



D7.3; Dissemination and communication plan

PUBLIC

Contractual date of delivery to COM	M8
Actual date of delivery to COM	M8
Author(s)	Christelle Denonville, Marie-Laure Fontaine
Lead participant	SINTEF
Contributing participants	all
Work Package(s)	WP7
Dissemination level (PU/PP/RE/CO)	PU
Nature (R/P/D/O)	R
Total number of pages	5

Executive summary

This report describes the communication and dissemination plan for the project GAMER. A description of the communication activities is provided with actions directed to a wide audience using a webpage, flyer, press release and videos, as well as to the scientific community via participation and organization of conferences and workshops. Finally, it presents the dissemination activities of the project's results to maximize impact and foster further exploitation of the results with participation in conferences, fairs and workshops, and publications in peer reviewed journals.

Contents

Executive summary	1
1 Introduction.....	3
1.1 The GAMER project	3
1.2 Deliverable D7.3	3
2 Communication activities.....	4
2.1 Webpage, flyers and press releases	4
2.2 Participation in conferences and workshops	4
2.3 Videos	4
2.4 Education and training activities	5
2.5 List of planned communication activities.....	5
3 Dissemination plan	6
4 Additional information	7
4.1 E-room	7
4.2 Logo	7
5 Acknowledgements	7



GAMER
Joint Technology Initiatives, Collaborative
Projects (FCH), GA No. 779486





1 Introduction

1.1 The GAMER project

The GAMER project aims at developing a novel cost-effective tubular Proton Ceramic Electrolyser (PCE) stack technology integrated in a steam electrolyser system to produce pure dry pressurized hydrogen. The electrolyser system will be thermally coupled to renewable or waste heat sources in industrial plants to achieve higher AC electric efficiency and efficient heat valorisation by the integrated processes. The project aims at establishing a high volume production of novel tubular proton conducting ceramic cells. The cells will be qualified for pressurized steam electrolysis operation at intermediate temperature (500-700°C). They will be bundled in innovative single engineering units (SEU) encased in tubular steel shells, a modular technology, amenable to various industrial scales. GAMER focuses on designing both system and balance of plant components with the support of advanced modelling and simulation work, flowsheets of integrated processes, combined with robust engineering routes for demonstrating efficient thermal and electrical integration in a 10 kW electrolyser system delivering pure hydrogen at minimum 30 bars outlet pressure.

Partners of GAMER are:

<i>Partner (short name)</i>	<i>Country</i>
<i>SINTEF (SINTEF)</i>	<i>Norway</i>
<i>Coorstek Membrane Science AS (CMS)</i>	<i>Norway</i>
<i>CSIC, Instituto de Tecnología Química (CSIC)</i>	<i>Spain</i>
<i>Carbon Recycling International (CRI)</i>	<i>Iceland</i>
<i>University of Oslo (UiO)</i>	<i>Norway</i>
<i>MC2 Ingeniería y Sistemas SL (MC2)</i>	<i>Spain</i>
<i>Shell Global Solutions International B.V. (SGSI)</i>	<i>Netherlands</i>

The consortium covers the full value chain of the hydrogen economy, from cell and SEU manufacturer (CMS), system integrators (MC2, CRI), through researchers (SINTEF, UiO, CSIC), to end users in refineries, oil and gas, chemical industry (CRI, SGSI, with advisory board members YARA and Air Liquide). All along the project, these experienced partners will pay particular attention to risk management (technical, economic, logistic, business) and ensure progress of the technology from TRL3 to TRL5. The overall consortium will perform strategic communication with relevant stakeholders in order to ensure strong exploitation of the project's results.

1.2 Deliverable D7.3

All partners in GAMER are committed to large dissemination of the project results to maximize impact and foster further exploitation of the results during the project. All stakeholders will be addressed, including the scientific community, industry, policymakers, NGOs and the general public.

This communication and dissemination plan is continuously updated by the partners and monitored by the dissemination manager (C. Denonville, SINTEF). It is made available in the GAMER's e-room for



all partners and is reviewed at least every 6 months at the progress meeting in order to strategically plan and maximize the impact of the project results.

All communication and dissemination activities have to follow a strict dissemination procedure defined at the start of the project in order to respect the right of every partner to protect its work and results and avoid possible conflict with the exploitation plan.

2 Communication activities

2.1 Webpage, flyers and press releases

At the beginning of the project, a public website was established to present the project objectives, work plan and expected results. In addition, it will give access to published results (presentations, videos, articles...), inform about events organised by the project and present flash news about breakthrough results. It can be found at:

<https://www.sintef.no/gamer>

A first GAMER flyer was created to give information about the project at national and international events organised by the project and/or at attended conferences, fairs, workshops or meetings. The information in this flyer can be easily communicated to a wider public. The flyer can be downloaded from the GAMER webpage.

In addition, few slides presenting general information about GAMER are made available on the project e-room for all partners to use at their convenience in various events. In this way, partners are free to communicate about GAMER without going through the dissemination procedure each time.

Press release will be done to inform about important results reached in GAMER in order to sensitize the business and political community about the project's achievement and raise their awareness about proton conducting electrolyser technology.

2.2 Participation in conferences and workshops

During the first year, with limited results available, the consortium will mainly focus on presenting the project's goals and plans to various stakeholders (scientific community, industry, schools). When results are created in the course of the project, participation in conferences/workshops/fairs where industry and policy makers are present, will be targeted. All communication/dissemination of results will be thoroughly discussed within the consortium and in collaboration with the exploitation manager (P.K. Vestre, CMS).

