norbert Zajzon, at reducing the robot's operational and maintenance costs, stabilising the technology and making it available for the market. The simultaneously created UNEXMIN GeoRobotics company will offer the commercial exploitation of the multi-robot platform as a geological consulting service.
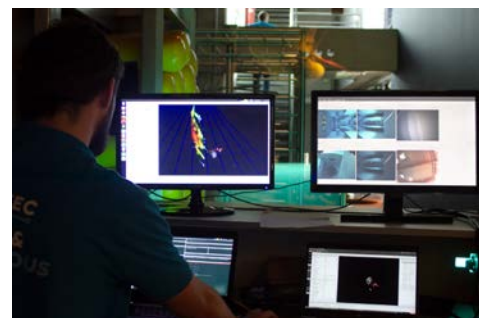
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