HyResponder

Síle Brennan (UU) on behalf of HyResponder Partners

Montelibretti, Italy, 15th November 2022





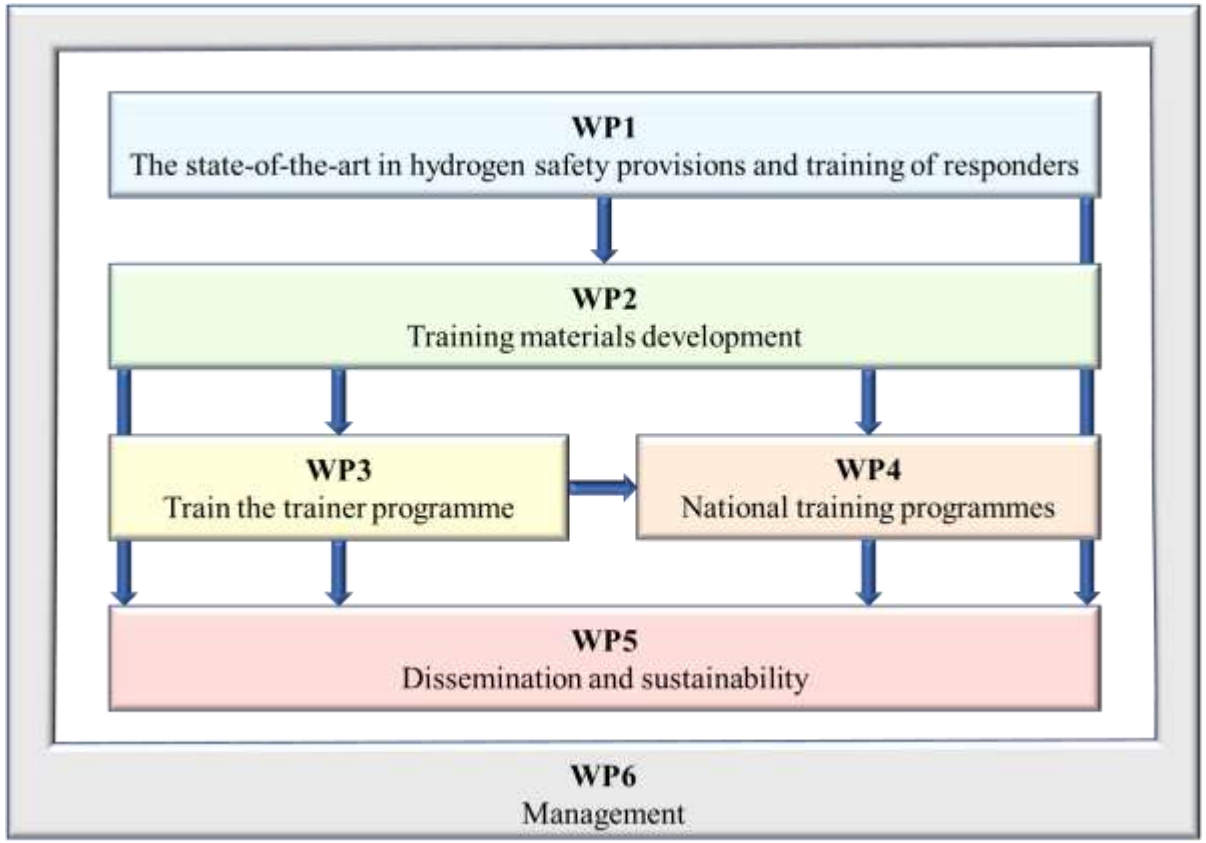

Project Overview

- European Hydrogen Train the Trainer Programme for Responders
- 40 month project: 1/01/2020 -31/05/23
- Total project budget: €1M
- Ulster coordinator
- Partners: 16 partners from 10 countries

Project Summary

HyResponder aim and work plan

- Develop and implement a **sustainable** train the trainer programme in hydrogen safety for responders throughout Europe
- Supporting the commercialisation of FCH technologies by informing the participation of responders in the initial permitting process, improving resilience and preparedness through enhanced emergency planning, and ensuring appropriate accident management and recovery



