GA No. 101250924

Understanding existing PFAS emissions in water electrolysers and fuel cell systems through quantitative measurement techniques

D6.1 – CDE plan

Deliverable overview		
Deliverable no	D6.1	
Related WP	WP6	
Deliverable title	CDE plan	
Deliverable date	dd-mmmm-yyyy	
Deliverable type	REPORT	
Dissemination level	public (PU)	
Author(s)	Florian Cerpentier (UNR)	15-July 2026
Checked by	Maaike van der Kamp (UNR)	23-July-2026
Reviewed by	Carla Ochoa (FHa) Servais Ouenou Gamo 2 (FEV)	07-August 2026
Approved by	Sylvie Escribano (CEA)	25-August 2026

Document history

Version	Date	Editing/Changes done by	Remarks
V1.0	15-July-2026	Florian Cerpentier (UNR)	First draft
V2.0	24-July-2026	Florian Cerpentier (UNR)	Second draft after first internal review
V3.0	11-August 2026	Florian Cerpentier	Updated draft after corrections reviewers
V4.0	26-August	Florian Cerpentier	Final draft after corrections project coordinator
FINAL			

Project summary

PFAS-contained materials have unique physical and chemical properties providing wide range of usages. At the same time, in the unique features of PFAS also lies the concern for the environment, i.e., the high persistence of PFAS (or their degradation products) leading to accumulation in nature and the linked impact on human and environmental health from this accumulation.

The UPeM project main target is to establish harmonised protocols for sampling and analysis of PFAS in different in- and out-streams (liquid, gas, aerosol) from PEMFC and PEMWE and for the quantitative validation of PFAS release in FC and WE operation, while also improving the understanding of the root cause(s) of the PFAS release. This will enable UPeM to provide recommendations for proper usage, mitigation strategies including filtering and operational/control strategies as well as on the type of membranes with lower (expected) PFAS release.

To achieve this project main target, four project elements (PE) have been defined, where information on the current state of the art and challenges in line with the project focus are introduced, with per project element also scientific and technical objectives and targeted results. PE1 sets up harmonised protocols for sampling and analysis of PFAS released from PEMFC and PEMWE systems and for studying PFAS release causes. PE2 focusses on understanding the PFAS release root causes. PE3 will validate PFAS measurement protocols under industrial conditions and use cases and PE4 will provide UPeM recommendations on PFAS release for (future) WE and FC systems (incl. LCA).

To achieve the PE's, the UPeM consortium comprises of Europe's leading research experts in modelling, analysis and testing procedures on PFAS (CU, UFZ, IMWS, CEA, FHA, KE, KIST), in here supported by three stack manufacturers (ITM, SYM, IE) and one of Europe's leading service providers on electrolyser and fuel cell technology (FEV) connecting both parts of the value chain.

Executive summary deliverable

This deliverable describes the preliminary communication, dissemination and exploitation plan for the UPeM project. This includes the terminology (chapter 2), CD strategy (chapter 3), the communication and dissemination plans and achievements (chapter 4) and the preliminary exploitation plan (chapter 5).

Chapter 2 describes the terminology and defines what is meant with communication, dissemination and exploitation in the project. For the project, the following definitions are used:

Communication is defined as sharing information with interested or relevant parties through any of the project's communication channels or tools.
Dissemination is defined as sharing project results with potential users including academic users, industry users and policy makers, aiming to maximise the project's impact.
Exploitation is defined as partners utilising or making available project results for (non)-commercial purposes. This could include the creation of new IP; leasing, licensing or selling new technology or know-how; or using the results in further research or innovation activities.

Chapter 3 describes the communication and dissemination (CD) strategy. This chapter starts by describing the goals, target groups and channels of the CD strategy (§3.1). Next, the CD KPIs for the project are summarised (§3.2), and the CD responsibilities of the Communication and Dissemination manager UNR and the project partners are described (§3.3). Finally, this chapter introduces the CD monitoring process and the CD tracker (§3.4) and how a database of CD contacts will be developed (§3.5).

