Funded by the European Union

RFCS-2023-02-RPJ

Deliverable D6.1: Communication and dissemination plan

ShotTempering

Shot Peening Integration in Tempering Processes of Steels for Enhanced Fatigue Performance

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Deliverable Type	Report
Dissemination Level	Public
Due Date (Annex I)	31.12.2024 (Month 6)
Pages	28
Document Version	Final
GA Number	101156779
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Version Log			
Rev #	**Date**	**Author**	**Description**
0.1	09.12.2024	Stefan Dietrich (KIT)	Draft
0.2	16.12.2024	Stefan Dietrich (KIT)	Second Draft
1.0	17.12.2024	Ursula Ofenheimer (I2M)	Quality review
2.0	18.12.2024	Ursula Ofenheimer (I2M)	Formatting check
3.0	27.12.2024	Ursula Ofenheimer (I2M)	Coordinator review and approval, deliverable ready for submission

Project Abstract

In response to pressing challenges, such as climate change and the increasing need for enhanced energy efficiency in the transport sector, the ShotTempering project addresses the imperative for advancements in the production process chain. This project introduces an innovative hybrid technique known as "warm peening," which integrates shot peening within the tempering treatment of components, primarily for high-demand applications like electric vehicles (EVs). EVs impose substantially higher loads on their components, necessitating further refinements in the production process to enhance performance and prevent premature failures. The novel warm peening process offers dual advantages. Firstly, it promises to boost the overall efficiency of the process chain in terms of energy consumption, resource utilization, and time savings. Secondly, it holds the potential to significantly enhance the mechanical properties of manufactured parts, particularly their fatigue resistance, through shot peening at elevated temperatures. This technique is recognized for its capacity to augment cyclic residual stress stability, fatigue strength, and, consequently, the longevity of critical components. The ShotTempering project represents a pioneering endeavour poised to revolutionize the manufacturing landscape, catering to the evolving demands of the transport sector while contributing to sustainability and energy efficiency goals.

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Public Summary

Deliverable D6.1 outlines the communication and dissemination strategy, aiming to effectively share results with stakeholders, policymakers, and the public. Key dissemination tools include a project website, newsletters, publications, social media campaigns, and participation in conferences. Internal and external outreach activities target stakeholders ranging from manufacturers to academic institutions. A flexible, adaptive strategy ensures alignment with EU goals and facilitates knowledge transfer while maintaining strong intellectual property rights management. Monitoring and evaluation mechanisms track progress, using metrics like website engagement, social media reach, and publication impact. The strategy underpins the project's success, fostering collaboration and maximizing market uptake of the ShotTempering innovations.

This deliverable describes the strategic approach to disseminating and exploiting the project's outcomes. A key focus is on identifying stakeholders, exploitable results, milestones, and target groups to ensure that the results are not only published but also practically implemented. The dissemination strategy includes the creation of clear key messages tailored to various audiences, such as policymakers, scientists, and industry representatives. Activities such as technical publications, conferences and digital platforms are detailed to maximize the reach and impact of the project outcomes. The practical tools employed to disseminate the project's results include a consistent corporate identity, including a logo and templates, enhances the recognizability of the project. Furthermore, social media and website platforms such as LinkedIn and the project website are used to regularly share updates and results with a broad audience. Additionally in publications and conferences the results will be presented in high-impact scientific journals and at international conferences to maximize scientific and industrial influence. Finally regular workshops and newsletters aim to engage stakeholders and communicate the progress of the project. The targeted use of these tools ensures broad visibility and facilitates the successful transfer of the developed technologies and processes into practical applications.

1 Introduction

1.1 Rational of this deliverable

The plan for the dissemination and exploitation (D6.1) plays a crucial role in the project to promote project results and share best practices and key messages. Since the beginning of the implementation phase, WP6 promotes the project's objectives and activities and, as new results become available, it carries out the publishing process.

The communication and dissemination plan ensures that the outcomes and impact of the project are effectively shared with stakeholders, end-users, and the general public. Its aims are to raise public awareness and inform/engage stakeholders about the project and its objectives. This is essential to maximize the project impact and ensure project results are widely known and utilized. Furthermore, it promotes transparency through showcasing the project's alignment with EU objectives and values.

All partners, led by I2M, will play a role in communication, dissemination and exploitation in their respective areas, within their own network, and with their own means. I2M as WP6 leader and all project partners, will elaborate and lead the strategy and give inputs to all partners.

All partners contribute with input of information regarding the outcomes of the project and news with respect to related applications. Furthermore, the regular publication of results will also help involve the public in the subject of process optimization. Therefore, the dissemination plan is directly linked to all technical work packages in receiving and communicating the progress of the partners and in the respective work packages.

The success of the ShotTemperig project relies not only on groundbreaking research and innovation but also on effectively disseminating project results and engaging with stakeholders to achieve widespread impact.

