

**HORIZON EUROPE PROGRAMM**  
Topic HORIZON-JTI-CLEANH2-2024-04-01

**GA No. 101192169**

# **RESCUE**

**RELIABLE AND EFFICIENT DUAL FUEL SYSTEM FOR  
CIVIL PROTECTION DURING NATURAL DISASTERS  
USING HT-PEM TECHNOLOGY**

**RESCUE**

## **Deliverable report**

**D10.1 – Plan for Communication  
Dissemination and Exploitation activities**

WP	1	Dissemination
Deliverable No.	D10.1	PCDE

Dissemination level	PU	Due delivery date	June 2025
Deliverable Type	PCDE	Actual delivery date	June 25 <sup>th</sup> , 2025

Lead beneficiary	(DLR)
Contributing beneficiaries	all

Document history

DATE	VERSION	CHANGES MADE / REASON FOR THIS ISSUE	AUTHOR / PARTNER
25/06/2025	0.1	First draft	DLR

Dissemination level: PU = Public, SEN= Sensitive, limited under the conditions of the Grant Agreement.

## Project details

PROJECT TITLE	
PROJECT NUMBER	101192169
PROJECT ACRONYM	RESCUE
PROJECT NAME	Reliable and Efficient Dual Fuel System for Civil Protection during Natural Disasters using HT-PEM Technology
CALL	HORIZON-JTI-CLEANH2-2024
TOPIC	HORIZON-JTI-CLEANH2-2024-04-01
STARTING DATE OF THE PROJECT	01-01-2025
PROJECT DURATION	48 months

## Summary/Abstract

This Dissemination, Communication and Exploitation Plan defines the strategy and actions to effectively promote RESCUE. It will be continuously updated and refined based on the monitoring of collected results to ensure the achievement of the set objectives.

WP10, which is responsible for dissemination, works on website development, social media outreach, workshop organization, and the distribution of results through conferences, academic papers, trade fairs, and other relevant channels within the fuel cell community.

The key benefits of this plan include:

- Promotion of the project and its objectives to the outside world.
- Distribution of gained knowledge to the identified stakeholders
- Disseminating the project results through PR materials.
- Promoting the acceptance of project results.
- Sharing all the project information through a public website.
- Providing contacts with interested parties for participation to dedicated events (conferences, workshops, etc.).

**Key Words:** Hydrogen, Methanol, Fuel Cells, HT-PEMFC

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LIST OF ABBREVIATIONS

- **EU:** European Union
- **FC:** Fuel Cell
- **HT-PEM:** High Temperature Proton Exchange Membrane
- **IP:** Intellectual Property
- **KPI:** Key Performance Indicators
- **MEA:** Membrane-Electrode-Assembly
- **PDEC:** Plan of Dissemination, Exploitation and Communication
- **PR:** Public relation
- **R&D:** Research and Development
- **SMB:** Small and Medium-sized Businesses
- **WP:** Work package

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# 1. Introduction

## 1.1. RESCUE Project

The project “RESCUE – Reliable and Efficient Dual Fuel System for Civil Protection during Natural Disasters using HT-PEM Technology” is about the development and the demonstration of a fuel cell system which allows the operation using 100 % of hydrogen and additionally using methanol and assures 50 kW of electrical power, with peak power of up to 100 kW. The containerised and modular design in combination with the dual fuel approach leads to an application flexibility for various important facilities during natural disasters like the civil protection with different energy requirements. The HT-PEM technology is characterised by increased operating temperature of around 160 °C and enables a simplified cell design and operation regarding water management, heat rejection, and direct use of reformates. After system requirements (WP2), the fuel cell module equipped with the fuelling possibilities will be constructed and tested in a laboratory environment (WP3). After fuel cell and fuel container constructions (WP4), the system integration (WP5), considering safety and transport certification requirements (WP2/9), demonstration using defined load profiles and conditions, with performing grid integration is planned (WP6). Testing for at least 2,000 hours on the site of a civil protection organisation shows the system capabilities and completes the project (WP7). State-of-Health against the criterium of system efficiency and fuel flexibility on system and on fuel cell level is analysed and accompanies the whole project duration (WP8). Dissemination and exploitation are mandatory in this project (WP10).