Chapter 4 describes the communication and dissemination plan and achievements. The chapter starts with a detailed C&D timeline (§4.1) and an overview of the C&D achievements (§4.2). This overview will be actively updated during the project. Next, the project identity and C&D tools are presented such as the project colours, logo, template, website and LinkedIn presence (§4.3). Finally, an overview is given of project C&D outputs including project publications (§4.4), seminars/webinars (§4.5), other project events (§4.6) and clustering activities with other CHJU projects (§4.7).

Chapter 5 describes the preliminary exploitation plan. This includes an overview of preliminary key exploitable results based on the DoA with a route to exploitation. This chapter also provides a first overview of the IPR management, which will be further extended in D6.2 – Exploitation plan.

Contents

1 Introduction 7
2 Terminology 8
3 CD strategy 9
4 Communication & dissemination plans and achievements 13
5 Preliminary exploitation plan 18
Contribution to the project (linked) objectives 21
6 Risks and interconnections 22
7 Acknowledgements 23

Abbreviations

Abbreviation	Meaning
AB	Advisory Board
B2B	Business to Business
CD(E)	Communication, Dissemination (and Exploitation)
CHJU	Clean Hydrogen Joint Undertaking
C&D	Communication and Dissemination
DoA	Description of Action
FC	Fuel Cell
GA	Grant Agreement
GDPR	General Data Protection Regulation
IP(R)	Intellectual Property (Rights)
JRC	Joint Research Centre
KER	Key Exploitable Results
KPI	Key Performance Indicator
LCA	Life Cycle Analysis
PE	Project Elements
PEMFC	Proton Exchange Membrane Fuel Cell
PEMWE	Proton Exchange Membrane Water Electrolyser
PFAS	Per- and polyfluoroalkyl Substances
RIA	Research and Innovation Action
RTO	Research and Technology Organisations
SME	Small and Medium-sized Enterprises
SOP	Standard Operating Procedure
UNI	University
WE	Water Electrolysis
WP	Work Package

1 Introduction

D6.1 – CDE plan describes the initial communication, dissemination and exploitation strategies for the UPeM project. This plan, a living document, is set up as an overview of the planned as well as performed CDE activities for the project together with monitoring the UPeM CDE KPIs, target audiences, CDE tools and procedures for CDE activities within the project. This document will be continuously updated and resubmitted as D6.3 – Updated CDE plan in M24.

This CDE plan will provide the CD strategy that the project will follow to maximise project outreach and impact. For this, it defines the CDE goals, target audiences and communication channels (§3.1) and the C&D KPIs (§3.2). To ensure the quality of the C&D efforts, this deliverable also describes the responsibilities of the project partners (§3.3). As the project's Communication and Dissemination manager, UNR will be responsible of monitoring the C&D activities. To aid partners in performing their C&D activities, this deliverable provides an overview of the available communication tools such as the project colours, logo and templates, as well as channels available to partners for communication and dissemination activities such as the project website, LinkedIn or the project newsletter. This document, together with the communication and dissemination tracker, will also monitor communication and dissemination activities for later reporting to the EC portal.

Finally, this deliverable includes a preliminary exploitation plan based on the Key Exploitable Results (KERs) defined in the Grant Agreement (§5.1) and IPR management (§5.2).

This deliverable has been drafted in line with the Grant Agreement (in particular the Description of Action, DoA) and the Consortium Agreement. It is connected to D1.1 – Project Management Plan, D1.2 – Data Management Plan, D6.2 – Exploitation plan and D6.3 – Updated CDE plan.

2 Terminology

Within the report and within the UPeM project, CDE is defined as[1]:

Communication

Inform, promote and communicate activities and results for citizens, stakeholders and the media through one of the various channels or tools such as the project website or LinkedIn page, the newsletter, or the project flyer. The UPeM consortium can utilise these communication channels and tools to provide information to a broad range of audiences, aiming to engage with stakeholders, attract the best experts, raise awareness of how public money is spent, and show the success of European collaboration.

Dissemination

Make knowledge and results publicly available free-of-charge for those who can learn and benefit from the results such as academics and research institutes in the related fields, industry users, and policymakers. Dissemination of the project results has the aim to maximise the project's impact, for example by providing new insights for the scientific field, allow other researchers to go a step forward, contribute to the advancement of world class knowledge, and make scientific results a common good, mostly thanks to scientific publications or conferences

Exploitation

Make concrete use of results for commercial, societal and political purposes for those who can take the results forward or invest in them, such as researchers, stakeholders, industry (also SMEs), public authorities, policymakers, and civil society. Examples include creating roadmaps, prototypes, software, and sharing knowledge, skills, and data.

