

## A hydrogen valley to drive forward the use of green hydrogen in Luxembourg

- A powerful consortium joins forces to boost green hydrogen in Luxembourg
- The team involves 17 partners from 7 different countries (Luxembourg, Germany, Spain, France, Czech Republic, Ukraine, and Australia)
- By focusing on seven innovation pillars, LuxHyVal strives to lead the way in advancing hydrogen deployment and driving sustainable energy solutions

*Esch-sur-Alzette, 17/06/2024* – Luxembourg has launched Luxembourg Hydrogen Valley (LuxHyVal), a project that targets the potential production of green hydrogen in Bascharage, south Luxembourg, in 2026. LuxHyVal is a collaborative effort of 17 partners from seven countries with the University of Luxembourg as the main coordinator through Prof. Bradley Ladewig.

The hydrogen ecosystem of LuxHyVal is expected to make an important contribution to decarbonise the industrial hydrogen consumption of the country, using 100% renewable electricity to produce green hydrogen in Luxembourg.

Enovos and LuxEnergie, both subsidiaries of Encevo Group, intend to ensure the production of up to 1,750 kg of green hydrogen per day for use in industry and mobility by 2026, under implication of the engineering company Paul Wurth, headquartered in Luxembourg. The 6 MW electrolyser facility at the heart of the project is expected to be built in the industrial park of Bascharage.

The project will also have a direct positive impact for the economy through job creations, as well as for the public mobility, as the bus companies Sales-Lentz and TICE will upgrade part of their fleet to fuel cell hydrogen (FCH) buses. Moreover, the green hydrogen produced in the electrolyser would enable industrial partner Ceratizit to replace its use of natural gas-derived hydrogen.

LuxHyVal is designed to be a sustainable and open ecosystem. With an overall budget of 39 million euros, LuxHyVal is expected to be funded through 8 million euros from the Clean Hydrogen Joint Undertaking, a European Union public-private partnership supporting research and innovation in hydrogen technologies, as well as contributions from the corporate partners, while pursuing further public and private funding opportunities. A final investment decision regarding the main capital investment for the project is expected at the beginning of 2025.

### **Possible replication of LuxHyVal in Czech Republic and Ukraine**

In a second stage, the expertise acquired by designing, building, and operating the first green hydrogen ecosystem in the Greater Region, should serve as a direct model for replicating valleys

in Central (Czech Republic) and Eastern Europe (Ukraine), furthering EU's 'Fit for 55' emission targets (reducing the EU emissions by at least 55% by 2030) and helping Ukraine's reconstruction.

*"We will need hydrogen to meet the EU emission targets, and with LuxHyVal, we are trying to make concrete advances towards a sustainable and cleaner future",* says Prof. Bradley Ladewig, holder of the Paul Wurth Chair in Energy Process Engineering and coordinator of the project. *"Building large industrial infrastructure takes time and effort: we need to start now."*

Stéphanie Obertin, Minister for Digitalisation and Minister for Research and Higher Education comments *„I welcome this initiative because it is in line with the national research and innovation strategy. Indeed, this collaborative project involving the University of Luxembourg and the Luxembourg Institute of Science and Technology (LIST), to produce green hydrogen locally fits in perfectly with two of the four two of the country's four priority interdisciplinary research areas industrial and service transformation, and sustainable and responsible development."*

*"The use of climate friendly and competitively priced hydrogen will be essential to decarbonize parts of our economy. It is one of my priorities to connect Luxembourg to a European hydrogen grid, in order to guarantee the access to competitive climate friendly hydrogen",* adds Lex Delles, Minister of the Economy, SMEs, Energy and Tourism. *"I congratulate the whole consortium for the successful launch of the LuxHyVal project"*.

### **More about the LuxHyVal project**

LuxHyVal collaborative project is aligned with the Clean Hydrogen Mission and comprised of 17 partners from 7 different countries covering the entire value chain, including energy engineering/integrator, technology providers, supplier of green electricity, end users in mobility and industry and experts in digitalisation, public acceptance, environmental assessments, innovation management, and replicators from the follower valleys.

LuxHyVal project Consortium includes University of Luxembourg, Paul Wurth, Encevo, Enovos, LuxEnergie, Green Power Storage Solutions (GPSS), Ceratizit, LuxMobility, Sales-Lentz, Syndicat T.I.C.E., and Luxembourg Institute of Science and Technology (LIST) represent Luxembourg-based partners, together with University of Bordeaux, France; IZES GGMBH, Germany; R2M Solution, Spain; University of Chemistry and Technology, Prague (VSCHT), Czech Republic; King Danylo University, Ukraine, and University of New South Wales (UNSW), Australia.

LuxHyVal aims to locally produce green hydrogen to replace imported grey hydrogen, aligning with Luxembourg's decarbonization strategy. It employs a comprehensive approach to gradually upscale production, focusing on specific objectives and key performance indicators. LuxHyVal also strives to innovate across various domains to achieve significant impacts from technical, economic, environmental, social, and replicability perspectives. Through seven Innovation Pillars, it advances the state-of-the-art in hydrogen deployment and applications, driving sustainable energy solutions and leading hydrogen innovation.

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*Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the Clean Hydrogen Partnership. Neither the European Union nor the granting authority can be held responsible for them.*

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