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



Deliverable 5.3
Report on the stakeholders' engagement

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Summary

Deliverable 5.3 presents a comprehensive report on stakeholders' engagement with a presentation of GIG-PIB questionnaire survey results, analysis of a public event (Industriada), and best practices from international partners to assess and enhance stakeholders' engagement in mining heritage initiatives.

Section 1 is an introduction to the topic and explains the context of the stakeholders' engagement in the process of protection and promotion of mining heritage, with the most common methods and tools.

In section 2, the GIG-PIB survey on stakeholders' engagement has been presented. It aimed to gain different stakeholders opinion on their involvement in the process of protection and promotion of mining heritage. In this part, methodology, data analysis, results and survey conclusions has been discussed.

Section 3 is dedicated to the INDUSTRIADA at Experimental Mine Barbara GIG-PIB, an open event dedicated to a wider group of stakeholders, including residents and society in general. It draws the attention of many people and supports the interregional network for the promotion and protection of the mining heritage.

In section 4. "The interregional network's activities – good practices from partners' countries on stakeholders' engagement in the process of protection and promotion of mining heritage", the role of interregional network activities has been discussed with examples of successful CoalHeritage project networks. This part also describes how different countries effectively engage stakeholders in mining heritage through case studies of France, Germany, Greece, Poland and Slovenia.

Section 5 presents final conclusions from all activities connected with stakeholders' engagement (open event, local case studies, survey conclusions) and provides recommendations for further actions that can strengthen social commitment for the sake of the protection and promotion of mining heritage. These data and recommendations can further be used by the stakeholders to strengthen their activity and enhance stakeholder engagement in mining heritage.

1. Introduction

1.1 Context - Stakeholders engagement in the process of protection and promotion of mining heritage - methods and tools

Stakeholder engagement is a cornerstone of effective heritage conservation, particularly in the complex domain of mining heritage, which intersects cultural, social, environmental, and economic dimensions. Inclusive, well-structured stakeholder involvement enhances the legitimacy and sustainability of heritage protection and promotional strategies. This approach aligns with principles of participatory governance and integrated heritage management. Probably the most important is social acceptance for maintaining mining heritage, which often evokes mixed perceptions. While it symbolizes industrial achievement and community identity for some, others associate it with environmental degradation and labor exploitation. Involving diverse stakeholders, including local communities, former miners, heritage professionals, policymakers, and NGOs, helps build consensus around preserving values and narratives. This process enhances the social legitimacy of heritage initiatives (Smith, 2006; Logan, 2012). A global review emphasizes that integrating stakeholder engagement, especially through digital and networked tools, is essential to secure a social licence to operate (Ansu-Mensah et al.). Engagement builds trust and community backing, avoiding conflicts and securing long-term (Nelson et al. 2023).

Effective promotion of mining heritage requires community buy-in and participation. Stakeholders can act as ambassadors, entrepreneurs, and co-creators of interpretative experiences, which in turn attract funding, tourism, and media attention. Engaged stakeholders are more likely to become long-term custodians of mining heritage. Their sense of ownership contributes to ongoing maintenance, volunteerism, and even innovation in the reuse of post-industrial sites. This is particularly relevant in post-mining regions undergoing economic transitions, where heritage can be a catalyst for regeneration (Xie, 2006; Giblin, 2014).

Another important issue is local identity. Stakeholders, like residents and former miners, hold valuable experiential knowledge that complements academic and technical perspectives. Their involvement ensures more nuanced and authentic interpretations of mining heritage. This co-production of knowledge leads to richer, more inclusive narratives and prevents the oversimplification of industrial pasts (Waterton & Smith, 2010). Stakeholder engagement is fundamental to the scientific, ethical and practical effectiveness of mining heritage initiatives. It enables inclusive decision-making, fosters community resilience, and ensures that heritage conservation contributes to broader sustainable development goals.

Methods and tools of stakeholders' engagement in the process of protection and promotion of mining heritage

Effective stakeholder engagement is essential in the sustainable protection and promotion of mining heritage. Given the multidimensional nature of mining legacies, encompassing historical, cultural, environmental, and economic values, it is necessary to adopt a participatory and inclusive approach. The UN United Nations Development Programme (UNDP) emphasize that three principles are key to effective stakeholder engagement: inclusivity, participation, and accountability (UN, 2020).

The key methods important to use to engage diverse stakeholders, ranging from local communities and former miners to public authorities, NGOs, tourism operators, and heritage institutions, are listed below.

1. Stakeholder mapping and analysis. The engagement process begins with systematic stakeholder mapping, which identifies and categorizes actors based on their interest, influence, and relationship to mining heritage.
2. Participatory planning and co-creation. To ensure ownership and long-term commitment, stakeholders are often involved in participatory planning processes.
3. Community-based research and citizen science. Involving local stakeholders in data collection, oral history documentation, and site monitoring helps validate and enrich heritage narratives.
4. Institutional partnerships and cross-sectoral networks. Long-term stakeholder engagement often relies on formal partnerships and multi-actor networks, including:
 - Local governments and cultural heritage bodies.
 - Academic institutions conducting heritage research and documentation.
 - Mining companies involved in Corporate Social Responsibility (CSR) initiatives.
 - NGOs advocating for environmental justice or cultural preservation.
5. Educational and capacity-building programs. Building stakeholder capacity to engage with mining heritage

Stakeholders' engagement tools

Various public engagement tools can play a strategic role in fostering active participation of local communities and stakeholders and ensuring that heritage initiatives are inclusive, sustainable, and rooted in local identity.

1. Participatory budgeting. Participatory budgeting allows residents to decide how to allocate part of a public budget. This tool can support community-driven heritage projects such as organizing cultural festivals, local exhibitions, or creating educational activities related to mining history. It empowers citizens to initiate and co-finance projects like restoring former mining buildings, establishing memory trails, or creating interpretive spaces for youth.
2. Public consultations. Carried out before making significant decisions, consultations ensure that local communities have a voice in shaping policies or projects related to mining heritage conservation, the reuse of industrial sites, or tourism development.
3. Citizen panels and forums. Citizen panels provide space for residents to discuss key heritage issues, prioritize needs, and co-develop recommendations. These deliberative bodies can help shape inclusive heritage strategies that reflect community values.
4. Volunteering. Volunteer work supports local heritage organizations (e.g., NGOs, museums, cultural centers) through guided tours, oral history documentation, or maintenance of historical sites. Engaging volunteers, especially former miners, builds community ownership and raises awareness of the region's industrial past or for storytelling projects capturing memories of former miners.
5. Workshops and roundtables, and design thinking approaches. These intensive design workshops involve citizens, experts, and public officials in co-creating solutions for public spaces or heritage reuse. Using tools from design thinking, participants collectively imagine future uses for mining infrastructure or propose community-based revitalization plans.
6. Online platforms. Digital tools, like websites, social media, interactive maps and mobile apps or online platforms for crowdsourced data on mining landmarks can significantly broaden participation in mining heritage projects. They facilitate dialogue, collect feedback, promote events, and support crowdfunding campaigns for local initiatives.
7. Digital tools. Digital technologies offer scalable and interactive means of stakeholder engagement through interactive maps and GIS platforms, Virtual Reality (VR) and Augmented Reality (AR) -

applications recreate historical mining environments and foster immersive learning, social media campaigns amplify visibility and enable dialogue with broader audiences, particularly younger generations.

Engaging stakeholders in the protection and promotion of mining heritage requires a tailored mix of participatory methods and digital tools, underpinned by mutual trust, transparency, and shared value creation. As mining heritage is often rooted in contested histories and evolving identities, stakeholder engagement must be seen as a continuous and adaptive process rather than a one-time intervention.

2. The questionnaire survey

2.1 Methodology

To assess the stakeholders' engagement in the process of protection and promotion of mining heritage, we employ a survey analysis across the participants' regions of the project. The identification of the main involved stakeholders and how they perceive the protection and promotion of mining heritage is vital for understanding the current needs and to incorporate them into future development plans for the promotion and protection of former mining sites. Figure 1 shows a detailed workflow of the steps towards the construction and strategic design of the online survey instrument and its execution upon the results. In this chapter, each of the steps will be explained, and the instruments for the successful development of this report will be applied.

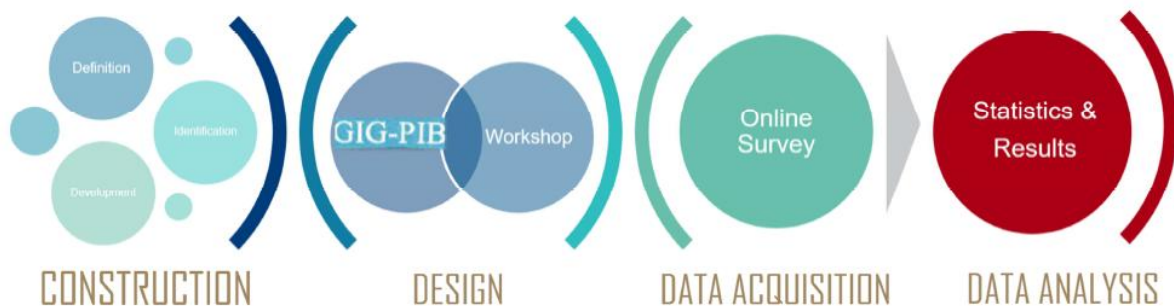


Figure 1 Schematic workflow for questionnaire execution on the stakeholders' engagement in the CoalHeritage Project.

Survey Construction

The main focus of the questionnaire lies on the assessing of the engagement of different stakeholder groups surrounded by former mine sites with current preservation and potential transformation plans. Therefore, for the construction of the questionnaire, the first step was to define a clear objective to ensure each question aligns with the main focus of the survey. The focus here is to assess the preservation and

promotion of coal mining, forms of cooperation with stakeholders, interest in mining heritage, acceptance of preservation measures and the financial support actions that needs to be taken into consideration for future land use development and to support current historic monument protection authorities and institutions.

Survey Promotion

The survey was an in-depth Interview online questionnaire was developed at GIG-PIB Microsoft Forms in 6 language versions: English, Greek, German, French, Polish, Slovenian (Figure 2) and available with link: <https://forms.office.com/e/2bA4Fe8ibh>

The link and questionnaire was active from 2025.04.08 till 2025.06.08, uptil final workshop and Industriada. It was promoted during conferences, social media and direct mailing.

Survey on Stakeholders' Involvement in Mining Heritage Protection and Promotion - Zapisać

Styl Ustawienia Podgląd Zbierz odpowiedzi Wyświetl odpowiedzi

COAL HERITAGE

Survey on Stakeholders' Involvement in Mining Heritage Protection and Promotion

Thank you for participating in this survey.

Its aim is to gain your opinion on stakeholders' involvement in the process of protection and promotion of mining heritage. Coal Heritage Conservation and promotion of the Coal Mining Heritage as EU's cultural legacy, is an RFCS Accompanying Measure European Project with main goal the development of an interregional network for the protection and promotion of the coal mining heritage in post-mining regions. The project focus on coal regions that are currently in a transition phase as well as those that have already ceased the exploitation of coal or are near mine closure.

The main objectives are: 1) Identification processes needed to declare the coal sites as heritage areas supporting the just transition of the coal sector and regions, 2) Enhanced management in the coal regions in transition supporting the just transition of the coal sector and regions, improving health and safety and minimising the environmental impacts of coal mines in transition, 3) Design and develop a European Visual Map Journal (EVMJ) supporting the just transition of the coal sector and regions and 4) Dissemination and network development supporting the just transition of the coal sector and regions.

CoalHeritage project has received funding from the Research Fund for Coal and Steel (RFCS) under Grant Agreement No.101112138

Sekcja 1

Privacy Statement

Participation in this survey is voluntary. If you decide to participate in the survey, you consent to the collection and processing of your personal data. The data are collected and processed only for research purposes in the context of the implementation of the project CoalHeritage and under the provisions of the GDPR, General Data Protection Regulation (2016/679/EU). We will not disclose your data to another third party unless disclosure is required by law or is necessary for the fulfillment of the above processing purposes. The collected data will be kept for a maximum period of 12 months after the closure of the survey unless a longer retention period is required by law or for the establishment, exercise or defense of legal claims. As a data subject, you have the right to access, rectification, restriction of processing, ensure, object to processing, portability, as well as withdraw your consent at any time.

Data Controller: Główny Instytut Górnictwa-Państwowy Instytut Badawczy (GIG-PIB), Plac Gwarków 1, 40-166 Katowice, Poland.
If you have questions regarding the data processing or the survey details, please contact us by sending an e-mail to gig@gig.eu

1. I declare that I have read this Privacy Statement, understand the processing of my personal data and I consent to it. *

☐ YES

Figure 2. CAWI questionnaire

CAWI questionnaire contained information about the project, RFCS funding of the project and the grant number. Questionnaire also includes a Privacy Statement and information on the General Data Protection Regulation (2016/679/EU).



Figure 3. Survey flyer with QR code

To reach expected number of respondents, the communication tools of the META platforms were used - the social media of the Coal Heritage project (Facebook and LinkedIn) and the external communication tools of all Coal Heritage project partners.

Survey Design

The survey was designed using a combination of single-choice, multiple-choice, Likert scale, and open-ended questions to capture both quantitative and qualitative data (see Table 1). Questions were developed based on previous research and tailored to assess different levels of awareness, interest and impact of measurements across different categories of stakeholders for the participant regions. Once the draft questionnaire was constructed, the questions' objectives, and details were reviewed and consulted with a selected group of experts in a one-day workshop.

Table 1. Main categories of questions, aim or objective and number of created questions.

Target Question	Description	# Questions
Region	Segment the respondents by country	1
Stakeholder group	Identify engagement of stakeholder group category and level of preservation and promotion	2
Knowledge on the forms of cooperation	Level of knowledge of the forms' cooperation with stakeholders in protection and promoting mining heritage	2
Knowledge on assess the current state of mining heritage	Compare current preservation and promotion of mining heritage and determine the challenges to the future	2
Knowledge on public awareness of the mining heritage value	Do the respondents are aware of mining heritage value? What actions should increase the awareness?	2
Financial Support Considerations	What forms of external support should be the most helpful in activities related to mining heritage? What are the key benefits of preserving and promoting mining heritage?	2
Sustainability Adaptation	What actions should be taken to ensure the sustainability of the mining heritage in the future?	2

Stakeholder Analysis

Stakeholders are individuals and organizations actively involved in the development of a project, or those whose interests can be positively or negatively affected by the project's execution or successful completion (PMBOK, 1996). They can be individuals, groups, or organizations that may affect, be affected by, or perceive themselves to be affected by a project decision, activity or outcome (PMBOK, 2017).

