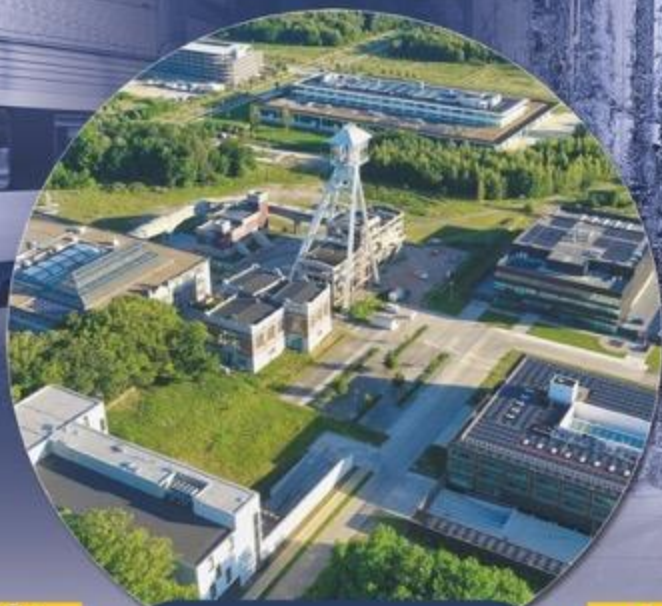


S3 DIS4 • 15th May 2025

Energy and building innovators

Matchmaking : Wallonia meets Flanders



EnergyVille









Energy and Building Innovators MatchMaking Program



9:45 – 11:00 R&D ecosystems : opportunities

and targets:

Building retrofitting

Green **hydrogen**

Energy **Communities** and DHC

Heavy **mobility**

11:15 – 12:30 Practical Opportunities : **EU** calls overview

Interreg next calls (STIPP, CrossRoads) and **BEL-COO**

Horizon Europe Cluster 5

I3 Innovation Investments Instrument

LIFE Clean Energy Transition

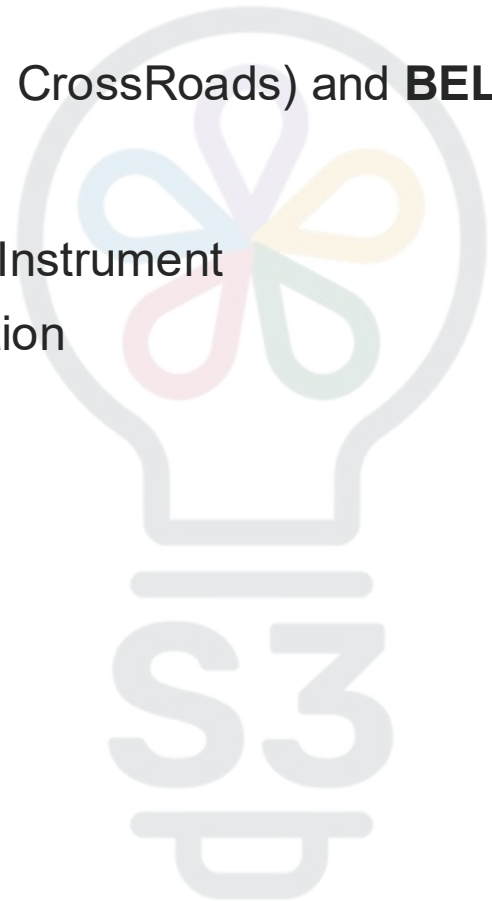
13:30 Challenging Pitch

14:30 Networking sessions

☐ Matchmaking RDV ☐

Lab visits

16:30 - 18:00 Conclusions and networking drink





Download the B2MATCH APP !

- send and receive meeting requests
- exchange messages with other participants in real time
- have your agenda and meeting schedule at hand

Available in [Google Play Store](#) and [App Store](#).



b2match



WiFi Thor Central

Username: **Trueno**

Pasword: **vergaderzaal8**





Session 1 – R&D ecosystems

Opportunities and targets





Building Retrofitting

Buildwise - Michael de Bouw, Renovation Unit Manager

Flux50 - Frederik Loeckx, General Director

Exclusive pre-event workshop Innovation Zero London

(April 28, 2025)



renow

Innovation Facilitator
Renovation Accelerator





renow

Our mission



Promote Walloon Stakeholders

Develop the local renovation ecosystem and boost the Walloon economy.



Support Renovation

Stimulate action to reduce the environmental impact of the building stock.

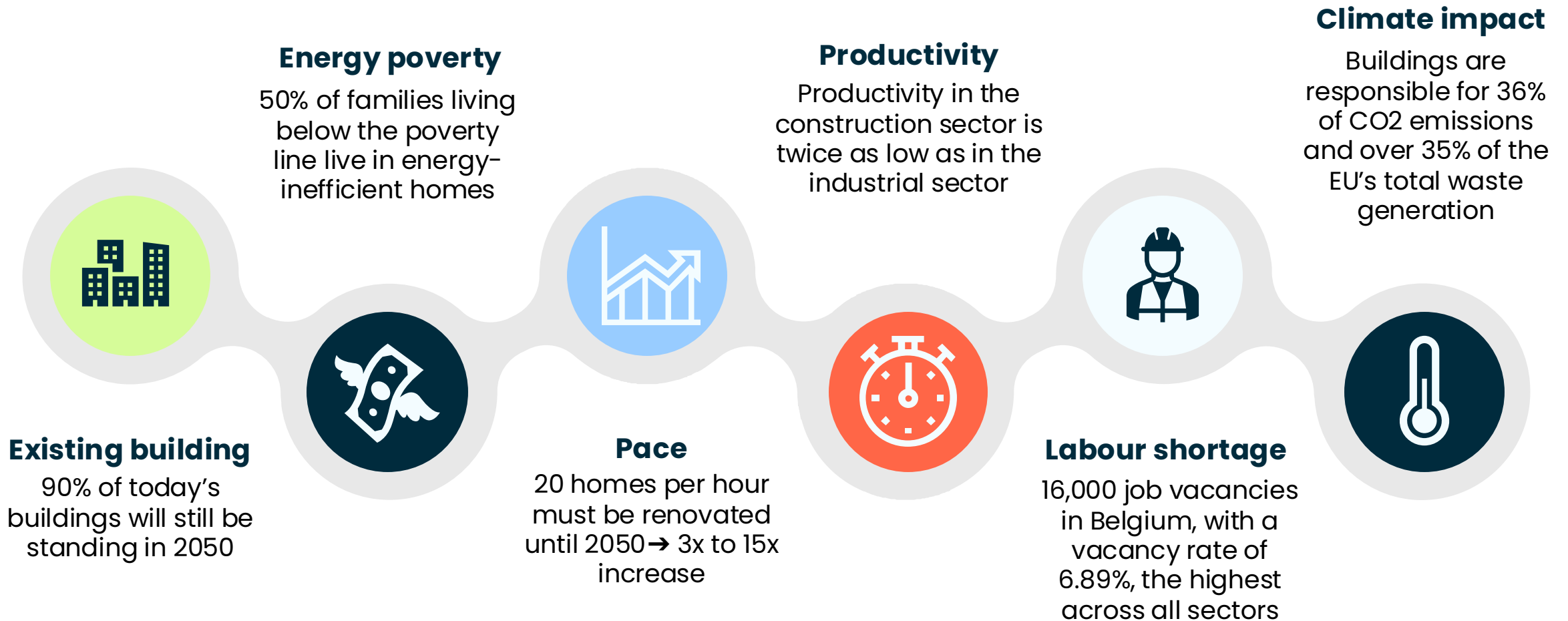


Innovate

Drive cross-sectoral and European innovation projects.

**A dynamic,
innovative,
and united
Wallonia for a
zero-carbon
building stock
by 2050.**

Sectoral challenges



renow

5 Operational Task Forces

Materials and systems for sustainable renovation

Massification and industrialization of processes

Smart & Data

New business models & financing solutions

Regulatory framework and the role of public authorities

Current Priorities

1. A Massified Renovation of Buildings
2. Industrialization of the Value Chain
3. New business models for mass renovation

renow

Main Partners



CLIMACT

Financité

And many more...

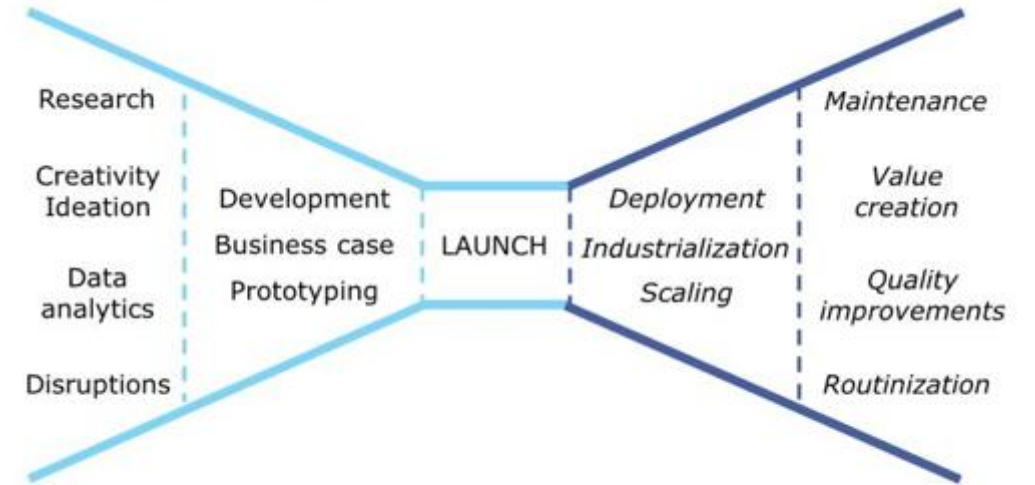


renow

What are we looking for ?

Research partners to participate in **research and innovation** projects.

Support at **every stage** of innovation



© Prof. Benoit Gailly Louvain School of Management



renow

Some Flagship projects



- > **APARE** : support for self-renovation for individuals.
- > **RenoMut** : Design and test one or more innovative solutions that effectively address unmet needs in financing the large-scale energy renovation of private housing in Wallonia by 2050 (e.g. ROI based on energy consumption decrease).
- > **IREWAL** (Industrialisation of the RENovation of public housing in WALonie) : prefabrication of walls for external insulation of existing buildings up to a zero-energy level with guaranteed performance for 20 or 30 years.
- > **District Cleantech in Charleroi** : platform dedicated to renovation which includes the creation of a "Renolab": a tool for the development, testing and deployment of new industrial prefabrication solutions for renovation.



renow

info@renow.be
renow.be





Building Retrofitting Ecosystems in Flanders

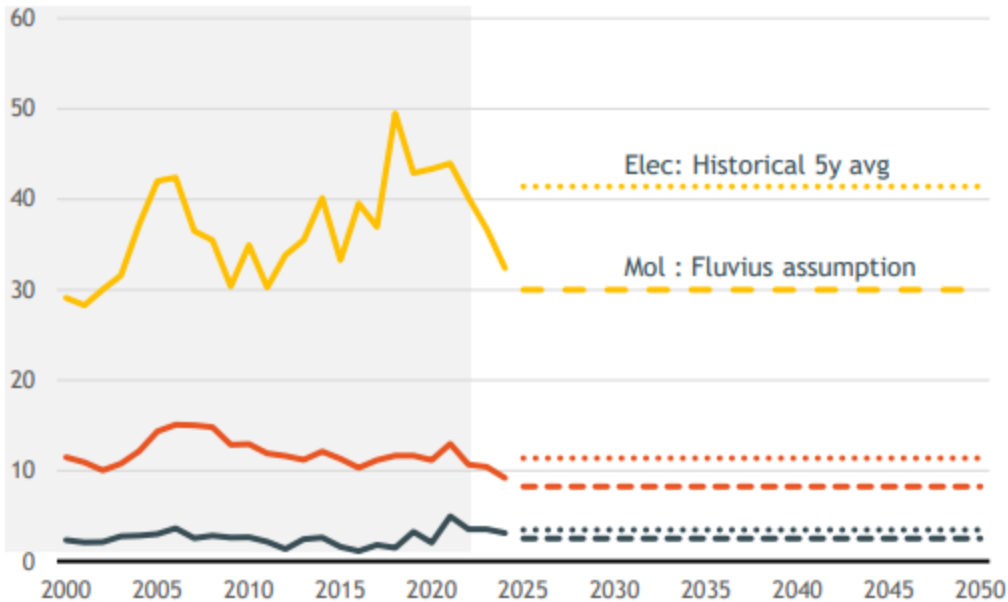


Evolution of new builds & renovations - Residential

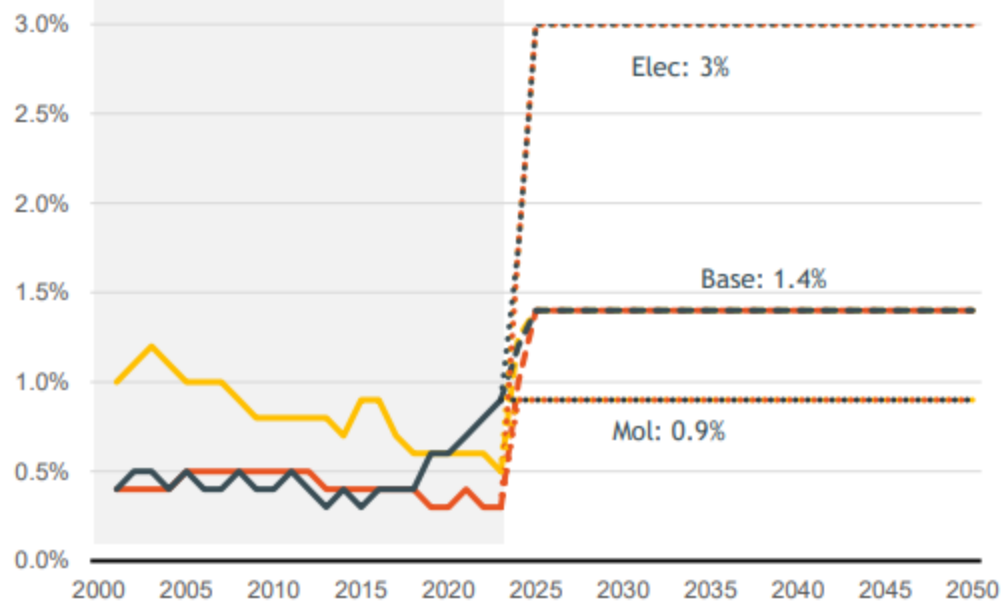
- Elec: follow last 5 year avg new builds
- Mol: Based on Fluvius alignment in the context of Elia's AdeqFlex study we align on 41k new dwellings per years and apply a similar relative level in the other regions
→ This would be a lower evolution than historically speaking

- All 3 regions have an ambition to reach 3% according to NECP
- ◆ Historically this rate has been below 1%
 - ◆ Proposal for the 3 scenarios
 - ◆ 3% for Elec
 - ◆ 1.4% for Base
 - ◆ 0.9% for Mol

Rate of new dwellings per region



Renovation rate per region



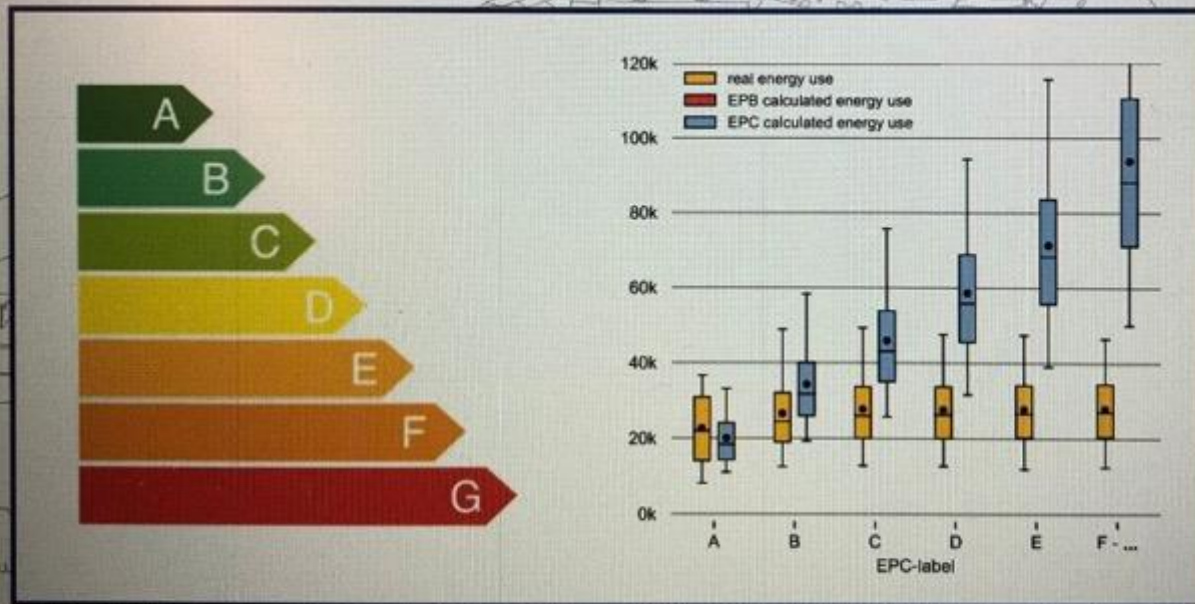
Agnes is a wealthy widow who just turned 75. She ignored the renovation advice she had ordered herself. Since she only heats the living space, her bill is so low that investing in renovation does not pay off at all.



