



# MINE.IO

A Holistic Digital Mine 4.0 Ecosystem

**Mine.io aims to provide solutions that  
will build a novel mining digital  
ecosystem and a systemic structure for  
the implementation of Industry 4.0 in  
mining industrial environments.**

HORIZON CL4 2022 RESILIENCE 01 06

Start date 01/01/2023

GA No: 101091885



Co-funded by  
the European Union



Partners

**25**



Duration

**42 months**



Budget

**€ 14M**



Demonstrations

**7 Pilots**



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Digitization of all mine procedures



Workload optimization



Application marketplace



Environmental footprint reduction



Electrification of underground trucks



Waste reduction and reuse



Workflow automation



Increase of energy efficiency and production



[mineio-horizon.eu](https://mineio-horizon.eu)



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# Expected Impact



Mine.io project will be energy saving and production improvement, through electrification and process automation.



Contribute to the creation of environmentally friendly, resource-efficient, and production-efficient sustainable mining practices.



Technologies and processes focused on making the production of raw materials more automated and digitalized.



The novel digital infrastructure will embrace the technologies, facilitating openness, sharing, and collaboration.



Politecnico di Torino



**TUBAF**  
The University of Resources.  
Since 1765.



Innov-acts



ACCELIGENCE



ERZGEBIRGISCHE FLUSS- und SCHWERSPATWERKE GmbH





# Pilot sites

**ML and AI tech optimize  
flotation process control  
in mineral plants**



Ore Processing Plants,  
KGHM Polska Miedź S.A.,  
Polkowice, Poland

**Fusing geophysical data for  
tailings facilities monitoring  
and management**



Pyhäsalmi Mine,  
North Ostrobothnia,  
Finland

**Digitalization Drill Operations  
and Advanced Digital Mining  
Maintenance  
& Digital Smelter**



Research and Education Mine  
“Reiche Zeche”,  
Freiberg, Germany

**Active fluorspar mine –  
primary use case for  
electrification and  
automation**



Oberwiesenthal, Germany

**Underwater tech  
validation for mines.  
UX-INEO robot maps  
environments**



Malaposta open pit site,  
Urgeiriça mine,  
Portugal

**Digital waste solutions with  
Muon Tech for mining  
environmental  
management**



Lavrion Ancient Silver Mines,  
Attica Region,  
Greece



Contact us



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