## 1.2. Scope of this document

The primary objective of this document is to outline the planned communication activities for the RESCUE project and the approach to implementing them. It details the project's strategy for disseminating, utilizing, and exploiting the knowledge generated throughout RESCUE.

Its scope includes all internal and external project activities related to knowledge dissemination and public communication regarding RESCUE and its outcomes. At this stage, the focus is primarily on communication and dissemination, while the exploitation strategy will be further developed in future updates.

Dissemination, exploitation, and communication efforts will be continuously monitored and updated in subsequent versions of the “Updated Communication, Dissemination, and Exploitation Plan,” corresponding to deliverables D10.1 (M6), D10.4 (M12), D10.5 (M30), and D10.6 (M48).

This document outlines the RESCUE project's approach to dissemination, communication, and exploitation, including the following sections:

- Dissemination activities: scientific publications in conferences, workshops and journals, organization of two workshops, exhibition booths, among others.

- Communication activities: website, social media, flyer and press-releases, etc.
- Exploitation: plans of the consortium as well as from each partner for maximizing the impact of the project results, with a more academic/research focus for R&D partners, and a focus on commercial exploitation routes for the companies involved.
- Commercialization and Certification: the RESCUE system is planned to be certified and ready for commercialization at the end of the project.

While this document presents the project's plan along with the different dissemination, communication, exploitation and Commercialization and Certification, the actual developed activities throughout the project will be described in a yearly report along with an assessment of the impact achieved with respect to dissemination and communication KPIs.

### 1.3. Document structure

This document is structured on 4 main chapters and 1 appendix:

- Chapter 1 introduces the RESCUE Project.
- Chapter 2 describes the Dissemination Strategy defined to promote knowledge sharing, public awareness and transparency.
- Chapter 3 indicates the resources available.
- Chapter 4 describes the expected communication work plan and gives an overview of dissemination activities planned or executed.
- Appendix 1 lists the conferences, presentations and exhibitions, presents the media and website prepared, and organized workshops

## 2. Dissemination Strategy

### 2.1. Objectives

The primary goal of communication is to engage various stakeholders by raising awareness of the project's concepts, progress, and results. Additionally, it aims to attract potential partners and inspire scientists and students to explore this research field.

To ensure visibility within the fuel cell community, the project will actively disseminate and exploit its findings. This dissemination plan will be continuously updated throughout the project's duration, culminating in a final version upon project completion.

A key focus of the RESCUE dissemination strategy is to emphasize the project's unique strengths and benefits, showcasing its distinct contributions.

### 2.2. Target audience

As an initial step in outlining this plan, the key target audiences for dissemination have been identified. This classification helps tailor specific activities to effectively engage and capture the interest of each group.

The RESCUE results are aimed at the following target audiences:

- As a research project, RESCUE primarily targets the academic community, including individual researchers, research centers, institutions, and universities worldwide. These organizations can showcase industry product capabilities through single-cell testing, fostering potential collaborations and facilitating technology dissemination.
- Industrial entities represent a key audience for the project's dissemination efforts. Research-driven enterprises, SMBs, manufacturers, and major players in the fuel cell technology sector offer significant opportunities for industrial exploitation and the widespread adoption of RESCUE's technological advancements.
- Component suppliers can utilize RESCUE results to enhance their existing products and processes, expanding both their customer base and product portfolio.
- System suppliers anticipate a growing demand for fuel cell-based power supply systems, prompting product development initiatives based on RESCUE outcomes and modular HT-PEMFC systems. ADV, in particular, integrates RESCUE findings to improve its complete fuel cell systems, leveraging its expertise in MEA component manufacturing.
- THW, as one of the operators and end-users, directly implements the RESCUE system in real-world field operations.
- The general public will be informed about RESCUE through various communication channels, such as the project's website and social media platforms.

