



# Deliverable 6.1

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## Communication Plan

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C	Confidential, only for members of the consortium and the Commission Services

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**Statement of originality:**

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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## **1. Summary**

This document reports the deliverable D6.1 - Communication plan - of the Empower project. In this respect, this document provides the strategy for the project communication, covering audiences such as, relevant stakeholders, authorities, media, and general public.

## **2. Objectives**

This communication plan has as main objective to increase audience awareness and visibility of project Empower and its results, beyond the runtime of the project, among media, relevant stakeholders, authorities and general public. This plan is complementary aid to maximize the expected impacts of the project, targeting the growth of the European value chain for FC technologies by capitalising and seizing the large export market opportunity that fuel cell based power generation provides. The communication plan considers four topics, as depicted:

1. What to communicate – identify the higher impact activities and results of the project;
2. To whom – identify the audiences and adjust the information to that audience;
3. How to communicate – define the main partners and communication channels that will support the communication activities.
4. Communication management – follow-up of the plan, assure its correct execution, incorporate any required adjustments and identify any result or activity that must be communicated.

## **3. What to communicate**

The specific information to be communicated will be defined during project execution; nevertheless, the deliverables and milestones after completed should be communicated, unless the information is classified. Until the first deliverables, the information released should be focused on the major assets of the project. The information should be brief and adapted to reflect what the audience should remember of the project. To have distinguishable visual identity and to make it easily recognisable, the logo of the Empower project (Fig. 2) must be used on all the communications activities related to the project.



Fig.1 - Empower logo.

The objectives of the project are challenging, and its achievement must be highlighted and communicated through suitable channels. As a result, the following topics should be part of the external communication:

- The scalability of the developed components, systems and processes cost reduction for systems up to 50 kW;
- The development of CHP technology using renewable methanol;
- The production of cheap and secure electricity with low carbon footprint according;
- The development of renewable energy system with fast start up, dynamic power response and CAPEX less than 3000 €/kW;
- The high efficiency of fuel cell stack (55% (LHV) at performance exceeding 0.2 W/cm<sup>2</sup>);
- The high power density a renewable energy system developed (30 W/l for an electrical efficiency of 50 % (LHV) using methanol as fuel).
- The low performance degradation (< 0.4 % (potential) per 1000h at constant power output);
- The high efficiency of the fuel processor (> 85 % at the Begin of Life);

Additionally, it has been identified by the consortium a set of innovating aspects with commercial value, whose developments should be included in communication:

- Two stage reforming concept for HTPEMFC-systems;
- Novel catalysts for aqueous phase reforming of methanol;
- Thermoelectric generator (TEG) integrated with the fuel cell system;
- High-efficiency methanol fueled HTPEM-system design for 5-50 kW power-class for fuel cell based CHP-prototype.

The technology and scientific advances achieved during the project and its communication are expected to bring together experts, involved partners, stakeholders, authorities and general public creating a community hub of debate around HT-PEMFC technology and the paper of methanol as an important energy vector.

#### **4. To whom**

The communications plan is focus on the scientific and technical community working on the field of fuel cells and fuel processors, as well as the project partners, stakeholders, authorities and general public.

The communication plan considers the communication between the consortium members and the communication to the exterior. The definition of the communication procedures is responsibility of UPorto in collaboration with the Project coordinator, VTT. The communication between the project consortium members is essential, to ensure a correct execution of the project. The coordinator (VTT) is the main responsible for the communication among the consortium, yet the Activity leaders should contribute and promote the internal communication with the all consortium members or part of them. The internal communication within the project consortium is guaranteed by regular project progress follow-up meetings. Bi-annual face-to-face meetings are planned and in-between these, teleconferences are scheduled to ensure up-to-date workflow, to update all members on the project status, recent results, and to discuss future actions. Data- and file-sharing services, such as Microsoft Teams, will be used for efficient intra-project sharing of up-to-date information.

The external communication is directed to project partners, potential end users outside the consortium, both industrial and private, operators in the power-to-X field, and other stakeholders, including public authorities and

policy makers. The external communication has segmented the audience according to the objective, Table 1.

Table 1: Summary of EMPOWER communication activities and targeted audience.

Target audience	Objective
Common to all, including general public	Show impact of funding, possibility of new technology and zero emissions (also for private households)
Industry and municipal end users, supply chain	Inform about the benefits and potential of fuel cell CHP and the potential of renewable methanol as a fuel. Inform about the business potential the FCH brings to non-FCH companies.
Scientific community	Ensure open and efficient spreading of scientific findings
RES, Power-to-X actors	Inform about the potential to use renewable methanol in power storage
Marine sector (ship owners, operators, ship design & engineering companies)	Inform about the benefits and possibilities that the methanol APR pre-reformer brings to marine fuel cell applications
Public authorities, policy makers	Inform regulatory bodies about development and possibilities as input to new regulations
FCH community	Inform about work and results, receive feedback on work, foster knowledge uptake

## 5. How to communicate

Each consortium member has access to relevant networks that can be used to reach different target audiences and better communicate the project assets. Moreover, different communication channels are required to reach different target audiences. Table 2 summarizes the communication channels chosen for each audience and the involved partners.