The latter definition provides a broader approach to project management, encompassing any member of society. The goal is to identify anyone who may be affected by or interested in the project. The main stakeholders involved in transition and preservation projects related to coal mine heritage and industrial transformation can vary depending on the country, region, and context of the coal mine heritage sites. Active stakeholder engagement and collaboration among these various actors are crucial for the successful transition and preservation of these sites. For this survey, stakeholder categories were carefully analyzed to ensure a pluralistic, inclusive, and transparent perception and awareness gathering. Table 2 details these categories, which are divided into four main subgroups.

Table 2. Stakeholder groups expanded to the goals of the CoalHeritage Project

Government	Companies	Communities	Organizations
National government	Mining companies	Civil society	Labor Unions
Regional government	Power producing companies	Private investors	Academia & Research
Local government	Financing institutions	Public-Private Partnership	Environmental NGOs
Multinational institutions (European Commission / Directorate General)	Subcontractors/ Suppliers/ Service companies	Local and national media	
	Local and national business organizations (e.g. chamber of commerce/trade)		

Government Agencies: This includes segmented government bodies and international entities, such as the European Commission. National and local government agencies play a crucial role in developing policies, regulations, and funding mechanisms to support the transition and preservation of coal mine heritage sites. They provide the legal framework and financial resources necessary for conservation efforts.

Companies: As we move towards renewable energies and different methods of energy production, it is important to understand the perceptions not only from mining companies, but also the needs of power-producing companies regarding preservation and transition projects. Also, financial institutions and local businesses, including those in the tourism industry, can contribute to the preservation and sustainable use of coal mine heritage sites. They can develop tourism initiatives, visitor centers, and educational programs that promote the cultural and historical significance of these sites. Furthermore, trade unions and workers' associations representing coal miners have a stake in transition projects. They advocate for the rights and well-being of workers affected by the closure of coal mines and can be involved in discussions and negotiations related to job transitions and retraining programs.

Local Communities: Local communities living in or near coal mine regions are key stakeholders in transition and preservation projects. Their engagement, participation, and input are essential for the success of these initiatives. Community involvement ensures that the preservation efforts align with local needs, aspirations, and cultural values. This category expands to include small investing groups. The interest in preservation and the creation of new jobs can be an influencing factor for various communities and partnerships.

Organizations and Institutions: This includes universities and research institutions, NGOs, and businesses with potential economic impacts on reactivation and preservation efforts. Academic and research institutions play a role in studying and documenting coal mine heritage sites. They provide valuable insights, research findings, and expertise to inform preservation strategies and best practices. While NGOs

are focused on cultural heritage preservation and environmental conservation may also be involved in coal mine heritage preservation projects. They can advocate for the protection of these sites, raise awareness, and provide technical assistance.

Workshop with Stakeholders

In this task, the questions and strategy of the survey to apply were validated and discussed with stakeholders from Silesia area in Poland. The participants came from different areas (national and local authorities, industry in the area, local society, students and scientific employees). The day was structured in three sections: introductory session to share insights into the project's concept, specific plans, objectives, partner countries, and ongoing tasks for the RFCS Accompanying Measure European Project. Then a working session was carried out, where attendees actively engaged in discussions about a draft questionnaire. Different groups contributed their opinions, suggestions, and comments, enhancing the questionnaire's accuracy and ensuring a comprehensive and realistic approach to survey opinions during the application phase. During the event, identified stakeholders were validated and categorized into groups such as local residents, business owners, government officials, and environmental groups. Each of these groups was further divided and a final pool of stakeholders (Table 2) was defined for questions regarding stakeholder categorization.

Online survey

After the workshop with diverse opinions and using state of the art aspects for survey design and questionnaire accomplishment, some strategies were adopted to design the online survey.

- **Structured Sequence:** Arrange questions in a logical order, starting from general to specific, to create a natural flow and avoid confusing respondents.
- **Sectioning:** Divide the questionnaire into sections based on themes (e.g., protection, promotion, financial support, among others).
- **Visual Appeal:** Include a visual aspect next to the questions to allow more engagement and guarantee the message and idea communication.
- **Informed Consent:** Include an introductory section explaining the purpose of the survey, ensuring informed consent.
- **Confidentiality Assurance:** Assure respondents that their answers will be kept confidential and used only for the stated research purposes.
- **Limitations:** Potential biases, such as non-response bias, were acknowledged. The generalizability of findings is discussed, considering the sample size and demographic coverage.

The webpage Google Forms has been used to conduct the analysis as it provides an ideal platform for dynamic questionnaire publication and development. The Stakeholder Engagement online survey presented a total of 19 questions and takes approximately 15 minutes to complete. The complete questionnaire is included in the Appendices of this report. The survey was distributed via email and social media platforms to reach a wide audience, specifically at the involved regions of the project (France, Germany, Greece, Poland and Slovenia). The data collection occurred over an eight-week period, with follow-up reminders sent to increase response rates.

2.2 Data analysis and results

In this section, we provide a report on the results obtained from the online questionnaire. The responses were exported from the Google Forms survey tool and subsequently processed using Excel's statistical analysis and graph creation tools. The responses were analysed and the percentages recorded for each of the questions, using cross tabulation process. For correct and efficient data processing, each question was analysed to extract from the answers received, common variables and responses were separated for segmentation analysis. In this report, the results of the survey will be presented through multiple visualization charts to answer the main target questions proposed in Table 1 during the design of the survey and to tackle the project specific objectives on stakeholders' engagement. A total number of 275 participants took the survey and completed all questions across the participant countries (Figure 4).



Figure 4. Total of respondents by region on the stakeholders' engagement online survey.

Level of engagement by organization

After looking at the results and segmentation, the data by type of organization is shown by Figure 5 as a summary of the main results. The majority of participants are represented by mining industry organizations and public sector employees. It is important to notice that every fourth respondent indicated affiliation to another type of organization as: volunteer, student, association, R&D, private employee or freelancer.

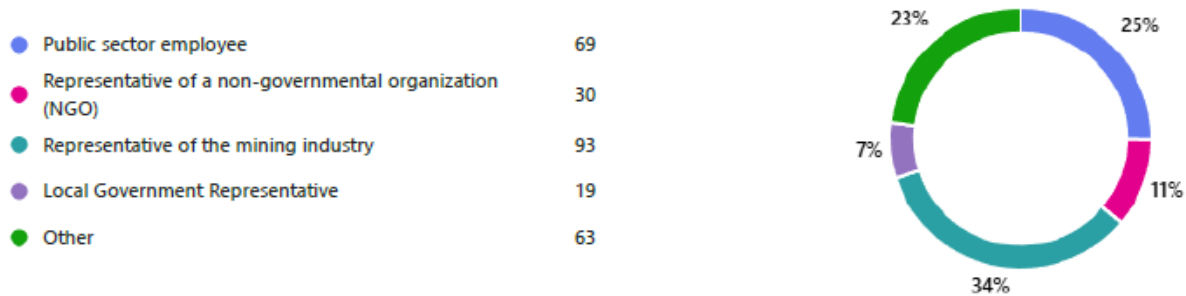


Figure 5. Type of organization/ institution chart of all participants in the stakeholder survey.

Respondents are mostly involved in mining heritage issues (81,5%): through professional work and interests. However, should be noted some of survey participants are not involved in mining heritage (Figure 6).

More than half of those involved have experience exceeding 5 years. It is worth noting that one third have up to 3 years of experience (Figure 7).



Figure 6. Involving in the mining heritage of all participants in the stakeholder survey.



Figure 7. Experience in the mining heritage of all participants in the stakeholder survey.

Knowledge on stakeholders' involvement in activities related to preservation of mining heritage

Figure 8 shows the results on the level of stakeholders' involvement in activities related to the preservation of mining heritage. The majority of respondents assess level of stakeholders' engagement as very high and high. However, one-fifth of survey participants have different opinion.



Figure 8. Assess the level of stakeholders' involvement in activities related to the preservation of mining heritage.

Figure 9 shows the stakeholders' groups involve in promoting of mining heritage. The majority of respondents have indicated local communities and governments (42,6%). The following were indicated equally often: mining industry (18,5%), educational and acientific institutions (14,5%). At the opposite pole are government (5%) and media (4%).

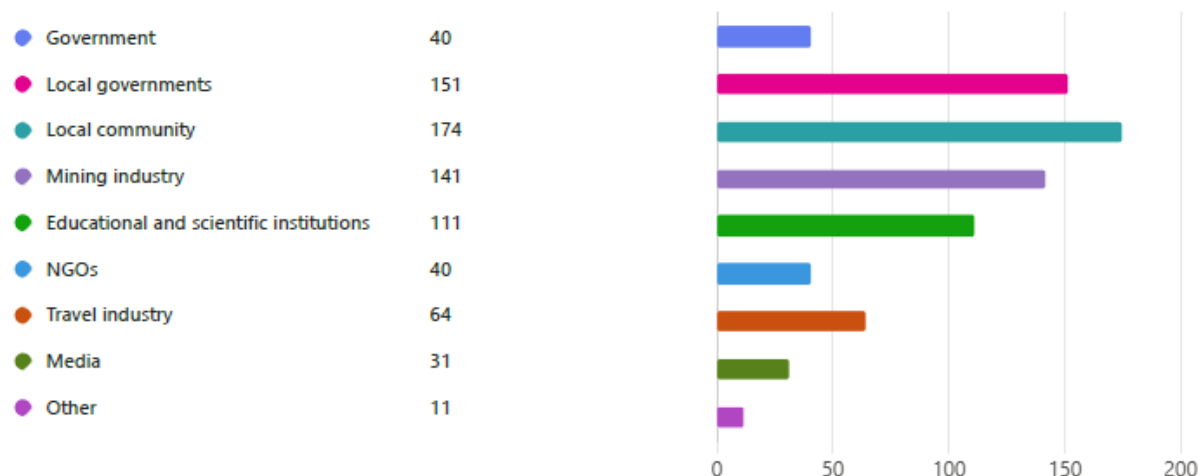


Figure 9. The stakeholder groups' involvement in promoting mining heritage.

Knowledge on forms of cooperation with stakeholders

According to survey participants the most effective in promoting mining heritage are creating tourism projects related to mining heritage (18,3%), organizing cultural events (18,2%), education and training programs (15,8%) and cooperation with local communities (14,9%). The less frequently indicated and therefore considered the less effective are artistic projects related to mining heritage, workshops and conferences or campaigns in the media (Figure 10).

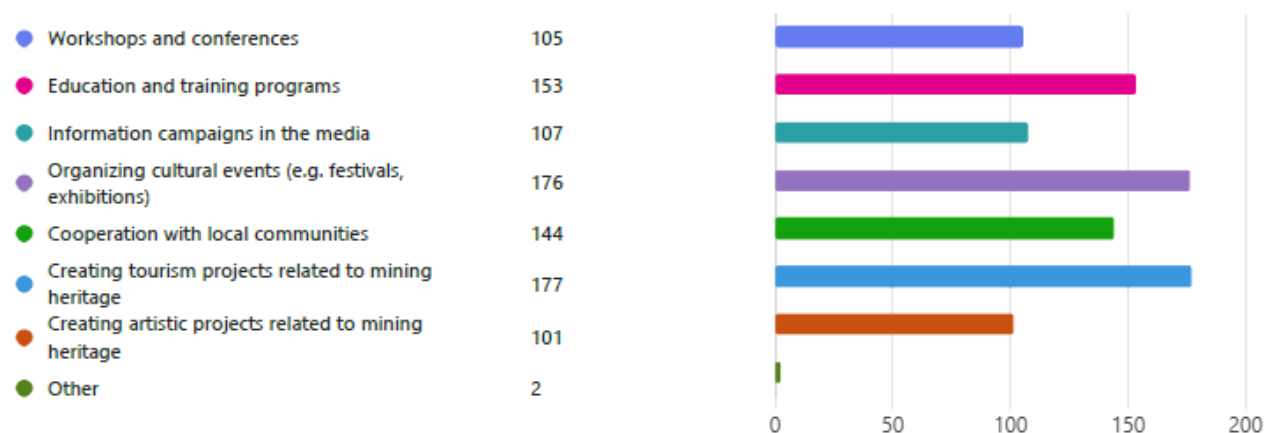


Figure 10. Forms of cooperation with stakeholders in of mining heritage promotion.

Figure 11 shows the knowledge on good examples of cooperation with local communities in frame of protection and promotion of mining heritage. The majority of respondents do not know any good examples of the cooperation. Among the good examples mentioned are:

- Guido Hard Coal Mine,
- Zinc rolling mill,
- American and German examples - case studies: In USA: National Heritage Areas (NHAs) are designated by Congress as places where natural, cultural, and historic resources combine to form a cohesive, nationally important landscape. Through their resources, NHAs tell nationally important stories that celebrate our nation's diverse heritage. (<https://www.nps.gov/subjects/abandonedminerallands/visit-mining-heritage.htm> and <https://www.ausimm.com/bulletin/bulletin-articles/history-and-heritage-american-mining-in-the-1920s>). In GERMANY: Creation of a museums and mining heritage sites (parks) as well as exhibition grounds. <https://www.deutschland.de/en/topic/culture/mining-germany-saxony-chemnitz-culture> <https://www.worldhistory.org/article/1483/history--mining-culture-of-the-ore-mountains> <https://www.isb.ruhr-uni-bochum.de/sbr/drittmittelprojekte/gbergbau.html.en>
- Doplebock Exhibition in Bochum 2024 – 2025,
- Revitalisation of the Velenje lakes, formed due to coal excavation, into an attractive recreational and tourism area,
- Technical monuments trail,
- Lavrio Technological Park,
- Colliery Zollverein in Essen,

- Municipal groups cultivating mining traditions,
- Longwy, Valee de la Roselle.



Figure 11. Knowledge on good examples of cooperation with local communities in the protection and promotion of mining heritage.

