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Conservation and promotion of the Coal Mining Heritage as Europe's cultural legacy

Deliverable 5.1

Dissemination, Communication and Exploitation plan

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DISCLAIMER

Summary

This manuscript presents the Dissemination, Communication and Exploitation (CDE) plan, part of Work Package 5: Development of a network for the promotion and protection of the mining heritage. The role of the manuscript in the project is to describe activities expected to be used for the successful promotion of the project and dissemination of results.

The manuscript will constitute a live document inside the consortium written in English language and electronic format, that will be upgraded as needed throughout the implementation of the project as it progresses. Deliverables D5.2 and D5.3, which are strongly connected to Deliverable 5.1, consist an important part of the CDE plan, and thus must be seriously taken into consideration for its successful implementation.

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1 Introduction

The accelerated rise in global temperature during the last decade (Walker and King, 2009), has alerted the European Union (EU) to turn its attention on climate change mitigation and set an immediate goal to reduce its greenhouse gas emissions to at least 55% by 2030, with ultimate goal of zero emissions by 2050 (Foltynowicz, 2020).

The methodology expected to be used in order to achieve the goal set is strongly connected to the closure of coal and lignite mines, followed by their replacement with renewable energy sources (RES). Although, the use of RES has benefits related to the production of green energy, which will result in lower greenhouse gas emissions, the preference of RES over the fossil fuels might have a negative impact on local communities and their residents which are heavily dependent on the mining activity. The majority of residents will be at risk of losing their jobs as they are directly connected to jobs in the coal mines and power plants or indirectly to jobs in areas and industries dependent of the mining activity (McDowall et al., 2023).

The CoalHeritage RFCS Accompanying Measure European Project has set as main goal to support these local communities in transition and their residents by making them less dependent on the coal and lignite mining industry through repurposing of coal mines. The general plan is to provide access to re-skilling programmes, create potential to stimulate new economic activities in these areas and develop jobs in new economic sectors, especially in relation to the coal regions in transition (e.g., tourism). The creation of new jobs will be accomplished through the development of an interregional network for the protection and promotion of the coal mining heritage in post-mining regions.

For the implementation of the project a consortium was assembled of 6 partners from 5 European Countries with specialised background in heritage and coal mine transition. The following table provides basic information regarding each partner involved in the project.

Table 1: List of project participants

#	Partner Name	Acronym	Country	Role	Logo
1	ETHNIKO KENTRO EREVNAS KAI TECHNOLOGIKIS ANAPTYXIS	CERTH	Greece	Coordinator	
2	INSTYTUT TECHNIKI GORNICZEJ KOMAG	KOMAG	Poland	Partner	
3	PREMOGOVNIK VELENJE DOO	PV	Slovenia	Partner	
4	BUREAU DE RECHERCHES GEOLOGIQUES ET MINIERES	BRGM	France	Partner	
5	GLOWNY INSTYTUT GORNICTWA	GIG	Poland	Partner	
6	DMT-GESELLSCHAFT FUR LEHRE UND BILDUNG MBH	DMT-THGA	Germany	Partner	

The Communication Dissemination and Exploitation Plan will represent a powerful tool that will be used in order to achieve the goal set and to ensure activities related to promotion of

the project and dissemination of results will be effectively shared to all the interested parties. The plan also represents a way of using a timely planned and effective strategy which will help keep track of the project's actions as they are implemented. To achieve the best possible results and their further exploitation, it is important that all project partners understand the importance of the correct application and implementation of the proposed actions presented in this manuscript.

1.1 Goal & Objectives

The main goal of Dissemination Communcation and Exploitation Plan (DCE) is to achieve the greatest possible promotion of the CoalHeritage Project to interested parties and the general public. The methodology used to achieve maximum promotion involves the application of techniques for communication and promotion during and after implementation of the project, as well as dissemination of results after its completion. The specific techniques are presented in the following chapters and emphasize on promoting the importance of converting mining areas into sites of cultural heritage, with particular focus on coal and industrial heritage.

The specific objectives of the CDE Plan are as follows:

- To promote and increase public awareness of concept and the actions of the project
- Provide sufficient information regarding utility and impact of the results of the project on local communities
- To successfully communicate project results to stakeholder groups, in order to support its sustainability through their active participation in corresponding actions
- To sensitize the general public, changing their attitude on the importance of heritage values in the coal regions in transition
- To promote the results of the program to public and private bodies, both at regional, national and European level
- To optimize the communication between the partners involved in the project

1.2 Key Definitions

Communication for CoalHeritage is used as a mean to promote project actions and results, to different target groups via a two-way exchange of information, aiming at a multitude of audiences, that includes the media and the general public. CoalHeritage also aims to use the communication strategy as a way to show EU's implication and contribution towards tackling key current societal challenges.

