

# Mission Innovation Hydrogen Valley Platform

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IPHE Forum  
Hydrogen Valleys: Policies and Actions at a Regional Scale

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# MI, EC and FCH JU want to push "hydrogen valleys" globally – as local market makers for clean hydrogen

## The background



Innovation Challenge 8 "Hydrogen"



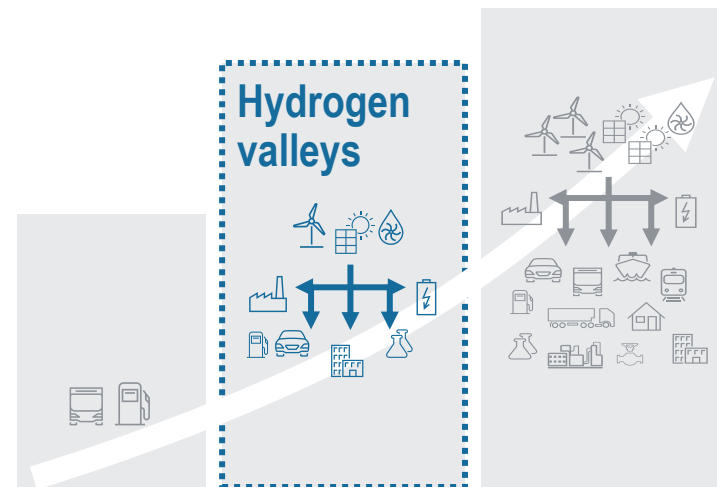
EU funding, as one of the IC8 Co-Chairs (DE, AU, EU)



Implementation by the FCH JU

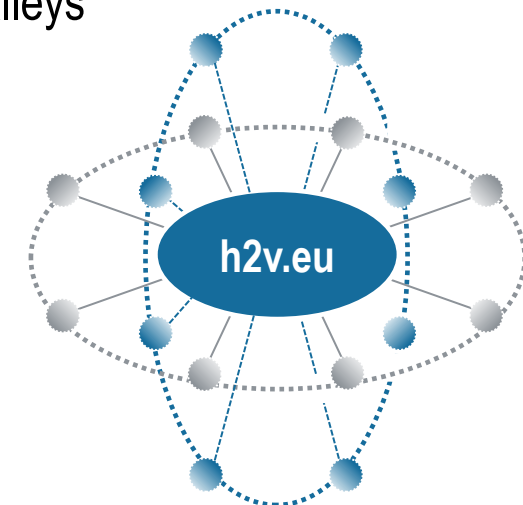
## The topic

- > Next-generation market development
- > Integrated (and larger-scale) projects covering more and more of the value chain – "mini hydrogen economies"



