Ref. Ares(2024)3178698 - 30/04/2024

powder2power

MW-scale fluidized particle-driven CSP prototype demonstration

Grant Agreement n° 101122347

Plan for Exploitation and Dissemination of the project Results

Deliverable 6.1

WP6 – Communication, Exploitation, Dissemination

Due date of delivery:	31/03/2024	**Leading institution:**	CSP-Boost
Actual delivery date:	30/04/2024	**Contributor(s):**	All partners

Funded by the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No 101122347.

All the content, views and opinions expressed are those of the author(s) only and to not necessarily reflect those of the European Union or the European Commission or the European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union not the European Commission not the CINEA can be held responsible for them.

Deliverable Information

Deliverable Identification	POWDER2POWER_WP6_D3.1	
Deliverable title	Plan for exploitation and dissemination of the project results	
Related WP(s)	WP6 – Communication, Exploitation, Dissemination	
Responsible Beneficiary	CSPB	
Author(s)	CSPB	Anastasiya BADZIAKA
	CNRS	Sergio MARIN ZAPATA
Reviewer(s)	CNRS	Emmanuel GUILLOT, Gilles FLAMANT
Due delivery date	31/03/2024	
Actual delivery date	30/04/2024	
Version - Date	V1.0 – 30/04/2024	
Summary	This document, identified as Deliverable D6.1 in the POWDER2POWER project, under Work Package 6 "Communication, Exploitation, Dissemination", provides an overview of the project Plan for Exploitation and Dissemination of Results. The deliverable addresses various critical elements, including the delineation of the legal framework of dissemination procedures, the methodology of communication and dissemination efforts, identification of target audiences along with key messages and communication channels, scheduling of activities, and the evaluation of impact through Key Performance Indicators. Furthermore, it delineates the project exploitable outputs and establishes a clear exploitation strategy.	
Deliverable type	R – Report	
Dissemination level	PU – Public	
Repository	Intranet	

Document History and Approval

Version	Date	Action	Name & Organization
V0.1	22/04/2024	First draft	Anastasiya BADZIAKA (CSP-Boost)
V0.2	23/04/2024	Review	Sergio MARIN ZAPATA (CNRS)
V0.3	25/04/2024	Review	Gilles FLAMANT (CNRS)
V0.4	29/04/2024	Final draft	Anastasiya BADZIAKA (CSP-Boost)
V0.4	29/04/2024	Review	Sergio MARIN ZAPATA, Gilles FLAMANT, Emmanuel GUILLOT (CNRS)
V1.0	30/04/2024	Final version	Anastasiya BADZIAKA (CSP-Boost)

Acknowledgment and legal disclaimer

This report is part of the project that has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No 101122347. The content of this publication is the sole responsibility of the POWDER2POWER project.

POWDER2POWER Project Factsheet

Grant Agreement n°	101122347	Project Acronym	POWDER2POWER
Project Full Title	MW-scale fluidized particle-driven CSP prototype demonstration		
Call identifier	HORIZON-CL5-2022-D3-03 “Innovative components and/or sub-systems for CSP plants and/or concentrating solar thermal installations”		
Funding instrument	Innovation Action		
Project start date	01/09/2023	Duration	48 months
Website	www.powder2power-project.eu		
Partners Short Name	• PROMES-CNRS • EDF	• EPPT • JCR	• B2Z • POLIMI • KTH • CSPB • SEI • KUL

WP	Task
WP1 - Project Management (CNRS)	Task 1.1 – Administrative, legal, and financial management
	Task 1.2 – Quality Management
	Task 1.3 – Coordination of the activities
	Task 1.4 – Data Management Plan
WP2 - Particle Behavior, Transport and Handling (EPPT)	Task 2.1 – Particle flow properties as a function of temperature
	Task 2.2 – Erosion, attrition and dust emission
	Task 2.3 – Assessment of particle transport issues at pilot & commercial scale
	Task 2.4 – Design & construction of the particle conveyance system for the P2P pilot plant
	Task 2.5 – Design & construction of the particle electrical heater
WP3 - Solar Pilot Modification, Component testing and complete Pilot Demonstration (CNRS)	Task 3.1 – Pilot loop modification and implementation
	Task 3.2 – Commissioning of the particle loop
	Task 3.3 – Complete solar pilot testing
	Task 3.4 – Guideline for operation and maintenance
WP4 - P2P Technology Up-scale Towards Commercialization (B2Z)	Task 4.1 – Definition of up-scaled integrated P2P power plant layouts, including PV + heaters hybridization
	Task 4.2 – Design of a utility-scale heliostat field and solar receiver
	Task 4.3 – Design of a utility-scale particle-to-sCO_2 heat exchanger
	Task 4.4 – Design of utility-scale electrical heating system
	Task 4.5 – Design of utility-scale sCO_2 cycle
WP5 - Environmental, Social, Economic and Technical Performance Assessment (EDF)	Task 5.1 – Definition of optimal operational strategies and flexibility assessment of the utility scale P2P plant
	Task 5.2 – Techno-economic assessment of a utility-scale hybrid CSP-PV P2P power plant
	Task 5.3 – Techno-economic model development & verification
	Task 5.4 – Environmental and social impact assessment via LCA and sLCA modelling
	Task 5.5 – Social impact assessment of the best identified cases
WP6 - Communication, Exploitation, Dissemination (CSPB)	Task 6.1 – Identification and protection of exploitable results
	Task 6.2 – Exploitation and dissemination of the project results
	Task 6.3 – Communication activities results

Executive summary

This document, Deliverable D6.1, is a critical component of the POWDER2POWER project, funded by the European Union's Horizon Europe research and innovation programme under grant agreement No 101122347. The current version represents the first iteration within the Work Package "Communication, Exploitation, Dissemination".

The primary objective of this document is to outline the dissemination activities undertaken up until month 7 and those planned for the subsequent phases. It also highlights the most promising achievements, exploitable opportunities, and identifies target segments for the POWDER2POWER project along with potential business opportunities for the involved enterprises.

The Plan for Exploitation and Dissemination of Results (PEDR) encapsulates the overarching consortium strategy for dissemination, communication, exploitation, and protection of the foreground generated by the project. Functioning as both a strategic blueprint and practical guideline, it offers insights into communication and dissemination activities, their timelines, responsibilities distribution, available tools and channels, and an overview of planned actions to ensure the effective exploitation of results and project impact.

Prepared by CSP-Boost (Work Package 6 leader) with inputs from all partners, this document adheres to the provisions outlined in the Grant Agreement (art. 17 and Annex 5), Consortium Agreement (Section 8.4) and the Regulation (EU) 2021/695 of the European Parliament and of the Council of 28 April 2021 establishing Horizon Europe – the Framework Programme for Research and Innovation, laying down its rules for participation and dissemination, and repealing Regulations (EU) No 1290/2013 and (EU) No 1291/2013 (Art. 39 and 40). As per these regulations, all consortium members are obligated to participate and contribute to the communication and dissemination activities of the project results.

Importantly, the PEDR is a dynamic document that will undergo updates throughout the project lifecycle, specifically at the mid-term (month 24) and towards the project's conclusion (month 48). It will be made publicly accessible through the POWDER2POWER project website, serving as a resource for stakeholders interested in understanding project activities, objectives, impacts, and promoting efficient exploitation of project results and outputs.

Table of Contents

1. Introduction 12
1.1. Importance of the PEDR regarding the project goals and objectives 12
1.2. Objectives and Scope of PEDR 13
1.3. Overview of project Dissemination, Exploitation, Communication strategy 13
1.3.1. Definitions of the terminology 13
1.3.1. Legal framework and guidelines 14
1.3.1.1. Dissemination obligations 14
1.3.1.2. Dissemination protocols 15
1.3.1.3. Open Access to publications 15
1.3.1.4. Open Access to research data 16
1.3.1.5. EU and P2P project visibility rules 16
1.3.1.1. Responsibilities distribution 17
1.3.2. Risk management 18
1.3.2.1. Identification of the risks related to DEC activities 18
1.3.2.2. Mitigation strategy 18
2. Dissemination & Communication strategy 20
2.1. Methodology 20
2.2. Definition of Target Groups 21
2.2.1. Primary Target Group 21
2.2.2. Secondary Target Groups 26
2.2.3. Tertiary Target Groups 30
2.3. Dissemination & Communication channels, tools, and activities 32
2.3.1. Project visual identity 33
2.3.1.1. Logo and variations 33
2.3.1.2. Application guidelines 33
2.3.1.3. Colour palette 34
2.3.1.4. Typeface 34
2.3.1.5. Templates 34
2.3.2. Promotional materials 35
2.3.2.1. Digital project factsheet 35
2.3.2.2. Flyer and brochure 35
2.3.2.3. Poster and roll-up banner 36
2.3.2.4. Project events posters and flyers 36
2.3.2.5. Video communication materials 36
2.3.3. Online presence 37
2.3.3.1. Website 37
2.3.3.2. Project's social media presence & network with partners social media profiles 39
2.3.4. Publications & Generic press relations 39

2.3.4.1. Electronic newsletters 39
2.3.4.2. Press releases 40
2.3.4.3. Scientific publications in peer-reviewed journals and specialized magazines 40
2.3.4.4. Project Deliverables 41
2.3.4.1. Final media press kit 41
2.3.5. Dissemination Events 41
2.3.5.1. Organization of the project events 41
2.3.5.2. Participation at external events 41
2.3.6. Other dissemination & communication channels and tools 42
2.3.6.1. Partners' communication channels 42
2.3.6.2. EU dissemination channels 42
2.3.6.3. Identification of partnerships and synergies with other EU projects 43
2.3.6.4. Cooperation with External Expert Advisory Board 44
2.4. Implementation of Dissemination and Communication Plan 45
2.4.1. Timing of the activities 45
2.4.2. Monitoring & reporting 46
2.4.2.1. Monitoring 46
2.4.2.2. Reporting 46
2.4.3. KPIs and Impact assessment 47
3. Exploitation strategy 50
3.1. Objectives 50
3.2. Structure of Exploitation activities 50
3.2.1. KERs identification and characterization 51
3.2.1.1. Identification of the exploitable results and preliminary analysis their exploitability potential 51
3.2.1.2. Definition of the preliminary exploitation route of the KERs 54
3.2.1.3. Prioritization of the KERs and partners Ground identification in the exploitation strategies 55
3.2.2. Development and implementation of KERs exploitation and Impact assessment 56
3.2.3. Finalization of Exploitation strategy and KERs preparation for potential commercial uptake 57
3.3. Actions planned to implement and achieve the exploitation of results and impact of the project 57
4. Conclusions 59
Appendix A. Planning of POWDER2POWER Dissemination and Communication Activities 60
Appendix B. Guidelines for the use of the project logo over a complex background 61
Appendix C. PowerPoint presentation template 62
Appendix D. Deliverable template 64
Appendix E. Agenda template 65
Appendix F. Attendance sheet template 66

Appendix G. Minutes template 67
Appendix H. List of social media of the partners 68
Appendix I. List of communication & cooperation channels of the partners 69
Appendix J. POWDER2POWER log sheet for Dissemination & Communication Activities 70
Appendix K. Reporting form for Communication Activities 71
Appendix L. Reporting form for Dissemination Activities 73
Appendix M. Reporting form for Publications 75
Appendix N. Planning of the project Exploitation activities 78

List of Figures

Figure 1. Definitions of the Communication, Exploitation and Dissemination concepts. 14
Figure 2. EU funding vertical and horizontal emblems for beneficiaries receiving 100% funding. 17
Figure 3. EU co-funding vertical and horizontal emblems for beneficiaries not receiving 100% funding. 17
Figure 4. POWDER2POWER logo and its variations: (a) project logo in colours; (b) Project logo reproduction in white on black background; (c) Project logo reproduction in black on white background. 33
Figure 5. POWDER2POWER project factsheet: (a) Recto: Summary, Project figures, Objectives; (b) Verso: Concept, Impacts, Consortium. 35
Figure 6. Approximative timing of the visual communication supports development and its purpose. 36
Figure 7. POWDER2POWER project website Homepage. 37
Figure 8. POWDER2POWER website tree structure. 38
Figure 9. POWDER2POWER phases of the dissemination activities' implementation. 46

List of Tables

Table 1. Alignment of the POWDER2POWER Communication & Dissemination objectives with project objectives 12
Table 2. Protocol for Prior Notice and Objection deposition before the publication / presentation of any project related results 15
Table 3. List of the POWDER2POWER WP6 related risks 18
Table 4. List of the proposed WP6 related risk-mitigation measures 18
Table 5. PEDR Methodology Summary 20
Table 6. Overview of the primary target group 22
Table 7. Preliminary list of the targeted companies 23
Table 8. A preliminary list of targeted research and education institutions 25
Table 9. Overview of the secondary targeted stakeholders 26
Table 10. Industrial and academic sectorial partnerships and associations relevant to CSP 27
Table 11. European organizations related to the solar thermal energy storage and renewables energies in general 28
Table 12. List of targeted worldwide stakeholders 28
Table 13. National and regional funding organizations 29
Table 14. European SME supporting organizations 30
Table 15. List of International Standardization Bodies 30
Table 16. Overview of the tertiary targeted stakeholders 31
Table 17. Information platforms and media 32
Table 18. Main elements of the POWDER2POWER dissemination and communication strategy 32
Table 19. POWDER2POWER colour system 34
Table 20. Preliminary list of targeted scientific journals and magazines 40
Table 21. List of ongoing European projects relevant to POWDER2POWER project 43
Table 22. POWDER2POWER External Expert Advisory Board 45
Table 23. Overview of intended project dissemination and communication activities, timing, objective, associated targeted audience and KPI (1/2) 48
Table 24. Overview of intended project dissemination and communication activities, timing, objective, associated targeted audience and KPI (2/2) 49
Table 25. Non-exhaustive list of project outputs, target groups (TG), exploitation possibilities and associated dissemination means 51
Table 26. Questionnaire form for characterization of the exploitable results 54
Table 27. Form for definition of the KER exploitation framework 55
Table 28. Form for KERs prioritization based on the related risk / opportunity analysis 55
Table 29. Form for KERs prioritization based on the analysis of the partners' commitment for exploitation, background and IPR strategy 56

List of Acronyms and Abbreviations

Acronym / Abbreviation	Meaning / Full text
B2Z	Build To Zero Energy Sociedad Limitada
BPD	Business Plan Development
CORDIS	Community Research and Development Information Service
CSP	Concentrated Solar Power
CA	Consortium Agreement
CSPB	CSP-Boost
DMP	Data Management Plan
D	Deliverable
EDF	Electricité de France
EPC	Engineering, Procurement and Construction
EEN	Enterprise Europe Network
CINEA	European Climate, Infrastructure and Environment Executive Agency
EC	European Commission
EIC	European Innovation Council
EPPT	European Powder and Process Technology BVBA
EU	European Union
EEAB	External Experts Advisory Board
GA	Grant Agreement
HTF	Heat transfer fluid
HEX color	Hexadecimal color
HRB	Horizon Results Booster
HRP	Horizon Results Platform
IPR	Intellectual Property Rights
ISB	International Standardization Body
JCR	John Cockerill Renewables
KUL	Katholieke Universiteit Leuven
KER	Key Exploitable Result
KPI	Key Performance Indicator
KTH	Kungliga Tekniska Hoegskola
LCA	Life Cycle Assessment

MW	Megawatt
MS	Milestone
M	Month
NCP	National Contact Point
NGO	Non-governmental organization
PV	Photovoltaics
PEDR	Plan for Exploitation and Dissemination of Project Results
POLIMI	Politecnico di Milano
P2P	Private-Public Partnership
PROMES-CNRS	PROcédés, Matériaux et Energie Solaire – Centre National de la Recherche Scientifique
PMT	Project Management Team
PO	Project Officer
R	Report
R&D	Research & Development
R&I	Research & Innovation
RTD	Research & Technological Development
SEI	SEICO Heizungen GMBH
FP7	Seventh Framework Programme
SME	Small and medium-sized enterprises
STE	Solar thermal electricity
sCO2	Supercritical carbon dioxide
TG	Target Group
TRL	Technology Readiness Level
TTO	Technology Transfer Office
V	Version
WP	Work Package

1. Introduction

1.1. Importance of the PEDR regarding the project goals and objectives

This document is a deliverable of the POWDER2POWER project funded under the European Union's Horizon Europe research and innovation programme under grant agreement No 101122347. The aim of this document is to provide the first version of the Plan for Dissemination and Exploitation of Results developed within the Work Package (WP) 6 "Communication, Dissemination, Exploitation".

The POWDER2POWER (P2P) project represents a significant stride towards accelerating European green and digital transitions, seamlessly aligning with the EU's ambitious commitment to achieving climate neutrality by 2050. Situated within Cluster 5 "Climate, Energy and Mobility" of the Horizon Europe Work Programme 2021 – 2022, POWDER2POWER introduces an innovative dispatchable solar energy solution aimed at enhancing the efficiency of collecting, storing, and converting solar energy into heat and electricity, surpassing existing commercial technologies.

Building upon the successful outcomes of previous projects, namely CSP2 (FP7) and Next-CSP (Horizon 2020) funded the European Union (EU), the project consortium endeavours to tackle this challenge by validating the operational viability of Concentrated Solar Power (CSP) fluidized particle-driven technology at Technology Readiness Level (TRL) 7 and at MW-scale, thereby propelling the technology towards commercialization.

A pivotal aspect of the project involves testing the complete particle-based CSP system at the Themis solar power tower premises in Targasonne (France), employing high-temperature particles as heat-transfer fluid (HTF) and for thermal energy storage. Additionally, the project explores the integration of the supercritical CO_2 (sCO_2) Brayton conversion cycle to enhance overall efficiency, targeting commercial-scale applications.

The alignment of Project Dissemination and Communication objectives with project objectives are presented in Table 1:

Table 1. Alignment of the POWDER2POWER Communication & Dissemination objectives with project objectives

Project Objective	P2P Diss. & Comm. Objective
Enhancement of the efficiency and reliability of CSP plants and concentrating solar thermal installations by demonstrating of innovative, cost effective and more reliable components and complete system with a one-year test campaign	To effectively promote and share the project's innovative advancements, cost-effectiveness, and reliability enhancements achieved, to raise awareness and prepare technological, scientific, and social acceptance of the new technology
Alignment with the EU's commitment to sustainable energy value chains by addressing the challenge of integrating high-capacity energy, and particularly, heat storage through the development of a key component, the particle-to-sCO_2 heat exchanger	To increase awareness and understanding of the particle-to-sCO_2 heat exchanger technology developed and boost interest of the industry and research community to contribute to the recognizability of the P2P technology as a relevant dispatchable energy solution
Reduction of the Operation and Maintenance (O&M) costs of CSP plants and concentrating	To communicate the transformative impact of particle-based storage technology integration

solar thermal installations thanks to the integration of the cost-effective particle-based storage technology, the increase of the overall sun-to-power cycle efficiency and CSP-PV hybridization option	and the significant increase in overall sun-to-power cycle efficiency, showcasing the project leadership in advancing sustainable and efficient CSP-PV solutions
Increase of the shares of variable outputs renewables in the energy system and support of the global competitiveness of the European industries by offering cost-effective long-duration particle-based thermal energy storage solution	To inform about the technological, scientific, and environmental benefits and potential social impacts of the P2P technology and assess cost and value of the technology.

The specific objectives of WP6 "Communication, Exploitation, Dissemination" are meticulously outlined to define communication and dissemination strategies, identify target audiences, maximize the impact of exploitable results, address challenges, and collaborate with other EU-funded initiatives.

1.2. Objectives and Scope of PEDR

This deliverable marks the inception of PEDR within the POWDER2POWER project, delineating the strategic approach for the initial 24 months. Serving as the first of three reports dedicated to the PEDR, subsequent updates will provide a comprehensive overview, culminating in a detailed report spanning the project's entirety.

The PEDR embodies a dual focus on Dissemination, Exploitation, and Communication (DEC) strategies, designed to maximize the project's societal and economic impact. Its objectives encompass the following:

1. **Dissemination & Communication strategy**: A meticulously crafted roadmap for disseminating and communicating the project's objectives, advancements, research results and outcomes to diverse stakeholders. This includes the formulation of strategies, identification of target audiences, selection of communication channels, establishment of timelines, and the development of Key Performance Indicators (KPIs) to gauge impact.
2. **Exploitation strategy**: This component is geared towards identifying, safeguarding, and leveraging exploitable outputs generated throughout the project lifecycle. It entails a comprehensive analysis of target users, strategies for intellectual property (IP) protection, and pathways for commercialization. The plan is structured to ensure meaningful short-, medium-, and long-term impacts, with activities coordinated by the WP6 leader in collaboration with the Steering Committee and Project Management Team (PMT).

By outlining clear objectives and a robust strategic framework, the PEDR aims to catalyse the effective dissemination and exploitation of project results, thereby accelerating the adoption of innovative solutions and driving forward the objectives of the POWDER2POWER project.