### 3. Resources

#### 3.1. Communication tools

This paragraph provides a comprehensive list of all communication media, tools and resources available to drive the RESCUE communication:

- Scientific articles
- Scientific workshop and public event
- Presentations
- Conferences participation
- Trade fairs
- Project public deliverables
- Patents
- Project website
- Social media
- Press releases
- Flyers
- Exhibit

For any communication activities the following sentences will be included: "Project RESCUE with Grant Agreement number 101192169. The project is supported by the Clean Hydrogen Partnership and its members. Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Clean Hydrogen Partnership. Neither the European Union nor the granting authority can be held responsible for them."



The EU emblem and reference to EU funding must be displayed in a way that is easily visible for the public and with sufficient prominence (taking also into account the nature of the activity or object).

The most important communication means that will be used for RESCUE project are detailed below.

### 3.1.1. Publications

Scientific publication is a well-established and essential channel for dissemination, and RESCUE will leverage this medium to share its scientific achievements and technical insights. In addition to project deliverables, academic findings will be disseminated through publications in peer-reviewed journals, data sets, and technical data sheets, making academic publishing a key pillar of the dissemination strategy.

RESCUE prioritizes high-impact, Open Access journals as the primary outlets for its research, including titles such as *the International Journal of Hydrogen Energy*, *Materials Characterization*, *Electrochimica Acta*, *Energy Conversion and Management*, and *the Journal of The Electrochemical Society*.

Table 3 provides an overview of the number and types of publications planned both during and after the project.

To maximize outreach, each publication will be promoted via the project's social media channels and listed on the project website with direct access links. Conference contributions will be accompanied by presentations and/or posters at relevant events, following standard practices set by the organizers.

Beyond highly technical publications, the Consortium will also foster collaborations to produce magazine articles aimed at a broader audience. These publications will highlight the project's vision, objectives, progress, and key insights, drawing from project deliverables, prototypes, measurement results, and Proof-of-Concept campaigns.

### 3.1.2. Workshops

Two major events are planned within the project's timeline: a scientific workshop and a final public event, both designed to engage research and industry stakeholders in scientific and technological discussions.

The first event, a scientific workshop, will take place at DLR in 2026, focusing on portable fuel cells for backup power and exploring multifuel options. This workshop aims to bring together experts to discuss advancements and potential applications in the field.

The second event, scheduled for 2028, is a joint final demonstration organized by THW as a public event to engage end-users and key stakeholders of the RESCUE project. Throughout the project's field tests, the most suitable scenario and location will be identified to effectively showcase the developed technology. The demonstration will cover critical aspects such as system installation, fuel handling, and applicable loads, with invitees including police, firefighters, and other disaster response units.

### 3.1.3. Conferences

The scientific findings of the RESCUE project will be continuously disseminated through presentations and posters at national and international conferences. One key event is the European Fuel Cell Forum (EFCF) in Lucerne, scheduled for 2027. To strengthen RESCUE's global scientific presence, project results will also be presented outside Europe. For instance, the project will participate in the Electrochemical Society (ECS) Meetings in the USA in 2026 and 2028, where both industry and academia from American and Asian markets are represented.

Additionally, RESCUE plans to take part in the EU Hydrogen Week in Brussels to engage with the European research community. These activities will help increase awareness of the project, attract potential partners, and connect with stakeholders interested in its outcomes.

A detailed list of planned conferences is provided in

Table 3.

#### 3.1.4. Trade fairs

RESCUE actively promotes its technology at key exhibitions, including the Hannover Industrial Fair and the Hydrogen Expo in Hamburg, held annually throughout the project period. Additionally, RESCUE will be showcased at INTERSCHUTZ 2026, the world's leading trade fair for fire services, rescue services, civil protection, and security.

Project partners will further disseminate RESCUE's outcomes by presenting findings at selected public events and fairs and expos. Key identified venues include, in addition to Hannover Industrial Fair and Hydrogen Expo, events such as the European Hydrogen Week, Hydrogen & Fuel Cells Energy Summit, World Hydrogen Summit, and other major gatherings across Europe.

