The European Hydrogen Safety Panel
EHSP

Programme Review Days 2019
Brussels, 19-20 November 2019

Chair and task force leaders
Iñaki AZKARATE
Stuart HAWKSWORTH
Thomas JORDAN
Trygve SKJOLD
Jennifer WEN

Contact:
EHSP@fch.europa.eu
Website:
Background
European Hydrogen Safety Panel (EHSP)

A brief timeline

- In 2006 and 2009 NoE HySafe was suggesting an activity for sharing lessons learned and hydrogen safety experience across project boundaries and to maintain this expertise eventually even beyond program terms.
- In 2014 the International Association for Hydrogen Safety HySafe proposed the installation of a safety panel to the Executive Director and Governing Board of the FCH JU.
- After several discussions about formal aspects, terms of reference, vision, mission, mandates, etc. the European Hydrogen Safety Panel was launched by the FCH 2 JU in 2017.
Vision
European Hydrogen Safety Panel (EHSP)

Reflecting the FCH 2 JU vision

• Hydrogen is an enabler of the Energy Transition towards a decarbonized system.

• Hydrogen plays a key role in the Energy System constituting a safe and sustainable Energy Carrier.
FC and H2 technology developments having a direct impact on safety:

- Quantitative growth across “established” applications in mature markets increases the demand for hydrogen, and hence increases the number and size of H2 supply units, i.e. HFS

- Qualitative change, new applications building on the success of established applications. (50-100 kg H2 for trucks, 200-500 kg for rail, and potentially tons of hydrogen for maritime)

The inevitable consequence of this increase in consumption will be the requirement for an increasingly large and competent workforce [...] technicians, engineers, manufacturers, regulatory authorities etc. on a very steep hydrogen learning curve.

**EHSP ROLE:** to provide independent safety expertise, objective information, education and training in different forms for various groups of stakeholders and support the anticipated upscaling of hydrogen application.
Mission, Objectives and Corresponding Activities

European Hydrogen Safety Panel (EHSP)

The EHSP assists the FCH 2 JU both at programme and at project level
• in assuring that hydrogen safety is adequately managed, and
• in promoting and disseminating the required hydrogen safety culture

Activities structured in 4 Task Forces

- TF1: Project level
- TF2: Program level
- TF3: Data Collection
- TF4: Public Outreach
The actual Panel (2019) consists of a Pool of

- 16 experts
- from 9 countries
Current EHSP Members – the Pool of Experts

European Hydrogen Safety Panel (EHSP)

Inaki Azkarate  Marco Carcassi  Joachim Grune  Stuart Hawksworth  Thomas Jordan
Georg Wilfried Mair  Vladimir Molkov  Ernst-Arndt Reinecke  Pratap Sathia  Ulrich Schmidchen  Etienne Studer
Skjold Trygve  Tom Van Esbroeck  Elena Vyazmina  Jennifer Wen  Jianjun Xiao

For more information see Members of the EHSP: https://www.fch.europa.eu/page/european-hydrogen-safety-panel

Products and Services of the EHSP

FUEL CELLS and HYDROGEN 2 JOINT UNDERTAKING (FCH 2 JU)

SAFETY PLANNING FOR HYDROGEN AND FUEL CELL PROJECTS

05 July 2019

TABLE OF CONTENT

1 INTRODUCTION

2 PRINCIPLES FOR SAFETY PLANNING

3 THE SAFETY PLAN

APPENDIX I - HYDROGEN SAFETY TERMINOLOGY AND ABBREVIATIONS

APPENDIX II - APPLICABLE REGULATIONS, CODES AND STANDARDS


Simple template for safety planning in FCH JU projects available! (approved by application)
2019 outcomes: Assessment and lessons learnt from HIAD 2.0

Products and Services of the EHSP

Ongoing and Planned Activities

Products and Services of the EHSP

- Safety Planning → Safety Management.
- Identification of “critical” projects.
- Assist in development and review of safety plans.
- Assist in emergency response.
- Further expansion of HIAD 2.0 and preparation of statistical evaluation.
- Provide updates, lessons learnt, incident/accident case interpretations and further compiled news via EHSP website.
EHSP in the „Big Picture“

International relations for strategic orientation

• Ensure appropriate engagement for hydrogen safety at program level.
• Identify and prioritise gaps with respect to hydrogen safety in close cooperation with RCS SCG, JRC and HySafe.
• Share information and coordinate with similar international activities.
• Support demonstrations of safety.
• Ensure safe implementation and operations for a broader roll-out.
The EHSP: An essential, open and free resource

Call for expression of interest open


Interest in participating?
Call for expressions of interest open!
In conclusion, the members of the EHSP would like to express a strong commitment towards supporting the Hydrogen Community.

With our expertise, we can help research projects, and in principle all stakeholders, to address matters related to hydrogen safety, free of charge!
The European Hydrogen Safety Panel thanks you for your attention!