1.3. Overview of project Dissemination, Exploitation, Communication strategy

1.3.1. Definitions of the terminology

The PEDR delineates between project results communication, dissemination, and exploitation concepts and processes (Figure 1), as defined in the article 16 and Annex 5 of the Grant Agreement (GA):

- **Communication** represents a strategically defined process commencing from the project beginning and persisting throughout its lifespan. This process aims at promoting the project and its results among the diverse audiences, such as scientific and industrial communities and networks, press mediators, civil society, and large public, in a two-way exchange. Communication activities may include maintaining a public website as a centralized hub of the project related information, enhancing the knowledge spreading through social media platforms, project factsheets and information supports, and more**.**
- **Dissemination** involves the public disclosure of project results, excluding those arising from protecting or exploiting activities) through various means across different mediums. It entails the creation of the awareness, access and follow-up of project research findings among the different stakeholders groups facilitating their use in respective professional fields. This process is planned from the project beginning and is implemented through the participation at various conferences and events, scientific and general publications and articles and other.
- **Exploitation** of the project results entail several phases, non-exhaustively including the identification of the exploitable results, definition of the relevant adopters and end-users, planning of the suitable exploitaiton activities and adequat Intellectual Property protection. This process aims at ensuring the post-project research and innovation activities, further development within R&D collaborations and projects, as well as creation of new processes, services, products for the commercial exploitation of the project results.

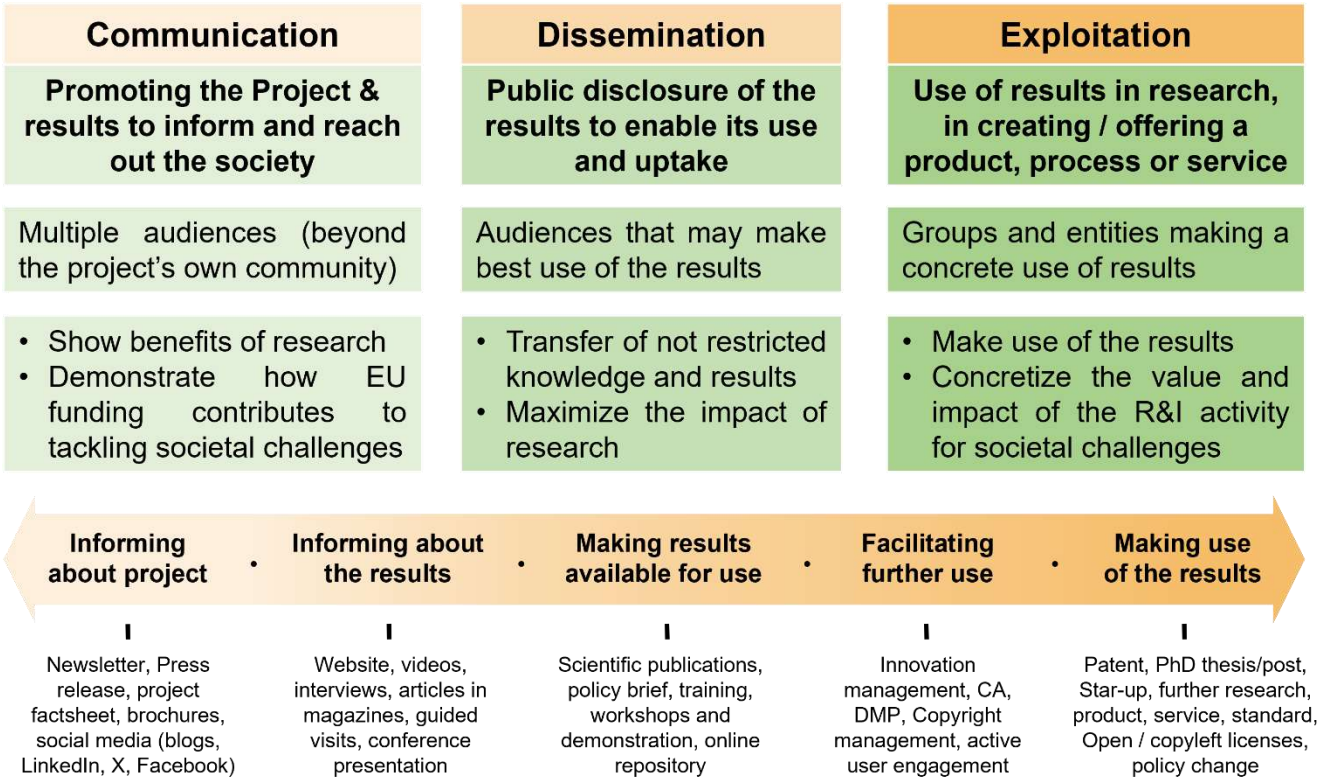


Figure 1. Definitions of the Communication, Exploitation and Dissemination concepts.

1.3.1. Legal framework and guidelines

1.3.1.1. Dissemination obligations

Dissemination activities within the P2P project are governed by Article 17 and Annex 5 of the GA, Article 39 of Regulation (EU) 2021/695 of the European Parliament and of the Council, and Section

8.4 of the Consortium Agreement (CA). According to Article 17.1 of the GA, beneficiaries "*must promote the action and its results by providing targeted information to multiple audiences (including the media and the public), in accordance with Annex 1 and in a strategic, coherent and effective manner.*"

As stated in the Annex 5 of the GA, the results must be disseminated by the relevant partners "as soon as feasible, in a publicly available format, subject to any restrictions due to the protection of intellectual property, security rules or legitimate interests".

1.3.1.2. Dissemination protocols

P2P Dissemination activities non-exhaustively including scientific publications, oral and poster presentations, non-scientific and non-peer-reviewed articles and publications, and other, should adhere to the procedure of the article 17, Annex 5 of the GA and Section 8.4 of the CA subject to the following provisions.

"The beneficiaries must disseminate their results as soon as feasible, in a publicly available format, subject to any restrictions due to the protection of intellectual property, security rules or legitimate interests.

A beneficiary that intends to disseminate its results must give at least 45 days advance notice to all other beneficiaries, together with sufficient information on the results it will disseminate.

Any other beneficiary may object within 30 days of receiving notification if it can show that its legitimate interests in relation to the results or background would be significantly harmed. In such cases, the results may not be disseminated unless appropriate steps are taken to safeguard those interests."

These provisions are resumed in the Table 2.

Table 2. Protocol for Prior Notice and Objection deposition before the publication / presentation of any project related results

Who	Obligation	Timing	Recipient
Partner who intends to publish / present results	Send by email the Prior Notice, i.e. full draft publication (minimum the abstract) and the deposition / presentation destination	45 calendar days before the publication activity	To: • Beneficiaries concerned, • Coordinator, and • WP6 leader
Partner who intends to object the publication	Send a written objection with justification by email	30 calendar days after receiving the Prior Notice	To: • Author(s), • Coordinator, and • WP6 leader

1.3.1.3. Open Access to publications

According to the Article 17 of the GA on the Communication, Dissemination, Open Science and Visibility, the P2P partners "*must ensure open access to peer-reviewed scientific publications relating to their results. In particular, they must ensure that:*

- *at the latest at the time of publication, a machine-readable electronic copy of the published version or the final peer-reviewed manuscript accepted for publication, is deposited in a trusted repository for scientific publications*

- *immediate open access is provided to the deposited publication via the repository, under the latest available version of the Creative Commons Attribution International Public Licence (CC BY) or a licence with equivalent rights; for monographs and other long-text formats, the licence may exclude commercial uses and derivative works (e.g. CC BY-NC, CC BY-ND) and*
- *information is given via the repository about any research output or any other tools and instruments needed to validate the conclusions of the scientific publication.*

Beneficiaries (or authors) must retain sufficient intellectual property rights to comply with the open access requirements.

Metadata of deposited publications must be open under a Creative Common Public Domain Dedication (CC 0) or equivalent, in line with the FAIR principles (in particular machine-actionable) and provide information at least about the following: publication (author(s), title, date of publication, publication venue); Horizon Europe or Euratom funding; grant project name, acronym and number; licensing terms; persistent identifiers for the publication, the authors involved in the action and, if possible, for their organizations and the grant. Where applicable, the metadata must include persistent identifiers for any research output, or any other tools and instruments needed to validate the conclusions of the publication.

Only publication fees in full open access venues for peer-reviewed scientific publications are eligible for reimbursement."

1.3.1.4. Open Access to research data

The provisions of the GA regarding the obligation and conditions of providing Open Access to research data are further detailed in the project deliverable D1.3 "Data Management Plan" (DMP) submitted at month (M) 7 (April 2024).

The DMP details the use of the Zenodo platform for data storage, along with rules for data and metadata management. It establishes a Data Management Committee to oversee implementation and revisions. The DMP evolves throughout the project, with regular updates every three months, as stipulated by the Grant Agreement.

1.3.1.5. EU and P2P project visibility rules

A common project visual identity, as described in Section 2.3.1, ensures visibility and recognition of the P2P project. Dissemination tools and activities must include or refer to:

- **the name of the project:** POWDER2POWER, Powder2Power (or P2P in the case where this abbreviation refers to the project full name previously mentioned in the same document or material in order to avoid confusion with similar abbreviations),
- **the project's website URL** (https://powder2power-project.eu/),
- **the P2P project logo** (described in Section 2.3.1.1),
- **the EU emblem with funding or co-funding statement** (in vertical or horizontal format):
  - "Funded by the European Union" for the partners receiving 100% funding (Figure 2) and
  - "Co-funded by the European Union" for partners not receiving 100% funding (Figure 3). L
- **the acknowledgment and affiliation to the P2P project EU funding:** "This project has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No 101122347." All publications funded by the EU within the P2P project should acknowledge their affiliation and EU funding in the acknowledgments section.

- **the disclaimer:** "All the content, views and opinions expressed are those of the author(s) only and to not necessarily reflect those of the European Union or the European Commission or the European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union not the European Commission not the CINEA can be held responsible for them."

Funded by
the European Union

Funded by
the European Union

Figure 2. EU funding vertical and horizontal emblems for beneficiaries receiving 100% funding.

Co-funded by
the European Union

Co-funded by
the European Union

Figure 3. EU co-funding vertical and horizontal emblems for beneficiaries not receiving 100% funding.

The EU emblem's variations, guidelines for its use and EU funding acknowledgment, as valid at the time of publication, can be found at https://commission.europa.eu/funding-tenders/managing-your-project/communicating-and-raising-eu-visibility_en.

1.3.1.1. Responsibilities distribution

CSP-Boost oversees the WP6 responsible for implementing, coordinating, and reporting DEC activities, including external communication and publication of POWDER2POWER related content in whatsoever form (magazines, newspapers and papers for conferences, workshops, and seminars, etc.) with contributions, consultation and validation of the project partners and project Coordinator.

Representatives from the Steering Committee and Executive Board serve as Dissemination & Communication contact points for each partner organization and WP, streamlining WP6 management.

All consortium partners contribute to dissemination according to their roles and efforts, utilizing available tools and channels to maximize project result exploitation, adoption, and future commercialization.

All draft dissemination materials must be sent to the WP6 leader and PMT before publication for compliance control. The PMT will also decide the relevance and form of the publication of these materials on the project website.

1.3.2. Risk management

1.3.2.1. Identification of the risks related to DEC activities

The risks related to the implementation of the Dissemination, Exploitation and Communication activities (WP6) have been analyzed following two main parameters: their probability to occur and impact generated on the project activities implementation and achievements of the targeted objectives.

The likelihood has three levels:

- High: important probability to occur;
- Medium: the risk is expected but will not necessarily occur;
- Low: almost zero probability to occur.

The severity of the risk is based three criteria:

- High: the risk generates significant impacts on project outcomes, which - in the worst-case scenario –causes the project failure;
- Medium: Main project objectives and outcomes are achieved despite a very limited impact;
- Low: Negligible impact on the project objectives and outcomes, achievements maintained.

The identified risks are summarized in Table 3 with indicated level of severity and likelihood and related WP(s).

Table 3. List of the POWDER2POWER WP6 related risks

Risk	Severity	Likelihood
1. Difficulty to reach a broad public due to the specificities of the field studied	Medium	Low
2. Dissemination-related issues due to the limited engagement of stakeholders, leading to ineffective communication and reduced project impact	Medium	High
3. Delay in Project Materials Publication leading to reduced project visibility, stakeholders' engagement, and overall project impact	Medium	Medium
4. Limited intellectual property protection	High	Medium

1.3.2.2. Mitigation strategy

Responsibility for monitoring and reporting on WP6-related risks, as well as identifying new risks, lies with the WP6 leader (CSP-Boost).

Proposed mitigation measures for identified risks are summarized in Table 4.

Table 4. List of the proposed WP6 related risk-mitigation measures

Risk	Proposed risk-mitigation measures
1. Difficulty to reach a broad public due to the specificities of the field studied	Utilize Key Performance Indicators (KPIs) to refine communication activities and better target appropriate groups
2. Dissemination-related issues due to the limited engagement of stakeholders, leading to ineffective communication and	Regularly update the stakeholder engagement plan, prospect engagement opportunities early, and monitor and adjust the efficiency of

reduced project impact	implementation to align project outcomes with market needs
3. Delay in Project Materials Publication leading to reduced project visibility, stakeholders' engagement, and overall project impact	Develop a clear timeline and scheduling for publication development, regularly monitor progress, and track KPIs to ensure timely dissemination
4. Limited intellectual property protection	Implement a robust IP management strategy, conduct careful assessments of potential IP assets, and apply appropriate protection measures in collaboration with legal experts of the partners relevant services and Transfer Technology Offices (TTOs) and consultants from various structures, such as International (Intellectual Property Rights) IPR Helpdesk and Horizon IP scan.

2. Dissemination & Communication strategy

Communication and dissemination activities are vital parts of WP6 Dissemination, Exploitation, and Communication Plan. The main goal is to share key project messages with the intended audience and to engage the wider public with POWDER2POWER.

2.1. Methodology

This methodology section outlines key aspects that have been analyzed for the project PEDR. The information is provided in Table 5.

Table 5. PEDR Methodology Summary

Data type	Description
Definition of the target groups	- Industrial stakeholders, collaborators and specific end-users; - Academia, R&D stakeholders; - Policymaking institutions and representatives; - Civil society; - Public/Private investors, funding entities
Definition of the message	(1) Enhancing the role of the renewable energies, in particular, CSP-PV, in the development of the innovative particle driven CSP-PV based solutions for power and heat production sectors with various industrial and commercial applications; (2) Demonstrating the high performance of the P2P solution; (3) Showing the overall development of the project and positive impact in terms of CO_2 reduction, etc.
Definition of the D&E activity type	Networks; Events; Publications; Media relations; Video / Photo; Social media; Web site; Integrated communication campaigns
Selection of the comm. tools and channels	Clustering activities, collaboration with EU-funded projects, other scientific / technical collaborations; Conferences, exhibitions, project workshops, training events, one-on-one meetings, demonstration visits of the prototype premises, exhibition fairs, etc.; Peer-reviewed publications, technical and scientific publishable reports, journal articles; Press releases, articles, newsletters, interviews, …; Project textual and visual printed materials and other
KPIs to assess implementation success	Number of contacts made and feedback (emails, testimonials, expressions of interest, follow-up actions) received from stakeholders; Number of attended conferences and relevant events, associated communications and publications, engagements actions, etc; Number of organized events and attendees (incl. feedback); Number of views, embeds, downloads; Number of social media metrics of impression (followers, posts, etc.) and engagement (shares, clicks, comments, hashtags); Number of visits, web pages views, registrations forms.
Implementation plan	Pre-implementation assessment, time schedule, required human resources and budget

The following sections provides the overview of the Dissemination and Communication Plan.

2.2. Definition of Target Groups

This section outlines the approach taken by the POWDER2POWER project to engage a wide range of stakeholders through tailored dissemination and communication strategies depending on their unique characteristics, communication habits and information needs. To facilitate the formulation of these strategies, the specific messages, and the selection of appropriate communication channels, P2P has categorized its target groups into three main segments. Each group is composed of different target audiences with some common features, such as level of interest in P2P results, likelihood of the impact in terms of future potential collaborations for exploitation and their influence in the relevant fields of the project.

The main target groups for the dissemination and communication activities are:

- **Primary target group.** This group comprises industry and reseach / academia stakeholders who are primarily interested in the project developments and results for potential integration in to their own work and research endeavors. Engaging within this group is crucial for fostering collaborations and maximizing the impact of the project within relevant industries and academic communities.
- **Secondary target group.** This group is composed of representatives from trade and industry / research network, policy makers, Reseach & Development (R&D) funding organizations, and International Standardization Bodies (ISB). Their involvment in the project and understanding of its scope, objectives and potential impacts are instrumental in fostering broader awareness and support for P2P project**.**
- **Tertiary target group.** This groups encompasses mass media, local partners' stakeholders and the public at large. While they may are varying levels of direct involvment in the project and understanding of the technological and scientific results, engaging with this group is essential for increasing overall project visiblity, fostering community support and raise the overall awareness of the role of solar energy and global EU involvment in the climate challenges' resolution.

Based on the defined segmentation, the following sections will provide the overview of each target groups, including the detailed description of the target group and audiences, defined objective(s) and channels of the dissemination and communication activity, associated key message and type(s) of information to dissemination and communicate.

From the project start, the consortium has pre-mapped a list of stakeholders from each target group to contact for the dissemination and communication of the project related information. The relevant contact points will be contacted to constitute the future project dissemination stakeholders' database. The list is non-exhaustive and will be regularly updated during the project.

2.2.1. Primary Target Group

This section identifies the primary target group for the POWDER2POWER project dissemination efforts, focusing on **industrial stakeholders and academia / research sector**. It highlights innovative advancements and aims to foster collaborations while facilitating knowledge transfer and awareness within these sectors.

The detailed description of the target audiences, associated key message and objectives as well as relevant communication channels and type of project related information to disseminate are provided in Table 6.

Table 6. Overview of the primary target group

Data type	Description
Detailed description	This group represents the main interest for the P2P dissemination efforts as its representatives can provide the maximum impact in terms of potential collaborations and future exploitation. - Industrial stakeholders, collaborators, and specific end-users. This group includes (i) the heavy energy- and heat-consuming / producing industries seeking to decarbonate their processes, namely: industrial heat recovery sector, iron, steel and cement manufacturers, mining industry, non-metallic material recycling and reuse companies, chemical engineering and particle technology companies (for particles technology based results), and (ii) energy sector, including renewables energy companies, fossil- and nuclear-fired electricity producers, chemical engineering companies, Engineering, Procurement and Construction (EPC) firms and solar receiver and plants manufacturers specialized in CSP and thermal storage projects. - Academia & Research. This group includes project research partners, international and European academic institutions, basic & applied researchers, engineers, technicians, students, PhD, post-docs specialized in (i) heat storage and recovery research, (ii) thermal, mechanical, physical and chemical engineering, (iii) Environmental Sciences and Renewables Energies, including CSP.
Key message	Innovative advancements and cost-effective solutions from the P2P project offer transformative benefits for renewable energy sectors (zero emission heat and power) The project explores cutting-edge technologies for decarbonizing energy-intensive industries, particle-to-sCO_2 heat exchanger, and thermal energy storage, fostering future collaborations and commercial partnerships while contributing to sustainable decarbonization efforts
Objectives	- Foster future Research & Innovation (R&I) collaborations and commercial partnerships for the uptake of the project results; - Raise the awareness and contribute to the knowledge transfer and skills development
Communication channels	- Publications industry-focused journals and participation in scientific and industry events; - Organization of project workshops, training courses, and informational sessions on business and exploitation pathways, On-site visit(s); - Dissemination of the information through project website, social media, newsletters, promotional materials
Type of information	- Scientific data including lab test results, design tools, models, and numerical simulation tools related to particle-based solar receivers, heat transfer systems, and sCO_2 power block design; - Prototype construction and test results of particle-to-sCO_2 heat exchangers and electrical heating prototypes; - Reports and deliverables on new processes, components, and services, including materials selection, prototype layout, technical and economic performance assessment, and life cycle analysis (LCA)

Several specific stakeholders described below have been mapped. The relevant contact points will be contacted in order to complete the project dissemination stakeholders' database. The list is non-exhaustive and will be regularly updated during the project.

Companies in CSP field, thermal energy storage, and heat recovery:

The companies listed in Table 7 have been identified as essential stakeholders involved in or having relevant activities in thermal energy storage for heat or electricity production and CSP technology in general. They play a critical role in driving innovation and commercialization in the renewable energy sector.

These companies are well-positioned to engage in an innovative project and contribute to its practical applicability by bringing their expertise, resources, industry knowledge and market reach.