Dissemination for CoalHeritage is used as a strategy, that will be applicable once the projects' results are accessible, aiming at sharing research results with potential users and peers in the research field, industry, other commercial players and policymakers. The sharing of results is expected to provide effective knowledge transfer of the impact of the project beyond its own boundaries.

Exploitation for CoalHeritage is of high priority for the project consortium as it will be used to revolve around making concrete use of project results, creating value for society, further academic research, and commercial use. It is imperative that all project partners get actively involved in the **communication** and **dissemination** process by promoting the actions and results of the project and by providing necessary information to a multitude of target

groups. The active involvement of project partners in this process provides them with the opportunity to show their involvement in the project and promote their overall contribution under the programme.

1.3 Project Target Groups

Part of the success of a research project is the proper awareness of the project and dissemination of its results to target groups, in order to gain as much widespread attention as possible. To make this strategy successful, the project must not only inform relevant project stakeholders but also actively involve them in the project, as they can provide guidance and presentation of opportunities for future development. Table 2 presents the main target groups that should be included during the Communication, Dissemination and Exploitation plan of a research project.

Table 2: Key target groups, potential actors and benefits

Target Group	Potential actors	Benefits from the project
Research/ education	Research organizations/ institutions, universities (at least 25 researchers), post-secondary/ secondary/ primary education institutions, other education organizations and NGOs that are in the vicinity of the coal mining areas, as well as in a national and European level.	Increased knowledge on the value of coal mines as industrial/cultural heritage and promotion as such, on a local, national and European scale. This will ultimately increase public acceptance and will prevent the deterioration of the mines' assets.
Industry	Coal mining companies, companies that will undertake mine reclamation and conversion to museums.	Solutions and visibility concerning mines near closure, recently closed and/or abandoned mines. Public and private funding for the reclamation and valorisation of the mines is likely to increase due to their enhanced visibility and promotion.
CSOs - Civil Society Organisations	Private funding agencies, NGOs (environment, education, economic development, tourism, heritage and promotion of science and technology), coal mining trade unions, grassroot organisations.	All types of CSOs interested in industrial heritage and its valorisation/promotion will benefit from the resulting tool of CoalHeritage, the EVMJ.
National, European and international networks	European Route of Industrial Heritage	Enrichment of industrial routes and networks in systematically documented coal mines within a heritage/tourism framework.

Local communities	Local authorities, tourist organisations, businesses	Promotional material that will increase visibility and touristic interest both in a local and national/European scale, and a new type of visitors interested in industrial heritage.
General Public	Local and national citizens in order to address public opinion /Citizens and community groups from the surrounding areas (especially near mining areas)	Distribution of news and information about the project and its activities to the local and national public / Awareness raising related to industrial heritage and coal mining specifically

For the better coverage of stakeholders, all project partners have provided lists with potential target groups for each country to create a project preliminary target group list (Annex 1). This list will be continuously updatedduring the implementation of the project. The information presented in the preliminary list will have as an ultimate goal to inform and raise awareness to different target groups of the coal mining history, attraction of the tourism industry in the areas and introduce alternative ways of exploiting the coal regions.

Communication and dissemination of actions related to the promotion of the project to different stakeholders will be coordinated and monitored by PV, who is Lead Beneficiary for Work Package 5: Development of a network for the promotion and protection of the mining heritage. The results of actions will be discussed during group meetings, that will include all project partners. During these meetings the general impact of actions will be evaluated, with aim for future actions to be proposed that will lead to improvement.

2 Communication Tools

2.1 Introduction

The visual identity of the CoalHeritage Project is a fundamental key aspect for its successful promotion during the communication process. Thus, it is imperative to ensure the recognition, identification and representation of the project by a logo. The latter will serve to represent the project through a visual image that can be easily understood and recognised by all interested stakeholders. The creation of a project logo is considered as one of the first tools used during the communication strategy and its incorporation throughout its deliverables and presentations is deemed necessary as it will further strengthen the project's image.

In particular, CERTH led the procedure regarding the creation of the CoalHeritage logo. A number of distinctive logos were created by a graphic artist in consultation with project partners and marketing experts that involved symbols, stylized text or both in the final layout. After the finalization of the logos, they were sent to all project partners in order to select the most representative of the CoalHeritage Project.