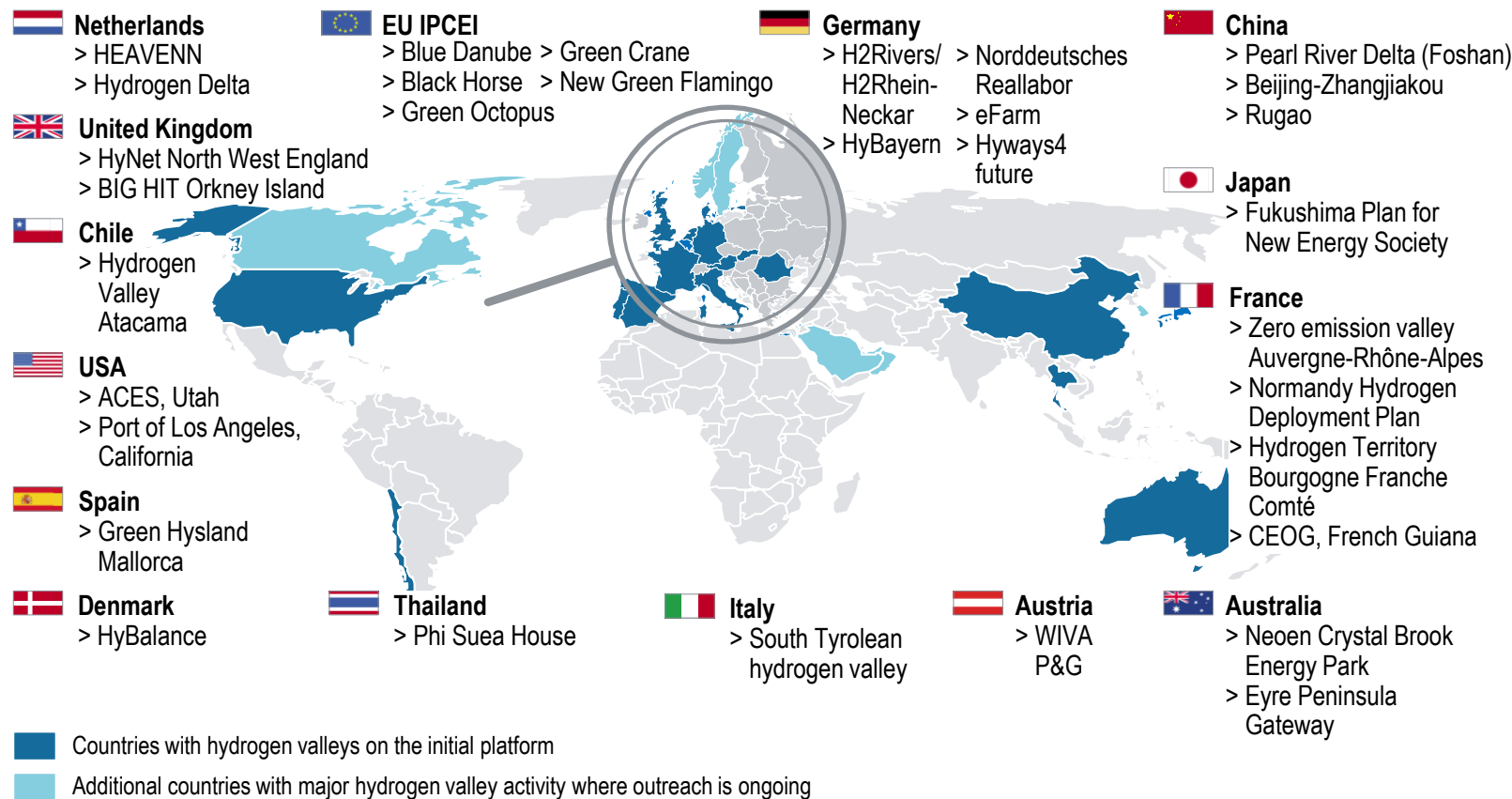
## The goal

- > A global information sharing platform
- > To inform project developers, policy makers and other stakeholders in their efforts to advance hydrogen valleys



# Hydrogen valleys have become a global phenomenon, with integrated projects emerging all around the world

## A fast-growing landscape of globally leading projects ...



## ... featured on a new platform

- > 30 valleys from 15 countries
- > 3,000 data points
- 10 in-depth best-practice profiles



# The valleys are diverse in almost every way, but all feature different signs of a maturing market



**Upstream and midstream value chain** – Almost all valleys surveyed (97%) aim to produce clean hydrogen, with electrolysis being by far the most common production technology (>80%, with 63% PEM and 35% ALK). Most valleys also plan to store (>80%) and transport (>75%) hydrogen



**End uses** – Most valleys ultimately aim for using clean hydrogen in mobility applications (>80%) – reflecting in many cases an intention to "showcase". However, half of the valleys surveyed also serve industrial feedstock and energy end uses



**Drivers** – Political agendas are the main motivators for the valleys (reaching climate policy objectives (75%) and industrial policy, esp. employment (>65%)). In addition, two thirds of the valleys surveyed are – as they say – economically driven (as well)