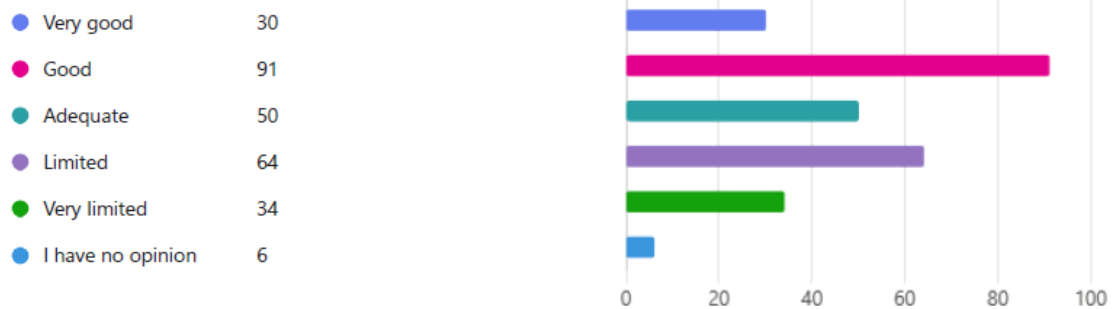


Figure 12. Assess the current state of mining heritage promotion.

Figure 12 shows the results of the assessment of the current state of mining heritage promotion. The majority of respondents assess the current state as very high and high (44%). However, one-third of survey participants have different opinion.

According to survey participants the main challenges in promoting mining heritage are: lack of financial resources (21,6%), lack of knowledge and education concerning mining heritage (13,7%) and low level of social interest (12,2%). The respondents indicated also that the cooperation between stakeholders is insufficient and that is why it should be strengthened (Figure 13).

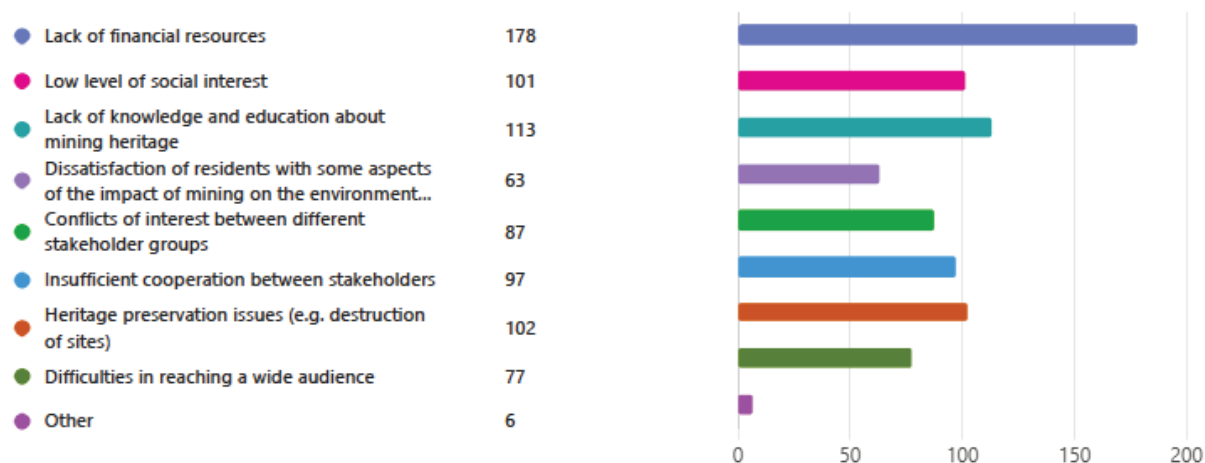


Figure 13. The main challenges in promoting mining heritage.

Knowledge on public awareness of the mining heritage value

Figure 14 shows the actions which, according to respondents, should be taken to increase public awareness of the mining heritage value. The most frequently indicated actions to increase public awareness are organization of local events (17,8%), educational campaign in schools (16,3%) and more financial support (14,4%). The less frequently indicated are organizing trainings and seminars, artistic events or cooperation with international institutions. Some of respondents indicated also the substance actions not only in social media.

An extension of the issue is the assessment of current activities in the field of protection and promotion of mining heritage (Figure 15). The majority of respondents assess the current activities as insufficient.

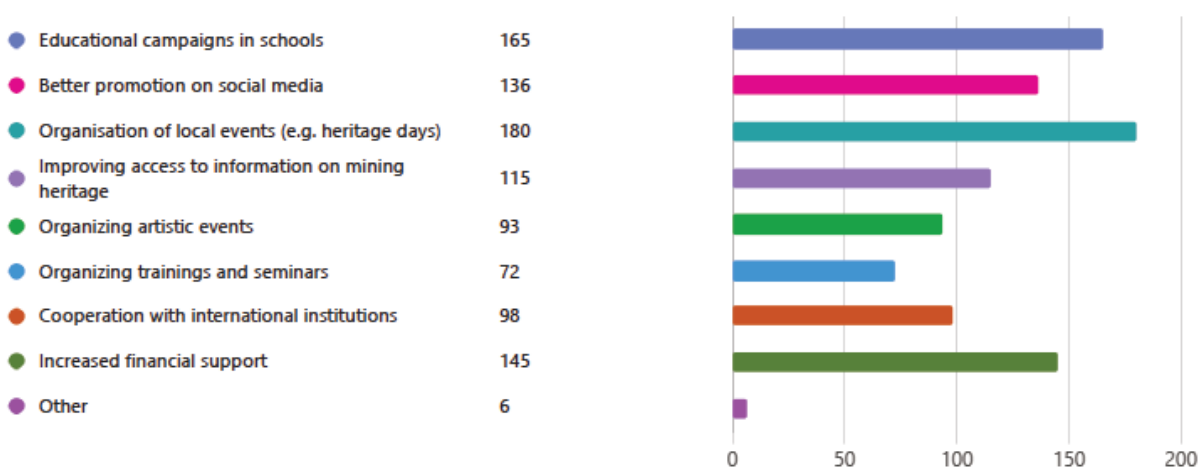


Figure 14. Action to increase public awareness of the value of mining heritage.

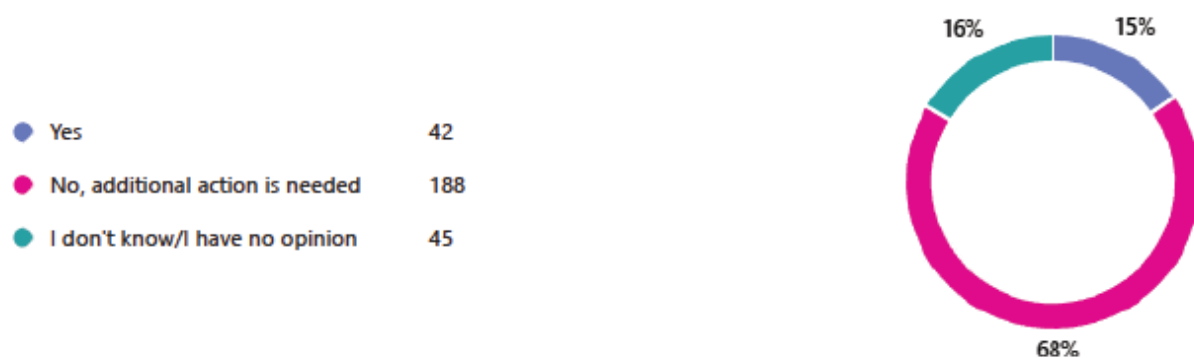


Figure 15. Assess of the current activities related to the protection and promotion of mining heritage.

Financial Support Considerations

Figure 16 shows the forms of external support which, according to respondents, should be most helpful in activities related to mining heritage. The most frequently indicated forms of external support are funding heritage projects (30,8%), helping to create new tourist attractions (22,5%) and marketing and promotion support (18,6%). The less frequently indicated is non-cultural use of heritage sites.

An extension of the issue is the indication of key benefits of protection and promotion of mining heritage (Figure 17). The majority of respondents indicate protection of historical and cultural values (36%) and tourism and local economy development (29,1%). Respondents believe also that promoting mining heritage gives new jobs for residents (24%).

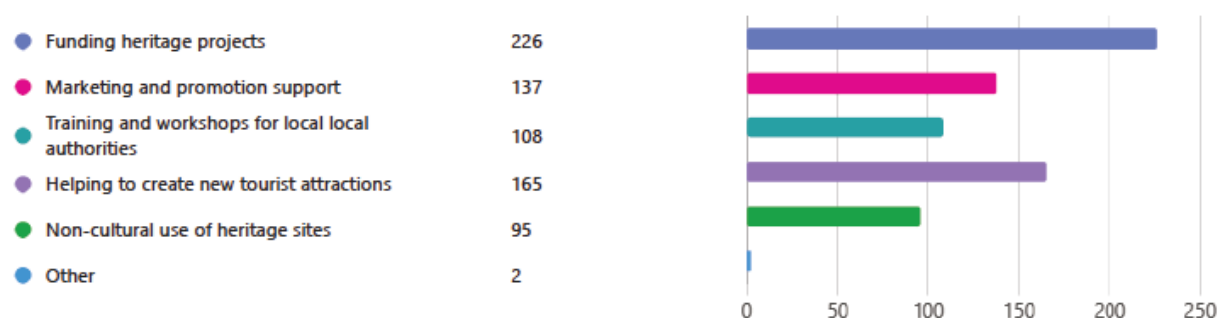


Figure 16. Forms of external support most helpful in activities related to the mining heritage.

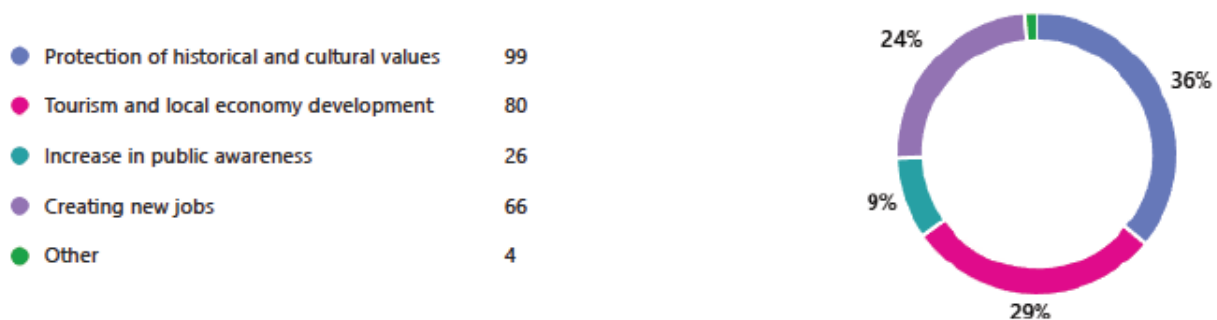


Figure 17. The key benefits of preserving and promoting mining heritage.

Sustainability Adaptation

Figure 18 shows the actions which, according to respondents, should be taken to ensure the sustainability of the mining heritage in the future. The most frequently indicated actions to ensure the sustainability of the mining heritage are integration of mining heritage with modern technologies (31,7%), increasing the involvement of local communities (28,3%) and protecting natural resources (21,4%).

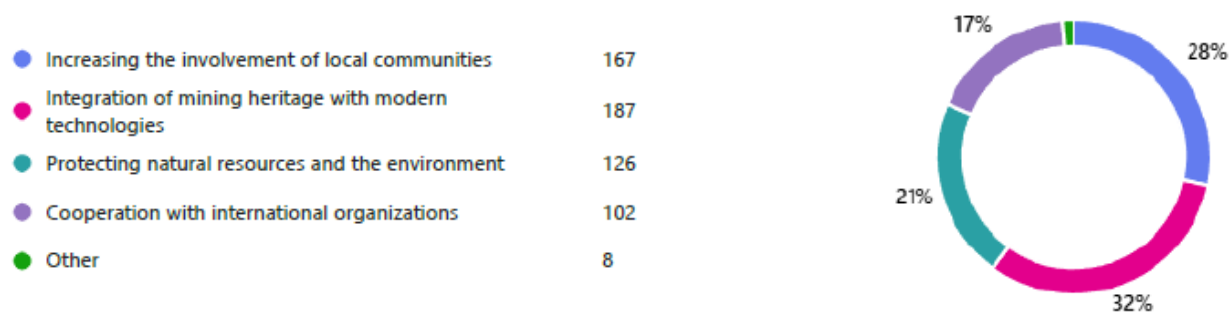


Figure 18. Action to ensure the sustainability of the mining heritage in the future.

2.3 Survey conclusions

The stakeholders' engagement survey was conducted over eight weeks, targeting a public audience from the participant countries of the EU-CoalHeritage project (France, Slovenia, Germany, Poland, and Greece). This report presents the initial results of the questionnaire, providing both quantitative and qualitative insights. The survey assessed the engagement of a diverse range of stakeholders, the knowledge on forms of cooperation with stakeholders, the current state of mining heritage promotion, public awareness of the mining heritage value and financial support consideration. Additionally, the survey addressed the key benefits of preserving and promoting mining heritage. The concluding remarks are summarized as follows:

- the majority of respondents assess level of stakeholders' engagement as very high and high.

- the stakeholders' groups the most involved in promoting of mining heritage are local communities and governments, mining industry, educational and scientific institutions.
- the most effective in promoting mining heritage are creating tourism projects related to mining heritage, organizing cultural events, education and training programs and cooperation with local communities. The less frequently indicated and therefore considered the less effective are artistic projects related to mining heritage, workshops and conferences or campaigns in the media.
- visibility of cooperation with local communities in frame of protection and promotion of mining heritage should be increased. Among the good examples mentioned are projects connected with revitalisation of industrial areas (eg. museums, monumental trials, recreation areas) and mining tradition cultivating.
- the current state of mining heritage promotion is assessed positively.
- results emphasize the need for increase financial resources, knowledge concerning mining heritage and cooperation between stakeholders in promoting mining heritage.
- the survey findings highlight the actions which should be taken to increase public awareness of the mining heritage value. The most frequently indicated actions are: organization of local events, educational campaign in schools and more financial support.
- it is necessary to achieve an external support which should be most helpful in activities related to mining heritage. The most frequently indicated forms of external support are funding heritage projects, helping to create new tourist attractions and marketing and promotion support. The less frequently indicated is non-cultural use of heritage sites.
- results show the key benefits of protection and promotion of mining heritage. The most important are: protection of historical and cultural values, tourism and local economy development, creating new jobs.
- The survey indicates the actions to ensure the sustainability of the mining heritage in the future. The most frequently indicated actions are integration of mining heritage with modern technologies, increasing the involvement of local communities and protecting natural resources.