Several, relatively low cost, external and internal communication tools will be presented in the following chapters and will be employed in order to achieve the communication goal of maximum success in the promotion and advertisement of the project.

2.2   External

2.2.1   Website

The project's website (https://coalheritageproject.eu) is one of the main tools that will be used for communicating and disseminating the results and actions related to the CoalHeritage project. As a communication tool, the website will provide access to general information, the aims, actions and all deliverables of the project in digital form. In addition, special emphasis will be placed on the presentation of multimedia applications and the promotion of links to project partners and other social networks, such as Facebook, LinkedIn and X (formerly Twitter).

The website will be regularly updated with topics and news about the progress of the project and the planned events. All the information presented on the project's website will be displayed in English language. The website will be implemented through a template selection on a Content Management System (CMS) platform and it will contain the following pages:

- Home Page (simple page)

- About (simple page)

- News & Publications (blog post page)

- Create post with large pdf attachment

- Contact (form page)

- Consent Bar

- Cookie Policy (simple page)

- Social media channels/buttons

CERTH is responsible for getting in touch with a design company that will take over the design of a website for the CoalHeritage Project. For the operation of the website, a basic course will be offered to CERTH that will contain general training in the use of CMS.

2.2.2   Social Media

The project is currently present on three social media channels. It has its own Facebook page (https://www.facebook.com/profile.php?id=100094750021179) @CoalHeritage, where the project news and events are shared. The project also has an X account (https://twitter.com/CoalheritageEu) and a LinkedIn profile (https://www.linkedin.com/in/coalheritage-project-eu/) which are enabled via the use of

the hashtag #CoalHeritage. The social medial channels will allow project partners to connect to the CoalHeritage project and distribute relevant to it information through their channels as well as mention the project in relevant discussions. The possibility to register dedicated project accounts on the Youtube platform is currently considered by project partners. In addition, all project posts will use hashtags #RFCS for the X account and the LinkedIn profile, highlighting that they belong to the RFCS project pool and @RFCS for Facebook.

2.2.3   Connection with Related Projects

As part of the networking, project partners are expected to create connection to other CoalHeritage related projects. There are several completed and on-going projects that focus on the promotion of cultural heritage, and include coal mining as well as other industrial activities. Examples of such projects include, but are not limited to Tracer, TERRANOVA, SoPHIA, ReviRis, REFREsh, ICEDIG, GeoERA, CoHERE. The direct connection of CoalHeritage with these projects will benefit from additional knowledge regarding coal mining and industrial heritage, as well as access to expertise gained during implementation of projects with similar thematic. In addition, the public communication between CoalHeritage and the rest of the related projects will take an active role on social media, through sharing of the project's information on social media channels, tagging them in posts, and inviting and participating in relevant events. This will generate a two-way communication effect that will help include CoalHeritage in the ongoing European dialogue regarding coal mine and industrial heritage.

2.2.4   Conferences and Workshops

This section focuses on tools that will be used for the promotion of project results such as the website, Geodatabase, the European Visual Map Journal (EVMJ) and enhance the importance of creating an interregional network. The promotion of the aforementioned project results will be achieved through organization of different conferences and workshops, as well as preparation of publications covering the evolution of specific mining technologies. Particularly, the EVMJ will be promoted through visual presentation and video footage, showing the heritage of mining and coal related industries, as well as their transformation and potential as special sites for society. Such example is the final workshop for stakeholders that will be organised at GIG's Experimental Mine Barbara during Industriada, for the presentation and promotion of the EVMJ.

A special separate session will be presented at the KOMTECH conference organized by KOMAG partners, that will be dedicated to technical and industrial heritage. During this session, assumptions and ideas on how to protect industrial heritage will be presented. This type of session could become a permanent part of the conference, e.g. closing session. Additionally, as a part of the conference, a stand would be prepared equipped with VR technologies that will be presenting issues related to the mining heritage in the form of virtual tours, enabling the participant / observer to be "transferred" to another place and to another time. Other special separate session could be presented in the form of a workshop organised by PV in Velenje, Slovenia (May 2024), hosted by Coal Mine Velenje, as an event in the Slovenian Coalmine Museum. Another promising event is the "International Geodiversity Day", which was recognised by UNESCO in April 2021.

The conferences and workshops will also feature visual presentations, in the form of lectures, with different thematic such as the evolution stages in terms of technical design, of a specific device or machine used in coal mines. As a part of the presentations, attempts can also be made to identify the impact of the development of technology, machinery and equipment in mining on other industries. Depending on the place and method of presentation, the presentations may contain interactive elements in the form of puzzles, quizzes, animations, shows with use of VR technology, etc.