The dissemination will follow a strategy on two different levels:

Level 1 - Internal dissemination level (All partners - Sidenor, CRF, Stresstech, i2m & KIT):

The internal dissemination level within the ShotTempering project ensures seamless communication among partners, promoting knowledge exchange and supporting collaboration. Each partner plays a key role in disseminating updates, sharing insights, and contributing to deliverables making use of structured communication channels. Information is regularly shared via project meetings, software platforms such as SharePoint, and internal feedback mechanisms. To ensure alignment, all partners contribute to periodic reports, provide insights for deliverables, and engage in reviewing project outputs. Preferred channels for internal dissemination include company-specific tools like internal newsletters summarizing milestones and progress, and workshops or presentations to inform broader internal teams. These channels aim to keep all stakeholders within each organization engaged with the project's objectives and progress. Additionally, partners align dissemination efforts with their exploitation plans, using internal briefings and management meetings to integrate project outcomes into their workflows. Each partner has distinct responsibilities tailored to their role in the consortium (see section 3.3 for more details).

Sidenor focuses on communicating advancements to their R&D teams to align with manufacturing goals, while CRF emphasizes knowledge transfer within its innovation teams to

explore applications in automotive components. Stresstech disseminates insights on residual stress measurements to enhance quality control processes, and i2m uses team briefings to integrate findings into life cycle assessments, engineering projects and project management strategies. KIT promotes collaboration through internal seminars, sharing scientific results with related research groups. This internal dissemination strategy ensures partners remain informed, motivated, and aligned with the project's objectives. It leverages each organization's communication frameworks to embed ShotTempering within their operations, fostering collaboration and maximizing the impact of the project outcomes.

External dissemination level:

The external dissemination level of the ShotTempering project focuses on sharing results, engaging stakeholders, and maximizing the project's visibility across diverse audiences. This level targets steel users, policymakers, academics, industry stakeholders, and the general public. A structured approach is employed to ensure that the project's innovations and impacts are effectively communicated and widely understood.

Key dissemination activities include leveraging digital platforms, such as the project website and social media channels, to provide regular updates and publish accessible content, including project news, milestones, and results. Newsletters distributed on a biannual basis inform a broad audience of progress, achievements, and upcoming events, while scientific publications and technical articles contribute to knowledge exchange within the academic and industrial communities. Participation in conferences, trade fairs, and workshops serves as an important platform for presenting findings, engaging in direct dialogue with target groups, and fostering partnerships.

The strategy is tailored to different audiences. Industry stakeholders are engaged through networking events, roadshows, and trade fairs, where the practical applications and benefits of ShotTempering are highlighted. The general public is informed through outreach events and accessible materials, such as fact sheets and videos, to raise awareness of the project's relevance and impact.

Special attention is given to stakeholder engagement in partner countries and EU-wide. Outreach is planned strategically to ensure coverage of all relevant groups, fostering synergies and enabling the broad adoption of the project's innovations. This external dissemination strategy ensures that ShotTempering reaches its intended audiences effectively, builds meaningful connections, and facilitates the integration of its outcomes into industry practices and policy frameworks.

The dissemination and exploitation strategy is meant to be flexible and can be adapted to the partners' and projects' needs. The success of the project will significantly depend on strengthening the cooperative relationship within the partnership, as well as on the capacity to activate synergies.

It is important to note that this D&E plan is considered a living document and a first draft. It will serve as a basis for the final report (D1.2) in M42. The data provided in this deliverable will be used to guide partners in the revision process of the PDE (Plan for the dissemination and exploitation). At the end of the ShotTempering projects' lifetime, the final report will include an updated and final version of the PDE that will allow the European Commission to assess the impact of the project.

Attainment of the objectives and explanation of deviations

The objectives related to this deliverable have been achieved and as scheduled for this initial stage of the ShotTempering project. Risks for WP6 have been identified at the beginning of the project and will be reported in a dedicated deliverable. The indicators and tools for monitoring the achievement of objectives have been clearly defined and a risk assessment process will identify and address potential risks, playing a crucial role in safeguarding the project's success and ensuring the attainment of its objectives.

2 The Consortium

The consortium partnership members of the ShotTempering project enable outreach to a broad range of stakeholders, including academic and research institutions, industrial partners and technology providers. Engaging with these stakeholders will enable effective dissemination of project findings, foster collaboration, and promote the enhancement of the shot peening technology at industry level at large.

2.1 Outreach

Maximizing the market uptake of the ShotTempering solutions relies on a robust industrial consortium, comprising various key stakeholders. The technology & solution providers are i2m, Sidenor, CRF and Stresstech. Additionally, the consortium is boosted by the scientific partner KIT.