Building Retrofitting Ecosystems in Flanders

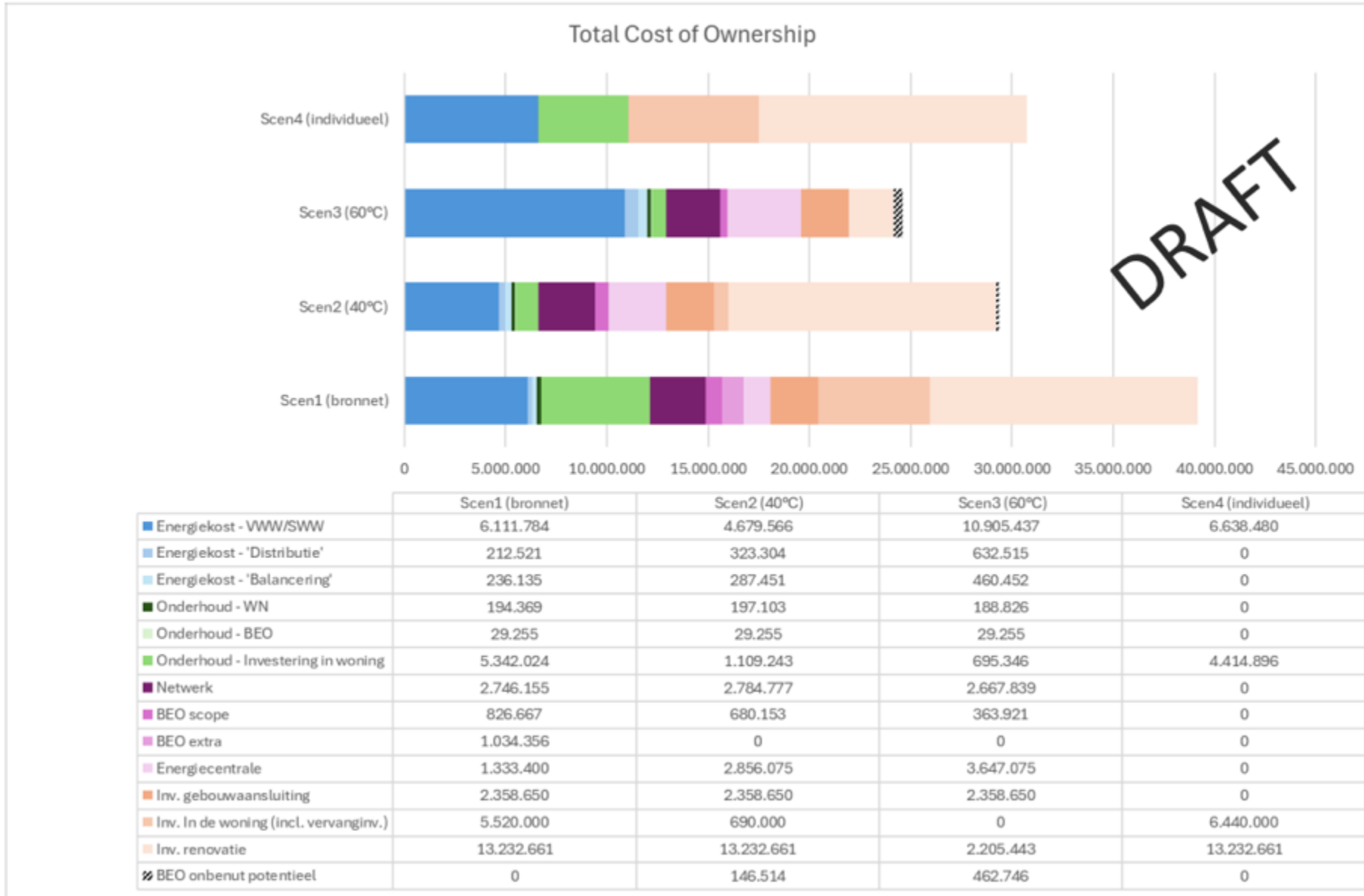


Research confirms Agnes' view. The EPC calculation routinely assumes higher consumption than actual. If we put that together with the rebound effect after renovation, we have to conclude that renovation does not lead to lower consumption in all cases.





Building Retrofitting Ecosystems in Flanders





Building Retrofitting Ecosystems in Flanders



Need for tax shift / ETS2

Focus on collective renovation

- In a building
 - Tertiary sector
 - Apartment blocks
- Belonging to the same owner
 - Social Housing Companies
- On a district level

Skilled workforce



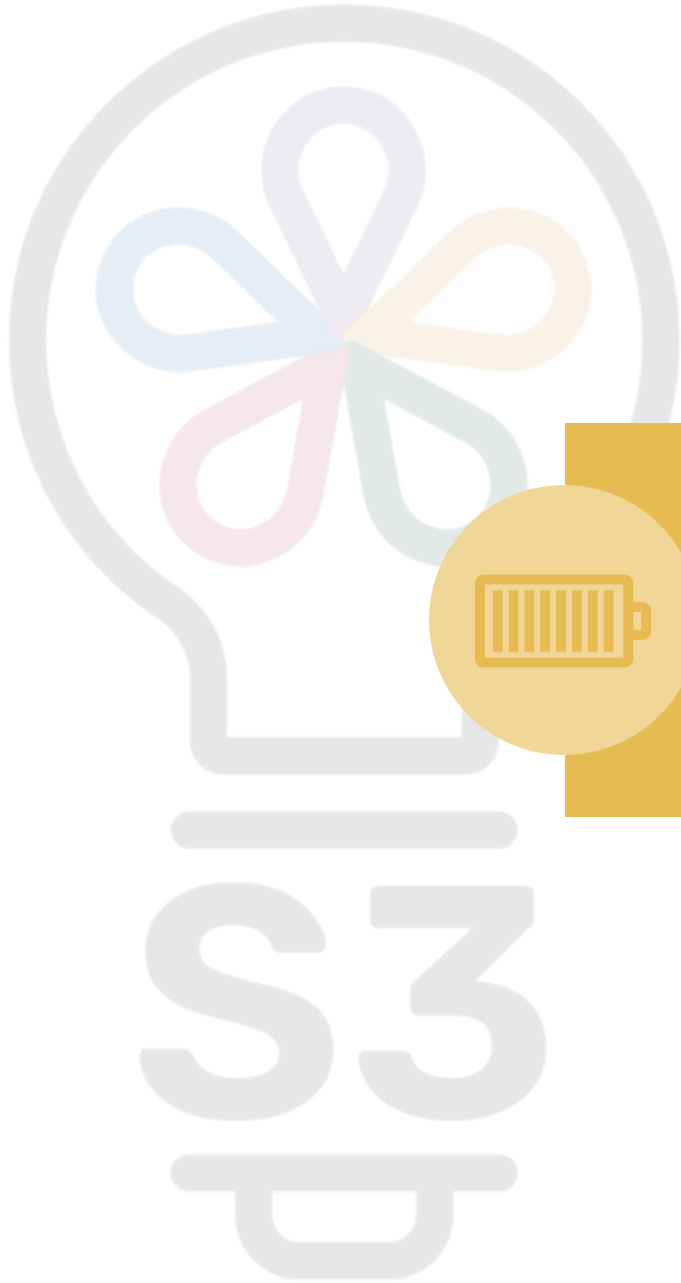


Building Retrofitting Ecosystems in Flanders



- Real energy performance of buildings – energy measurements
 - Need for standardisation and accreditation framework
 - Need for best practices
- Flexibility
 - E-boilers
 - Energy Management systems
- Social inclusion
- Financial engineering/upscaling (ESCO, ...)





Energy Communities and DHC

Flux50 - Frederik Loeckx, General Director

UMONS - Emilie Courbon, S3 research representative



Energy Communities and DHC Ecosystems in Flanders

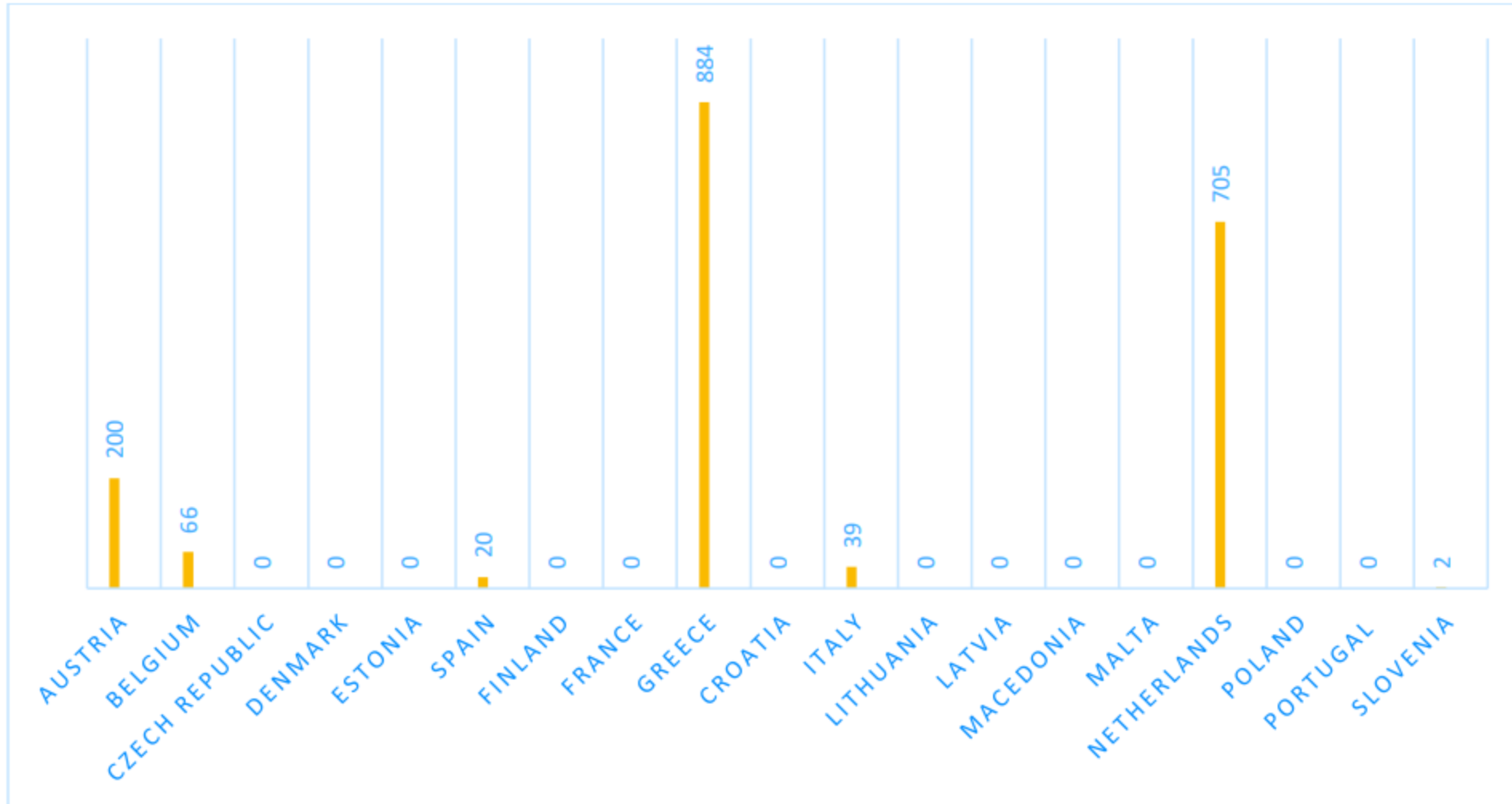


Figure 7: Number of citizen energy communities

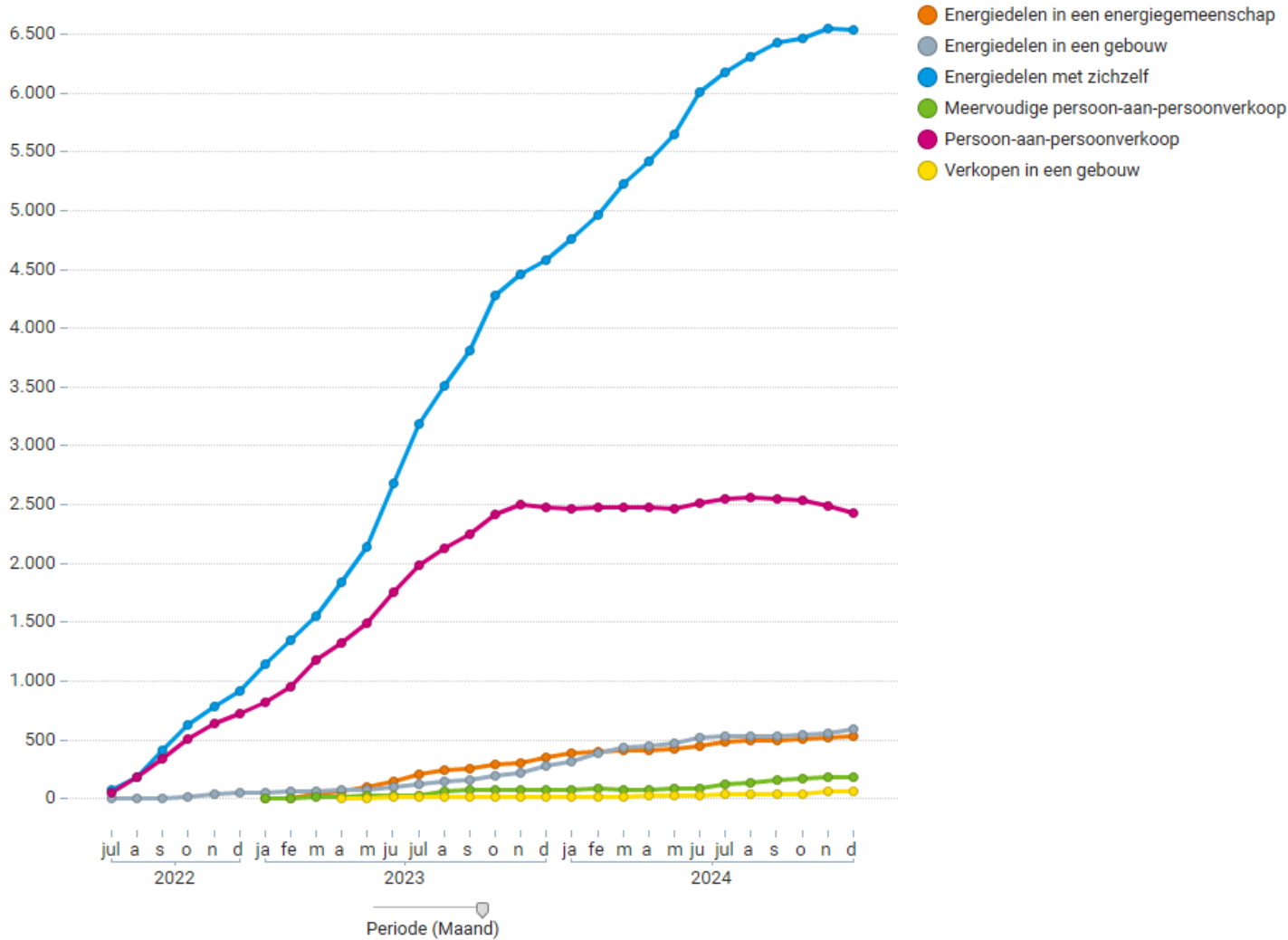




Energy Communities and DHC Ecosystems in Flanders

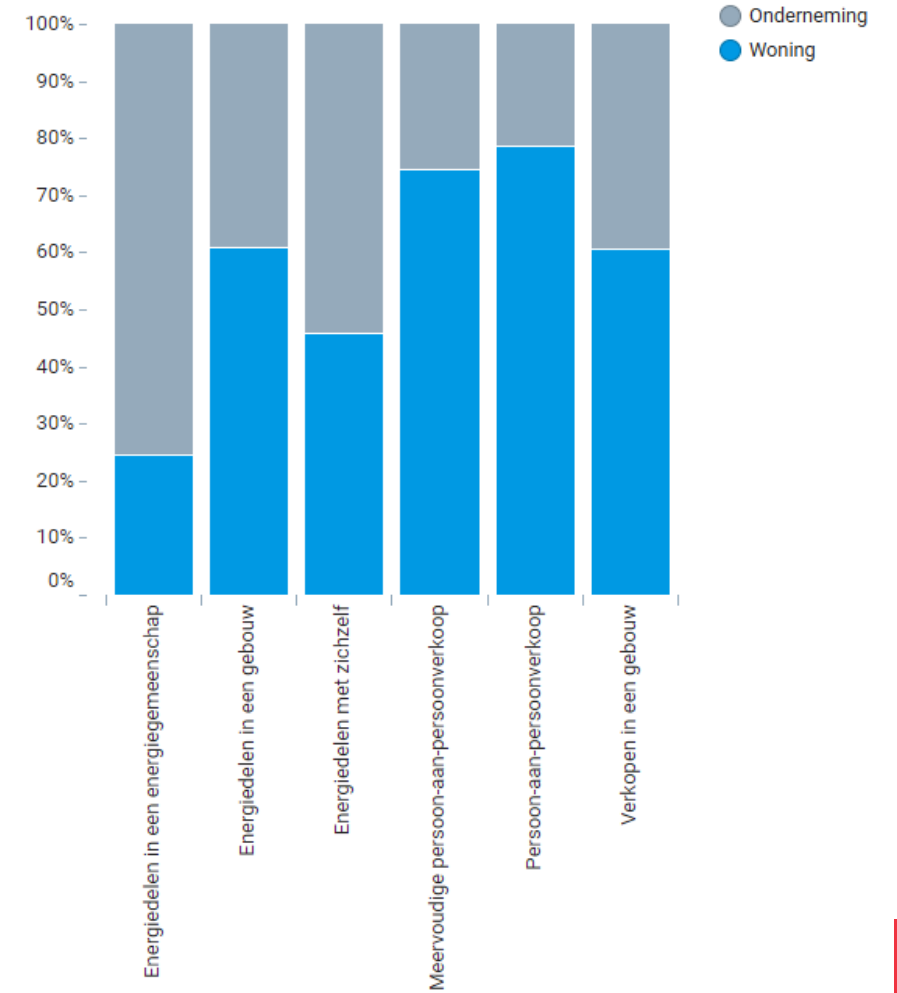


Aantal deelnemers/locaties



Wie neemt deel?

Deze data is gebaseerd op het aantal deelnemers in de meest recente maand.