Since the society is an important target group, the results of the project and the developed recommendations will be integrated into the new Master's Course "Material Engineering and Industrial Heritage Conservation'' of the DMT-THGA University. Furthermore, DMT-THGA project partners will promote the results and transfer them into the public via the project "heritage conservation centre Ruhr" (hcc Ruhr).

2.2.5   Brochures, Articles and Newsletter

The collected material can also be made available as published materials,such asarticles, brochures and newsletters, for which partners GIG and KOMAG are responsible. An example of such publication can be an article in the local newspaper that covers the evolution of mining (in digital form containing for e.g. 3D models etc). In addition, digitisation of selected archival collections covering technical documentation, can take place, which will be presented as articles in the trade press (mining machines, mining stands, etc.) and become available as a publicly available collection of thematically arranged articles. For example, there can be development of a series of three articles describing the history of the development of mining and mining machines and devices.

2.3   Internal

The external communication channels presented and described in Chapter 3.2 are some of the main tools that will be used in order to achieve the communication objectives set. Although these external tools represent an important asset for the successful implementation of WP5, all project partners agree that strong internal communication is also necessary, represents an equally important tool and should be taken into consideration during the setup of the CDE plan. Specifically, the internal communication has the role of building and simultaneously strengthening the internal network of the project's consortium, which will lead to strong external communication and dissemination practices.

In kick-off meeting, consortium agreed that WP Leaders are responsible for the communication with each partner country in order to carry out the activities and tasks assigned for each WP, so that they are fulfilled in a timely and regular manner. Deliverable 5.1 is part of WP5 and PV is WP Lead Beneficiary. For the successful implementation of WP5, PV has organised a first general meeting with the rest of the partners involved in the WP. Meetings between partners involved in the same WP will facilitate brainstorming on how to best communicate to the public and target groups about the Geodatabase, EVMJ, the interregional network as well as general information regarding the project.

Actions for the promotion of the aforementioned project information will be communicated by PV to the rest of the project partners during general meetings organized by project

Coordinator, CERTH. The general meetings will take place in the form of short web-meetings on a monthly basis with the aim to guarantee and maintain a good communication and collaboration among the project partners. When it comes to meetings in person at least a total of 3 will take place (1 at the beginning, 1 at the middle of the project and 1 at the end).

3 Target Groups and Communication Tools

Communication and outreach activities establish tools and conduct actions for reaching various target groups, that will raise awareness, via approaches specialised to audiences in question. Chapter 1.3 presents the different target groups the project aims to inform and involve in the project. Chapter 2 describes the tolls that will be used for the communication and dissemination of project activities and results to different target groups. This chapter aims to connect the previously mentioned chapters by matching the tools used to the corresponding target groups, as presented in Table 3. It is important to mention that some of the tools used for communication purposes have a dual nature and can also be utilised for dissemination of results.

Table 3: Communication Tools and Corresponding Target Groups

Tools	Description	Target group(s)
Website	Project web site (updated every month), that will allow dynamic addition of content as well as linking to project tools and activities for access by stakeholders.	Research/education groups, general public, public authorities, Industrial stakeholders, National, European and international networks
Social media	Short posts via social media channels (Twitter, Facebook and LinkedIn)	Research/education groups, general public, public authorities, Industrial stakeholders, National, European and international networks
Connection with related projects	Additional knowledge regarding coal mining and heritage, as well as access to expertise	Project partners, engaged stakeholders, Research/education groups, Industrial stakeholders, National, European and international networks
Conferences and workshops	Video footage of the EVMJ will be distributed via the website and social media	Research/education groups, Industrial stakeholders, General public, Public authorities

	Brochures will be used to promote the projects results	Project partners, engaged stakeholders
Brochures, Articles and Newsletter	Articles of general interest will be distributed Newsletter will promote the project's activities.	General public, Research/education groups, public authorities, Industrial stakeholders, National, European and international networks

4 Dissemination

One of the main objectives of CoalHeritage is the dissemination of project results via a variety of measures that will establish an interregional stakeholder network and ensure its contribution work after the implementation of the project. Effective dissemination is the relevant action for delivering CoalHeritage results, promoting industrial heritage and conserving tangible and intangible coal mining assets. The promoting of the heritage values of the immovable/movable assets of the areas will raise awareness and engagement of stakeholders and development of an interregional network for the promotion of coal mining heritage.