Project Summary

Main objectives of HyResponder

- Develop clear, updated, **operational**, **virtual reality**, and **educational training** for trainers of responders to reflect the state-of-the-art in hydrogen safety.
- Establish a Pan-European Network of Responder Trainers
- Train trainers from at least **10 European Countries** in hydrogen safety
- Make teaching materials available in **8 languages**
- Support trainers to deliver regional workshops in **10 countries**
- Ensure **sustainability** of the training programme through the availability of translated materials on an **educational platform**
- Update the **European Emergency Response Guide**
- Establish, an International Forum of Responders in Hydrogen Safety Training

Project progress

Extended training package for trainers

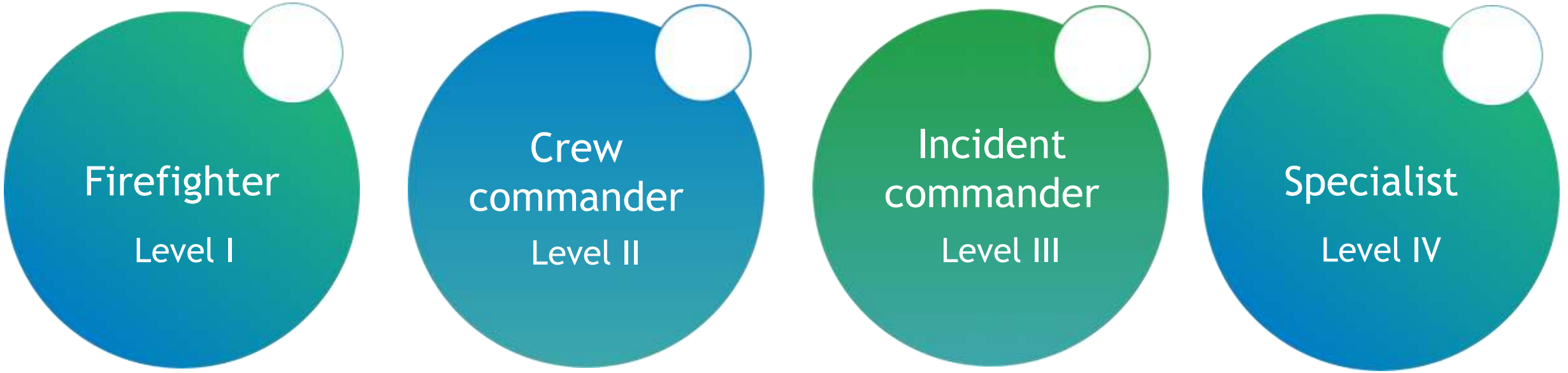
- **Threefold** approach with all elements represented on new HyResponder **e-Platform**
  1. Operational training (extended to include cryogenic spills)
  2. Educational training (lectures revised, stratified and trialed)
  3. Virtual Reality training (extended)

- Training is underpinned by the revised **European emergency response guide**
- A version of all training elements is in place and details are on the beta version of the HyResponder e-Platform

Project progress

Stratification of educational training materials

Responder led identification of **four** learning levels across Europe aligned to EQF