#### 3.1.5. Project public deliverables

Project deliverables serve as essential documents for disseminating the project's findings. They provide a comprehensive overview of the results, including their broader societal impact. Once approved by the EU, these deliverables are published on the project website, ensuring public accessibility and transparency of RESCUE's outcomes.

#### 3.1.6. Patents

The consortium has a strong track record in international patents and safeguards the ownership of its intellectual property (IP) through patents, copyrights, trademarks, trade secrets, and internal know-how. For instance, ADV has invested over 20 years of research to advance from core chemistry breakthroughs to final fuel cell products. ADV has been granted, acquired, licensed, or applied for more than 150 international and U.S. patents, primarily covering membranes, electrodes, MEAs, and fuel cell systems, enhancing its product portfolio. All activities related to IP will adhere to EU standards and regulations (such as those from the EU IP Helpdesk and the Patent Offices of each partner), with decisions made on a case-by-case basis, in line with the project objectives and expected impacts. A list of preliminary exploitation pathways is provided in

Table 3.

### 3.1.7. Project website

The RESCUE website is a key component of the communication plan, offering comprehensive and up-to-date information to both stakeholders and the public. The planned website will feature an intuitive, user-friendly interface that aligns with the project's branding and visual identity, ensuring a smooth and engaging experience for visitors.

The website will include essential sections such as:

- About RESCUE - describes the project's objectives and work-packages.
- Consortium – describes the consortium members.
- Publications - offers access to project-related publications, public deliverables, research papers.
- News - provides regular updates on project progress, recent achievements, upcoming events, and activities, fostering engagement and promoting awareness.
- Contact - facilitates easy communication for inquiries, collaboration opportunities, and feedback, ensuring stakeholders can interact with the project team effortlessly.
- Internal - ensures that partners can exchange documents internally via a link to the project's own Teamsite.

Other sections might be added along the project execution.

By incorporating these elements, the project website effectively communicates the project's work, engage stakeholders, and promote open science practices.

### 3.1.8. Social Media

The presence of RESCUE on social media is crucial for promoting the project and engaging with different target groups. A comprehensive social media strategy will be implemented to share regular updates, success stories, upcoming events, and other relevant information and valuable resources. Visual content, such as infographics, images, and videos, will be used to enhance engagement and effectively communicate key messages.

LinkedIn will be the primary social media platform, as it is the most widely used by the RESCUE target groups. Additional platforms may be considered throughout the project if they offer significant benefits. Social media analytics will be closely monitored to assess performance, optimize content, and refine communication strategies to ensure maximum reach and impact.

The publications on the social media can include:

- Important project milestones;
- Announcements regarding deliverables;
- Announcements on a published paper;
- Important consortium meetings;
- Public appearances in exhibitions, workshops and conferences;
- Press-releases and their outcome.

### 3.1.9. Press Releases

The creation of press releases aims to proactively engage with media outlets and industry experts to enhance the visibility and impact of RESCUE. These releases will be carefully crafted and distributed to announce key project milestones, events, and outcomes, targeting both national and international media. The press releases will effectively communicate the project's core messages, achievements, and societal contributions, helping to generate positive media coverage and public interest. As a result, the press releases may lead to coverage in press outlets, blogs, newspapers, and scientific magazines.

### 3.1.10. Flyers

The creation of RESCUE flyers aims to produce visually appealing and informative materials that promote the project's key messages, objectives, and research activities. These flyers will provide a detailed overview of the project, showcasing RESCUE's outcomes with engaging graphics and concise text. They will be designed to appeal to a broad audience and distributed at various events, such as conferences, workshops, and exhibitions. The flyers will be made available both digitally (e.g., through the project website) and in print, maximizing reach and ensuring effective awareness-raising and engagement with the target groups. The design of the materials will be consistent with RESCUE's graphical guidelines, ensuring alignment with other communication tools, such as press releases.

