



MultiMiner
Earth Observation for Smart Mining

Communication, Dissemination and Exploitation Strategy

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MultiMiner Consortium



Geological Survey of Finland | Geologian tutkimuskeskus | GTK



Technical Research Centre of Finland | TEKNOLOGIAN TUTKIMUSKESKUS VTT OY | VTT



Nordkalk



Hellenic Survey of Geology and Mineral Exploration | ELLINIKI ARCHI GEOLOGIKON KAI METALLEFTIKON EREVNON | HSGME



European Science Foundation | FONDATION EUROPEENNE DE LA SCIENCE | ESF



Czech Geological Survey | CESKA GEOLOGICKA SLUZBA | CGS



University of Leoben | MONTANUNIVERSITAET LEOBEN | MUL



Federal Institute for Geosciences and Natural Resources | BUNDESANSTALT FUER GEOWISSENSCHAFTEN UND ROHSTOFFE | BGR



GeoSphere Austria | GEOLOGISCHE BUNDESANSTALT



Hellas Gold S.A | HG



EFTAS Remote Sensing Technology Transfer GmbH | EFTAS FERNERKUNDUNG TECHNOLOGIETRANSFER GMBH | EFTAS



RHI Magnesita | VEITSCH-RADEX GMBH & CO OG | RHI



Technical University of Munich | TECHNISCHE UNIVERSITAET MUENCHEN | TUM



Executive Summary

This Communication, Dissemination and Exploitation Strategy outlines the strategies, objectives and activities to maximise the project's impact. It aims to make both the project and its outputs well known in Europe and beyond by informing, engaging, promoting, and raising awareness among all relevant stakeholders, and to secure the biggest possible scientific and societal impact across Europe.

This document outlines the key goals and messages of MultiMiner and maps them with the relevant target groups. It formulates basic principles for a multichannel approach, describing the promotional material, including the project branding and materials and the project website.

Additionally, the document describes the partners' roles and responsibilities in disseminating the project's outputs.

This is a living document. It will reflect an ongoing dialogue with consortium partners and feedback from potential users and related networks. It is also flexible enough to adapt to the requirements of the various phases during the project lifetime to ensure maximum impact and uptake of project outputs.

List of Acronyms

Acronym	Meaning
CRM	Critical Raw Materials
D	Deliverable
EC	European Commission
EO	Earth Observation
EU	European Union
ML	Machine Learning
REE	Rare Earth Elements



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1 Introduction

1.1 The MultiMiner Project

The Multi-source and multi-scale Earth Observation and novel machine learning methods for mineral exploration and mine site monitoring (MultiMiner) project develops novel data processing algorithms for efficient utilisation of Earth Observation technologies for mineral exploration and mine site monitoring. MultiMiner unlocks the potential of EO data, including Copernicus, commercial satellites, airborne, drone and in situ data, to support the entire mining life cycle from early and advanced stage mineral exploration to operational, closure and post-closure stages. This is achieved by creating generic, but highly innovative machine learning solutions which augment and potentially substitute in situ data collected on the ground.

Through utilising Earth Observation data, we can not only find additional primary resources within Europe, but we can also improve upon current mining practices. MultiMiner's Earth Observation solutions have a very low environmental impact. Furthermore, they are more economically efficient and produce a safer mining environment overall. By using Earth Observation, we can detect any environmental impacts of mining much earlier. Any data MultiMiner collects about raw material sources that cannot currently be accessed will be stored for future generations.

MultiMiner is a pan-European consortium consisting of 12 partners and 1 associated partner from research institutes, academia, consulting businesses and mining industry with interdisciplinary backgrounds in geology, remote sensing and machine learning. Project members come from six EU member states which represent mining regions across Europe with diverse geology with evident potential for various types of CRM resources and thousands of operational and closed mines.

1.2 Aims and Objectives of MultiMiner

MultiMiner aims to provide Europe with novel scalable, robust and integrated mineral exploration and mine site monitoring solutions based primarily on multi-source EO data, facilitating discovery of critical raw materials (CRM) and their safe and environmentally sustainable exploitation in Europe.

This will be achieved through four General Objectives:

(G01) To develop scalable and automated approaches for mineral exploration based on multi-source EO data and sparse in situ data, focused on mineral deposits hosting CRMs across EU.

(G02) To leverage novel EO data analysis methods to make the most of scarcely available in situ data for timely mine site monitoring, reducing both disruptions to mining activities and environmental impacts.

(G03) To demonstrate novel exploration and monitoring methods for the whole mining life cycle in 4 test sites across Europe, emphasizing their potential to increase access to critical raw materials across Europe.

(G04) To share the innovative MultiMiner methods broadly with European value-adding industry to stimulate further research and developments, and ensure their exploitation by the European mining industry.



1.3 Dissemination Strategy Components

In line with the EU guidelines of communicating Horizon 2020 projects, this strategy involves the following three axes:

- **Communication:** a comprehensive communication strategy which sets clear communication objectives, identifies target audiences, and proposes specific activities within the MultiMiner timeframe.
- **Dissemination:** a detailed dissemination plan (combined with the communication strategy), including tactics and channels, to ensure the transfer of MultiMiner outputs to targeted stakeholders and enable their uptake by potential users.
- **Exploitation:** in consistency with the project's expected impacts, the exploitation plan sets the ground for the uptake of the results produced in MultiMiner in further research activities, projects, and policymaking.



