

Hydrogen in Europe's energy transition: EU partnerships, national ecosystems and the skills pipeline

28 October 2025

Brussels



Co-funded by
the European Union

Hydrogen Europe Research

Hydrogen Europe Research contributes to the achievement of carbon neutrality by strengthening the European hydrogen industry and ensuring high-level research in Europe. **We bring together leading universities and research organisations to shape a sustainable future fueled by hydrogen.**

Our mission is based on
4 pillars:



Our Members

We represent the European Hydrogen Research Community with **166 members** in **30 countries**.



900+ scientists
involved in defining priorities
for the FCH sector

How we support education and skills development



European Hydrogen Observatory

We are a partner in the European Hydrogen Observatory and manages the data stream on Education and Training.

Skills Working Group

We have set up a Skills Working Group to reflect on the topic of skills, trainings, and education in the field of hydrogen and fuel cells.

Skills Task Force

We are representing the European Commission in the IPHE Skills task force.

Green Skills for Hydrogen

We are a lead partner of the Erasmus+ project Green Skills for Hydrogen.

More →

The Green Skills for Hydrogen Project

Green Skills for Hydrogen aims at addressing the growing skills needs of the hydrogen industry



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Objectives of GreenSkillsforH2



34 Partners in 15 countries



5 Industry stakeholders



11 Higher Education & Research organisations
6 VET providers



6 National and European networks



3 Local / Regional stakeholders



2 Clusters



1 Communication / Digital Expert

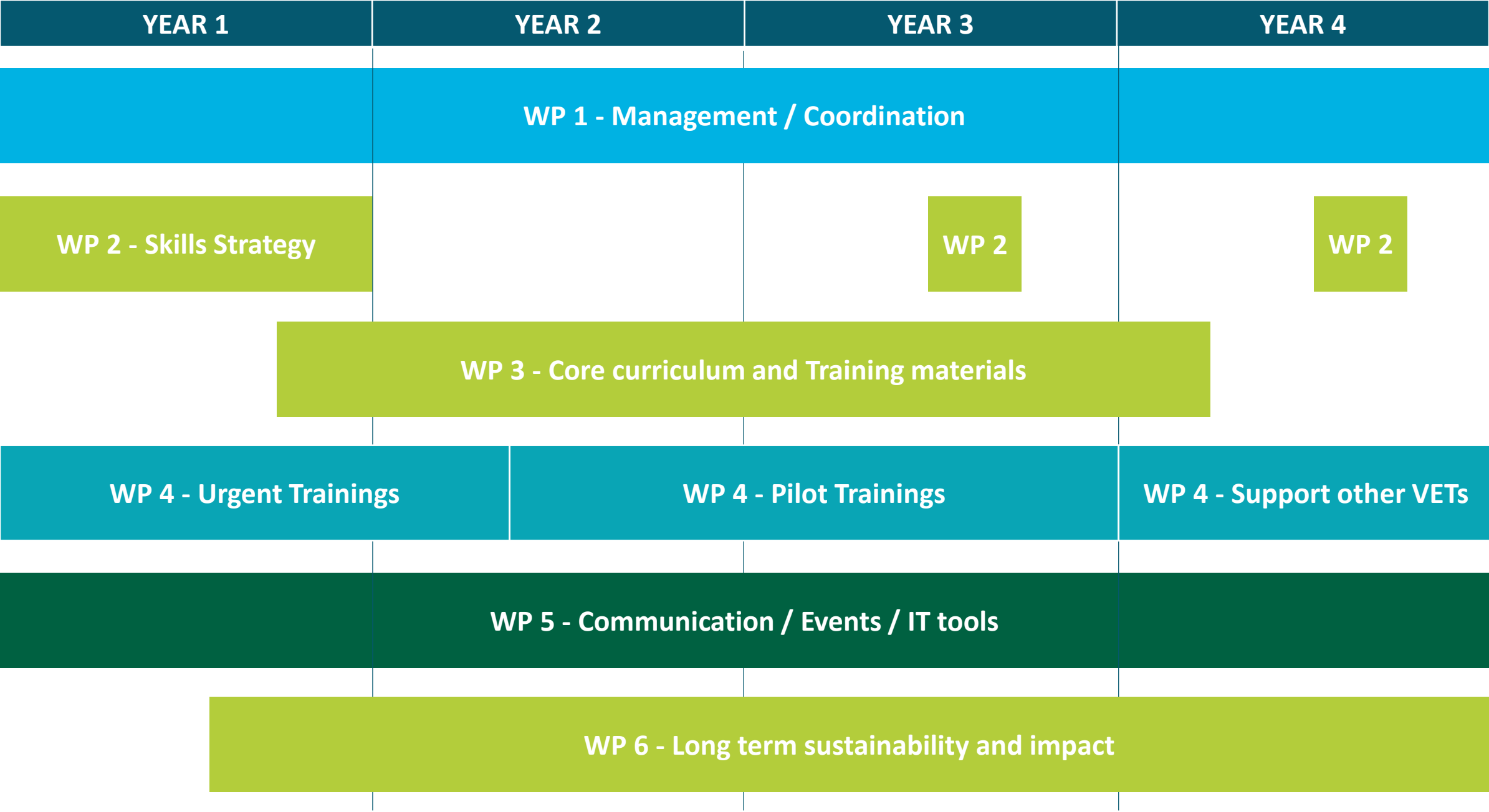


1 Market analysis and skills expert



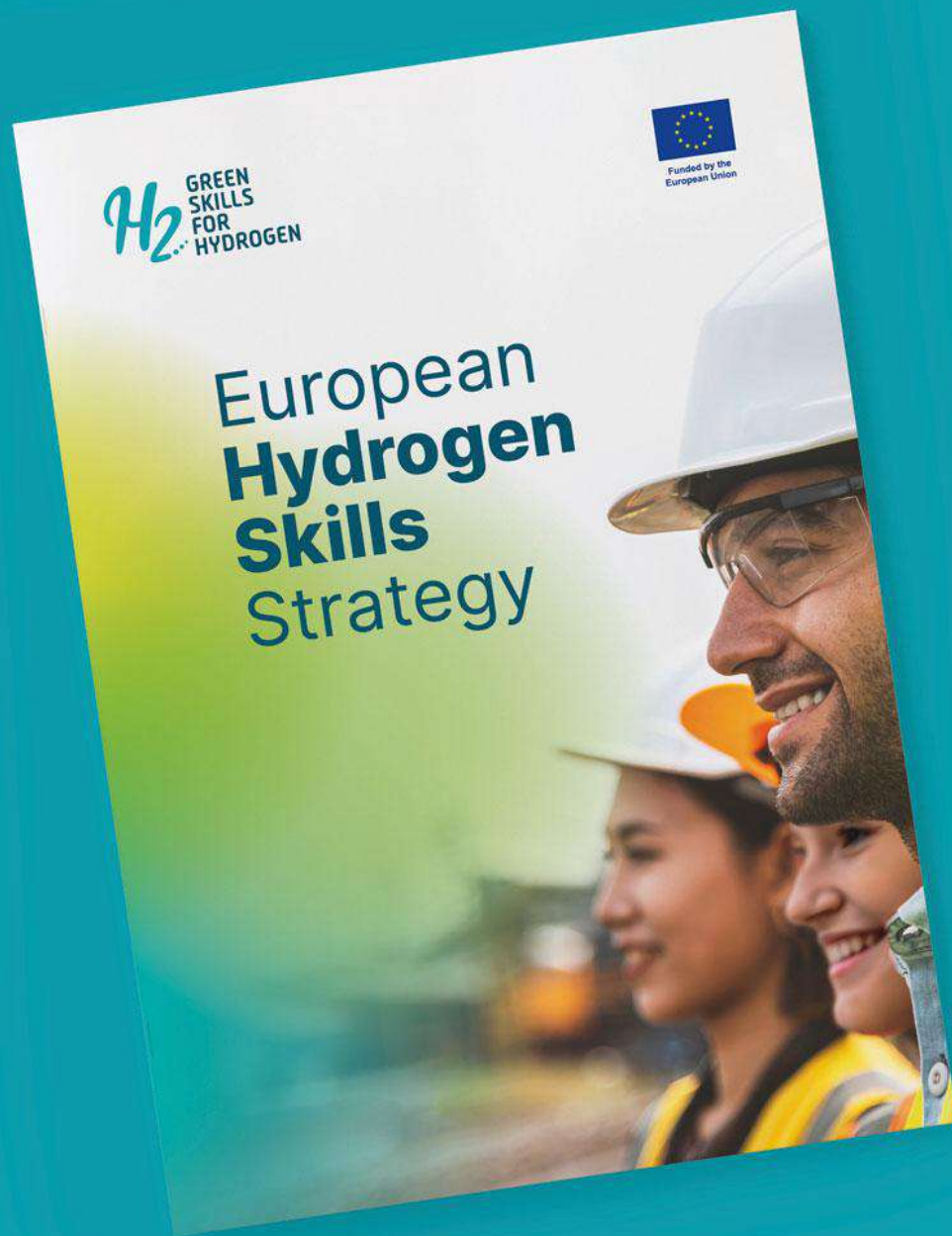
Transitioning regions represented by stakeholders