In conclusion, the successful transition of former coal mining regions into sustainable and vibrant communities' hinges on a balanced approach that values both cultural heritage and practical development. The insights gained from this survey provide a roadmap for policymakers and stakeholders to collaboratively shape future land-use policies that foster economic growth, environmental stewardship, and cultural preservation. Continued engagement and collaboration among all stakeholders will be essential in achieving these goals and ensuring the long-term success and vitality of post-mining regions.

3. Industriada at Experimental Mine Barbara GIG-PIB

INDUSTRIADA was organised as part of WP 5 T5.3 Getting publicity and public attention to the mining heritage. INDUSTRIADA is an annual celebration and the main event promoting the Industrial Monuments Route of the Silesian Voivodeship in Poland. It is the largest festival of post-industrial heritage culture in Central and Eastern Europe. This year, INDUSTRIADA took place on June 7th 2025, under the slogan "Treasures of the earth". The Barbara Experimental Mine GIG-PIB and Coal Heritage project has been awarded the title of Friendly Facility of INDUSTRIADA 2025. Thus, the Barbara Mine joins the Industrial Monuments Route celebration facilities.

3.1 Objectives of the open event

Key objectives of the INDUSTRIADA event at Experimental Mine Barbara were:

1. Promote the Coal Heritage project outputs and achievements. Promoting the European Visual Journal Map, an open storytelling platform on mining heritage.
2. Promote mining heritage. Showcase the historical and cultural value of the mining industry as part of Europe's industrial heritage network and attract visitors to these.
3. Engage and educate residents. Present the mine's role in research and testing for modern industry and environmental safety. Open tours to underground experimental workings of Barbara Coal Mine, a rare opportunity to let visitors explore first-hand the industrial and scientific processes in a real mine. Inspire young audiences and families to understand science and engineering in real-world industrial contexts.
4. Offer an interactive outdoor game to teach about mining technologies (by using VR stand) and immerse participants in the history and context of coal mining, its tools, technologies, and its impact on communities and the environment.

3.2 Outcomes of the open event

On June 7th 2025, the Barbara Experimental Mine GIG-PIB was the venue of an open event as part of INDUSTRIADA 2025 in Poland. The agenda of the event is listed below.

Agenda:

- 12:00-18:00 – exposition on the surface, including:
- 12:00 - welcome and Coal Heritage project introduction,
 - presentation of the Coal Heritage project: Protection and promotion of coal mining heritage as a cultural heritage of Europe,
 - presentation of the European Visual Journal Map of the Coal Heritage project,
 - VR stand with digitized mining heritage objects implemented as part of the Coal Heritage project.
- 13.30-14.00 – demonstrations of the explosion of industrial dust and the extinguishing of methane.
- 15.00 - coal dust explosion demonstration.
- 12:30-15:00 – Quest Hunters of the Treasures of the Earth – The “B “Mine, outdoor game. Participants became seekers of the "Treasures of the Earth", natural resources that were crucial for development during the industrial revolution. During the game, participants will discover the history of hard coal mining, the role of technology in its extraction and the impact on the community and the environment.
- Visits to underground experimental galleries with a guide. It was assumed that 4 underground visits were to take place, but due to a very large number of interested people, 15 visits were held with the participation of 200 people.

Representatives of GIG-PIB welcomed the guests and opened the festival by introducing the objectives of the COALHERITAGE project. After welcoming the guests, a promotional film about the project was shown, emphasising the importance of preserving the coal mining heritage as part of a common European identity (fig.19). Basic information about the project partners was presented: CERTH, KOMAG, PV, BRGM, GIG-PIB,

DMT-THGA. Festival participants were presented with the European Visual Map Journal, created as a part of the project and encouraged to visit the COALHERITAGE website. QR codes were prepared which, when scanned, led to a survey entitled 'Study of stakeholder involvement in the process of protecting and promoting mining heritage' posted on the project website. Promotional films about the COALHERITAGE, GIG-PIB, EM Barbara and Nikiszowiec district projects were being screened until the end of the festival, allowing every visitor to learn about the preservation of coal mining heritage.

Each person was registered at the entrance, with a total of 340 visitors registered. All participants read the information on the GDPR and agreed to the use of their image for promotional purposes.

Representatives of local media were present during INDUSTRIADA, journalists took photos and talked to the organisers. Each visitor received gadgets with the COALHERITAGE project logo, such as notebooks, pencils, power banks, speakers, wireless headphones and selfie sticks. Themed activities were prepared for children and parents. Hired actors led an outdoor game "Hunters of the Treasures of the Earth – The 'B' Mine" aimed at promoting industrial heritage. During the game, participants discovered the history of coal mining, the role of technology in its extraction and its impact on the community and the environment (fig.20). A creative stand with colouring books related to coal heritage and themed bags for colouring was also prepared for the youngest visitors. All attendees were also treated to sweet candies in promotional packaging with the COALHERITAGE logo.

During INDUSTRIADA, participants could watch demonstrations of industrial dust and coal dust explosions, as well as methane extinguishing methods. Throughout the day, there were guided tours of the mine, where visitors could see the underground infrastructure and learn more about the Institute's activities.

An additional attraction was the VR stand with digitised mining heritage objects created as part of the COALHERITAGE project, prepared by the project partner, the KOMAG Institute.

Summing up, INDUSTRIADA 2025 with the Coal Heritage project at the Barbara Experimental Mine GIG-PIB was a great success, attracting a very large number of residents, drawing attention to the industrial heritage of mining.

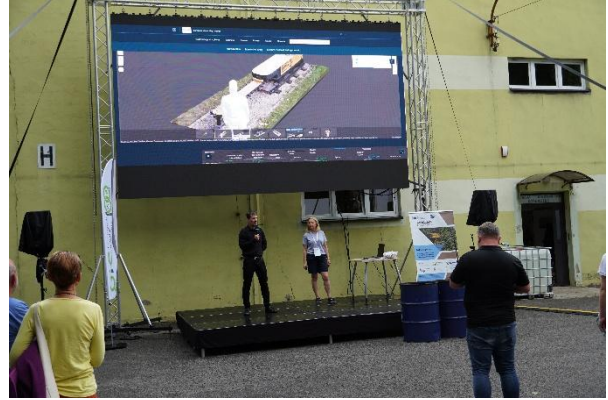


Figure 19. INDUSTRIADA at Experimental Mine Barbara GIG-PIB, fot. GIG-PIB



Figure 20. Outdoor game during INDUSTRIADA, fot. GIG-PIB and Lufcik na Korbke.

4. The interregional network's activities – good practices from partners country on stakeholders' engagement in the process of protection and promotion of mining heritage

Interregional network activities play an important role in stakeholders' engagement. It encourages knowledge and experience sharing by the exchange of best practices and lessons learned. By building partnerships across regions, networks foster mutual understanding, reduce duplication of efforts and promote unity, even among culturally or economically diverse areas. Through various projects, interregional networks promote economic and social development and help stimulate growth and improve quality of life across participating regions. It is also essential to address cross-cutting issues and tackle complex, shared problems.

Examples of successful interregional networks that demonstrate their importance in the scope of preserving heritage and mining transformation are the European Route of Industrial Heritage (ERIH) or the Coal Regions in Transition Platform EU. ERIH is a network linking former industrial sites, e.g. mines, factories and railways across Europe. It promotes tourism and cultural heritage preservation, especially in post-industrial regions, helping transform old industrial areas into attractive destinations. The Coal Regions in Transition Platform is an initiative that supports coal-dependent regions in moving toward a green economy. It brings together regional actors to share strategies, attract investment, and plan a just transition, critical for areas affected by the decline of coal industries. These examples show how interregional networks help regions grow stronger together by solving common problems, preserving heritage, and promoting innovation.

The CoalHeritage project focuses on documenting and protecting the legacy of coal mining, which shaped the economies, cultures, and identities of many regions. An interregional network helps pool knowledge, artifacts and best practices across borders, ensuring a more complete and cohesive preservation effort. For many regions, coal mining is deeply tied to local identity. The interregional network's activities foster cooperation of regions with a common coal-mining past and promote sustainable development by sharing successful strategies and showing new opportunities across regions. It may help communities reclaim pride in their history while confronting environmental and social challenges left behind by the industry.

CoalHeritage approached and made a collaboration with other industrial heritage networks to enhance its impact, such as:

- ERIH, the European Route of Industrial Heritage
- TICCIH, The International Committee for the Conservation of the Industrial Heritage,
- WIMH, Working Industrial & Mobile Heritage Group
- the Durham Miners Association
- the 'EuroGeoSurveys' to host a geodatabase after the end of the project at the European Geological Data Infrastructure (EGDI)
- The Management Board of the Association of Mining Communes in Poland (Stowarzyszenie Gmin Górniczych w Polsce, SGGP)
- The Mining Chamber of Industry and Commerce (Górnictwa Izba Przemysłowo-Handlowa GIPH)
- Univeristy of Silesia in Katowice, Faculty of Natural Sciences
- Heritage Conservation Center Ruhr (hcc.ruhr) in Germany
- German Mining Museum in Bochum, Germany
- Biological Station Western Ruhr Area, Oberhausen, Germany

- Business Metropole Ruhr BMR, Germany
- Fraunhofer Institut IEG, Geothermal, Bochum
- International Center for Sustainable and Just Transformation - Universität Witten/Herdecke, Germany.

WIMH, Working Industrial & Mobile Heritage Group, is a consortium of European organisations representing the industrial and mobile heritage sectors. The participants of WIMH are important representatives, i.a. Members of the Board of ERIH, TICCIH.

TICCIH is the International Committee for the Conservation of Industrial Heritage – a global organization dealing with industrial heritage. TICCIH is recognized by the International Council for the Protection of Monuments and Historic Sites (ICOMOS) as an appointed consultant on all matters related to the study and preservation of industrial heritage.

ERIH, the European Route of Industrial Heritage, is a tourist information network on industrial heritage in Europe, bringing together about 350 members in 27 countries.

The Durham Miners' Association (DMA) was a trade union in the United Kingdom, founded in 1869. It provides a range of services for its beneficial members who are former Durham miners. The most important event hosted by the DMA is the famous annual Durham Miners' Gala, which, far from dying when the coalfield was destroyed, is thriving as one of the world's biggest and most colourful celebrations of trade union and community spirit.

4.1 Case study – France

ACOM Association

L'Association des Communes Minières de France (ACOM - Association of French Mining Municipalities) was born of the desire of elected representatives from France's mining areas (and originally coal mining areas) to join forces in anticipation of the demise of the mining industry and the legacy it has left behind. Created in 1970, the ACOM today represents 281 member mining communities in 29 French departments, as well as 19 local associations. The members of the Board of Directors are representative of all the country's mining basins, whatever their size, the substance mined or the political affiliation of the communes concerned.

The main purpose of the Association is to lobby national and European public authorities, as well as operators, to ensure that mining-related issues affecting local communities and their inhabitants are better considered. It is particularly active in the following areas:

- Promoting the cultural heritage of former coalfields and other mines.
- Socio-economic development of former coalfields and other mines.
- Urban rehabilitation and treatment of mining-related problems.
- Respect for the rights of the mining corporation.



Figure 21. Great Offices of the Lens Mining Company @Wikipedia

The ACOM is also a national network of local authorities concerned with mining issues. This network enables members to exchange experiences and best practices with the Association. Thanks to the feedback it gathers, ACOM is also able to offer its members a consultancy service, particularly on issues of town planning law and the mining environment, and more generally on all issues relating to the development of mining areas. The ACOM is involved in European organizations as a founding member of EURACOM, the Association of European Mining Regions. It also participates in various European projects as part of the Interreg program.

ACOM's main ambitions are to:

- To defend the communities and their populations that are or have been affected directly or indirectly by the exploitation of their soil or subsoil.
- To assist all mining communities in France in their efforts to manage and develop their territory.
- To defend the interests of local authorities and residents in the post-mining context (environmental, social, health, planning, cultural, etc.), while respecting the State's obligations towards them.
- To raise public awareness of energy saving and improvement and to play a major role in the fight against fuel poverty.
- To educate elected representatives about the energy transition (coal gas, photovoltaic panels, geothermal energy, etc.).



Figure 22. Arenberg colliery @Wikipedia

ACOM's main activities are:

- Defending mining territories and communities by working with members of parliament, ministries and government departments.
- Monitor the economic revitalization of mining areas and the urban restructuring of mining basins.
- Advise on the development of mining towns, considering the needs and new uses of residents (housing, mobility, health, renewable energies, etc).
- Ensuring that healthcare provision, particularly in the Nord-Pas-de-Calais coalfield, meets French standards.
- Preserve the memory of miners and the material and cultural heritage of mines.
- Promoting renewable energies (photovoltaics on mining wasteland) and short-circuit energies (mine gas, coal gas, native hydrogen) in areas with great potential.
- Development of European and international partnerships, notably through Interreg projects, as well as the development of an ACOM network worldwide (Poland, Spain, Portugal, Cameroon, Congo, Guinea, Morocco).

In brief, the ACOM is a federation of nearly 300 local authorities and associations committed to the development of all aspects of the former coalfields and other mining areas. This support enables it to achieve important results for local communities and their population, and to set up large-scale projects through synergy and the sharing of skills.

The Mission Bassin Minier

The Mission Bassin Minier was officially created in 2002 in the Hauts-de-France region, confirming the determination of its elected representatives and players in regional planning and development to join forces within a common tool to boost the value of the Nord-Pas de Calais coal basin. Its purpose is to carry out and monitor studies, and to set up coordination mechanisms contributing to the conservation, development and planning of the Nord-Pas de Calais coalfield. It is an engineering, development and land-use planning tool, supporting numerous public bodies and institutions. With the inclusion of the Bassin Minier in the UNESCO World Heritage list in 2012, the Mission Bassin Minier is responsible for implementing the management plan for the site. This has led to the launch of projects in the fields of communication, mediation and tourism, while at the same time consolidating historic projects linked to the protection, planning and development of major mining sites, mining towns and horse-riding routes, the green and blue network, as well as international cooperation, observation, urban planning, etc.



Figure 23. Fosse n°9-9bis des mines de Dourges, housing the Mission Bassin Minier @Wikipedia

The Mission Bassin Minier was initially framed in the “Post-mines” territorial section of the 2000-2006 State-Region Plan Contract along two major lines:

- Urban, social and ecological restructuring of the coalfield, including consideration of the mining heritage.
- Strengthening project engineering, a prerequisite for regional planning and development.