Figure 1: Communication, Dissemination, and Exploitation as presented by the European IPR Helpdesk

Following the above-mentioned overarching objectives, the Communication, Dissemination and Exploitation Strategy will thus detail strategies, tasks, and infrastructures that serve to:

- identify and engage key audiences and stakeholders;
- generate messages and media content to raise awareness, engage stakeholders, and disseminate results;
- coordinate external communication messages with project internal tasks and results;
- monitor the implementation of the objectives.

As such, it also provides consortium partners with guidance for conducting dissemination and engagement activities as part of their involvement in work packages, tasks, and activities.

This reference document will establish efficient and effective communication channels and practices between the consortium partners. It will also help synchronise the overall communication activities and engagement actions specific to certain tasks. This is a living document and will be updated throughout the lifetime of the project. The initial exploitation strategy will be implemented by a “Roadmap on exploitation strategies”, outlined in M42 with deliverable D5.3.

Table 1: Work Package 5 Deliverables

Deliverable No	Deliverable Name	WP No	Type	Dissemination Level	Due Date
D5.1	Dissemination, Exploitation and Communication Plan	WP5	Document, report	Public	M6
D5.2	Report on stakeholder engagement, communication and dissemination	WP5	Document, report	Public	M42
D5.3	Roadmap on exploitation opportunities	WP5	Document, report	Public	M42
D5.4	Data management plan	WP5	Data management plan	Public	M6

1.4 The Role of WP5 in the Project

The strategy to focus on creating impact is reflected by the integration of both communication and dissemination activities into one work package, entitled “Communication, Dissemination, and Exploitation”.

Led by the ESF, and supported by all project partners, WP5 will communicate and raise awareness about the project, involving all main stakeholder groups and end-users.

WP5 aims to promote the project’s activities and objectives and contribute to the uptake of its results beyond the lifetime of the project. In detail, WP5 aims to:

- Disseminate and communicate the project outputs and knowledge generated towards the scientific and industry communities in a timely and consistent manner and in line with Open Science practices.
- Set up and maintain multiple communication channels to ensure the visibility and outreach of the project activities among national and international audiences.
- Consolidate project information results from Work Packages into comprehensive news outputs in plain language tailored for the targeted audience.
- Explore possibilities for the exploitation of the results with the wider European mining industry and other end-users to ensure uptake of project outputs.
- Maximise the impact of the project by participating in various events attended by key stakeholders.
- Promote responsible mining practices for critical raw materials.

2 Dissemination Objectives

Aligned with General Objective G04 "to share the innovative MultiMiner methods broadly with European value-adding industry to stimulate further research and developments, and ensure their exploitation by the European mining industry", the dissemination objectives are the following:

- Disseminate MultiMiner results and outputs towards scientific and industrial communities, through scientific papers, open-source research and tools
- Maximise visibility and outreach among national and international audiences, and the general public
- Explore pathways for exploitation of results and uptake of project outputs with stakeholders from EO value adding industry and European mining industry
- Promote responsible mining practices for raw materials and CRMs across Europe

The Communication, Dissemination and Exploitation strategy has been developed to align with these objectives. Each output serves one of the four dissemination objectives outlined above.

3 Target Audience Groups

MultiMiner identifies the following key stakeholder groups:

- End-users
- EO data providers
- Scientific and R&D communities
- EU projects and initiatives (e.g., EIT Raw Materials)
- Policy makers and local authorities
- Wider society

The list of stakeholders and their contact details can be found on the MultiMiner SharePoint: [MultiMiner stakeholders excel file](#). Consortium partners are expected to help in providing contact information for the identified stakeholders.

3.1 Stakeholders Groups

3.1.1 Consortium Partners

The MultiMiner consortium partners are not only contributing to the development of the project results, but they are also end-users. Notably, consortium partners from the mining industry will use the tools developed throughout the project in their mining activities and thus contribute to the uptake of the project results beyond the project lifetime.

3.1.2 End Users

The end-users represent the main target group of stakeholders for the MultiMiner project as they stand to benefit from the algorithms and methods developed by the project. End-users include the mining industry and consulting companies, geological surveys and other relevant governmental organisations (e.g., environmental monitoring organisations) and non-governmental organisations (e.g., the Mining Working Group). End-users will be engaged in dissemination activities at industrial events and local exhibitions, and specifically targeted for the exploitation activities: end-users contribute to the co-creation of the exploitation roadmap at the MultiMiner conference and training materials are designed for end-users.

3.1.3 EO data providers

EO data providers are involved in the MultiMiner projects as they provide the Earth Observation (EO) data used by the project to develop and train its algorithms. EO data providers include Copernicus Services (e.g., EGMS) and the EO value-adding industry (e.g., EARSC). EO data providers will be engaged in conjunction with the end-users in the exploitation activities.

3.1.4 Scientific and R&D communities

The scientific and R&D communities will be the main stakeholders for scientific dissemination activities such as scientific publications and presentations at scientific conferences.

3.1.5 Related EU projects and initiatives

The project will coordinate activities and cooperate with European projects dealing with Raw Materials, notably by participating in clustering workshops. The EU projects and initiatives will also be engaged in all dissemination and exploitation activities.

3.1.6 Policymakers and local authorities

Policymakers and local authorities will be engaged through policy briefs and invited to local exhibitions.

4 Targeted Objectives and Messages

Each target stakeholder group will be approached to achieve a specific communication and dissemination objective, with key messages and specific actions through various channels.