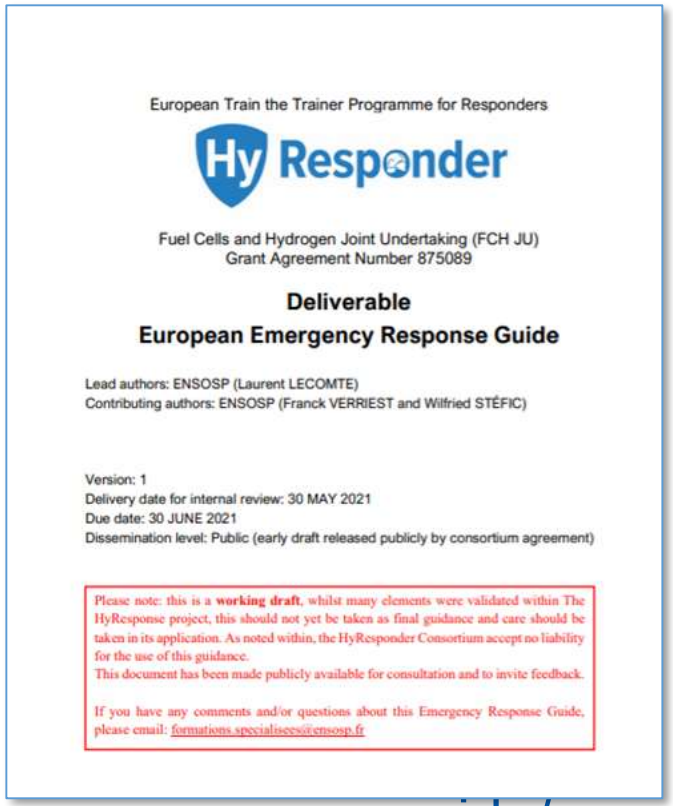


- Framework used as a basis to stratify the Lectures into up to 4 levels by responders
- Presentations at level 4
- Goal of developing a standardised training package and gaining recognition of the training

Project progress

Revised European Emergency Response Guide

- HyResponse EERG updated
- Guide intended to be used by emergency response personnel, both by front-liners and commanders
- Revisions include events related to LH2
- Multiple contributions from the wide consultation
- Open to public input



European Train the Trainer Programme for Responders

Fuel Cells and Hydrogen Joint Undertaking (FCH JU)
Grant Agreement Number 875089

Deliverable

European Emergency Response Guide

Lead authors: ENSOSP (Laurent LECOMTE)
Contributing authors: ENSOSP (Franck VERRIEST and Wilfried STÉFIC)

Version: 1
Delivery date for internal review: 30 MAY 2021
Due date: 30 JUNE 2021
Dissemination level: Public (early draft released publicly by consortium agreement)

Please note: this is a **working draft**, whilst many elements were validated within The HyResponse project, this should not yet be taken as final guidance and care should be taken in its application. As noted within, the HyResponder Consortium accept no liability for the use of this guidance.
This document has been made publicly available for consultation and to invite feedback.

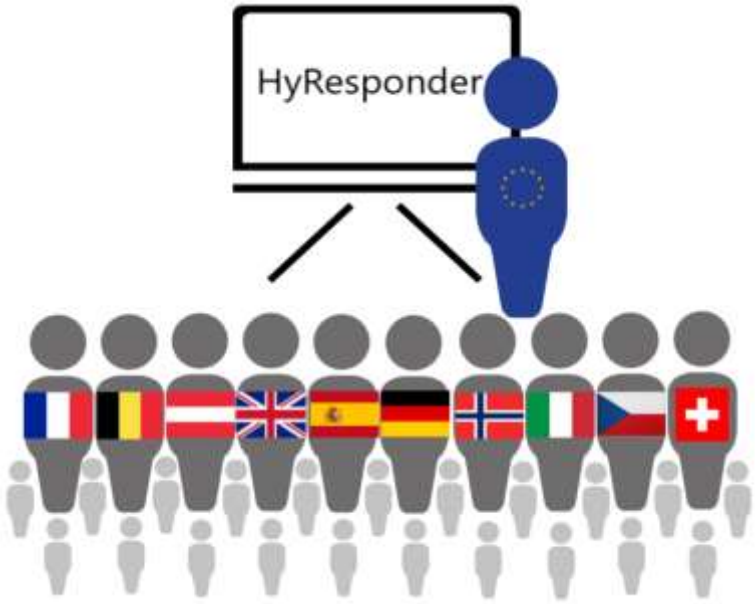
If you have any comments and/or questions about this Emergency Response Guide, please email: formations.specialisees@ensosp.fr

- https://hyresponder.eu/e-platform/european-emergency-response-guide/

Project progress

Train the trainer activities

- Virtual training for trainers from 10 partner countries plus SAB June 2021
- Face to face operational and virtual reality training June 2022 at ENSOSP, France
- Unique approach to manage online delivery “training sequences”
- Now ready to introduce national training
- Italian training materials will be available at hyresponder.eu contact us if needed now!



