Earmarking funding for Hydrogen Valleys to boost European sustainability and competitiveness

European Hydrogen Valleys S3-partnership

EUROPEAN HYDROGEN VALLEYS PARTNERSHIP

What we as S3 European Hydrogen Valleys Partnership ask for

- Earmarking more funding from the ETS, the European Innovation Fund and Competitiveness Fund to green Hydrogen transition, and European Hydrogen Valleys initiatives in particular
- Encouraging local and regional partnerships between public and private sectors , as this is critical to accelerate hydrogen technology and infrastructure.
- Making specifications in the Innovation Fund and the Hydrogen Bank to foster development of hydrogen chains, entrance for SME's and support for regions.

With the Clean Industrial Deal, the European Commission will outline a comprehensive strategy to advance Europe's industrial sector towards sustainability and global competitiveness. We welcome the initiative of an Industrial Decarbonisation Accelerator Act and the Clean Industrial Deal, which emphasize the necessity of channelling investment in infrastructure and industry, in particular for energy intensive sectors to strengthen Europe's geopolitical position. This initiative supports important European transitions, such as the transition to Hydrogen as a key energy carrier within European energy systems.

In line with the report by Mario Draghi on the future of European competitiveness we agree that a stronger focus is needed by the EU, national, and regional governments to provide sufficient financial resources for competitiveness and transition.

We believe that one way to achieve this, is to earmark a larger share of ETS-revenues, specifically from the Innovation Fund, to fund and finance innovations that enhance the uptake of green Hydrogen or carbon capture and storage solutions, to accelerate highly innovative technologies.

Within this transition, partnerships between public and private sector are critical to accelerate technology development and the role of cities and regions is instrumental in achieving this. Moreover, Draghi emphasizes that Hydrogen Valleys can significantly enhance European competitiveness, drive sustainable economic growth, succeed in reshaping European energy and industry landscape, rebalance regional inequalities and sustain European technological leadership in the global market.

Here, we turn towards the importance of Hydrogen Valleys. The Hydrogen Valleys initiative is a cornerstone of Clean Hydrogen Partnership's strategic research and innovation agenda, acting as a key driver of growth in the European regions, therefore contributing to European competitiveness in general. We believe that further support for Hydrogen Valleys in Europe is crucial, as they serve as innovation hubs that stimulate regional growth and innovation, fostering economic development with hydrogen as the backbone of Europe's competitive and clean energy transition. Successful Hydrogen Valley projects are **IMAGHyNE**, **HEAVENN** and **LuxHyVal**.

The following perquisites are needed to fully unlock the potential of Hydrogen and Hydrogen Valleys as they strengthen the demand by helping end users (industry and mobility) access new technologies with higher CAPEX:

Scaling up Hydrogen production

Increasing investments in green Hydrogen production, particularly, but not limited to, through electrolysis powered by renewable and decarbonised /low carbon energy sources (also other technologies like gasification and pyrolysis should be taken into account).

Infrastructure development

Building a strong Hydrogen infrastructure, including pipelines (transport as well as distribution level), storage facilities, and cross-border networks to enhance the spread use across various sectors that are crucial for decarbonization, such as transportation, energy and industry.

Financial support

Designing favourable financial incentives to boost Hydrogen innovation, integration and market relevance as well as accelerate adaptation.

Collaboration and innovation

Strengthening partnerships between public and private sectors to accelerate hydrogen technology development, fostering efficiency and enabling more cities and regions can participate in sectors that will drive future growth and stimulate demand by providing appropriate financial support to ensure that projects are profitable.

In order to make Hydrogen Valleys work, dedicated funds are needed. Therefore we the S3 the European Hydrogen Valleys Partnership, a partnership of more than 65 European regions working together on the development of interregional Hydrogen economies, call on earmarking more ETS funding, including funding from the European Innovation Fund and Competitiveness Fund to green Hydrogen transition, and European Hydrogen Valleys initiatives in particular.

This can be done in the short term by incentivising, via the scoring criteria, traditional Innovation Fund hydrogen proposals with hydrogen production for single off-takers to look beyond, and instead, develop Valleys type of projects with multiple off takers and a more cross sectorial approach. Another measure can be done by the hydrogen bank, where an improvement can be made in the business case for early Valley adopters by adapting the auction for Valley type of projects, which are smaller size projects and they will have easier access than current auctions.

Below we outline the necessities of a dedicated strand of the Innovation Fund for Hydrogen Valleys, in order to boost not only regional sustainability but also European competitiveness and energy sovereignty.

Why allocate EU funding to and through Hydrogen Valleys?