The communication, dissemination and exploitation activities are associated to the targeted stakeholders in the [MultiMiner stakeholders excel file](#).

Partners' commitment and stakeholders' interest in exploiting the project outputs are key to the project's sustainability. Participants to the training webinars, local exhibitions and the MultiMiner conference will be encouraged to take up the results and foster exploitation opportunities beyond the project lifetime.

Table 2: Stakeholder groups and associated communication, dissemination and exploitation activities

Stakeholder Groups	Communication Activities	Dissemination Activities	Exploitation Activities
End-users	Social Media Press releases Newsletters Website posts	Scientific publications and presentations Local exhibitions	Training Materials MultiMiner conference Exploitation roadmap
EO data providers	Social Media Press releases Newsletters Website posts	Scientific publications and presentations Local exhibitions	MultiMiner conference Exploitation roadmap
Scientific and R&D communities	Social Media Press releases Newsletters Website posts	Scientific publications and presentations	

EU projects and initiatives (e.g., EIT Raw Materials)	Social Media Press releases Newsletters Website posts	Scientific publications and presentations Local exhibitions Clustering workshops	Training Materials MultiMiner conference Exploitation roadmap
Policy makers and local authorities	Social Media Press releases Website posts	Policy briefs Local exhibitions	
Wider society	Social Media Press releases Website posts		

5 Dissemination Activities

5.1 Publications

The research activities carried out during the project will generate new knowledge. The dissemination plan ensures that it will be widely taken up by the scientific community as an input for further research.

With contribution from all partners, the project aims at submitting fifteen scientific papers for peer-review by the end of the third year, on the following suggested topics:

- MultiMiner Mineral Mapping Algorithm,
- CRM spectral library,
- MultiMiner Mineral Prospectivity Wizard,
- Generic mine site monitoring algorithm,
- Vegetation monitoring
- Joint water quality and acid mine drainage monitoring algorithm,
- Dust monitoring
- Integrated 3D mine site inventory monitoring algorithms,
- 3D/4D models/digital twin of mineral prospectivity mine site effluents, tailings as demonstrations at the MultiMiner test sites.

This list is not exhaustive and will be regularly updated on a common Publications log, available on the SharePoint group. Partners are invited to share their ideas for publications and update this status as the work on the publication progresses.

MultiMiner fully embraces the open access policy of Horizon Europe, favoring Gold Open Access whenever possible. As the research is carried out during the project lifetime, results will be published as open access documents. Project results will be shared on website posts with high engagement. Authors will be encouraged to share them on their personal profiles on social media and professional networks, with full acknowledgement of the project. The ESF will upload publications on the [MultiMiner Zenodo community](#).

MultiMiner partners should publish their results following the MultiMiner publication procedure and guidelines, which details good scientific practices and guidelines in preparing manuscripts and for qualifying authorship outlined in The European Code of Conduct for Research Integrity. Publication of MultiMiner datasets should also follow the MultiMiner publication procedure and guidelines.

The list of published scientific papers from the MultiMiner project are logged [in the “MultiMiner Communication and Dissemination Log” excel file](#).

Target: 15 publications submitted during the project lifetime

5.2 Participation in Scientific Conferences and Dissemination Events

Partners commit to disseminate the scientific research, datasets, algorithms and products generated by the project (in WP2 and WP3) as well their demonstration (WP4) to relevant stakeholder groups by participating in high-reach events (presentations and keynote speeches). The landscape will regularly be screened for conferences related to Earth observation data processing, geological mapping of mineral resources and mining operations and partners encouraged to participate. Identified events include the Raw Materials Week, AGU, EGU, IEEE IGARSS, GRSG, Whispers, ISPRS Congress and events, EARSeL, ESA Φ -Week, EUSAR.

Target: Participation in 15 scientific conferences

Towards the end of the project, MultiMiner’s activities will be specifically promoted towards end-users and data providers through exhibition booths at key industrial events, such as PDAC, AME Roundup, the European Research & Innovation Days, EIT Raw Materials events, FEM.

Target: Participation in 2 industrial events conferences

The project partners also endeavour to raise awareness and promote the results to among civil society at local level by participating in local scientific events, or organised by schools and universities.

Target: 10 presentations in local events, schools and universities

5.2.1 Local Exhibitions

In order to raise awareness about the project and engage local stakeholders about potential local applications of the project outputs, three local exhibitions will be organized at each mining test site countries (Ihalainenin Finland, Hochfilzen in Austria and Chalkidiki in Greece). The exhibitions will be organized by ESF with support from the local partners (Nordkalk, HSGME, GBA, MUL, HG). Local stakeholders from mining industry, governmental organisations and the wider public will be invited to participate in these local exhibitions to learn about the project, its results and observe their specific implementation at the local mining test site.

Target: 50 participants in the local exhibitions

5.2.2 Clustering with Sister Projects

As part of the dissemination efforts, MultiMiner builds scientific and technical synergies with identified European projects dealing with Raw Materials, notably the ETP-SMR, EIT Raw Materials (KIC), ongoing H2020 EU projects and new HE projects. The main objective is to maximize the project impact, coordinate dissemination actions, build the project’s networks and share knowledge with other key actors.

