

NEWSLETTER



mineio-horizon.eu

July 2026



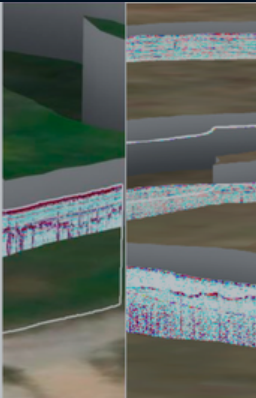
A HOLISTIC DIGITAL MINE 4.0 ECOSYSTEM

RECAP OF THE PROGRESS MADE IN THE YEAR 2026, JANUARY THROUGH JULY

Article

Ground Penetrating Radar for the Exploration of Complex Mining Contexts

Mining waste management is a significant environmental challenge that requires effective technical and economic solutions. In this context, the use of underground storage systems is sometimes a viable option to isolate this type of mining waste from the outside (especially when it poses a risk of environmental contamination). Despite the applicability ...

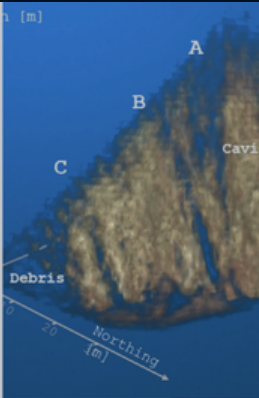


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Article

Detection of fractured zones, faults, and cavities by high resolution muon tomography in the Buda Hills

The high-penetration cosmic-ray muons can be used for scanning and exploring the structure of large geological formations, up to several hundred meters of thickness. Since the attenuation of the muon flux as it passes through ...



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 **MINE.IO**
AT PDAC

The World's Premier
Mineral Exploration &
Mining Convention

Toronto, Canada
March 1-4, 2026

 **MINE.IO**
FINAL EVENT

A Holistic Digital Mine
4.0 Ecosystem

Participation available
online and in-person
inTurin, Italy
07 May 2026

[Follow us on our LinkedIn Account](#)

VI General Assembly in Porto

On 27–28 January, the MINE.IO consortium convened in Porto, Portugal, for the sixth General Assembly — a key milestone as the project approached its final phase. The meeting brought together all partners to review progress, coordinate upcoming activities, and ensure alignment with the project's overarching objectives. As one of the last gatherings before the Final Event in May, the GA played a crucial role in preparing the consortium for the concluding stages of MINE.IO.

Over two days, partners reviewed progress across all work packages, aligned on the next steps, and dedicated significant time preparing for the MINE.IO Final Event, which took place on 7 May 2026 in Turin.

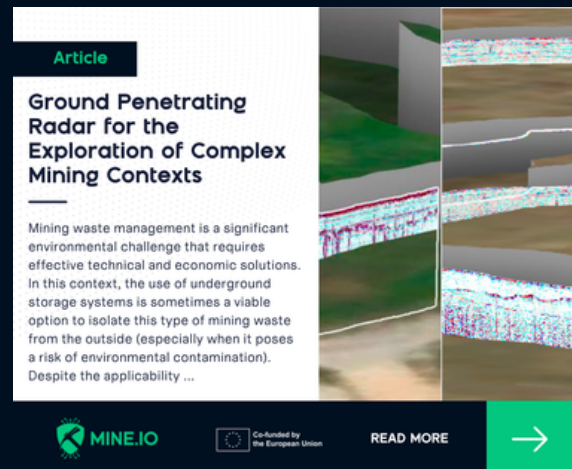
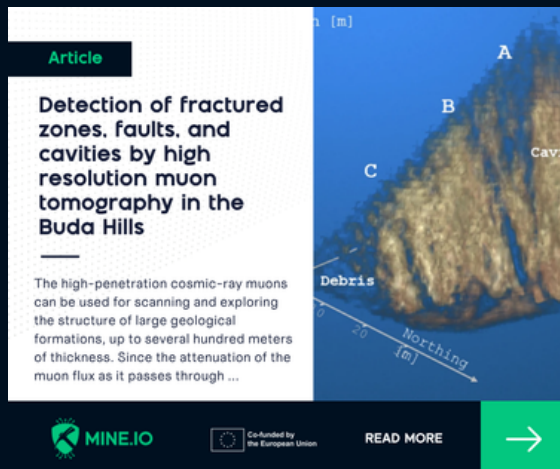
[click for more](#)

In addition, on 18 June, the final General Assembly was held in an online format, providing an opportunity to review recent project activities and align on the plans for its final conclusion.



