



HyResponse

Grant agreement No: 325348

Deliverable Number – D7.1

HyResponse website

Status: final version

Dissemination level: PU - Public

Partner responsible for the deliverable: UU



European Hydrogen Emergency Response training programme for First Responders

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Date of this document: 29 September 2016

File name: D7.1 HyResponse website_V2.doc

Document history

Revision	Date	Modifications made	Author(s)
Template	dd/mm/yyyy	XXXXXX	XXXX
V1	30/05/2016	First draft	S. Tretsiakova-McNally
V2	29/09/2016	Final version	D. Makarov

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Introduction

This document reports on the HyResponse website developed and maintained during the project by UU partner. The website www.hyresponse.eu constitutes an actual deliverable. It is hosted externally by 123-reg.co.uk. The duration of the domain name availability is 10 years. The ENSOSP partner will maintain the website beyond the project duration.

The homepage of HyResponse website was publically available in month 6 of the project (see deliverable D1.1). The whole website consists of two main areas:

- The public area of the website, which contains publicly available information related to the project.
- The internal area of the website called *Members* protected with a user name and a password. This confidential area served as an internal communication platform for the partners (Deliverable D1.1).

Public area of the website

The public area of the website is the main source of information about the HyResponse project for interested persons and stakeholders. The main content of the website is subdivided in nine sections in the navigation bar. Eight sections can be accessed by the public. The homepage introduces interested users to the project (Figure 1). It also contains announcements and information on the pilot training sessions which took place during the project. The *Members* area provides an access to internal communication area of the website and available only to the project partners.

Each page of the website has four areas: a header surrounded with a grey frame and containing HyResponse logo; a navigation bar; information related to a selected menu/sub-menu and a footer. The navigation bar has nine tabs. When a cursor is placed on each tab, a drop-down menu (and sub-menus) opens. This area is surrounded by a grey frame. The functionality of the navigation bar is detailed below.

- *Home* tab has five menu items:
 - *About HyResponse*. This sub-section describes the scope of the project; the overall strategy of the work plan and the graphical representation of the main components of the project
 - *Participants*. This sub-section lists and provides the details of the organisations involved in the HyResponse project
 - *AC panel*. This section shows the details of the members of Advisory and Consultative Panel (ACP)
 - *Deliverables*. This section lists the deliverables accessible to the public. The visitors are able to download final versions of public deliverables
 - *Milestones*. This section lists the milestones within the project.
- *Educational training* tab has four menu items:
 - *International Curriculum*. International Curriculum on hydrogen safety training for first responders

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HyResponse is a 'Coordination and Support Action (CSA)' project supported by EC Fuel Cell and Hydrogen Joint Undertaking (June 2013 - September 2016). The project aimed to establish the World's first comprehensive training programme for first responders, i.e. a European Hydrogen Safety Training Platform (EHSTP), to facilitate safer deployment of FCH systems and infrastructure. The developed core training programme is threefold: educational training, including the state-of-the-art knowledge in hydrogen safety, operational training on mock-up real scale hydrogen and fuel cell installations, and innovative virtual reality training reproducing in detail an entire accident scenario, including influence of first responder's intervention. Three pilot training sessions were organised during the project. The Emergency Response Guide, explaining details of intervention strategy and tactics, was developed and included into the pilot training sessions to receive attendees' feedback, which is also available for download at the project website. The Advisory and Consultative Panel were established to engage as much as possible European stakeholders and provide highest outreach of the project results. EHSTP was developed and available to train first responders to deal with all safety aspects for a range of hydrogen applications, including passenger vehicles, buses, forklifts, refuelling stations, backup power, stationary fuel cells for combined production of heat and power, etc.

The project website will stay active for training of newcomers after the end of the project (September 2016). The website hosts the deliverables of the HyResponse Project, International Curriculum on hydrogen safety training for First Responders, Emergency Response Guide, links to relevant resources and RCS, information on the HyResponse pilot training sessions, etc, all available for download.

Would you have any question on the HyResponse Project or this website, don't hesitate to contact us.