The following projects have been identified so far as Sister Projects:

- M4Mining
- S34I
- SEMACRET
- MASTERMINE
- EXCEED



- NETHELIX
- CIRAN
- AGEMERA

It is planned to engage with these projects to develop synergies and open lines of communication. From a map of the current EU Raw Materials portfolio, MultiMiner will participate in clustering workshops with other projects and initiatives to (1) strengthen and/or develop research and innovations in the Raw Materials thematic clusters, and to (2) constitute a proactive force to feed the Strategic Implementation Plan and associated EU calls. Examples of such clustering activities could be joint webinars and joint appearances at industry events and conferences, such as Raw Materials Week.

The sister projects were invited to the MultiMiner kick-off meeting to discuss clustering opportunities, and all projects committed to participate in these clustering activities. The first clustering event that MultiMiner will be participating to will be the SuperCluster - Lapland GeoConference organised by EIS on 30-31 October in Finland (<https://eis-he.eu/call-for-abstracts/>).

The list of Sister Projects is intended to grow and flex as the project develops. It is vital for the long-term success of the project, and all related projects, that we communicate and endeavour to work together.

5.3 Critical Raw Material Projects Community Newsletter

In keeping with our dedication to fostering collaboration within the mining EU community, we have undertaken the establishment of a collaborative newsletter with sister projects.

The collaborative newsletter aims to engage a diverse range of stakeholders, including project partners, end-users, industry stakeholders, policymakers, researchers, and the wider public with an interest in sustainable mining practices. By consolidating insights, updates, and achievements from various projects within the mining EU community, we seek to enhance visibility, facilitate knowledge sharing, and foster networking opportunities across the sector. This initiative seamlessly aligns with our overarching communication, dissemination, and exploitation strategy.

By joining forces with sister projects, we amplify our collective impact, effectively reaching a broader audience and maximising the dissemination of valuable project outcomes. The collaborative newsletter serves as a platform to showcase advancements in the MultiMiner project, promote cross-project collaboration, and advocate for the adoption of sustainable mining practices across Europe. Our objective is to produce three to four newsletters annually, delivering regular updates and insights into the innovative initiatives and progress achieved by MultiMiner and our partners. Each edition will feature compelling content, including project highlights, research findings, upcoming events, and collaboration opportunities, ensuring sustained engagement and knowledge exchange within the mining EU community.

6 Exploitation Activities

MultiMiner will actively explore avenues for the utilization of the MultiMiner algorithms in dedicated data processing platforms and web interfaces. Here, the objective is that the end users of the said algorithms can process their data using GIS software packages, customized services provided by consulting companies or other existing platforms, for instance the aforementioned EGMS. To achieve this, MultiMiner actively seeks opportunities to build collaborations with industry and academia to enable the further development of the algorithms into highest TRL product after the lifetime of the project. Knowledge and data produced within the project is also



expected to lay the foundations for continued collaboration and research between the partner organisations and their wider international networks (e.g., through production of joint international papers on research outputs and/or collaborative EU and national project proposals).

There are two goals with MultiMiner exploitation activities: addressing the knowledge gaps in current understandings of the CRM industry in Europe, and ensuring a healthy uptake of results produced by the project.

6.1 Exploitable Results

MultiMiner promotes a wide array of exploitable results to ensure their sustainable uptake by the relevant stakeholders. The main exploitable results are listed in the [Exploitable results living excel document](#) that will be updated throughout the lifetime of the project.

6.2 Training Materials

MultiMiner involves all partners in a co-creation process to produce training materials on the use of the project datasets, algorithms and tools, in the form of webinars from the involved project partners and detailed handbooks, specifically designed for the targeted stakeholders. A focus will be given to the fact that the project will build non-commercial open-source EO algorithms and will therefore need a specific IPR approach.

Target: Production of 16 training materials.

6.3 Final Conference

The MultiMiner conference is organised toward the end of the project with key stakeholders from across Europe, notably from the end-users target group, to present its results and the test site demonstrations, and discuss other potential use-cases in Europe. To maximise its reach, the aim is to arrange it as a parallel session during a larger event usually attended by many of the targeted stakeholders (e.g., PDAC, Raw Materials Week). The conference leads to the co-creation of a roadmap, which will be coordinated by ESF during the conference, on the potential exploitation opportunities of the project outputs in Europe with the involved stakeholders.

The conference will be live streamed to increase accessibility and will be retained online to view for 2 years.

Target: 100 participants in the MultiMiner conference.

6.4 Exploitation Monitoring

An exploitation log will be updated throughout the project. Within this log will be delegated activities for partners, accompanied by free space where project partners can suggest activities for exploitation.

7 Communication Activities

7.1 Visual Identity

MultiMiner has a clear visual identity that can easily applied to all communications and documents. The logo for MultiMiner was agreed upon by all partners in M1 of the project.

7.2 Logo

The MultiMiner symbol represents different layers of a map to symbolize the multi-scale approach of the project and the different types of Earth Observation data utilized, from satellite to in-situ.



The three colours represent different aspects of the mining lifecycle, as covered by MultiMiner. It is available to download from the [MultiMiner SharePoint](#).

The deep grey was chosen to represent the mineral of exploration of raw materials, the orange is used to represent mining operations, and green to signify the environmental monitoring and remediation that is intrinsic to the project.



Figure 2: The MultiMiner Symbol

Black and white versions of the logo are also available for use. The circumstances in which they are best used are outlined in the [MultiMiner graphics charter](#).

7.3 The MultiMiner Typeface

MultiMiner uses two fonts across its communication tools and in its logo. Headings and subheadings are in Rubik. Rubik is a free, sans serif font and is available to download and integrate into software [here](#).

