



Multimegawatt high-temperature electrolyser to generate green hydrogen for production of high-quality biofuels

Dissemination and Communication Action Plan Deliverable D8.2

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement No 875123. This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation programme, Hydrogen Europe and Hydrogen Europe research



Grant agreement number 875123
Start: 01/01/2020 – Duration: 60 months

Document Classification

Title	Dissemination and Communication Action Plan
Deliverable	D8.2
Reporting Period:	RP1 M1-M12
Date of Delivery foreseen	M6
Draft delivery date	12/05/2020
Validation date	29/06/2020
Authors	J. Mougin, CEA
Work package	WP8
Dissemination	PU = public
Nature	R: Document, report
Version	V1
Keywords	Communication, dissemination, scientific publications, conferences, events

Document Validation

Partner	Approval (Signature or e-mail reference)
WP Leader	CEA
Coordinator (PC/SC)	PC, SC
Others (if applicable)	SF, PW, Engie, NESTE

Table of content

Abstract.....	4
Introduction	5
1.1 Dissemination Strategy and Activities	5
1.2 Dissemination Tools	6
1.3 Clustering activities	7
2. Scientific Publication Plan	8
2.1 Scientific publications	8
2.2 Conferences and other public events	9
3. Dissemination monitoring.....	10
4. Conclusion.....	12

Abstract

This deliverable D8.2, the initial Dissemination and Communication Action Plan, defines an optimised dissemination strategy for the project, and in particular the objectives, activities, target audience, existing communication tools of the consortium partners (e.g. websites, social media channels) and existing professional networks useful to communicate and reach out efficiently. An updated version will be provided in project month 30 as deliverable D8.3.

Introduction

The main objectives of the dissemination activities of the MULTIPLHY project (WP8) are to reach the key relevant communities and ensure high impact of the project results at the European level. This is achieved by promoting exchange within the research community, the private industrial sector and institutional stakeholders as well as the general public.

1. Initial Dissemination Action Plan (DAP)

This initial Dissemination Action Plan aims at defining an optimised dissemination strategy, and in particular the objectives, activities, target audience, existing communication tools of the consortium partners (e.g. websites, social media channels) and existing professional networks useful to communicate and reach out efficiently.

A dissemination strategy is set to serve the objectives of the MULTIPLHY partnership, which is to demonstrate that HTE has reached the multi-MW level and that the gap with other electrolysis technologies is decreasing.

The consortium plans to disseminate information related to the project to the widest possible audience of interested parties with the final aim of raising awareness towards this technology as a credible solution for renewable hydrogen supply. The main aim is to demonstrate that HTE has reached the multi-MW level and that the gap with other electrolysis technologies is decreasing.

MULTIPLHY dissemination strategy will involve all the partners and will target a large part of the Fuel cells and hydrogen community including scientists and industrials.

This dissemination strategy will be mainly used by the partners as a guide to plan dissemination activities. It shows some general clues that will need to be adapted throughout the project, in response to changing needs.

The dissemination activities of the project performed in WP8 are designed to reach the key target groups to maximize the impact by the exploitation of the results. The improved knowledge and results obtained during MULTIPLHY will be publicized via scientific journal papers and conferences. Furthermore workshops will be held e.g. after the onsite commission of the system and/or at the end of the project as a final dissemination event on the demonstration site at NESTE addressing a large panel of “invitees”.

Several channels for communication and dissemination have been established already by project partners. Those can be further utilized to reach the relevant target groups such as regulation boards, politicians and the public and other relevant stakeholders in order to reach the exploitation goals.

1.1 Dissemination Strategy and Activities

Dissemination activities will be aimed at promoting a fruitful exchange within the research community, the private industrial sector and institutional stakeholders. In order to harmonise the external communication with a unique identity for the project in all channels of communication, the following tasks have been set up at the beginning of the project and will be periodically updated:

- Definition of the project's graphic identity, including a logo and a colour code,
- Setting-up and update of the project public website
- Creation of a project leaflet

These products have already been reported in Deliverable D8.1 “Communication Toolkit” and therefore are only briefly summarized in the following section 1.2.

Dissemination should be tailored to different stakeholders. The MULTIPLHY partners will adapt their contents, using different language register (more or less formal, complex, or specialized, for example) and different means of communication (website, newsletters, press, printed resources like leaflet and posters, scientific publications etc.) depending on the defined targets.