Energy Communities and DHC Ecosystems in Flanders



EUSEW 2025 Awards
Local Energy Action



You voted already

Community Energy for Social Housing in Otterbeek

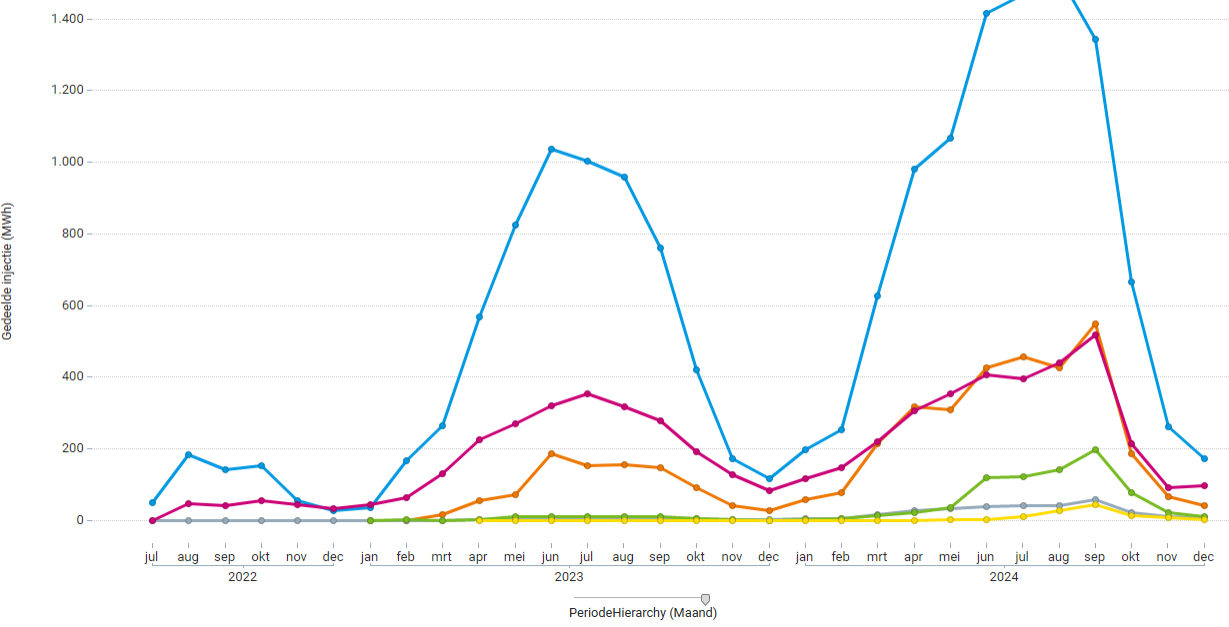


Re

Restinjectie (MWh)



Gedeelde injectie



Re

The Community Energy for Social Housing in Otterbeek, Mechelen, provides renewable energy access to vulnerable tenants. It is working with the community to equip 200 housing units with solar panels and deliver clean energy at below-market rates in Belgium.

"We noticed that many citizens disengage from climate change initiatives because they struggle to see the benefits of green economies in their own lives," explains Bart De Bruyne, Energy Sharing Expert at the City of Mechelen, warning: "If vulnerable groups are excluded from the energy transition, it risks widening social inequalities and generating resistance to necessary climate measures."

<https://interactive.eusew.eu/awards/local-energy-action/otterbeek>





Energy Communities and DHC Ecosystems in Flanders

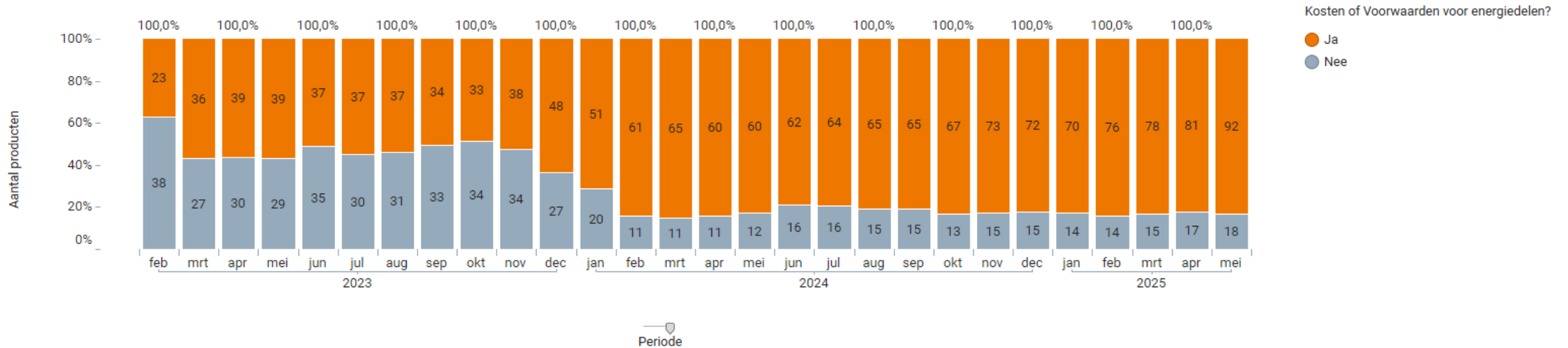


Hoeveel leveranciers of contracten hebben extra kosten en/of voorwaarden voor energiedelen?

Sommige leveranciers rekenen extra kosten aan of leggen bijkomende voorwaarden op aan klanten die energiedelen.

Hieronder zie je bij hoeveel leveranciers of contracten dat het geval is (leveranciers met producten in beide categorieën worden dubbel geteld).

Klik op één van de oranje blokken. Dan zie je in de tabel hieronder welke extra kosten en/of voorwaarden er zijn voor energiedelen in de geselecteerde maand.





Energy Communities and DHC Ecosystems in Flanders



Shift to:

Lowering societal costs

- CEO/CES: Collective Energy Solutions
- Business parks (congestion management/grid investments)
- Flexibility
- Dataspaces
- Charging hubs
- Resilience





Energy Communities and DHC Ecosystems in Flanders



Resilience :

- Cybersecurity
- Blackstart
 - Grid forming inverters
- Security of supply (strategic autonomy)

Flemish focus on valorisation and productivity

- LCoE, LCoE and LCoE





Laatste update: 8/01/2025

Warmtenetten in Vlaanderen

Op deze kaart ziet u alle warmtenetten in Vlaanderen die momenteel gemeld zijn bij de VREG.

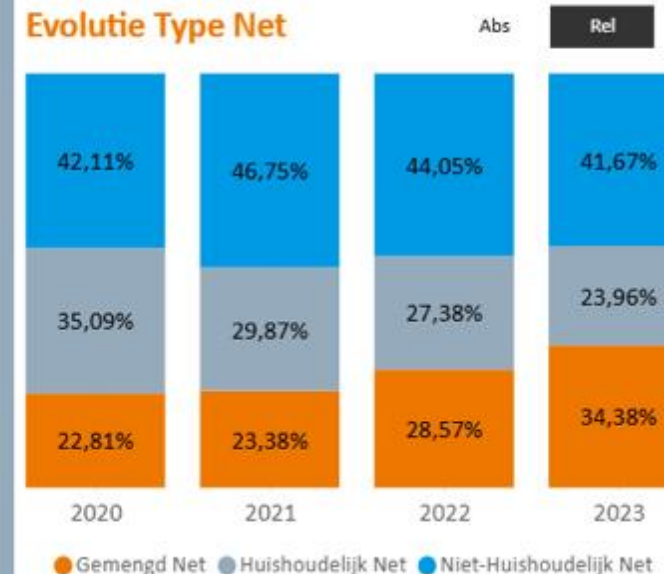
Voor meer informatie, zie het [warmtenetrapport](#). Ook op de [interactieve kaart](#) van VEKA vindt u interessante informatie rond warmtenetten.

Warmtenetkaart



● Gemengd Net ● Huishoudelijk Net ● Niet-Huishoudelijk Net

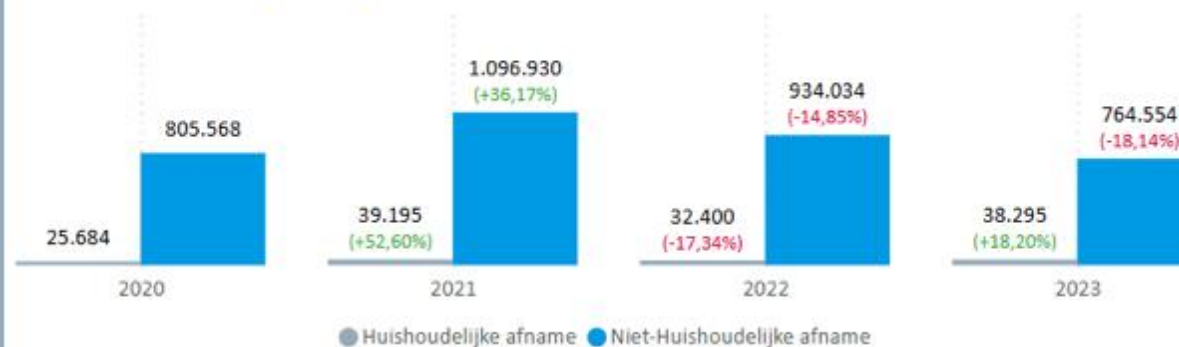
Evolutie Type Net



Evolutie aantal aansluitingen



Evolutie afname (MWh)



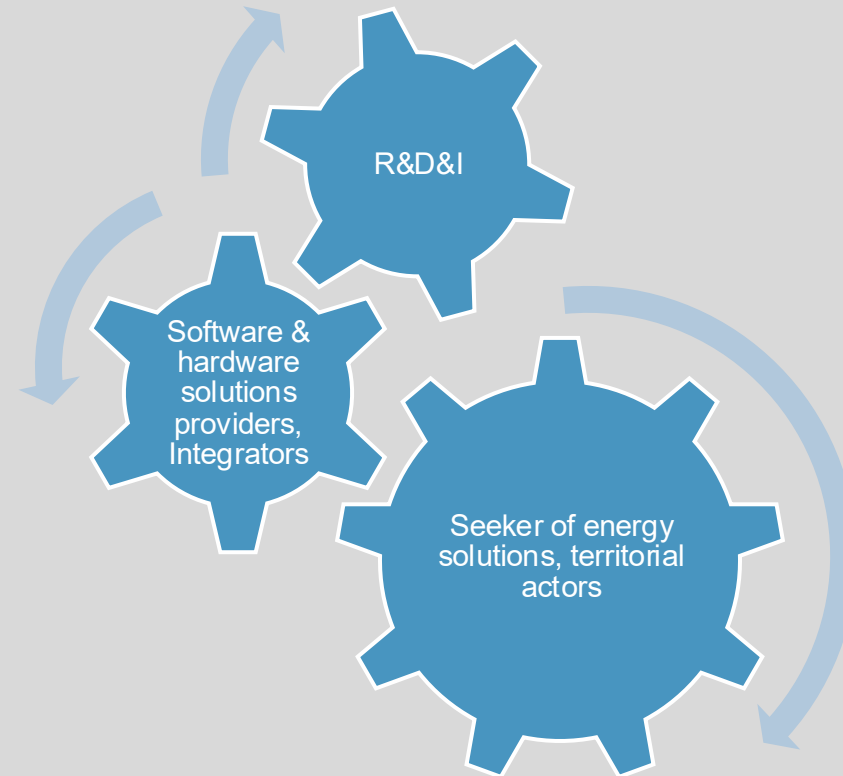
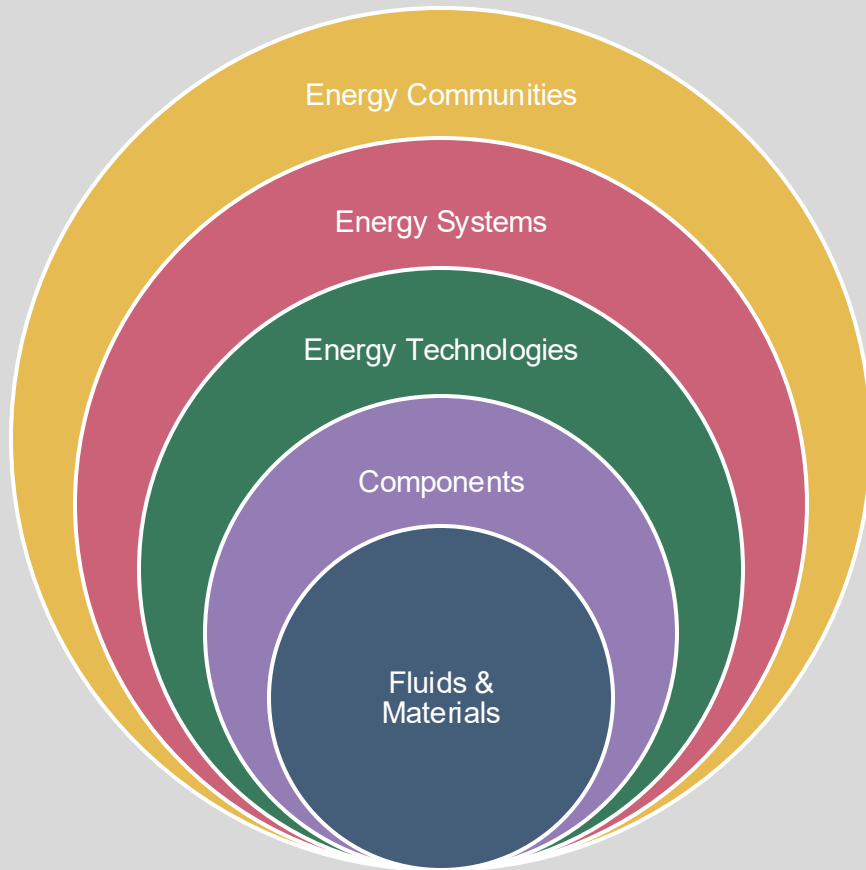


Energy Communities and DHC Ecosystems in Wallonia



CETWA :

- CETWA covers energy conversion, storage and distribution technologies, integrated energy systems and their management, CO2 capture and utilization techniques





Energy Communities and DHC Ecosystems in Wallonia



CETWA :

- **Challenges:**

- Boost innovation via European collaborations
- Improve collaborations within its members due to diversity of members profiles and needs
- Align projects with low TRL and projects with high TRL
- Need to facilitate the financing of high TRL projects (near market)
- Need of testing infrastructures and platforms to test complex energy systems and/or technologies





Energy Communities and DHC Ecosystems in Wallonia



CETWA :

- Innovation hot topics:

The ambitions of CETWA are to develop technologies that participate in solving challenges in the fields of **electrical flexibility**, **heat storage**, **waste heat**, **decarbonation of industries** and to promote the deployment of **energy communities**.

Storage

- Heat storage
- Batteries
- E-fuels

CCUS

- Capture
- Conversion
- Storage
- Utilization

Complex energy systems & Energy Communities

- Flexibility
- Energy Management
- Data
- Waste heat





Energy Communities and DHC Ecosystems in Wallonia



CETWA :

- Innovation hot topics:

Technologies of energy conversion, transport & storage (included CCUS)		
Materials	Components	Technologies



TRL < 4

- Materials & components of batteries
- Heat storage by solid/gas reaction
- Capture & conversion of CO2
- High temperature heat pumps
- Solar energy storage by isomerisation reaction
- Gaseification
- H2 as energy vector
- Production of e-fuel
- Storage by e-fuel

TRL > 4

- Fuel cell
- Plasmalysis (H2 production from methane)
- NH3 Production by plasmacatalysis
- Capture & conversion of CO2
- Production of e-fuel
- High temperature heat storage
- Valorization of organic wastes in energy production
- Hybrid Micro-CHP by microturbine



Energy Communities and DHC Ecosystems in Wallonia



CETWA :

- Innovation hot topics:

Energy systems, energy networks : dimensioning & optimal management

Energy Systems

Energy Communities

TRL < 4

Carnot Batteries
H2 Production
Geothermal heat storage
Energy communities market models
EC H2
EC at the scale of district area, semi-industrial & industrial
Operational management of energy transport networks

TRL > 4

Optimal management tools for EC
Photovoltaic greenhouses
Integrated systems for buildings renovation



Energy Communities and DHC Ecosystems in Wallonia

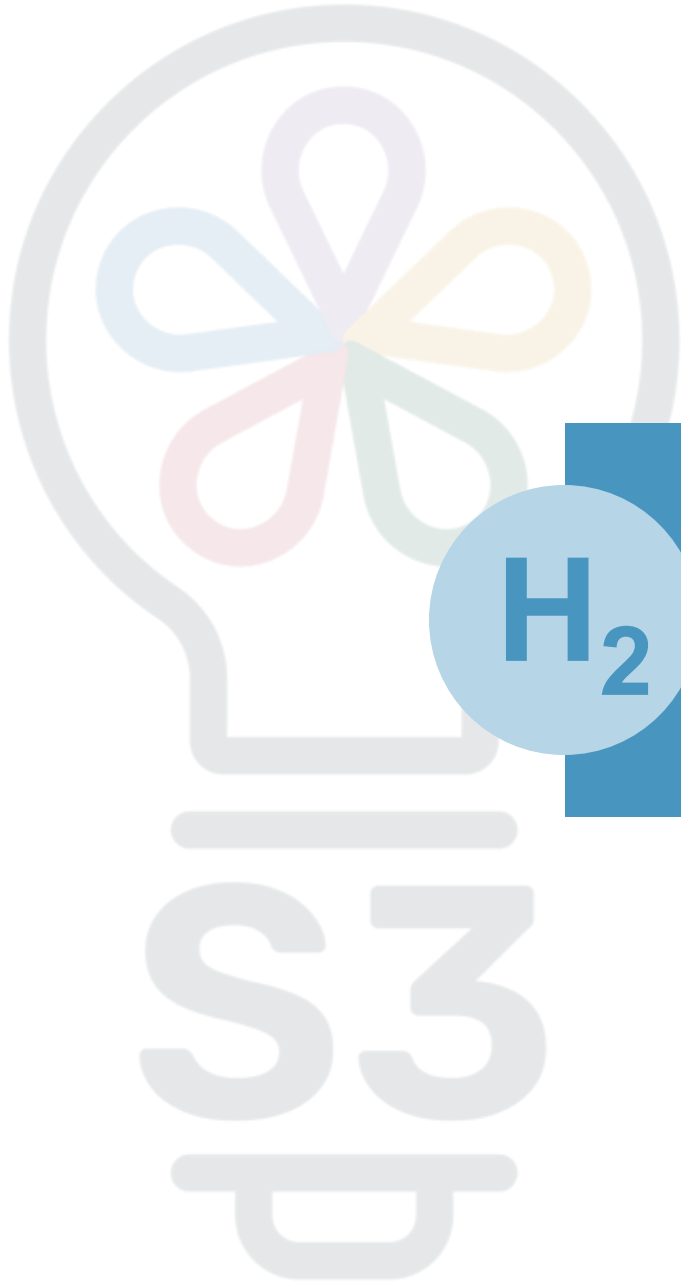


CETWA :