The dissemination of project results is part of the CoalHeritage CDE plan that falls under WP5, which is dedicated to promoting and disseminating the results to different target groups and attract the public's attention to the importance of mining heritage.

4.1   Dissemination Target Groups

A key element of the dissemination strategy is to ensure key target groups and potential actors. Worth mentioning is that the target groups presented in Chapter 1.3 and Annex 1 of the manuscript have a dual nature and are going to be taken into consideration during both the Communication and Dissemination strategy. The target groups presented are recognized as extremely important for the Communication and Dissemination process and the intended effects of CoalHeritage project.

4.2   Dissemination Tools

The following dissemination tools (table 4) consist of the appropriate means in order to effectively deliver the results of CoalHeritage through a plethora of outreach activities and supporting material.

Table 4: Dissemination tools

Dissemination tool	Description	Target group(s)
Workshops	Development of thematic presentations (lectures) for various conferences, 3 workshops (2 internal workshops, 1 with the stakeholders) etc., e.g. the evolution stages, in terms of technical design, of a specific device or machine used in coal mines.	Research/education groups, public authorities, Industrial stakeholders, National, European and international networks.
Conference	Organization of a separate session at the KOMTECH conference (hosted by KOMAG), dedicated to technical and industrial heritage.	Research/education groups, public authorities, Industrial stakeholders, CSOs, National, European and international networks.
Publications covering the evolution of mining	Digitization of selected archival collections covering technical documentation, at least 3 articles in the trade press (mining machines, mining stands, etc.) and then making it available as a publicly available collection of thematically arranged articles. Development and preparation of 3D models of selected mining machines for sharing. At least 2 scientific publications.	Research/education groups (at 25 researchers), Industrial stakeholders, CSOs, National, European and international networks.
Events	Special open event at GIG's Experimental Mine Barbara during Industriada. A final workshop will promote the results to the general public.	Research/education groups, general public, public authorities, Industrial stakeholders, CSOs, National, European and international networks.
Meetings/discussions	The meetings and the discussions with the stakeholders will be summarised in a set of recommendations for the use of coal site facilities.	Project partners.
Consultation with stakeholders	A questionnaire will address social issues related to mining/industrial heritage sites and define how the general public perceives them.	Research/education groups, general public, public authorities, Industrial stakeholders, CSOs, National, European and

		international networks.
Link with other projects and/ or networks	The project will be liked with other related projects and networks via workshops and social media.	Research/education groups, public authorities, Industrial stakeholders, CSOs, National, European and international networks.
Social media channels	Reaching relevant groups through Social Media Channels to disseminate information about relevant events. All dates will be published through Social Media Channels (LinkedIn, Facebook, Twitter).	Research/education groups, general public, public authorities, Industrial stakeholders, CSOs, National, European and international networks.

4.3   Dissemination Sharing Products

4.3.1   European Visual Map Journal (EVMJ)

The launch of the EVMJ will allow the users to have access to the coal mining history (technological). It will provide a better knowledge of coal post mining heritage on selected territories, including visual maps, informative texts and existing geospatial data in accordance to its historical evolution. Also, the EVMJ will support the knowledge transfer of coal cultural legacy through a friendly-user environment by representing and visualizing the information to motivate a broad range of stakeholders in order to learn more and/or visit them. The EVMJ will be maintained for the duration of the project (2 years) and, to ensure its maintenance, as well as the maintenance of the network, the consortium will seek additional funding that will involve and maintain the results of CoalHeritage and their impact.

4.3.2   CoalHeritage Geodatabase

The CoalHeritage Geodatabase will contain geospatial and text data from the selected coal mines, visual maps, and informative texts. The Geodatabase, together with a specialized interregional coal heritage network, will be integrated as a specific route in the European Route of Industrial Heritage, which has yet to be introduced by other similar projects, with the aim to protect the cultural identity of coal mines.

4.3.3   Peer Reviewed Articles (scientific)

At least 2 peer reviewed scientific articles related to the project topic will be written and published in accordance with the Open Access policy addressed to research/education groups, public authorities, industrial stakeholders, CSOs, as well as national, European and international networks.

4.3.4 Deliverables (WP5)

The main objective of WP5 is to promote and disseminate the results to the stakeholders and attract the public attention to the mining heritage. During the framework of WP5, there will be three deliverables open to public. Hereto, apart from the Dissemination, Communication and Exploitation Plan (D5.1), there will be a Report on awareness raising and promotion of the heritage values within the project (D5.2) and another Report on the stakeholder engagement (D5.3).