Table 2: Summary of EMPOWER communication channels for each targeted audience.

Target audience	Communication channel	Involved partners
Common to all, including general public	Project website Newsletters Press releases Social media Trade media Trade fairs	VTT, all
Industry and municipal end users, supply chain	Articles in technical papers Articles in market oriented and economic journals Presentations at technical exhibitions and conferences Direct contact to companies including leveraging the already	BWT, THT, Catator

	existing extensive networks of the participating organizations Enterprise Europe Network (EEN)	
Scientific community	Journal publications Conference presentations and proceedings PhD and MSc thesis Website	VTT, UPORTO
RES, Power-to-X actors	Press releases Trade fairs, conferences	VTT, BWT, THT
Marine sector (ship owners, operators, ship design & engineering companies)	Trade fairs and media Conferences Website and newsletters Dedicated meetings with industry	VTT, BWT
Public authorities, policy makers	Conferences Participation in relevant networks Press releases	All
FCH community	Publications in research and trade media Conferences (e.g. EFCE, H2FC, FCExpo, Hannover messe, FC summer school)	All
FCH 2 JU	Coordinator communication Periodic reporting and review meetings Invitation to General Assembly meetings Clustering workshops and events with other relevant projects	VTT
Project partners	Project workspace (Microsoft Teams) Project meetings and internal newsletters Database of relevant stakeholders	VTT, WP leaders

### 5.1. Empower Project Website

Empower's project website ([www.empower-euproject.eu](http://www.empower-euproject.eu)) was already developed and is online since the month two (M2). This website will present information of the project objectives, developments and outcomes as well as information about events organized by the consortium members. The website is designed to fulfil requirements for web accessibility, i.e. to be also accessible by people with impairments. The content of the website will be continuously extended and updated. The website is mostly dedicated to general public (Table 2) and has the following objectives:

- provide relevant, accessible, simplified and updated information to a large audience;
- active promotion of project results, business opportunities, investment opportunities and public awareness;
- provide information about and promote open public seminars, workshops or conferences, in which

project results will be disseminated

The management of the website is responsibility of the VTT, supported by consortium members with important information, technical documents, events and suggestion to improve the website and broadcast.

### **5.2. Websites of the Consortium Members**

To reach more public, the consortium members will be encourage to include in their own websites (Table 3) the information about the project objectives, the type of project and funding as well as their participation objectives

Table 3: Consortium Members' Websites.

Member	Website (URL)
VTT	<a href="https://www.vttresearch.com/en/news-and-ideas/empower-project-kicks-espoo">https://www.vttresearch.com/en/news-and-ideas/empower-project-kicks-espoo</a>
BWT	<a href="https://www.blue.world/empower-project-kicks-off-blue-world-technologies-is-key-player/">https://www.blue.world/empower-project-kicks-off-blue-world-technologies-is-key-player/</a>
Catator	<a href="https://www.catator.se/">https://www.catator.se/</a>
UPorto	<a href="https://www.lepabe.fe.up.pt/">https://www.lepabe.fe.up.pt/</a>
THT	<a href="http://www.thtcontrol.com/en/#about-anchor">http://www.thtcontrol.com/en/#about-anchor</a>

### **5.3. Press releases and newsletters**

Relevant achievements of the project will be released in the form of press articles, published in the Empower website, websites of the consortium members as well as delivered to the media. These articles will be written by UPorto with the technical contribution of the consortium members and distributed through the channels identified in Table 4. Additionally, a Newsletter will be issued each six months (from M6). This document will be part of the communication strategy and should present the latest results of the project, achievements, news from the partners, upcoming events, events where project consortium members will attend, among other. UPorto will manage the production and delivery of this document, and must ensure the availability of relevant data. The newsletter will be defined according to the European legislation, and it will be forwarded to all the subscribers who decide to do so through the website, e-mail or other media such as recommendation of the consortium members.

Table 4: Distribution channels.

Media	Description
Horizon: the EU Research & Innovation magazine <a href="http://horizon-magazine.eu/">http://horizon-magazine.eu/</a>	The science and innovation magazine from the European Union. Exploring research in Europe into health, space, climate change, energy, transport, ICT and other topics
Research magazine	This print magazine features highlights



<a href="https://cordis.europa.eu/research-eu/en">https://cordis.europa.eu/research-eu/en</a>	from the EU-funded research and development projects.
Newsletters <a href="http://www.ec.europa.eu/research/index.cfm?pg=publications&amp;lg=en">www.ec.europa.eu/research/index.cfm?pg=publications&amp;lg=en</a>	Newsletters are published by the European Commission for different research areas.
Empower's project website <a href="http://www.empower-euproject.eu">www.empower-euproject.eu</a>	Website dedicated to broadcast information of the project objectives, developments and outcomes as well as information about events organized by the consortium members.
Project LinkedIn account	Project Profile dedicated to broadcast information of the project objectives, developments and outcomes as well as information about events organized by the consortium members.