- **Innovation regional ecosystems:**

- ❑ Strong competences and know-how in the field of Energy communities and technologies
- ❑ Main objective of CETWA = Boost the innovation at the European scale
- ❑ Strategy :
 - Identification of interesting European calls
 - Diffusion of European calls by mailing, webinar of calls presentation
 - Organization of specific meetings with interested members to help them in participating in European projects (find partners, help in project redaction)





H₂

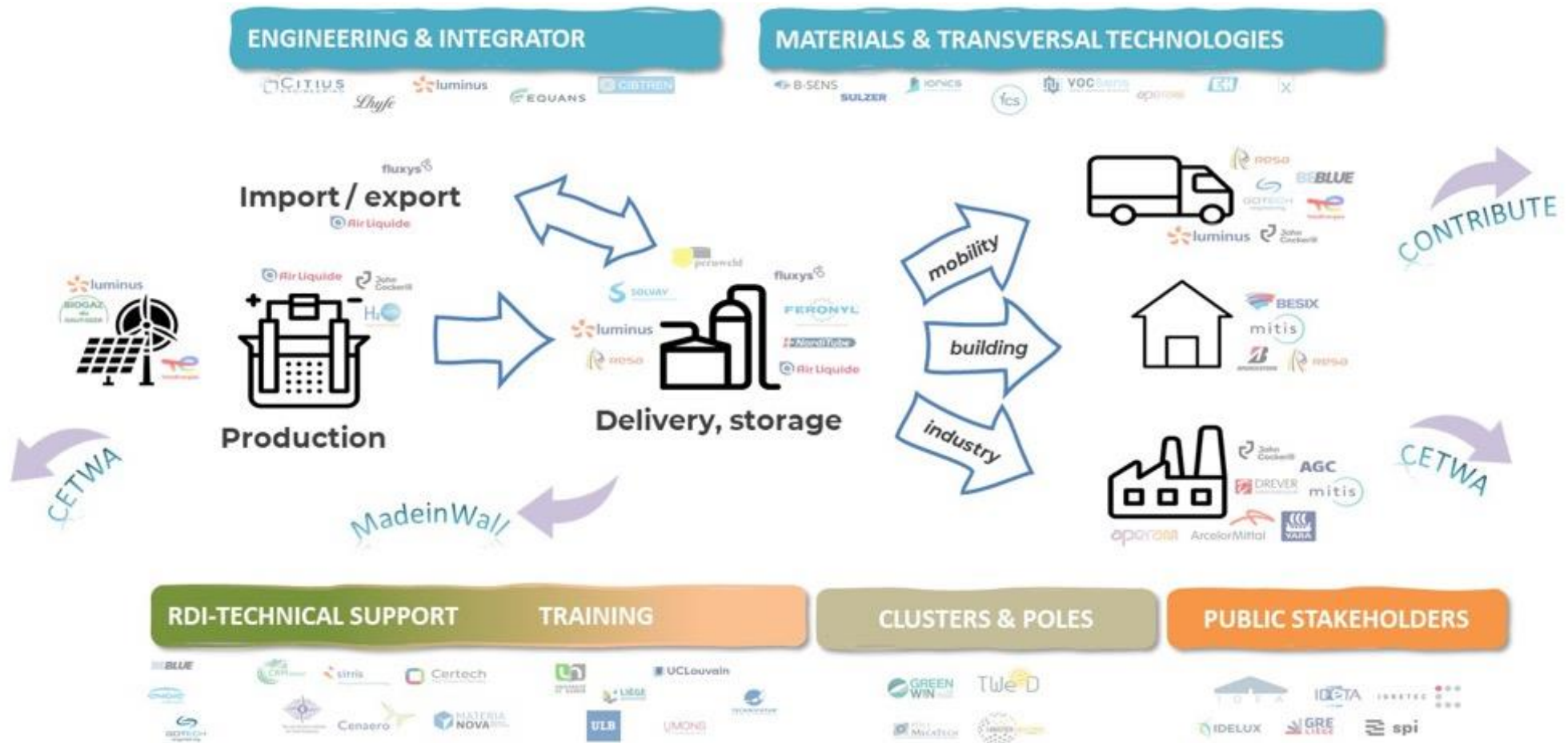
Green Hydrogen

CRM Group - Catherine Archambeau, Innovation Manager

Waterstofnet - Isabel François, Project Manager



100 Walloon partners from various sectors in a common actions plan
To support the development of **Clean Hydrogen Economy in Wallonia** through **Innovation**

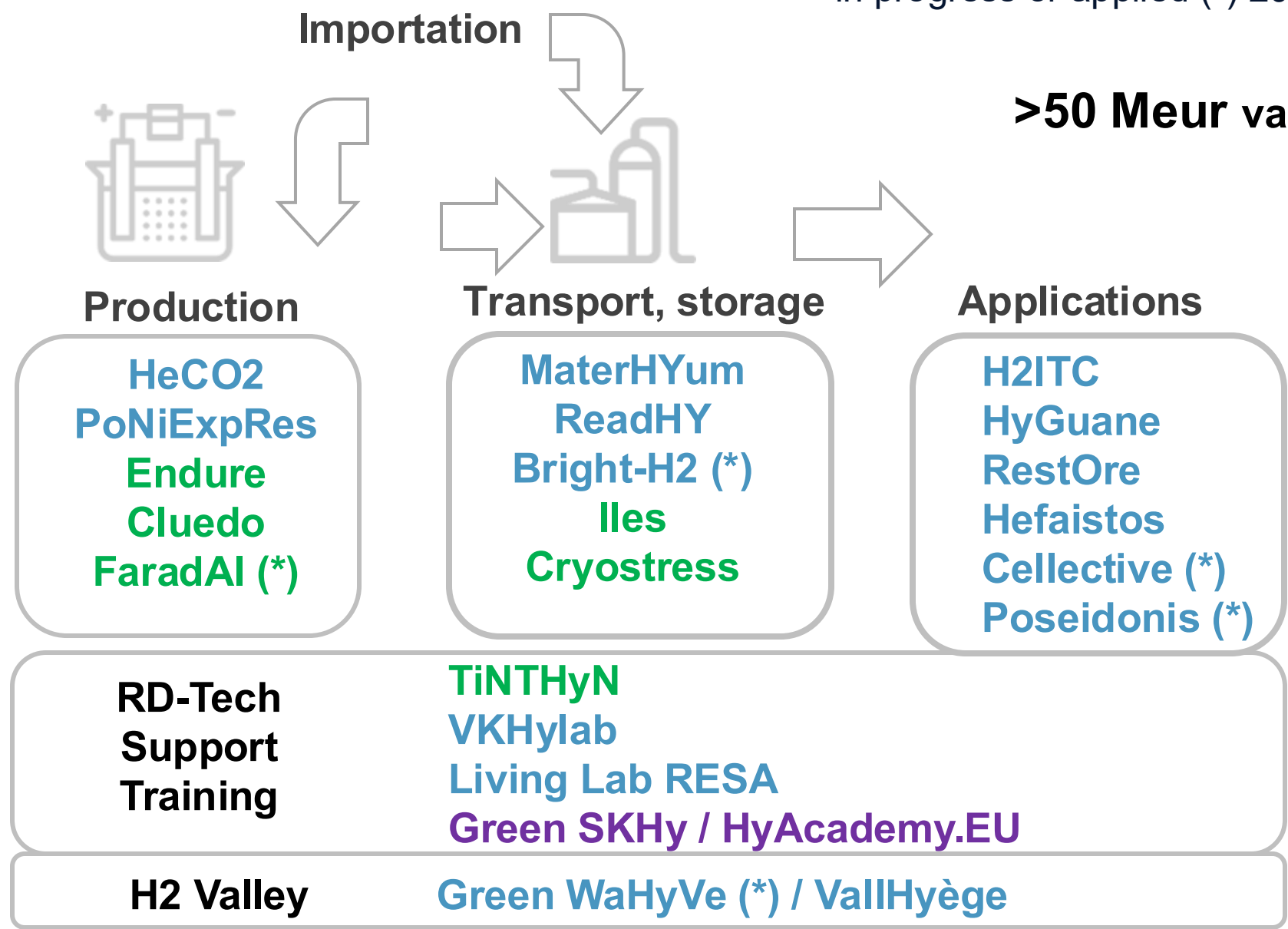


A set of coherent R&I projects



in progress or applied (*) 2023-2025

>50 Meur validated budget



TRL 1-4

TRL 5-8

Training

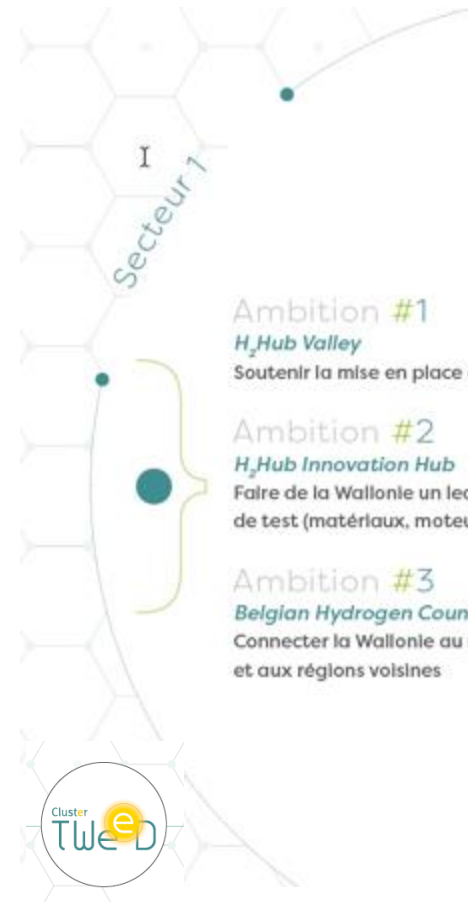




3 Main Ambitions in 2025



- ✓ **H2 Valley** in Wallonia
- ✓ **Innovation:**
 - H2 testing infrastructures
 - Scale-up H2 production techno
- ✓ **Cross-boarder & Cross-regional** connexions



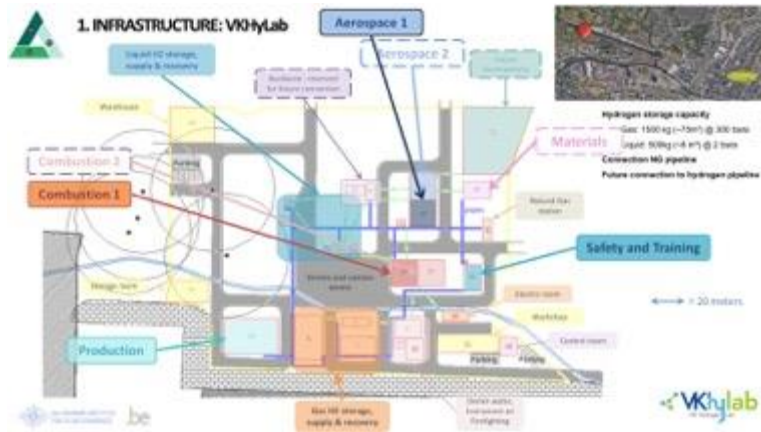
- Ambition #1**
H₂Hub Valley
Soutenir la mise en place d'une Vallée de l'Hydrogène en Wallonie
- Ambition #2**
H₂Hub Innovation Hub
Faire de la Wallonie un leader innovant en électrolyse et en infrastructure de test (matériaux, moteurs,...)
- Ambition #3**
Belgian Hydrogen Council
Connecter la Wallonie au marché et aux futurs réseaux H₂, au niveau belge et aux régions voisines





H2 wallon test infrastructures cover the ecosystem needs

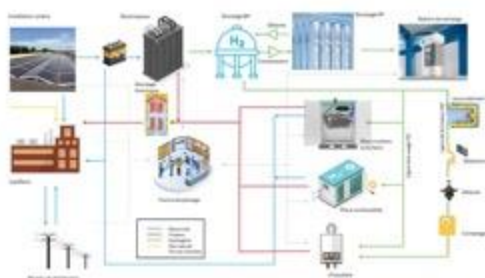
H2 testing infrastructure (production-industry-aero)



H2 distribution Living Lab

Explorer et préparer l'avenir des réseaux de distribution

Schéma de l'écosystème H2 en circuit fermé (sur un site propre) :



Objectifs du projet :

- Organisation de réseaux expérimentaux, notamment pour les applications industrielles, maritimes, agricoles, etc.
- Mise en place d'outils de collaboration et de participation avec les acteurs du secteur
- Caractérisation des besoins des réseaux de distribution, d'exploitation et de sécurité



H2 / Materials

MaterHYum Platform :
a new validation / certification service of materials and components under hydrogen in in-use conditions

Accelerate the market introduction of hydrogen value chain components



H2 Mobility (engines & FC)





H2 valley in Wallonia is not an utopia

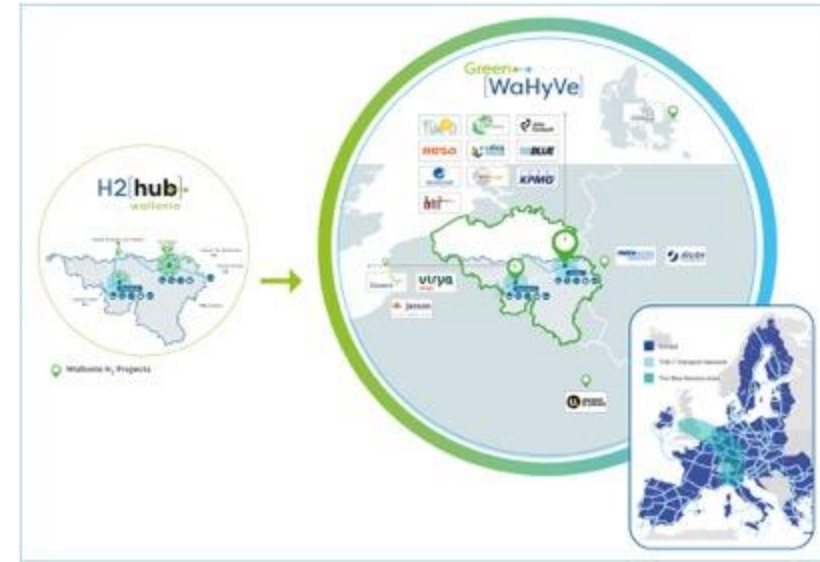


H2 Valley aims :

- ▶ Demonstrate at 1:1 scale the viability of a full H2 value chain on a territory
 - ▶ Clean H2 production;
 - ▶ H2 Distribution (tube trailers, pipelines, HRS);
 - ▶ Applications (mobility, industry);
- ▶ Cross border connections.

Differentiating assets in Wallonia:

- ▶ John Cockerill : electrolyzers;
- ▶ Mobility : center of European hydrogen corridors for highways and rivers;
- ▶ Decarbonization of Industries : in priority substitution by clean H₂ in their process;
- ▶ High technological expertises and R&D – tests infrastructures;
- ▶ VallHyège project (started)
 - ▶ 15 MW (possible upscale to 25MW) electrolyzer – 1500 t H₂/an
 - ▶ Mobility: HRS - 16 trucks and 1 barge



Green WaHyVe project (CHP 2025 - submitted)

- ▶ Increase H2 offtakers (+10 trucks);
- ▶ Study compliance framework for H2 transport;
- ▶ Study opportunity of H2 distribution grid;
- ▶ Extend valorization for electrolyzers (H₂O, by- products, extend applications);
- ▶ Integrate tests infrastructures & scale up TRL6 innovations (H₂ genset, électrodes AEL, LOHC storage);
- ▶ Crossborder skills & training for H2 maintenance.



Crossregional collaborations



How to increase the collaborations with Flanders on H2 and derivatives?

💡 **BHC**



💡 **Innovation:**

- ✓ Share our respective R&D roadmaps and identify common goals and complementarities in skills and equipments to build common R&D projects together
- ✓ Share about the capabilities of our respective H2 testing infrastructures, identify synergies, promote them in both regions, and collaborate to extend capabilities to the benefit of actors of all regions

💡 **Skills & training**

- ✓ Share about H2 training projects and programs, communicate on global offer and open the existing offer for people of both regions, collaborate to co-develop missing modules

💡 **Connect H2 valleys**





Hydrogen innovation in Flanders



Process started in 2022



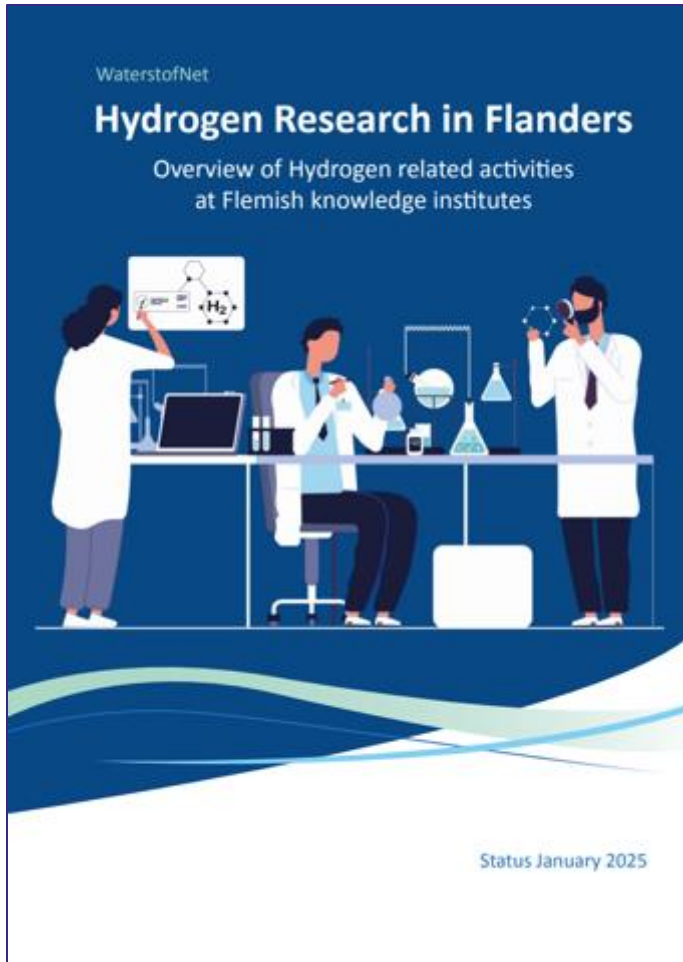
- Who, where, what?