1 **To support the entire value chain for a competitive market**

Currently, EU funding is dedicated to specific components of the hydrogen value chain; for example, significant funding is allocated for hydrogen production. However, the entire hydrogen value chain can only function effectively if all its components operate in a region. Hydrogen Valleys are uniquely positioned to facilitate projects that integrate all elements of the hydrogen value chain—whether at a regional level or as part of a broader European network. Additionally, Hydrogen Valleys span multiple industries, including manufacturing, food, mobility, and agriculture. They are best equipped to identify the specific industry links that require financial stimulation and implement targeted solutions. Hydrogen Valleys are critical to the Innovation Fund as they create synergies between energy, transportation, and clean industry, all of which are essential for decarbonization. Moreover, they represent bottom-up initiatives that drive market creation, as they actively engage stakeholders across the value chain. Allocating a dedicated portion of the ETS and Innovation Fund to hydrogen Valleys would provide the necessary conditions for Hydrogen Valleys to lead European competitiveness in the hydrogen sector.

2 **To expand EU Funding Access for Small and Medium-Sized Enterprises (SMEs)**

While European co-financing is accessible for large industrial players, SMEs developing hydrogen innovations struggle to secure funding from existing programs such as the Hydrogen Bank or Horizon Europe. This creates a financial gap that slows innovation. Furthermore, for smaller projects, it is essential that financial support extends beyond capital expenditures (CAPEX) to include operational expenditures (OPEX), ensuring the viability of hydrogen production over time. Also, the use of Hydrogen will require OPEX support to accelerate and stimulate uptake. By establishing a dedicated strand from the ETS and Innovation Fund for Hydrogen Valleys, the EU can facilitate the transition from early-stage innovation to demonstration and widespread deployment.

3 **To support Tailored Hydrogen Applications**

Hydrogen can be used in various forms depending on the spatial context and the valley's position in European chains. Applications vary across valleys, including ammonia, liquid hydrogen, or LOHC (Liquid Organic Hydrogen Carriers) and syntactic fuels production. Funding at the regional level would enable Hydrogen Valleys to tailor hydrogen solutions to local industries and economic needs, thereby maximizing impact and efficiency. The effectiveness of ETS funding and Innovation Fund will benefit from a place-based delivery model.

4 **To address local needs and regional variations**

Within Europe, the pace of innovation as well as the degree of sustainability varies per valley depending on the local context. In some regions, the transition to hydrogen is crucial due to geographical constraints that limit large-scale electrification, while in others, the presence of energy-intensive industries makes hydrogen adoption essential for decarbonization. For mobility, hydrogen can be highly relevant, including in the maritime sector and particularly between Hydrogen Valleys. The EU Innovation Fund should support broad hydrogen applications to maintain competitiveness and ensure a smooth transition to the most desirable technology, such as fuel cells. Hydrogen plays a crucial role if we want to pursue the sustainable energy transition, but its economy needs to be further developed at national and European level, backed by European funding sources. Currently the existing Hydrogen Valleys can create, when they are fully running, 7 million tonnes of hydrogen per year, as calculated by the Clean Hydrogen Partnership. Hydrogen Valleys will be both a solution for a more competitive and resilient Europe and a Europe free of Russian gas and oil. Hydrogen Valleys have the opportunity to create a hydrogen market that connects producers and consumers, creating a modern, fit-for-purpose economy.

5 **To address the need for dedicated funds**

The funding of € 200 million, which was made available by the European Commission through Repower EU for the Clean Hydrogen Partnership to double the number of Hydrogen Valleys in Europe and accelerate the implementation of the hydrogen economy across the EU, is coming to an end with the current call for proposals 2025. After three years, the Repower EU public funding stream will conclude, necessitating the establishment or reinforcement of an alternative funding mechanism for regions that remain engaged in this area. The Innovation Fund emerges as a viable solution, given its broader scope and greater financial capacity.

6 **To integrate hydrogen into strategic industrial sectors**

To maximize the impact of the energy transition, it is crucial that Hydrogen Valleys not only promote hydrogen production but also establish complete value chains that ensure its integration into industry. Sectors such as steel, cement, chemicals, and fertilizer production rely on sustainable energy solutions to maintain their competitiveness and reduce emissions. Funding should prioritize projects that facilitate hydrogen adoption in these industries, enabling both the adaptation of existing infrastructures and the development of new industrial applications. In this way, Hydrogen Valleys can become true engines of decarbonization and economic growth at the European level.

Hydrogen Valleys represent a fundamental pillar of Europe's clean energy transition, offering a pathway to both sustainability and industrial competitiveness. To fully harness their potential, dedicated funding from the ETS, Innovation Fund, the Hydrogen Bank and Competitiveness Fund must be earmarked for their development. By investing in Hydrogen Valleys, Europe can create a resilient, sustainable, and globally competitive hydrogen economy.

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