Table 7. Preliminary list of the targeted companies

Country	Company name	Type / Activity field	Website
Spain	SENER Renewable Investments (Sener Group subsidiary)	Investor and developer of renewable energy (incl. CSP/PV) projects for industrial decarbonization	https://www.group.sener/
	Cobra Group	Applied industrial engineering and service group	https://www.grupocobra.com/en/
	Acciona Energia	Sustainable infrastructure solutions developer	https://www.acciona-energia.com/?_adin=1770248615
	Torresol Energy O&M	Company specialized in technology development, construction, O&M for CSP plants	https://www.torresolenergy.com/
	Smit Ingenieria – Smit Solar	Provider of integrated products and engineering services for renewable energy, oil, gas, refineries, chemical, pharmaceutical, food, beverage, and other industries	https://www.gruposmit.com/en/376-2/
	TSK	Engineering and industrial construction company specializing in the engineering, development and supply of facilities	https://www.grupotsk.com/en/
	Solar Technology Advisors	Consulting company in solar power energy sector	https://www.sta-solar.com/
	Coxabengoa	Provider of technological services for sustainable development in the energy and environment sector, incl. transmission and distribution, operation and maintenance services for energy and water plants, power systems, and other solutions	https://www.coxabengoa.com/
Italy	ESE Engineering Services for Energy Srl	Consulting company for the design of power and storage systems, from plant conception to commissioning	http://www.esesrl.com/
US	Suntrough Energy	Developer of utility scale photovoltaic power plants, CSP	http://www.suntrough.com/

		solar thermal / biomass and conventional power plants	https://www.linkedin.com/company/suntrough-energy-inc/about/
	eSolar	Developer of CSP plant technology	http://www.esolar.com/
	GE Vernova	Energy equipment manufacturing and services company	https://www.gevernova.com/
	Brayton Energy	Innovative R&D firm specialized in design, prototyping, and testing of turbomachinery and gas turbine systems	https://www.braytonenergy.net/
Denmark	Aalborg CSP	Renewable energy specialist mainly designing solutions based on CSP technology	https://www.aalborgcsp.com/
Africa	SR Energy	Electricity provider engaged in designing, construction and managing power generation plants with various renewables energies, incl. CSP	https://sr.energy/
China	Lanzhou Dacheng Co., Ltd (Dunhuang Dacheng Concentrating Thermal Power Co.)	CSP project developer for electricity generation	http://www.lzdcsolar.com/en/
	Lanzhou Dacheng Co., Ltd (Lanzhou Dacheng Concentrating Energy Technology)	Engineering Procurement and Contracting firm	
	NorthWest Electric Power Design Institute Co. Ltd. (NWEPDI)	Design & Engineering Consultancy firm	http://www.nwepdi.com/
	Beijing Shouhang IHW Resources Saving Technology	Renewable and Environment company specialized in engineering management, research and development, manufacturing	http://www.sh-ihw.com/
	CSP Focus	Consulting company in CSP	http://www.cspfocus.cn/en/
Turkey	Greenway CSP Solar Tower	Developer of solar-power production facilities designed to produce renewable energy	http://www.greenwaycsp.com/

A preliminary list of targeted research and education institutions

Research and education institutions are at the forefront of scientific advancement in the field of renewable energy. Their expertise and research capabilities contribute to technological innovation and the development of sustainable energy solutions.

The POWDER2POWER dissemination contact database of relevant stakeholders encompasses numerous EU research centres and institutions inside and outside the EU focusing on CSP, thermal energy storage, and heat recovery. These organization play a vital role in advancing scientific knowledge and technological innovation.

Examples of research centres included in the list are presented in Table 8:

Table 8. A preliminary list of targeted research and education institutions

Country	Institution short name	Full name	Website
Germany	Fraunhofer ISE	Fraunhofer Institute for Solar Energy Systems	https://www.ise.fraunhofer.de/
	DLR	German Aerospace Center	https://www.dlr.de/en
	IUTA	Institute of Energy and Environmental Technology	https://www.iuta.de/
Spain	CIEMAT-PSA	Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas - Plataforma Solar de Almería	https://www.psa.es/en/
	CENER	National Renewable Energy Center	http://www.cener.com/
	UPC	Polytechnic University of Catalonia	https://www.upc.edu/en/masters/energy-engineering
	IK4-Tekniker	IK4-Tekniker	http://www.tekniker.es/
	Leitat	LEITAT - Technological Center	https://leitat.org/en/
Italy	ENEA	Italian National Agency for New Technologies, Energy and Sustainable Economic Development	https://www.enea.it/en/
	CNR	National Research Council of Italy	https://www.cnr.it/en
France	CNRS-PROMES	PROcesses, Materials and Solar Energy - National Centre for Scientific Research	https://www.promes.cnrs.fr/en/procedes-materiaux-et-energie-solaire/
	CEA-Liten	French Alternative Energies and Atomic Energy Commission - Innovation Laboratory for New Energy Technologies and Nanomaterials	https://liten.cea.fr/cea-tech/liten/english/Pages/Welcome.aspx
UK	CRAN	Cranfield University	http://www.cranfield.ac.uk/
Portugal	UE	University of Évora	http://www.uevora.pt/
Cyprus	CyI	Cyprus Institute	https://www.cyi.ac.cy/

US	SNL	Sandia National Laboratories	https://www.sandia.gov/
	NREL	National Renewable Energy Laboratory	https://www.nrel.gov/
Australia	CSIRO	Commonwealth Scientific and Industrial Research Organization	https://www.csiro.au/en/
	ASTRI	Australian Solar Thermal Research Institute	https://www.astri.org.au/
South Africa	SU	Stellenbosch University	http://www.sun.ac.za/english
Morocco	IRESEN	Research Institute for Solar Energy and New Energies	https://iresen.org/
UAE	Masdar-KU	Masdar Institute Field Station of Khalifa University	https://www.ku.ac.ae/r-d-facilities/masdar-institute-field-station
Korea	Kier	Korea Institute of Energy Research	https://www.kier.re.kr/

2.2.2. Secondary Target Groups

This section describes the secondary target group for the POWDER2POWER project dissemination efforts, focusing on the representatives from trade and industry / research network, policy makers, R&D funding agencies, and International Standardization Bodies.

A breakdown of the secondary target audience, key message, objectives, communication channels, and types of project-related information slated for dissemination are presented in Table 9.

Table 9. Overview of the secondary targeted stakeholders

Data type	Description
Detailed description	This group is composed of the meaningful European and worldwide actors in project relevant fields which may not be the primary focus of the project dissemination and exploitation efforts but are likely interested by the project results and outputs due to their involvement, influence and common objectives shared with the P2P consortium. It includes: - Trade associations, professional federations, and foundations; - Standardization bodies; - Policy-makers and civil society representatives; - Private / public funding agencies and organizations; - Researchers and industrial representatives from other EU-funded projects in the similar field(s)
Key messages	Innovative advancements demonstrated by P2P technology prove scalability and reliability, offering a viable solution for sustainable energy supply. The initiative aims to shape future policies and initiatives for widespread technology adoption and integration within relevant sectors

Objectives	- Prove the relevance and reliability of the technology at large scale; - Demonstrate the ability of particle-driven CSP-PV technology to fulfil its role in the energy supply - Contribute to the creation / improvement of the new policies, initiatives and roadmaps for further technology development and adoption
Communication channels	Publications, Organization of the project Info Day, project workshop and final event on Business and Exploitation pathways, Project presentations at conferences, seminars symposia, Information publication on the website, newsletters and social media, Dissemination materials and videos,
Type of information	Techno-economical assessment of the P2P technology; Safety issues and mitigation measures analysis; LCA model for the P2P technology

Some stakeholders of the secondary target group listed below have been identified for the project dissemination contact database.

Industrial and academic sectorial partnerships and associations:

The identified international associations focused on CSP represent a collective voice for companies operating in the sector, as well as academic institutions with interests in CSP research and development. They provide advocacy, support, and networking opportunities for members, promoting the growth and sustainability of the CSP industry while also contributing to research and innovation efforts.

The preliminary list of identified associations is provided in Table 10 is not exhaustive but gives an idea of the diverse organizations targeted by the project.

Table 10. Industrial and academic sectorial partnerships and associations relevant to CSP

Country	Institution short name	Full name
EU	ESTELA	European Solar Thermal Electricity Association
Germany	DCSP	German Association for Concentrated Solar Power
	ISES	International Solar Energy Society
Spain	Protermosolar	Spanish Association for the Promotion of the Thermosolar Industry
France	SER	Renewable Energies Syndicate
Chile	ACSP	Concentrated Solar Power Association
Australia	AUSTELA	Australian Solar Thermal Energy Association
South Africa	Sastela	Southern Africa Solar Thermal and Electricity Association
World	STELAWORLD	World Solar Thermal Electricity Association
China	CSTA	China Solar Thermal Alliance
India	SECI	Solar Energy Corporation of India
US	SEIA	Solar Energy Industries Association
UAE	MESIA	Middle East Solar Industry Association
Saudi Arabia	SASIA	Saudi Arabia Solar Industry Association

European organizations in solar, thermal energy storage and renewables energies:

Table 11 lists the European organizations related to the solar thermal energy storage and renewables energies in general. These organizations are one of the key players in supporting the

development and deployment of the sustainable energy solutions, shaping policy frameworks, providing funding opportunities, and promoting collaboration across sectors.

Table 11. European organizations related to the solar thermal energy storage and renewables energies in general

Country	Organization short name	Full name	Website
EU	COGEN	European Association for the Promotion of Cogeneration (heat & electricity from a single source of energy)	https://www.cogeneurope.eu/
EU	EREF	European Renewable Energy Federation	https://eref-europe.org/
EU	EASE	European Association for Storage of Energy	https://ease-storage.eu/
EU	ESTIF	European Solar Thermal Industry Federation	http://www.estif.org/
EU	EERA	European Energy Research Alliance	https://www.eera-set.eu/
UK	REA	Association for Renewable Energy and Clean Technology	https://www.r-e-a.net/

Worldwide stakeholders:

Worldwide stakeholders, including international organizations, governments, and industry players, have a vested interest in promoting renewable energy and addressing climate change on a global scale. They can contribute to the POWDER2POWER project dissemination by sharing the project findings among their relevant networks, thus facilitating technology transfer and capacity building.

Table 12 lists the project relevant worldwide stakeholders.

Table 12. List of targeted worldwide stakeholders

Institution short name	Full name	Website
ISES	International Solar Energy Society	https://www.ises.org/home-ises
IEA	International Energy Agency	https://www.iea.org/
IRENA	International Renewable Energy Agency	https://www.irena.org/

National Contact Points:

National Contact Points (NCPs) serve as intermediaries between the European Commission and national stakeholders, facilitating participation in EU-funded research and innovation programs. They provide guidance, support, and information on funding opportunities and help in relevant partners research for future potential project collaborations and calls.

The NCPs (e.g., the NCPs of the Horizon Europe – Cluster 5 “Climate, Energy, and Mobility”) also make part of the P2P stakeholders contact database as that can offer an opportunity to tap into their extensive networks, reaching a diverse range of stakeholders including public institutes, industries, research organizations, and civil society groups as future potential collaborators for the further project development. A number of existing communication channels established by the European Commission, such as official websites, directories, contact databases, specific events organized by the NCPs, can be used to reach out to them.

National and regional funding organizations:

National and regional funding organizations provide financial support for research, innovation, and technology development projects in their respective jurisdictions. The project also targets these various funding agencies for the potential funding support advice on the post-project dissemination, facilitation of the project collaborations, and mid-term vision for the upscale of the technology and commercialization of research outcomes.

The preliminary list presented in Table 13 includes the partners of the Solar-era.net (https://www.solar-era.net/) European network of national and regional funding organizations and Research & Technological Development (RTD) and innovation programmes in the field of solar electricity generation, i.e. photovoltaics and concentrating solar power / solar thermal electricity (STE).

Table 13. National and regional funding organizations

Country	Organization short name	Full name	Website
Belgium – Flanders	VLAIO	Vlaams Agentschap Innoveren en Ondernemen	http://www.vlaio.be/
Belgium - Wallonie	SPW	Service Public de Wallonie	http://energie.wallonie.be/
France	ADEME	Agence de l'Environnement et de la Maîtrise de l'Energie	http://www.ademe.fr/
	ANR	Agence nationale de la recherche	http://www.anr.fr/
Germany	Jülich	Project Management Jülich (PtJ), Forschungszentrum Jülich (FZJ)	http://www.fz-juelich.de/
Germany – North-Rhine-Westphalia	Jülich	Project Management Organisation Energy, Technology, Sustainability (ETN), Forschungszentrum Jülich	http://www.fz-juelich.de/
Italy	MUR	Ministero dell'Università e della Ricerca	https://www.mur.gov.it/it
Spain	AEI	Agencia Estatal de Investigación	http://www.aei.gob.es/
	CDTI	Centro para el Desarrollo Tecnológico y la Innovación	http://www.cdti.es/
Sweden	SWEA	Swedish Energy Agency	http://www.swedishenergyagency.se/

European SME supporting organizations:

The dissemination of the project results and achievements is also planned through the different European small and medium-sized enterprises (SMEs) supporting organizations, as they are one of the main actors who can contribute to the project's impact through their guidance, mentoring and targeted approach aimed at specific business sectors and networks.

The Table 14 lists preliminary identified relevant EU SME supporting organizations.

Table 14. European SME supporting organizations

Organization short name	Full name	Website
EEN	Enterprise Europe Network	https://een.ec.europa.eu/
EBN	European Business and Innovation Centre Network	https://ebn.eu/
Eurochambers	Association of European Chambers of Commerce and Industry	https://www.eurochambres.eu/

International Standardization Bodies:

International standardization bodies develop and maintain standards for technologies, products, and processes to ensure interoperability, safety, and quality, which is crucial for facilitation of the technology adoption and market acceptance.

Some of the relevant ISB have been identified (Table 15) and added in the project stakeholders database for further interaction and guidance engagement on standardization requirements and project potential contribution to the development of the standards in the sectors of solar energy and solar thermal electrical plants.

Table 15. List of International Standardization Bodies

Organization short name	Full name	Website
CEN	European Committee for Standardization	https://www.cencenelec.eu/
ECOS	Environmental Coalition on Standards	https://ecostandard.org/
ISO	International Standardization Organization	https://www.iso.org/

Other EU-funded projects:

Collaboration with other EU-funded projects allows for knowledge sharing, synergies, and the exchange of best practices in the R&D sector. Through the synergies with the European projects funded under Horizon 2020 and Horizon Europe programmes POWDER2POWER can leverage additional resources, access new research findings, and expand its network within the scientific community. Conversely, the project can contribute its expertise, research outcomes, and technological advancements to support the objectives of other projects, fostering innovation and accelerating progress in the field of renewable energy.

The list detailed in the subsection 2.3.6.3 is non-exhaustive and regular updates and cooperation will be sought to maximize the project impact.

2.2.3. Tertiary Target Groups

This section describes the secondary target group for the project dissemination efforts, focusing on mass media, local actors and non-specialist public.

Table 16 provides a detailed breakdown of the tertiary target group, along with key messages, objectives, communication channels, and types of project-related information intended for dissemination.

Table 16. Overview of the tertiary targeted stakeholders

Data type	Description
Detailed description	This group consists of the general public and other non-specialist actors that can find interest in the projects results through general vulgarized communication actions, namely: - Media representatives; - Local stakeholders of the project partners; - Citizens
Key messages	The P2P project endeavours to raise public awareness and understanding of its advancements, emphasizing its significance as an EU-funded initiative. Through various communication channels such as media outreach, local engagement, and public events, the project aims to raise awareness about the significance of renewable energy, particularly in decarbonizing and reducing dependency on fossil fuels. Emphasizing the role of renewables like CSP in job creation and environmental sustainability, the project seeks to inform the public and promote social acceptance
Objectives	- To create a general awareness and make the project known and recognizable with focus on the EU funding aspect; - Contribute to the public general education by providing a better understanding of the P2P project advancements; - To highlight economic, environmental, and social benefits to enhance the social acceptance
Communication channels	- Dissemination through project website, newsletters and social media, dissemination and communication promotional materials, incl. videos; - Organization of the project Info day; - Presentation of the project at different events, Press conferences and press releases, Communication campaigns
Type of information	Technical, economic, social, and environmental analysis of the P2P technology

Some of the identified stakeholders of the tertiary target group are listed below. The list of the contacts will be completed with further mapping.

Information platforms and media:

European platforms and media channels covering European and international news, updates, research findings and initiatives, best practices, policies and regulations and other relevant information related to CSP and renewable energies in Europe and outside, are considered for the project achievements' dissemination. Through these media, POWDER2POWER can increase awareness about its objectives and expected impact, disseminate knowledge and shape public opinion on the challenges addressed.

The project has already identified some relevant EU level media (Table 17), which would have an interest in the project progress and results. The list of identified media channels is non-exhaustive and will be expanded throughout the project duration.

Table 17. Information platforms and media

Platform / media name	Website
CSP Focus	http://www.cspfocus.cn/en/
Solarthermalworld.org	https://solarthermalworld.org/
REN21 Renewables Now	https://www.ren21.net/
Greentech Media (Solar section)	https://www.greentechmedia.com/
HELIOSCSP (Solar thermal energy news portal)	https://helioscsp.com/
Euractiv	https://www.euractiv.com/

2.3. Dissemination & Communication channels, tools, and activities

Throughout the project's lifecycle, various communication activities, actions, and materials will be prepared to create awareness and inform diverse audiences about the POWDER2POWER project and its developments. These materials will be extensively utilized by project partners during conferences, exhibitions, workshops, seminars, media contacts, journal publications, and more.

According to the EU requirements on dissemination of results, any dissemination activity and support in any form, including digital, must display the EU emblem and include the following text: "*This project has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No 101122347.*"

All the dissemination and communication materials are elaborated in the language of the project, which is English. Partners should not produce any kind of project related promotional material without the previous review and approval of the WP6 leader and PMT.

Several dissemination and tools have been identified to raise the awareness about the project objectives and progress as well as create and enhance the engagement of the targeted stakeholders. Others may be considered and added depending on their relevance in the next versions of the PEDR. The main elements of the dissemination and communication strategy are presented in Table 18.

Table 18. Main elements of the POWDER2POWER dissemination and communication strategy

Channel	Tool
Visual identity	Branding, Graphical identity, Templates
Promotional materials	Project factsheet, flyer, brochure, infographics, poster, roll-up banner, videos
Online presence	Project website, project social media accounts and network
Publications	Electronic newsletters, press releases, scientific publications, articles in journals and magazines, public deliverables, joint public-private pablications
Events	Scientific conferences, events, exhibitions and trade fairs, P2P workshop, seminar, training course, Exploitation final event
Other channels & tools	EU dissemination channels, partners communication channels, Synergies with relevant projects

The following sections details the project dissemination and communication channels, tools and activities.

The planning of the planned dissemination and communication activities and actions is presented in Appendix A.

2.3.1. Project visual identity

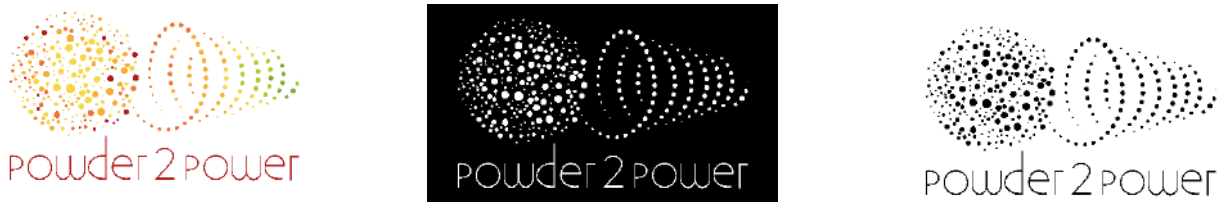
To ensure a clear and distinctive identity for the project, POWDER2POWER has established a unique branding with specific graphics, including the project logo, fonts, colours, usage guidelines, and project document templates. This communication toolkit as well as explanations of its use have been communicated to the partners through an internal document “Guidelines for Project graphic identity”.

2.3.1.1. Logo and variations

POWDER2POWER project title means to "from powder to power." The research carried out within the framework of the project aims to demonstrate the operation of an original CSP technology based on particles, which can be applied to both electricity and industrial heat production.

The development of the project's logo presented in Figure 4 adheres to three following principles:

- **Conceptual Representation:** The logo visually narrates the project's concept, depicting the transition from a disorganized cloud of points to an organized spiral, symbolizing the generation of energy.
- **Colour Significance:** Using warm colours signifies concentrated solar power and highlight the thermal aspect, while incorporating green tones symbolizes the project's dedication to environmentally friendly solar energy solutions.
- **Symbolic Elements for Narrative Design:** Integrating symbolic elements (a disorganized cloud of points) and a narrative design that unfolds from left to right (an organized spiral) effectively communicates the unique aspects of objectives and processes of POWDER2POWER technology.



(a) (b) (c)

Figure 4. POWDER2POWER logo and its variations: (a) project logo in colours; (b) Project logo reproduction in white on black background; (c) Project logo reproduction in black on white background.

The logo and its positive and negative variations, including a transparent background, are available on the project intranet in the "Dissemination and Communication resources" folder. It should be used in all project support materials for communication and dissemination activities, including brochures, flyers, press releases, newsletters, videos, presentations, deliverables, websites, and more.

2.3.1.2. Application guidelines

The original logo should appear fully intact, all visual or textual elements should not be removed or modified, its position regarding each other should not be distorted. The placement the logo on the support should be reasonably evaluated in order to be visible in relation to other graphic / textual elements.

The recommended backgrond for logo is either black or white. However, in the case of more complex background (e.g., with multiple visual elements, dark- or light- or bright-colored background), specific recommendations for using the logo are provided in Appendix B.

2.3.1.3. Colour palette

A project colour system has been established to maintain a unified visual identity across diverse media. This colour system, outlined in Table 19, derives from the six primary colours featured in the project logo. It includes lighter shades suitable for creating communication materials across different applications, such as the project website, document templates, and more.