The presence of key leaders and pioneers in electrochemistry, process, system, and their integration in the consortium will facilitate the dissemination of knowledge. The consortium will disseminate non-confidential results to the Research, Industrial and Public communities.

The key dissemination stakeholders of MULTIPLHY project are listed below:

- Scientists, Education communities;
- Industrials and SME's;
- Public funding bodies.

Scientists, Education communities

All results not covered by IPR will be presented at international conferences and in journal papers. The deliverable about testing protocols (D2.1 Definition of testing protocols) will be public to facilitate the comparison of the results obtained in this project with other data available. It will be based on the knowledge on how to operate SOEC Stacks and systems and will be written according to already existing test protocols in SOCTESQA and the JRC harmonized protocols, where possible.

All methodological and applied research results and new findings will be disseminated through university courses by CEA, and other partners in case they participate in Workshops and Summerschools, with the selection of data and results than can be made available without any IP issue.

Industrials and SMEs

Several industrials/SMEs are part of MULTIPLHY, covering the whole value chain with stacks and system development (Sunfire), hydrogen processing unit (Paul Wurth), end-users (NESTE and Engie). All together or separately, they can valorize the improvements done in their products or new products developed thanks to the MULTIPLHY project, or they can demonstrate the benefit of such products for new or early markets. Participating in various fairs/shows or events, they can use this dissemination channel to present MULTIPLHY achievements and boost their competitiveness.

Public bodies

Regarding the need for funding, the partners shall disseminate and communicate towards public bodies to show the value of project results.

1.2 Dissemination Tools

The dissemination activities will be performed through planned and standardised promotional materials. External communication will use several ways:

1. A project graphic identity
2. The website
3. Public events
4. Scientific publications
5. Flyer/poster
6. Periodic newsletters
7. LinkedIn, Instagram or Twitter account

The project graphic identity is much more than a logo, it is a coordinate way to present the project so that any product (website, deliverable, newsletters) reflects its mission, vision and values. As a first step, the project logo was released, as described in Deliverable D8.1 “Communication Toolkit”:



As part of the project brand a visual identity was designed and based on the MULTIPLHY logo, templates were created for PowerPoint presentations and project reports. The partners will use the visual identity for homogeneous dissemination using the templates.

The design of the project website enables user-friendly access to the project results. The website will be updated every 6 months. Inputs to the website will be discussed at the periodic meetings.

A leaflet/flyer was also designed and distributed to partners for dissemination. This will be updated as the project proceeds and distributed at various conferences and other events in the future.

These dissemination tools have all been described in Deliverable D8.1 “Communication Toolkit”.

1.3 Clustering activities

The dissemination strategy will also include clustering activities with ongoing projects/initiatives so as to foster common accepted solutions:

- Clustering with projects among other ongoing H2020 or FCH2-JU projects or other global initiatives, such as the EERA (European Energy Research Alliance). In particular Grinhy 2.0 project can be mentioned, also considering HTE technology, as well as other demonstration projects at MW scale, but considering PEM or alkaline technologies, like REFHYNE, where a 10 MW PEM electrolyser will be installed at Shell’s Cologne refinery, H2FUTURE where a 6 MW PEM electrolyser will be used in the steel making process and Demo4Grid, a 4 MW alkaline electrolyser for grid balancing, or more recently DJEWELS, with a 20 MW alkaline electrolyser will help to make greener the production of methanol in the Netherlands. The organization of a joint workshop or the presentation of the project in workshops organized by those projects can be considered. So far, MULTIPLHY coordinator has already be invited to present the project in a workshop entitled “E-Fuels - Advanced Power-to-Gas and Power-to-Liquids Technologies”, organized by the H2020 Heat-to-fuel project, in Vienna in March 2021.
- Presentation of project results at various events: first at specialised events in the field of H2 and FC (e.g. FCH2-JU review days, Workshops, European Commission events, DOE or Japanese events), but also events with a much wider audience focusing on clean energy solutions (e.g. International Energy Agency, Pollutec, Hannover Fair...) or e-fuels (e-fuel conference in Hamburg, ...)
- Engagement in political decision-making processes through presentations to associations dedicated to the chemicals and refining industry or steel industry (e.g. CEFIC, FuelsEurope, DECHEMA...). Present at European think tanks, such as the Centre for European Policy Studies

(CEPS) and if possible to the European Commission through dedicated round table events, lunch time conferences, etc.