The outreach of stakeholders based on the partnership members can be categorized into specific key areas:

Product manufacturers & Technology providers, and innovation management partners

- Sidenor
- CRF
- Stresstech
- i2m

Sidenor Investigación y Desarrollo S.A. (Sidenor I+D): Sidenor is a steel company, leader in the European steel industry for the production of special steel long products. It is also a supplier of cold finished products in the European market. The company has production centers in Basque Country, Cantabria and Catalonia as well as business delegations in Germany, France, Italy and the U.K. With an installed annual capacity of 1 million tonnes, it produces straight bars (round and flat), bar in coil and wire from a range of 5.5 mm to 220 mm in diameter of high quality engineering steel grades. The production process for special steels comprises electric arc furnace, ladle furnace, vacuum degassing and continuous casting (billet and bloom, in square and round formats). Sidenor has 5 rolling mills, heat treatment and finishing facilities. 100% of the Sidenor production is sustainable give that all its products are manufactured from scrap (recycled steel). The main markets of Sidenor products are automotive and energy.

Centro Ricerche FIAT (CRF): CRF is an industrial organization having the mission to promote, develop and transfer innovation for providing competitiveness to STELLANTIS. With a full-time workforce of more than 850 highly trained professionals, CRF fulfils his task by focusing on the development of innovative products & materials, implementation of innovative processes, development of new methodologies and training of human resources.

To properly cover a technological spectrum, CRF developed a global network with national and international institutes, private and public research organizations, universities and companies, through the promotion of common research activities, associations, conferences and seminars and researchers mobility. This network further strengthens the centre's global innovation strategies, the implementation of specific activities locally, the creation of know-how and continuous monitoring to enhance competitiveness and further development in areas such

as transportation vehicles and components, innovative materials and application technologies, as well as the work on innovative alternative propulsion systems and transmissions.

Stresstech GmbH (STRESSTECH): Stresstech develops and supplies different measurement techniques for the assessment of residual stresses and microstructure condition. Typical application fields for those techniques are the control of surface integrity on highly, usually cyclically loaded workpieces after machining processes, like shot peening, grinding, hard turning, or milling, as well as the quality of heat treatment process. The precise tailor-to-application design and measurement of residual stress, as well as the condition of surface microstructure, contribute in an essential way to the product quality of components like bearings, gears, springs, crankshafts etc. Main customers belong to automotive industry, aerospace, power generation, and furthermore to universities and research institutes.

i2m Unternehmensentwicklung (i2m): i2m is a technology development and management consultancy focusing on technology development for automotive, industry/machinery as well as the pharma and energy sectors. Bringing results of basic research as well as concept development with national and international partners from industry and research, with a cooperative approach, to market maturity is one of the strengths of i2m. The resulting products and services have strong competitive advantages and are characterized by reduced development costs and short development times.

Research technology organizations

- KIT

This institution represents the scientific community and can contribute to knowledge exchange, collaboration on research activities, and dissemination of project results within the academic sphere. Outreach to this kind of stakeholder leads to knowledge exchange, collaborative research, and sharing project results with academic and research communities.

Karlsruhe Institute of Technology (KIT): KIT is the only German institution that combines a University of Excellence with a national large-scale research centre. The Institute of Materials Science and Engineering (IAM-WK) focuses on research, teaching and innovation in the field of materials science. Thus, process-structure-property-relations are characterized using modern and innovative mechanical, thermal and physical methods. For the investigation of mechanical characteristics advanced methods for the characterization of microstructure, stress state and near surface conditions of metallic and polymeric materials, composites and components made from these materials are promoted. Furthermore, practices are developed for the testing of materials and components under different load conditions, especially at dynamic, cyclic and combined loading.

3 Methodology

The ShotTempering project aims to achieve its impact objectives through an effective dissemination, exploitation, and communication strategy. The methodology of dissemination in the ShotTempering project is aimed at maximizing impacts by focusing on active stakeholder engagement and disseminating tangible exploitable results to the relevant audience at the right time. Figure 1 outlines the interdependence of (including the differences between) dissemination, communication and exploitation activities. Focusing on dissemination and exploitation, dissemination strategy's aim is to make the project results and outputs accessible, while exploitation strategy implies achieving the expected impact by successfully exploiting project results (see Figure 1).