Table 19. POWDER2POWER colour system

Six main colours: 100%					
1 Sun yellow HEX #F8D645 RGB R248 G214 B69 HSL H34 S237 L159	2 Brownish yellow HEX: #F6AD33 RGB: R246 G173 B51 HSL H26 S233 L149	3 Orange HEX: #EC7233 RGB: R236 G114 B51 HSL H13 S212 L144	4 Orange brown HEX: #741A0F RGB: R116 G26 B15 HSL H5 S197 L66	5 Acid green HEX: #ACF741 RGB: R172 G247 B65 HSL H60 S234 L156	6 Dark green HEX: #7FAD36 RGB: R127 G173 B54 HSL H59 S134 L114
Additional lighter tons: 80% - 60% - 40% - 20% - 10%					
#F9DE6A	#F7BD5B	#EF8E5B	#8F473F	#BCF867	#98BD5E
#FAE68F	#F9CD84	#F3AA84	#AB756F	#CDFA8D	#B2CD86
#FCEEB4	#FBDEAD	#F7C6AD	#C7A39F	#DDFBB3	#CBDEAE
#FDF6D9	#FDEED6	#FBE2D6	#E3D1CF	#EEFDD9	#E5EED6
#FEFAEC	#FEF6EA	#FDF0EA	#F1E8E7	#F6FEEC	#F2F6EA

2.3.1.4. Typeface

To ensure consistent textual and visual representation in POWDER2POWER project documentation and materials, the Arial typeface has been intentionally selected. Arial, a sans-serif font, offers a clean and modern appearance, ensuring optimal readability for technical and scientific documents and presentations. Its straightforward design maintains a natural width, facilitating readability on electronic devices and screen-displayed supports.

Moreover, Arial is versatile, offering a range of weights, including Regular, Bold, and Italic styles, suitable for various design contexts, including large-format print items like roll-ups, banners, and posters. Its cross-platform availability on Microsoft Windows and macOS systems ensures consistent visual identity across diverse systems, minimizing formatting issues in project deliverables.

Additionally, the use of Arial aligns with standard license conditions available at https://www.fonts.com/font/monotype/arial/licenses, ensuring compliance with legal requirements and permitting its usage for POWDER2POWER's intended purposes.

2.3.1.5. Templates

Standardized templates for POWDER2POWER textual documents, such as deliverables, meeting agendas, minutes, attendance sheets, and PowerPoint presentations, have been developed for both internal and external purposes. These templates, presented in Appendix C, Appendix D, Appendix

E, Appendix F, and Appendix G, mirror the style and colour scheme of the project logo for a cohesive visual representation.

2.3.2. Promotional materials

In addition to the elaborated first package of communication tools (e.g., logo, colour palette, templates), a set of standard communication materials, as well as actions and items have been and will be further developed for communication and dissemination events as promotional materials for the project events.

CSP-Boost will keep these materials updated and communicate updates to the consortium. Upon request, CSP-Boost can contribute to the development of additional communication support necessary for project activities.

2.3.2.1. Digital project factsheet

In April 2024 (month 7), a digital project description (Figure 5) was finalized to summarize essential project information, including the project summary, figures, objectives, concept, expected impacts, and consortium details. This factsheet aids in communicating key project information while more detailed project brochures and infographics are being designed.

Figure 5. POWDER2POWER project factsheet: (a) Recto: Summary, Project figures, Objectives; (b) Verso: Concept, Impacts, Consortium.

2.3.2.2. Flyer and brochure

A printable multi-fold project flyer, initiated in April 2024 (month 7), is expected to be finalized in May 2024 for distribution to partners and printing as needed for project presentations and promotions.

The flyer will present POWDER2POWER's objectives, timeline, achievements, consortium details, and contact information.

A more detailed digital and printable project brochure will be developed towards the project's end (month 40) to showcase main achievements and distributed through stakeholders' databases, websites, social media, and networks.

2.3.2.3. Poster and roll-up banner

Digital and printable project posters and roll-up banners will be developed from month 7 to month 12 for use at external conferences and events attended by the consortium to present project results.

2.3.2.4. Project events posters and flyers

Individual communication supports related to each planned project event will be developed in line with established event preparation plans within respective communication campaigns.

2.3.2.5. Video communication materials

Video materials will be developed throughout the project duration, involving POWDER2POWER partners and WP leaders in the creation process. All produced videos will be uploaded to the dedicated project YouTube channel and website.

Three visual communication supports are planned to be developed from month 6 to month 48 to document and highlight various project phases and results:

- **1st video support** (additional to the initial WP6 planning): A dynamic time-lapse video of 2-4 minutes to document the transformation of the Next-CSP loop at Themis during the duration of task 3.1 (adjustable);
- **2nd digital support** (additional to the initial WP6 planning – in discussion with consortium): An interactive online project guided map integrating and illustrating the results and achievements of all the WPs, and
- **3rd video support:** A final video summarizing the project results and achievements.

The preliminary scheme (Figure 6) explains the planned supports as well as their objectives:

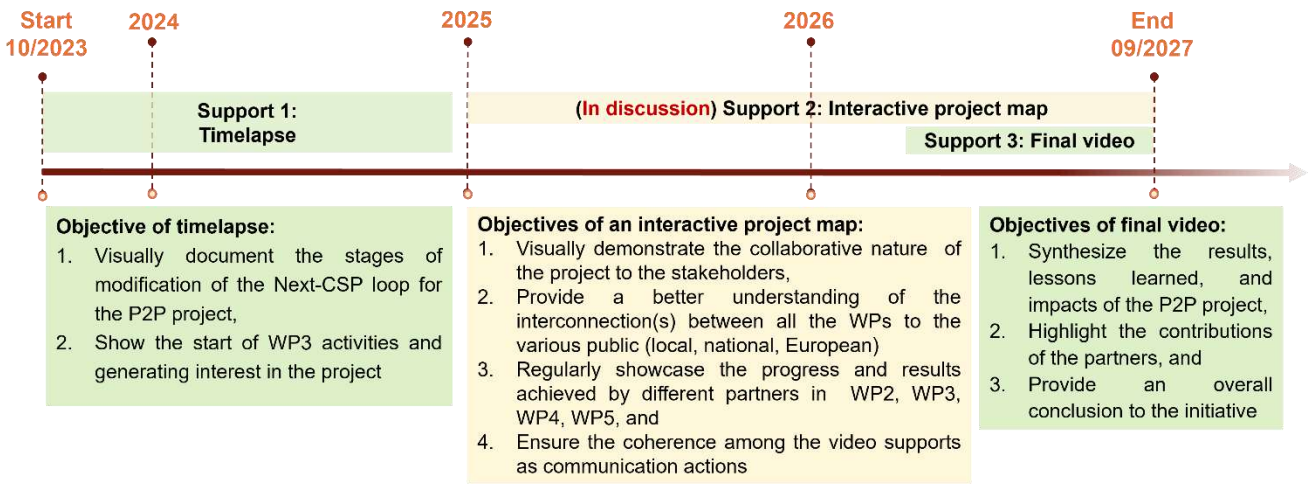


Figure 6. Approximative timing of the visual communication supports development and its purpose.

2.3.3. Online presence

2.3.3.1. Website

The POWDER2POWER website (www.powder2power-project.eu) presented in Figure 7 serves as the primary tool for communicating and disseminating project activities, achievements, deliverables, and outcomes to increase public awareness of the P2P project. It offers project-related information and content relevant to various target audiences, including scientific communities, policymakers, professionals, academia, research representatives, market actors, and the general public.

The main objectives of the P2P website are to:

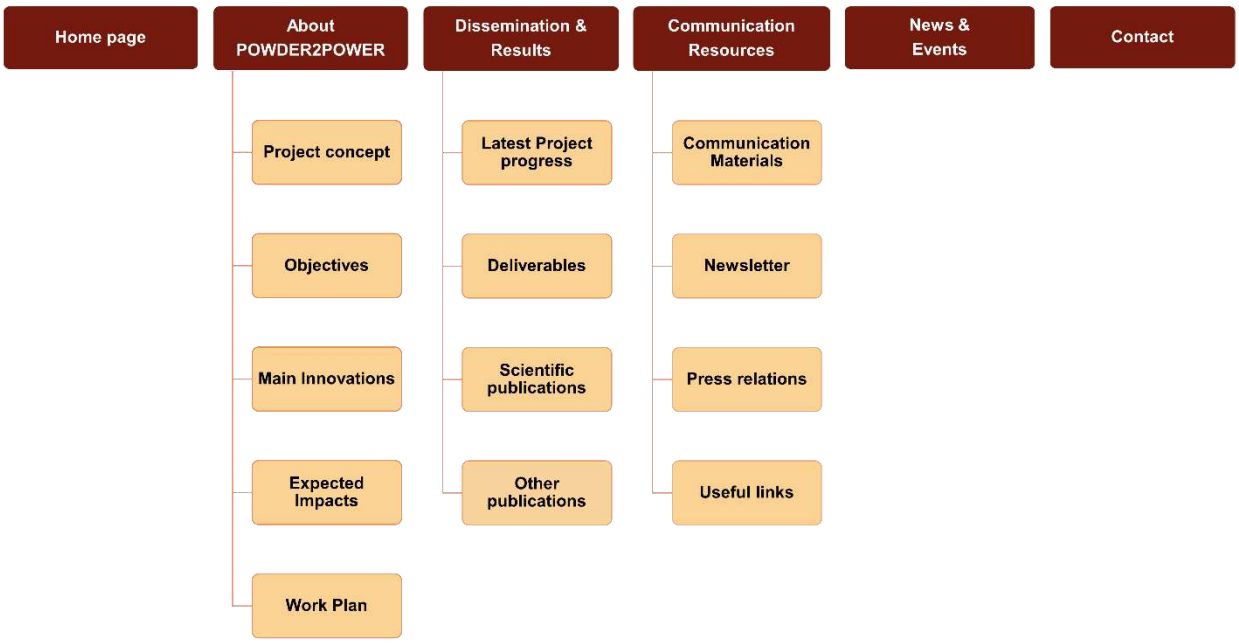
- Create awareness of P2P project objectives and expected impacts,
- Inform about the project progress and valorize the P2P results, technological advancements, and societal impacts,
- Promote P2P technology and its innovative components among the targeted audiences,
- Mobilize research and policy communities in Renewable Energy, particularly, in the CSP field at local, national, European and international levels,
- Acknowledge the funding authority and generally promote the EU activities in Renewable Energy domains.

The website was officially operational since March 1st, 2024 (month 6), created using Open Source software (WordPress), ensuring customizability and responsiveness for user-friendly display on various digital devices. The design enhances the project's distinct visual identity, aligning with project objectives and developed branding elements. Links to the project social media platforms will be provided for easy access.

Figure 7. POWDER2POWER project website Homepage.

A preliminary simplified website tree structure (Figure 8) has been developed to avoid sections without relevant content. This structure will be improved and extended based on project progress, collaborations, networks, and materials to centralize all project-related publishable information.

Figure 8. POWDER2POWER website tree structure.



During the first six months of the project, the following webpages and content were developed:

- **Home page.** The webpage includes project logo, navigation menu, key figures, project summary, consortium details, links to latest project news, project social media profiles, and EU funding acknowledgment.
- **Back-end user area (intranet).** This area is a project intranet (accessible only for the project partners) is available on the right side of each webpage. It is internal repository platform of all the materials and documentation generated during the project under their final static (not submitted for changes) or living (object to regular controlled updates) version. The guidelines for its use are provided in the deliverable D1.2.
- **About POWDER2POWER.** This section details Project concept, Main innovations, Objectives, Expected impacts and Workplan.
- **Dissemination & Results.** This section includes the subsections describing the latest project progress by each WP, Deliverables (downlodable public deliverables and publishable summary of the confidential deliverables), Scientic publications, and Other relevant publications.
- **Communication resources.** This section provides the access to the project Communication materials (i.e., project visual identity pack, digital project factsheet, brochures, flyers, infographics, poster, roll-up banner and other), Newsletters with subscription link, Press relations (press releases, P2P appearances in media, photo gallery), Useful links (Cordis, European Commission (EC), Project Social media profiles, etc.)
- **News & Events** section stores and displayes all the news related to the project. For the ease of the visitors' navigation, all the news are ranged by category: All posts, Newsletters, Press, Communication materials, Events, Scientific publications, Project progress, Deliverables.
- **Contact** webpage provides the contact form for visitors to reach the project consortium.

The website is coordinated by the WP6 leader (CSP-Boost) and will be regularly updated throughout the project lifetime according to the progress of technical tasks. Content is carefully curated by communication and coordination teams. Relevant initiatives and project social media accounts are included, and the website will be maintained for at least one year after the project's end to continue contributing to dissemination impact.

2.3.3.2. Project's social media presence & network with partners social media profiles

The POWDER2POWER project maintains a presence on LinkedIn (https://www.linkedin.com/company/powder2power-horizon-europe-project/) and X (ex-Twitter) platform (https://twitter.com/Powder2PowerEU), ensuring continuous updates in English about project activities, results, events, scientific news, and relevant information from other organizations and associations.

The project social media strategy includes:

- Social media posts frequency depends on availability of project-related news, aiming for at least one post per month,
- A YouTube channel will be created once promotional videos are produced, leveraing viral marketing effets to promote project results, value propositions, events, and demonstration activities.

The WP6 leader (CSP-Boost) administers the project social media profiles, with contributions from project partners. All partners are required to follow these profiles, actively engage with posts, and disseminate publishable material through personal networks. Partners are also encouraged to interact with project-related content on social media sites and regularly share or publish posts and news about the project through their organizations' social media.

The list of social media of the partners is provided in Appendix H.

2.3.4. Publications & Generic press relations

2.3.4.1. Electronic newsletters

POWDER2POWER newsletter is an electronic periodic news bulletin that are planned to be released twice per year (M9, M15, M21, M27, M33, M39, M45, M48) with updates and news about the project. The issue of the fist newsletter is planned for month 9 (June 2024). The thematic content of the newsletter includes:

- Project related news, such as progress meetings, important milestones, etc.
- Implemented and planned events, related conferences, lectures, workshops, seminars, training opportunities (i.e., dates, details, comments)
- Technical WP progress
- Deliverables
- Publications
- General news related to the project and / or fields of Concentrated Solar Power and other project related topics

Content is curated by the WP6 leader based on contributions, ideas, and newsbreak suggestions from all project partners (e.g., publications, articles, pictures, participation at the events and other). The news will be also sources from the project website in order to increase the visits and views. The

newsletter will be distributed digitally to stakeholders' database, available on the project website and social media accounts after publication.

2.3.4.2. Press releases

The project website includes a "Press Relations" subsection, gathering relevant materials and contacts for the press. Press releases are planned around M12 and M40, with additional releases for significant project developments. Releases will be drafted in English, with translation possible upon request.

Press releases will be prepared by the WP6 leader and reviewed by the PMT. Once approved, they will be distributed among the project partners and their communication services as well as contacts from the project database of relevant media. All partners are required to contribute to the press releases' dissemination through their media contacts.

Whenever possible, depending on the publication fees, eligibility conditions and publishable content, the press releases as well as other project related news will be disseminated through the specialized press relations platforms and media channels specialized in the science journalism and / or EU affairs and news, such as AlphaGalileo.org, European Associations of Science Journalism, EU Agenda, Euractiv, Euronews and others. The WP6 leader will consult the consortium on the most suitable way to interact with them, whenever relevant.

2.3.4.3. Scientific publications in peer-reviewed journals and specialized magazines

The consortium will actively disseminate project results through scientific publications, with at least 8 planned in open-access, peer-reviewed journals. A preliminary list of targeted journals and magazines will be periodically reviewed and updated.

The preliminary non-exhaustive list of identified journals is presented in Table 20:

Table 20. Preliminary list of targeted scientific journals and magazines

Name	Website
Chemical Engineering Journal	https://www.sciencedirect.com/journal/chemical-engineering-journal
Elsevier Journal of Energy Conversion and Management	https://www.journals.elsevier.com/energy-conversion-and-management
Elsevier Journal of Renewable Energy	https://www.sciencedirect.com/journal/renewable-energy
Elsevier Journal of Solar Energy	https://www.sciencedirect.com/journal/solar-energy
Elsevier Journal of Next Energy	https://www.sciencedirect.com/journal/next-energy
Sustainability Journal	https://www.mdpi.com/journal/sustainability
Energies Journal	https://www.mdpi.com/journal/energies
Optics Express Journal	https://opg.optica.org/oe/home.cfm
Industrial & Engineering Chemistry Research (ACS Publications)	https://pubs.acs.org/journal/iecred
Nature Research Journal, Scientific Reports	https://www.nature.com/srep/
Journal of solar energy research	https://jser.ut.ac.ir/
Renewable and Sustainable Energy Reviews	https://www.journals.elsevier.com/renewable-and-sustainable-energy-reviews

Applied Energy	https://www.journals.elsevier.com/applied-energy
Energy	https://www.journals.elsevier.com/energy

Tracking of the publications will be done by the WP6 leader through the specifically developed Tracking form available at https://ec.europa.eu/eusurvey/runner/P2PPublicationsForm.

2.3.4.4. Project Deliverables

POWDER2POWER project public deliverables will be uploaded to a specific section of the project website, accessible to interested individuals. The list of public deliverables and the publication date is available in the project public deliverable D1.4 “Project Management Plan”.

Deliverables with a “Sensitive” status will not be publicly disclosed. Only their executive publishable summaries will be available on the project website.

2.3.4.1. Final media press kit

A final media press kit will be prepared in digital and printable formats towards the end of the project for extensive dissemination of project results, outcomes, and main findings to media organizations.

2.3.5. Dissemination Events

2.3.5.1. Organization of the project events

Dissemination and knowledge-sharing events will engage stakeholders to raise awareness, foster cooperation opportunities, and inform about project progress. Four events are targeted starting from M24:

- **Technical workshop (M24)** presenting the project technology to the academic and non-academic public,
- **Training course (M30)** related to the project technology for students and teachers,
- **General public Seminar / Info Day (M36)** for the public to inform them on the advancing knowledge on the technology studied, and
- **Final event for business, innovation and exploitation pathways (M46)** presenting the economic and environmental assessment to the policy-makers, industries, investors, environmental organizations, EU and worldwide Industrial associations.

Each of the events will be dully planned, including elaboration of the associated communication materials and implementation of the communication campaigns.

Following the mid-term assessment of the Dissemination and Communication strategy’s impact in M24 (deliverable D6.2), the relevance of organizing **a series of short specific topic-focused webinars** starting from M32 can be discussed within the consortium depending on overall project progress and achievements as well as budget and human resources constraints.

2.3.5.2. Participation at external events

POWDER2POWER partners will organize and participate in various national and international events to raise awareness, disseminate project results, and engage with stakeholders.

At least 6 conference attendances and associated communication are planned. Depending on the events timing, project results availability, and budget constraints, the events to attend can be subjected to selection.

The examples of the targeted events include:

- **Scientific conferences to promote the scientific and technical results of the project, such as:**
  - SolarPACES Annual Conference,
  - ISES and IEA SHC International Conference on Sustainable and Solar Energy for Buildings and Industry (EuroSun),
  - International Conference on Environmental Science and Engineering,
  - International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems (ECOS),
  - International Conference on Sustainable Energy Technologies, and
  - Others.
- **Exhibition fairs in Industry, Technology and Open Innovation dedicated events to target the specific industrial stakeholders, e.g.:**
  - Intersolar Europe,
  - ISES Solar World Congress,
  - WEP conferences & workshops,
  - ESTELA Conference & Exhibition,
  - European Research and Innovation Days,
  - ENLIT exhibition,
  - Solar Solutions International,
  - Green Heating Solutions, etc.
- **Science popularization events targeting public at large, i.e.:**
  - European Commission Information and Coordinators Days,
  - European Utility Week Trade Show,
  - European Sustainable Energy Week,
  - Euro Science Open Forum,
  - European Researchers' Night,
  - Pint of Science, and
  - Others.

Partners will provide information about upcoming event attendance through a dedicated tracking form, facilitating the planning of promotional materials and monitoring project presence available at https://ec.europa.eu/eusurvey/runner/P2PDissActivitiesForm. This information will serve for the proposition of the promotion materials and monitoring of the project presentation in national, European, and international events.

2.3.6. Other dissemination & communication channels and tools

2.3.6.1. Partners' communication channels

Project communication and dissemination plan includes the involvement of the partners' communication channels, whenever appropriate. For this, a coordination protocol will be suggested to maximize impacts while simplifying interactions.

The list of Partners' communication channels is presented in Appendix I.

2.3.6.2. EU dissemination channels

The project will leverage EU dissemination channels and platforms for communication and dissemination efforts during (or after, where applicable) the project:

- **CORDIS (Community Research and Development Information Service - https://cordis.europa.eu/):** a EC online service that helps research and business community to promote projects' activities by publishing news and events on CORDIS.
- **Enterprise Europe Network (EEN - https://een.ec.europa.eu/).** The EEN is an EU network of around 600 business support organizations from more than 60 countries, including chambers of commerce and industry, technology centres, research institutes and development agencies.
- **Horizon Results Booster (HRB - https://www.horizonresultsbooster.eu/).** It supports the effective dissemination strategy and transfer of HE project results for the project applying alone or joining a specific topic-focused projects cluster.
- **Research and Innovation success stories (https://projects.research-and-innovation.ec.europa.eu/en/projects/success-stories).** A collection of the most recent success stories from EU-funded Research & Innovation.
- **Horizon Magazine (https://projects.research-and-innovation.ec.europa.eu/en/horizon-magazine):** The platform provides the lates news and features about through-provoking science and innovative research projects funded by the EU.
- **Horizon Results Platform (https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-results-platform):** This public platform hosts and promotes reseach results in order to bridge the gap between research results and generating value for economy and society.
- **EU Agenda (https://euagenda.eu/):** An aggregator of the third-party information aiming to facilitate access to all EU-related information through a comprehensive collection of events, publications, and media sourced from of authoritative channels. Depending on the available budget for Publisher fees' account, this platform can be used for the promotion of the project results, events, and achievements.