[1] European Commission: European Research Executive Agency, Communication, dissemination & exploitation what is the difference and why they all matter, Publications Office of the European Union, 2023, https://data.europa.eu/doi/10.2848/289075

3 CD strategy

This chapter describes the overall CD strategy of the project. This includes the CD goals, target groups and channels, CD KPIs, CD responsibilities, and CD monitoring approach that will be in place to track CD activities over the project duration for the various partners. This chapter also describes how a database of CD contacts will be kept.

3.1 Goals, target groups and channels

This section describes the overall goals that are set for project communication and dissemination activities, as well as the target audiences for the project and the different approaches to best reach them. Finally, this section will give an overview of the various CD channels that the project will use for the CD activities.

3.1.1 UPEM CD goals

The UPeM CD approach has various goals:

- to inform and connect with external stakeholders and interested third parties
- to receive feedback on the project
- to maximise project impact by providing new insights, contribute to public knowledge and providing open access to project results
- raise awareness of how public money is spent and
- show the success of European collaboration.

3.1.2 Target groups and channels used per target group

The project's CD strategy focusses on three target groups: policy and industrial stakeholders; scientific stakeholders; and the general public. As these audiences have different interests, the CD strategy provides approaches to reach, inform and connect with these audiences.

Policy and industrial stakeholders

The UPeM project aims to reach policy and industrial stakeholders that are (broadly) connected to the field of PEMFC and PEMWE. These stakeholders include producers, suppliers and users of these PEMFC and PEMWE systems, and the broader supply chains involved in manufacturing these systems (in particular for the materials suspected of PFAS emissions). Further stakeholders include policy makers on (inter)national level with interest in PFAS emissions in both aqueous and gaseous streams. Envisioned approaches to reach these stakeholders are conferences, tradeshows and business-to-business events.

In addition to informing these stakeholders, the project will also include various stakeholders from this audience in the project Advisory Board (AB). As part of the AB, these stakeholders will be informed about and involved in the UPeM project through dedicated AB workshops. During these workshops, relevant project themes will be discussed and additional information in the form of deliverables or other project materials will be provided to gather feedback and input from the stakeholders on project results and challenges. The constitution of the AB and rules regarding the formation of the AB can be found in D1.1 – Project Management Plan.

Scientific stakeholders

As a Research and Innovation Action (RIA) project, it is very important for the project to inform and connect with scientific stakeholders. Scientific stakeholders are important to provide feedback to the project findings and to validate project results and will be future users of the developed methodologies and standards during the study and development of next generation PEMFC and PEMWE systems. UPeM aims to inform scientific stakeholders such as researchers working in the fields of PFAS quantification, PEMFC and PEMWE design and PFAS emission mitigations about project results and contribute to these scientific fields. For this purpose, partners will participate in scientific conferences, workshops, seminars and webinars, and will publish scientific papers that are openly accessible to the scientific community.

Informing the general public

The actuality of PFAS in the general opinion makes informing the public an important aspect of the UPeM CD strategy. Hence UPeM also aims to increase end-consumer knowledge about potential risks of PFAS emissions from PEMFC and PEMWE applications, by providing clearly evidenced understandable insights. UPeM will reach this audience through customised CD outputs that can also be understood by non-experts in the field. To inform the public, UPeM will use various easily accessible channels like the project website and LinkedIn page, social media outlets of the project partners and the project newsletter.

3.2 KPIs

An overview of project CD target groups, CD measures and KPIs can be found in Table 3-1.