Peer-reviewed publications campaign

A focused effort to showcase recent scientific outputs and knowledge dissemination activities



In our previous Newsletter we mentioned a campaign established to gradually showcase and promote scientific articles published since the start of the Mine.io project.

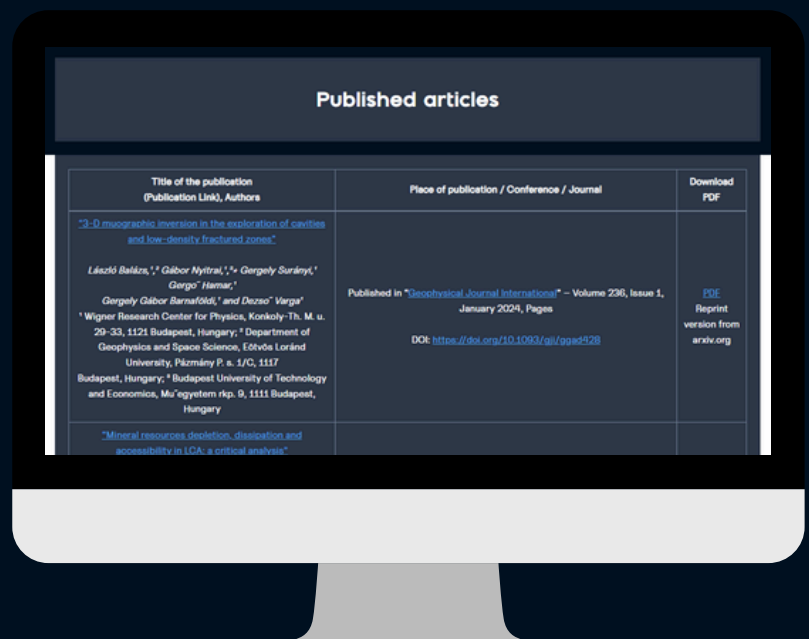
These publications reflect our research activities and address key project topics. The campaign is being continued as new papers are released.

[click for more](#)

Publications

See the updated list of peer-reviewed publications featuring MINE.IO

[click for more](#)



Final Event Recap



MINING WORKSHOP

FINAL EVENT

Sustainable Mining Practices in the Future
From Demonstration to Market Perspectives

online or on-site
in Turin, Italy

07 May 2026

[REGISTER NOW!](#)

The MINE.IO Final Event took place on 7th May 2026 in Turin.

The event marked the culmination of three years of collaborative research, development, and pilot-scale validation carried out by a European consortium of industry, research organisations, and universities.

The event brought together project partners, stakeholders, and the wider mining and raw materials community to present the key outcomes of the MINE.IO project and to demonstrate how its solutions contribute to safer, more autonomous, and more sustainable mining operations.



During the event, participants gained insight into the developed technologies, results from the six pilot sites, and the broader vision of the Holistic Digital Mine 4.0 Ecosystem. The program combined technical presentations, demonstrations, and discussion sessions, offering a comprehensive overview of the project's achievements and future potential.

[click for more](#)

Final Event Recap

Check Out the articles reccaping the Final Event Workshops!

The Mine.io Final Event, held on May 7th, 2026 in Turin, marked the culmination of a multi-year Horizon Europe effort to define and validate a new paradigm for mining: a **Digitally Integrated, Safe and Sustainable Digital Mine 4.0**.