Project progress

National training activities

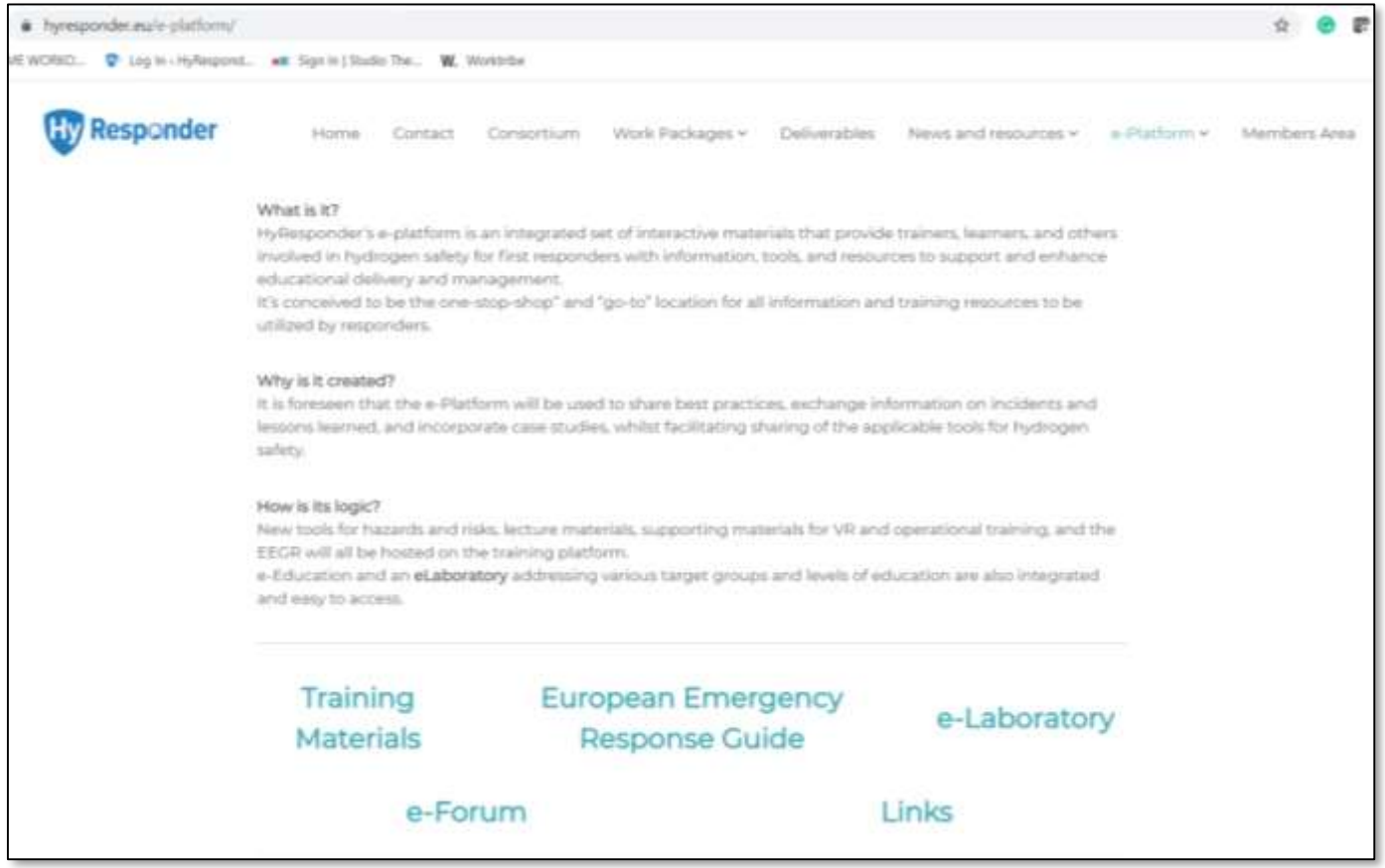
- Plan in place for training in 10 countries over 2022
- Trainers will introduce the **translated** training
  Czech, Dutch, English, French,
  German, Italian, Norwegian, & Spanish
- Translated materials will be freely available on the e-Platform (Target Nov)
- Approach is different from country to country
  - Face to face and online learning
- Contact us to find out more!

