Demonstrator for modularity, self-assembly, perception and navigation
Resilience in underground environments

First industrial pilot, tethered, semi-autonomous operation

Full autonomy, self-reconfigurability, self-awareness, collective robots

New mineral perception, detection and classification, new production tools

First industrial pilot application in “small deposit scenario” or “abandoned mine scenario” coupled with on-site minerals processing

Autonomous mining

Study of a new mining ecosystem
Identify research challenges for logistics, environment, mineral processing and others

First industrial application in a small deposit scenario with on-site minerals processing

Industrial applications in ultra-depth scenarios
Small mines deliver a considerable share of EU’s critical minerals production

Financial viability assessment
Sustainability, environmental and ethical considerations
Research roadmap for development of supporting technologies

Permitting procedures for small-scale mining
Supporting policy and legal framework for small-scale mining

New innovation ecosystem: SME’s and entrepreneurs are working towards further miniaturisation and versatility

ROBOMINERS
2030
2050