4.4 Planned Milestones/Deliverables involving Dissemination

- Kick-off meeting (MS1) (1st month).
- Draft of Questionnaires (MS4) - Workshop with stakeholders (8th month).
- Articles, promotion materials (MS9) (multimedia, presentations) (20th month).
- Open event at GIG's Experimental Mine Barbara (MS10) - Industriada (20th month).
- Final report (D1.2) - Summary of the results and the dissemination activities of the project (24th month).
- Report on the coal transition strategy of the European countries (D2.1) - Summary of the results of comparative analysis and best practices that will provide the information about coal heritage in Europe (6th month).
- Description of processes for the identification of the coal sites as national heritage areas (D2.2) - Report on moderated discussions with stakeholders/ experts from mining areas under transition (9th month).
- Report on the questionnaires and first results on the public perception (D2.3)   - Report on the public perception analyses with statistical information like age, gender, profession etc (12th month).
- Coal heritage Geodatabase (D4.1) - Report which will include the methodology of geospatial and text data collection, homogenization, presentation and storage according to specific standards (15th month).
- Visual Map Journal based on geospatial and attribute data (D4.2) - Report which will include the methodology of the creation of the Visual Map Journal, while the website will present it, containing all the interactive maps and multimedia content (24th month).
- Dissemination, Communication and Exploitation plan (D5.1) - CD plan with the communication and dissemination activities (3rd month).
- Report on awareness raising and promotion of the heritage values carried within the project - Report which will include a description of the activities carried out to promote public awareness of cultural heritage (24th month).
- Report on the stakeholder engagement (D5.3) - Report which will include a description of the questionnaire results, the open event at Experimental Mine 'Barbara' during Industriada and the interregional network's activities (24th month).

5 Exploitation

Exploitation of CoalHeritage's results is of high priority for the project consortium. The exploitation strategy will revolve around making concrete use of project results, creating value for society, further academic research, and commercial use. Some of the most prominent exploitation results include the promotion of the concept of CoalHeritage as well as the creation of the European Coal Mine Route. In addition, the support of activities aimed at transformation of mining sites and areas into industrial heritage sites and the use of methodology and results by future interested parties will be pursued. The exploitation activity will commence from M1 (kick-off meeting) and will last until the end of the project on M24. The following table lists the proposed exploitation measures and target groups of the expected results in CoalHeritage.

Table 5: Proposed exploitation measures and target groups of the expected results

Expected results	Exploitation measures	Target group(s)
European Visual Map Journal (EVMJ)	Use during workshops and thematic group meetings at schools, local touristic agencies, local authorities and their visitors, also use by tourists.	Research/education groups, public authorities, National, European and international networks.
Coal Heritage Geodatabase	Sharing of the database with other European platforms, such as 'EuroGeoSurveys' European Geological Data Infrastructure (EGDI), to retain its public access and possibly updates.	Research/education groups, public authorities, National, European and international networks.
Interregional stakeholder network	Promote the concept of CoalHeritage and create the European Coal Mine Route.	Research/education groups, Industrial stakeholders, CSOs, National, European and international networks.
Processes for the identification of the coal sites as national heritage areas	Use by parties, local, regional and national authorities, as well as CSOs involved in the transition processes.	Research/education groups, public authorities, National, European and international networks.
Best practices of transformation of sites and areas into industrial heritage objects	Use by parties, local, regional and national authorities, as well as CSOs involved in the transition processes	Research/education groups, public authorities, National, European and international networks.
Identification of the awareness level of the stakeholders on industrial	Support of activities aimed at transformation of mining sites and areas into industrial	Research/education groups, Industrial stakeholders, CSOs, National, European and

heritage	heritage sites.	international networks.
At least 2 peer reviewed articles	Direct and indirect use of methodology and results by future interested parties.	Research/education groups, public authorities, National, European and international networks.

6 Impact and Performance Indicators and Monitoring

The impact of the CoalHeritage project will be assessed against a set of target indicators. The indicators related to communication, dissemination and knowledge sharing activities and are summarised in the following table 6.