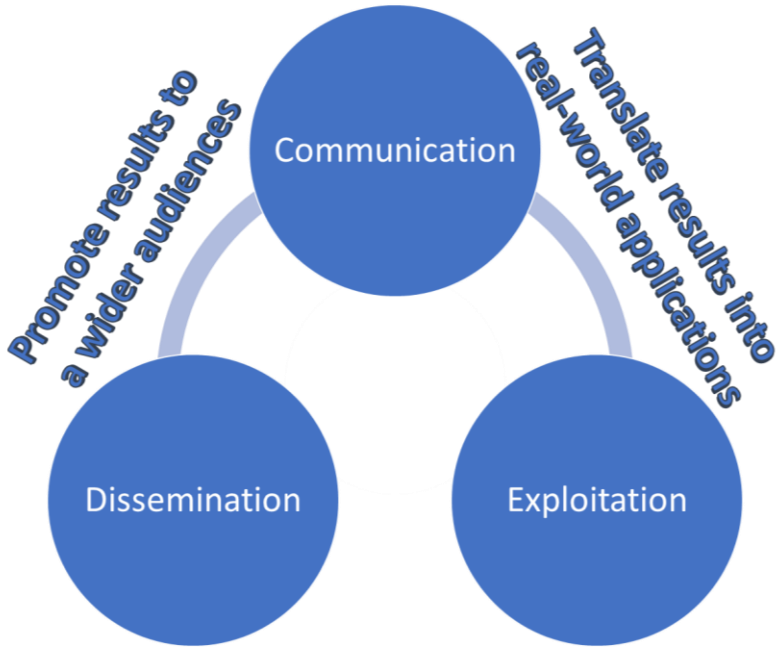

Figure 1: Dissemination, communication and exploitation approach

3.1 Definitions

Target audience: a group of people to whom messages are addressed.

Stakeholders: can be defined as people, groups or organizations having an active role because of their interest in the activities of the project, e.g., European Commission, Funding Agencies and others.

Networks: can be defined as a list of contacts that, even if they do not have an active role in the programme, can contribute to the wide communication and dissemination of activities. Networks can be of different types. They can be political, administrative, and union networks, for instance, linked to opinion leaders, media, and social media influencers. Building upon the experience accumulated by the partners and their memberships and networks, the ShotTempering project always has numerous contacts with a wide range of scientific networks.

End-users: a group of persons benefitting from projects' results.

3.2 Dissemination and Exploitation strategies

ShotTempering will employ the following approach towards objectives achievement:

Step 1: Identify Stakeholders, Exploitable Results, Milestones and Target Groups

A list of relevant stakeholders has been developed and will be further complemented in parallel to the project implementation using the ShotTempering stakeholder group as a first starting point. First potential target groups (TG) and their potential representatives have been summarized in Table 1.

Table 1: ShotTempering's Target groups

Target groups	Potential representatives
Manufacturing industries	Automotive end-users/ manufacturers: i.e. Stellantis, Volkswagen, Daimler, etc.
Technology providers/enablers and innovative SMEs offering solutions	Automotive TIERs: i.e. ZF, Hirschvogel, Metaldyne, Setforge, CIE, etc.
Research and academic community	Working groups and expert groups (AWT, DGM)
EU platforms and networks	RFCS
Educational and training institutions and standardisation bodies	

Step 2: Identify Appropriate Timeline and Link Milestones and Results

The consortium has established a coherent communication, dissemination, and exploitation timeline that links expected results to specific dates in time along the timeline. The WP leaders are responsible for disseminating the results at the indicated dates and times to ensure timely communication.

Step 3: Key Messages and Dissemination and Communication Tools

ShotTempering will create key messages tailored to each target group, communicating the benefits and vision of the project and linking them to the innovations and results developed in different work packages. Clear messages will be disseminated through newsletters, press releases, and other means, with variations depending on the target audience.

Dissemination tools have been selected based on the specific goals and target audience, including presentations at external events, technical publications, articles, networking events, virtual events, print media, interactive events, roadshows, and more.

Step 4: Implement Activities

Dissemination activities have started from Month 1 of the project and will continue throughout the project duration. The success of dissemination activities will be evaluated monthly to ensure that the measures are effective, reaching their aims, and executed on time. Monitoring of dissemination activities will be part of the executive board's monthly conference calls. Dissemination and communication measures are summarized in Table 2 below:

Table 2: Dissemination and communication measures

Project Website. A project website is created and will maintain downloadable short explanatory information, press releases, photos, videos, project flyer(s) and regular updates about the project.
Press materials. To consolidate the ShotTempering project image, a project identity is created and all dissemination materials (flyer, general presentation, press release, newsletter, etc.) will follow the same style.
Social media and newsletters. ShotTempering is promoting the efforts undertaken by the consortium in various social media channels such as Twitter, LinkedIn, YouTube. Newsletters will be available to all subscribers on a half-yearly basis.
Publications in scientific journals and relevant magazines. Scientific publications in the field of materials engineering, for example in “Journal of Materials Processing Technology”.
Participation at conferences and industry fairs to disseminate ShotTempering findings and conduct direct conversations with the target audiences. Key conferences are: ICSP

3.3 Individual Exploitation plans

The foreseen exploitation plan and interest of each partner are presented below.

Sidenor: aims to maximise the outputs of the project to promote their products in order to consolidate as a leading producer and provider of special steel long products for highly demanded components. The enhanced steel products derived from the ShotTempering project will be strategically positioned to meet the specific requirements of electric vehicle (EV) components. Consequently, the development of the innovative warm peening process is expected to open up new markets and applications, ultimately resulting in increased production and higher turnover for the company.

Stresstech: will use the results to improve residual stress measurement service for this surface treatment. Especially the knowledge of the penetration depth with various parameters used in the treatment process will help to reduce cost of the measurement process. This will also reduce reaction time in service and close to production measurements.