### 3.1.11. Exhibit

The plan is to create an exhibit for RESCUE with the goal of presenting complex content in a comprehensible and vivid way. Through the visual and often interactive presentation of an exhibit, information can be conveyed in a way that both arouses interest and captures the attention of viewers. The exhibit thus becomes an effective tool for explaining, exploring, or discussing topics.

Such an exhibit has several benefits:

- Illustrating complex topics: It helps make abstract or difficult concepts tangible, making them understandable to a broad audience.
- Stimulating interest and curiosity: Creative design and innovative presentation draw viewers' attention to the topic and pique their curiosity, leading to deeper engagement.
- Increasing knowledge transfer: Interactive elements allow visitors to be actively involved in the learning process, leading to better retention and more lasting knowledge.
- Promote discussion and reflection: Exhibits often encourage discussion and the exchange of ideas, leading to deeper reflection on the topic.
- Visual and emotional appeal: Exhibits often appeal not only to the mind but also to the emotions by incorporating aesthetic or striking elements.

As part of the project, the exhibit contributes to drawing attention to the topic in question, deepening understanding, and reaching the target audience in a lasting way.

### 3.2. Dissemination and Communication KPIs

The continuous monitoring of RESCUE dissemination activities will allow us to periodically evaluate the progress towards the achievement of the established Key Performance Indicators (KPIs).

These dissemination KPIs are presented in Table 1.

*Table 1 – KPIs of dissemination and communication related to RESCUE.*

Dissemination action			Expected KPI at the end of the project
Publications in journals			7
Organisation of workshops			2
Publications in conferences			7
Trade fairs			3
Patents			2
Communication channel	Responsible partner(s)	Activity Timing	Expected KPI at the end of the project
Website	DLR (management) All partners (content contribution)	M6 to M48	~2000 unique visitors
Communication material (flyer)		M6 to M48	~1000 flyers
Social media channels		M3 to M48	~200 unique followers ~3000 reach
Press-Releases		Continuously	5 press-releases

### 3.3. Overview of communications activities and target groups

Effective communication is central to the consortium's efforts to disseminate key project information, engage stakeholders, and promote meaningful collaborations. This section outlines the communication strategy developed for RESCUE.

Table 2 provides a concise summary of the planned communication activities, the associated channels, and the target groups. This table serves as a valuable reference, highlighting the diverse approach we are using to maximize the impact and reach of RESCUE.

*Table 2 - Overview of communication activities and target groups*

Type of information	Communication channels	Target Group(s)
General information about CONVERGE, its main goals	RESCUE website	General public

and expected outcomes	Science posters  Science/engineering exhibitions including exhibit	Citizen organisations  Students (colleges and schools)  Research infrastructures users  Companies
Recent news and important updates from the project. Publicity of the organized challenge.	Social media (LinkedIn)  Press releases  Project website	Scientific community (general)  Research infrastructures users  Companies  Research policy agencies and Regulators  General public

## 4. Action Plan

The aim of this paragraph is to provide a clear view of all the dissemination activities planned to be carried out by the RESCUE project (

Table 3). The activities carried out are listed in the appendix.



Table 3 - Overview of exploitation and dissemination related to RESCUE.