From Vision to a Digital Mining Ecosystem

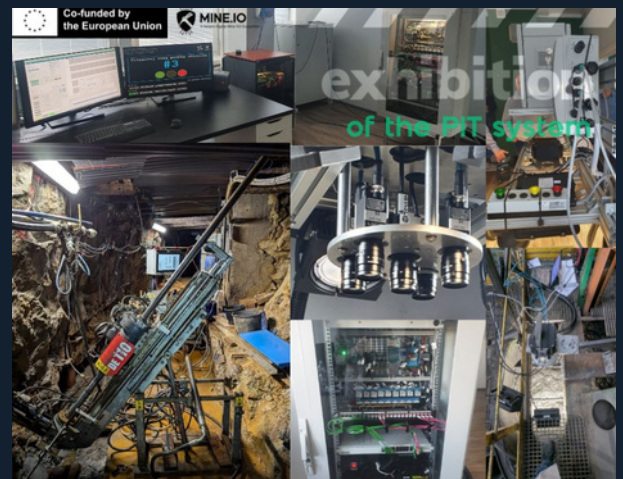
This session focused on the process of implementation of a holistic digital ecosystem covering the entire mining value chain, from exploration to post-mining activities.

[click for more](#)

From Demonstrations to Intelligent Operations: Smart & Automated Mining in Practice

Pilot Demonstrators I: Smart & Automated Operations - Presenting how digital technologies are already being applied across the mining value chain.

[click for more](#)



Final Event Recap



From Observation to Action: Autonomous & Electrified Mining in Demonstration

Pilot Demonstrators II - Presenting a broad spectrum of technologies currently being developed and validated within the project.

[click for more](#)

Environment & Waste Management in Mining: From Monitoring to Digital Integration

Pilot Demonstrators III - Showing how Mine.io showcases environmental monitoring and waste management solutions through pilot demonstrations and exhibitions.

[click for more](#)



Scaling Digital Mining

Presenting how Mine.io supports the scaling of digital mining through social sustainability, standardisation, and market uptake pathways.

[click for more](#)

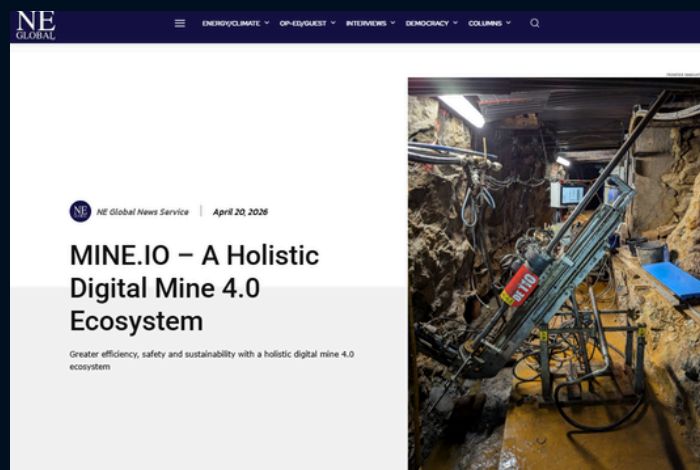
New Media Coverage

Frontier Innovations Press Release on NE Global Website

MINE.IO – A Holistic Digital Mine 4.0 Ecosystem

Greater efficiency, safety and sustainability with a holistic digital mine 4.0 ecosystem

[click for more](#)



Mine.io in NE Global April Edition Digital Newspaper

Article about Frontier Innovations participation in the MINE.IO Project has been published in the digital version of the April issue of NE Global Newspaper.