Table 3-1 Overview of UPeM CD measures, target groups, responsibilities and KPIs

Target group	CD measures/actions	Responsible	Timescale	KPIs
Policy and industrial stakeholders	Conferences, tradeshows, B2B events, Advisory Board workshops Purpose: Provide information and useful project results for policy and industrial stakeholders, promote KERs of the project	Industrial partners, C&D manager and project coordinator (for monitoring)	M6-M30	At least 5 activities per year
Scientific stakeholders	Conferences, workshops, seminars/webinars, publications Purpose: Share project results with technical experts	All research partners	M12-M30	Conferences: participate in >6 scientific conferences Publications: 3-5 scientific publications Workshops: 1 dedicated scientific workshop Seminars/webinars: 1 dedicated webinar on a scientific project aspect

General public	Project website, project LinkedIn, social media partners Purpose: Communicate up-to-date information about the project	C&D manager (UNR): with help from all partners	M3-M30	Website: >10,000 hits during the project; social media: >3 updates/month through partners Seminars/webinars: 1 dedicated webinar presenting the project to a non-expert audience
All stakeholders	Project website, project LinkedIn, partners' social media channels, Newsletters Purpose: Update stakeholders on latest developments/results of project	C&D manager (UNR), with help from all partners	M1-M30	Website: >10,000 hits during the project; social media: >3 updates/month through partners Newsletters: 5 to 6 shared during the project

3.3 Responsibilities

Project partner UNR, as WP leader of work package 6 – Communication, dissemination and (preliminary) exploitation activities, will act as Communication and Dissemination manager and will be responsible of keeping overview of the CD activities and CD monitoring. However, this does not mean that UNR is responsible for all CD activities, and all partners are expected to contribute to CD activities by providing and sharing project related content, participating in relevant events in the research field (conferences, trade shows, etc) and providing input for the CD monitoring. The key responsibilities of the Communication and Dissemination Manager include:

- Tracking the project CD activities through active monitoring and reporting on these activities during Executive Board and General Assembly meetings
- Hosting the project website and LinkedIn page and keeping these up to date
- Providing project templates to the project partners
- Creating and sharing C&D tools to the project partners
- Drafting the project newsletter

All project partners have the responsibility to contribute to project CD activities to maximise project outreach. Responsibilities for all project partners include:

- Disseminating the project results through their own channels, via publications and at relevant events
- Providing input and/or feedback for CD activities when requested by the C&D manager or another partner
- Actively participating in project events like workshops, webinars/seminars and the final event
- Informing the C&D manager UNR of results or outputs that can be used for the projects CD activities like newsletters
- Providing updates on CD activities and contributing to the CD monitoring when requested by the C&D manager UNR or the project coordinator

- Ensuring that the rules for dissemination and communication as described in D1.1, sections 6.2 and 6.3, D1.2 and the CA, are followed

3.4 CD monitoring

As WP6 leader, UNR will lead the CD monitoring. A dedicated CD tracker (available on the UPeM Sharepoint) has been made, where CD activities such as presentations, conference attendance, publications or other CDE activities will be tracked by UNR. The tracker has been set up in line with the template requested for EC official reporting. UNR will regularly contact all consortium partners to ask for updates on the CD tracker (e.g. in GAs, via internal reporting) and where needed indicate that more or other CD activities are required from the consortium or specific partners to reach the KPIs.

3.5 Database of CD contacts

A CD database will be created to maximise the project outreach and audience. Any data collected and stored will be handled following current privacy regulations and will be compliant to GDPR standards. The data will be stored in a closed section of the project storage with no public access and no third-party access to or use of the data. Registrations will be collected via the following channels:

- Direct registration via the project website
- Registration for the project newsletter
- Via direct permission and contact with project partners
- Via participation at project events

Permission will be asked from all contacts before any data is collected or stored. The following data will be stored in the database for project use only:

- Full name
- Email address
- Name of organisation
- Country

4 Communication & dissemination plans and achievements

Based on the strategy, a communication & dissemination plan has been developed that will be described in this chapter. The CD plan includes the detailed timing of all CD activities during the project, an overview of the dissemination achievements up to now, a description of all tools that have been and will be developed, and more details on all CD activities planned (publications, events, etc.).

4.1 Detailed timing of communication and dissemination activities

The current CD timeline is presented in Table 4-1. This timeline includes the planned recurring CD activities such as the coffee break interviews and newsletters, as well as the preliminary planning for non-recurring events such as conference attendances and publications. These CD activities are described in detail in §4.3–§4.6.

