



BRIGHT CONCEPTS FOR A SAFE & SUSTAINABLE DIGITAL MINING FUTURE

Nineteen project partners from Austria, Finland, Germany, Poland, Spain & Sweden teamed-up in the EU-funded illuMINEation project. The consortium's aim is to set the scene for a paradigm shift in mining via the adoption of pioneering innovations & extensive utilisation of digitalisation in mining.



9

Mio. Funding



19

Project Partners



6

European Countries



5

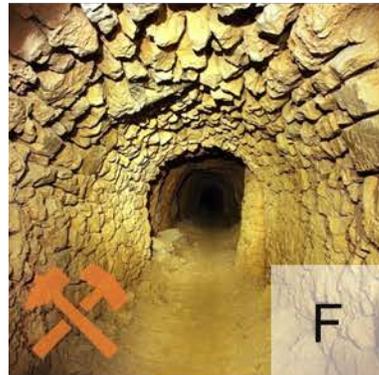
Use Cases



illuMINEation tackles key issues related to the urgently needed
DIGITALISATION OF THE MINING SECTOR
in order to achieve the next level of
SAFETY, ENVIRONMENTAL AND ECONOMIC PERFORMANCE.

The project's goal is to develop a robust dependable multi-level distributed
INDUSTRIAL INTERNET OF THINGS PLATFORM
that provides the physical mining world with
SMART DATA PROCESSING AND NOVEL VISUALISATION CAPABILITIES
from the edge to the cloud by supporting distributed data-management.

Project's objectives are driven by 5 use cases



F

Minera de Orgiva
Mining operation
Fluorite
Spain



MgO

RHI Magnesita
Mining operation
Magnesite
Austria



Epiroc Rock Drills AB
Mining equipment &
systems manufacturer
Sweden



Cu

KGHM Polska Miedź S.A.
Mining operation
Copper
Poland



Zn

Boliden
Mining operation
Zinc
Sweden

Key Objectives

Safe Zone Concept for the mining industry

- Rock stability assessment
- Environmental monitoring
- Positioning & localisation
- Drones as first response unit



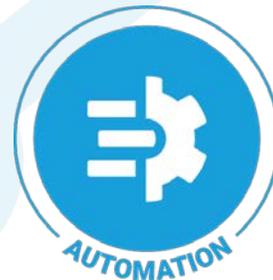
Sustainable & intelligent mineral resource extraction

- Advanced drilling techniques
- Borehole deviation monitoring
- Optimised rock fragmentation
- Improved resource grade control



Advanced predictive maintenance & efficient operation

- Drones as Agile Inspector
- Condition monitoring of batteries
- Additive manufacturing of spare parts
- Analysis of equipment telematic data



Dependable multi-level distributed Industrial Internet of Things Platform & novel User Interfaces

- Edge analytics
- Cyber security
- Fog & cloud infrastructure
- Data transfer & communication



Project Consortium



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DISCLOSURE STATEMENT

This document has been produced by consortium partners of the *illuMINEation* Horizon 2020 project, funded by the European Union's Horizon 2020 research and innovation programme under grant agreement No. 869379. The content of this document, the information contained herein and the views expressed are those of the authors and do not necessarily reflect the official opinion of the European Union. Neither the European Union institutions and bodies nor any person acting on their behalf may be held responsible for the use which may be made of the information contained.