Roboto is used for body text. It is also free and be accessed [here](#).

Headings - Rubik Bold
Aa Bb Cc Dd Ee Ff Gg Hh
Ii Jj Kk Ll Mm Nn Oo Pp
Qq Rr Ss Tt Uu Vv Ww Xx
Yy Zz

Body Text - Roboto
Aa Bb Cc Dd Ee Ff Gg Hh
Ii Jj Kk Ll Mm Nn Oo Pp
Qq Rr Ss Tt Uu Vv Ww Xx
Yy Zz

Figure 3: A demonstration of the MultiMiner typeface

7.4 The MultiMiner Logo

Putting this together, we have the MultiMiner logo, available in three colour variations. The version in Figure 4 is recommended for a scale in which the tagline cannot be easily read.



Figure 4: The MultiMiner Logo, simplified version



Figure 5: The MultiMiner logo with tagline

The tagline, "Earth Observation for Smart Mining", was selected after consultation with partners and describes the project in simple terms. It is recommended that the version of the logo with the tagline is used as default.

The logo must retain its proportionality, linearity, and disposition. The protection zone of the logo must also be respected.

For details on the protection zone and recommendations for usage of the logo, please refer to [Graphics Charter](#).

7.5 Colour Palette



Figure 6: The MultiMiner Colour Palette

7.6 Website

The MultiMiner website is the largest source of information about the project, and the main point of contact for interested parties. It is a major communication and exploitation tool and it accessible via this link: <https://www.multiminer.eu/>

The **Homepage** presents the project's goals, latest news, and work plan in a nutshell. It calls users to action to find out more about the project, participate in the project, read other news articles, subscribe to the newsletter, follow the project on social media.

The **About** section describes the project in further detail: its mission, objectives, methodology, and impact.

The **Consortium** subsection provides detailed information on the MultiMiner consortium partners, as well as linking back to their own websites and social media profiles. It describes how they contribute to the project.

The **Advisory Board** subsection highlights the members of the MultiMiner scientific advisory board.

The **Media** section provides resources and information that may be helpful for media outlets, as well as partners communicating about the MultiMiner project. It includes short summaries of the project, downloadable logos, and the graphics charter.

The **News** section provides the latest updates on the project. Moving forward, this will contain a blog subsection. Currently, the Press Releases are hosted as well as a clear call to sign up to the newsletter.

The **Opportunities** subsection provides project-related job opportunities.

The **Contact** page provides a clear form for inquiries and questions about the MultiMiner project. There is also a contact link in the footer of every page across the MultiMiner website.

The website is intended to grow with the project, and so the structure may change with time to allow for a better reflection of the project. The website is built with WordPress in combination with Beaver Builder and uses reliable plugins to support part of its functionality. Additional PHP and HTML custom code has been developed to provide the desired website features. Accessing and editing, updating and uploading the material (digital media, posts) is easy for all partner members who would need to administrate the website.



Figure 7: The MultiMiner website frontpage

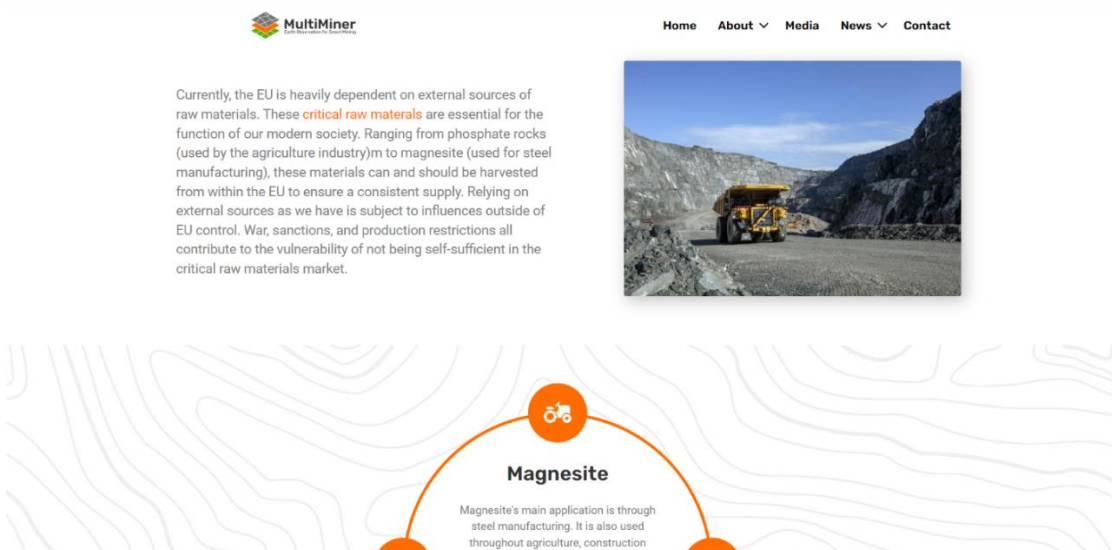


Figure 8: A short section of the MultiMiner website "About" page

7.7 Newsletters

Four newsletters will be issued during the project lifetime, starting in M12 and summarising the project's developments and public outputs of the past year. The newsletters are disseminated to the MultiMiner mailing list, reaching relevant stakeholder organisations as well as individuals. Subscribers can sign up to the newsletter on the project website or via specific posts on social media. The newsletters content will also regularly feed into partners' newsletters. By the end of the project, the newsletter will aim to have 150 subscribers.