Table 4-1. Current CD planning for the project. This planning will be actively monitored and updated during the project.

C&D activity	Year 1 (M1-M12)	Year 2 (M13-M24)	Year 3 (M25-M30)
Events	• Kick-off meeting (M2) • 1-2 conference attendances • Participation in 1-2 industry related events (tradeshows, B2B events, etc)	• Exploitation workshop (M19) • AB Workshop • Technical workshop • 1-2 conference attendances • Participation in 1-2 industry related events (tradeshows, B2B events, etc)	• AB Workshop • 1-2 conference attendances • Final event (M30) • Participation in 1-2 industry related events (tradeshows, B2B events, etc)
Webinars/ Seminars		• Webinar for a scientific audience	• Webinar for a general audience
Website and social media	• Project website & LinkedIn online (M6) • 3 coffee break interviews • ≥6 LinkedIn posts • Regular posts on project results and events	• 6 coffee break interviews • ≥6 LinkedIn posts • Regular posts on project results and events	• 4 coffee break interviews • ≥6 LinkedIn posts • Regular posts on project results and events
Offline channels	• Project Flyer (M6) • Project infographic (M8)		
Newsletters	Newsletter 1&2	Newsletter 3&4	Newsletter 5
Publications		1-3 project publications	1-2 project publications

4.2 Dissemination achievements up to now

In the table below, the dissemination achievements up to the submission of this deliverable are shown.

Table 4-2 Overview of communication and dissemination achievements

Date	Dissemination activity name	Type of dissemination	Type of audience	Countries addressed	Estimation of audience size	Partner responsible	Status
April 2026 (M2)	Logo & project colours	C&D tools	Project partners	N/A	N/A	UNR	Completed
May 2026 (M3)	Templates	C&D tools	Project partners	N/A	N/A	UNR	Completed
July 2026 (M5)	Project website	C&D tools	Policy and industrial stakeholders, scientific stakeholders, general public	Worldwide	Up to 10.000 hits by the end of the project	UNR	Completed

4.3 Project identity and CD tools

The project identity consists of a combination of visual factors including project colours, project logo and icon, the project website, project templates and other CDE tools such as a flyer, newsletter and infographic.

4.3.1 Project colours

The UPeM project has two main project colours which are also part of the project logo (§5.1.2): purple (#76004D) and orange (#DAAE4A). These colours are used in the project logo, website, and the various project templates.

4.3.2 Logo

The WP6 leader and responsible partner for the DCE activities UNR has hired an external graphical designer with long-standing experience in the design of project logos. Based on indicated preferences for project colours and a short introduction to the project, the designer created and presented three options for the project logo. The three options were presented to the consortium during the first General Assembly meeting after which a consortium wide vote was conducted to decide on the project logo. The consortium selected the logo in Figure 4-1.



Figure 4-1. The UPeM project logo.

4.3.3 Templates

Project templates have been developed to match the general style and feel of the project identity. These templates are based on the project colours to match with the logo. UNR has made these templates available to all partners via the project SharePoint. Partners are required to use the project templates for project dissemination and communication activities. The following templates have been created:

- Project presentation (.ppt)
- Deliverable (.docx)
- Periodic report (.docx)
- Internal report (.docx)
- Newsletter (.docx)
- Meeting agenda (.docx)
- Meeting minutes (.docx)

4.3.4 Website

The project website (https://upemproject.eu) is the main communication channel of the project and acts as the first point of contact for stakeholders or other interested third parties. It contains all essential project information as well as project updates, results and DCE activities. The project website contains the following information:

- General project introduction and project concept
- Project objectives and goals
- Project approach
- Project key figures
- Overview of project partners with a short partner bio and contact details
- Links to project events and news
- Project publications
- Project public deliverables or public summaries of sensitive deliverables
- Project media such as the logo, newsletter and flyer

The project website has been set up and is managed by UNR, and will be regularly updated with project news items, results and public deliverables/public summaries of deliverables and project related publications. As required by Article 17.2 of the Grant Agreement, the European flag and funding statement (co-funded by the European Union) as well as the CHJU logo are included in the footer of the website. As required by Article 17.3 of the Grant Agreement the quality of information disclaimer is also added to the footer of the website.