CRF: the alternative process studied in ShotTempering could permit to identify the most suitable operations for the considered application evaluating the critical aspects that may influence the industrial implementation (economic savings, environmental impact, process simplifications…). Moreover, the results will be disseminated internally in Stellantis and through automotive component end user or treatment supplier. Also Industrial vehicle manufacturer as e. g. CNH or Transmission Manufacturer will be informed about the project developments and results.

i2m: will use the results and knowledge gained in particular to complement its portfolio of engineering services related to LCA for various technology intensive industries (manufacturing, automotive, etc.).

In addition, i2m will use the project results for increased cooperation with industry partners in the steel industry. i2m will also use the experience and skills gained to expand its project management services, especially at European level. In addition, the ShotTempering project will increase i2m's competitive advantages by establishing the SME as a recognised development/engineering partner for the development of sustainable technologies/products and services.

KIT: will use the scientific results from process engineering and material characterization to intensify research into innovative peening strategies. The created understanding of process parameters and material changes with regard to mechanical performance will be used to support new ideas, e.g. combination of quenching and peening processes with similar prospects as the ShotTempering project.

3.4 Management of IPR

For the appropriate management of the knowledge generated during the activities to be conducted in the ShotTempering project, the Coordinator will develop and update, regularly, the background and foreground knowledge status and the specific IPR situation throughout the project duration. To assure a proper results dissemination, safeguarding the rights of the consortium partners to protect their IP, a strategy aimed at proper IP management is defined and established by the Consortium Agreement (CA).

The CA aim is to define the governance structure, the decision-making mechanisms, the responsibilities, and liabilities as well as aspects related to IPR and its protection, financial provisions, access rights, as well as information and dissemination of knowledge. IPR Strategy will be focused on the study of project results to be protected, exploring the best ways to protect and exploit these results and supporting those partners interested in exploiting of the generated project results, based on a business-oriented approach. Accordingly, strategy and procedures for IP management will be an integral part of the strategy and procedures for knowledge management. IPR management strategy will help to avoid future conflicts of property among the partners, clarifying at every stage the ownership of each solution or result.

The consortium will identify three different levels of IPR:

- **Individual and joint IPR**: belongs to individual partners or is jointly by partners that are working together on a task.
- **Generic IPR**: can be used for all the partners and will be made available for SMEs, industrial company and European organization.
- **Public IPR**: available for all and generic audience with no restriction on a public website and during conferences or workshop.

The foreground must be owned by the partners who developed these results. Each partner has a direct responsibility for taking the proper actions to guarantee IP on the results generated during the ShotTempering project.

4 Dissemination Tools

4.1 Corporate Identity

An attractive and strong project corporate identity is crucial to ensure better visibility and to create a coherent and highly recognisable image of the project. The corporate identity uses a set of graphic elements to easily identify the ShotTempering project. The overall aim is to create a coherent and highly recognisable image of the project to support communication and dissemination measures, such as publications and all kinds of written as well as visual communication about on-going and completed research activities.

a) Project logo

The design of the logo was guided by the following principles:

- Uniqueness and appealing design
- The O in the word shot is intended to represent the process of shot peening, where the surface of parts is dented by “bombarding” them with small beads in order to improve the surface material characteristics. As this is done under heat, the choice of colours is gradient from yellow to orange.

Figure 2: ShotTempering project logo

This ShotTempering logo (see Figure 2) will be used in all communications (written deliverables, presentations, fact sheet, newsletter, social media, etc.) to increase project visibility.

b) Branded templates

Common templates for written deliverables (MS Word, see format of this report), Minutes of Meeting and ShotTempering presentations (MS PowerPoint) have been created. In order to have a consistent brand identity, the design of the templates follows the same style, using the project logo and its colours. This is visualised in Figure 3 and Figure 4.