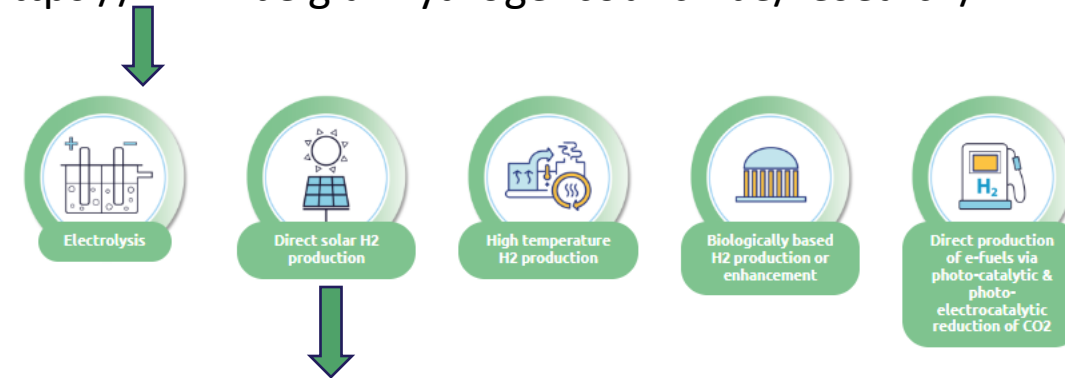
- Relation with EU targets
- Scale & complementarity
- Match with local industry



- Focus
- Alignment
- 'Hydrogen Program'
(incl. support)



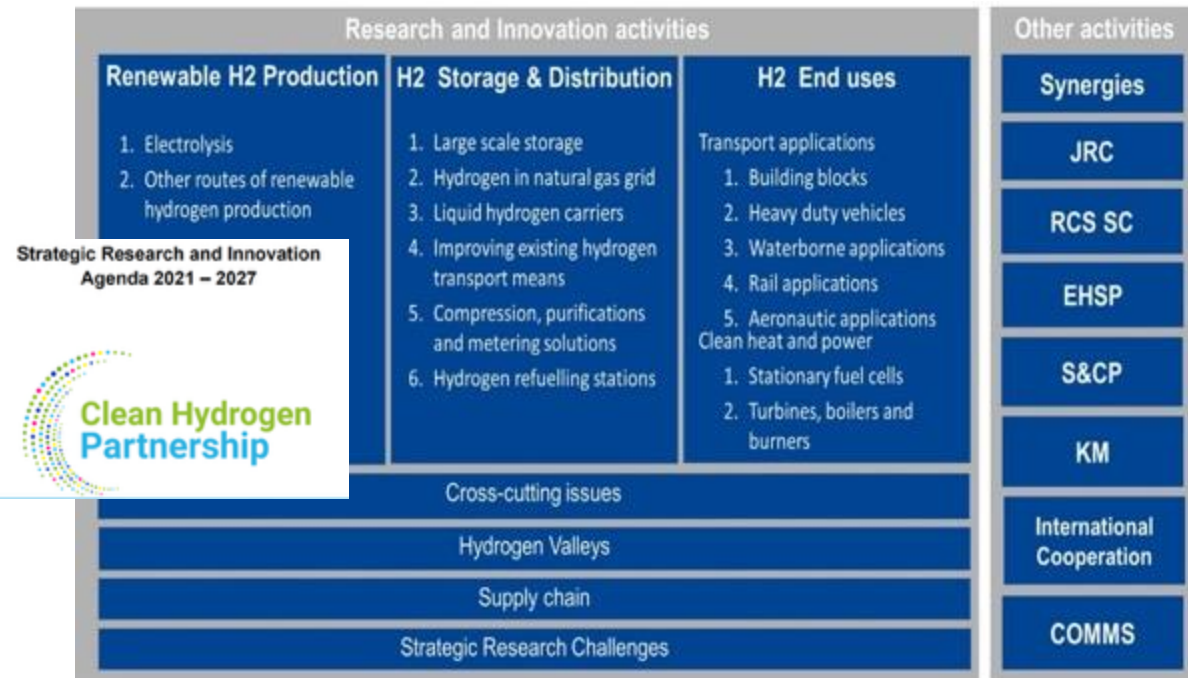
<https://www.belgianhydrogencouncil.be/research/>



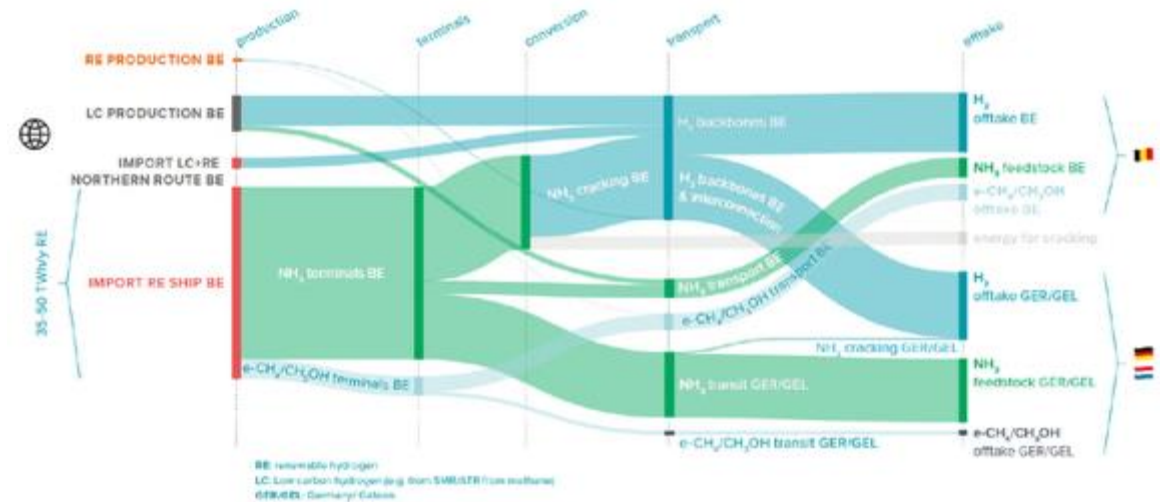
Including Walloon ecosystem!

Main Opportunities for Flanders?

- Link with EU industrial needs cfr **Strategic Research & Innovation Agenda**
- Flemish/Belgian H₂ strategy
- Flemish industrial landscape – manufacturing industry



Limited own production & importance of import



Example H₂ production: electrolysis/components

- **World-leading technology** companies in FL:
 - ✓ Accelera Zero by Cummins, Agfa, Bekaert, Borit, Exion, Bosal, Solhyd, Umicore, Syensqo...
 - ✓ Many research groups active in materials, cells, diagnostics & testing
 - **Collaboration industry-academics** is increasing
 - ✓ Several collaborations 1/1 company/knowledge center
 - ✓ Start-up Hyve with IMEC en VITO teaming up with Bekaert/Deme/John Cockerill
 - All industries developing PEM and alkaline are now exploring **AEM technology**
- ⇒ **Ambition**: group expertise in '**Electrolyser platform**': enhance visibility on EU level!
- ✓ Share measurement equipment
 - ✓ Joint projects?

Other spearhead topics

- High pressure composite vessels, hydrogen transport & storage, combustion engines, NH₃ cracking...

PRODUCTIE	<p>Uitbouw van karakterisatie/modellering van componenten/systemen op vlak van :</p> <ul style="list-style-type: none"> • stroom-spanningskarakteristieken van membranen/MEA's met voldoende schaalgrootte • modellering van membranen om defecten/fenomenen als bubbelvormig te begrijpen en te kunnen vermijden • verlaging katalysator-behoefte via zeer dunne lagen (ALD-technologie) <p>Onderzoek en ontwikkeling van</p> <ul style="list-style-type: none"> • recyclage-mogelijkheden elektrolyse materialen (iridium, inonomen,...) • 'Anion Exchange Membrane (AEM) - elektrolyse • hoge temperatuur 'SOEC'- elektrolyse • 'solar-assisted waterstofproductie (PC, PEC en PV-EC) • Waterstof uit pyrolyse en gasificatie van afval • Membraanloze elektrolyse • Productie van E-fuels (bijvoorbeeld co-elektrolyse en DAC) <p style="text-align: center;">Waterstof productie in synergie met nucleaire SMR</p>
TRANSPORT & OPSLAG & DRAGERS	<p>Modellering/simulatie, testen en inspectiemethodes van</p> <ul style="list-style-type: none"> • composietmaterialen voor hogedruk opslagvaten en voor liquid H2 opslagvaten • (geconverteerde) waterstofleidingen (waterstofkwaliteiten, verbrossing,...) <p>Onderzoek en ontwikkeling van</p> <ul style="list-style-type: none"> • odoranten voor waterstof in distributienet • opslag in gestructureerd materiaal (artificiële clathraten) • opslag van waterstofverbindingen (ammonia, LOHC, e-methanol),... op vlak van energie-efficiëntie, zuiverheid geëxtraheerde waterstof, kraakprocessen, katalysatoren... • compressietechnieken voor waterstof
EIND-GEBRUIK	<ul style="list-style-type: none"> • Onderzoek naar optimaliseren/testen van verbrandingsmotoren op waterstof (rendement, vermogen, emissies) voor toepassingen in heavy duty mobiliteit (on-road/off road), machines in de bouw, scheepvaart,... • Test- en karakterisering materialen voor componenten van brandstofcellen (bipolaire platen, hoge-temperatuurmaterialen,....) • Onderzoek naar optimalisering van hybride drijflijn-configuraties voor heavy duty transport (bussen, vuilniswagens, vrachtwagens,...) • Onderzoek naar de optimalisering van 'elektrolyse-brandstofcel' systemen voor de gebouwde omgeving • Onderzoek naar het gebruik van waterstof voor 'hoge-temperatuur-verwarmingsprocessen' op vlak van verbrandingsprocessen, materialen, emissies en veiligheid

WaterstofNet

Open Manufacturing Campus
Slachthuisstraat 112 bus 1
2300 Turnhout
België

T +32 (0)14 40 12 19

Kantoor Nederland

Automotive Campus
Automotive Campus 30
5708 JZ Helmond
Nederland

 WaterstofNet

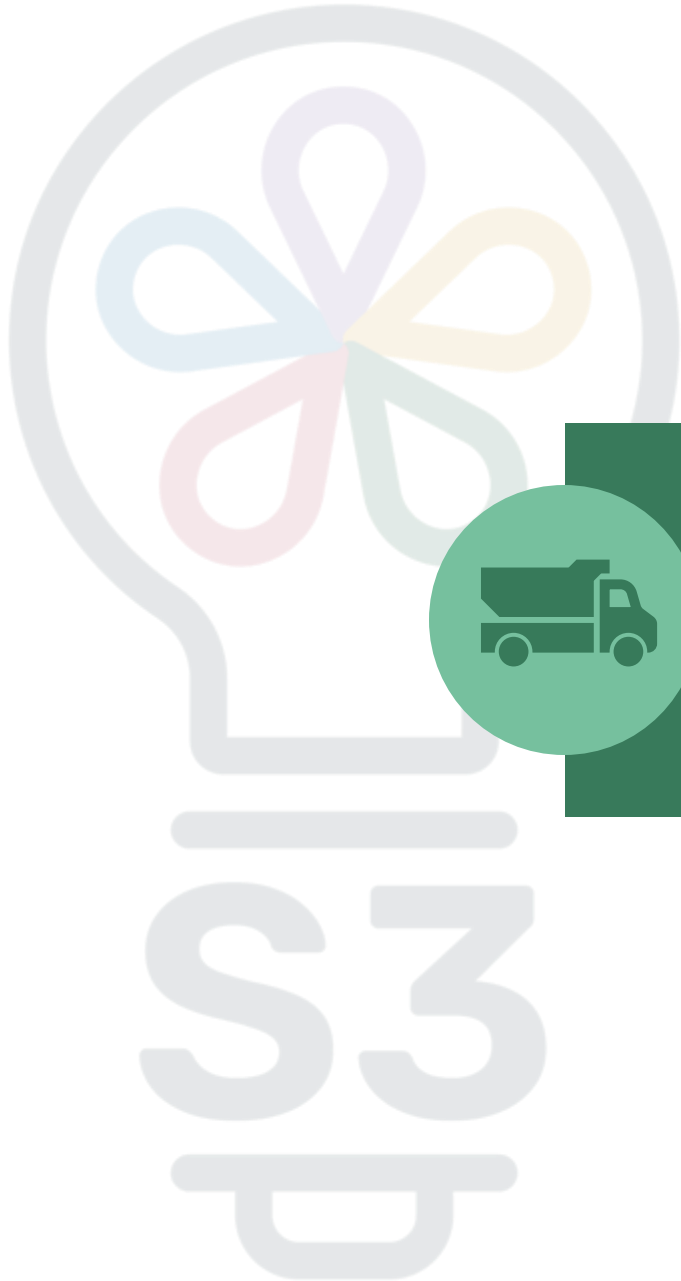
 WaterstofNet

WaterstofNet.eu

Bedankt voor uw aandacht!
Thank you for your attention!



WaterstofNet



Heavy Mobility

UMONS - Bashir Bakhshideh Zad, Associate Professor
at University of Mons - Chair in Energy Electronics
VIL Cluster - Kris Neyens, Manager Internationalization



CONTRIBUTE for Wallonia Innovation Platform



Collaborative platform of excellence, combining research and education, in sustainable/secure Energy and Mobility





💡 Challenges

1. **Climate Challenge: Reducing the Carbon Footprint in**

- **Transport (Rail, Road, Air, Waterborne):** clean propulsion, energy storage, aerodynamics, recycling, multi-physics systems.
- **Energy:** integration of renewables and energy storage, energy conversion & efficiency, control of electric power.

2. **Digital Challenge: Security of Intelligent Systems in Energy and Mobility**

- Rapidly growing autonomous and intelligent systems.
- Ensuring their integrity, reliability, and cybersecurity in the face of growing threats.





💡 Which technical themes are boiling:

1. Decarbonizing Mobility & Energy

- Digital Twin and AI for Operation, Control, Reliability, and Maintenance of future energy and mobility systems
 - Condition monitoring, SoC & SoH estimation of batteries
 - Condition monitoring & health management of electric power, electrotechnical, and power electronic systems
 - Remained Useful Life (RUL) estimation & lifetime modeling
 - Hybrid physics-informed AI-based methods
- Lightweight Structures: Develop and implement advanced lightweight materials to improve energy efficiency

2. Securing Intelligent Systems

- Embedded Critical Systems: Enhance security and reliability of autonomous and intelligent transportation
- Digital Continuity & AI: Develop robust digital infrastructures that integrate AI safely and securely
- Validation & Testing: Implement rigorous validation processes to ensure high reliability and fidelity in production environment (e.g., via power hardware-in-the-loop)





University Chairs in



Cristel Pelsser

Chair in Critical Embedded Systems

Education

Master in Engineering

- Multi-disciplinary programs (e.g., new Master in Energy Engineering)
- Internships and MSc final projects (case studies)
- Industrial visits for university students

Post Master

- **Postgraduate Certificates for industry engineers**

Research

- Bilateral R&D&I projects between industry & university
- New collaborative projects in the frame of Regional, national, European funding instruments
- Fundamental research on underlying technologies



Bashir Bakhshizadeh Zad

Chair in Energy Electronics

Events

- Scientific-industrial seminars
- International scientific events (conference, study day, etc.)
- Scientific presentations by Academics in the industry

Visibility

- Special CONTRIBUTE Prize to reward the best Master Thesis in the field
- Promotion and communication around the Chairs' activities





University Chairs in



Critical Embedded Systems

INTER-UNIVERSITY CERTIFICATE
2025-2026
ÉDITION 1

The slightest failure in a critical embedded system can result in significant human, financial, or environmental harm. Designing these systems demands expertise in various fields and adherence to rigorous processes to ensure their integrity.