Since its creation, the Mission has provided technical assistance to the State and the Region by conducting an interministerial study on the development and networking of mining heritage. This study led to the

realization of a crazy idea: that of registering the Bassin Minier as a World Heritage Site, which was done in 2012, as said above.

The Mission Bassin Minier operates on several different scales, covering the whole of the Nord-Pas de Calais coalfield. However, its activities extend beyond the region to the national, European and international levels, where it contributes its expertise and shares its knowledge. Here are just a few of Mission Bassin Minier's partners, demonstrating its central role in bringing together players in the former coal-mining areas of Hauts-de-France:

- Its founding members and/or financial backers (e.g. Hauts-de-France region, the French State and government departments)
- Associations linked to national or international networks (e.g. the Heritage Foundation, the International Committee for the Conservation of Industrial Heritage).
- Numerous Tourist facilities (e.g. tourist offices)
- The five major mining sites of the coal basin (Arenberg Creative Mine in Wallers, Centre Historique minier in Lewarde (see dedicated section below), 9-9bis in Oignies housing the Mission Bassin Minier, 11/19 in Loos-en-Gohelle, La Cité des Électriciens in Bruay-La-Buissière).
- Cultural structures (e.g. Musée du Louvre-Lens).
- Universities - training structures (e.g. the Universities of Lille and Artois).
- Numerous corporate ambassadors.

The Mission Bassin Minier's work is made possible by the financial backers represented on its decision-making bodies, such as the French government, the Hauts-de-France region, the Nord and Pas-de-Calais départements, numerous conurbation communities, and the Association des Communes Minières de France (ACOM, see dedicated section above).



Figure 24. Loos-en-Gohelle, twin slag heaps n°74A et 74B @Wikipedia

The Mining History Center, Lewarde

The Mining History Center, set on the old Delloye colliery yard, is located at the heart of the Nord-Pas-de-Calais coal-mining basin, at Lewarde in the Nord department. The Nord-Pas-de-Calais coalfield is an area in northern France, located both in the Nord and Pas-de-Calais departments. It is marked economically, socially, landscape-wise, ecologically and culturally by the intensive exploitation, from the end of the 17th century to the end of the 20th century, of the Stephanian coal found in its subsoil. It represents the western part of a deposit that extends beyond the Franco-Belgian border. The eight-hectare site includes industrial buildings covering an area of 8000m².

The Mining History Center is one the BRGM's three French partners in the Coal Heritage project, together with Parc Explor Wendel in eastern France and the Faymoreau Mining Center in western France. It was created in 1982 at the impetus of the nationalized mining company and opened to the public in 1984. It aims to conserve and promote the Nord-Pas de Calais's mining culture, so that future generations can learn about three centuries of mining in the area.

The site is made up of three entities: a mining museum, a documentary resources center, which houses the archives of the Nord-Pas de Calais coalfield nationalized mining company, and a scientific and technical energy culture center explaining the history of coal in the context of the wider history of energy.

Today, 165000 people visit the site each year. The center is classified as a historic monument and is one of the remarkable sites of the mining basin, listed as a UNESCO World Heritage Site. The Mining History Center is France's largest mining museum and one of the first such attractions in Europe.



Figure 25. The shafts ©Centre Historique Minier

The Mining History Center organizes permanent and temporary exhibitions, workshops, lectures, scientific conferences and educational activities for children and young people. With the help of audio guides available in English, German, Dutch, Polish, Italian and Spanish, people can visit the themed exhibitions to learn all about how coal was formed, the history of the mining era in the region, and the daily lives of miners and their families. Then, with a guided tour of the galleries, it is possible to step into the miners' underground world, recreated by the throbbing of the machines and projected images to help visitors imagine the miners at work. It is also possible to participate to a very special "Meet a former miner" experience (in French only): the miner will tell you all about his career, working conditions, safety underground and much more.

As at the Coal Mining Museum in Zabrze, the Mining History Center in Lewarde actively cooperates with numerous institutions and organizations, both at the local, national and international level. These partnerships aim to promote coal heritage (both industrial and natural), education, and scientific research. They include:

- Scientific and research institutions (e.g. ADEME the French Agency for the Energy Transition, the University of Lille).
- Local governments (e.g. Hauts-de-France region).
- Cultural institutions (e.g. the Louvres Lens Museum).
- Cultural events (e.g. the European night of museums).
- International institutions (e.g. UNESCO).



Figure 26. The Centre's glass roof houses ©E Watteau/Centre Historique Minier

4.2 Case study – Germany

The Ruhr Area in North Rhine-Westphalia, once one of Europe's largest coal mining and industrial regions, has undergone a major transformation since the decline of coal mining. Today, it is recognized for successfully repurposing its industrial heritage into cultural assets. Central to this success has been the

active engagement of a wide array of stakeholders—municipalities, regional authorities, museums, former miners, NGOs, artists, private companies, and citizens.

The Route of Industrial Heritage (Route der Industriekultur)

One of the most recognized initiatives is the Route of Industrial Heritage (Route der Industriekultur) (Figure 27), a regional network of more than 50 sites, including former mines, steelworks, and workers' settlements, connected through a thematic tourist route. Managed by the Regionalverband Ruhr (RVR), this initiative involved municipalities, tourism boards, and local communities in the design and implementation process. Engagement took the form of participatory planning workshops, open heritage days, citizen-curated exhibitions, and storytelling initiatives that integrated the voices of former workers. The Route not only preserves physical structures but also promotes collective memory through accessible, inclusive formats.

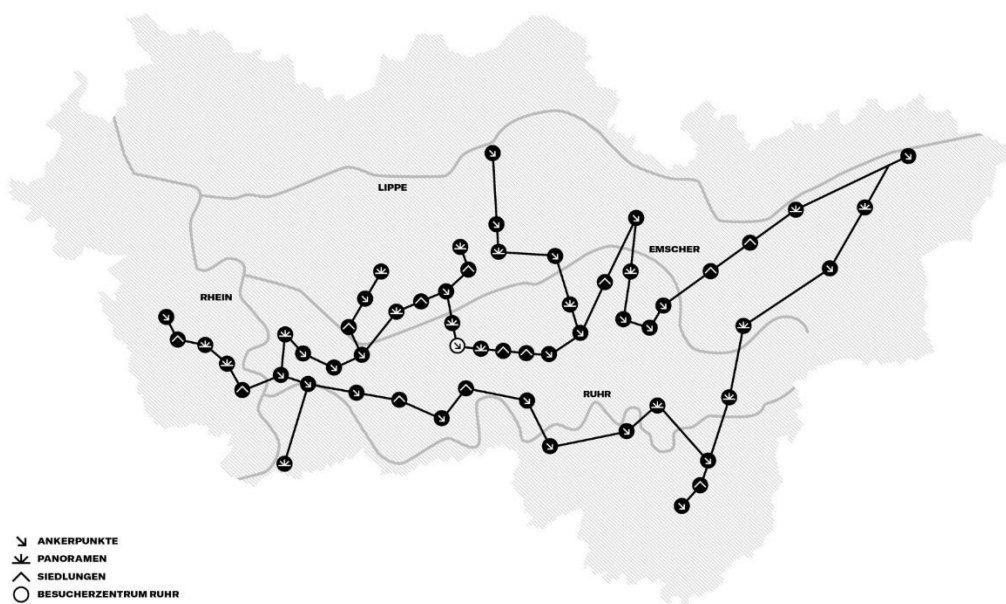


Figure 27. Map of the route of industrial heritage. © RVR, 2025

Colliery Zollverein – UNESCO World Heritage Site

Another flagship project is the Colliery Zollverein in Essen (Figure 28), a former coal mine and coking plant that has been repurposed into a cultural and educational complex and designated a UNESCO World Heritage Site. Stakeholders in this case included the Zollverein Foundation, the city of Essen, the state of North Rhine-Westphalia, UNESCO, local artists, and former miners. Engagement efforts emphasized cultural programming that included local communities, educational outreach to schools, community festivals, and oral history workshops. These initiatives not only ensured broad participation but also helped position Zollverein as a symbol of transformation and resilience in the region.



Figure 28. View of the Zollverein Coal Mine Industrial Complex hosting a public event. © Zollverein, 2025.

IBA Emscher Park (1989–1999)

The legacy of the IBA Emscher Park (1989–1999) further illustrates how large-scale planning efforts incorporated participatory approaches. This integrated development initiative focused on repurposing brownfields, including former mine sites, across the region. Public consultations, design competitions involving citizens, environmental education programs, and local advisory boards were key engagement tools used during this decade-long process. IBA Emscher Park succeeded in combining landscape restoration with social and cultural development, largely because of its multi-stakeholder approach and emphasis on community participation.

Erin Park, Castrop-Rauxel

On a smaller scale, the Erin Park project in Castrop-Rauxel shows how post-mining land can be transformed into accessible public space through local collaboration (Figure 29). This park, developed on a former mining site, was co-designed with input from local residents, artists, and environmental groups. Community art projects, school initiatives, and storytelling sessions embedded the site with cultural meaning, transforming it into a place for recreation, memory, and identity.



Figure 29. View of Erin-Park in Castrop-Rauxel, Germany. © RVR/Ziese.

Evaluation of Effectiveness

Evaluating the effectiveness of these initiatives reveals several strengths. Firstly, inclusivity has been a hallmark: projects such as Zollverein and the Route of Industrial Heritage have consistently involved diverse actors and facilitated bottom-up participation. Secondly, the initiatives have created economically viable models that support tourism and cultural events, contributing to long-term sustainability. Thirdly, the preservation of memory—through the participation of former miners and local residents—has fostered a strong sense of ownership and pride in the industrial past. However, there are also notable challenges. Youth engagement remains limited in some areas, risking a generational disconnect. Some projects still depend heavily on public subsidies, which may threaten their long-term viability. Additionally, engagement remains uneven across different communities, particularly in areas where trust in institutions is lower.

Conclusions

The Ruhr Area presents an example of transforming mining heritage through stakeholder engagement. Its approach has proven effective in creating a sense of shared identity, stimulating economic reuse of heritage, and preserving industrial history. However, efforts must continue to adapt to evolving social dynamics and involve underrepresented groups.

Recommendations

Enhance youth involvement: Create targeted educational programs and digital storytelling platforms to connect younger audiences with mining heritage.

- Strengthen local ownership: Encourage co-management models where citizens actively shape the future use of heritage sites.
- Foster cross-sector partnerships. Deepen collaboration between cultural institutions, private sector, and civil society to diversify funding and innovation.
- Improve accessibility and diversity. Ensure events and materials are accessible in multiple languages and formats to engage immigrant and marginalized communities.
- Monitor engagement impact: Develop indicators to evaluate the depth and effectiveness of stakeholder involvement, not just attendance or consultation numbers.

4.3 Case study – Greece

The following interregional activities present national examples of successful stakeholder involvement in Greece. The cooperation with the Public Power Corporation (PPC) has played a leading role in mobilizing community and institutional support for mining heritage preservation through the CoalHeritage project's framework.

Public Power Corporation (PPC)

In Greece, the Public Power Corporation, the largest energy provider and operator of former lignite mines, has emerged as a key stakeholder in the protection and promotion of mining heritage. PPC's active participation in the Coal Heritage project through interviews and photographic material of equipment and locations depicted how industrial stakeholders can contribute to cultural preservation efforts. Recognizing the historical and social importance of lignite mining in Western Macedonia, PPC has engaged with CERTH's team through various stages of the project to exchange ideas for the adaptive reuse of post-mining landscapes and infrastructure. Through the Department of Historical Archive, PPC has supported the CoalHeritage project's initiatives aimed at documenting mining history, physical/digital assets, and mining heritage through the project's lifetime.

PPC has provided access to industrial archives and taken part in focused interviews highlighting the importance of the socio-economic impact of coal mining heritage preservation. This cooperative approach aligns with the broader goals of the Coal Heritage project, demonstrating how public-private partnerships can effectively safeguard and reinterpret industrial heritage for future generations.

EGDI Platform

Another significant example of interregional cooperation in the framework of the CoalHeritage project is the collaboration with the European Geological Data Infrastructure (EGDI) platform. As a pan-European stakeholder, EGDI plays a central role in aggregating and disseminating geospatial data relevant to geological and mining heritage. The inclusion of the CoalHeritage dataset on the EGDI platform represents a milestone in making Greece's lignite mining legacy more visible within a broader European framework. Through this initiative, key mining heritage sites from Western Macedonia have been mapped and integrated into a digital environment that allows users across Europe to explore their historical relevance and spatial distribution. The user can access and explore all the relevant information regarding the CoalHeritage project's geospatial data (Figure 30) at the following link:

- <https://maps.europe-geology.eu/#baselayer=baseMapGEUS&extent=4800043.556965138,1435035.855739438,5228173.5389731685,1668519.762682985&layers=coalheritage>

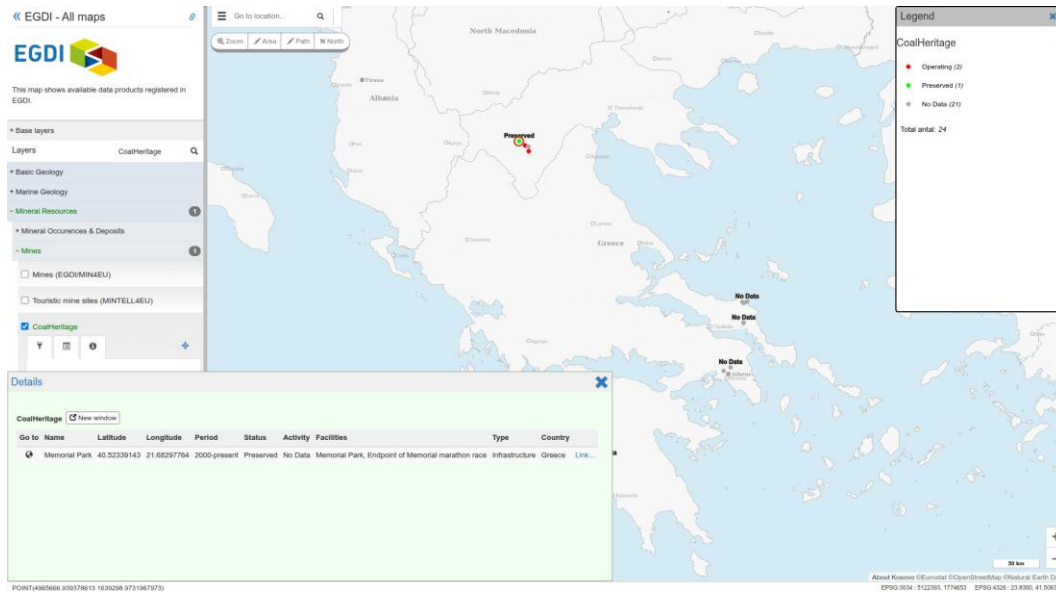


Figure 30. Screenshot from the EGD platform where the use can explore the relevant CoalHeritage geospatial data for Greece (source: CERTH).