Figure 3: ShotTempering presentation template

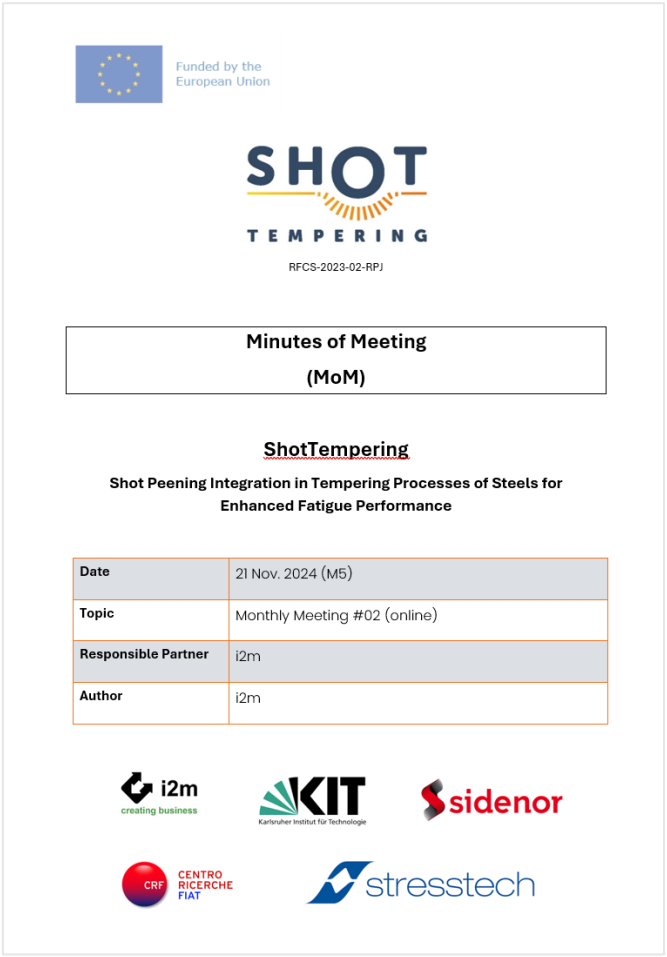

Figure 4: ShotTempering MoMs template

4.2 Social media

To establish the social media presence on e.g. LinkedIn (link) a web campaign will be developed (see Figure 5). Results and activities regarding the ShotTempering project will be therefore disseminated as social media channels represent an important way to be in touch with the relevant community.

i2m has set up the social media for the ShotTempering project and will be responsible for editing and for carrying out updates on a regular basis. All partners will support the social media campaign of the project (input, posts sharing, promotion etc.).

Figure 5: ShotTempering LinkedIn page.

4.3 Project website

The official project website (www.shottempering.eu) will be launched at the end of M6 and it follows the EU recommendation regarding usability and accessibility. The ShotTempering website will remain available to the public for at least 2 years after the end of the project (see Figure 6).

i2m is responsible for editing and for carrying out website updates on a regular basis, including timely uploading of project results, papers published, deliverables released or news items to be reported. All partners will contribute to maintain the project website providing relevant input such as participation at events, papers and articles, information on the progress of work, dissemination activities etc. Moreover, all partners are encouraged to include a mention and a link to the project website (www.shottempering.eu) from their own organisation's website.

Figure 6: ShotTempering website landing page.

4.4 General project presentation

To effectively communicate the goals and outcomes of the project, two types of project presentations will be developed by M10: one tailored for the general public (non-technical) and the other for experts in the field of manufacturing (technical). These presentations will be designed to convey understandable and well-structured messages about the project. The project presentations will be made easily accessible on the project website, allowing all partners to utilize them when presenting the project at internal and external events. It is strongly encouraged that partners adapt the content of these presentations to suit the target audience and specific events, ensuring that the information is relevant and engaging.

The general project presentation consists of several key sections, including context and mission, expected impact, main technologies, and an overview of the consortium. This presentation will be updated throughout the project as results become available.

i2m will coordinate the activities for the creation of the project presentation supported by all partners by providing relevant inputs and graphical pictures.

4.5 Flyer or Fact sheet

To increase the visibility of the project among specific target group and encourage people to subscribe to the project newsletter, a project flyer or fact sheet will be created in M10 and will be widely disseminated to the contacts of the partners and on request. The flyer will have an attractive appearance and contain details on the project objectives, scope, targets and foreseen outcomes.

The flyer will be made available on the website and all partners are encouraged to share the project flyer via organisation webpage, social media and by email to their network. Main sections of the project factsheets will include project summary, objectives, expected impact and consortium. The flyer will be updated once relevant results can be made public.

i2m will coordinate the activities for the creation of the project flyer, supported by all partners by providing relevant inputs and graphical pictures.

4.6 Newsletters

To keep the stakeholders informed of the progress of the project, relevant and interesting news will be communicated to all subscribers through a circulating newsletter. The timing of the publication will be decided based on relevant results of the project (half-yearly). The newsletter will be prepared by i2m with the inputs received from the partners and distributed via Mailchimp. Each newsletter should be designed to engage the audience and provide valuable insights into the project's progress, achievements, and contributions towards a greener and

more sustainable maritime industry. It is essential to keep the newsletters informative, visually appealing, and easy to understand for a diverse readership, including industry professionals, researchers, policymakers, and the general public.

4.7 Publications

To further promote the research outputs, ShotTempering will undertake all necessary efforts to translate research outputs and to submit them in the scientific journals.

The project scientific dissemination will be supported by publications in peer reviewed journals and conferences. In the Table 3, an initial list is presented, containing the names of the potential journals and magazines that will be targeted. This list is by no means exhaustive and will be further enhanced throughout the project, aiming at tackling relevant journals and maximising the impact.