Key milestones

WP	MILESTONE	LEAD
1	Hydrogen Skills Alliance management and growth	KIT
2	Skills intelligence, needs analysis and skills strategy	ENERDATA
3	Core curriculum, qualifications and VET training programme	POLITO
4	VET Training Programme to meet existing & emerging skills needs	NHL Stenden
5	Europe wide dissemination, adoption and European impact	CP Europe
6	Long term sustainability and impact	Fundación Hidrógeno Aragón





23

**Countries
covered**



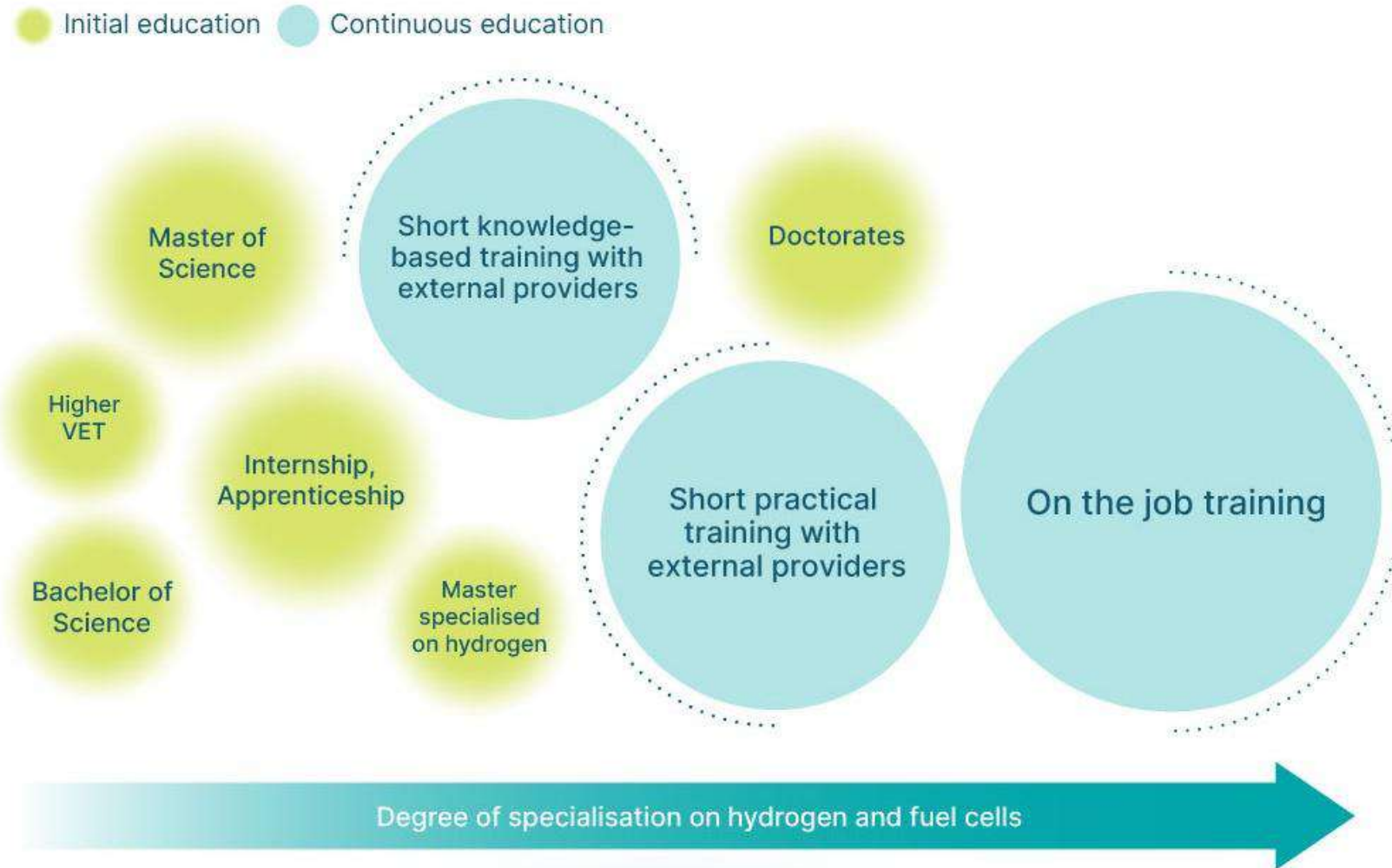
146

**Stakeholders
interviewed**

Most mentioned occupational profiles



Training of current workers in the field of hydrogen





Hydrogen Skills Core VET Curriculum

Green Skills for Hydrogen
Work Package 3
Deliverable 3.1
February 2024



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New VET training curriculum for Europe

Introduction to Hydrogen

5 modules with 15 learning units.
It can be implemented as a 30h–50h course, equivalent to 4–6 ECVET points.

1. Hydrogen basics
2. Hydrogen applications
3. Hydrogen technologies
4. Hydrogen economics
5. Hydrogen initiatives and regulation

Hydrogen for Technical Profiles

9 modules and includes 30 learning units.
It can be implemented as a 60h–90h (guided learning hours) course, equivalent to 8–12 ECVET points.

1. Hydrogen basics
2. Hydrogen applications
3. Electrochemical systems
4. Fuel cells
5. Electrolysis
6. Hydrogen storage and transport
7. Hydrogen economics
8. Environmental and social impact
9. Hydrogen safety and regulation

Hydrogen Skills for Safety and Maintenance Operators