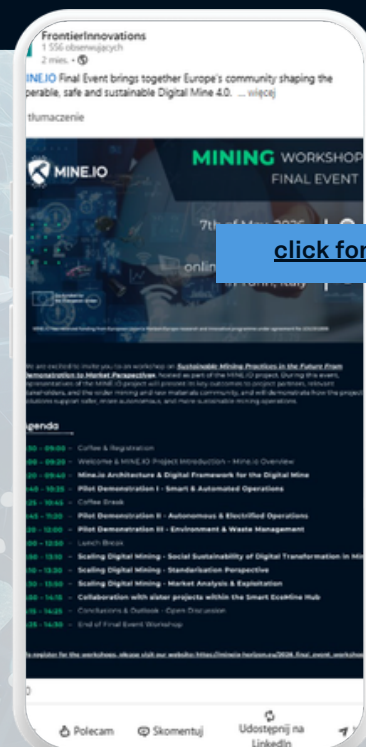
[click for more](#) and **GO TO PAGE 14**



Updates from Mine.io on Frontier Innovations LinkedIn.

Frontier Innovations has been a huge help in sharing updates from the Mine.io project on its LinkedIn channel. The posts highlight project progress and its contribution to sustainable industrial innovation.

[click for more](#)



[click for more](#)

New Media Coverage

Grupo de Investigación TIDOP Media Presence:

This interview with Diego González Aguilera and Cristina Sáez Blázquez from the TIDOP Research Group (University of Salamanca) was featured in “La 8 Ávila Magazine” (29 April 2026), showcasing how advanced technologies such as ground-penetrating radar, 3D mapping and real-time sensors are transforming the mining sector.



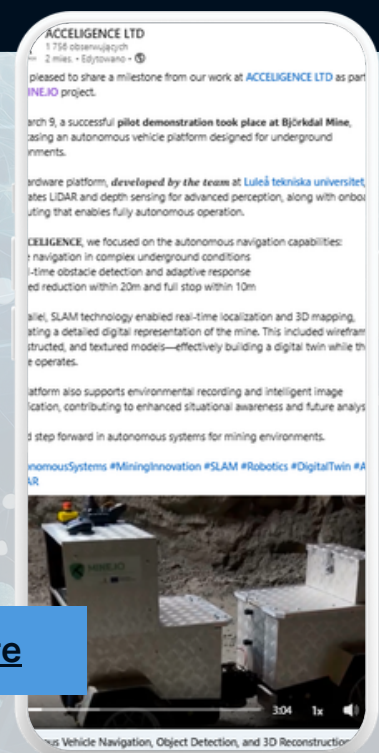
La 8 Ávila Magazine

[click for more](#)

ACCELIGENCE LTD Institutional Media Channels

A technical dissemination update on autonomous vehicle navigation and object detection frameworks shared via corporate channels

[click for more](#)



Online Newspapers

BOUSSIAS MEDIA INDUSTRY Magazine: A dedicated industrial feature published on page 2, focusing on the technological milestones of the project:

From Data Silos to Smart Mines. How Mine.io is Redefining Mining Intelligence

As a key technology provider for the Horizon Europe Mine.io project, Innov-acts is bridging the gap between legacy systems and the future of mining.

[click for more](#)

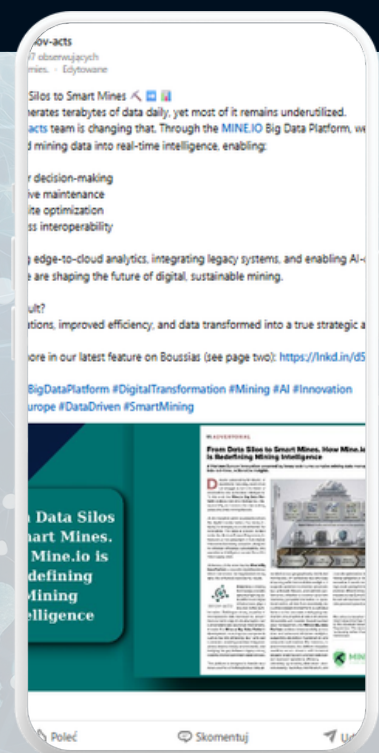


MINE.IO in INNOV-Acts press release

Updates from Mine.io on INNOV-Acts Social Media accounts.

INNOV-Acts has shared updates from the Mine.io project on its LinkedIn channel. The posts highlight project progress and its contribution to sustainable industrial innovation.