Table 3: List of potential journals/magazines

Journal of Materials Processing Technology (https://www.sciencedirect.com/journal/journal-of-materials-processing-technology)
The Shot Peener (https://www.shotpeener.com/library/tsp_articles.php)
Journal of Manufacturing Processes (https://www.sciencedirect.com/journal/journal-of-manufacturing-processes)
The International Journal of Advanced Manufacturing Technology (https://link.springer.com/journal/170)

For all scientific publications in the dissemination plan we have implemented several key aspects to ensure effective dissemination and compliance with EU guidelines.

The publication strategy is a central element, involving the selection of high-impact, peer-reviewed journals and reputable conferences relevant to the project's field. Publications will align with the project's goals, target audience, and overall dissemination objectives.

Another crucial component of our strategy is adherence to EU open-access policies. This includes making publications freely accessible via Gold Open Access (publishing in open-access journals) or Green Open Access (self-archiving in repositories such as Zenodo) and following the FAIR principles in our research.

Acknowledging EU funding goes without saying and all publications and presentations will include a standard acknowledgment, specifying the funding program and grant agreement number. Clear authorship guidelines have also been established to ensure fair recognition of contributions from all project partners and prevent the publication of proprietary data of the partners.

The timing and scheduling of contributions will maximize the impact of the scientific publications. Publications are strategically planned to align with project milestones and critical dissemination phases, ensuring timely delivery to the scientific community and stakeholders. This is complemented by a robust internal quality assurance process to maintain the scientific integrity and relevance of published content. Therefore, publications are reviewed by tandems of technical experts within the consortium.

Furthermore, accessibility and reach are essential considerations since publications should address the specific needs of the intended audience, whether scientific peers, industry stakeholders, or policymakers. The language and presentation of the material will be adapted accordingly (e.g. workshops in the local language by the respective partners), with more accessible formats used for broader audiences when appropriate. In addition to journal articles, preprints or postprints will be deposited in open-access repositories to increase visibility and compliance with EU requirements.

To monitor the impact of scientific publications, metrics such as citation counts, downloads, and mentions in news outlets or social media are tracked. These metrics provide valuable insights into the dissemination success and reach of our research. At the same time, ethical and legal considerations will be carefully managed, including data protection under GDPR, ethical guidelines for data sharing, and adherence to consortium agreements on intellectual property rights.

Finally, collaboration and coordination among project partners is streamlined towards an efficient publication process. This includes avoiding duplications and ensuring coherence across dissemination activities. The first publications are planned for year 2025.

4.8 Conferences

ShotTempering will organise and/or participate in various public events to facilitate consultations, promote knowledge exchange and disseminate project information. These events serve as valuable opportunities to engage with the wider community, raise awareness about the activities and outcomes of ShotTempering and foster public interest in the project. Some of the key conferences are: Steel in Cars and Trucks", International Conference on Multiaxial Fatigue and/or Fracture, European Conference on Residual Stresses (ECRS), International Conference on Shot Peening (ICSP), and Mediterranean Conference on Heat Treatment and Surface Engineering (MCHTSE)

First ShotTempering presentation to the general public has already been done in October 2024 – participation at the EUROFORGE ConFair 2024 in Milan. Participations in further conferences and presentation of the first results is planned for end of 2025 and 2026. A tracking document for possible conferences and fairs in the remaining project time is stored online with the possibility of updates for all partners (see Table 4).

Table 4: List of possible trade fairs and conferences with reference to the research topics.

LIST OF POSSIBLE CONFERENCES AND TRADE FAIRS 2024- UNTIL 2027

Type*
- C: Conference
- TF: Trade Fair
- WS: workshop
- Others

No.	Conference/trade fair Title	Location	Date	Type*	Interest	Comments
	2024					
1	3rd EUROFORGE | conFAIR	Milan, Italy	22-23 October	C	Forging	Presentation of the project from Sidenor
	2025					
2	Steel in Cars and Trucks	Mainz, Germany	2-6 June 2025	C		
3	International Conference on Multiaxial Fatigue and/or Fracture			C		
4	International Conference on Residual Stresses (ECRS)			C		
5	European Conference on Residual Stresses (ECRS)		2026	C		Stresstec Paper& Presentation
6	International Conference on Shot Peening (ICSP) 2025	US	Sept '25	C		KIT (first results) Paper& Presentation
7	Int Conf of Heat Treatment (IFHTSE)		2026	C		
8	National conference AIM (Assoc Ital. Materials)	IT		C		CRF Presentation
9	Control	Stuttgart	2025 May	TF		Stresstech Fact Sheet
10	Workgroup FA 13 - Residual Stresses - annual			WS		Stresstech Presentaion
11	DGM - Mech Surface Treatment		2025	WS		KIT - Presentation
	2026					
12	*Mediterranean Conference on Heat Treatment and Surface Engineering (MCHTSE)*					

4.9 Workshops

In addition to the dissemination efforts mentioned above, the ShotTempering project will also undertake various activities like organizing workshops with stakeholders as well as a final project event.