A communication protocol will be established by the CSP-Boost together with the PMT and consortium to define requirements for each channel, maximizing impacts while simplifying interactions. The Project Officer (PO) will be consulted for any information on the potential dissemination actions useful for the project.

2.3.6.3. Identification of partnerships and synergies with other EU projects

Relations with other ongoing H2020 and Horizon Europe projects on related topics will be engaged to create potential synergies throughout the project lifecycle. Stakeholders in this target group include project coordinators and project contact points (Table 21).

Table 21. List of ongoing European projects relevant to POWDER2POWER project

Project	Project description / objective	Link with POWDER2POWER project	Partner(s) involved
COMPASsCO2 H2020 RIA 2020 - 2025	Integrate CSP particle systems into highly efficient sCO_2 Brayton power cycles for electricity production.	Design of Particle-Steam HX and prototype, Moving packed bed HX type	JCR
CO_2OLHEAT H2020 IA 2021 - 2025	Develop and demonstrate in a high Technology Readiness Level (TRL 7) a 2MW sCO_2 power block for industrial waste heat valorization	Develop and demonstrate a 2MW sCO_2 power block integrated in a waste heat recovery industrial plant	POLIMI, EDF
SCARABEUS	Develop an sCO_2 Brayton	Use of innovative CO_2 blends	POLIMI

H2020 RIA 2019 - 2024	cycle integrated in a real CSP plant	for concentrating solar plants	
DESOLINATION H2020 IA 2021 - 2026	Decarbonize the desalination process in arid regions by demonstrating in a real environment the efficient coupling of a CSP plant to a direct osmosis desalination system	Design of innovative technologies related to concentrated solar power, employing CO2 blends power cycle and desalination	POLIMI
SOLARSCO2OL H2020 IA 2020 - 2025	Decarbonize the desalination process in arid regions by demonstrating in a real environment the efficient coupling of a CSP plant to a direct osmosis desalination system	Develop and demonstrate a 2MW sCO_2 power block integrated in molten salt CSP parabolic trough boosted with a 3 MW_e molten salt electric heater. Perform a techno-economic analysis of hybrid CSP-PV + SCO_2 systems	KTH, SEICO
HybridPLUS HE RIA 2022 - 2026	Demonstrate an electrified thermal energy storage system based on PCM (Phase Change Materials) in a cascade configuration for the next generation of hybrid CSP plants with advanced supercritical CO_2 power cycles	Design, optimize, and validate (in laboratory environment) a novel multi-tank cascaded PCM-based thermal storage system with embedded electric heaters for hybrid CSP-PV systems using molten salts as fluid	KTH, SEICO
SHARP-sCO2 HE RIA 2022 - 2025	Multi-lab validation approach towards a more cost-efficient and flexible generation of hybrid CSP-PV plants	Design, optimize and validate a novel air receiver, packed-bed thermal storage, medium voltage air electric heater and compact air-to-sCO_2 heat exchanger for hybrid air + sCO_2 CSP-PV	KTH, SEICO
TOPCSP HE MSCA 2022 - 2026	Improve molten salt-based technology with the lowest costs and higher capacity factors; Developing a high-temperature liquid receiver and the sCO_2 power block of the next generation of CSP plants and propose new systems to contribute to enhancing the flexibility of CSP plants using molten salt reservoirs and solar fuels; Develop computational tools to improve the analysis and design of the systems	Enhance the respective projects' impact through collaborative dissemination, communication, and exploitation efforts and activities, facilitating knowledge exchange, joint publications, networking, technology transfer, and advocacy for CSP technology advancement	CNRS, POLIMI, JCR

2.3.6.4. Cooperation with External Expert Advisory Board

The External Expert Advisory Board (EEAB) will be established to support the consortium during the technical specification phase, contribute to identifying and validating project exploitation and strategic actions, and provide feedback on the related European or national activities.

The EEAB comprises six high-profile experts from both public and private sectors, as detailed in Table 22. Experts are invited to join the POWDER2POWER EEAB voluntarily based on their diverse expertise and background.

Table 22. POWDER2POWER External Expert Advisory Board

Sector	Organization
Academia	University of Duisburg-Essen, Germany
	Ruhr Universität Bochum, Germany
	National Renewable Energy Laboratory (NREL), Colden-Co, USA
Industry	Lloyd and Flemish Government, Belgium
	Malaysia-Thailand Joint Authority (MTJA)
	Eiffage-Smulders, Belgium

Regular communication with EEAB members will be maintained through scheduled meetings (in-person or teleconferences) and distribution of the project newsletters and other relevant materials. These efforts aim to keep EEAB members informed about the latest developments in the project and solicit their valuable feedback.

2.4. Implementation of Dissemination and Communication Plan

2.4.1. Timing of the activities

Project dissemination activities align with the project's developmental stages outlined in the Grant Agreement Part B section. The following logical schedule governs the timing of dissemination activities:

- **Early Project Visibility phase (M1 – M12).** This phase focuses on raising stakeholders' awareness and building engagement. The PEDR is established by month 7 and updated regularly throughout the project. It serves to identify exploitable results, plan dissemination strategies, and structure paths for project and post-project non-commercial exploitation. The objective is to conduct strategically planned dissemination and communication activities targeting researchers, industrial players, policymakers, and others. Various project-specific dissemination channels and supports are developed during this phase to pave the way for knowledge transfer and research progress among stakeholders.
- **Focused project dissemination phase (M13 – M36).** During this period, multiple activities are executed, including: (1) Development of dissemination materials: Publications in peer-reviewed journals, technical reports, and summaries. (2) Participation in dissemination events: Presentations at international conferences, summits, and exhibitions to showcase preliminary project results. (3) Organization of tailored events: Synergistic events with European, national, and regional projects and initiatives, such as Horizon Results Platform and Horizon Results Booster. Key exploitable project results are mapped, and stakeholder feedback is gathered.
- **Final resuls demonstration phase (M37 – 48).** This phase focuses on maximizing the impact of project results and ensuring effective exploitation by stakeholders. Activities include: (1) Publication of final results: Research papers and articles in peer-reviewed journals and other relevant publications. (2) Participation in international scientific and industrial events: Demonstrating final exploitable project results to potential investors and industry partners. (3) Organization of dedicated exploitation/dissemination events: Marking the project's finalization, publishing results, and demonstrating specific applications to targeted audiences. (4) Evaluation and impact assessment: Assessing the project's overall impact, effectiveness, contributions, and areas for improvement in future initiatives.

The current PEDR document is developed in M7 (April 2024) and presents a communication, dissemination, and exploitation action plan from M1 (October 2023) until M48 (September 2027). A schematic illustration is provided in Figure 9:

Figure 9. POWDER2POWER phases of the dissemination activities' implementation.

2.4.2. Monitoring & reporting

2.4.2.1. Monitoring

The implementation of planned DEC activities over the 48 months is organized and monitored through a log sheet available for the consortium through the project file-sharing platform. This document summarizes the information provided TO WP6 leader by the partners through the reporting forms and outlines activity names, responsible partners, contributors, and start and end dates and more.

Serving as a management tool, the log sheet presented in Appendix J will be further detailed and enriched by the WP6 responsible as the project progresses.

2.4.2.2. Reporting

CSP-Boost encourages all consortium partners to promptly report the results of each dissemination, communication, and publication activity upon implementation. Reports should include feedback gathered from the target audience, if applicable, and any contacts gained for inclusion in the contact repository used for further dissemination purposes.

Reporting should be done using elaborated reporting forms designed to document important results associated with communication, dissemination, and publications during each reporting period of the project. These forms include all the information requested by the EC for accurate DEC reporting.

For the accurate DEC tracking, partners should fill out the following forms regularly to record all activities:

- **Communication activities form** (Appendix K): for activities such as organization of a workshop or a networking event, Participation to a workshop / conference / internet debate / round table / group discussion / another event not mentioned above (exhibitions, symposia, webinars, training sessions, etc.), Press release / Newsletter publication, Popularized publication (non-scientific and non-peer-reviewed), Media publications (news pieces, articles, etc.), Poster / Flyer / Brochure / Leaflet / Banner / Social media / Website / Video / TV / Radio campaign / Other. Access link: https://ec.europa.eu/eusurvey/runner/P2PCommActivitiesForm

- **Dissemination activities form** (Appendix L): for Clustering activities, Collaboration with EU-funded projects, Conferences attendance, Education and training events, Scientific Meetings, Other scientific collaborations, Other. Access link: https://ec.europa.eu/eusurvey/runner/P2PDissActivitiesForm.
- **Scientific publications form** (Appendix M), incl. all the relevant data, such as type of publication, date, authors, processing costs charged on the P2P project (if any) and other. Access link: https://ec.europa.eu/eusurvey/runner/P2PPublicationsForm.

The information provided by partners at each reporting period will allow the WP6 leader to report activities and evaluate the impact of the work carried out, including in relations with targeted quantitative indicators measuring the success of the activities' implementation. The tracking tables with all the collected information will be internally shared through the project collaborative file-sharing space accessible only by the project partners.

2.4.3. KPIs and Impact assessment

Monitoring the impact of dissemination activities involves systematic data collection and reporting from all partners. This information is essential for evaluating the success of the project's dissemination efforts.

Key Performance Indicators (KPIs), presented by quantitative indicators and associated metrics, have been established to measure the performance and progress of the project dissemination and Communication activities towards their expected impact. KPIs have been defined for each activity, along with timing, objectives, and target audiences in Table 23 and Table 24.

The numerical target of the activities' KPIs has been estimated based on the analysis of previous EU-funded projects' DEC strategies and identified P2P target audiences. These figures will be assessed and reviewed by CSP-Boost each eight months (M16, M24, M32, M40, M48) corresponding to the reporting periods and planned updates of the PEDR) in collaboration with the consortium.

Table 23. Overview of intended project dissemination and communication activities, timing, objective, associated targeted audience and KPI (1/2)

POWDER2POWER KPI ASSESSMENT			Target Audience											Metrics			
Activity	Timing	Purpose	Industry & Business	Research & Academia	National authority	Regional authority	Local authority	Internat. organization	Large public	EU services / projects	Press media	KPI	Objective	Excellent	Good	Moderate	Weak
Communication & Promotional materials																	
Communication toolkit	M1 - M6	Create project awareness and promotion	x	x	x	x	x	x	x	x	x	Number of downloads	35	x≥60	60>x≥35	35>x≥20	<20
Project factsheet (digital)	M1 - M6	Create project awareness and promotion	x	x					x	x		Number of downloads	35	x≥60	60>x≥35	35>x≥20	<20
Two / three-fold leaflet	M6	Increase project awareness and promotion	x	x				x	x		x	Number of flyers distributed at the events	200	x≥250	250>x≥150	150>x≥50	<50
Brochure	M7 - M12	Increase project awareness and promotion	x	x	x	x	x	x	x		x	Number of brochures distributed at the events	200	x≥250	250>x≥150	150>x≥50	<50
Infographics	M6 & M40	Increase project awareness and promotion	x	x	x	x	x	x	x	x	x	Number of infographics elaborated	2	x≥5	5>x≥3	3>x≥1	<1
Roll-up	M7 - M12	Increase project awareness and promotion	x	x						x	x	Number of roll-up elaborated	1 (updatable if necessary)	n/a			
Exhibition poster template	M7 - M12	Increase project awareness and promotion	x	x						x	x	Number of posters elaborated	1 (updatable if necessary)	n/a			
Summary of confidential deliverables (one-page description)	2023 - 2027	Inform about the project results	x	x						x		Number of published summaries	14	n/a			
												Number of downloads	50	x≥150	150>x≥50	50>x≥25	<25
Video (timelapse)	2024 - 2025	Promote the project concept, objectives and expected impact	x	x	x	x	x	x	x	x	x	Number of views	150	x≥250	250>x≥150	150>x≥50	<50
Final video	2027	Inform about about results & global impact on society	x	x	x	x	x	x	x	x	x	Number of views	150	x≥250	250>x≥150	150>x≥50	<50
Final press kit	2027		x	x					x	x	x	Size of dissemination list (pers.)	> 350	x≥500	500>x≥350	350>x≥100	<100
Digital & Direct Comm / Diss tools & channels																	
Website	2023 - 2027	Create awareness and promote the project results	x	x	x	x	x	x	x	x	x	Number of monthly visits	50	x≥150	150>x≥50	50>x≥25	<25
												Website news posts	min 1 post/month, total 60	x≥80	80>x≥60	60>x≥30	<30
												Geographical coverage	30	x≥50	50>x≥30	30>x≥10	<10
LinkedIn account	2023 - 2027	Promote renewable energies to a wider public; Raise awareness and enhance the knowledge on the role of science	x	x	x	x	x	x	x	x	x	Number of members	200	x≥250	250>x≥150	150>x≥50	<50
												Number of publications	min 15 post/year, total 60	x≥80	80>x≥60	60>x≥30	<30
												Number of reactions (share, likes, comments)	30	x≥50	50>x≥30	30>x≥10	<10
X account	2023 - 2027		x	x	x	x	x	x	x	x	x	Number of members	200	x≥250	250>x≥150	150>x≥50	<50
												Number of tweets / retweets	min 15 post/year, total 60	x≥80	80>x≥60	60>x≥30	<30
Newsletters	Bi-annually		x	x	x	x	x	x	x	x	x	Number of subscribers	150	x≥250	250>x≥150	150>x≥50	<50
												Number of newsletters	8	x≥8	8>x≥6	6>x≥3	<3

Table 24. Overview of intended project dissemination and communication activities, timing, objective, associated targeted audience and KPI (2/2)

POWDER2POWER KPI ASSESSMENT

Activity	Timing	Purpose	Target Audience: Industry & Business	Research & Academia	National authority	Regional authority	Local authority	Internat. organizations	Large public	EU services / projects	Press media	KPI	Objective	Metrics: Excellent	Good	Moderate	Weak
Public Relations																	
Press releases	M12, M40	Inform about about project news, results, achievements	x	x	x	x	x	x	x	x	x	Number of press releases issued	2	x≥6	6>x≥3	3>x≥1	<1
												People reached	200	x≥250	250>x≥150	150>x≥50	<50
Articles in specilized magazines	2023 - 2027		x	x						x	x	Number of articles	2	x≥6	6>x≥3	3>x≥1	<1
Other media appearances	2023 - 2027		x		x	x	x	x	x	x	x	Number of articles, interviews, etc.	> 6	x≥10	10>x≥6	6>x≥3	<3
Dissemination of project results																	
Scientific publications	2023 - 2027 and afterwards	Inform about the project results; Boost the results exploitation	x	x	x	x	x			x		Number of publications	8	x≥12	12>x≥8	8>x≥4	x<4
Participation at external events																	
Scientific conferences	2023 - 2027	Promote the scientific results to interested groups and interact with other related technologies	x	x				x		x	x	Number of attended events	6 - 10	x≥12	12>x≥8	8>x≥4	x<4
												Number of associated communications (poster, oral presentation)		x≥12	12>x≥8	8>x≥4	x<4
												Number of distributed flyers / brochures	200	x≥250	250>x≥150	150>x≥50	<50
Industry, technology and Open Innovation events	2023 - 2027	Promote the results and engage with the industry for the enhancement of the	x	x	x			x		x	x	Number of attended events	3	x≥5	5>x≥3	3>x≥1	x<1
												Number of distributed flyers / brochures	200	x≥250	250>x≥150	150>x≥50	<50
Popularization events	2023 - 2027	Inform about project, concept, objectives & achievements,	x	x	x	x	x	x	x	x	x	Number of attended events	6	x≥8	8>x≥6	6>x≥4	x<4
												Number of distributed flyers / brochures	200	x≥250	250>x≥150	150>x≥50	<50
Project Events & Related communication campaign																	
1 technical workshop	M24	Promote the technology through more personal interactions with the project;	x	x				x		x	x	Number of attendees	40	x≥60	60>x≥40	40>x≥20	x<20
												Number of countries covered	15	x≥25	25>x≥15	15>x≥5	x<5
One 2-day training course	M30	Ensure knowledge transfer to students; Engage Master students, PhD students	x	x				x		x	x	Number of attendees	40	x≥60	60>x≥40	40>x≥20	x<20
												Number of countries covered	15	x≥25	25>x≥15	15>x≥5	x<5
One open Infoday	M36	Provide a better scientific and technological understanding of the	x	x	x	x	x	x	x	x	x	Number of attendees	40	x≥60	60>x≥40	40>x≥20	x<20
												Number of countries covered	15	x≥25	25>x≥15	15>x≥5	x<5
One Business & Exploitation seminar	M48	Present project results and explore possibilities for industrial applications	x	x	x	x	x	x	x	x	x	Number of attendees	40	x≥60	60>x≥40	40>x≥20	x<20
												Number of countries covered	15	x≥25	25>x≥15	15>x≥5	x<5

3. Exploitation strategy

3.1. Objectives

Within the project framework, two specific tasks focus on exploitation activities: Task 6.1 "Identification of Project Exploitable Results" and Task 6.2 "Exploitation and Dissemination of Project Results." The objective is to develop a plan for exploiting project results, particularly those with commercial and scientific potential.

The exploitation strategy plan for the POWDER2POWER project aims to ensure that its results, especially advancements in particle-driven CSP-PV technology, are effectively utilized to advance thermal energy storage and concentrated solar energy solutions in the future. As the project is currently in its early stages, with the main outcomes expected in the second, third and fourth years, this deliverable provides a preliminary outline of the exploitation strategy. A detailed plan, along with the first draft of the knowledge portfolio detailing identified Key Exploitable Results (KERs) and associated exploitation strategies developed collaboratively with all partners, will be presented at month 24, with an intermediate milestone (MS) at month 12 (MS12 “Internal workshop on Exploitation and IPR”).

The expected project exploitable results include advancements relevant to both commercial sector, such as innovative heat transfer fluid technology and scaled-up solar receiver technology, and scientific community, including techno-economic assessments and environmental impact studies. This wealth of data will contribute to the advancement and deployment of current technologies.

The preliminary results’ analysis indicates that two main sectors are targeted: (a) the thermal storage and heat generation sector (e.g., a particle-to-heat transfer fluid fluidized bed heat exchanger, a PV-driven particle electrical heating prototype) and (b) CSP-technology related sector (e.g., a system prototype of solar thermal plant using solid particles as heat transfer fluid and storage material, a scaled-up solar receiver technology, a high temperature vertical particle conveyance system).

3.2. Structure of Exploitation activities

The POWDER2POWER exploitation strategy aims to contribute to project targets, facilitate knowledge transfer, and enhance impact towards commercialization pathways. These planned activities, spanning capacity building events, publications, and collaborations with relevant projects, underline project commitment to addressing shared challenges in particle-driven CSP solutions for industrial processes, LCA, as well as sustainable practices and materials in thermal energy storage systems.

The technical WPs key accomplishments will yield vital data to identify and overcome barriers in technology development, user resistance, market challenges, and regulatory compliance, aiming to advance the P2P technology’s TRL. Coordinated under WP6, these results, coupled with the consortium’s collaborative effort, aim to establish effective communication of project reliable image, enhance user acceptance, and create optimal conditions for real-world technology adoption and exploitation. The prototype’s test results, analysis of the technology upscaling potential and worldwide-focused targeted market, informed by the partners’ divers and complementary expertise, will specifically contribute to boosting EU economic, technical and market competitiveness within the project exploitation strategy. For this, the exploitation strategy is planned from M1 to M48 along consecutive key stages with some interactive and / or intersecting activities.

The planning of the Exploitation activities is presented in Appendix N.

3.2.1. KERs identification and characterization

3.2.1.1. Identification of the exploitable results and preliminary analysis their exploitability potential

An initial analysis of the project expected exploitable results as well as pre-conditions to reach a higher TRL is being performed at the 1st stage within the necessity to characterize the results before defining their exploitation strategy and potential pathways towards commercialization.

The preliminary list of projects exploitable results along the exploitation pathways and associated dissemination means have been already identified in the Description of Action (DoA) (Table 25).