Project progress

HyResponder e-Platform

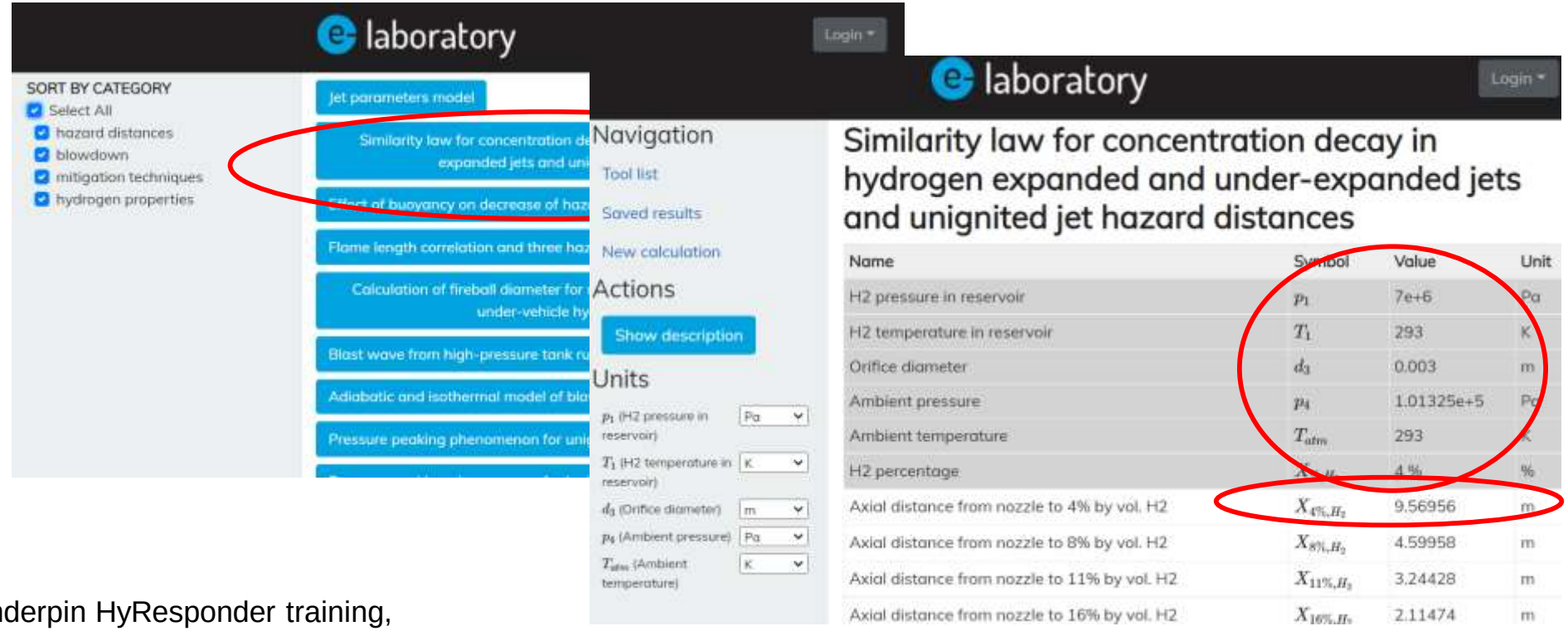
- Beta version
- Materials for trainers beyond HyResponder
- Stratified lectures
- Training sequences with videos
- Online tools
- EERG
- Translated materials will be available