[click for more](#)



MINE.IO ON YOUTUBE CHANNELS

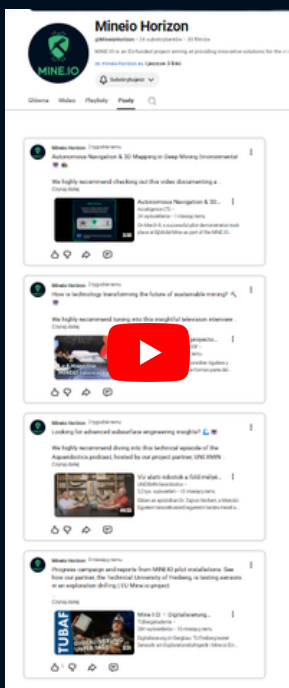
What's new on our YouTube channel



In Malaposta, Portugal, the MINE.IO project has conducted an experiment with the Muon telescope technology and its robotic deployment process in an open-pit mine. With the help of INESC TEC's AUV EVA, it was possible

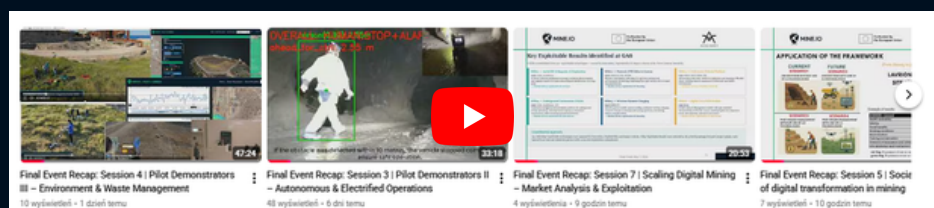
....

Exploring flooded mines is extremely difficult. Traditional tools like seismic scans, electrical testing, and ground-penetrating radar often don't work well underwater. Sending people or machines into these



On our YouTube channel, we have also created a section featuring posts with selected video materials about Mine.io shared across our partners' channels.

We have also launched a series of webinar recordings from individual sessions of the Final Event, providing detailed insights into key project topics and results.



MINE.IO AT PDAC 2026

PDAC 2026: Advancing Europe's Vision for Sustainable and Secure Raw Materials

We are proud to highlight the participation of our project partners Jari Joutsenvaara from the University of Oulu (Finland) and Jan Niemi from Luleå University of Technology at **PDAC 2026**, the world's leading mineral exploration and mining convention, held from 1–4 March 2026 in Toronto, Canada.

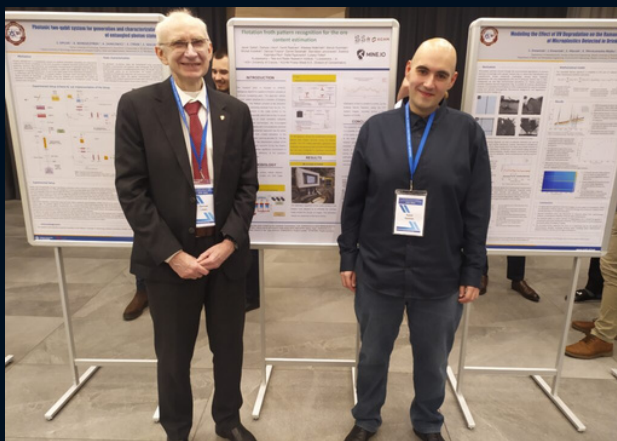
[click for more](#)



Mine.io at the 20th Jubilee IOS 2026 Conference

On 13th of February 2026 we joined the 20th edition of Jubilee IOS Conference.

Among the participants, Prof. Dariusz Litwin and Kamil Radziak researchers from the Łukasiewicz Research Network – Tele and Radio Research Institute (Łukasiewicz – ITR) contributed to the technical tracks, sharing expertise directly linked to the digital transformation of modern mineral processing.. .