ALSTOM AISIN

As part of continuing education at UCLouvain

FORMATION CONTINUE

Certificat interuniversitaire en ELECTRONIQUE de l'ENERGIE

Formation agréée congé-éducation payé et chèque-formation en Région wallonne

8 unités d'enseignement (20 crédits) pendant 1 an, horaire adapté

UC LIMONS HES-SO LIÈGE UCLouvain ThalesAlenia ALSTOM AGORIA

Workshop on Energy Electronics

UMONS, Friday 27th October 2023

UMONS University of Mons ALSTOM CONTRIBUTE for Wallonia

Rail and Embedded Systems : Inseparable

Pierre MEUNIER

08/05/2024

UCLouvain

CONTRIBUTE ALSTOM -mobility by nature- AISIN

Chair in Energy Electronics at UMONS, Belgium

Power electronics, power grid, electric mobility, and railway system

Electric Power Transmission, Control, and Distribution - Mons, Walloon Region - 613 followers - 2-10 employees

UMONS

LinkedIn



michel.rousseau@alstomgroup.com
lucrezia.dibattista@cetic.be
bashir.bakhshidehzad@umons.ac.be





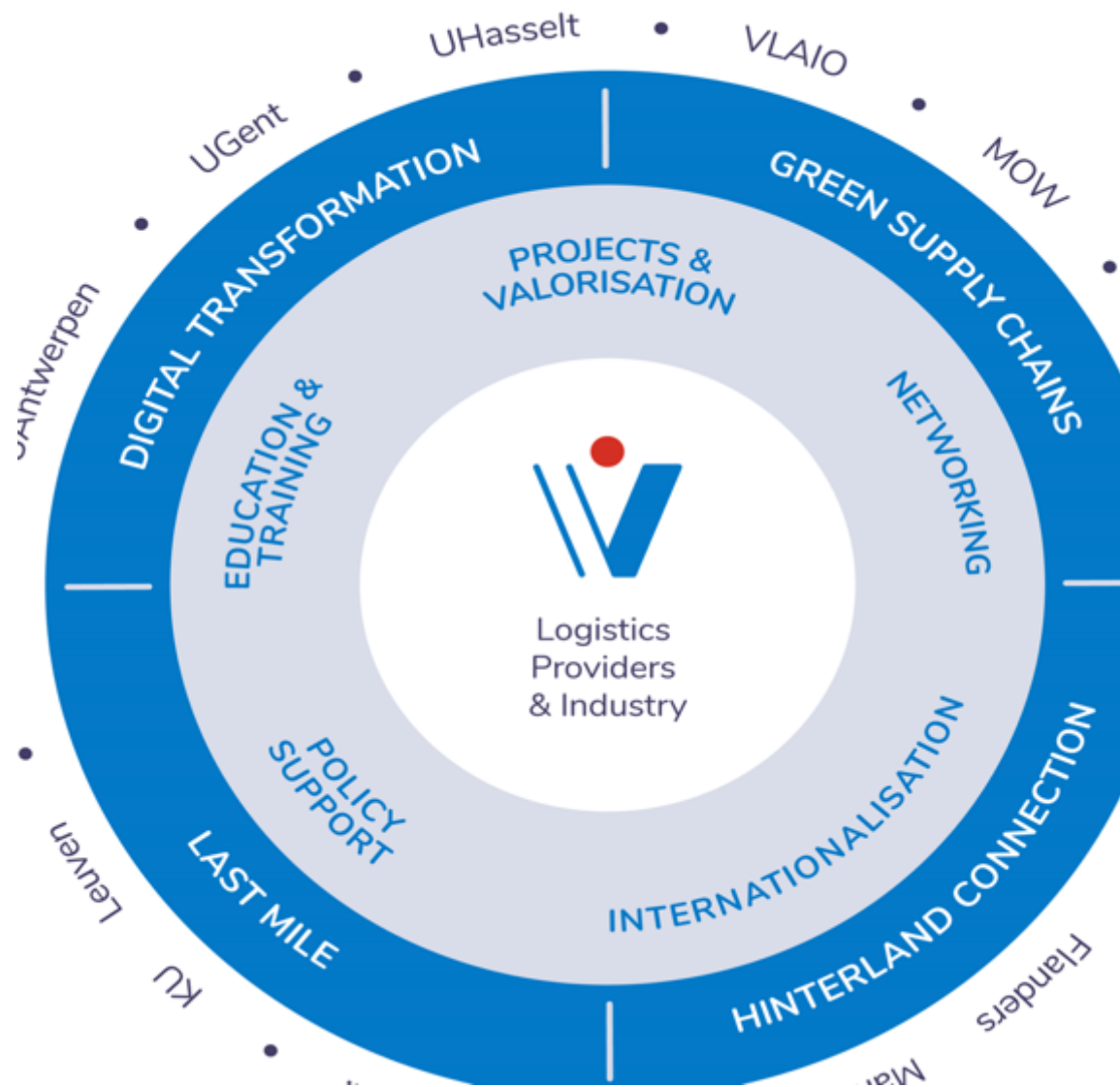
Empowering Logistics

Wallonia meets Flanders

May 2025, Kris Neyens - VIL



VIL - Innovation Cluster for Logistics



VIL - 3 Business units



INNOVATIVE PROJECTS

Enhance the competitiveness of companies through innovation

- Regional projects
- International projects

LOGIVILLE

Innovation centre for the logistics ecosystem

MULTIMODAAL.VLAANDEREN

Improving mobility by guiding companies in their quest for more environmentally friendly transport





Innovative projects - themes & roadmaps



Digital Transformation

The ambition is to transform logistics in Flanders into a digital frontrunner.

[Roadmap Digitalization of Logistics \(in Dutch\)](#)

[Roadmap Automation of Logistics \(in Dutch\)](#)

Green Supply Chains

The ambition is to make Flanders the top performer in the greening of supply chains.

[Roadmap Circular Economy \(in Dutch\)](#)

Hinterland Connection

The ambition is to establish Flanders as a well-connected, top-tier logistics region in Europe.

[Roadmap Hub & Corridors of the Physical Internet](#)

Last Mile

The ambition is to integrate last-mile logistics in Flanders into the entire supply chain in the most economical and sustainable way.

[Roadmap Sustainable Urban Logistics \(in Dutch\)](#)



LogiVille - Logistics Innovation Center





RESPONSABILIZES

- Calls on companies to take responsibility in terms of mobility and climate.

CONCEPTUALIZES

- Innovation as a lever for modal shift

ADVISES

- Assists individual companies in modal shift of their cargo flows by developing business cases
- Provides input to policy based on knowledge and practical experience

CONNECTS

- Cargo consolidation
- Provides knowledge sharing and dissemination through events, learning networks...





Break

Back in the room @ 11:15

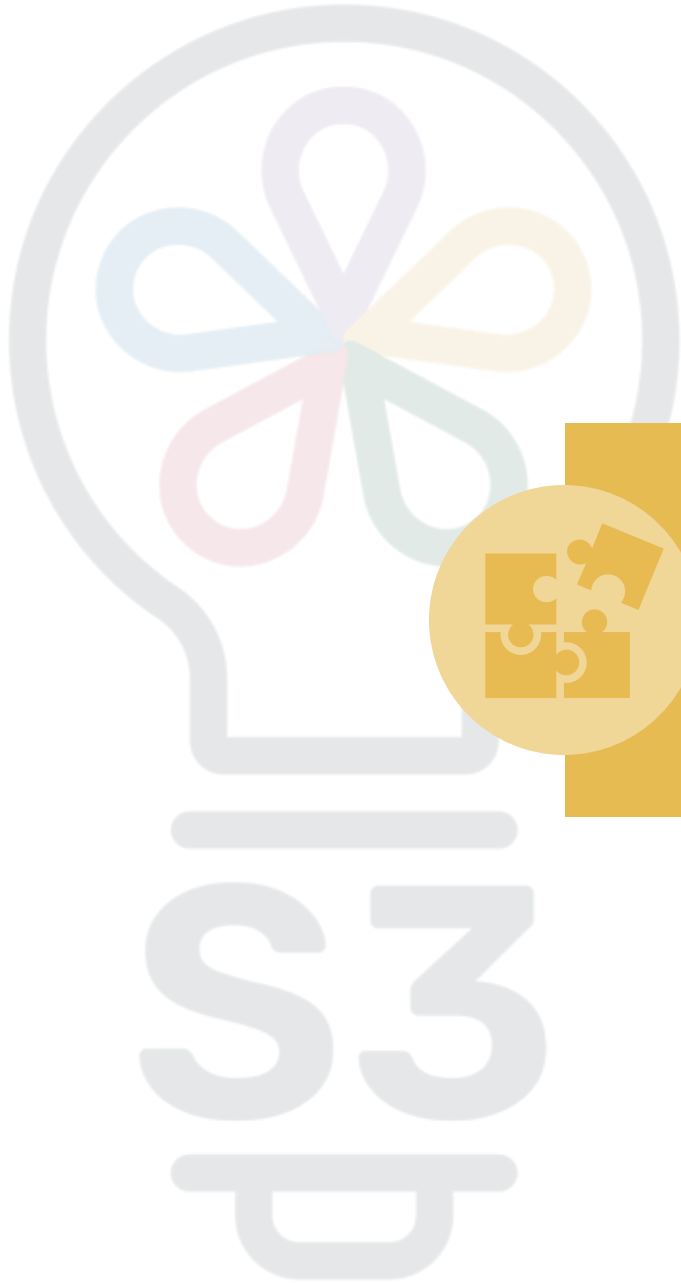




Session 2 – Practical Opportunities

EU calls overview





Interreg next calls (STIPP, CrossRoads) and BEL-COO
Wallonie Entrepreneurs - Milan Debrulle, *Business Developer*
VLAIO - Luc Debognoux, *Business advisor*



S3 DIS4 – Energy and building Innovators

Matchmaking: Wallonia meets Flanders

Crossborder Innovation :

- STIPP & Crossroads
- BEL-COO

Luc Debognoux (VLAIO), Milan Debrulle (WE)

May, 15 2025 | Energyville, Thor Park, Genk

3 Interreg Crossroad Projects

Support to SME's concerning innovative projects across borders:

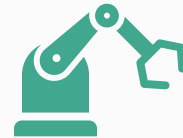


Common goals of all Crossroad programmes!

- Innovative co-creation projects.
- Crossing Belgian borders in all directions...
- Exclusively SME's (LE's and Knowledge institutes only as subcontractors)
- Contributes to societal challenges:

- Industrial Transition

- Industry 4.0
- Digitalisation, automatisisation
- AI, IoT applications



- Green Transformation

- Circulair economy
- Sustainable use of energy, materials



- Healthy Citizens

- Personalised healthcare
- VR in healthcare, AI diagnostics etc.



Common actions @ Crossroads



Idea formulation – support on business & innovation development



Matchmaking – search for partner(s) across border(s)



Application & project support



SME grants – for an innovation project



Follow-up consultation during project period and beyond

Free of Charge

Differences

	Crossroads Vlaanderen-Nederland	Crossroads France- Wallonie-Vlaanderen	STIPP Meuse-Rhine
Results	4th call – 31 projects submitted – 62 SME's participated	2nd call – 12 projects submitted – 25 SME's participated	1st call – 6 projects submitted – 13 SME's participated
Calls 2025	Q1 (closed) and Q4	Q1 (closed) and Q3	Q1 (closed) and Q3
Calls 2026-2027	Tbd.	2 calls / year	2 calls / year
#partners	Bilateral	Min. Bilateral / Trilateral	Min. Bilateral / Multilateral preferred
Grant / project	Min. 70.000 euro Max. 250.000 euro	Min. 25.000 euro Max. 250.000 euro	Min. 150.000 euro Max. 600.000 euro

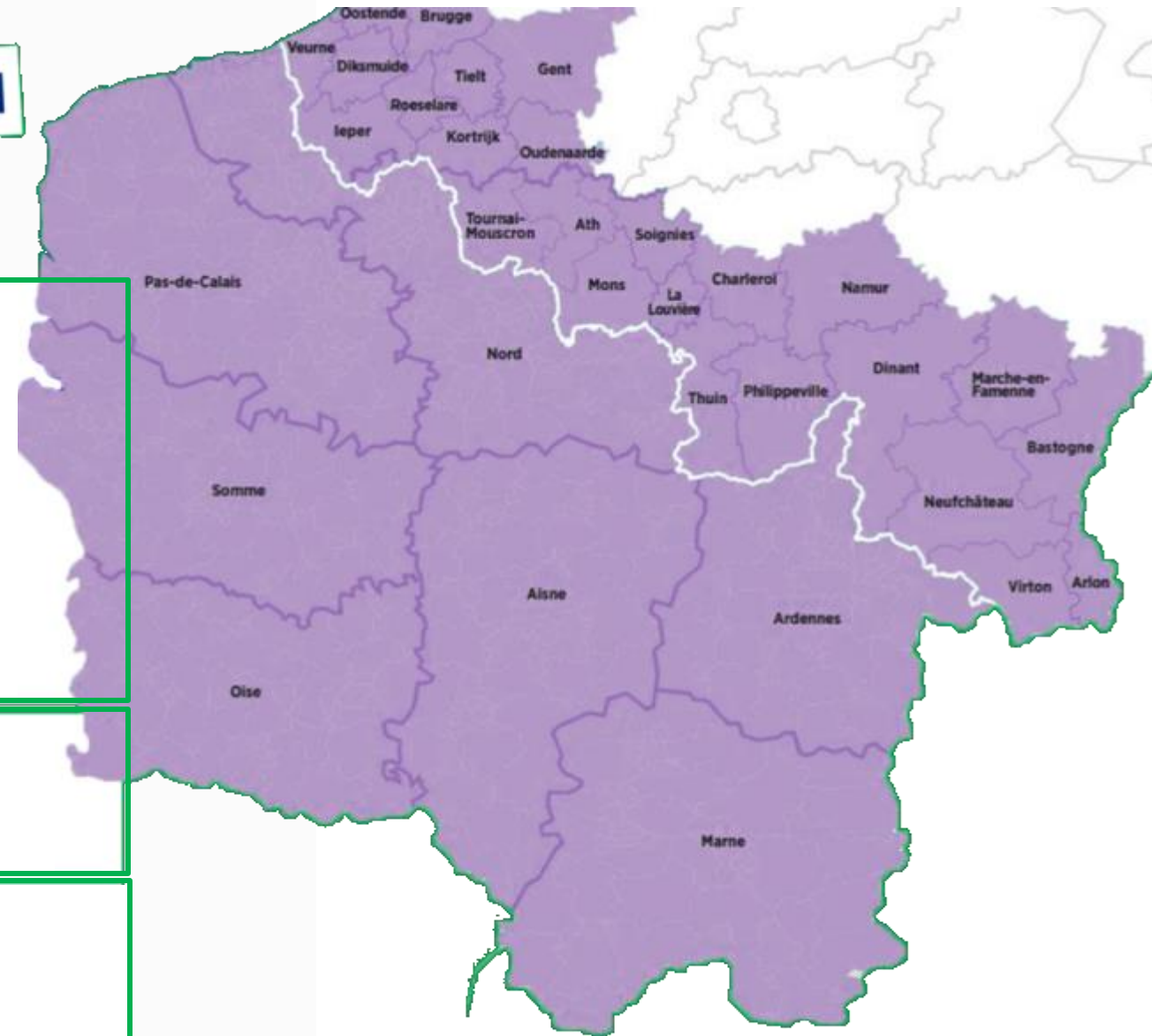
CROSSROADS FRANCE-WALLONIE-VLAANDEREN

Subsidy for cross-border collaboration on innovative **products, processes or services** situating in societal transition domains:

- Circular economy
- Sustainability (raw materials, water, energy)
- Health & Care
- Industry 4.0/Digitalization

Cooperation between min. 1 French SME and min. 1 SME from Vlaanderen and/or Wallonie.

Max. project duration of 24 months
50% subsidies, till a max. of € 250 000,- per project



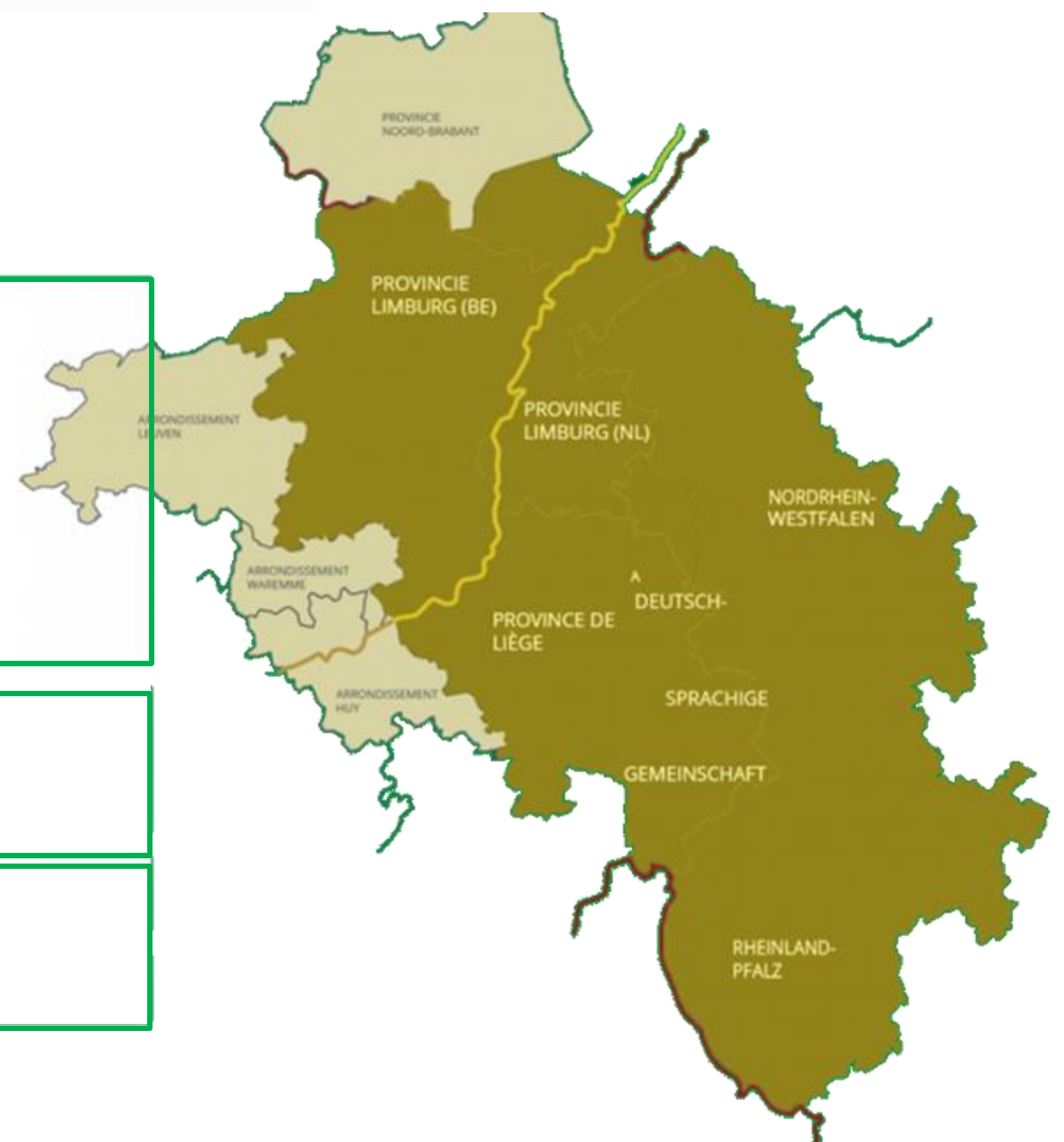
STIPP MEUSE-RHINE

Subsidy to develop and demonstrate a new product, process or service situating in societal transition domains:

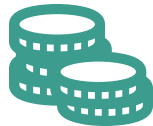
- Industrial Transition e.g. industry 4.0, AI, IoT...
- Green Transformation e.g. circular economy, sustainable use energy, materials...
- Healthy Citizens

Cooperation between min. 2 SME's across the Belgian-Dutch-German border, inside the Meuse-Rhine region.

Max. project duration of 24 months
50% subsidies till a max. of € 600 000,- per project



Success stories previous crossborder programmes

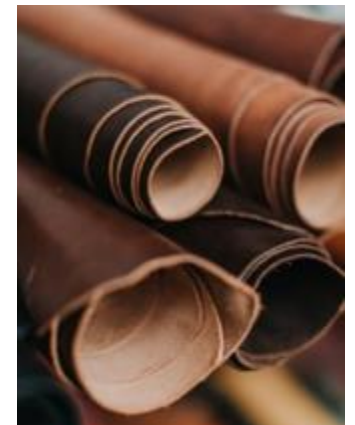


Lessons learned Dutch – Flemish crossborder programs from 2010 till 2022

- Total of 144 projects / 317 companies participated.
- **60% of partnerships continued after 5 years to sustainable cooperation.**
- 375 000 tonnes CO₂ reduction (equivalent of approx. 10 000 households)

Leverage: return factor 10x invested ERDF funds, 5 years after project-end (extra employment and additional investments)

Example Green Transition: „Vegan leather“ by fermentation of residual vegetable products, combined with bioplastics to get a textile with leather properties!