These data are also available for download, and some of the locations/equipment that are being referenced in W. Macedonia include:

- Western Macedonia Lignite Centre
- The Ptolemaida Lignite Mines Memorial Park (Figure 31)
- Exhibits of bucket wheel excavators
- Loading and transportation facilities
- School of accelerated learning (PPC) (Figure 32)



Figure 31. Ptolemaida Lignite Mines Memorial Park (source: CERTH)

The collaboration with the EGDI has enabled Greek stakeholders, including public authorities, research institutions, and energy sector actors like PPC, to contribute to and benefit from a shared digital infrastructure. By aligning national efforts with EGDI's technical standards and visualization tools, Greek coal heritage data has become part of a larger European narrative. The platform not only increases the accessibility and visibility of Greek mining heritage but also encourages cross-border comparisons, thematic research, and cultural tourism planning.



Figure 32. School of Accelerated Learning (source: PPC)

This interregional partnership highlights how digital tools and shared data ecosystems can strengthen stakeholder engagement and foster long-term preservation strategies rooted in both local knowledge and European cooperation.

METAVASI S.A

METAVASI S.A., the Greek public agency responsible for the post-lignite transition and redevelopment of former mining areas, has played a key role in the CoalHeritage project as a regional stakeholder with strong interregional impact. Their participation in the regional workshop held in Athens provided valuable insight into the challenges and opportunities of preserving mining heritage in the context of Greece's ongoing energy transition. METAVASI helped bridge the gap between environmental rehabilitation, cultural heritage preservation and political action.

During the Athens workshop, METAVASI engaged in meaningful dialogue with CERTH partners, sharing Greece's experiences with post-mining land use and exchanging best practices in sustainable regional development. Their active involvement emphasized the importance of integrating heritage considerations into broader socio-economic transformation strategies. Through its participation, METAVASI not only highlighted the significance of Western Macedonia's lignite legacy but also positioned Greece as a contributor to shared European goals in coal/mining heritage protection and community engagement. This collaboration demonstrates how national and regional institutions can serve as critical links in the interregional network, promoting long-term cooperation and knowledge transfer within and beyond their borders.

Artists/Creators

The inclusion of artists and creative groups in the regional workshop held in Athens underscored the importance of cultural perspectives in the protection and promotion of coal mining heritage. Moving beyond technical discussions, the event showcased powerful artistic interpretations of industrial history and environmental change. Two notable works—"L'éclairage revient" by Pantelis Kalogerakis, Michalis Kalogerakis, and Panagiotis Andrianos (Figure 33), presented by the Greek National Opera and co-produced by PPC, and "Terra Nera" by Shekin Naidi and Thenia Antoniadou—brought emotional depth and human stories to the foreground (Figure 34).



Figure 33. “L’éclairage revient” documentary screenshot which was presented at the Athens Regional Workshop.

These artistic contributions offered new, accessible ways of engaging with mining heritage, implementing poetry, personal memory, and visual storytelling. “L’éclairage revient”, filmed at the historic Aliveri Power Plant, weaves together the voices of local communities with visual imagery, giving voice to the lived experience of industrial transformation.

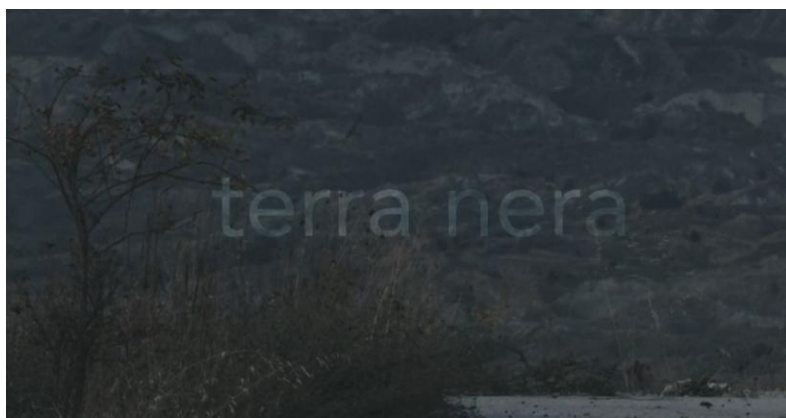


Figure 34. Screenshot from the "Terra Nera" documentary, presented at the CoalHeritage Athens Regional Workshop.

Another highlight was the presentation of the Land(e)scapes project, which explored the environmental legacy of mining through contemporary art and dance. By interpreting ecological shifts and industrial decline through movement and performance, the project helped reconnect audiences with both the natural and cultural layers of the landscape. The creative dimension of the Athens workshop fostered fruitful discussions and creative dialogue during the open-floor session, paving the way for future collaborations between artists, heritage professionals, and regional/industrial/political stakeholders. This engagement demonstrates how art can serve as a powerful medium for community participation, cross-border exchange, and sustainable heritage preservation.

PoMHaz Project

The "POst-mining Multi-Hazards evaluation for land-planning" (PoMHaz) project is funded by the European Union funding programme supporting research projects in the coal and steel sectors ([Research Fund for Coal and Steel](#)). PoMHaz focuses on improving the hazard assessment and the risk management of abandoned coalmines. The main objective is to improve the methodological knowledge for practical realization of multi-hazards analyses, at the scale of a mining basin, in correlation with the main post-mining hazards.

During the recent PoMHaz workshop held in Athens, at 24/06/2025, participants had the opportunity to engage with the latest editions of the CoalHeritage Project newsletters. This interregional activity served as a platform to disseminate updates on the project's progress, share best practices, and highlight collaborative achievements among the various stakeholders. By presenting the newsletters during the workshop (Figure 35), the project strengthened knowledge exchange and fostered dialogue around the preservation and promotion of coal heritage across Europe. The activity also reinforced the importance of communication tools between various EU projects, enhancing interregional cooperation and raising awareness of the cultural and historical significance of former coal mining areas.



Figure 35. CoalHeritage newsletters shared at the workshop of POMHAZ project.

4.4 Case Study – Poland

Below case study presents good practices in Poland on stakeholders' engagement in the process of protection and promotion of mining heritage.

Coal Mining Museum in Zabrze

The Coal Mining Museum in Zabrze¹ is one of the most important museum institutions in Poland, dedicated to the history and heritage of coal mining. It deals with the protection, documentation and popularization of knowledge about hard coal mining – both in technical, social and cultural aspects. The Coal Mining Museum was founded in 1981 on the initiative of the mining community and the local authorities and community of Zabrze. Its establishment was a response to the need to preserve and document the industrial heritage of the Upper Silesia region, especially in the context of economic changes and the phasing out of mine operations. Among the people who had a significant impact on the creation of the museum were, m.in, local activists, miners, engineers and historians who saw the value of mining heritage for the culture and identity of Silesia.

The museum conducts scientific, educational, exhibition and conservation activities. It organizes permanent and temporary exhibitions, workshops, lectures, scientific conferences and educational activities for children and young people. Special attractions of the museum are post-industrial facilities open to visitors:

1. Guido Mine – an authentic hard coal mine with levels of 170 and 320 meters underground, available for sightseeing.
2. Queen Louise Adit – a complex of historic mining excavations, including unique water and hiking routes.
3. Mining open-air museum and above-ground buildings – presenting the development of mining technology and the life of miners.

The museum is constantly developing its offer, becoming a modern cultural institution and one of the most important points on the map of industrial tourism in Poland and Europe. The guides at the Museum are not only professional historians, but also former miners.

The Coal Mining Museum in Zabrze actively cooperates with various institutions, organizations and companies, both at the local, national and international level. The aim of these partnerships is to promote industrial heritage, education, scientific research and revitalization of post-industrial facilities. These include:

- Scientific and research institutions, e.g. Polish Geological Institute – National Research Institute (PGI-NRI), University of Silesia in Katowice
- Local governments and cultural institutions, e.g. the City of Zabrze and the City of Chorzów, the Self-Government of the Silesian Voivodeship,
- Enterprises and foundations, i.e. Grupa Famur, Fundacja „Domena Rozwoju”.
- The most important event is INDUSTRIADA, as the Museum is the coordinator of this celebration of the Industrial Monuments Route, cooperating with numerous cultural institutions and technical facilities in the region.

¹ <https://www.muzeumgornictwa.pl/>

Thanks to these partnerships, the Coal Mining Museum in Zabrze not only protects and promotes mining heritage, but also actively participates in education, scientific research and socio-cultural development of the region.



Figure 36. Queen Louise Adit, fot. Sylwia Jarosławska-Sobór

WRAZIDŁOK Association

The WRAZIDŁOK Association is a thriving social and cultural organization whose goal is to popularize the heritage of Upper Silesia through education, artistic events and social activities.² The aim of the association is to show the richness of the history, culture and traditions of Upper Silesia through various forms of activity, such as lectures, rallies (trips), concerts, multimedia shows and educational workshops. The WRAZIDŁOK Association was established on the initiative of enthusiasts of the region, people from various professional and scientific backgrounds.

The Association organizes numerous cultural and educational events, i.e.:

- lectures and interactive classes at the Bachelor's Palace in Świerklaniec, concerning the history of Silesia, industrialists, aristocracy and architecture of the region.
- thematic rallies called “Rajza”, e.g. visiting the Bachelor's Palace, the Park in Świerklaniec or the Church of the Good Shepherd, during which participants learn about the history of the Henckel von Donnersmarck family as well as Gothic and neo-Gothic architecture.

² <https://wrazidlok.org>

- concerts and lectures in places of historical importance, such as the Chapel of Mysteries on the Borsigwerk in Zabrze or the chapel of the Evangelical-Augsburg Parish in Bytom, where musical performances and lectures on the culture and history of the region are presented.
- art workshops, e.g. "Silesian Kroszonki with Maestro Dylus", during which participants learn how to decorate Easter eggs traditionally.
- competitions, e.g. "The Most Beautiful Silesian Carol", promoting creativity inspired by the culture of the region.

The WRAZIDLOK Association actively cooperates with various institutions, organizations and companies to achieve goals related to the promotion of the heritage of Upper Silesia. These include:

- the Zabrze City Hall, in 202 Association received a distinction in the field of culture from the Mayor of Zabrze, Małgorzata Mańka-Szulik, which proves recognition for their cultural activities,
- The Municipality of Świerklanec, WRAZIDLOK organizes lectures and interactive classes in the Bachelor's Palace in Świerklanec, promoting the history and culture of the region,
- educational and cultural institutions, m.in. the F. Chopin Primary and Secondary Music School in Bytom, the Halka Choir from Kozłowa Góra and Piekary Śląskie,
- non-governmental and social organizations, e.g. the Association of Friends of the Tarnowskie Góry Region,
- enterprises, companies and media e.g. Piekary Net.

Thanks to these partnerships, the WRAZIDLOK Association effectively achieves its goals by organizing cultural, educational and social events that promote the richness of the history and culture of Upper Silesia.



Figure 37. Zabrze Power Plant Rajza, <https://wrazidlok.org>

Rozbark Lovers Association

The Rozbark Lovers Association is a social organization operating in Bytom, founded in August 2020 by former employees of the Rozbark Coal Mine and residents of the Rozbark district. The Rozbark Coal Mine (German: Heinitzgrube) was established in 1863, and mining was carried out until July 31, 2004. The mine became famous due to one of the largest disasters in the history of Silesian mining. In 1923, there was an explosion of coal dust, as a result of which 145 miners died underground.

Currently, the buildings under conservation protection have survived, i.e. the engine room of the "Bończyk" shaft from 1907 or the pit house from 1911, where the outstanding Polish director Kazimierz Kutz shot scenes from the film devoted to miners entitled "Salt of the Black Earth". A thorough revitalization has changed the industrial facilities of the mine into a modern ROZBARK Dance and Movement Theater.

The Rozbark Enthusiasts Association cares about cultivating the memory of the mine. The main goal is to cultivate the memory of the former mine and to promote the history, tradition and culture of Rozbark. The association organizes a variety of cultural and social events, such as exhibitions of works by local artists, a mural commemorating the victims of the 1923 catastrophe, and the Rozbark Festival, during which the community of the district celebrates their cultural heritage together.

The Association has about 50 members, including former miners and residents of the district. It cooperates with local authorities and other social organizations, such as the Skarpa Bytom Sports Club, in order to implement joint initiatives. Thanks to the commitment of the members of the association and the support of the local community, the Rozbark Lovers Association plays an important role in preserving and promoting the cultural heritage of the district.

The headquarters of the association is located in Bytom, in the place where the Rozbark Memorial Chamber was established in 2021. The Chamber collects memorabilia related to the history of the district and the mine, such as miner's lamps, helmets, rescue cameras, archival photos and the mine banner. Souvenirs have been collected here, thanks to which you can learn not only about the history of the local mine, but also about the history of the district's inhabitants. On the walls there are archival photos, some of which come from the turn of the 19th and 20th centuries and the beginning of the 20th century, banners, and in the showcases there are company newspapers. The Memorial Hall also serves as a place for educational meetings for children and young people, bringing them closer to the history of Rozbark.³

Currently, the Association is implementing a project entitled: "Green Quarter of KWK Rozbark - Green Education Transformation", aimed to support and activate the local community of the Rozbark district, as well as all residents of Bytom,⁴ and co-partners in networking for the revitalization of the Krystyna shaft⁵. The Krystyna shaft (Förderturm Kaiser Wilhelm Schacht Hohenzollerngrube) in Bytom Szombierki was an important point on the map of industrial Upper Silesia. The hoisting tower, with its characteristic silhouette, is a symbol of the power of the mining industry of that time.