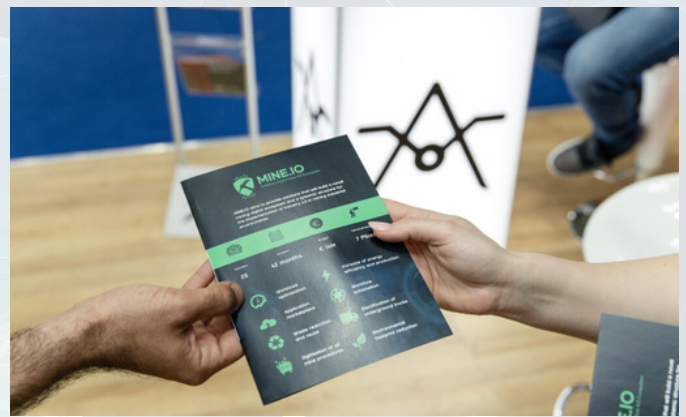


[click for more](#)

Events

Mine.io Technology Showcased by ACCELIGENCE at the 2nd Automation & Robotics Expo 2026 in Athens

Our strategic technology partner, ACCELIGENCE LTD, actively presented the project's cutting-edge prototype drone solutions at the 2nd Automation & Robotics Expo 2026 (A&R Expo '26), held from 25th to 27th April 2026 at the Athens Metropolitan Expo in Greece.



The absolute highlight of the exhibition was the physical showcase of the custom engineered Unmanned Aerial Vehicle (UAV) platforms developed by ACCELIGENCE LTD, including their advanced flagship multi sensor fleet featuring models such as CERBERUS, CERBERUS II, PULSAR, VAMPIR, and F1T. The displayed aerial hardware featured live action documentation of UAV flight tests and drone deployment maneuvers directly on the showroom floor.



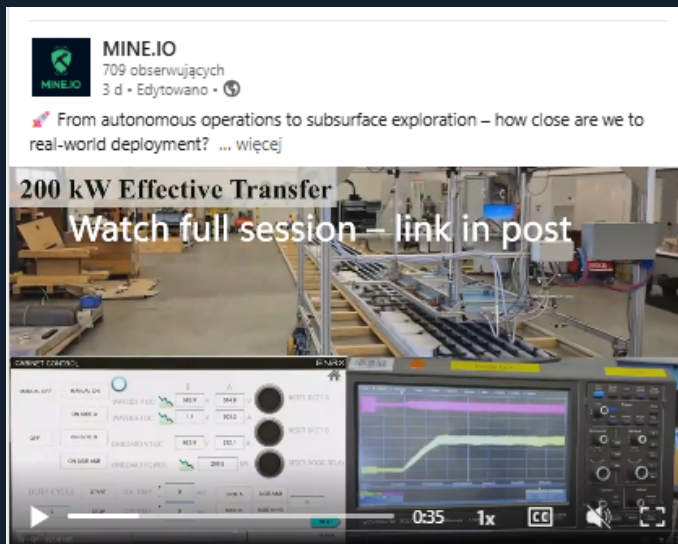
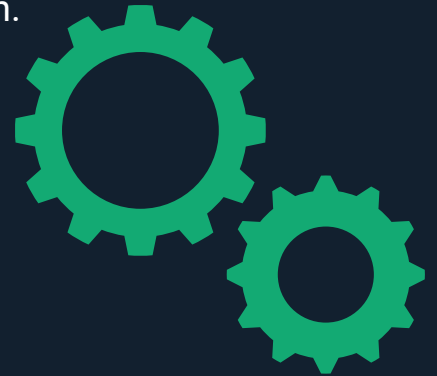
[click for more](#)

Pilot and Demonstration Campaign

As Mine.io continues to publish News on the Official Website about development being made in the Progress Work Campaign, we have also launched the Pilot and Demonstration Campaign.

The Pilot and Demonstration Campaign aims to highlight the showcasing of MINE.IO's technology at the Final Event.