External newsletters (as part of a collaborative effort from sister projects as detailed in section 5.3) will also contribute to MultiMiner's communication efforts.

7.8 Press Releases

MultiMiner disseminates important aspects of its progression via press releases, at the start and at the end of the project. They are published on the project website, on the European Commission's repository, CORDIS, and through the Consortium Members' communication channels (websites, email, social media platforms). They are also disseminated to specialised media to increase readership.

To reach a wider audience, publishing partners are encouraged to translate the press release in their native languages and disseminate them to their media contacts at local and national level.

To foster positive engagement with local communities surrounding our mining test sites, we are implementing a targeted outreach strategy through local newspapers and media channels. Recognising the importance of effective communication in building understanding and trust, we will distribute small explanatory pieces in local languages to towns surrounding the mining test sites.

Objectives:

- **Raise Awareness:** the primary objective of our local media outreach is to raise awareness among local populations about the MultiMiner project and the purpose of our activities in their communities. By providing clear and concise information, we aim to educate residents about the project's goals, methodologies, and potential benefits.
- **Build Trust:** by proactively engaging with local communities through local media channels, we seek to build trust and credibility. Open and transparent communication about our activities will demonstrate our commitment to environmental stewardship, community well-being, and responsible mining practices.

We will tailor the content of our explanatory pieces to suit the cultural and linguistic preferences of each local community. These pieces will be written in local languages to ensure accessibility and relevance to the target audience. Our communications will prioritise clarity and transparency, providing accurate information about the purpose and objectives of the MultiMiner project. We will explain the scientific rationale behind our activities and address any concerns or misconceptions that may exist within the community.

By disseminating information through local media channels, we anticipate increased community engagement and participation in project activities. By fostering a sense of ownership and involvement, we aim to cultivate positive relationships with local residents. Our proactive approach to communication aims to mitigate potential opposition or scepticism from local civil society groups. By promoting understanding and dialogue, we hope to address misconceptions and build support for our project within the community.

7.9 Social Media

The social media channels for MultiMiner are as follows:

Twitter	https://twitter.com/MultiMiner_EU
LinkedIn	https://www.linkedin.com/company/multiminer
Vimeo	https://vimeo.com/multiminer

From M6 onwards, MultiMiner will begin a consistent campaign to engage and inform stakeholders of MultiMiner activities.

The social media campaigns will align with the dissemination goals of this project: to share the results of the project, maximise the visibility and outreach of the project, and to promote the necessity of responsible CRM mining practices across Europe. Posts on Twitter and LinkedIn will be twice weekly.

LinkedIn, per its usership, will be the platform on which we will release job opportunities, press releases, and formal updates on MultiMiner activities and events. Consortium Partners are active on LinkedIn, and it is expected that they will engage with MultiMiner content.

Twitter will be used for campaigns and will be used with greater frequency. It will be an opportunity to engage with the general public and increase understanding responsible mining practices, and well as underscore the necessity of projects such as MultiMiner. Content will include statistics, quotes, facts, questions that participate in raising awareness on the project's scope. They will also aim at triggering interest in the project and at increasing visits to the project website.

Influential accounts are listed, and partners, related projects, and influential accounts related to the project's scope are tagged.

Vimeo will host video content produced throughout the project lifetime, such as training material and webinars. It is expected that at least 3 promotional videos will be created in the duration of the project.

All social media content produced must be in line with the project's visual identity.

Sharing of relevant external news items is encouraged. Partners are encouraged to engage with MultiMiner on all platforms. If a specific piece of relevant information should need to be communicated, partners can contact the ESF Communication Project Officer via email or the GTK Microsoft Teams.

7.9.1 Changing Social Media Landscape

In 2023, the landscape of social media underwent a significant transformation, with Twitter evolving into a platform that experienced a shift in user engagement and content dynamics. This transition prompted MultiMiner to re-evaluate its communication strategies and reallocate its resources towards platforms that best facilitate engagement and collaboration within the scientific community. Twitter, once a leading platform for real-time updates and concise interactions, has gradually transformed into a space dominated by algorithmic complexities. Consequently, the platform's suitability for fostering meaningful dialogue and cultivating professional networks within the scientific community has diminished.

Acknowledging the evolving social media landscape and the changing needs of our stakeholders, MultiMiner has strategically shifted its energies towards LinkedIn as the primary platform for



communication and engagement. LinkedIn offers a conducive environment for nurturing professional relationships, sharing insights, and showcasing project achievements within the scientific and academic spheres. LinkedIn has emerged as the preferred platform for professionals in the scientific community to connect. Its robust features, including dedicated groups, industry-specific content, and professional networking capabilities, make it an ideal space for MultiMiner to engage with stakeholders, share project updates, and foster meaningful discussions.

While MultiMiner continues to maintain a presence on Twitter, acknowledging its role as a supplementary platform for broadcasting announcements and reaching a broader audience, our focus has shifted towards platforms that offer greater opportunities for community-building and knowledge exchange. LinkedIn's emphasis on professional networking and content-sharing aligns more closely with our communication objectives and enables us to cultivate a vibrant and engaged community of stakeholders.

8 Communication Management

8.1 Communication Timeline

Below is an overview of broad communication themes planned to engage with over the project lifetime. These are subject to change and developments throughout the project and ensure there is communicable material from the outset to the project close.