https://hyresponder.eu/e-platform



Project progress

e-Laboratory

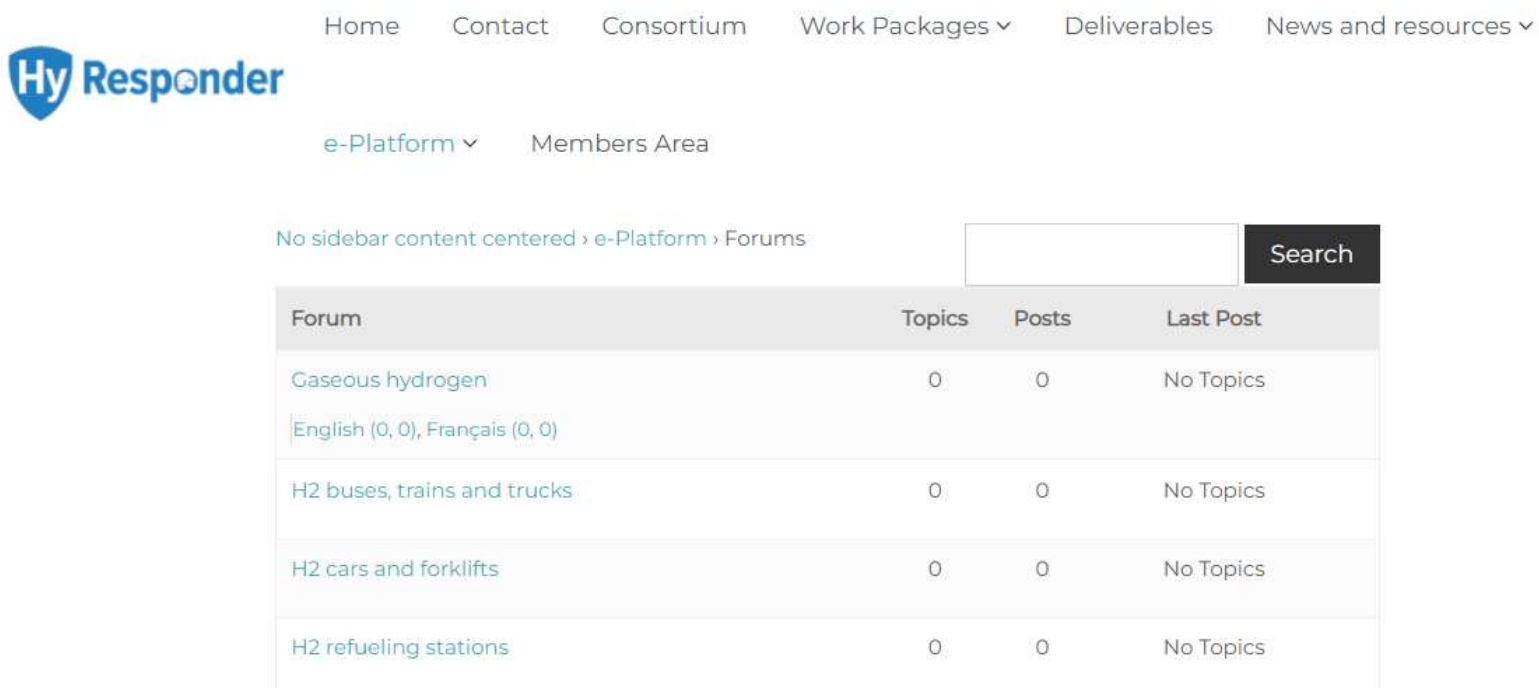


Used to underpin HyResponder training, many applications, access is free
https://elab.hysafer.ulster.ac.uk/

e-Forum

HyResponder e-Platform

- At testing stage
- Open to feedback
- Goal is a central point to allow comments and discussion



Expected impact of HyResponder

- e-Platform available as a “one stop shop” to facilitate access to information
- Unique operational training platform available at ENSOSP
- Online training sequences available to support local training
- Roadmap for standard training package with a defined module at firefighter level
- Stratified training materials available to freely access online across 4 levels
- Translated materials online and freely available in 8 languages
- Trainers from 10 countries trained in Hydrogen Safety
- Responders in 10 regions trained by HyResponder trainers maximizing reach of the training
- Online tools to support training available to all stakeholders
- Revised EERG available for use globally

Hy Responder

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Clean Hydrogen Partnership

Co-funded by the European Union

Ulster University

ENSOSP

cea

ibz

Bomberos Zaragoza – Escuela de Bomberos

DLR Deutsches Zentrum für Luft- und Raumfahrt German Aerospace Center – Institute of Networked Energy Systems

CTIF

Fire Service College

ifa International Fire Academy

ISN

Crise Crisis Simulation Engineering

Landes-Feuerwehrverband Tirol

Air Liquide creative oxygen

Sapienza Università di Roma






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