

GA No. 101250924

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

D1.1 – Project Management Plan

CLEANH2-2025-05-02 Understanding emissions of PFAS from electrolysers and/or fuel cells under product use

Deliverable overview		
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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, with information on the current state of the art and challenges along with the project focus are introduced 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 protocol 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 compromises 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.

Public summary deliverable

The UPeM Project Management Plan (PMP) provides a detailed overview of the Work Breakdown Structure, project governance, change management procedures, progress monitoring, and internal communication. It also describes the external and internal reporting procedures for the project. The document is based on the Description of Action from the Grant Agreement and the UPeM Consortium Agreement. This PMP acts as a guide for the project and project partners.

The objective of Deliverable D1.1 is to establish a comprehensive Project Management Plan (PMP) for the UPeM project, defining the governance structure, work organisation, communication rules, and monitoring procedures.

The PMP provides a complete framework ensuring efficient coordination among partners, clear allocation of responsibilities, and structured decision-making processes. It defines the Work Breakdown Structure, reporting procedures, and internal communication mechanisms, enabling timely and high-quality execution of project activities.

As a result, the project is equipped with a robust management framework that supports effective coordination, transparency, and risk mitigation. This ensures that UPeM can achieve its scientific and technical objectives in line with the Grant Agreement.

The PMP will be continuously used and updated as needed to support project implementation and ensure alignment with Horizon Europe requirement for all members of the UPeM consortium.

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

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