Contacts

Contacts Vlaanderen

Contacts Wallonie



Crossroads

www.crossroads-frwvl.eu



Diederik Blaton

+32 477 58 34 09

diederik.blaton@vlaio.be



Milan Debrulle

+32 494 29 20 19

milan.debrulle@wallonie-entreprendre.be



Meuse-Rhine (NL-BE-DE)

STIPP

www.interregmeuserhine.eu/projects/stipp



Luc Debognoux

+32 468 24 99 98

luc.debognoux@vlaio.be



Olivier Heynen

+32 470 73 49 51

olivier.heynen@wallonie-entreprendre.be

Partners

Interreg  Cofinancé par l'Union Européenne
Medegefinancierd door de Europese Unie

France - Wallonie - Vlaanderen

Crossroads

GrandEst
Développement

POM
Oost-Vlaanderen

POM
West-Vlaanderen

VLAIO

Région
Hauts-de-France

WE Wallonie
Entreprendre

Interreg  Co-funded by the European Union

Meuse-Rhine (NL-BE-DE)

STIPP

LIOF

AGIT
Gründen. Ansiedeln. Fördern.

pom
Powering
Limburg's
economy

NMWP.
The Innovation Engineers.

WE Wallonie
Entreprendre

VLAIO

Financing parties



provincie limburg 

Ministerium für Wirtschaft, Industrie, Klimaschutz und Energie des Landes Nordrhein-Westfalen

Ministerie van Economische Zaken



Wallonie

BEL-COO

- Belgian funding program for companies collaborating on industrial R&D.

- Innovative projects, with significant technical risks, leading to state-of-the-art products, processes or technical services.
- Economic added value for each participating region.

BEL-COO

- At least 2 companies from 2 different Belgian regions:



- Balanced company participation (max. 70% @ Flanders, 65% @ Wallonia)
- Company not in economic difficulties (EC UID definition)
- Partner companies not one being a subsidiary of the other! At least 1 SME!
- Research institutes can participate as subcontractor.

BEL-COO

Overview Subsidies	
Max. support (*)	60% for development projects, 70% for research projects (small SME)
Max. subsidy amount	€ 3,000,000 (Flanders) / € 500,000 (Wallonia) / No maximum (Brussels)
Project duration	12 - 36 months

(*): each agency can define its boundaries, this is for example for VLAIO. So, please contact your regional agency for further details.



BEL-COO

- Application continuously all year long
- Evaluation by the regional funding agency (VLAIO, SPW or Innoviris Brussels)
- Time-to-contract : max. 4 months

BEL-COO

- Success story: IBA (Louvain-La-Neuve) and Flemish Voxdale (Wijnegem) work together on the BEL-COO project “Electron-Gamma Convertor - EGC”, an innovative project to develop apparatus and processes to start mass-production of actinium-225, used for Radiotheranostic (therapy & diagnostics) for cancer cell localisation and treatment!



BEL-COO | Contacts & Links

For Flanders – VLAIO: Ariane Tiberghien; ariane.tiberghien@vlaio.be

For Wallonia – SPW: Pierre Demoitié; pierre.demoitie@spw.wallonie.be

For Brussels – Innoviris: Stijn Maas; smaas@innoviris.brussels

<https://www.vlaio.be/nl/subsidies-financiering/ontwikkelingsproject/wat-is-een-ontwikkelingsproject/bel-coo>

<https://recherche.wallonie.be/belcoo>

<https://www.innoviris.brussels/program/belcoo>





Thank You!

Any question(s) ?

See you at the B2B session



I3 Innovation Investments Instrument

EISMEA - Eric Koch, *Head of Sector (Virtually)*

I3

Interregional
Innovation
Investments
Instrument

Video ONLINE here : [Click](#)

or copy : <https://youtu.be/mXINg3-hHY>

Strengthening innovation
in Europe's regions





I3

Interregional
Innovation
Investment
Instrument

26 March 2025

Flanders-Wallonia Energy Innovation B2B 15/05

Eric Koch – Head of sector, I3 Instrument

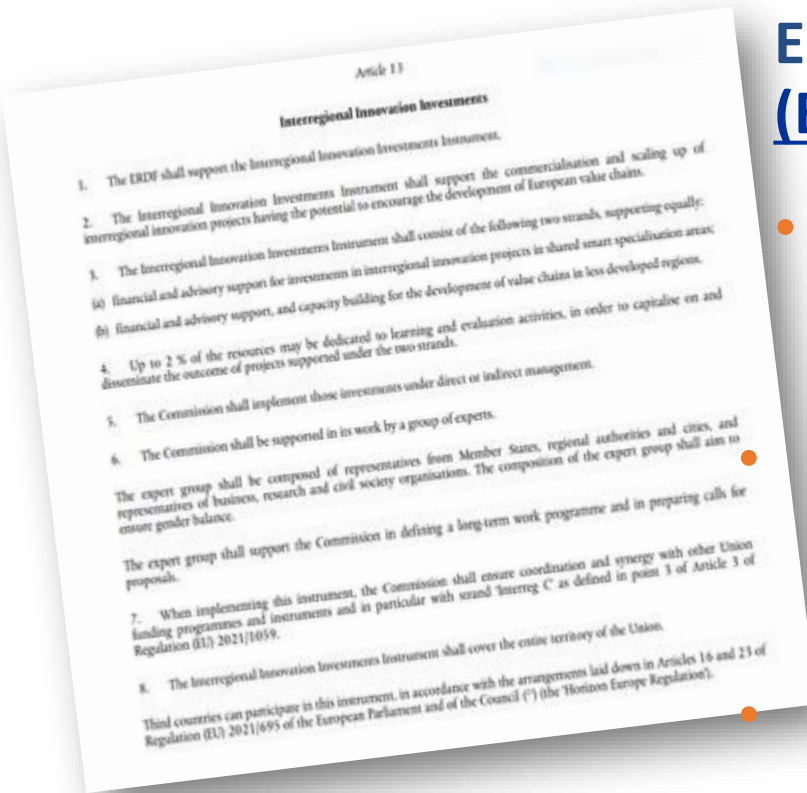
EISMEA I. 01 - EU and place-based Innovation Ecosystems



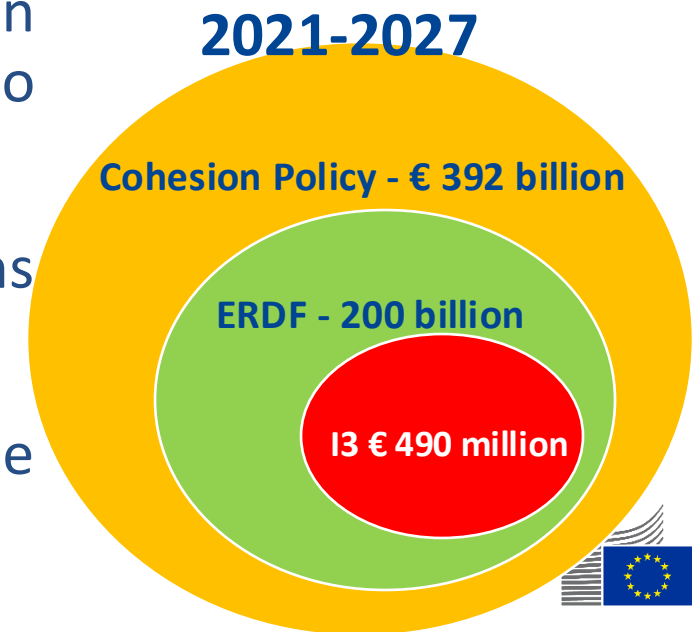


I3 Instrument: Policy background

Established under the European Regional Development Fund (ERDF) Regulation, Article 13, for the 2021-2027



- Designed to address gaps in the repertoire of cohesion policy funding instruments;
- Aims to facilitate the transition from interregional cooperation to interregional investments;
- Connects less developed regions with more developed ones.
- Strengthens interregional value chains



Interregional Innovation Investments (I3) Instrument – GOALS!



Interregional

Who is it for?

SMEs, research institutions, clusters & public authorities from EU regions working on shared smart specialisation, strengthening regional innovation ecosystems and developing value chains.



Innovation

What is for?

We support testing, piloting, validation, and market replication of innovations. Projects focusing on digital and green transitions, smart manufacturing, and strategic areas bringing innovation close to market.



Investments

What can you get?

Financial and advisory support for joint innovation projects, moving from ideas to implementation. Includes direct investments in SMEs, capacity-building, and funding.

3 Thematic priorities

**DIGITAL
TRANSITION**

**GREEN
TRANSITION**

**SMART
MANUFACTURING**



13 Instrument - Strengthening Innovation in Europe's Regions

INTERREGIONAL

**MINIMUM
3-5
PARTNERS**



from different
Member States and
regional ecosystems

INNOVATION

CLOSE TO MARKET
activities (TRL 6-9)

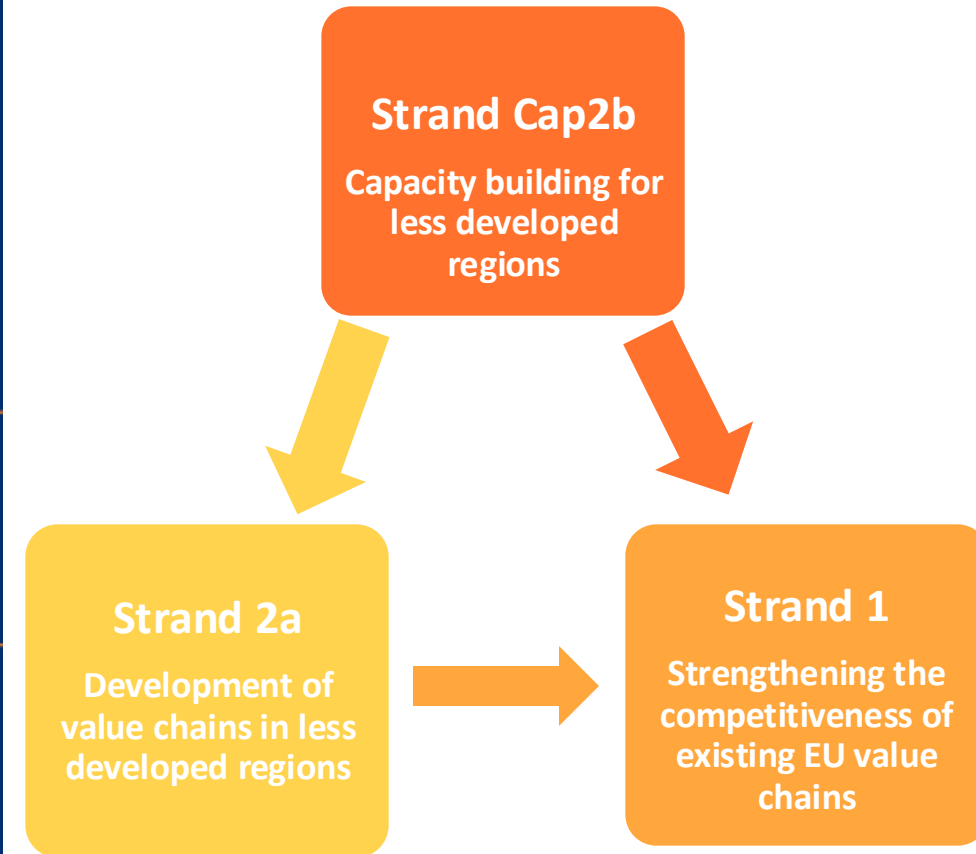
**INNOVATION &
IMPACT-ORIENTED**
investments

INVESTMENTS

€ 490
million available in
the **2021-2027**
programming period

**UP TO
€10**
million per project

70 %
funding rate for all
beneficiaries and cost
categories, 100% to SMEs in



13 thematic areas and strands

THEMATIC AREAS



DIGITAL
TRANSITION



GREEN
TRANSITION



SMART
MANU-
FACTURING

STRANDS

Strand 1 | support for investments in interregional innovation projects in shared smart specialisation areas

Strand 2a | support for investments in interregional innovation projects for the development of value chains in less developed regions

Strand cap 2b | Capacity building for the development of value chains in less developed regions

Technical assistance & experimentation

€ 490 million



I3 Instrument methodology

Aims to facilitate the transition from interregional cooperation to interregional investments

CAPACITY BUILDING

I3 Instrument's success and impact is contingent on the existence of the many partnerships, networks as well as partners' capacity to engage in joint projects.

CONNECT

LEARN

- Capacity building projects
- **I3 Support facility**
- Smart Specialisation Platforms / **S3 Community of Practice**

INVESTMENT (TRL 6-9)

SCALE-UP

COMMERCIALISE

DEMONSTRATE

I3 Strand 1: support for investments in interregional innovation projects in shared smart specialisation areas

I3 Strand 2a: support for investments in interregional innovation projects for the development of value chains in less developed regions



13 Instrument - State of Play

53 projects – 800 beneficiaries - Consortium average investment project size: 17 partners

38% of beneficiaries (SMEs)

1/3 capacity building projects
2/3 investment projects

18

35

45 % of 2021-2027 budget allocated

221 million /

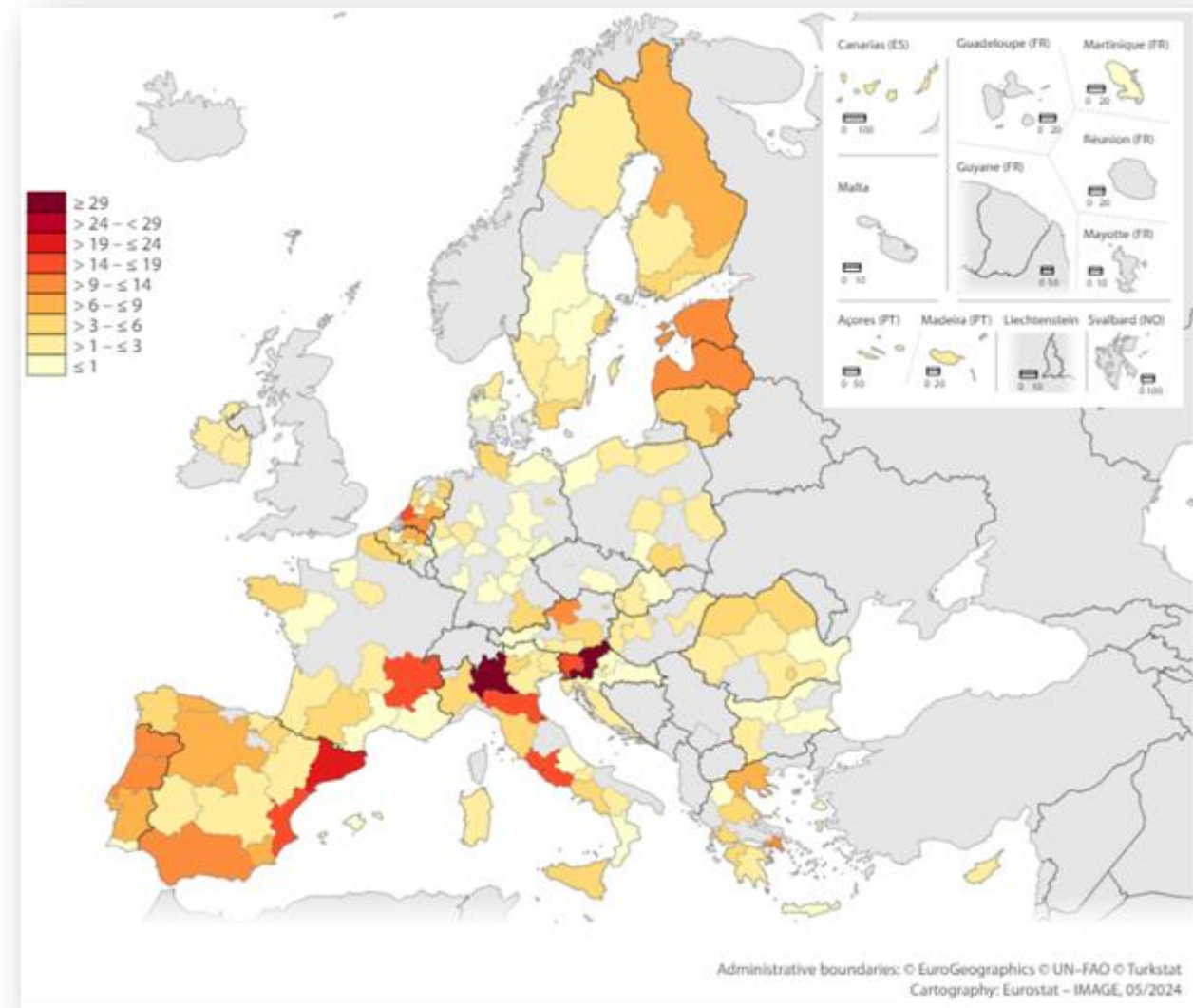
490 million



I3 Instrument: Geographic coverage

- **I3 Instrument and interregional cooperation:** I3 is creating new value chains and enhancing the competitiveness of existing ones across the EU
- **2021-2023 I3 Instrument calls:** I3 is relevant for all regions, with partners from almost every Member State* participating in successful projects

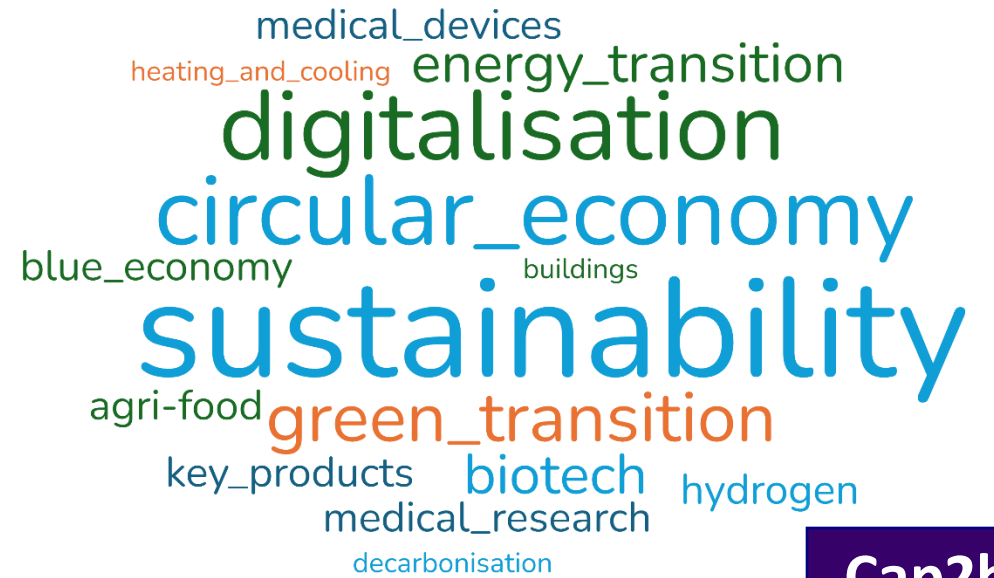
* Includes also partners from outermost regions like Canarias, Martinique,



Thematic focus per strand



INV 1



Cap2b



INV 2a



Belgian participation in I3 projects

Région Wallonne	1,528,814.40
Région de Bruxelles-Capitale	8,995,099.38
Vlaams Gewest	8,235,751.21
TOTAL BELGIUM	17,230,850.59

Examples of projects:

- 3D printing
- Circular raw materials
- Green textile
- Digital health (oncology)
- Agri-food, seaweed products
- Green hydrogen



I3 Instrument News

 Latest news:

 [I3 Support facility](#) is launched.