2. Scientific Publication Plan

2.1 Scientific publications

Significant results obtained from MULTIPLHY Project will be published in relevant journals according to the conditions set out in the Grant agreement and in the Consortium agreement.

The objectives of scientific publications are as follows:

- Circulate the project results and therefore the ideas;
- Disseminate to the most outstanding research community the project results;
- Get feedback from peers.

The following table lists potential publications that could be relevant for the project (this is not an exhaustive list). This table will be used to follow up the publications related to the project.

Description: title of the journal etc...	Address	Main R&D topics covered	Comments
Journal of Power Sources	http://www.journals.elsevier.com/journal-of-power-sources/	All aspects of the science, technology and applications of sources of electrochemical power: the science and applications of primary and secondary batteries, fuel cells, supercapacitors and photo-electrochemical cells.	concerning experimental activity and demonstration
Applied Energy	http://www.journals.elsevier.com/applied-energy/	Analysis and optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems. Innovative technologies and systems of both fossil and renewable energy to the economic industrial and domestic use of energy with no or minor impact on the environment.	concerning experimental activity and demonstration, as well as tech-eco assessment
International Journal of Hydrogen energy	http://www.journals.elsevier.com/international-journal-of-hydrogen-energy/	The International Journal of Hydrogen Energy aims to provide a central vehicle for the exchange and dissemination of new ideas, technology developments and research results in the field of Hydrogen Energy between scientists and engineers throughout the world	concerning experimental activity and demonstration, as well as tech-eco assessment
Biofuels International monthly magazine	https://biofuels-news.com/	Biofuels International magazine is brought out 6 times a year and is the leading global publication in the market. Every issue includes in-depth news analysis and features on related subjects, including distribution, handling, storage, equipment and second generation technology.	Concerning site integration and demonstration

Table 1. Science and engineering journals that are relevant for publication of MULTIPLHY results.

2.2 Conferences and other public events

Public events represent a great opportunity for MULTIPLY visibility and to convey the project contents to EU and international fuel cell and hydrogen communities. The objectives to participate to public events are as follows:

- Disseminate the latest results towards hydrogen groups;
- Meet relevant industry players;
- Collect all comments and suggestions concerning the results and eventually the suggested solutions proposed;
- Network face-to-face with some of the leading names in the field;
- Seek international partners and form new alliances;
- Raise MULTIPLY profile within the scientific community;
- Communicate MULTIPLY message to a highly qualified scientific community;
- Demonstrate MULTIPLY results;
- Increase MULTIPLY awareness and visibility;
- Enhance relationships with existing customers and meet new ones;
- Elevate MULTIPLY profile in the Global fuel cell and hydrogen research and development community.

The following table lists potential conferences or public events that could be relevant for the project. This table will be used and updated to follow up the events related to the project.

Description : title of the Event, title of the journal etc...	Address	Dates (year and Day/month if known) and Place	Participation
FC EXPO 2021, International Hydrogen & Fuel Cell Expo (within World Smart Energy Week 2021)	http://www.fcexpo.jp/en	Every year/Tokyo Japan	To be confirmed for the following years
NOW GmbH: Hydrogen and Fuel Cell Technology Supplier Marketplace	http://www.now-gmbh.de/en/aktuelles/veranstaltungen	Every year, Germany	To be confirmed for the following years
World Hydrogen Energy Conference, WHEC 2022	https://www.copenhagencvb.com/world-hydrogen-energy-conference-whec-2020-gdk966982	Every two years, June 2022	To be confirmed for the following years
SOFC - XVI	https://community.electrochem.org/eweb/DynamicPage.aspx?webcode=EventInfo&Reg_evt_key=c704c26d-9a28-4784-be96-c96cf6668d0f	July 2021, Stockholm	To be confirmed for the following years (every 2 years)
16th European SOFC & SOE Forum (with Conference, Exhibition & Tutorial): SOFC & SOE, including Reactors and Separators based on Solid Oxide Membranes	http://www.efcf.com	July 2022 Lucerne/ Switzerland	To be confirmed for the following years (every 2 years)
Hannover fair	http://www.hannovermesse.de/home#	April every year Hannover Germany	To be confirmed for the following years
European Hydrogen Energy Conference (EHEC)	http://www.ehec.info/	2022	To be confirmed