[Home](#) [Contact Us](#) [General disclaimer](#)

Figure 1. A screenshot of the HyResponse homepage.

The developed educational materials in three main training/educational sections are posted on the website under the following sub-pages:

- *Hydrogen safety basics for first responders.* The educational materials in their final form (slides and notes of the lectures)
- *RCS for first responders.* The education materials for first responders on relevant codes and standards
- *Case studies: strategies and intervention.* Strategies and intervention tactics developed within the project and presented at the training sessions for the following three cases
 - “FC vehicles incidents, fuels comparison”

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- “Refuelling stations, storage and FC system accidents”
 - “Stationary and mobility FC applications”.
- *Operational training tab contains the materials demonstrating operational platform and illustrating practical operational training exercises carried out by the pilot session trainees:*
 - Overall overview of the platform
 - Technical platform area
 - Jet fire platform
 - 700 bar hydrogen car
 - Alternative energy car
 - Explosion platform
 - Dismantled H2 tube trailer
 - Mock-up dispenser
 - Mock-up Fuel/Electrolyser containerised system
- *Virtual Reality (VR) training tab. The virtual reality training in the project was developed and delivered by CRIS partner. The illustrating materials on the website include:*
 - *Schematic design of the full scale simulator*
 - *Design illustration*
 - *Full scale simulator and safety briefing*
 - *Platform*
 - *Jet fire directions*
 - *Safety distances*
 - *Operations*
 - *Hazard distances*
 - *Illustration of computational results import to virtual reality simulator*
 - *Tactical and operational training illustrations*
 - *Accident scenarios*
 - *Multiple car crash on a motorway involving a hydrogen-powered vehicle (Symbian equipped “Kango”)*
 - *An incident involving liquefied hydrogen trailer*
 - *Virtual reality training*
 - *First training session*
 - *Second training session*
 - *Third training session*
 - *Virtual reality exercises*
 - *First training session*
 - *Second training session*
 - *Third training session.*
- *Emergency Response Guide tab contains public deliverable D6.3 “European Emergency Response Guide” to give it a better visibility from the website homepage as one of the principle project outcomes.*
- *Contacts tab. This section enables website users to contact either the Project Coordinator or the Website Administrator via email.*
- *Events tab has four menu items:*
 - *1st HyResponse training session*
 - *2nd HyResponse training session*

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- *3rd HyResponse training session*
- *Workshop for First Responders.*

These sub-pages are assigned to three HyResponse training sessions and to the Workshop for First Responders as planned in the DoW. It contains relevant information on each event.

- *Links* tab consists of seven menu items:
 - *Hydrogen safety*
 - *Associations*
 - *Projects*
 - *Databases*
 - *Vehicle and fuelling stations*
 - *Education and training*
 - *RCS (Regulations Codes and Standards.* This menu refers to the relevant Regulations, Codes and Standards in the field of hydrogen in three sub-menus:
 - *Regulations*
 - *Standards*
 - *ISO*
 - *IEC*
 - *EIGA*
 - *NFPA*
 - *SAE*
 - *CGA*
 - *ASME*
 - *CSA*
 - *Codes/best practices.*

This section provides links to other websites: Hydrogen safety related websites; HFC Associations; Hydrogen related projects; Databases; Vehicles and Fuelling Stations; Education and training; and RCS.

- *Members* tab. Only this area of HyResponse's website is protected with a username/password.

Below the header and the navigation bar, the information related to a selected menu/sub-menu is displayed. It provides: text and pictures related to HyResponse project, links to external website and links to documents (deliverables, training materials, etc.).

The footer is made of three links. First link 'Home' redirects users to the homepage of the website, second link redirects users to the section 'Contact us' and third link redirects users to the page 'General disclaimer'. There are also references to the main funding body of the project, the contract number. The new logo of the EC and the FCH JU are included as well in the footer.

The visitors of the website have the possibility to download the final versions of the public deliverables and to download the final versions all educational materials developed within the project.

The content of HyResponse's website was constantly updated as the project progressed. The project website may be sustained after the project by ENSOSP partner as per DoW.