³ <https://dziennikzachodni.pl/bytom-kustosze-rozbarskiej-pamieci-zalozyli-stowarzyszenie-milosnikow-rozbarku-i-izbe-pamieci-wizyta-w-niej-to-swietna-lekcja>

⁴ <https://www.facebook.com/profile.php?id=61574899854688>

⁵ <https://www.facebook.com/groups/549738739481437/>



Figure 38. Rozbark Memorial Chamber fot. Magdalena Mikrut-Majeranek, Dziennik Zachodni



Figure 39. Krystyna Schaft, rok 1938, Wikimedia Commons

Society of Orzegów Lovers

The Society of Orzegów Lovers is an association operating in Orzegów, one of the districts of Ruda Śląska. It was founded in 2008 by a group of local enthusiasts, historians and residents who care about protecting the heritage of this part of the city and cultivating local identity. The Society focuses on promoting the history, culture and tradition of Orzegów. The district has been associated with mining for many years.

In 1844, a large mine "Paulus" (Paul) was launched. The main shaft of the latter was the Sophienschacht shaft, built in 1848-50. Its buildings have survived to this day.

In the years 1860-62, new main shafts of this mine ("Godulla" and "Schaffgotsch") were built. In the years 1873-77, a new mine "Gotthard" (Karol) was launched with the "Gotthard" and "Kynast" shafts. Next to it, in the years 1900-03, a coking plant was built.⁶

The Society of Orzegów Lovers works to preserve the memory of the district's past, documents its development and changes, and integrates the local community through various initiatives. The main activities of the Society are:

- organizing historical meetings, lectures, exhibitions and lectures on the history of Orzegów and the region,
- conducting educational activities for children, youth and adults,
- publishing materials on local topics – articles, brochures, chronicles,
- participation in the commemoration of important figures and historical events related to Orzegów,
- cooperation with local schools, cultural institutions and local government,
- taking care of monuments and memorial sites in the district.

The members of the Society are primarily residents of Orzegów, local social activists, lovers of Silesian history and culture, as well as representatives of various communities – teachers, pensioners, young people and people working in the cultural sector. The Society operates on a voluntary basis and is open to new members.

The objectives of the Society are:

- preservation of the cultural heritage of Orzegów,
- building local and regional awareness among residents,
- supporting activities aimed at the development of the district while respecting its identity,
- promoting Orzegów as a place with a rich history and tradition,
- integrating the local community through joint activities.

The Society of Orzegów Lovers plays an important role in the life of the district, cultivating the memory of its past and building bonds between residents through joint initiatives. She cooperates, m.in, with the University of Silesia as part of the projects: "The role of the Church and local initiatives in the collection of the national heritage of hard coal" and "Laboratories of the fourth nature: activation of local communities towards green transformation and recognition of the local heritage of the Anthropocene".

⁶ <https://rudaslaska.com.pl>



Figure 40. Orzegów renovated old mining buildings, Fot. <https://metropoliagzm.pl/>

Nikiszowiec

The Nikiszowiec estate in Katowice is the patronage housing estate of the Wieczorek mine, which operated from 1883 (as a consolidated "Giesche" mine) to 2023. The connection with the workplace became a source of problems in the early 90s of the twentieth century, when the mine was restructured, resulting in social degradation. In 1993, the mine was incorporated into Katowicki Holding Węglowy, which coincided with the financial collapse of the Polish mining sector and led to a radical reduction in support for the housing estate. In 1997, the unprofitable sports club Górnik Janów was liquidated and the community center was closed. Along with the decrease in the number of jobs in the mine, unemployment increased. Gradually, Nikiszowiec lost its importance, and the positive image of the estate was also eroded. The effect of these changes was progressive exclusion, first socio-economic, and soon also political, related to the lack of investment and socio-cultural activities.

Systemic revitalization was made possible by the adoption in 2007 of the Local Revitalization Program of the City of Katowice for the years 2007–2013 (LPR MK), which included the need to preserve historical and cultural heritage and revitalize degraded urban areas. Nikiszowiec has become one of the housing estates included in the program. The revitalization activities were started with the participation of public consultations.

The Department of Ethnology of the City of the Museum of the History of Katowice was opened in the district, which presents permanent exhibitions, m.in. works by amateur painters from Janów Śląski, laundry equipment and the interior of a typical Nikiszów workers' apartment. A Tourist Information Point was launched, which takes care of the durability and quality of the new image of Nikiszowiec.

The key assumption of the revitalization program was to renew social ties through the support of various stakeholders and associations. Social activities are carried out through the activity of:

- Municipal Social Welfare Centre (MOPS), thanks to projects co-financed by the European Social Fund under the Human Capital Operational Programme (OP HC) for the years 2007–

2013 "We can do it – a programme of professional and social activation in Katowice". In 2008, the Local Activity Center Program in Nikiszowiec was launched.

- The "Factory of Local Initiatives" Association, which since 2012, in partnership with MOPS, has been implementing a program aimed at increasing social integration and local activity. The activities were focused on people benefiting from the help of the Social Welfare Centre – at risk of marginalisation and social exclusion
- the "Together for Nikiszowiec" Association and the Pyrlik Stalowy Association,
- Eko Art Silesia Foundation,
- The Zimbardo Centre, launched in 2014 under the patronage of the famous social psychologist Professor Philip Zimbardo, a cultural centre for young people, the first institution in the world signed with his name, supported by the University of Silesia,
- Social Cooperative "Rybka".

The activities of non-governmental organizations support the local community by strengthening the promotion of the district and building local identity, based on mining heritage, among others through the Community Centre, Occupational Therapy Workshops, and Eatery. An example of successful cooperation between local government institutions, municipal services and non-governmental institutions, including the local parish and business representatives are the following events:

1. The fair in Nikiszowiec, organized since 2008, is a supra-local event that attracts about 10 thousand people,
2. Feast in the parish of St. Anne, accompanied by concerts, open-air paintings, sale of handicrafts, old Silesian games and plays,
3. The Neighbours' Day, an intimate family event. Residents invite friends and neighbors to feast together.

An important role is played by partners: associations and local organizations, schools, housing administrations, KWK "Wieczorek", universities or aid organizations, such as Caritas, the church charity organization and St. Anne's Parish (Polish MPD 2016). The activities undertaken served to promote the unique historical and cultural values of Nikiszowiec on a supra-regional scale. This also influenced the creation of new non-governmental organizations and social economy entities, including the Pyrlik Stalowy Association and the Rybka Social Cooperative. Many years of work and involvement in the revitalization of Nikiszowiec have made it possible to gain experience and knowledge in this area, which is widely promoted through training and workshops on revitalization. Other local governments, such as the City Hall of Tychy or Sosnowiec, benefit from the knowledge.⁷

Currently, Nikiszowiec is a showcase of the city and Silesia, a model example of a workers' housing estate, designed at the beginning of the 20th century in an extremely innovative way, which, thanks to a successful revitalization program, has again become an important place on the map of the city and the region.

⁷ <https://fil.org.pl/nasze-marki/rewitalizacja-nikiszowca>



Figure 41. Nikiszowiec, Wikimedia Commons⁸

The reviewed examples demonstrate varying levels of stakeholder engagement, with several successful practices:

- Coal Mining Museum in Zabrze exemplifies strong, multi-level stakeholder engagement, including collaboration with scientific institutions, local governments, businesses, and international partners. Events like INDUSTRIADA and use of former miners as guides effectively foster inclusion and authenticity.
- WRAZIDLOK Association actively engages cultural, educational, and governmental stakeholders through diverse, interactive programs. Their recognition by local authorities reflects community value and outreach success.
- Rozbark Lovers Association shows moderate engagement, with effective local involvement (former miners, residents), but limited evidence of broader partnerships outside Bytom, which constrains reach and resources.
- Society of Orzegów Lovers demonstrates grassroots engagement with solid links to local schools and universities. Its voluntary model reflects strong internal community commitment but might lack wider influence or professional support.
- Nikiszowiec Revitalization Program is the most comprehensive and inclusive model. It showcases deep, strategic engagement across public, private, and civic sectors. Integration of NGOs, educational institutions, churches, and residents into planning and revitalization efforts represents exemplary participatory governance.

Conclusions

Stakeholder engagement is strongest where collaboration is formalized and spans diverse sectors.

⁸ https://www.metropoliagdansk.pl/upload/files/Rewitalizacja_Nikiszowec.pdf

Projects that combine heritage with education, tourism, and community development (e.g. Nikiszowiec, Zabrze Mining Museum) achieve broader impacts and sustainability; Smaller or newer associations (e.g., Rozbark, Orzegów) benefit from strong engagement and authenticity but face resource and capacity limitations without external institutional partnerships.

Recommendations

1. Broaden strategic partnerships. Smaller associations should seek formal cooperation with universities, regional NGOs, and funding bodies to amplify impact.
2. Professionalize volunteer networks. Offer training for community leaders and volunteers to strengthen capacity and ensure continuity.
3. Create shared platforms. Establish a regional forum or digital network to enable knowledge exchange and joint programming between all heritage stakeholders.
4. Increase youth involvement. Expand school-based or youth-led initiatives to foster long-term engagement with heritage and community.
5. Leverage digital tools. It can be spread by broader use of websites, apps and social media to expand participation, particularly among younger and non-local audiences.

4.5 Case Study – Slovenia

PROCESS of protection and promotion

The Coal Mining Museum of Slovenia in Velenje plays a vital role in preserving the technical, cultural, and social heritage of coal mining in Slovenia. With its rich collection and immersive underground experiences, the museum offers a comprehensive understanding of miners' lives and the industrial development that shaped both the region and the country.

The museum was founded in tribute to generations of Slovenian miners. A lift from 1888 takes you 160 meters underground into a world once lived and worked in by countless miners. The award-winning underground museum, operating for more than 25 years, takes visitors back in time to experience the mining profession firsthand. Accompanied by a guide, visitors enter the mine just as miners once did: dressed in mining gear, including overcoats and helmets, and carrying a traditional miner's meal.

In a 90-minute underground tour, you'll witness a vivid presentation of past and present mining work. The story unfolds across 18 scenes featuring 15 lifelike miner puppets brought to life with modern audiovisual technology. You'll explore the mechanization of mining spaces from recent decades of the Velenje Coal Mine's development, concluding the tour with a ride on an underground railway. Afterwards, you'll visit the "Black Locker Room" and "White Locker Room" exhibitions, which showcase the evolution of mining and a reconstructed miner's apartment from 1930.

The museum closely collaborates with educational, cultural, and tourism institutions, as well as the national Center for School and Extracurricular Activities. Through guided tours, workshops, and themed programs, it encourages young people to understand the past and recognize the importance of scientific, environmental, and technical knowledge. Additionally, the museum engages in scientific research, develops educational content, and supports cultural, social, and intergenerational projects. In doing so, it makes a meaningful contribution to the local community and broader public awareness of Slovenia's energy, environmental, and labor history.

PROMOTION and Stakeholders' Engagement

The Coal Mining Museum of Slovenia hosts a wide variety of cultural, educational, and entertainment events throughout the year—recently also culinary ones. The museum offers several unique venues located directly next to mining machinery and recreated scenes both underground and on the surface. These venues have welcomed performances by the Velenje Coal Mine Brass Band, the Velenje Miners' Octet, the Barbara Accordion Orchestra of the Velenje Coal Mine, and numerous other musical and cultural performers from across Slovenia.

The museum hosts a diverse range of events annually and also presents numerous exhibitions year-round. The underground part of the museum features a large venue accommodating up to 240 people and a smaller venue, the Ligij Salon, with space for up to 50. On the surface, the largest indoor event space, the "Prezivnica," can host around 200 people, with a similar capacity in the "Black" and "White" Locker Rooms. The museum's multimedia-equipped lecture hall/classroom offers seating for 50.

Two outdoor venues are arranged in the museum park for events. The smaller can accommodate up to 100 guests, while the large, next to which the museum's largest outdoor exhibit, a mining shearer and supporting equipment, was installed in 2023, can host up to 500 people. All venues are exceptional and above all unique, as they are situated in an industrial setting, offering a completely different dimension for organizing events and programs. A variety of cultural and museum-related events, culinary experiences, concerts, fairs, exhibitions, weddings, and birthday celebrations are held in both the underground and surface parts of the museum.

In 2008, the museum collaborated with renowned Velenje rapper 6pack Čukur (Boštjan Čukur) to produce the song and music video *Kapo dol* ("Hats Off") as a tribute to all miners working deep underground. In 2012, a concert by the world-famous group Laibach was held 160 meters underground in the museum, along with their exhibition *Laibach Kunst – Glück Auf*. In 2013, the Ligij Salon hosted Slovenia's first underground poker tournament, organized in collaboration with PokerStars, the world's largest poker site. In 2014, the same venue hosted a priceless culinary experience by MasterCard featuring Ana Roš, awarded the title of the world's best female chef. The popular Slovenian pop-rock band Siddharta filmed the music video for their song *Ledena* in the underground section of the museum in 2015. In 2017, the group The Stroj marked their 20th anniversary with a retrospective exhibition *The Power of Sound – The Rhythm of Time*, while the underground section of the museum hosted the world's deepest TEDx event, which was also the first TEDx in Slovenia. The museum has also welcomed many well-known stand-up comedians.

In 2009, students from the Department of Textile and Clothing Design at the Faculty of Natural Sciences and Engineering staged a fashion show at the museum to celebrate St. Barbara's Day, presenting projects inspired by mining, coal, traditions, and symbolism. A special fashion show was held in 2012 to accompany the release of a charity calendar, featuring miners as models dressed in mining clothing produced by HTZ Velenje, a subsidiary of the Velenje Coal Mine. Remarkably, the entire team involved in this project—from photographers and designers to organizers—were all employees of the mine.

In partnership with the Šaleška Valley Tourism Institute, the museum has created the acclaimed five-star tourist experience Velenje Underground, which combines tangible and intangible technical and cultural heritage with top-tier local cuisine. Visitors become part of a time-travel journey into the history of coal mining in the Šaleška Valley. In the deepest miners' dining hall, they enjoy a gourmet four-course meal,

fine wine, and live music. Velenje Underground won the BIG SEE TOURISM Award in 2020, presented by the Center for Creative Economy of Southeast Europe (Zavod Big), and was a finalist for the prestigious Conventa Best Event Award 2020.

Another collaborative project with the Šaleška Valley Tourism Institute is The Secrets of the Sunken Villages, which reveals the deep connection between local people and lignite from Velenje. Through storytelling deep underground, visitors learn about the submerged villages in a unique and engaging way. The narrative continues on the museum's surface and at the lake formed as a result of coal mining, where a virtual dive awaits participants.

The museum's industrial setting also offers ample opportunities for small-group conference tourism. It regularly features exhibitions tied to mining and industrial heritage. In celebration of the 150th anniversary of the Velenje Coal Mine, the museum organized a Philatelic and Numismatic Mining Exhibition in collaboration with the Celje Philatelic and Numismatic Club.