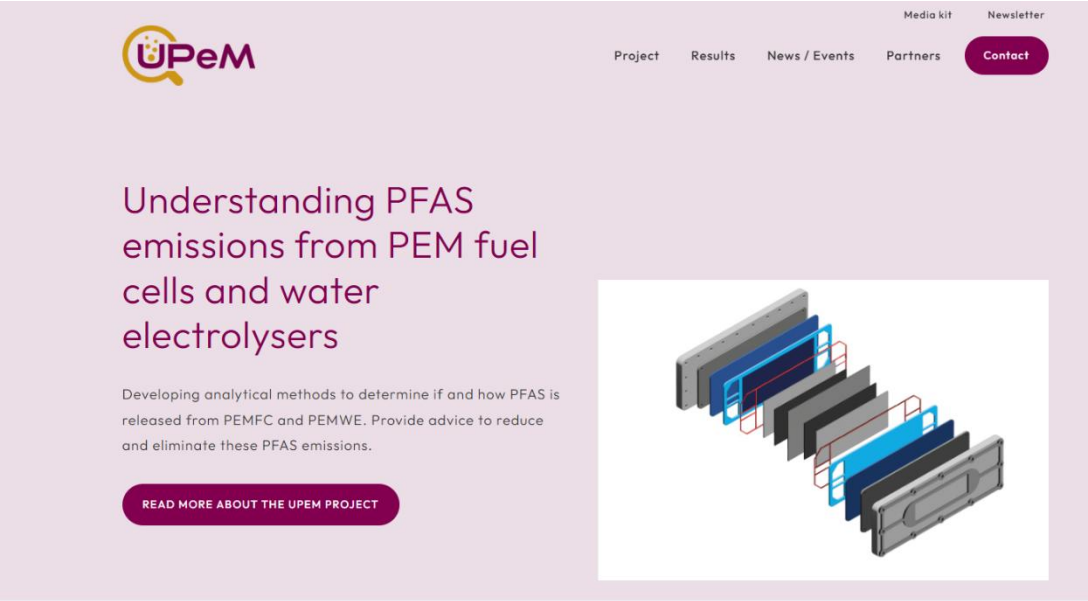


Figure 4-2. Screenshot of the project page on the UPeM website.

4.3.5 Social media (LinkedIn)

The project has developed a social media presence through the creation of a project page on LinkedIn. Regular updates on project news, results and events will also be shared via the LinkedIn page to extend project outreach. The CDE manager UNR will host and manage the project LinkedIn page.

4.3.6 Project flyer

To provide a general introduction to the project a project flyer will be created by M8 which contains general project information such as the project objectives, results and key figures and serve to inform interested parties about the project.

4.3.7 Project newsletter

Twice per year (with the first newsletter scheduled for M7 of the project), a project newsletter is drafted with an update on project progress, results, events and publications. The project newsletter will be made available via the project website where interested parties can also sign up to receive the newsletter via email. UNR will draft and circulate the newsletter. All other partners will be asked to provide input, for example in the form of a short introductory interview of a project researcher or an update on a presentation or event that a partner attended.

4.3.8 Infographics

A one-page infographic will be developed by M8 to show the project goals, objectives, key results and key figures in an easily accessible form. The infographic will be accessible via the project website.

4.4 Scientific and technical publications

To increase the impact of the project results and to promote debate to accelerate the implementation of these results, presentations will be given at international conferences and exhibitions and publications will be written. Envisaged actions are:

- Presentations of the project/project results at multiple conferences
- presentations at events by the EC, national governments and other stakeholders
- 3-5 peer reviewed publications

All partners contribute to and initiate these activities, when appropriate.

The tables below provide the first list of possible conferences and journals. These will be further extended during the project timeframe.

