TOWARDS A WALLOON "HYDROGEN VALLEY"

While hydrogen sometimes raises some concerns, it is necessarily part of the solution of the energy mix of the future in its carbon-free version.

This is why the Strategic Innovation Initiative (SII) e-WallonHY has embarked on an ambitious programme combining research, development of technologies and skills and support for their implementation. E-WallonHY brings together researchers, industrialists and public partners to develop solutions that meet safety requirements and improve the competitiveness of companies, while helping them to decarbonise their activities. Want to participate?



Why an initiative on decarbonized hydrogen?

Whether it is used as is, transformed into other molecules (ammonia, e-fuel,...) or electricity, carbon-free hydrogen is one of the solutions to be deployed to meet climate challenges. In addition, recent crises (Covid, war in Ukraine) have brutally highlighted the problem of our regions' dependence on foreign supplies, especially for essential products such as energy resources. In this context, the production of green and local energy, combined with decarbonisation objectives, is becoming more than ever an imperative for the future.

By capitalising on Wallonia's skills in the production of carbon-free hydrogen, prototyping and testing infrastructure and on the strategic geographical position of the Region, the consortium is developing synergies and promoting expertise in new Walloon or European projects.



e-WallonHY in concrete terms

The IIS e-WallonHY aims to develop a Walloon decarbonised hydrogen economy that covers the entire value chain. This economy includes: production, transport, storage and uses in a multitude of fields (mobility, stationary, industry, including technical components useful to the sector, maintenance, training, R&D and test benches).

This ambition involves setting up local production and use chains, developing partnerships, supporting research and innovation and training projects, strengthening the competitiveness and visibility of Walloon players and contributing to regional, Belgian and European hydrogen policies .

The strategy favours the multiplication and pooling of production capacities in connection with targeted applications, to reduce investment costs on each project, to facilitate and accelerate the deployment of hydrogen in the territory and to achieve the ambitious objectives set by Europe, Belgium and Wallonia.

The IIS action plan includes the development of a "Made in WallonHY" label for the decentralised production of green hydrogen and its local use, but also for the promotion of Walloon know-how that differentiates the hydrogen sector.









SOME FLAGSHIP PROJECTS

- > MaterHYum: new services and prototype tools to study the impact of hydrogen on materials in representative environments.
- > TiNTHyN: creation of a Walloon network of high-level scientific expertise available to the industrial fabric through support for 12 doctoral theses developed in Walloon universities in collaboration with approved research centres in order to prepare the technologies of tomorrow for the hydrogen sector. The project is based on 3 work packages: the production of carbon-free hydrogen, the transport, distribution and storage of hydrogen, and its use for mobility, industry and stationary transport.
- > Valhywal: support for the creation of a Walloon "Hydrogen Valley" connected to other "valleys" on a national and international scale by 2026. A "Hydrogen Valley" is a geographical area where several hydrogen applications are combined to ideally cover the entire value chain hydrogen: production, storage, distribution and end-use.
- > VKHyLab: construction of an infrastructure for the realization of semi-industrial tests for the hydrogen value chain, open to the entire ecosystem of the sector (universities, research centers and industries).
- > *H2ITC:* Creation of an independent test center to optimize the use of hydrogen and hydrogen-derived e-fuels in road mobility, river or even air.
- > Greensky: Transnational training program to promote the development of the clean hydrogen sector by reducing the obstacles to the European recognition of skills.



THE MAIN PLAYERS OF THE IIS E-WALLONHY:

Leader: CRM Group

IIS initiators: CRM Group, UCLouvain and TWEED

Some 85 partners and associates: representatives of SMEs and large companies, research centres, universities, training centres, public actors, representatives of competitiveness clusters.

See next pages for complete list of the actors!

Learn more

linkedin.com/company/e-wallonhy



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e-WALLONHY ACTION PLAN 2025 : What are we focusing on?



- valorize local expertises and H2 testing infrastructures to develop maintenance services offer and support professional training for H2 technologies of the Walloon hydrogen valley
- Develop **R&D partnerships with neighboring regions** and countries (Flanders, Germany, Luxembourg, Netherlands, France)
- Hydrogen **testing centers** in Wallonia: increase their visibility, support the development of R&I activities related to their capabilities, help them develop their testing capabilities in line with evolving needs.
- More **European projects**: participate in drafting the CHP2026 call, identify calls including the hydrogen topic, build partnerships to form consortia including Walloon actors.





