Fact Sheet

European Mining in the Green and Digital Era: The MASTERMINE project

About

Objectives

The MASTERMINE Horizon Europe project aspires to become the go-to ecosystem for EU mines 4.0 that envision digitalisation, environmental sustainability, productivity monitoring and public acceptance within their strategic goals.

What we do

Contribution

Design and Develop the METAMINE AI-powered Immersive Business Intelligence System and a real-time alerting system according to end-user needs. Lead the Machine Learning Operations (MLOps) of the MASTERMINE Machine Learning and Artificial Intelligence systems. Develop the AI-assisted data mapping framework.

Facts

Duration: Dec. 2022–Nov. 2026
EU-funding: 12 M | Project No: 101091895
Call : HORIZON-CL4-2022-RESILIENCE-01
Partners: 22 from EU and S.A.

🌐 www.mastermine-project.eu

🐦 @MastermineEu   in mastermine-project

Solution

MASTERMINE uses an Industrial Metaverse (IM) approach to build a digitalized copy of a real-world mine. Its applicability will be demonstrated in 4 EU demo cases and one replication demo in South Africa. Mining partners offer access to 10 mines around Europe, producing 10 different raw materials, including 4 CRMs.

Impact

The MLOps will speed up the ML model development to the production process by 70%. More than 50% of the source-to-target data field pairing will be achieved automatically. The installation time to mines will be reduced by 80%. The immersive BI system will foster a deep understanding of data, knowledge discovery and impactful decision-making and will provide insights, 20% of which cannot be discovered with the legacy data analysis systems.

**Co-funded by
the European Union**