Check Out the posts, articles and videos from Pilot and Demonstration Campaign! Some examples are shown below:

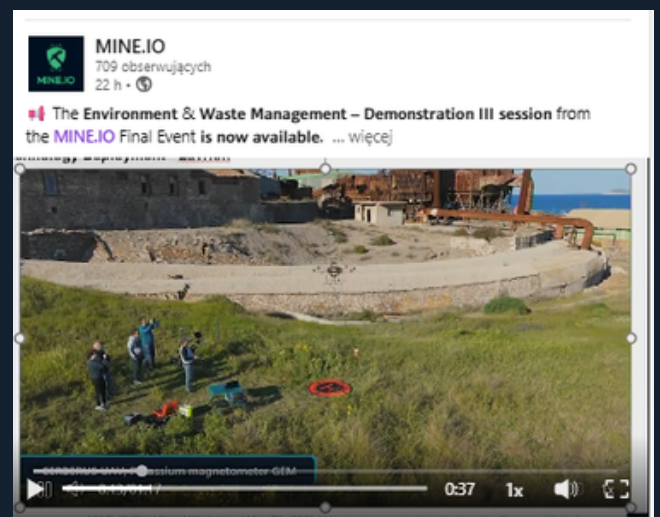


The third session of the Final Event combined system-level perspectives with detailed demonstrations supported by video material and expert commentary, forming a coherent exhibition talk that allowed the audience to follow not only what the technologies are, but how they operate in practice and what their real-world limitations are.

[click for more](#)

The article **“Environment & Waste Management in Mining: From Monitoring to Digital Integration”** focuses on the “MINE.IO Final Event Workshop – Demonstration III: Environment & Waste Management” session, illustrating how environmental monitoring, waste management, and digital transformation can be integrated into a coherent operational framework, bridging the gap between data acquisition and real-time decision-making within mining environments.

[click for more](#)



Pilot and Demonstration Campaign

Watch webinars from the
Pilot Sessions of the Final
Event

[click for more](#)

Read all articles from our
Pilot and Demonstration
Campaign

[click for more](#)



Pilot Demonstrators I Smart & Automated Operations

Explore how Mine.io showcases smart and automated mining solutions through pilot demonstrations and exhibitions.



Pilot Demonstrators II Autonomous & Electrified Operations

Learn how Mine.io showcases autonomous and electrified mining operations through pilot demonstrations and exhibitions.



Pilot Demonstrators III Environment & Waste Management

Take a closer look at how Mine.io showcases advanced approaches to environmental monitoring and waste management in mining through pilot demonstrations.



From Demonstrations to Intelligent Operations: Smart & Automated Mining in Practice

By Communication Manager - June 10, 2020

The second technical session of the Mine.io Final Event Pilot Demonstrations II focused on Smart & Automated Operations, presenting how AI-driven solutions, advanced sensors and digital systems can transform real mining value chains.

More than a conceptual discussion, the session functioned as a technology exhibition, where multiple pilot demonstrators illustrated how AI-driven solutions, advanced sensors and digital systems can transform real mining value chains.

From Automation to Intelligence

A key takeaway message of the session was that automation alone is no longer sufficient. Modern mining requires systems that are not only automated, but also:

- data-driven,
- efficient,
- and capable of learning from operational conditions.

Across the presented pilot demonstrations, this shift was clearly visible – from traditional process control toward intelligent, AI-supported decision-making embedded directly in operations.

POLAND



GERMANY



SWEDEN



NORWAY



ITALY



GREECE



PORTUGAL



SPAIN



HUNGARY



CYPRUS



FINLAND



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<https://mineio-horizon.eu>

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MINE.IO has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101091885.

THANK YOU!



MINE.IO

From the MINE.IO Team, we
would like to thank our
partners and everyone who
contributed to the project
and helped share the
MINE.IO vision!



MINE.IO



Partners

25



Duration

42 months



Budget

€ 14M



Demonstrations

7 Pilots



Co-funded by
the European Union

MINE.IO has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101091885.