Table 25. Non-exhaustive list of project outputs, target groups (TG), exploitation possibilities and associated dissemination means

Types of results for commercial or non-commercial exploitation	Lead user, target group – Exploitation – Dissemination means ensuring the exploitation
Scientific experimental, modelling & analytical data on Particle-in-tube solar receivers	**TGs:** Industrial stakeholders in the renewable energy sector, including CSP companies and solar receiver manufacturers, as well as academia and research institutions specialized in thermal engineering and renewables. **Exploitation:** Collaboration for the development and implementation of particle-based solar receivers, licensing agreements for proprietary designs, joint research projects for further optimization. **Dissemination means:** Technical reports, research papers in academic journals, specialized conferences and workshops, demonstration events at CSP plants.
Scientific experimental, modelling & analytical data on Fluid flow and heat transfer in upward moving fluidized beds	**TGs:** Industrial stakeholders in the energy-intensive sectors (e.g., steel, cement, mining) interested in process optimization, academia and research institutions focusing on thermal engineering and fluid dynamics. **Exploitation:** Consulting services for process optimization, joint research projects for application-specific solutions, technology licensing for commercial use. **Dissemination means:** Technical publications, industry-specific conferences and workshops, webinars on fluidized bed technologies, partnerships with industry associations.
Scientific experimental, modelling & analytical data on Vertical particle conveyance system	**TGs:** Industrial stakeholders in the particle technology and CSP related sectors, including chemical engineering companies and EPC firms. **Exploitation:** Technology licensing for commercial deployment, joint development projects for customization, consulting services for process integration. **Dissemination means:** Technical specifications, case studies, workshops on particle conveyance technologies, partnerships with industry associations and trade organizations.
Scientific experimental, modelling & analytical data on	**TGs:** Industrial stakeholders in the renewable energy, thermal engineering and heat recovery sectors, including CSP companies,

Counter flow fluidized bed to sCO_2 heat exchangers	EPC firms, and manufacturers of heat exchangers. **Exploitation:** Technology licensing for integration into CSP plants, collaborative research projects for efficiency improvements, joint ventures for product development. **Dissemination means:** Research papers, technical seminars, industry conferences, demonstration events at CSP facilities, collaboration with industry consortia.
Scientific experimental, modelling & analytical data on sCO_2 power block design	**TGs:** Industrial stakeholders in the power generation sector, academia and research institutions specializing in power plant design and thermodynamics. **Exploitation:** Joint ventures for power plant development, technology licensing for commercial use, collaborative research on system optimization. **Dissemination means:** Design specifications, technical symposiums, industry conferences on sCO_2 power cycles, partnerships with utilities and engineering firms.
Technical drawing for design of CSP plants based on particle technology and their LCA	**TGs:** Industrial stakeholders in the CSP sector, academia and research institutions specializing in life cycle assessment and renewable energy systems. **Exploitation:** Consulting services for plant design, joint development projects for LCA methodologies, technology licensing for proprietary designs. **Dissemination means:** Design guidelines, LCA reports, workshops on CSP plant design, collaboration with industry associations and research consortia.
Testing results of the system prototype, construction and tests of a particle-to-sCO_2 heat exchanger prototype, construction and tests of a particle electrical heating prototype	**TGs:** Industry and technology developers in the fields of heat exchangers, energy storage, energy management, power-to-heat, chemical companies, public and private investors and venture capitalists, policymakers, research and academic institutions. **Exploitation:** Collaborating with (Technology Transfer Offices (TTOs), spin-off companies, industry and research players for further investments, joint collaborations, or licensing options to further develop, scale up, commercialize and protect the technology and related IP assets. **Dissemination means:** Industry-related conferences, events and B2B meetings; webinars and demonstration events to present the technical know-how and performance data; data sharing through the dedicated websites, media and press releases
Reports and deliverables on new processes, components, and services, such as materials selection, components design, prototype layout, control system, performance assessment	**TGs:** Research & Development institutions, professionals in particle-based thermal energy storage, CSP and Renewable Energy sectors, Industrial manufacturers and developers, academic and scientific community. **Exploitation:** Collaborating with TTOs and industry players for joint collaborations or licensing agreements to further develop and market the components and services, collaborating with educational institutions for courses' integration, including through licensing opportunities of the educational materials for skills-

	building initiatives. **Dissemination means:** Scientific publications in international conferences, organization and contribution to the training courses/lecturers and webinars
Techno-economical assessment of the Powder2Powder technology to prove the reliability of the technology at large scale	**TGs:** Industry sector / energy companies and utilities, renewable energy developers, investors & financial institutions, energy regulators & policymakers. **Exploitation:** Collaborating with industry partners for licensing / selling opportunities for the economic assessment report and market analysis, meeting with potential investors and financial organizations for further funding & with EU and national policymakers' agencies to spur relevant policy incentives. **Dissemination means:** Presentations & technical publications at the industry events, investors meetings, policy / standardization consultations, economic forums; sharing findings, EU initiatives and networks, project website, social media, etc.
Safety issues of the P2P technology and measures to reduce the risks, LCA model for the Powder2Powder technology, Report on cost analysis and positioning of the technology into the energy mix system	**TGs:** Industry/manufacturers interested in environmentally friendly technologies, EU / international / national / regional policymaking organizations and standardization agencies, non-governmental organizations (NGOs). **Exploitation:** Collaborations with manufacturers & companies for licensing opportunities; presenting the LCA findings to sustainable development advisors and organizations for further promotion and adoption of the technology. **Dissemination means:** Technical publications at the environmental events, dedicated project business workshop, online platforms & media accessible to industry professionals
Creation of new skills, knowledge and services on: on-site control of heliostats performances, improvements of the heliostats aiming strategy software, design of particle heat exchangers, high temperature particle handling and storage, high temperature solid processing technologies	**TGs:** PhD students, post-doctoral researchers, energy system operators, start-ups and entrepreneurs, innovators and developers, SMEs. **Exploitation:** Collaborating w/ start-up companies providing the identified newly created skills-based services or intending to complement their existing services; exploring licensing opportunities for specific applications or industries. **Dissemination means:** Entrepreneurial industry networking events; partnering w/ research & academic institutions to access research grants and collaborative projects for further skills/services development & application; sharing diss information through the project website and social media

The table will be further completed progressively, and the results will be regularly updated, as this process demands several iterative exchanges and consultations between all the partners.

For this, a questionnaire will be sent to the partners to better identify the exploitable results and the relevant targeted users (Table 26).

Table 26. Questionnaire form for characterization of the exploitable results

Title of the exploitable result	Short description
Description of the Result	
Innovativeness introduced compared to already existing Products / Services	
Unique Selling Point	
Product / Service Market Size	
Market Trends / Public Acceptance	
Product / Service Positioning	
Legal or normative or ethical requirements (need for authorizations, compliance to standards, norms, etc.)	
Competitors/Incumbents	
Early Adopters - First Customers	
Cost of implementation - bringing product/service to the “market” (before Exploitation)	
Time to market	
Foreseen Product / Service Price	
Adequateness of Consortium Staff	
External Experts / Partners to be involved	
Status of IPR: Background (type and partner owner)	
Status of IPR: Foreground (type and partner owner)	
Status of IPR: use the results from the Exploitation Form	
Expectations of partner involved	
Sources of financing foreseen after the end of the project	

During this initial stage, the main focus will be on outlining the results primed for commercialization, identifying partner contributions, assessing risks, exploring market prospects and target demographics, identifying potential early adopters, addressing barriers and implementing countermeasures. Additionally, competing technologies and partners' expectations for exploitation will be analyzed.

3.2.1.2. Definition of the preliminary exploitation route of the KERs

After establishing the fundamental details of each KERs, P2P will conduct a comprehensive assessment of additional parameters associated with the exploitation pathway for each KER using a designated form (Table 27).

This evaluation serves as a pivotal tool in facilitating partner consensus regarding commercialization pathways, particularly in instances where ownership of the results is shared. Furthermore, it enhances the effectiveness of tracking the exploitation process when a particular result is solely owned by one partner.

Table 27. Form for definition of the KER exploitation framework

Chosen expl. route	Exploitation means	Implementing actor	Yes	No
Direct Use	Commercialization: deployment of a novel product/service (offered to the target markets)	One partner		
		A group of partners		
	Contract research (new contracts signed by the research group with external clients)	One partner		
		A group of partners		
	A new research project (application to public funded research programmes)	One partner		
		A group of partners		
	Implementation of a new training / course (Note that a training course is a service)	One partner		
		A group of partners		
		A new partnership		
Indirect Use	Assignment of the IPR	One partner		
		A group of partners		
	Licensing of the IPR	One partner		
		A group of partners		
	Development of a new legislation or standard	One partner		
		A group of partners		
	Spin-off	One partner		
		A group of partners		
	Other (please describe)	One partner		
		A group of partners		

3.2.1.3. Prioritization of the KERs and partners Ground identification in the exploitation strategies

The KER priority map serves as a tool to identify both potential risks and opportunities that may impact the successful exploitation of KER. Risks and opportunities are categorized into standard types, which may be further expanded or tailored based on the specific definition of KER:

- Technological risks
- Partnership risks
- Management risks
- Environmental / regulation / safety risks

The primary risks identified will undergo a comprehensive analysis to assess both their likelihood of occurrence and the level of their potential impact (Table 28).

Table 28. Form for KERs prioritization based on the related risk / opportunity analysis

KER	Degree of importance of the risk related to the KER final achievement (1 low – 10 high)	Probability of occurrence (1 low – 10 high)	Risk grade
Partnership Risk			
Technological Risk			
Market risk			
IPR / legal Risk			
Financial / management risk			
Environmental / regulatory risk			

In order to complete the characterization of the KERs, each partner must outline their commitment to exploitation, background information, and IPR strategies. This data will be compiled in Table 29 for analysis.

Table 29. Form for KERs prioritization based on the analysis of the partners' commitment for exploitation, background and IPR strategy

Description	Partner 1	Partner 2	Partner n	Details
Partners willing to go to market				Accept the share of investments & risks
Porte-parole partner (not contributing)				For coordination purpose only
Partner providing background knowledge willing to claim rights				Only those not listed in 4
Partner providing background knowledge not willing to claim rights				However may request NDA on their Background / Foreground knowledge
Partner providing foreground knowledge willing to claim rights				Only those not listed in 4
Partner providing foreground knowledge not willing to claim rights				However may request NDA on their Foreground knowledge

The data collected and analyzed within these activities will contribute to the unique Exploitable Results Portfolio that consolidates all knowledge necessary for characterization of the KERs and formulation of the corresponding implementation strategies.

3.2.2. Development and implementation of KERs exploitation and Impact assessment

During this phase, further development of strategies to exploit KERs will occur based on stakeholder engagement and feedback. This stage includes engaging relevant parties, defining value propositions for each group, assessing the project technology, and aligning it with industrial regulations. Additionally, technology commercialization roadmaps and transfer plans will be created.

To achieve these objectives, a series of planned internal and external dissemination and exploitation actions and events will be implemented, targeting relevant audiences. These actions will include organizing specialized project events, conducting webinars and creating educational materials, participating in conferences, exhibitions, and trade fairs, and engaging with standardization committees. Tailored communication campaigns will also highlight technological achievements, operational efficiency, environmental and economic benefits, and regulatory assessments to build trust among stakeholders.

A list of quantitative and qualitative KPIs will be established following the analysis of the implementation of the developed exploitation strategy to contribute a better finalization of exploitation strategies and KERs preparation for potential commercial uptake. A non-exhaustive list of KPIs to be systematically evaluated according to the progress of the exploitation activities will address the assessment of:

- **Technological advancement of KERs:**

- Increase in TRL of key innovations by the end of the project,
- Number of planned patents filed or granted for project related technologies, and
- Rate of adoption of project-developed technologies by industry partners.

- **Commercialization potential:**
  - Number of foreseen licensing agreements or partnerships established for commercialization,
  - Potential amount of investment attracted for further development and commercialization, including all relevant and available private / public funding opportunities,
  - Estimated revenue from the sale or licensing of project-related products or technologies.
- **Stakeholders engagement:**
  - Number of industry partners or stakeholders actively involved in project activities,
  - Level of participation in project events, workshops and webinars,
  - Feedback and satisfaction scores from stakeholders regarding project interactions.

3.2.3. Finalization of Exploitation strategy and KERs preparation for potential commercial uptake

During this phase, efforts will be focused on establishing pathways for implementing exploitation strategies and facilitating uptake beyond the project's duration. This includes the development of roadmaps for commercialization and scenarios for market expansion. The consortium will actively drive scientific and technical progress internally, investigate opportunities for technology transfer to both private and academic sectors, seek additional funding sources, and negotiate licensing agreements with industry partners. Moreover, specialized services such as the European Standardization Booster Service will be utilized to augment contributions to EU standardization efforts.

3.3. Actions planned to implement and achieve the exploitation of results and impact of the project

Between 2023 to 2027, the consortium's goal is to elevate the prototype and its components from TRL 6 to TRL 7-8. The envisioned medium and long-term pathways for exploitation and commercialization entail several approaches:

- **Securing patents** for some innovative elements of the particule-to-sCO_2 heat exchanger prototype,
- **Licensing arrangements** for various project prototype system's components, including the system prototype of solar thermal plant using solid particles as heat transfer fluid and storage material, the scaled-up solar receiver technology, the high temperature particle conveyance system, the particle-to-heat transfer fluid fluidized bed heat exchanger, the PV-driven particle electrical heating prototype,
- **Establishing academic and industrial partnerships**, potentially under co-development or co-ownership agreements, to further develop and exploit new (such as using sCO_2 in the power block) or new processes (e.g., operational heat exchangers and high temperature particles conveyance system) by both project industrial partners and external commercial collaborators.

Starting from the second year of the project, POWDER2POWER will leverage its Results Portfolio draft, legal and IP services, Technology Transfer Offices (TTOs) consultations, Horizon Results

Booster (HRB) services on Business Plan Development and Go-to-Market Services, as well as stakeholder networks to craft medium- and long-term strategies. These strategies will involve:

- **Enhancing a sound IPR management strategy of the exploitable results** potentially leading to marketable products through its entire life cycle: from generation and proactive IP management to protection and valorization, addressing potential concerns afterward. In the case of jointly developed and co-owned exploitable results, various types of protection, including trade secrets and patents, will be prepared, with clear ownership defined to resolve conflicts. Researchers, with legal support, will determine optimal exploitation strategies. This strategy will be aligned with the CA and be reinforced through the internal IPR workshop and meetings, refining assets and establishing management plans. IP protection planning and strategy, alongside Results portfolio completion, will occur once co-ownership is clarified.
- **Continued engagement, negotiations, and networking** with industry partners, external companies, research collaborators, relevant civil society representatives, and professional trade unions and associations to facilitate technology transfer and further development. If no exploitation uptake occurs within one year after the project's conclusion, the project results will be published on the Horizon Research Platform (HRP) to enhance visibility of the project impact.
- **Identifying and pursuing additional funding opportunities** from Public-Private Partnerships (P2Ps) identified during the project's duration, based on the corresponding market landscape and partners' interests and opportunities. Potential sources include private investors, banks, business angels, and Horizon Europe funding for Innovation, such as the European Innovation Council (EIC) Accelerator (Pilot) and EIC Business Acceleration Services.

The exploitation strategy, built upon medium and long-term achievements, encompasses actions aimed at the commercial deployment and utilization of each developed KER through patents, exploitation licenses, and consulting and procurement services by both the industrial project partners and external companies.

4. Conclusions

This deliverable outlines the initial dissemination, communication, and exploitation strategy for the POWDER2POWER project. Given that further deliverables will be submitted within the project's 48-month duration and certain strategies depend on results from other work packages, this phase (month 7) primarily lays the groundwork for tailored approaches.

While detailed strategies are still in development, the deliverable establishes dissemination objectives, identifies target groups, describes communication tools, and outlines planned activities. Additionally, a list of Key Performance Indicators is provided to track progress.

The promotional materials developed for the project serve as a means to raise awareness and disseminate information about the project and its progress to diverse target audiences. These materials will be utilized extensively by project partners across various platforms, including conferences, academic publications, media engagements, exhibitions, workshops, and other relevant events.

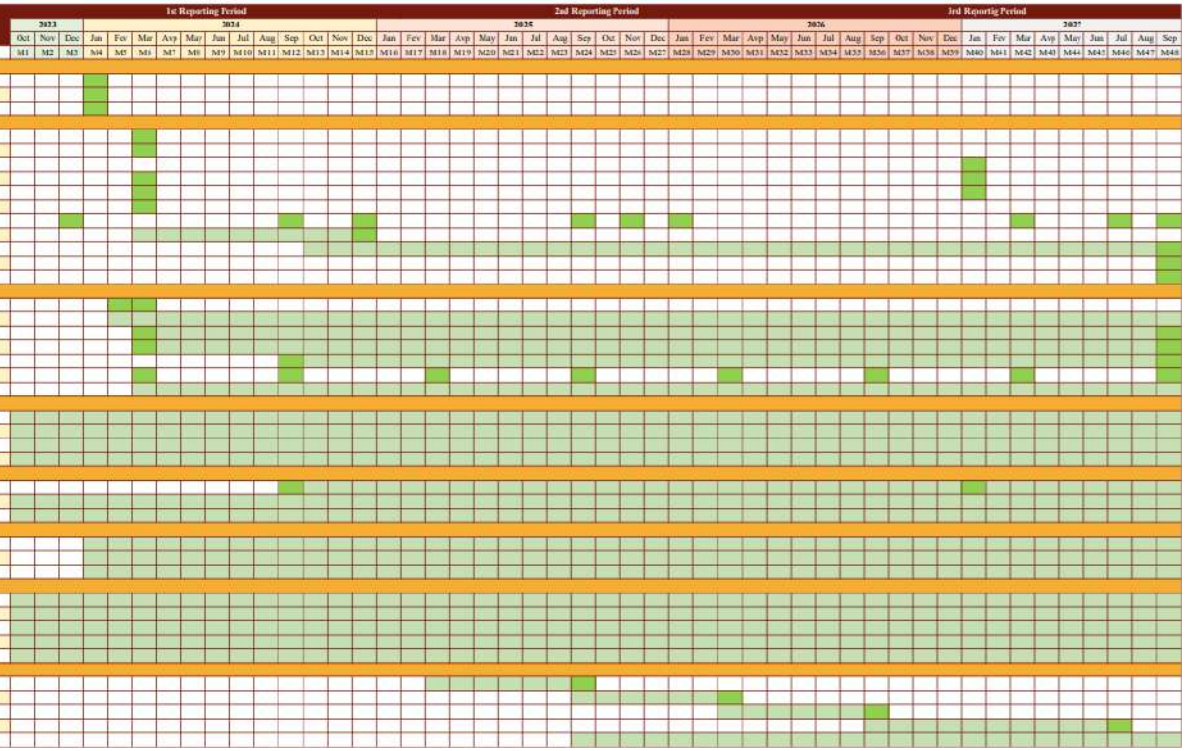
This document is dynamic and subject to compulsory updates at month 24 and month 48 to align with emerging needs, activities, and tools throughout the project's duration. Given that this deliverable is a key management and tracking tool for both the project Consortium and funding authority, regular updates may be provided as needed to thoroughly examine dissemination and exploitation initiatives and strategies.

CSP-Boost is responsible for the drafting and updating of this deliverable in conjunction with consortium members and the PMT.

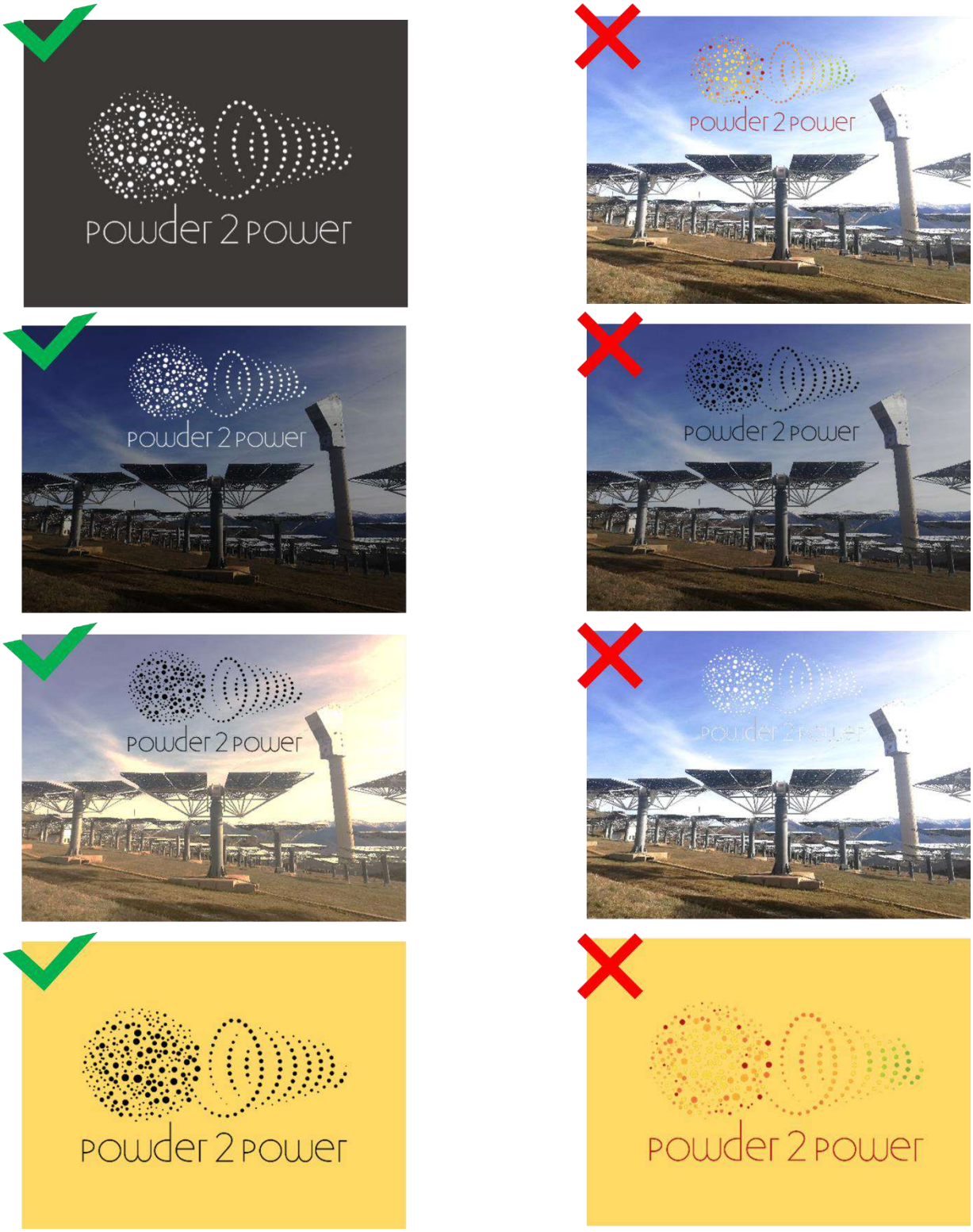
Appendix A. Planning of POWDER2POWER Dissemination and Communication Activities