Table 4-3 First schedule of conferences and exhibitions where UPeM results can be presented

Conferences/ Exhibitions	Year/date	Partner responsible/ involved	Comment/Content
Hydrogen Technology Expo Europe			
European Hydrogen Week			
ICH2P-2027			
International Conference on Hydrogen Production			
International Conference on Chemistry and the Environment			

Table 4-4 First list of journals for publication of UPeM results

Journal	Year/date	Partner responsible/ involved	Comment/Content
Journal of Power Sources			
Journal of the Electrochemical Society			

Applied Energy			
Electrochimica Acta			
Science of the Total Environment			
International Journal of Energy Research			
Analytical and Bioanalytical Chemistry			
Environmental Science & Technology			
Journal of Hazardous Materials			
Water Research			

4.5 Seminars/webinars

The UPeM project aims to organise seminars/webinars to share project findings and maximise project impact. Over the course of the project, two webinars are planned: The first webinar, preliminary scheduled for year 2 of the project, will focus on a scientific audience and will discuss a technical topic related to the project. The second webinar, preliminary scheduled for year 3 of the project, will focus on the general public and will provide a non-expert overview of the project objectives and results.

4.6 UPeM events

Currently, five project events are scheduled:

- An exploitation workshop which is preliminary scheduled during the 4th General Assembly at Symbio (M19)
- A technical workshop on a scientific topic related to the project, (date TBD)
- Two Advisory Board Workshops taking place during year 2 (exact date TBD) and year 3 (exact date TBD)
- The final event (M30)

4.7 Clustering and interaction with other CHJU WE/FC projects

As described in the DoA, the UPeM project will seek to share project results within the relevant WE/FC network including through the CHJU. Towards this purpose, collaboration will be sought by inviting relevant projects to the webinars and the technical workshop. The project will also endeavour to co-organise a workshop with a project from the call 2024-D2-02-03. The project will utilise their connections in the Hydrogen Europe network to establish contact with relevant projects.

5 Preliminary exploitation plan

To ensure that the UPeM partners follow the right exploitation path, the project partners will utilise the exploitation plan as described below, allowing to analyse each exploitable result. This procedure is:

1. All Key Exploitable Results (KER´s) will be identified. The currently identified KERs are listed in Table 5-1. As part of the GA-meeting in M19, a workshop will be organised by Exploitation and Innovation Lead FEV to update and upgrade the list of KERs (check of completeness and validity). In this workshop, the partners will contribute to the KER overview to achieve a target-oriented exploitation of the project outcomes. In this workshop a lead partner will be assigned to every identified KER. Furthermore, the involved partners per KER will be determined. The results of this workshop and details on the KERs will be included in D6.2 – Exploitation plan
2. During the project, the dedicated lead partner per KER will then be responsible to complete the document per KER, supported by the involved partners. This template is prepared by FEV and includes the following elements:
   a. KER title
   b. KER description (1/2 to 1 page)
   c. Technical results (1 to 2 pages, including figures)
   d. Exploitation per partner (2 to 3 pages)
   e. Background/Foreground knowledge analysis
   f. Exploitation risk analysis (including risk and mitigation strategies)
   g. Joint-ownership management
   h. Intellectual Property management
   i. General conclusion
3. FEV collects these documents and comprises them in one report, the exploitation plan. This document will also include the information gathered by the partners on organisations outside the consortium that could be interested in exploiting the results.
4. The exploitation plan will be updated each 6 months by FEV based on input from the lead partners.
5. In the AB meeting at M19 the exploitation status based on this report will be discussed. The outcome will be part of D6.2- Updated CDE plan.

Table 5-1. Overview of the UPeM KERs, IPR strategy, target group and route to exploitation as set out in the DoA.

KERs	IPR strategy	Target group	Route to exploitation
Developed methodology for PFAS analysis in aqueous streams and their SOPs	Publishing and sharing results openly	Analytical (chemistry) groups at UNI/RTOs and R&D groups of industrial parties	Providing training to other analytical facilities. Offer the methodology or consultancy as a service to industrial parties directly after UPeM
Developed methodology for PFAS analysis in aerosols and gases and their SOPs	Sharing results openly	Analytical (chemistry) groups at UNI/RTOs and R&D groups of industrial parties	Providing training to other analytical facilities. Offer the methodology or consultancy as a service to industrial parties directly after UPeM
Methodology for microscopic analysis of PEMWE/PEMFC membranes	Sharing results openly	Analytical (chemistry) groups at UNI/RTOs and R&D groups of industrial parties	Exploitation will occur via scientific publications as a way to acquire requests for consulting services to industrial PEMWE/PEMFC