Communication channel	Activity	Title/Event	Participant	Time of Dissemination
<b>Publications</b>				
Journal	International Journal of Hydrogen Energy (Open Access)	Fuel switching in single-cell tests (methanol reformat and hydrogen)	DLR	2027
		Long-term operation using industrial-grade hydrogen	DLR	2028
		Effects of HT-PEMFC stack degradation on RESCUE system performance	DTU	2028
Journal	Journal of The Electrochemical Society (Open Access)	Fuel switching in single-cell tests (methanol reformat and hydrogen)	DLR	2026
		Degradation effects of fuel switching on HT-PEMFC system	DLR	2028
Journal	Energy Conversion and Management (Open Access)	Thermal management of HT-PEMFC stack with hydrogen and methanol fuels	DTU	2027
Journal	Expert Systems with Applications	Dual Fuel HT-PEMFC data driven model	CERTH	2027
<b>Scientific workshop and public event</b>				
Workshop	Scientific workshop	Scientific workshop involving research and industry stakeholders	DLR	2026
Workshop	Final demonstration	Final public event	THW	2028
<b>Scientific events</b>				
Conference	Presentation at European Fuel Cell Forum (EFCF) in Lucerne	Fuel switching in single-cell tests (methanol reformat and hydrogen)	DLR	2027
		Thermal management of HT-PEMFC stack	DTU	2027
Conference	Presentation at Meetings of the Electrochemical Society (ECS) in the USA	Fuel switching in single-cell tests (methanol reformat and hydrogen)	DLR	2026
		Degradation effects of fuel switching on HT-PEMFC system	DLR	2028
Conference	EU Hydrogen Research Days in Brussels	Recent developments of RESCUE	DLR	2025-2028
Conference	Presentation at PRES – Conference Process Integration, Modelling and Optimisation for Energy Saving and Pollution Reduction	Optimal design and operation of dual fuel FC system	CERTH	2026
Conference	Presentation at ESCAPE - European Symposium on Computer-Aided Process Engineering	Advanced control and scheduling of the RESCUE system	CERTH	2027

Trade fairs					
Trade fair	Hannover Fair	Presentation of results of RESCUE	DLR	2025-2028	
Trade fair	Hydrogen Expo in Hamburg	Presentation of results of RESCUE	DLR	2025-2028	
Trade fair	INTERSCHUTZ		THW	2026	
Patents					
Patent, Trademark, Copyright	Dual fuel FC design	Dual fuel FC design	ADV, CERTH, THW	2027	
Patent, Trademark, Copyright	Dual fuel FC genset: A containerised solution	Dual fuel FC genset: A containerised solution	ADV, CERTH, THW	2027	
Websites					
Project website	Project website online	Information about project start	DLR	2025	
Project website	Posts on Project website	Update about project activities	DLR	2025-2028	
Website	Posts on website	Announcement of RESCUE system	ADV	2027	
Website	Posts on website	Marketing of RESCUE system for commercialisation	ADV	2028	
Social Media Channels					
LinkedIn	Posts about the project	Update about project activities	all	2025-2028	
Press/Media Relations					
Website	Press	General information about the project and Updates	DLR	2025-2028	

## Appendix 1 - List of Dissemination, Communication and Exploitation activities

This section lists the different papers, workshops, presentations, conferences, trade fairs, project public deliverables, patents, project website, social media, press releases and flyer proposed by the RESCUE partners. This section should be regularly filled to ensure consistency with the actual dissemination activities.

Communication channel	Activity	Title/Event	Participant	Date of Dissemination	Link
Scientific events					
Conference	Poster presentation	Hydrogen Days 2025	CERTH	19-21/03/2025	<a href="https://www.hydrogendays2025.cz/">https://www.hydrogendays2025.cz/</a>
Trade fairs					
Trade fair	Conversations with exhibitors about the project	Intersolar 2025	THW	08/05/2025	<a href="https://www.intersolar.de/">https://www.intersolar.de/</a>
Social Media Channels					
LinkedIn	Posts about the project	Information about project start and kick-off	DLR	02/2025	<a href="https://www.linkedin.com/posts/">https://www.linkedin.com/posts/</a>
LinkedIn	Posts about the project	Information about project start and kick-off	PROACT	02/2025	<a href="https://www.linkedin.com/posts/">https://www.linkedin.com/posts/</a>
LinkedIn	Posts about the project	Information about CERTH's presentation at Hydrogen Days conference	CERTH	02/2025	<a href="https://www.linkedin.com/posts/">https://www.linkedin.com/posts/</a>
Press/Media Relations					
Website	Press	Information about project start	DLR	02/2025	<a href="https://www.dlr.de/de/tt/aktuelles/">https://www.dlr.de/de/tt/aktuelles/</a>
Website	Press	Information about project start	ADV	02/2025	<a href="https://advent.energy/">https://advent.energy/</a>