POWDER2POWER Dissemination & Communication Planning

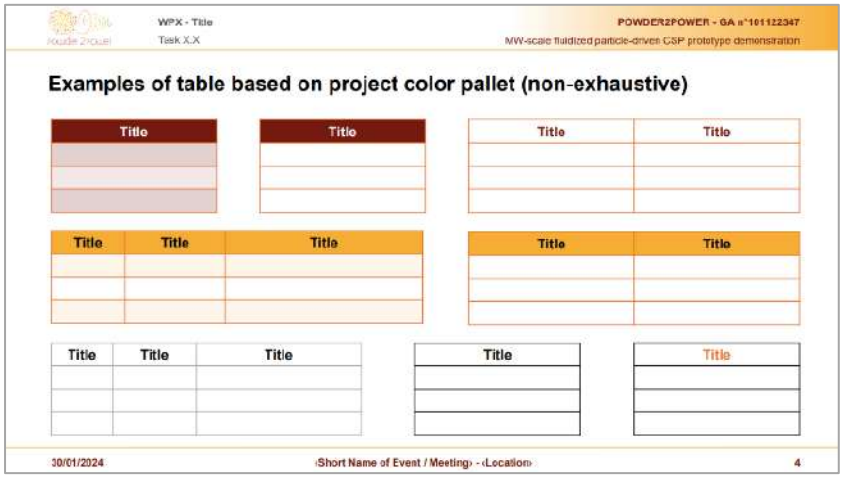
Activity	Type	Responsible	Contributor	Website news	Remarks
Communication toolkit					
Logo creation	Visual identity	CNRS	n/a	Yes	
Visual identity guidelines	Visual identity	CSPB	n/a	Yes	
Templates	Visual identity	CSPB	n/a	No	
Communication & Promotional materials					
Project factsheet (digital)	Online materials	CSPB	CNRS	Yes	
Two / three-fold leaflet	Online & Printed materials	CSPB	All partners	Yes	
Brochure	Online & Printed materials	CSPB	All partners	Yes	
Infographics	Online materials	CSPB	All partners	Yes	
Roll-up	Online & Printed materials	CSPB	CNRS	Yes	
Exhibition poster template	Online & Printed materials	CSPB	CNRS	Yes	
Summary of confidential deliverables	Online materials	CSPB	CNRS	Yes	
Video (timelapse)	Online materials	CSPB	CNRS	Yes	
Interactive project map	Online materials	CSPB	All partners	Yes	
Final video	Online materials	CSPB	All partners	Yes	
Final press kit	Online materials	CSPB	n/a	Yes	
Digital & Direct Comm / Diss tools & channels					
Website & intranet creation	Social media	CSPB	n/a	Yes	
Updates	Social media	CSPB	All partners	Yes	
LinkedIn profile creation & updates	Social media	CSPB	All partners	Yes	
X profile creation & updates	Social media	CSPB	All partners	Yes	
YouTube profile creation & updates	Social media	CSPB	All partners	Yes	
Newsletters	Online materials	CSPB	All partners	Yes	
Stakeholders database creaiton & update	Internal Online materials	CSPB	All partners	Yes	
Other channels & tools					
Partners' communication channels	Social media	All partners	CSPB	Yes	
EU dissemination channels	Online materials	CSPB / CNRS	All partners	Yes	
Synergies with relevant project & initiatives	Online & Offline events, Online materials	All partners	CSPB	Yes	
Meetings with policymakers (EU, national, local)	Online & Offline events, Online materials	CNRS	All partners	Yes	
Public Relations					
Press releases	Online materials	CSPB	All partners	Yes	
Articles in specilized magazines	Online & Printed materials	CNRS / CSPB	All partners	Yes	
Other media appearances	Online & Printed materials	CSPB	All partners	Yes	
Dissemination of project results					
Scientific publications	Online materials	All partners	n/a	Yes	
Open access technical reports (deliverables)	Online materials	All partners	n/a	Yes	
Open access generated knowledge / results	Online materials	All partners	n/a	Yes	
Participation at external events					
Scientific conferences , invited talks	Online & Offline events, Online materials	All partners	CSPB	Yes	
Seminars, panels, networking activities	Online & Offline events, Online materials	All partners	CSPB	Yes	
Wokshops, roundtables	Online & Offline events, Online materials	All partners	CSPB	Yes	
Tradefairs	Online & Offline events, Online materials	All partners	CSPB	Yes	
Booth events	Online & Offline events, Online materials	All partners	CSPB	Yes	
Project Events & Related communication campaign					
1 technical workshop	Online & Offline event	CSPB	All partners	Yes	
One 2-day training course	Online & Offline event	CSPB	All partners	Yes	
One open Infoday	Offline & Online event	CSPB	All partners	Yes	
One Business & Exploitation seminar	Offline & Online event	CSPB	All partners	Yes	
Series of webinars	Online event	CSPB	All partners	Yes	

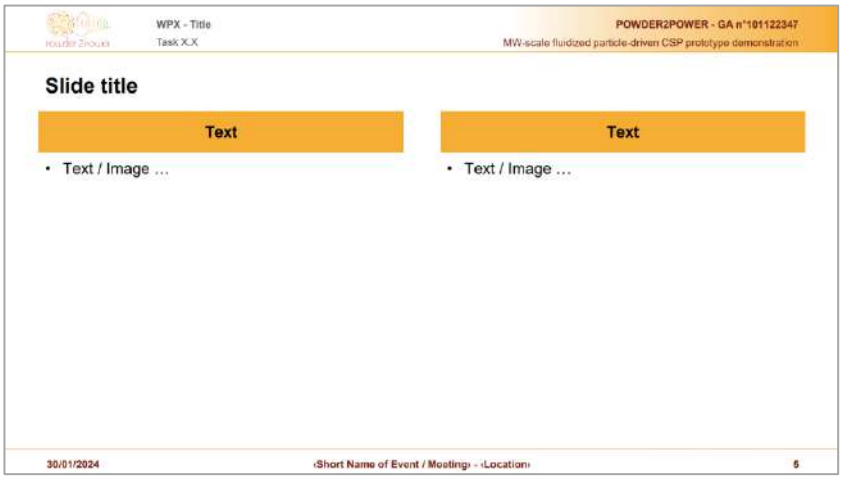


Appendix B. Guidelines for the use of the project logo over a complex background



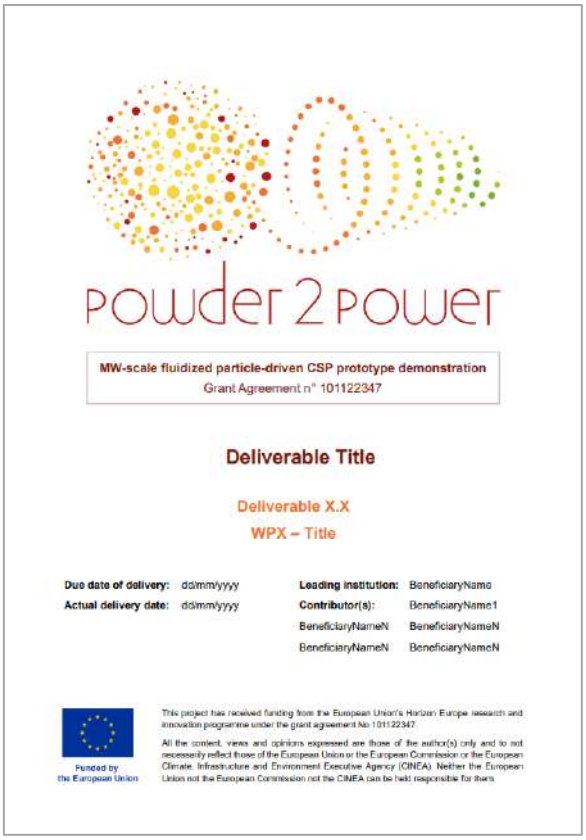
Appendix C. PowerPoint presentation template


WPX - Title
Task X.X
POWDER2POWER - GA n°101122347
MW-scale fluidized particle-driven CSP prototype demonstration
Examples of table based on project color pallet (non-exhaustive)
Title
30/01/2024
‹Short Name of Event / Meeting› - ‹Location›
4


WPX - Title
Task X.X
POWDER2POWER - GA n°101122347
MW-scale fluidized particle-driven CSP prototype demonstration
Slide title
Text
• Text / Image …
30/01/2024
‹Short Name of Event / Meeting› - ‹Location›
5

Thank you for your attention!
Any questions?
Contact person: ‹Name›
Email: ‹Email›
powder 2 power
cnrs
PROMES
Université Perpignan Via Domitia
KU LEUVEN
POLITECNICO MILANO 1863
KTH
John Cockerill
SEICO
EDF
BUILD TO ZERO
CSP BOOST
Funded by the European Union
This project has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No 101122347.
Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or granting authority. Neither the European Union nor the granting authority can be held responsible for them.

Appendix D. Deliverable template



MW-scale fluidized particle-driven CSP prototype demonstration
Grant Agreement n° 101122347

Deliverable Title

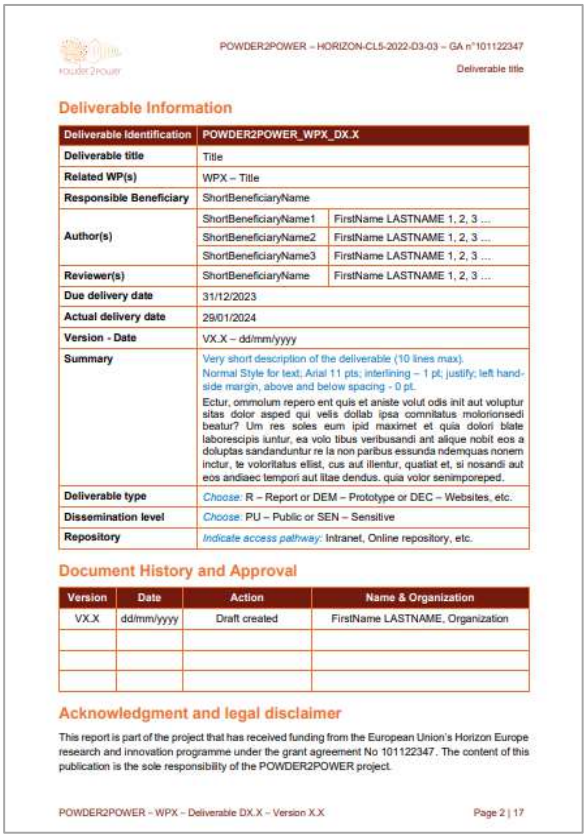
Deliverable X.X
WPX – Title

Due date of delivery:	dd/mm/yyyy	**Leading institution:**	BeneficiaryName
Actual delivery date:	dd/mm/yyyy	**Contributor(s):**	BeneficiaryName1
		BeneficiaryNameN	BeneficiaryNameN
		BeneficiaryNameN	BeneficiaryNameN

Funded by the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No 101122347.

All the content, views and opinions expressed are those of the author(s) only and to not necessarily reflect those of the European Union or the European Commission or the European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union not the European Commission not the CINEA can be held responsible for them.



POWDER2POWER – HORIZON-CL5-2022-D3-03 – GA n°101122347
Deliverable title

Deliverable Information

Deliverable Identification	POWDER2POWER_WPX_DX.X	
Deliverable title	Title	
Related WP(s)	WPX – Title	
Responsible Beneficiary	ShortBeneficiaryName	
Author(s)	ShortBeneficiaryName1	FirstName LASTNAME 1, 2, 3 …
	ShortBeneficiaryName2	FirstName LASTNAME 1, 2, 3 …
	ShortBeneficiaryName3	FirstName LASTNAME 1, 2, 3 …
Reviewer(s)	ShortBeneficiaryName	FirstName LASTNAME 1, 2, 3 …
Due delivery date	31/12/2023	
Actual delivery date	29/01/2024	
Version - Date	VX.X – dd/mm/yyyy	
Summary	Very short description of the deliverable (10 lines max). Normal Style for text; Arial 11 pts; interlining – 1 pt; justify; left hand-side margin, above and below spacing - 0 pt. Ectur, ommolum repero ent quis et aniste volut odis init aut voluptur sitas dolor asped qui velis dollab ipsa comnitatus molorionsedi beatur? Um res soles eum ipid maximet et quia dolori blate laborescipis iuntur, ea volo tibus veribusandi ant alique nobit eos a doluptas sandandunturre la non paribus essunda ndemquas nonem inctur, te voloritatus ellist, cus aut illentur, quatiat et, si nosandi aut eos andiaec tempori aut litae dendus. quia volor senimporeped.	
Deliverable type	*Choose:* R – Report or DEM – Prototype or DEC – Websites, etc.	
Dissemination level	*Choose:* PU – Public or SEN – Sensitive	
Repository	*Indicate access pathway:* Intranet, Online repository, etc.	

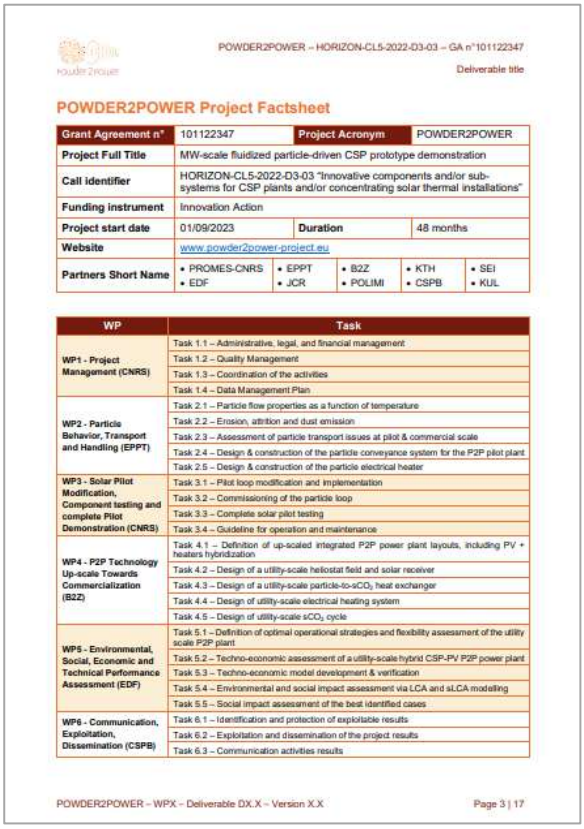
Document History and Approval

Version	Date	Action	Name & Organization
VX.X	dd/mm/yyyy	Draft created	FirstName LASTNAME, Organization

Acknowledgment and legal disclaimer

This report is part of the project that has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No 101122347. The content of this publication is the sole responsibility of the POWDER2POWER project.

POWDER2POWER – WPX – Deliverable DX.X – Version X.X Page 2 | 17



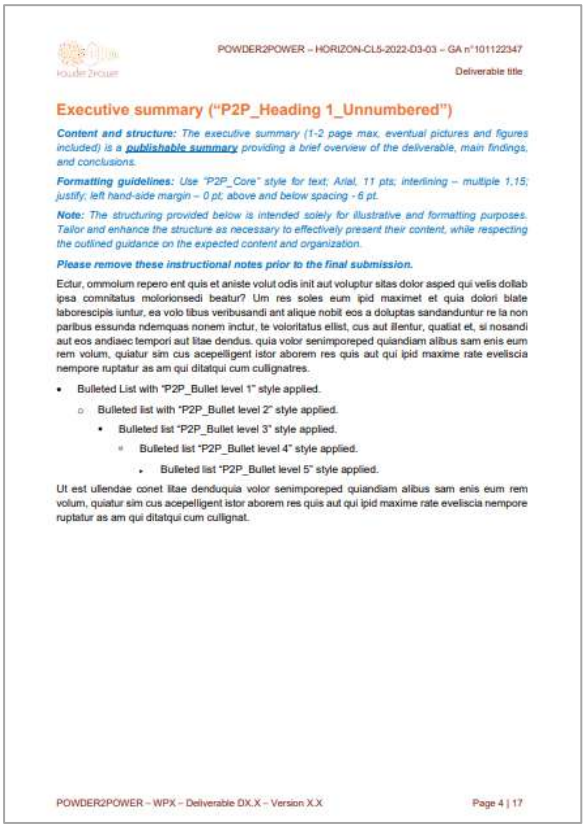
POWDER2POWER – HORIZON-CL5-2022-D3-03 – GA n°101122347
Deliverable title

POWDER2POWER Project Factsheet

Grant Agreement n°	101122347	Project Acronym	POWDER2POWER	
Project Full Title	MW-scale fluidized particle-driven CSP prototype demonstration			
Call identifier	HORIZON-CL5-2022-D3-03 "Innovative components and/or sub-systems for CSP plants and/or concentrating solar thermal installations"			
Funding instrument	Innovation Action			
Project start date	01/09/2023	**Duration**	48 months	
Website	www.powder2power-project.eu			
Partners Short Name	• PROMES-CNRS • EDF	• EPPT • JCR	• B2Z • POLIMI	• KTH • CSPB • SEI • KUL

WP	Task
WP1 - Project Management (CNRS)	Task 1.1 – Administrative, legal, and financial management
	Task 1.2 – Quality Management
	Task 1.3 – Coordination of the activities
	Task 1.4 – Data Management Plan
WP2 - Particle Behavior, Transport and Handling (EPPT)	Task 2.1 – Particle flow properties as a function of temperature
	Task 2.2 – Erosion, attrition and dust emission
	Task 2.3 – Assessment of particle transport issues at pilot & commercial scale
	Task 2.4 – Design & construction of the particle conveyance system for the P2P pilot plant
	Task 2.5 – Design & construction of the particle electrical heater
WP3 - Solar Pilot Modification, Component testing and complete Pilot Demonstration (CNRS)	Task 3.1 – Pilot loop modification and implementation
	Task 3.2 – Commissioning of the particle loop
	Task 3.3 – Complete solar pilot testing
	Task 3.4 – Guideline for operation and maintenance
WP4 - P2P Technology Up-scale Towards Commercialization (B2Z)	Task 4.1 – Definition of up-scaled integrated P2P power plant layouts, including PV + heaters hybridization
	Task 4.2 – Design of a utility-scale heliostat field and solar receiver
	Task 4.3 – Design of a utility-scale particle-to-sCO_2 heat exchanger
	Task 4.4 – Design of utility-scale electrical heating system
	Task 4.5 – Design of utility-scale sCO_2 cycle
WP5 - Environmental, Social, Economic and Technical Performance Assessment (EDF)	Task 5.1 – Definition of optimal operational strategies and flexibility assessment of the utility scale P2P plant
	Task 5.2 – Techno-economic assessment of a utility-scale hybrid CSP-PV P2P power plant
	Task 5.3 – Techno-economic model development & verification
	Task 5.4 – Environmental and social impact assessment via LCA and sLCA modelling
	Task 5.5 – Social impact assessment of the best identified cases
WP6 - Communication, Exploitation, Dissemination (CSPB)	Task 6.1 – Identification and protection of exploitable results
	Task 6.2 – Exploitation and dissemination of the project results
	Task 6.3 – Communication activities results

POWDER2POWER – WPX – Deliverable DX.X – Version X.X Page 3 | 17



POWDER2POWER – HORIZON-CL5-2022-D3-03 – GA n°101122347
Deliverable title

Executive summary ("P2P_Heading 1_Unnumbered")

Content and structure: *The executive summary (1-2 page max, eventual pictures and figures included) is a* ***publishable summary*** *providing a brief overview of the deliverable, main findings, and conclusions.*

Formatting guidelines: *Use "P2P_Core" style for text; Arial, 11 pts; interlining – multiple 1,15; justify; left hand-side margin – 0 pt; above and below spacing - 6 pt.*

Note: *The structuring provided below is intended solely for illustrative and formatting purposes. Tailor and enhance the structure as necessary to effectively present their content, while respecting the outlined guidance on the expected content and organization.*

Please remove these instructional notes prior to the final submission.

Ectur, ommolum repero ent quis et aniste volut odis init aut voluptur sitas dolor asped qui velis dollab ipsa comnitatus molorionsedi beatur? Um res soles eum ipid maximet et quia dolori blate laborescipis iuntur, ea volo tibus veribusandi ant alique nobit eos a doluptas sandandunturre la non paribus essunda ndemquas nonem inctur, te voloritatus ellist, cus aut illentur, quatiat et, si nosandi aut eos andiaec tempori aut litae dendus. quia volor senimporeped quiandiam alibus sam enis eum rem volum, quiatur sim cus acepelligent istor aborem res quis aut qui ipid maxime rate eveliscia nempore ruptatur as am qui ditatqui cum cullignatres.

- Bulleted List with "P2P_Bullet level 1" style applied.
  - Bulleted list with "P2P_Bullet level 2" style applied.
    - Bulleted list "P2P_Bullet level 3" style applied.
      - Bulleted list "P2P_Bullet level 4" style applied.
        - Bulleted list "P2P_Bullet level 5" style applied.