#### **5.4. Social networking**

Social networks are powerful tools to achieve a large number of individuals, therefore Empower Project will create a profile on social media to increase the impact and generate straight communication channels. The presence in social media is fundamental do reach and interact with the general public, special those with no scientific interests and/or scientific background. This communication channels are crucial to reach a high level of followers and to have a real impact in society; moreover, it is expected to be rather efficient channel for communicating the project outcomes. Among the several social networking websites, LinkedIn was selected due to its professional nature. VTT already created the LikedIn profile for the Empower project; additionally VTT will be responsible for managing the profile, share news and articles, events, project outcomes and other relevant information. It will be encourage the production of audio-visual contents shared on Youtube and other specialized platforms. The audio-visual content will be an import part of the communication strategy.

#### **5.5. Events**

Empower project will participate in summer schools and fairs to increase the visibility and impact of the project. The consortium members are already schedule four events, with different focus:

- An initial event to present the project and discuss methanol fuel cells in CHP as well as other (e.g. marine, mining, transportation) applications. (VTT/THT, Espoo/Tampere) – M6/M7
- FC general event (open to general public) together with scientific event in Porto (Uporto, Portugal) – M18/M19
- Industry stakeholder workshop when integration phase is ongoing (BWT, Aalborg) – M24/M25
- Final event for disseminating the project results for general public (VTT/THT, Espoo/Tampere) M36 industrial

To inform about these events, Empower will use the resources available, such websites, social media and the resources provided by the Commission.

## 6. Action Plan (Gantt)

The Gantt (Fig.2) shows most of the communication actions to be accomplished during Empower project. Most of the activities and actions now considered were defined during the project submission; therefore, the allocation of responsibilities among partners and the respective budget are already partially defined.

Fig. 2 – External communication activities during the project execution.

Resp.	Actividade	2020												2021												2022												
		jan	fev	mar	abr	mai	jun	jul	ago	set	out	nov	dez	jan	fev	mar	abr	mai	jun	jul	ago	set	out	nov	dez	jan	fev	mar	abr	mai	jun	jul	ago	set	out	nov	dez	
UPorto	Presss Release (Article)		M2										M13										M25															M36
VTT	Empower Website		M2																																			
VTT	Update Empower Website																																					
VTT	LinkedIn profile		M2																																			
VTT	Update LinkedIn profile																																					
VTT	Empower logo			M3																																		
UPorto	Comunication plan				M4																																	
All	Empower on the consortium members' websites				M4																																	
All	Articles																																					
UPorto	Newsletter					M6						M12											M24							M30						M36		
VTT	Methanol fuel cells in CHP						M7																															
UPorto	Workshop																																					
BWT/	HT - PEMFC (industrial)																																					
BWT/	Video																																					
VTT	Project Results (final)																																					

## 7. Communication Management

### 7.1. Responsibilities

UPorto will ensure the communication management and will be responsible for the implementation of the plan. UPorto is responsible for the following tasks:

- collect and organize the communication actions performed by partners;
- inform and select relevant events (EU and world conferences) for partners to attend and present project results;
- along with the coordinator, will organize co-operation and information exchange between EMPOWER project and other FCH JU projects and possible other European and international projects;
- along with the coordinator, will keep the FCH JU informed about any important communication activities (events, press-releases) with enough time in advance;
- Guarantee that all public material and activities as well as publications will include acknowledgement to EU/FCH JU funding - see for instance <https://www.fch.europa.eu/page/fchju-projects-communication-dissemination>;
- Ensure that samples of communication activities are include on deliverables D6.6 and D6.7 for the midterm review and in the end of the project. It can be in the form of zip-files, including suitable file formats for the produced material.

### ***7.2. Ensure the good execution***

To assure the good execution of the plan, the consortium members must consider the following actions:

- inform UPorto 10 days in advance before any small communication activity and 21 days for major events;
- UPorto must keep the FCH JU informed about any important communication activities (events, press-releases) with 10 days in advance;
- the consortium members are encouraged to share/produce content for the website and social networking, nevertheless it is the responsibility of UPorto to evaluate if the content is within the scope;
- in order to monitoring and assessment of the communication activities, UPorto is responsible to record all the activities implemented by the partners;
- all the consortium members must participate in communication activities conducted during the project execution;

The communication plan must be followed as close as possible, yet to ensure the quality of the communication activities it is required a continuous evaluation and adjustments of the communication activities. To evaluate the impact of the communications activities both quantitative and qualitative indicators will be considered. The communication activities will be evaluated in terms of their relevance, quality, and promotion channel. The impact of the communication activities will be tracked on the Website and social networking evaluating the number of visitors, visited pages, number of interactions, geographical location as well as age and gender of the visitors. The number of articles in non-scientific publications, number of attendants to the project events, the number of meetings and conference call of the consortium members will be used as indicators to evaluate the quality of the communication activities.

### ***7.3. Updating the communication plan***

As described in the work plan, this communication plan shall be updated in M18, according to the gathered experience and identified needs seen during the first half of the project.