The museum maintains close ties with the local community, especially with the Šaleška Valley Tourism Institute, Festival Velenje, the Velenje Library, and the Municipality of Velenje. It is also connected with municipalities throughout the region, working together to host various events. In the past year, the museum organized both a national meeting of Slovenian mayors and the 5th Annual Political Dialogue of Coal Regions in Transition within the EU, an initiative supported by the European Commission.

Every year on December 4th, the museum organizes a celebration of St. Barbara, the patron saint of miners, in collaboration with the Association of Engineers and Technicians of the Velenje Coal Mine. It also works closely with the Zasavje Museum in Trbovlje, the Peca Underground, the Heritage Management Centre of Mercury in Idrija, the Slovenian Mining Society, the Retirees' Association of the Velenje Coal Mine Group, and is a member of the Slovenian Museum Association, the Section for Technical and Industrial Heritage, and the International Council of Museums (ICOM).

INITIATIVES

- Connecting art and industry/science – e.g., the use of coal as a medium for visual art (art colonies in cooperation with the Public Fund for Cultural Activities of the Republic of Slovenia – Velenje Regional Office).
- International projects on art, culture, heritage, etc. – actively participate to secure funding.
- Dance performance in the mine – as part of a multifaceted international project.
- Incubator and young entrepreneurs – involve them or offer insight into mining through the museum and/or provide the museum environment as a working space. A new environment + new knowledge = more ideas, reflections, and innovations.

EFFECTIVENESS

Cooperation with schools and the National Centre for School and Extracurricular Activities (CŠOD) is of great importance, as it ensures continuous engagement with younger generations. Through this collaboration, the museum strengthens its educational mission and enables young people to discover technical, scientific, and cultural heritage in an interactive and immersive way. Through diverse programs, workshops, and guided tours, we inspire youth to explore careers in science and engineering, sustainability, energy, and industrial heritage.

Collaboration with the local community, especially the municipality, local tourist offices, and the Šaleška Valley Tourism Board, is key to the joint development of the destination and increasing the visibility of the region. Well-established communication and regular cooperation enable the creation of high-quality, authentic, and sustainable projects. Together with the Šaleška Valley Tourism Board, we carry out two widely recognized tourism products:

- Velenje Underground, a five-star experience that combines industrial heritage and top-level cuisine in a unique mining environment.
- Secrets of the Sunken Villages, a five-star experience and an experiential tour that reveals the story of coal mining and its impact on the local environment, ending with a virtual dive into the lake.

IMPROVEMENTS

- Secure funding sources, especially long-term ones.

To successfully and sustainably implement projects, it is essential to secure stable and long-term funding. Reliable financial resources are the foundation for planning, executing, and upgrading initiatives in a way that goes beyond short-term goals and supports real development.

- Ensure continuity and development/upgrade of projects.

In addition to funding, ensuring the continuity of projects is vital. This means that projects must not be abandoned or neglected due to changes in political or economic circumstances. Instead, continuous development and improvement should become a standard practice.

- The state and regional authorities must play a key role.

State and regional authorities play a crucial role in this process. These institutions are key to shaping strategic direction, connecting stakeholders, and creating the conditions necessary for long-term progress. Their support and active engagement are indispensable if projects are to move beyond planning stages and become tangible results.

- Digitalization, especially in 3D technology.

Finally, one of the most important aspects of modern development is digitalization, particularly through the use of 3D technology. This opens up new possibilities in planning, presentation, and implementation of projects. Digital tools and innovative technologies are not only a step toward modernization, but also enhance efficiency, transparency, and accessibility for end users.

5. Final conclusions and recommendations for stakeholders' engagement

The CoalHeritage project comprehensively assessed and demonstrated the essential role of stakeholder engagement in the sustainable protection and promotion of coal mining heritage across five participating countries: France, Germany, Greece, Poland, and Slovenia. The findings reveal a multi-layered landscape of institutional collaboration, public participation, and cultural innovation.

The stakeholder engagement activities conducted under WP5 of the CoalHeritage project demonstrate that inclusive, participatory, and technologically supported strategies are vital for the successful preservation and revitalization of Europe's coal mining heritage. Engagement must be continuous, adaptive, and rooted in local contexts to meet both present and future challenges in heritage-based regeneration of former coal regions.

This deliverable offers a roadmap for policymakers, cultural institutions and local actors aiming to transform mining legacies into shared, sustainable cultural futures.

CONCLUSIONS

The following conclusions emerge from this comprehensive study, integrating survey data, event analysis (Industriada), and interregional case studies:

1. High levels of stakeholder involvement

Stakeholder engagement is perceived as generally strong, particularly among local communities, public authorities, educational institutions, and the mining industry. These groups are recognized as the most active and impactful in heritage promotion initiatives.

2. Effective forms of engagement identified

The most effective strategies for promoting mining heritage include the development of tourism infrastructure and experiences, cultural events and festivals, educational and training programs, grassroots cooperation with local communities.

Less effective methods were found to include artistic projects and traditional media campaigns, suggesting a need to adapt these formats or combine them with more participatory tools.

3. Public awareness and knowledge gaps

Despite generally positive assessments of current promotion efforts, there is a marked need to improve public awareness. Actions seen as particularly beneficial include organizing community-based events, integrating mining heritage into school curricula, increasing financial investment in outreach and education.

4. Financial and institutional support is crucial

Insufficient funding and limited institutional cooperation are among the most cited barriers to effective mining heritage preservation. Survey respondents emphasized the need for direct funding of heritage projects and support for developing tourist attractions.

5. INDUSTRIADA event: a model of engagement and promoting

The INDUSTRIADA 2025 event held at the Barbara Experimental Mine GIG-PIB proved highly successful, showcasing how direct public interaction, through tours, VR experiences, and educational games, can raise awareness and foster pride in mining heritage.

6. Interregional Collaboration is Essential

Good practices from France, Germany, Greece, Poland, and Slovenia highlight that:

- strong institutional frameworks (e.g. ACOM, Mission Bassin Minier, Zollverein Foundation) facilitate success,
- cultural partnerships and community-based associations enhance grassroots participation,
- digital platforms (like EGDI) increase accessibility and knowledge sharing.

RECOMMENDATIONS

Stakeholder engagement is a dynamic, adaptive process that must evolve alongside socio-economic, technological, and cultural changes. Sustainable mining heritage preservation depends on embedding community participation, cross-sectoral cooperation, and digital innovation into every stage of heritage planning and practice.

The CoalHeritage project demonstrates that by empowering local voices, fostering inclusive collaboration, and embracing innovation, Europe's mining legacy can be transformed into a foundation for cultural renewal and regional development. Recommendations for stakeholders' engagement are:

1. Strengthen participatory governance

- involve diverse local actors, including residents, former miners, youth and continuously in the planning and implementation of heritage projects,
- establish local advisory panels, citizen forums and workshops to ensure inclusive and transparent decision-making,
- promote co-management models where stakeholders share ownership and responsibility for heritage sites.

2. Enhance communication and public awareness

- develop targeted awareness campaigns using accessible language and diverse formats (e.g., storytelling, exhibitions, digital content),
- leverage educational programs in schools and community centers to build intergenerational awareness and understanding of mining heritage,
- organize local events and festivals (e.g. INDUSTRIADA) to celebrate mining heritage and deepen community attachment.

3. Improve coordination between stakeholder groups

- facilitate institutional cooperation between local governments, academia, NGOs, former industrial enterprises, and tourism operators to align efforts and avoid duplication,
- encourage public-private partnerships to support investment in mining heritage conservation and revalorization.

4. Provide stable and diverse financial support mechanisms

- advocate for dedicated funding schemes at national and EU levels, supporting restoration, education, digitalization, and tourism development,
- promote participatory budgeting tools at the local level to involve residents in heritage-related investments.

5. Integrate digital and immersive technologies

- utilize interactive maps, virtual and augmented reality (VR/AR) applications, and mobile platforms to broaden engagement and attract younger audiences,

- document and disseminate digital archives and oral histories that capture the social and cultural dimensions of mining,
- include stakeholders in the co-creation of digital content, ensuring relevance and authenticity.

6. Foster interregional and international exchange

- strengthen collaboration with networks such as ERIH, TICCIH, EGDI, and national mining heritage associations to exchange best practices and amplify local efforts,
- promote cross-border learning through thematic workshops, site visits, and joint exhibitions.

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9. Appendix

9.1 Questionnaire form

Thank you for participating in this survey.

It aims to gain your opinion on stakeholders' involvement in the process of protection and promotion of mining heritage.

Coal Heritage: Conservation and promotion of the Coal Mining Heritage as EU's cultural legacy, is an RFCS Accompanying Measure European Project with main goal the development of an interregional network for the protection and promotion of the coal mining heritage in post-mining regions. The project will focus on coal regions that are currently in a transition phase as well as those that have already ceased the exploitation of coal or are near mine closure. The main objectives are: 1) Identification processes needed to declare the coal sites as heritage areas supporting the just transition of the coal sector and regions, 2) Enhanced management in the coal regions in transition supporting the just transition of the

coal sector and regions, improving health and safety and minimising the environmental impacts of coal mines in transition, 3) Design and develop a European Visual Map Journal (EVMJ) supporting the just transition of the coal sector and regions and 4) Dissemination and network development supporting the just transition of the coal sector and regions.

CoalHeritage project has received funding from the Research Fund for Coal and Steel (RFCS) under Grant Agreement No.101112138

Privacy Statement

Participation in this survey is voluntary. If you decide to participate in the survey, you consent to the collection and processing of your personal data. The data are collected and processed only for research purposes in the context of the implementation of the project CoalHeritage and under the provisions of the GDPR, General Data Protection Regulation (2016/679/EU).

We will not disclose your data to another third party unless disclosure is required by law or is necessary for the fulfillment of the above processing purposes. The collected data will be kept for a maximum period of 12 months after the closure of the survey unless a longer retention period is required by law or for the establishment, exercise, or defense of legal claims. As a data subject, you have the right to access, rectification, restriction of processing, erasure, object to processing, portability, as well as withdraw your consent at any time.

Data Controller: Główny Instytut Górnictwa-Panstwowy Instytut Badawczy (GIG-PIB), Plac Gwarków 1, 40-166 Katowice, Poland. If you have questions regarding the data processing or the survey details, please contact us by sending an e-mail to gig@gig.eu

I declare that I have read this Privacy Statement, understand the processing of my personal data and I consent to it.

- ☐ Yes

Demographics

1. **Please select your country**

- ☐ Poland
- ☐ Greece
- ☐ Germany
- ☐ France
- ☐ Slovenia
- ☐ Other.....

2. **What type of organization or institution are you affiliated with?**

- ☐ Public sector employee
- ☐ Representative of a non-governmental organization (NGO)
- ☐ Representative of the mining industry
- ☐ Local Government Representative
- ☐ Other, what kind.....

3. **Are you involved in the subject of mining heritage?**

- Yes, through professional work
 - Yes, through interests
 - No
 - Other, what kind.....
4. **How long have you been involved in the subject of mining heritage?**
- Less than 1 year
 - 1-3 years
 - 4-5 years
 - Over 5 years
5. **How do you assess the level of stakeholders' involvement in activities related to the preservation of mining heritage in your region?**
- Very high
 - High
 - Medium
 - Low
 - Very low
6. **Which of the following stakeholder groups are most involved in promoting mining heritage in your subregion? (More than one option can be selected)**
- Government
 - Local governments
 - Local community
 - Mining industry
 - Educational and scientific institutions
 - NGOs
 - Travel industry
 - Media
 - Other, what kind.....
7. **In your opinion, what forms of cooperation with stakeholders are the most effective in promoting mining heritage? (More than one option can be selected)**
- Workshops and conferences
 - Education and training programs
 - Information campaigns in the media
 - Organizing cultural events (e.g. festivals, exhibitions)
 - Cooperation with local communities, if so, in what form.....
 - Creating tourism projects related to mining heritage
 - Creating artistic projects related to mining heritage
 - Other, what kind.....
8. **Do you know of any good examples of cooperation with local communities in the protection and promotion of mining heritage in your region?**
- No
 - Yes, what.....

9. **How do you assess the current state of mining heritage promotion in your region?**
- Very good
 - Good
 - Adequate
 - Limited
 - Very limited
 - I have no opinion
10. **In your opinion, what are the main challenges in promoting mining heritage? (More than one option can be selected)**
- Lack of financial resources
 - Low level of social interest
 - Lack of knowledge and education about mining heritage
 - Dissatisfaction of residents with some aspects of the impact of mining on the environment (e.g. mining damage)
 - Conflicts of interest between different stakeholder groups
 - Insufficient cooperation between stakeholders
 - Heritage preservation issues (e.g. destruction of sites)
 - Difficulties in reaching a wide audience
 - Other, what kind.....
11. **What actions should be taken to increase public awareness of the value of mining heritage? (More than one option can be selected)**
- Educational campaigns in schools
 - Better promotion on social media
 - Organisation of local events (e.g. heritage days)
 - Improving access to information on mining heritage
 - Organizing artistic events
 - Organizing trainings and seminars
 - Cooperation with international institutions
 - Increased financial support
 - Other, what kind.....
12. **Are the current activities in the field of protection and promotion of mining heritage sufficient?**
- Yes
 - No, additional action is needed
 - I don't know/I have no opinion
13. **What forms of external support (e.g. from the government, international organizations) would be most helpful in activities related to mining heritage? (More than one option can be selected)**
- Funding heritage projects
 - Marketing and promotion support
 - Training and workshops for local authorities

- Helping to create new tourist attractions
- Non-cultural use of heritage sites
- Other, what kind.....

14. In your opinion, what are the key benefits of preserving and promoting mining heritage?

- Protection of historical and cultural values
- Tourism and local economy development
- Increase in public awareness
- Creating new jobs
- Other, what kind.....

15. What actions should be taken to ensure the sustainability of the mining heritage in the future? (More than one option can be selected)

- Increasing the involvement of local communities
- Integration of mining heritage with modern technologies
- Protecting natural resources and the environment
- Cooperation with international organizations
- Other, what kind.....

Feedback and suggestions

16. What actions should be taken in the future to improve the protection of mining heritage in your area?

..... (Text field to be filled in by the respondent)

17. Do you have any additional comments or suggestions regarding activities related to the protection and promotion of mining heritage?

..... (Text field to be filled in by the respondent)