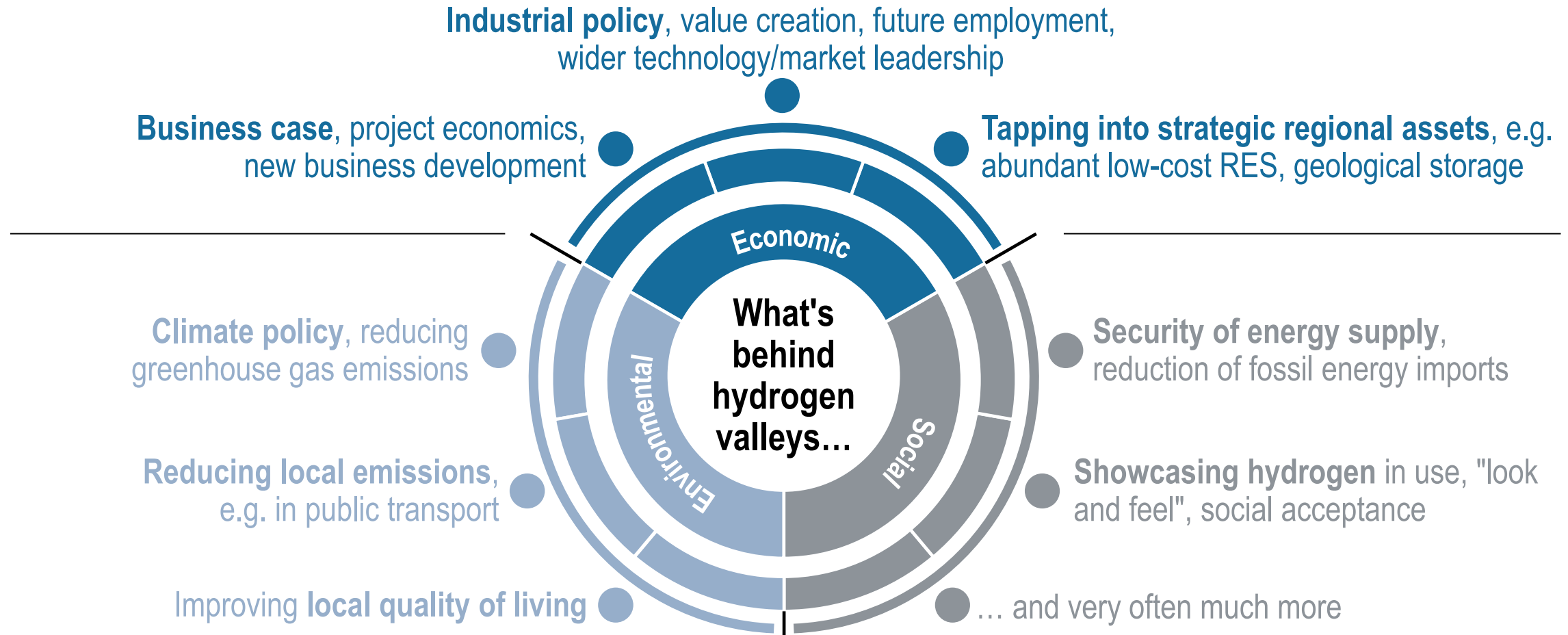


**Size and investment** – Planned investments range from EUR 20 m to more than EUR 5 bn; hydrogen production from less than 1 to more than 2,000 tons per day. Projects are increasingly ready to go for larger volumes and take on more complexity in the value chain



**Stakeholders** – On average, more than 10 stakeholders are involved in driving a hydrogen valley forward; private enterprises are taking the lead in over half of the valleys surveyed

# Valley developers' motivations are as diverse as the valleys themselves, reflecting the very versatile role of hydrogen



# Still, hydrogen valleys succeed – no less because of various best-practice approaches to project development

Valleys analysed for the platform development showed among others ...



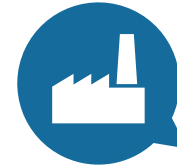
... how project developers can **successfully built** upon different regional projects and – **step by step** – grow a local hydrogen economy that becomes ever larger, more integrated and inclusive



... how to bring together **dozens of partners** in integrated projects and at the same time implement **representative and effective governance** mechanisms to ensure smooth execution



... how to creatively tap into **public funding sources at supranational, national and regional level** to help close remaining funding gaps

