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DEVELOPING RESILIENT
BIO-INSPIRED MODULAR
ROBOTIC MINERS

 **ROBOMINERS**



ABOUT ROBOMINERS

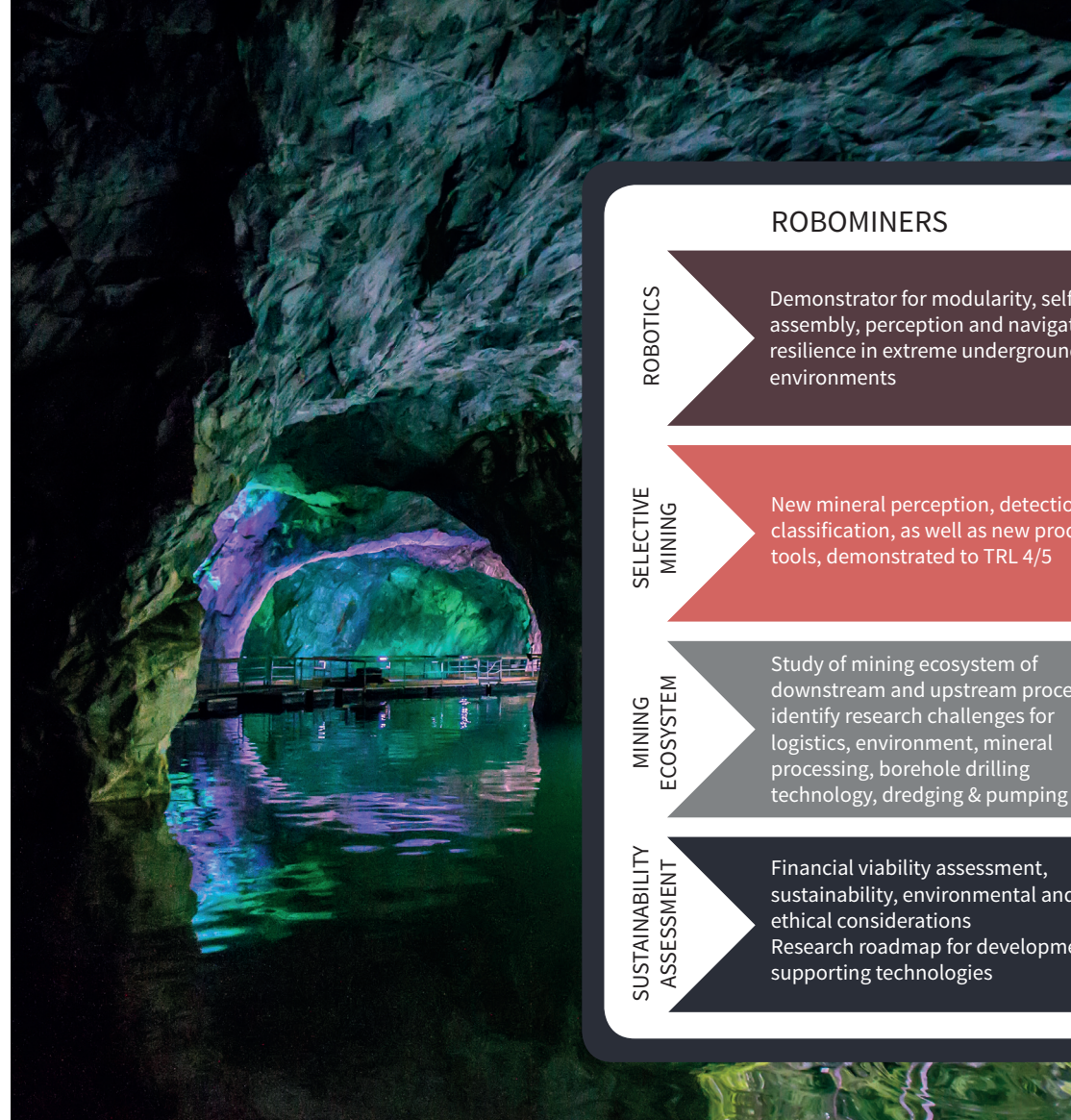
ROBOMINERS is a 48-months Horizon 2020 project funded by the European Commission that started on 1 June 2019. ROBOMINERS will develop a **bio-inspired, modular and reconfigurable robot-miner for small and difficult to access deposits**. The aim is to create a prototype robot that is capable of **mining underground, underwater in a flooded environment**, and can be delivered in modules to the deposit via a large diameter borehole drilled from the surface to the mineral deposit.

ROBOMINERS aims at delivering a proof of concept for the feasibility of this technology line at Technology Readiness Level (TRL) 4. The technology could **enable the EU to access mineral raw materials from domestic sources that are otherwise inaccessible or uneconomic**.



CONCEPT

- Robot parts (modules) are sent underground via a borehole
- They self-assemble to form a fully functional robot
- Using specialised sensing devices, they detect ore
- Using ad-hoc production devices, they produce slurry that is pumped out
- They can re-configure on-the-job



VISION