Table 3: Planned communication campaigns

Project Stage	Communication Themes
M6-M12	Introduction of MultiMiner project and consortium
M6-M12	FAQs and explanation of scientific terms and MultiMiner methods
M6-M24	Myth and jargon busting
M13-M24	Fieldwork photos and videos
M13-M24	Demonstration of MultiMiner tools at work
M13-M24	Data collection insights
M13-M24	Data analysis insights
M13-M24	Outcomes and exploitable results demonstration
THROUGHOUT	Coverage of MultiMiner participation at events
THROUGHOUT	Highlighting any published scientific papers relating to MultiMiner
THROUGHOUT	Conveying the benefits of EU self-reliance for CRM
THROUGHOUT	Job opportunities

8.2 EC Communication and Dissemination Obligations for All Partners

Consistent with the Communication guidelines for EC funded projects, all communication activities undertaken by the MultiMiner consortium or its partners must:

- Promote the action and its results, by providing targeted information to multiple audiences (including the media and the public), in a strategic and effective manner and possibly engaging in a two-way exchange.
- Acknowledge the EU funding by displaying the EU emblem and including the reference to the funding source: "This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 10109137474".



The EU flag and the funding statement and grant number must be displayed in all communication and dissemination activities. EU funding must also be acknowledged in all types of public outputs, media contacts and other public statements.

The disclaimer and grant agreement number are in templates stored in the Resources channel in MultiMiner Teams group.

Short version (presentations)



Funded by the European Union

Longer version (for documents and reports)



The MultiMiner project is funded by the European Union's Horizon Europe research and innovation actions programme under Grant Agreement No. 10109137474

More information can be found here: [European Union funding guidelines](#)

8.3 Internal Communication Strategy

As we progress through the MultiMiner project, it has become evident that enhancing internal communication within the consortium is essential for fostering collaboration and ensuring that all partners are informed and engaged. With this in mind, we have implemented several initiatives to improve internal communication processes and facilitate greater involvement from all project partners.

To encourage input from all consortium members, partners are invited to contribute to the Communication, Dissemination, and Exploitation (CDE) strategy through various channels. Partners can share their insights, suggestions, and feedback by filling out a dedicated Google Form, responding to monthly collection emails, or initiating discussions on the dedicated Microsoft Teams space at any time.

Recognising the challenges of maintaining communication during fieldwork activities, a representative from Work Package 5 (WP5) will attend online meetings ahead of planned fieldwork. This representative will collaborate with fieldwork teams to identify opportunities for communication efforts that highlight the successes and milestones achieved during project activities.

All contributions and insights provided by consortium members will be utilised to enrich the project's communication channels. Content generated through internal communication channels can be repurposed for the project website, social media platforms, blog posts, and press releases, ensuring that the achievements and advancements of the MultiMiner project are effectively communicated to external stakeholders and the broader community. By fostering a culture of open communication and collaboration, we aim to maximise the impact and success of the MultiMiner project. We encourage all partners to actively participate in the internal communication process and contribute their valuable insights and perspectives to further enhance the project's outcomes.

9 Monitoring & Evaluation of Dissemination and Exploitation Activities

The Communication, Dissemination and Exploitation Strategy foresees a set of concrete quantitative and qualitative Key Performance Indicators (KPIs) to monitor the effectiveness of its



implementation and measure whether the strategic objectives relating to the outreach of the project are being achieved. The revised versions of this document will encompass the current monitoring and evaluation activity and provide adjustments wherever needed for each activity foreseen in this first version.

Table 4: KPIs of Communication, Dissemination and Exploitation Activities

Activities	Key Performance Indicator (KPI)	KPI Target
Communication	Number of visits on the website	250 per month
	Search engine position	First page
	Number of posts on social media	2 per week
	Number of followers across social media (total)	1000
	Number of subscriptions to the newsletter	150
	Number of promotional videos produced	3
	Number of policy briefs produced	2
	Number of press releases	4
Dissemination	Number of open access publications in high impact scientific journals	15+
	Number of participations in scientific conferences	15+
	Number of participants at local exhibitions	50+
	Number of industrial events attended (booth)	2+
	Number of local events in schools and universities (all partners)	10+
Exploitation	Number of training materials produced	16
	Number of participants at MultiMiner conference	100+

The [“MultiMiner Communication and Dissemination Log” excel file](#) is a living document listing all communication and dissemination activities carried out during the MultiMiner project. All partners have accessed to it.

Partners are requested to log in all communication activities, including social media posts, participation in events and an estimation of the number and type of stakeholders reached. It must include the month of output, which partner created it, the type of content, the platform, used, the intended stakeholder type, and a link to the communication item.

MultiMiner Dissemination and Communication Log - RP1								
For reporting purposes, please log in all general communication and dissemination activities related to the project: press releases, web articles on your institutional website, posts on social media (not retweets), videos, newsletter, etc. The most important is to log in an estimated number of people reached (number of page views on a website, newsletter opens, impressions on social media, etc).								
#	Month	Partner	Type of content	Channel	Estimated number of people reached**	Stakeholder type	Link/sources	Comment
2		ESF	Social media post	Twitter	125	General Public	twitter.com/MultiMiner_EU/status/1623621882913202176	

Figure 9: An example of how to log a communication activity

Within this log, there is also a Publication Log for separate recording of scientific publications.