Table 6: List of Communication and Dissemination Impact Indicators

Tool or activity	Measurement unit	Target indicator	Partner	Deliverable/ Milestone	Due date
EXTERNAL					
Website	Visits	100-200 per month	CERTH	D5.1	M3-M24
Database/ European Visual Map	Visits	100 – 150 per month	CERTH	D4.1/D4.2	M15/M24
Social media	Followers	200	CERTH	D5.1	M1-M24
Reports	Submission	13 Deliverables	All	All	M1-M24
Workshop with stakeholders	Participants	25	DMT-THGA	MS4	M8
Open event Experimental Mine Barbara	Participants	200	GIG	MS10	M20
Brochures, Articles, Newsletter	Promotion and distribution	2 per month	KOMAG	MS9	M20
University course	Participants	50 per course	DMT-THGA	D5.3	M24
Special session KOMTECH conference	Participants	100	KOMAG	D5.1	M1-M24
INTERNAL					
Internal web-meetings	Participants	All partners	CERTH	MS2, MS6, MS7, MS8	M6, M10, M12, M15, M18, M20
Internal workshops	Participants	All partners	CERTH, KOMAG	MS3, MS5	M3, M6

In the framework of WP5 there will also be monitoring of the project's Dissemination and Communication activities. The impact indicators for internal and external communication practices for CoalHeritage project will be monitored on a continuous basis by the project coordinator CERTH and WP5 leader, PV. Taking into consideration table 6 a large number of external impact indicators, such as the project's Website, European Visual Map Journal, Geodatabase and Social Media, will be verified using different methods as shown in the below table 7.

Table 7: List of CoalHeritage External Impact Indicators & Methods for Monitoring

Tool	Website	European Visual Map Journal (EVMJ)	Social Media	Coal Heritage Geodatabase
Method	Website traffic	Analytics	Traffic analytics	Analytics
	Organic traffic	Interactions	Interactions	Interactions
	Interactions	Session duration	Session duration	Session duration

The monitoring of the remaining external and internal impact indicators are based on in-person participation to different events organized by project partners.

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Annex 1. Preliminary target group list

		Partner					
Target group	Target group actors	CERTH (Greece)	PV (Slovenia)	GIG (Poland)	KOMAG (Poland)	DMT-THGA (Germany)	BRGM (France)
Government and Municipality agencies	Ministry for Infrastructure, Environment, Culture	Government and Municipality agencies of nearby areas	Government of Republica Slovenia, Ministry for Infrastructure, Environment, Culture, Finance, Economy, Labour; Municipality agencies of Velenje, Šoštanj, Šmartno ob Paki, Trbovlje, Hrastnik, Zagorje, RA SAŠA, RA Zagorje	Polish Ministry of States Treasury; Ministry for Climate and Environment, Ministry of Culture and National Heritage of the Republic of Poland; National Heritage Institute, National Fund for Environmental Protection and Water Management); Mining and other authorities i.e. State Mining Authority/WUG, National Fund for Environmental Protection and Water Management/NFOŚ other public administrators, decision makers, policy makers, regulators; Silesian Communities and Counties Association, Association of Mining Communities in Poland, Marshal Office of the Silesian Voivodeship; District Authority Offices	Municipality agencies of nearby areas (Selected cities from Upper Silesia)	Government authorities and Regional Institutions (Bundesanstalt für Geowissenschaften und Rohstoffe (BGR), Bundesanstalt für Materialforschung und -prüfung (BAM), Regionalverband Ruhr, Geologischer Dienst NRW, Europäischen Fonds für regionale Entwicklung (EFRE), Landesamt für Bergbau, Energie und Geologie (LBEG))	Regional Post-mining Units (UTAM Nord, UTAM Est, UTAM Sud), French Ministry of Culture, French Ministry of Ecological Transition and Territorial Cohesion
Research/ education	University (teachers, students), High school (teachers, students)	Research and academic staff from local Universities	Education institution (Velenje, Ljubljana, Maribor, Krško), University (LJ, MB, VE …), High school (MIC, ŠCV …),	Universities; Academia and scientific community, researchers; Education professionals, teachers and students; Polish Geological Institute-National Research Institute	Teachers, Research and academic staff from local Universities, Vocational Education and Training units	Research and Education (TU Bergakademie Freiberg, TU Clausthal, Helmholtz-Institut Freiberg für Ressourcentechnologie, Hochschule Mainz, Institut für Markscheidewesen der RWTH Aachen, Hochschule Bochum, Ruhr-Universität Bochum (RUB))	Research and academic staff from local Universities (Lille University, Lorraine University)
Industry, Public or Private Power Corporations	Coal mining companies, companies that will undertake mine reclamation and conversion to museums.	Public or Private Power Corporations, Local industries and businesses	HSE, GEN Energija, Public or Private Power Corporations, Local industries and businesses of nearby areas (GZS - Chamber of Commerce and Industry of Slovenia, OZS - The Chamber of Craft and Small Business of Slovenia, turistic agencies	Mining companies: JSW, PGG, TAURON Wydobycie, Węglokoks Kraj, PG Silesia, Zakład Górniczy Siltech,LW Bogdanka, SRK; Polish Mining Chamber of Industry and Commerce ; Regional Chamber of Commerce and Industry in Katowice, local chambers of commerce and industry; mining supporting companies (i.e Haldex, Famur, Remag); power plants	Mining industry (SRK S.A, JSW S.A., PGG, Węglokoks)	Companies and Consulting Firms (RAG Stiftung, RWE Mining, Thyssen Krupp, Tre Altamira, Uniper, Wismut, DMT GmbH, EFTAS, Eon Mining, Hygiene-Institut des Ruhrgebiets, LBMV, K+S Aktiengesellschaft)	/