e-WALLONHY LIST OF THE ACTORS OF THIS INITIATIVE

Name	Website	Main category
A&M - Aerospatiale & Mecanique - ULiège	https://www.am.uliege.be	Research
Aero-Thermo-Mechanics Department - ULB	http://atm.ulb.ac.be/	Research
AGC Plasma Technology Solutions	https://www.agc-plasma.com/	Private
Air Liquide	https://industrie.airliquide-benelux.com/	Private
Aperam Stainless Belgium SA	https://www.aperam.com/	Private
ArcelorMittal Belgium	https://belgium.arcelormittal.com/	Private
B-Sens	https://b-sens.be/	Private
BeBlue	https://www.beblue-cryotech.eu/	Private
BESIX Environment	https://www.besix.com/fr/sectors/environnement	Private
BESIX Group	https://www.besix.com/	Private
Biogaz du Haut Geer	http://flameco.be/	Private
Borit		Private
Breuer Technical Development	https://www.btd.be/	Private
Bridgestone Aircraft Europe	https://www.bridgestone.com/	Private
Canopea	https://www.canopea.be/	Economy/ territory
Carmeuse	https://www.carmeuse.com/	Private
Centre de recherche en aéronautique	https://www.cenaero.be/	Research
Centre de Ressources Technologiques en Chimie	https://www.certech.be/	Research
Centre scientifique et technique de l'industrie textile belge	https://www.centexbel.be/	Research
CETIC	https://www.cetic.be/	Research
Chemical Engineering Laboratory - ULiège	https://www.chemeng.uliege.be/	Research
Chemistry of Surfaces, Interfaces and Nanomaterials - ULB	https://chemsin.ulb.be/	Research
CIBTREN		Private
CILYX	https://www.cilyx.eu/	Private
Cluster TWEED	https://clusters.wallonie.be/tweed/fr	Economy/ territory
Coexpair	http://www.coexpair.com/	Private
CRM Group - Centre de Recherches Métallurgiques	http://www.crmgroup.be/	Research
District Cleantech	https://www.districtcleantech.be/	Economy/ territory
Drever International	http://www.drever.be/	Private
Eklo	http://www.eklo.be/	Economy/ territory
Elia	http://www.elia.be/	Private
Endress + Hauser Belgique	http://www.be.endress.com/	Private
EQUANS	https://www.equans.be/	Private
Feronyl	https://www.feronyl.com/	Private
Fluxys	https://www.fluxys.com/	Private
Gas.be	https://www.gas.be/fr/page-accueil	Private

Gate2		Private
GDTech engineering	http://www.gdtech.eu/	Private
Giacomini	https://benelux.giacomini.com/fr/	Economy/ territory
Graux	http://www.graux.be/	Private
GRE Liège	http://www.gre-liege.be/	Economy/ territory
GreenWin	http://www.greenwin.be/	Economy/ territory
H2Life	https://h2life.org/	Private
H2WIN S.A.	https://www.h2win.com/	Private
IDEA	http://www.idea.be/	Economy/ territory
IDETA	http://www.ideta.be/	Economy/ territory
IGRETEC	http://www.igretec.com/	Economy/ territory
Infratech	https://www.infra-tech.be/	Private
Innovative Coating Solutions	https://www.incosol4u.com/	Private
Institut de Conseil et d'Etudes en Développement Durable	http://www.icedd.be/	Private
Institut Energie - UMons	https://web.umons.ac.be/energie/fr/	Research
Institut Matériaux - UMons	https://web.umons.ac.be/materiaux/fr/	Research
Institut Von Karman	https://www.vki.ac.be/	Research
Institute of Condensed Matter and Nanosciences - UCLouvain	https://uclouvain.be/en/research-institutes/imcn	Research
Institute of Structured Matter - UNamur	https://nism.unamur.be/	Research
Intercommunale du Brabant wallon	https://www.inbw.be/	Economy/ territory
Ionics	http://www.ionics.be/	Private
Isomatex	http://www.isomatex.be/	Private
JD'C Innovation	http://www.jdcinnovation.com/	Private
Jema	https://www.jema-power.com/	Private
John Cockerill	https://johncockerill.com/	Private
Laborelec	http://www.laborelec.com/	Private
Logistics in Wallonia	http://www.logisticsinwallonia.be/	Economy/ territory
Luminus	http://www.edfluminus.be/	Private
Materia Nova	http://www.materianova.be/	Research
Materials and Process Engineering Division	https://uclouvain.be/en/research-	Research
- UCLouvain Materials engineering, characterization, synthesis and recycling (4 MAT) -	institutes/immc/imap http://4mat.ulb.ac.be/	Research
Recycling and environment - ULB Matgenix	https://matgenix.com/	Private
MITIS	http://www.mitis.be/	Private
Molecular Chemistry, Materials and Catalysis - UCLouvain	https://uclouvain.be/en/research- institutes/imcn/most	Research
NordiTube Technologies SE	https://www.norditube.com/	Private
Pepps	http://www.pepps.be/	Private
Peruweld	http://www.peruweld.be/	Private
Pôle MecaTech	https://www.polemecatech.be/	Economy/ territory
Prayon	http://www.prayon.com/	Private
Products, Environment, and Processes - ULiège	https://www.chemeng.uliege.be/	Research
RESA	http://resa.be/	Private
Réseau Liaison Entreprises-Universités	http://www.reseaulieu.be/	Research
RESITECH	https://resitech-gh.com/	Private
Safran Aero Boosters	https://www.safran-group.com/fr/societes/safran- aero-boosters	Private
Sibelga	https://www.sibelga.be/	Private

Sichem	http://www.sichemcoatings.com/	Private
Siemens	http://www.siemens.be/	Private
Sirris	https://www.sirris.be/	Research
Sobelcomp	https://sobelcomp.be/	Private
Solvay	https://www.solvay.com/en/	Private
SPI	http://www.spi.be/	Economy/ territory
Sulzer	https://www.sulzer.com/	Private
SWITCH Tihange	https://www.tihangechange.be/	Economy/ territory
SynHERA	http://www.synhera.be/	Research
Technifutur	http://www.technifutur.be/	Education
TotalEnergies	https://corporate.totalenergies.be/fr	Private
Tranferts, Interfaces, et Procédés - ULB	https://tips-ulb.be/	Education, Research
Veolia	https://www.veolia.com/fr	Private
Virya H2	https://www.virya-energy.com/	Private
VOCSens	http://www.vocsens.com/	Private
Wallonie Entreprendre	https://wallonie-entreprendre.com/	Economy/ territory
Wallonie-Bruxelles International	http://www.wbi.be/	Economy/ territory
Waterstofnet	http://www.Waterstofnet.be/	Economy/ territory
Yara Tertre	https://www.yara.be/	Private