5 modules and includes 22 learning units.
It can be implemented as a 40h–60h (guided learning hours) course, equivalent to 5–8 ECVET points.

1. Introduction to hydrogen: hydrogen basics and applications
2. Fuel Cells and Electrolysis systems
3. Hydrogen mobility
4. Hydrogen use: combustion, components and detection
5. Hydrogen safety

Reskilling & upskilling training programmes



40 training sessions delivered in 9 EU countries to over 2,000 people



Europe wide dissemination, adoption and European impact

- 4,523 community members
- 17,000 website visits
- Over 191 posts and 190,000 impressions on LinkedIn
- 37 newsletters - 600 subscribers
- 89 web posts





Training programmes for individuals with varying levels of experience and expertise

Whether you're new to the hydrogen industry or looking to enhance your skills, our trainings have you covered.

[EXPLORE PAST TRAININGS](#) →



Premium educational resources, training materials, and industry reports

Stay ahead of the curve with the latest insights and information.

[EXPLORE KEY DOCUMENTS](#) →



Networking opportunities

Connect with like-minded people who share your passion for hydrogen. Engage in discussions, exchange ideas, and build valuable professional relationships.

[EXPLORE MEMBERS](#) →



The European Hydrogen Skills Alliance

A growing network of professionals, enthusiasts, and experts passionate about the hydrogen industry and committed to building a sustainable future.



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Thank you!

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