



Making an impact on the clean energy transition

MARKET UPTAKE

# LAYING THE GROUNDWORK FOR A NEW HYDROGEN MARKET



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## Building the scaffolding

Hydrogen is an essential component of the future energy system, but adequate commercialisation will depend on the right legal environment and regulations, codes and standardisation (RCS) frameworks. To help boost market deployment, the FCH JU funds a variety of pre-normative research (PNR) activities.

These include 14 projects aimed at filling knowledge gaps and providing recommendations to put in place suitable RCS frameworks, covering the entire hydrogen chain and addressing aspects such as safety, quality and sustainability standards.

Between 2014 and 2016, the FCH JU-funded CertifHy project developed a definition for green and low-carbon hydrogen, resulting in the launch of the first EU-wide guarantee of origin (GO) scheme for green and low-carbon hydrogen in 2019. Meanwhile, the HyLaw project has been analysing the LAPs of 18 national legal systems as well as the EU's legal system, with a view to identifying the barriers to FCH deployment and advocating for their removal.

## Tools for change

To coordinate the RCS strategy within the FCH JU, the Strategy Coordination Group (SCG) provides evidence-based analyses of urgent priorities for PNR and standardisation needs. In collaboration with the EC's Joint Research Centre (JRC), the FCH JU responds to these findings and proposals with actions ranging from supporting the formulation of RCS strategy, to direct implementation of its proposals. Projects such as HyLaw have been disseminating their findings and advocating for public authorities to remove barriers, while CertifHy's green hydrogen certification marks the start of a new green hydrogen industry for Europe.

**Out-of-date legal and administrative processes (LAPs) and a lack of information are deterring investors and clients from using hydrogen fuel cell (FCH) applications. By providing the knowledge needed to develop a supportive framework for the new hydrogen market, the FCH JU is playing a fundamental role in removing these barriers.**



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**BLOCKING POTENTIAL**

The full potential of FCH technologies is being restricted by the lack of harmonised and suitable RCS, which are essential for the mass roll-out of FCH technologies across Europe and worldwide.

**KNOWLEDGE IS KEY**

To enable a supportive environment for widespread FCH technology uptake, the FCH JU is funding the pre-normative research needed to create the right regulations, codes and standards. **The goal?** To collaborate with industry and other stakeholders to remove this barrier to market deployment by ensuring that the necessary information is gathered and disseminated to policymakers, administrations, clients and investors. **Key results?** The development of green hydrogen certification, harmonised test protocols and an information database outlining current legal and administrative barriers to commercialisation.

**KEY ACHIEVEMENTS**

**EUR 29 M FUNDING FOR 14 PNR PROJECTS**

**COLLABORATION WITH THE JRC**

to support the formulation and implementation of the RCS strategy

**NATIONAL ASSOCIATION ALLIANCE**

unites stakeholders in removing legal barriers

HyLaw

**23 PARTNERS**

are investigating FCH legislation and regulations

**18 COUNTRIES**

analysed for legal and administrative barriers to FCH uptake

**EUROPEAN AWARENESS-RAISING WORKSHOP**

disseminating findings and pressing policymakers to remove legal barriers

**18 NATIONAL AWARENESS-RAISING WORKSHOPS**

disseminating findings and pressing policymakers to remove legal barriers

CertifHy

**900+ STAKEHOLDERS**

working together to create green hydrogen standards

**IMPACT**

More than **100** contributions to conferences and journals

**COLLABORATION WITH JRC**

**EU HARMONISED TEST PROTOCOLS**

for PEMFC MEA in single cell configurations made in agreement with the main European manufacturers and research centres and backed by the EC

HyLaw

**ONLINE DATABASE**

providing benchmarks and recommendations for removing barriers to FCH uptake in 18 countries

**30 PUBLIC AUTHORITIES**

provided with country-specific benchmarks and recommendations on how to remove barriers to FCH

**17 NATIONAL POLICY PAPERS**

highlighting best practices, identifying legal barriers and providing policy recommendations

**A PAN-EUROPEAN POLICY PAPER**

targeting European decision-makers

CertifHY

**FIRST EU-WIDE GUARANTEES OF ORIGIN FOR GREEN AND LOW-CARBON HYDROGEN**

FIND OUT MORE



[www.fch.europa.eu/page/fch-ju-projects](http://www.fch.europa.eu/page/fch-ju-projects)

[www.certifhy.eu](http://www.certifhy.eu)

[www.hylaw.eu](http://www.hylaw.eu)



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