			manufacturers (i.e. to aid in PFAS release reductions amongst the whole sector)
Understanding PFAS release from PEMWE & PEMFC from in- and out-streams coupled to membrane analysis	Sharing results openly	(PFAS and PFAS-free) material suppliers and WE/FC OEMs	Exploitation will occur via scientific publications as a way to acquire requests for consulting services to industrial PEMWE/PEMFC manufacturers (i.e. to aid in PFAS release reductions amongst the whole sector)
Simulation model for PEMFC/PEMWE degradation	Sharing results of simulation openly	PEMFC/PEMWE developers and end users	Further model improvements with industrial FC/WE data
Optimising PFAS mitigation strategies, ensuring compliance with environmental regulations, and separation technologies	Patent filing/licensing	PEMFC/PEMWE developers, industrial manufacturers of filtration and separation equipment	Providing consultancy and technology deployment services for PFAS mitigation in industrial PEMFC and PEMWE systems, supporting compliance with emerging environmental regulations
Improved PEMWE system operation strategies and material usage	Patent filing/licensing	PEMWE end users	Commercialisation by approx. 1-2 years after the project based on internal strategies to adopt the operation, controls, etc.
Recommendations and policy briefs	Sharing openly with all	Policy makers, general public	e.g. Policy makers to adapt the policies on PFAS to allow usage of PFAS in FC/WE under constraints

More details on the exploitation plan will be included in D6.2 – Exploitation plan, this deliverable will also include the IPR strategy.

Contribution to the project (linked) objectives

D6.1 contributes to the achievement of *Project element 4 – Provide UPeM recommendations on PFAS release for (future) WE and FC systems (inc. LCA)* by providing the required tools and channels for communication and dissemination of project results. In particular, the specific objective to *conduct targeted workshops throughout UPeM to build outreach towards policymakers, industry experts, researchers, and members of the AB to promote discussions and accelerate knowledge transfer on PFAS emissions regulation* is supported. A list of UPeM events including targeted workshops contributing to this goal can be found in §4.6. This list will be actively updated with new activities and details on planned activities.

6 Risks and interconnections

6.1 Risks/problems encountered

No risks were identified during the drafting of this deliverable.

6.2 Influence of newly identified risks on other deliverables

No risks were identified during the drafting of this deliverable.

7 Acknowledgements

Project partners

#	Partner short name	Partner full name
1	CEA	COMMISSARIAT A L'ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES
2	CU	COVENTRY UNIVERSITY
3	UFZ	HELMHOLTZ-ZENTRUM FUR UMWELTFORSCHUNG GMBH - UFZ
4	Fraunhofer	FRAUNHOFER GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG EV
5	FHA	FUNDACION PARA EL DESARROLLO DE LAS NUEVAS TECNOLOGIAS DEL HIDROGENO EN ARAGON
6	FEV	FEV FRANCE
7	KE	KIST EUROPE KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY EUROPE FORSCHUNGSGESELLSCHAFT MBH
8	SYMBIO	SYMBIO FRANCE
9	ITM UK	ITM POWER UK LIMITED
10	UNR	UNIRESEARCH BV
11	IE	INTELLIGENT ENERGY LIMITED

Disclaimer

Copyright ©, all rights reserved. This document or any part thereof may not be made public or disclosed, copied or otherwise reproduced or used in any form or by any means, without prior permission in writing from the UPeM Consortium. Neither the UPeM Consortium nor any of its members, their officers, employees or agents shall be liable or responsible, in negligence or otherwise, for any loss, damage or expense whatever sustained by any person as a result of the use, in any manner or form, of any knowledge, information or data contained in this document, or due to any inaccuracy, omission or error therein contained.

Co-funded by the European Union

Clean Hydrogen Partnership

All Intellectual Property Rights, know-how and information provided by and/or arising from this document, such as designs, documentation, as well as preparatory material in that regard, is and shall remain the exclusive property of the UPeM Consortium and any of its members or its licensors. Nothing contained in this document shall give, or shall be construed as giving, any right, title, ownership, interest, license or any other right in or to any IP, know-how and information.

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101250924. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.