2.3 Videos

In order to present the results of the project to a wider audience and attract interest on proton conducting electrolyser, GAMER plans to produce two videos to be published on You-Tube and available at the project website: one about the production of cells and electrolyser, and one about production and demonstration of the 10 kW electrolyser. These videos will aim at attracting the interest of the research society, as well as a larger public including the business and political community.



2.4 Education and training activities

Master students, PhD and post docs will work on GAMER in order to increase their qualification and knowledge. They will be highly encouraged to exchange their experience with the partners and the scientific community through conferences, workshops and more scientific publications. The project counts for now 2 master students, 1 PhD and 1 post-doc at CSIC and UiO.

2.5 List of planned communication activities

Table1 lists the communication activities planned in the project.

Channels and topics	Audience
<i>Public website:</i> presents the project objectives, work plan and expected results; gives access to publishable results (presentations, videos, articles, etc.); informs about events organized by the project; presents flash news about breakthrough results.	All audience
<i>Articles and appearance using scientific media outlets</i> such as international conferences and workshops and high impact peer reviewed journals (at least 20)	Research community
<i>Articles and appearance using popular media outlets</i> (trade magazines, YouTube, twitter, Facebook, school events)	Citizens, NGO
<i>Trade fairs:</i> will be used for dissemination of results that lead to significant multiplier effect. Throughout the year, the team will select several industry events from the fields of interest of the project to disseminate information.	Research community Business community
<i>Leaflets</i> will be disseminated to important events aiming at increasing interest of industries, scientists, students and public (e.g. WHEC, EFCH...).	Business community Research community
<i>Press releases, policies briefs and positioning papers</i> will communicate intermediate results and important milestones: - at the start, at mid-term and one at the end.	Business community, Political, public bodies
<i>Education and training activities:</i> Ph.D. students will work on their degrees along with Post-Docs increasing their qualifications in the research fields of the project.	Research community
<i>Two exploitation workshops with representatives from various instruments</i> (e.g. Hydrogen Europe, N.ERGHY, Hydrogen Council, JRC, EERA FC&H2 and AMPEA, EMIRI, national funding programs – e.g. ENERGIX in Norway ...) will be organized to maximize exploitation of the project's results	Public bodies, NGO EC, Research community Business community
<i>Videos</i> presenting overall achievement from cells to electrolyser engineering and testing	All audience



3 Dissemination plan

The project's results will be disseminated via popular and specialized channels (social websites, press release, conferences and workshops participation, articles in peer reviewed journals, etc.).

A plan for each partner's dissemination activities is reported below.

SINTEF	<ul style="list-style-type: none"> - At least 2 publications in peer reviewed journals jointly with CMS: WP2: durability study of PCE cells in pressurized electrolysis environment; WP4: durability and performance of SEU unit in pressurized electrolysis environment. - Presentations of overall project results (4-6) in SSI, ECFC, SSPC18, WHEC and trade fairs - One positioning paper for targeted dissemination to FCH JU, ministries, NGO, industries - Contribution to factsheets and videos showing development on cells, SEUs, system development
CMS	<ul style="list-style-type: none"> - Presentations in conferences WHEC (1) and trade fair (2) - Co-authoring publications related to single components, cells and SEU qualification (at least 3) - Contribution to one video showing demonstration of electrolyser system - Contribution to preparation of factsheets for SEU and system production
CSIC	<ul style="list-style-type: none"> - At least 3 publications of the main breakthroughs in peer-reviewed journals: WP1: CFD simulation and design of the SEU; WP2: failure mechanisms of PCE, optimization of components and tubes; WP5: Durability and performance test of pressurized electrolyser system; - Presentations in conferences such as SSI (2-4) and PPCC workshop (2), WHEC (1) - Contribution to one video showing demonstration of electrolyser system
UIO	<ul style="list-style-type: none"> - At least 4 publications in peer reviewed journals on materials science; especially related to anode materials, mechanisms, performance, application, and stability/durability. - Presentations at international conferences, notably SSPC (2018), SSI (2019), and workshops, notably PPCC (2018).
CRI	<ul style="list-style-type: none"> - Publication of LCA results of ETL technology integrated with PCE with GAMER partners (1) - Joint presentations at WHEC conference on the topics of PCE: techno-economics and LCA (1) - Contribution to preparation of factsheets for techno-economics/LCA aspects (at least 1)
MC2	<ul style="list-style-type: none"> - Presentations in conferences and trade fair (at least 3) in WHEC, EHEC and FC Seminar - Contribution to preparation of factsheets for dissemination of electrolyser system (at least 1)
Shell	<ul style="list-style-type: none"> - Presentations in the two planned exploitation workshops



4 Additional information

4.1 E-room

For the exchange of information within the consortium, a collaborative space is used. All shared documents are up-loaded and easily accessible to all partners. Access (read and write) is granted by the coordinator to all partner representatives. It guarantees a strict confidentiality of daily exchanges of information.

<https://project.sintef.no/eRoom/facility/GAMER>

4.2 Logo

A logo was created for the project to be used in all public documents, where GAMER project is presented.



5 Acknowledgements

This project has received funding from the Fuel Cells and Hydrogen 2 Joint Undertaking under grant agreement (number 779486). This Joint Undertaking receives support from the European Union's Horizon 2020 research and innovation program, Hydrogen Europe and Hydrogen Europe research.