International Renewable Energy Storage Conference (IRES)	http://www.energy-storage-online.com	Every year in spring	
Smart Energy Conversion and Storage	http://forum.hydrogen.edu.pl/	2019	To be confirmed
Progress in Fuel Cell Systems - Bruges workshop	http://www.birmingham.ac.uk/research/activity/bruges/index.aspx	Every year in May, Belgium	
Conference on Carbon Dioxide as Feedstock for Fuels, Chemistry and Polymers	http://co2-chemistry.eu/programme	Is held every year, Germany	
EU Green Week	https://www.eugreenweek.eu/	Every year, May-June.	The subject changes every year. To check the subject of discussion in 2021.
International Conference on Electrolysis (ICE)	https://www.sintef.no/projectweb/ice2019/	The 2 nd edition was in Summer 2019 (ICE 2019)	To be confirmed for the next years
e-fuel conference	https://www.wplgroup.com/aci/event/european-e-fuels-conference-2020/	4-5 November 2020	To be confirmed for next years
Cleantech Forum Europe	https://www.cleantech.com/event/cleantech-forum-europe/	7 – 9 December 2020	Paul Wurth participation as a sponsor as the event takes place in Luxembourg
Platts European Refining Conference	https://www.spglobal.com/platts/en/events/emea/european-refining/summary	Annual event	To be confirmed separately
Argus conferences	https://www.argusmedia.com/en/conferences-events-listing?page=1	-	To be confirmed separately

Table 2. List of events and conferences that are expected to be relevant for disseminating MULTIPLY results.

For the conferences finally selected in the provisional list above, or any other identified as meaningful for the project, at least 1 paper or communication per conference is targeted.

3. Dissemination monitoring

The following table lists the initial targets given for objectives at the beginning of the project. It also provides an estimate for the 1st half of the project.

Target groups	Indicators for measuring the effectiveness of the approach	Min target value	Planned before M30	Feedbacks expected
Customers <i>Industrial companies from different sectors; Local authorities</i>	Customer request for other project deployments	50	20	-Discussions on industrial and commercial fairs (mainly Hannover Fair) -Request for specific features in order to address specific needs of various sectors
	Interest of industrial customers on Technology Exploitation via partnerships and/or licence agreements	15	5	

Research community <i>H₂ & FC researchers & industries</i>	Publications at international conferences (M24 onwards)	6	1	-Disseminate the latest results towards H ₂ & FC actors -Designing new collaborative proposals for demonstrations. -MoUs ¹ concluded between research & industrial partners.
	Publications in international journals (M24 onwards)	6	1	
	Participation with presentation of results at international events with industry	6	2	
Industry associations, <i>Chemicals, Refining, Energy Intensive Industry related Think tanks</i>	Presentation of results at association events	3	1	-Attract attention and generate interests from industry associations and get their support in the political decision-making process
General public <i>Public and Private</i>	Non-scientific publications (articles, press releases); Participation in national events promoting	10	3	-Attract attention and generate interests for an optimal exploitation of the project's results for further exploitation and deployment of the technology
	Flyers/Poster distributed at conferences, workshops, etc.	1,000	400	
	Project Website (M3): Number of Visits Public deliverables will be made available: N° of downloads	3,000 200	800 50	
Standards & regulation bodies	Standardisation groups (e.g. IEC TC105) and certification bodies (e.g. TUV) Participation in EU commission's consultation & other worldwide regulatory in the field of interest	5	2	-Promoting the project results and making sure that they can be integrated and contribute in future standards
Final dissemination event	Presentation & inauguration of the installed demonstrator, see WP5	1	NA	- Improved knowledge of the potential of the technology

Table 3. MULTIPLY Dissemination targets

¹ Memoranda of Understanding

4. Conclusion

This deliverable D8.2 corresponds to the initial Dissemination and Communication Action Plan, including the Scientific Publication Plan. An updated version will be provided at mid-term, at month 30 (D8.3).