CSOs - Civil Society Organisations	Museums, Private funding agencies, NGOs (environment, education, economic development, tourism, heritage and promotion of science and technology), coal mining trade unions, grassroot organisations.	Nonprofit and advocacy area groups regarding environment, tourism and archeology	Coal mining museum of Slovenija and other museums (Museums Association of Slovenia), Geolical Survey of Slovenia (GeZS)	Museums of mining and heritage parks (Gudio, Tarnowskie Góry, Królowa Luiza, Wieliczka) , Silesian museum, The Living Factory Dąbrowa Górnicza; Institutions of culture and heritage (Park Tradycji Siemianowice Śląskie, Stara kopalnia Wałbrzych); former miners/employees and associations (i.e. Rozbark Enthusiasts Association); local NGO's and pressure groups (Local Initiatives Factory Association Nikiszowiec); Greens Poland, Polish Green Network; Mining trade unions; Association of Mining Engineers and Technicians; Polish Chamber for Ecology	Association of Mining Engineers and Technicians (SITG); Tarnogórska Land Lovers Association (SMZT);	Zeche Zollverein Essen, Deutsches Bergbau Museum, European Association for Coal and Lignite aisbl (Eurocoal), Geounion, Branchenverband Steinkohle und Nachbergbau (bgn) ehemals Gesamtverband Steinkohle e.V. (GVSt), Senatskommission für Erdsystemforschung (SKE) der Deutschen Forschungsgemeinschaft (DFG), Verband Bergbau, Geologie und Umwelt e.V. (VBGU)	Mining History Center (Lewarde, Hauts-de-France), Carmaux mining museum, Parc Explor Wendel Lorraine, some of the other 25 coal heritage museums; associations of miners; association for the protection of nature and the environment (FNE, …)
Local communities	Local authorities, tourist organisations, businesses	Citizens and community groups from the surrounding areas (especially near mining areas)	Municipality of Velenje, Šoštanj and Šmartno ob Paki, Trbovlje, Zagorje, Hrastnik and their citiziens, tourist organizations	local communities and its commune registers of historic monuments; The Silesian voivodeship's government; Metropolitan Association of Upper Silesia and Dąbrowa Basin (metropolia GZM); Voivodship Fund for Environmental Protection and Water Management; Environmental Protection Inspectorate Katowice, District Mining Offices/ OUG; local tourist offices; local agencies for developement; local industrial parks; local experts from cultural, environmental associations/protected area structures, mining; local labour market institutions; residents of mining regions	Tourist websites related to the Silesia region (Geocaching; Goetourism, slaskie.travel…); Local tourist information centers; mining press and journal (netTg.pl, Mining Machines)	Citizens and community groups from the surrounding areas (especially in the Ruhr area). Bottrop, Essen, Duisburg, among others	French association of mining districts
Press	TV stations, newspaper, magazines and radio	Local communities from the Western Macedonia and Megalopolis Regions and surrounding areas	Slovenian Press Agency; National and local media, Velenje Coal Mine internal and social media	Media i.e. local media in mining regions, Polish Press Agency, self-government portal/ Portal samorządowy, industry press: Biuletyn Górniczy, mining portal/nettg.pl, trybuna górnicza, catholic media publishers in Poland – Gość Niedzielny/radio eM		Local communties from Ruhr Region, internal web news section of FZN-THGA, German Mining Museum Press	Social media from the main coal museums (Lewarde…), local media, Geosciences magazine (Geochronique…), BRGM's comm. dpt.
National, European and international networks	European Route of Industrial Heritage	Greek Mineral Wealth, Balkan Green Energy News, Balkan Insight	Eurocoal, Balkan Mine Conference	European Route of Industrial Heritage; Silesian Industriada; Precop-UN framework conventions on climate change;	Silesian Tourist Organisation (SOT)	European Institute of Innovation and Technology (EIT)	UNESCO wold heritage center ?

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