As the project is currently in its initial stages, the specific requirements and target audience for these activities will be further defined and outlined in parallel to the project implementation.

The workshops and the Final project event serve as important platforms for engaging stakeholders, fostering collaboration, and sharing project outcomes. These activities aim to facilitate meaningful interactions and exchange of knowledge with key stakeholders involved in the project.

5 Monitoring and verification tools

The monitoring of dissemination activities is a regular and integral part of our project's implementation. The monitoring process is conducted periodically, and the progress and outcomes are recorded in a specific template designed by i2m (WP6 -leader), as a Reporting log. This *Dissemination Record Template* serves as a comprehensive record to track the dissemination efforts effectively made by each partner. In particular, each partner will be asked to track following aspects:

Table 5: Dissemination activities tracking tool/-format

Dissemination Record Template
Tracking all types of dissemination activities conducted (organizing or presenting in a conference/workshop/social media, etc..) where stakeholders have been informed about the project
Tracking of scientific or non-scientific publications, thesis/dissertation publications, articles in magazines
List of interesting events from 2023 – 2025, where ShotTempering partners could attend
List of potential journals and magazine, where partners could publish ShotTempering results

In evaluating the success of dissemination efforts, quantitative indicators that gauge the reach and impact of activities have been identified during the proposal phase preparation. These indicators are carefully selected to measure the effectiveness of the dissemination process, including metrics such as the number of publications, media coverage, website traffic, social media engagements, conference presentations, and workshops conducted. These quantitative indicators provide valuable insights into the extent to which our project's results and findings are being disseminated to our target audience and beyond. Each of these indicators is designed to track the dissemination activities' effectiveness and reach in terms of providing information, engaging stakeholders, and disseminating research findings throughout the project's duration and measure the success of the dissemination efforts to ensure that the project's goals for communication and outreach are achieved.

Monitoring activities will be conducted at regular intervals, with assessments taking place periodically. By implementing proactive measures and maintaining open communication, ShotTempering aims to overcome any risks that may arise and maintain steady progress towards its goals.

These risks encompass various aspects of the dissemination process, including communication within the consortium, strategy development, outbound communication efforts, and stakeholder engagement. By actively monitoring and addressing these risks throughout the project's duration, ShotTempering aims to ensure the effectiveness and success of its dissemination activities.

The monitoring measures include:

Regular Reporting: Establish a reporting schedule to track the progress of dissemination activities and provide updates on the status of each activity and its performance against the established KPIs.

Stakeholder Engagement: Monitor the engagement of stakeholders during the dissemination process. Evaluate the level of interest and feedback received from stakeholders to assess the effectiveness of the communication efforts.

Feedback Mechanisms: Implement feedback mechanisms to gather input from target audiences. This could be through surveys, focus groups, or direct communication channels to assess the effectiveness and relevance of the dissemination materials and activities.

Partner Contributions: Track the contributions of each project partner to the dissemination plan. Ensure that all partners are actively engaged in their designated tasks and fulfilling their responsibilities.

6 Conclusions

This deliverable outlines a comprehensive dissemination strategy aimed at ensuring the effective communication and exploitation of the project’s results to a broad range of stakeholders. The dissemination activities focus on making the project’s findings widely accessible, increasing awareness, and fostering stakeholder engagement. Key approaches include the publication of scientific articles, participation in conferences and workshops, and the use of targeted digital tools such as websites and newsletters to reach both technical audiences and the general public. Additionally, tailored communication efforts aim to engage policymakers, industry players, and other relevant groups, ensuring alignment with market needs and societal challenges. These activities are closely interlinked with exploitation measures to promote the adoption of project outcomes and maximize their impact. Moving forward, the strategy will evolve to adapt to the project's progress, ensuring that all results are communicated effectively and that the necessary foundations are laid for their practical implementation and long-term sustainability.

7 References

- GRANT AGREEMENT Project 101156779– ShotTempering
- RFCS Proposal acronym: ShotTempering

  Topic: Topic: RFCS-2023-02-RPJ

  Type: RFCS-PJG

8 Acknowledgements and disclaimer

The author(s) would like to thank the partners in the project for their valuable comments on previous drafts and for performing the review.

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3	SIDENOR R&D	SIDENOR INVESTIGACION Y DESARROLLOSA
4	CRF	CENTRO RICERCHE FIAT SCPA
5	STRESSTECH	STRESSTECH GMBH

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Abbreviations and Definitions

Term	Definition
CA	Consortium Agreement
D&E	Dissemination and Exploitation
EU	European Union
EV	Electric Vehicle
GDPR	General Data Protection Regulation
IP	Intellectual Property
IPR	Intellectual Property Rights
KPI	Key Performance Indicator
LCA	Life Cycle Assessment
MoM	Minutes of Meeting
PDE	Plan for the Dissemination and Exploitation
RFCS	Research Fund for Coal and Steel
TG	Target Group
WP	Work Package

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