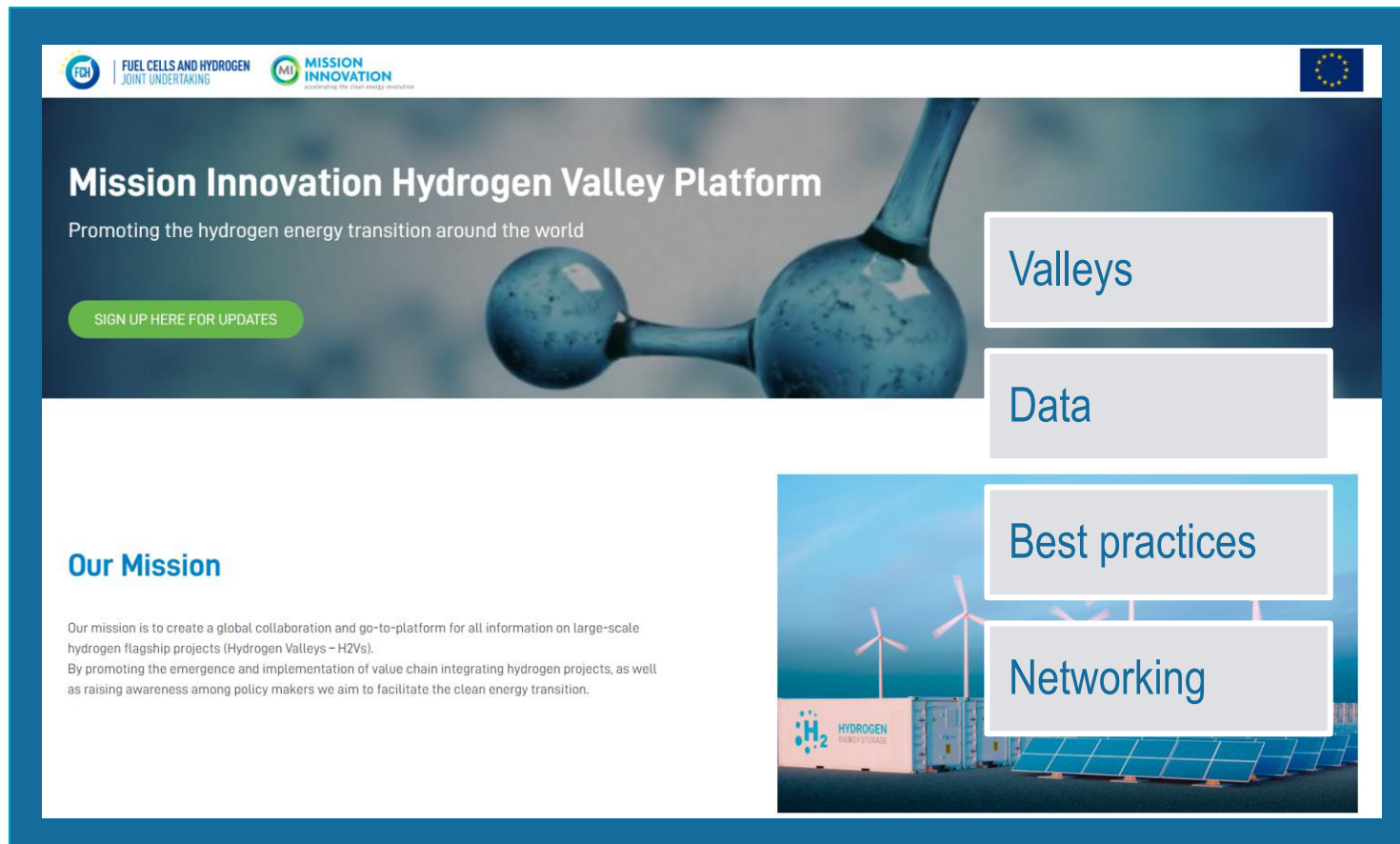


... that the main commercial **de-risking element** often concerns **securing off-take commitments** – and how this can be achieved (even absent critical regulation)



... that it is already possible today to both built **purely commercial clean hydrogen projects** and even finance integrated projects with **limited-recourse project financing**

# MI, the IC8 co-chairs and the FCH JU will launch the platform early next year



The screenshot shows the website for the Mission Innovation Hydrogen Valley Platform. At the top, there are logos for FCH (Fuel Cells and Hydrogen Joint Undertaking), MI (Mission Innovation), and the European Commission. The main heading is "Mission Innovation Hydrogen Valley Platform" with the subtitle "Promoting the hydrogen energy transition around the world". A green button says "SIGN UP HERE FOR UPDATES". Below this, there is a section titled "Our Mission" with text: "Our mission is to create a global collaboration and go-to-platform for all information on large-scale hydrogen flagship projects (Hydrogen Valleys – H2Vs). By promoting the emergence and implementation of value chain integrating hydrogen projects, as well as raising awareness among policy makers we aim to facilitate the clean energy transition." To the right of the mission text, there are four stacked boxes: "Valleys", "Data", "Best practices", and "Networking". At the bottom right, there is an image of a hydrogen energy landscape with wind turbines, solar panels, and a container labeled "HYDROGEN Energy Storage".

Stay tuned and  
save the date for  
the launch event:  
**Friday,  
15 January 2021**

# Thank you for your attention – don't hesitate to reach out

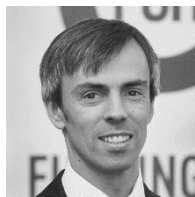
## Your contacts at the FCH JU



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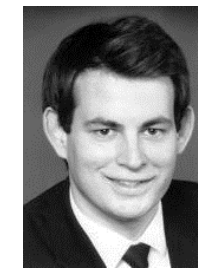
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