Ut est ullendae conet litae denduquia volor senimporeped quiandiam alibus sam enis eum rem volum, quiatur sim cus acepelligent istor aborem res quis aut qui ipid maxime rate eveliscia nempore ruptatur as am qui ditatqui cum cullignat.

POWDER2POWER – WPX – Deliverable DX.X – Version X.X Page 4 | 17

Appendix E. Agenda template

Meeting Agenda

Agenda-No.	Session	Organization	Date	Page
<number>	<number>	<Beneficiary Short Name>	<dd/mm/yyyy>	<number>

Subject		Meeting	
<Meeting Title>		Location:	City:
<Address>			Country:
POWDER2POWER, GA n°101122347		Start:	Date: <dd/mm/yyyy>
MW-scale fluidized particle-driven CSP prototype demonstration			Time: <hh:mm>
		End:	Date: <dd/mm/yyyy>
			Time: <hh:mm>

Session Chair	Telephone	Minutes by	Telephone	Invitation and Agenda from
<Name>	<Tel.>	<Name>	<Tel.>	<Name>
Meeting Objectives:	<Brief summary of the meeting objectives>			

Invited participants list		
Short name	Name and Surname	Number of participants
CNRS		
EDF		
EPPT		
JCR		
B2Z		
POLIMI		
KTH		
CSPB		
SEICO		
KUL		
<Other>		
	Total:	

Meeting Day 1: <Month Date, Year>, hh:mm – hh:mm

Timing Start	Timing End	Agenda items	Responsible / speaker
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	Coffee break	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	Lunch break	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name

POWDER2POWER <Meeting Title> – Agenda – <Month Date, Year>

Meeting Agenda

Agenda-No.	Session	Organization	Date	Page
<number>	<number>	<Beneficiary Short Name>	<dd/mm/yyyy>	<number>

hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	Meeting close	Name

Meeting Day 2: <Month Date, Year>, hh:mm – hh:mm

Timing Start	Timing End	Agenda items	Responsible / speaker
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	Coffee break	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	Lunch break	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	<Title of the presentation> <Brief summary of content>	Name
hh:mm	hh:mm	Meeting close	Name

POWDER2POWER <Meeting Title> – Agenda – <Month Date, Year>

Meeting Agenda

Agenda-No.	Session	Organization	Date	Page
<number>	<number>	<Beneficiary Short Name>	<dd/mm/yyyy>	<number>

Logistics and Access Information

Meeting Date and Time:

- *Date and time.*

Meeting Venue:

- For a physical meeting:
  - *address,*
  - *relevant accessibility features, including building access code(s), transport recommendations, illustrations, and map(s), if appropriate,*
  - *meeting room number,*
  - *possibility to join by phone / video means (specify the relevant information for this option),*
  - *other relevant details.*
- For a virtual meeting:
  - *online meeting platform,*
  - *web link / URL,*
  - *possibility to join by phone,*
  - *dial-in number(s),*
  - *access codes,*
  - *specific meeting etiquette related to the microphone muting, video use, use of chat for questions or comments, presentation order when orally contributing to the meeting (e.g., starting with Name, Organization, WP / Task related to a question / topic and so on) for a better identification of the speaker, and*
  - *other relevant details.*

Documents and Materials, if relevant:

- *Any pre-read materials or documents to review before the meeting with links to access or attached documents.*

Confirmation / Cancellation deadline:

- *Deadline to confirm the attendance of notify if the attendance is not possible.*

Emergency contact information:

- *Contact person's information for any last-minute changes or emergencies.*

POWDER2POWER <Meeting Title> – Agenda – <Month Date, Year>

Appendix F. Attendance sheet template

POWDER2POWER

MW-scale fluidized particle-driven CSP prototype demonstration
Grant Agreement n° 101122347

Attendance Sheet

Meeting Title:		**Meeting Date:**	
Meeting Location:		**Meeting Time:**	
Total number of participants:		**Excused:**	

N	Participant Name and Surname	Organization	Email	Signature	
				<Day 1 Date> - Morning	<Day 2 Date> - Afternoon
1					
2					
3					
4					
6					
7					
8					
9					
10					

POWDER2POWER <Meeting Title> - Agenda - <Month Date, Year>

Page 1 | 2

Appendix G. Minutes template

Meeting Minutes

Agenda-No.	Session	Organization	Date	Page
<number>	<number>	<Beneficiary Short Name>	<dd/mm/yyyy>	<number>

Subject			Meeting	
<Meeting Title> **<Address>** **POWDER2POWER, GA n°101122347** MW-scale fluidized particle-driven CSP prototype demonstration			Location:	City: Country:
			Start:	Date: <dd/mm/yyyy> Time: <hh:mm>
			End:	Date: <dd/mm/yyyy> Time: <hh:mm>
Session Chair	Telephone	Minutes by	Telephone	Invitation and Agenda from
<Name>	<Tel.>	<Name>	<Tel.>	<Name>
Total participants:	<Number>	Excused:	<Number and Name(s), if relevant>	

Invited participants list		
Short name	Name and Surname	Number of participants
CNRS		
EDF		
EPPT		
JCR		
B2Z		
POLIMI		
KTH		
CSPB		
SEICO		
KUL		
<Other>		

Welcome and Meeting opening

Development	
•	
Action Items	Deadline
•	

Title 1

Development		
•		
Discussion		
•		
Action Items	Responsible	Deadline
•		
•		
•		

Title 2

POWDER2POWER <Meeting Title> – Minutes – <Month Date, Year>

Meeting Minutes

-No.	Session	Organization	Date	Page
er>	<number>	<Beneficiary Short Name>	<dd/mm/yyyy>	<number>

	Responsible	Deadline

•		
Action Items	Responsible	Deadline
•		
•		
•		

Summary Action plan for the next 6 months

Action / To-Do Item	Responsible	Contributors	Due date
<Task title> <Action>	<Name>	<Name / WPL / WP participant(s) / other>	<targeted deadline>
<Task title> <Action>	<Name>	<Name / WPL / WP participant(s) / other>	<targeted deadline>
<Task title> <Action>	<Name>	<Name / WPL / WP participant(s) / other>	<targeted deadline>
<Task title> <Action>	<Name>	<Name / WPL / WP participant(s) / other>	<targeted deadline>

POWDER2POWER <Meeting Title> – Minutes – <Month Date, Year>

Appendix H. List of social media of the partners

Partner	Website	LinkedIn	X	YouTube
CNRS	https://www.promes.cnrs.fr/	https://www.linkedin.com/company/promes-cnrs/	@PROMES_CNRS	https://www.youtube.com/channel/UC3wOFdvlDXWWBU2RKI_XR3Q
UPVD	https://www.univ-perp.fr/	https://www.univ-perp.fr/linkedin	@upvd1	https://www.youtube.com/channel/UCFj3xPan2ZooH3L-Sq6Ym3A
EDF	https://www.edf.fr/en	https://www.linkedin.com/company/edf/	@EDFofficiel / @edfenergy	https://www.youtube.com/edfenergy
EPPT	-	-	-	-
JCR	https://johncockerill.com/en/energy/	https://www.linkedin.com/showcase/john-cockerill-energy-renewables	@JohnCockerill	http://www.youtube.com/@JohnCockerillGroup
B2Z	https://buildtozero.es/	https://www.linkedin.com/company/84144721/admin/feed/posts/	-	-
POLIMI	http://www.polimi.it/	https://www.linkedin.com/school/polimi/	@polimi	http://www.youtube.com/@polimi
KTH (KTH Energy Platform)	https://www.kth.se/en/forskning/forskningsplattformar/energi?mtm_campaign=LinkedIn-Energy&mtm_kwd=Static-mainlink	https://www.linkedin.com/showcase/energy-at-kth/	@KTHuniversity	-
CSPB	https://cspboost.fr/	https://www.linkedin.com/company/csp-boost	-	-
SEI	https://seico.eu/	https://www.linkedin.com/company/seico-heating-cooling-engineering/about/	-	-
KUL	https://www.kuleuven.be/english/kuleuven	https://www.linkedin.com/school/ku_leuven/	@KU_Leuven	http://www.youtube.com/@kuleuven

Appendix I. List of communication & cooperation channels of the partners

			Link with European and international activities relevant for P2P project dissemination, exploitation, and communication		
Partner	**Website news feed / Newsletter**	**Company / Institution journal**	**Involvement in EU clusters / industrial interest groups / standardization bodies**	**Membership of committees / boards of symposia / conferences / other**	**Link to other relevant network(s) / associations**
CNRS	Yes	n/a	To be specified	SolarPACES (one membership in Executive Committee)	CSP Women
UPVD	Yes	Yes	To be specified	To be specified	International, national and regional networks (consult here)
EDF	Yes	Yes	To be specified	To be specified	To be specified
EPPT	No	No	To be specified	To be specified	To be specified
JCR	Yes	No	To be specified	To be specified	To be specified
B2Z	Yes	No	Long Duration Energy Storage Council, Cleantech for Iberia, Energy Resilience Leadership Group	To be specified	Escuela Tecnica Superior de Ingenieria de Sevilla
POLIMI	Yes	No	To be specified	To be specified	International networks (consult here)
KTH (KTH Energy Platform)	Yes	No	To be specified	To be specified	Yes
CSPB	Yes	No	No	No	Enterprise Europe Network, Competitiveness Cluster DERBI
SEI	Yes	No	To be specified	To be specified	To be defined
KUL	Yes	No	To be specified	To be specified	Institutional international networks (consult here) To further detail

Appendix J. POWDER2POWER log sheet for Dissemination & Communication Activities

	POWDER2POWER Dissemination & Communication Log sheet								
Dissemination or communication channel	Name	Purpose and expected impact	When (and where if relevant)	Target Audience	KPI	Target	Actual	Responsible partner	Link
Events organised by the project									
Participation in external events and conferences									
Participation to events for science popularization									
Communication and dissemination material and activities									
Scientific publications									
Conference proceedings									

Appendix K. Reporting form for Communication Activities

POWDER2POWER Communication Activities Form

This form is designed to collect information about the communication activities planned, ongoing or executed within the POWDER2POWER project.

Communication activities are strategically designed **to promote awareness of the project and its outcomes by efficiently providing targeted information to diverse audiences**, while also facilitating meaningful two-way engagement. These activities are aimed at informing, promoting, and communicating project objectives, progress, and achievements **using clear and accessible language, ensuring comprehension by non-specialists.** Additionally, they underscore the public policy implications of EU research and innovation funding, highlighting its broader societal impact.

Thank you for your contribution.

Fields marked with * are mandatory.

Disclaimer
The European Commission is not responsible for the content of questionnaires created using the EUSurvey service - it remains the sole responsibility of the form creator and manager. The use of EUSurvey service does not imply a recommendation or endorsement, by the European Commission, of the views expressed within them.

* 1. First and Last name:

* 2. Email address:
@

* 3. Affiliated Organization:
- CNRS
- EDF
- JCR
- B2Z
- POLIMI
- KTH
- CSPB
- SEI
- KUL

* 3. Short name of the communication activity (e.g., title of the activity / event / action / other):
Text of 5 to 50 characters will be accepted

0 out of 50 characters used

* 4. How? Please select the specific channel used for the communication activity:
- Organization of a workshop or a networking event
- Participation to a workshop
- Participation to a conference
- Participation to an internet debate
- Participation to a round table
- Participation to a group discussion
- Participation to another event not mentioned above (exhibitions, symposia, webinars, training sessions, etc.)
- Press release
- Newsletter
- Popularized publication (non-scientific and non-peer-reviewed)
- Media publications (news pieces, articles, etc.)
- Poster
- Flyer
- Brochure
- Leaflet
- Banner
- Social media
- Website
- Video
- TV / Radio campaign
- Other

* 5. When? Please indicate the date of the communication activity:
DD/MM/YYYY

Views
Standard Accessibility Mode

Languages
English

Contact
Contact Form (/eusurvey/runner/contactform/P2PCommActivitiesForm)

Download PDF version

Save as Draft

Report abuse (/eusurvey/home/reportAbuse?survey=739071)

* 6. Where? Please indicate the location of the communication activity (City, Country):
Text of 5 to 50 characters will be accepted

0 out of 50 characters used.

* 7. Who? Please indicate the target audience reached by the activity:
Between 1 and 3 selections

- ☐ Industry and business partners
- ☐ Innovators
- ☐ EU institutions
- ☐ National authorities
- ☐ Regional authorities
- ☐ Local authorities
- ☐ Civil society
- ☐ Citizens
- ☐ Research communities
- ☐ Specific end user communities
- ☐ International organization
- ☐ Other
- ☐ Investors

* 8. Expected or Actual Outputs.
Please indicate any specific KPI, such as number of attendees, number of engagement actions (stakeholders contacts, expressions of interest, follow-up actions), number of publications, readers, views, downloads, social media metrics (views, reactions, sharing, comments, retweets, etc.) and other.
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 9. Why? Please describe the communication action with reference to POWDER2POWER objectives and impact.
Consider the following topics :

- Specific information communicated;
- Contribution to POWDER2POWER objectives;
- Broader societal impact;
- Communication strategies, methods and tools employed;
- Audience feedback on the communication activity and general perception of the POWDER2POWER project;
- Specific challenges encountered before / during / after the communication activity.

Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 10. Other POWDER2POWER project partners involved in the communication activity:

- ☐ CNRS
- ☐ EDF
- ☐ EPPT
- ☐ JCR
- ☐ B2Z
- ☐ POLIMI
- ☐ KTH
- ☐ CSPB
- ☐ SEI
- ☐ KUL

* 11. Materials. Please upload any files related to the communication activity (e.g., videos, photos, presentations, generated communication supports, other), if applicable.

Select file(s) to upload

* 12. If applicable, please provide any additional information (e.g., weblink to the videos, presentation files, announcements, other), comments and remarks.
Text of 5 to 50 characters will be accepted

0 out of 50 characters used.

* 13. Status of the communication activity. Please select one of the following options:

- ○ Delivered
- ○ Ongoing
- ○ Cancelled
- ○ Postponed

Submit

Appendix L. Reporting form for Dissemination Activities

POWDER2POWER Dissemination Activities Form

This form is designed to collect information about dissemination activities of the POWDER2POWER project.

Dissemination activities involves sharing research findings widely with diverse audiences, including the scientific community, industry stakeholders, policymakers, and other relevant players. Its goal is to underscore the broader societal impact of science, secure support for future research and innovation funding, promote uptake within the scientific community, and foster opportunities for new products or services.

Thank you for your contribution.

Fields marked with * are mandatory.

Disclaimer
The European Commission is not responsible for the content of questionnaires created using the EUSurvey service - it remains the sole responsibility of the form creator and manager. The use of EUSurvey service does not imply a recommendation or endorsement, by the European Commission, of the views expressed within them.

* 1. First and Last name:

* 2. Email address:
@

* 3. Affiliated Organization:
- CNRS
- EDF
- EPPT
- JCR
- B2Z
- POLIMI
- KTH
- CSPB
- SEI
- KUL

* 4. Short name of the dissemination activity (e.g., title of the activity / event / slogan / other):
Text of 5 to 50 characters will be accepted

0 out of 50 characters used.

* 5. What? Please select the type of the dissemination activity from the following options:
- Clustering activities
- Collaboration with EU-funded projects
- Conferences
- Education and training events
- Meetings
- Other scientific collaborations
- Other

* 6. When? Please indicate the date of the dissemination activity:
DD/MM/YYYY
This field is required.

* 7. Where? Please indicate the location of the dissemination activity (City, Country):
Text of 5 to 50 characters will be accepted

0 out of 50 characters used.

8. Who? Please indicate the target audience reached by the activity:
Between 1 and 3 selections
- Industry and business partners
- Innovators
- EU institutions
- National authorities
- Regional authorities
- Local authorities
- Civil society
- Citizens
- Research communities
- Specific end user communities

Views
Standard Accessibility Mode

Languages
English

Contact
Contact Form (/eusurvey/runner/contactform/P2PDissActivitiesForm)

Download PDF version

Save as Draft

Report abuse (/eusurvey/home/reportAbuse?survey=739069)

- ☐ International organization
- ☐ Other
- ☐ Investors

(/eusurvey/home/welcome/runner)

9. Estimated audience reach. Please provide an **estimated** number of persons reached per type of audiences, wherever applicable:

	Number of persons
* Industry and business partners	
* Innovators	
* EU institutions	
* National authorities	
* Regional authorities	
* Local authorities	
* Civil society	
* Citizens	
* Research communities	
* Specific end user communities	
* International organization	
* Other	
* Investors	

* 10. Why? Please provide a detailed description of the dissemination activity with reference to a specific POWDER2POWER project output.

Consider the following topics :

- Specific information disseminated;
- Contribution to POWDER2POWER objectives;
- Broader societal impact achieved;
- Specific dissemination strategies, methods, and tools employed;
- Audience feedback on the dissemination activity and general perception of the POWDER2POWER project;
- Specific challenges encountered before / during / after the dissemination activity.

Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 11. Other POWDER2POWER project partners involved in the dissemination activity:

- ☐ CNRS
- ☐ EDF
- ☐ EPPT
- ☐ JCR
- ☐ B2Z
- ☐ POLIMI
- ☐ KTH
- ☐ CSPB
- ☐ SEI
- ☐ KUL

* 12. Materials. Please upload any files related to the dissemination activity (e.g., videos, photos, presentations, generated supports, other), if applicable.

Select file(s) to upload

* 13. If applicable, please provide any additional information (e.g., weblink to the videos, presentation files, announcements, other), comments and remarks.

Text of 5 to 50 characters will be accepted

0 out of 50 characters used.

* 14. Status of the dissemination activity. Please select one of the following options:

- ○ Delivered
- ○ Ongoing
- ○ Cancelled
- ○ Postponed

Submit

Appendix M. Reporting form for Publications

POWDER2POWER Publications Form

This form is intended to gather information about publications produced within the POWDER2POWER project.

Please provide details only for publications that acknowledge the POWDER2POWER project.

Thank you for your contribution.

Fields marked with * are mandatory.

Disclaimer
The European Commission is not responsible for the content of questionnaires created using the EUSurvey service - it remains the sole responsibility of the form creator and manager. The use of EUSurvey service does not imply a recommendation or endorsement, by the European Commission, of the views expressed within them.

* 1. First and Last name:

* 2. Email address:
@

* 3. Affiliated Organization:
- CNRS
- EDF
- EPPT
- JCR
- B2Z
- POLIMI
- KTH
- CSPB
- SEI
- KUL

* 4. Type of PID (Persistent Identifier) of the publication in Open Access repository:
- DOI
- Handle
- ARK
- URI
- pURL
- None
- Other

* 5. PID of the publisher version. Please indicate the PID of the publisher version of the publication:
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 6. PID of deposited publication:
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 7. Type of publication. Please select one of the following options:
- Article in journal
- Publication in conference proceedings / workshop
- Books / monographs
- Chapters in books
- Thesis / dissertation
- Other

* 8. Link to publication
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 9. Title of the scientific publication.
For book chapter, please provide the title of the chapter, not the title of the book.
Text of 5 to 200 characters will be accepted

Views
Standard Accessibility Mode

Languages
English

Contact
Contact Form (/eusurvey/runner/contactform/P2PPublicationsForm)

Download PDF version

Save as Draft

Report abuse (/eusurvey/home/reportAbuse?survey=739068)

0 out of 200 characters used.

* 10. Authors
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 11. Title of the Journal or equivalent:
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 12. Number of the issue or volume:
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 13. ISSN or eISSN:
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 14. Publisher:
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 15. Month of publication:
- ○ January
- ○ February
- ○ March
- ○ April
- ○ May
- ○ June
- ○ July
- ○ August
- ○ September
- ○ October
- ○ November
- ○ December

* 16. Year of publication
Text of 5 to 20 characters will be accepted

0 out of 20 characters used.

* 17. Was the publication available in Open Access through the repository at the time of publication?
- ○ Yes
- ○ No

* 18. Is the publication peer-reviewed?
- ○ Yes
- ○ No

* 19. PID of Book, if applicable. Otherwise, indicate "n/a".
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 20. Book title, if applicable. Otherwise, indicate "n/a".
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 21. Did you charge Open Access publishing fees to the project?

- ○ Yes
- ○ No

* 22. Article processing costs that will be charged to the POWDER2POWER project.
Please indicate the costs (EUR) if applicable. Otherwise, indicate "n/a".
Text of 5 to 200 characters will be accepted

0 out of 200 characters used.

* 23. Corresponding / relevant WP (multiple choices are possible):

- ☐ WP1
- ☐ WP2
- ☐ WP3
- ☐ WP4
- ☐ WP5
- ☐ WP6

* 24. Other POWDER2POWER project partners involved in the publication (multiple choices are possible):

- ☐ CNRS
- ☐ EDF
- ☐ EPPT
- ☐ JCR
- ☐ B2Z
- ☐ POLIMI
- ☐ KTH
- ☐ CSPB
- ☐ SEI
- ☐ KUL

* 25. Status of the publication:

- ○ In review
- ○ Accepted
- ○ Published
- ○ Other

Submit

Appendix N. Planning of the project Exploitation activities

| POWDER2POWER Exploitation planning | | | 1st Reporting Period | | | | | | | | | | | | | | | 2nd Reporting Period | | | | | | | | | | | | | | |