As per the Grant Agreement, it is the responsibility of all partners to log any communication and dissemination activities in this log. This is an essential tool to measure the impact of MultiMiner communication efforts, and will be used to inform progress on KPI targets.

10 Potential Risks

Several factors have been identified as potential barriers to the exploitation of MultiMiner results:

- **Insufficient availability of partners or key personnel** – Underperforming partners in MultiMiner will be removed. In terms of availability for communication, while WP5 is lead by ESF it is not the sole responsibility of ESF to aid in the communication and exploitation of results. It is also the responsibility of each partner to engage with the project, communicate updates and engage stakeholders. Sharing this responsibility ensures a wider base of knowledge sharing and communication.
- **Partners do not share stakeholder contact information** – The [MultiMiner stakeholders excel file](#), which list all stakeholders and their contact details was created and shared to all consortium partners.
- **Strong opposition from civil society** – Due to the nature and makeup of the project, it is expected that MultiMiner may face some opposition. To resolve this quickly, MultiMiner partners will develop a supply of preapproved statements and answers in regard to protestors or strong public resistance. These will succinctly outline the rationale for the project, and the intended outcome of more responsible mining practices.
- **National Adaption** – Project developments and outcomes are communicated in English. The absence of translation may prove to be a barrier for end users. MultiMiner's partners are encouraged to translate communications where possible.



11 Annexes



MultiMiner has launched! 🚀 The new EU funded project that uses innovative Earth Observation technologies for safer, more efficient and environmentally considerate mineral exploration and mine site monitoring. #multiminereu

Find out more: esf.org/eu-projects/mu...



 GTK and 6 others

Figure 10: MultiMiner Twitter Example

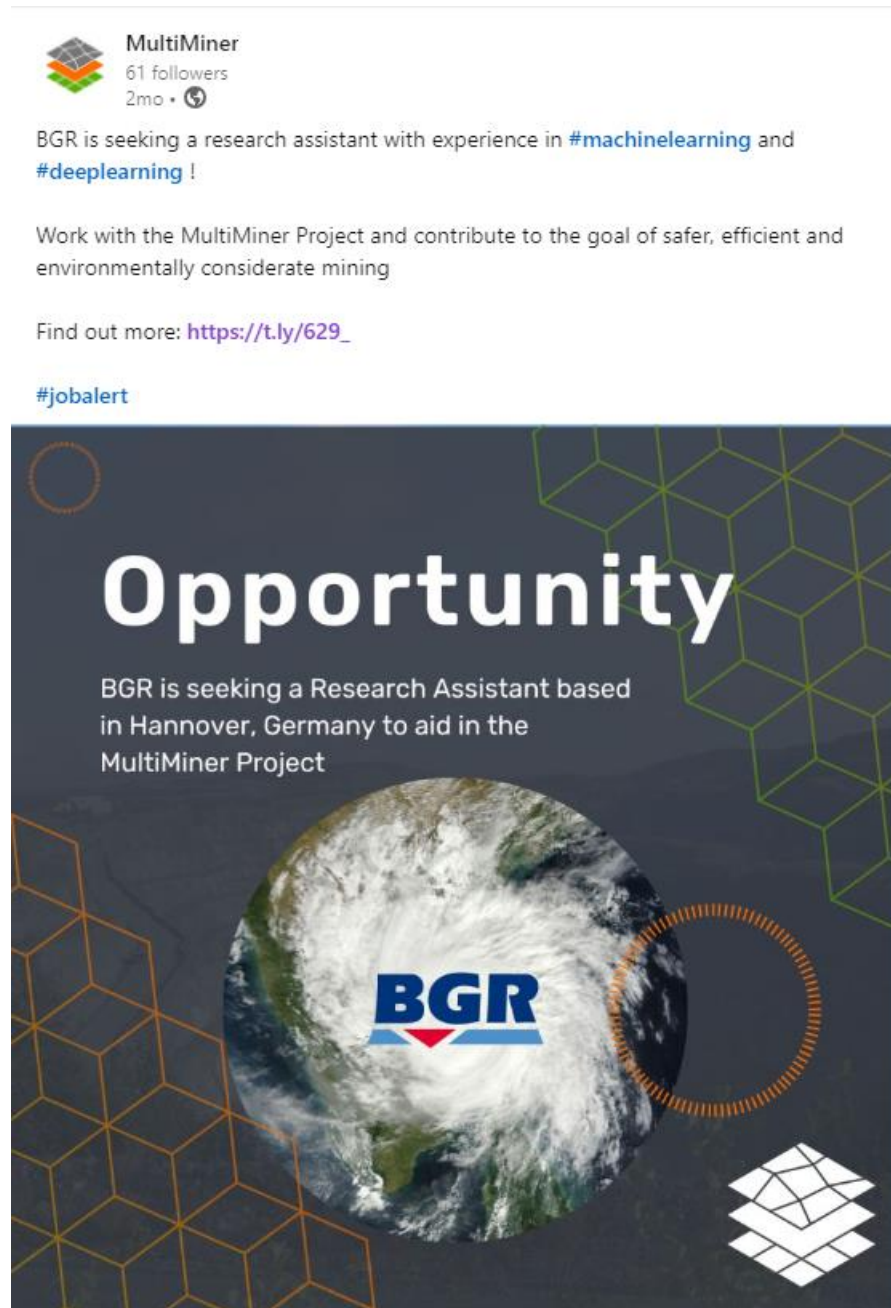


Figure 10: Example of a MultiMiner LinkedIn post