Scan the QR code 



[I3 Instrument Work Programme for 2025-2027 adopted](#), 3 years, 176 mio EUR

 Upcoming calls 2025:

 Investment Call Strand 1: Opening 22 May 2025 (closing on 13 November) }
 Investment Call Strand 2a: Opening 22 May 2025 (closing on 13 November) } €48.3M

 Final Cap2b: Opening 23 October 2025 and closing on 19 March 2026 (€8.5M).

Do not miss the opportunity:

 Coordinator day + I3 Instrument FORUM – September 24 - 25

 Info Day on the Call Strand 1 and 2a of 2025 - June 11



I3 Support Facility

- The Interregional Innovation Investments (I3) Support Facility is an initiative by the European Innovation Council and SMEs Executive Agency (EISMEA) and the Directorate-General for Regional and Urban Policy (DG REGIO).
- It provides support to regional and national innovation stakeholders and public authorities, fostering strong interregional innovation ecosystems and reinforcing the objectives of the [Interregional Innovation Investments \(I3\) Instrument](#).
- With a special focus on less developed regions, EU outermost regions, and regions facing specific challenges, the I3 Support Facility aims to:
 - **Connect** regional ecosystems within shared Smart Specialisation areas.
 - **Promote** interregional innovation ecosystems.
 - **Enhance** interregional innovation capacity.
 - **Foster** engagement in European value chains and joint investment projects.



How can you benefit from I3 Instrument support?



Collaboration & knowledge sharing

The Capacity Building Hub will provide the opportunity for promoting project ideas, looking for partners and showcase examples of I3 projects.

For contributions, such as examples of good interregional practices or topics of interest, please contact the I3 Support Facility at

contact@i3supportfacility.eu



Monitoring project progress

Explore the I3 Instrument Observatory to monitor project progress, trends, and outcomes.

The I3 Instrument Observatory is currently under construction.



Policy development & solutions

Participate in the Policy Lab, where expert discussion groups tackle key regional innovation challenges and develop actionable solutions.



Networking & events

Engage with innovation leaders at webinars, workshops, and the Annual I3 Instrument Forum, where stakeholders exchange best practices and ideas.



Annual I3 Instrument Forum – save the date!



 Brussels | 24-25 September 2025

Join policymakers, regional authorities, and innovation leaders at the first annual I3 Instrument Forum to discuss the impact of the I3 Instrument, share best practices, and foster collaboration.

The Forum will highlight successful I3 Instrument projects, synergies, and innovative approaches, shaping the future of interregional investments in Europe.

[More details](#)

Monthly virtual events



Join interactive webinars to learn about interregional innovation investments, foster networking, and share insights. These sessions go beyond traditional presentations by encouraging peer engagement, experience sharing, and feedback on best practices.

[Read more](#)



Upcoming Virtual Events 2025

Date	Topic
May 21	Building interregional corridors
June 12	What is I3? How to create an I3 project?
June 25	Assessing innovation maturity in I3 projects (Innovation Radar methodology). Another suggestion: Competitiveness Compass
July	Role of clusters and networks in interregional innovation investments
September	Interregional innovation project management, case study, and best practice
October	How I3 can support industrial transition
October	I3 Discussion Groups: presentation of the 3 Discussion Groups and their first outcomes



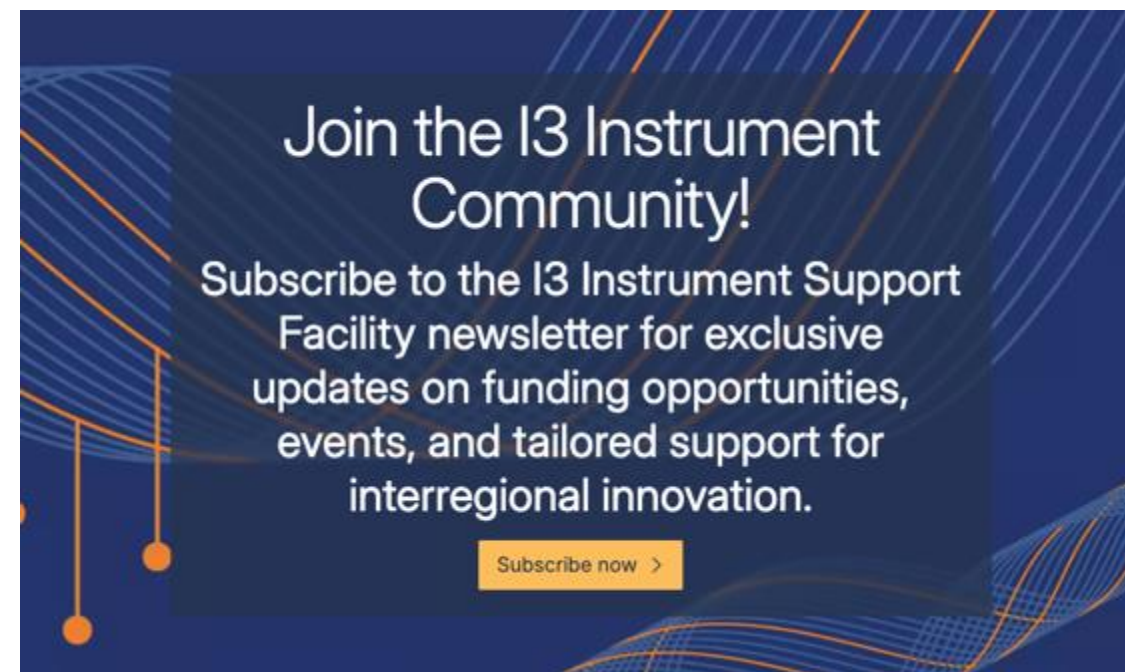
Be part of the community

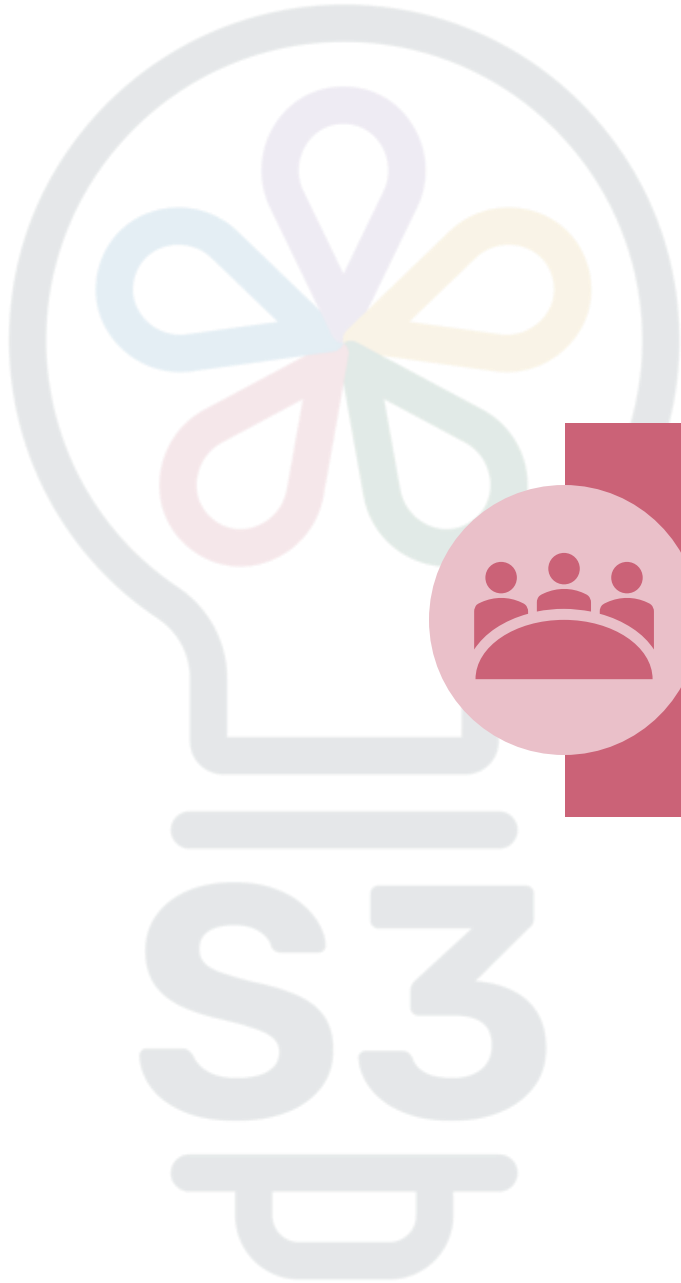
- Visit the website:
- https://eisma.ec.europa.eu/interregional-innovation-investments-i3-support-facility_en



Interregional Innovation Investments (I3) Support Facility

- Subscribe to the community





Horizon Europe Cluster 5
LIFE Clean Energy Transition
Innovation Fund

NCP Wallonie - J.-J. Lemaire, EU Energy Mobility and Materials



Horizon Europe, LIFE, Innovation Fund Energy Innovator day 25

NCP Wallonie Genk - Energyville



14/05/2025

Agenda



- ▶ NCP Wallonie
- ▶ Programmes in brief
 - ▶ Horizon Europe
 - ▶ LIFE
 - ▶ Innovation Fund
- ▶ What's for you?
- ▶ Participation: advantages & quick guide



Mission and services from NCP Wallonie



Maximise participation from Walloon enterprises (incl. SMEs), universities, research centers to European research & innovation fundings



INFORM

- Information about fundings
- European news
- Success stories
- Newsletter
- Events' agenda



SUPPORT

- **Free** support from idea to project submission
- Proofreading of proposals
- Legal and finance questions



CONNECT

- Networking with partners from other countries
- Relaying and representation in B2Bs or networking events



Francisco Santana Ferra
Coordinator and manager,
Legal and Finance

Antoine Folcher
Data Analyst
Business Developer

Carine Petit
Advisor Biotech, Food,
Environment, Climate, Space

Valentina Albarani
Advisor Health, EIC/EIT

Sixtine Desrousseaux de Medrano
Advisor Defence, Aeronautics, Industry,
Advanced Materials, Nuclear

Mélina Di Matteo
Advisor Digital, Security,
Creative industries

Jean-Jacques Lemaire
Advisor Energy, Mobility, Raw Materials

Jennifer Lecluse
Senior Communication Officer
Event Manager



Other supported funding programmes



Voir : <https://recherche.wallonie.be/home/nos-aides-1/minscrire-dans-une-demarche-internationale-international.html>

A key programme : Horizon Europe



HORIZON EUROPE


HORIZON EUROPE



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

+ Missions + New European Bauhaus.
+ Partnerships : EuroHPC, Circular bio-based Europe, Clean Aviation, Clean Hydrogen, Europe's Rail, Innovative Health Initiative, Key Digital Technologies.

Horizon Europe: before onboarding

- ▶ Framework programme from European Union, for **research & innovation** (2021-2027).
 **Budget** : 95,5 B€.
- ▶ 🤝 Supports **all research & innovation's actors, public or private** :
 entreprises (small, medium or large), high-schools & universities, hospitals, research centers, public organisations, municipalities, associations...

▶ Funding rate & type of projects

TRL	Type d'action	Taux de financement		
		Entreprises	Centres de Recherche	Universités Hautes Ecoles
9 8 7 6 5 4 3 2 1 Marché Concept	IA Innovation Action	70%*	100%	
	RIA Research and Innovation Action			
	CSA Coordination & Support Action			

▶ Eligibility:

- Any legal entity established in a european MS or associated country.
- 🧑‍🤝‍🧑 Unless exception, **collaborative projects** :
 - **3 independant partners from 3 countries**

▶ Calls opening:

- after calendar (2025 + 2026-27)
- Deadlines per call, see Funding & Tenders



Cluster 5 : Destinations



Pillar II
GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters

- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility**
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre

Destination 1	Climate sciences and responses for the transformation towards climate neutrality	
Destination 2	Cross-sectoral solutions for the climate transition	<ul style="list-style-type: none"> Batteries Communities and cities Cross-cutting
Destination 3	Sustainable, secure and competitive energy supply	<ul style="list-style-type: none"> Global leadership in renewable energy Energy systems, grids & storage Carbon Capture, Utilisation and Storage (CCUS)
Destination 4	Efficient, sustainable and inclusive energy use	<ul style="list-style-type: none"> Highly energy-efficient and climate neutral European building stock Industry
Destination 5	Clean and competitive solutions for all transport modes	<ul style="list-style-type: none"> Zero-emission road transport Aviation Waterborne transport Transport-related health and environment Cross-cutting
Destination 6	Safe, Resilient Transport and Smart Mobility services for passengers and goods	<ul style="list-style-type: none"> Connected, Cooperative and Automated Mobility (CCAM) Multimodal transport, infrastructure and logistics Safety and resilience





Deadlines?



Calls	Opening	Deadline 1	Deadline 2
01-2025 (2-stages)	6 May 2025	2 Sep 2025	31 Mar 2026
02-2025	6 May 2025	2 Sep 2025	
03-2025 (2-stages)	6 May 2025	4 Sep 2025	14 Apr 2026
01-2026	6 May 2025	4 Sep 2025	
02-2026 (2-stages)	6 May 2025	4 Sep 2025	31 Mar 2026



NCPs Horizon Europe

Horizon Europe : Who should you contact?



▶ Wallonia:

<https://www.ncpwallonie.be/equipe/>



Jean-Jacques Lemaire

ADVISOR

Secteurs : Energy Industry
Mobility

Horizon Europe Cluster 5 (Energy, Mobility)
& Raw Materials

✉ jean-jacques.lemaire@ncpwallonie.be



Sixtine Desrousseaux de Medrano

ADVISOR

Secteurs : Defence Industry
Nuclear

Horizon Europe Cluster 4 & 5 (Industry, Aeronautics, Defence and
Advanced Materials) & Euratom

✉ sixtine.desrousseaux@ncpwallonie.be

▶ Flanders:

<https://ncpflanders.be/team>



Fernanda Werneck

fernanda.werneck@vlaio.be
+32 2 553 02 62

Security Climate, Energy, Mobility
Agro-Food, Environment Missions



Pascal Verheye

pascal.verheye@vlaio.be
+32 2 553 09 84

Climate, Energy, Mobility
Agro-Food, Environment EIT
Missions



Ria De Breucker

Ria.debreucker@vlaio.be
+32 2 553 13 77

Digital, Industry & Space
Climate, Energy, Mobility EIC EIE
HorizonEU L+F

▶ Brussels:

<https://ncp.brussels/about-us/?tab=team>



Aïda Yassine

CLIMATE, ENERGY, MOBILITY
EU MISSIONS
DRIVING URBAN TRANSITIONS (DUT)

[in](#) [📞](#) [✉](#)



Camille Dehestru

CLIMATE, ENERGY AND MOBILITY
FOOD, BIOECONOMY, NATURAL
RESOURCES, AGRICULTURE AND
ENVIRONMENT
DRIVING URBAN TRANSITIONS (DUT)


[in](#) [📞](#) [✉](#)

✉ ayassine@hub.brussels

✉ cdehestru@hub.brussels



LIFE : key infos

- ▶ **Fundings for innovative practices for better climate and environment**
- ▶ **Budget** : 5,45 billions euros (2021-2027). (~578M€ for 2025)
- ▶ **Project types** : open – bottom up  Does **not** funds research nor infrastructures
- ▶ **Further deadlines** : 23 Septembre 2024 most calls (annual calls)
- ▶ **Funding rate** : 60% (most) – 95% (CET subprogramme only)
- ▶ **Collaboration** : depends on the sub-programme

- ▶ The LIFE Programme is managed by the [European Climate, Infrastructure and Environment Executive Agency](#) (CINEA)



LIFE : 4 main subprogrammes

▶ 4 main sub-programmes:



Nature & Biodiversity

No consortium requirements
Funding rate: 60%



Climate change adaptation and mitigation

No consortium requirements
Funding rate: 60%



Circular economy & quality of life

No consortium requirements
Funding rate: 60%



Clean Energy Transition

Often
3 countries + 3 participants

Funding rate: 95%



LIFE : 4 main subprogrammes

► 4 main sub-programmes:



Nature & Biodiversity

WAL/BXL:

SPW – Eric Joiris

eric.joiris@spw.wallonie.be

FL/BXL:

Agentschap voor Natuur en Bos -

Michaël MOENS

michael.moens@vlaanderen.be



Climate change adaptation and mitigation

WAL/BXL:

NCP Wallonie – Carine Petit

carine.petit@ncpwallonie.be

& FL/BXL



Circular economy & quality of life

WAL/BXL:

NCP Wallonie – Carine Petit

carine.petit@ncpwallonie.be

FL/BXL:

OVAM - Kris VAN LOOY

kris.van.looy@ovam.be



Clean Energy Transition

WAL/BXL:

NCP Wallonie – J-J Lemaire

jean-jacques.lemaire@ncpwallonie.be

& FL/BXL



LIFE : information

- ▶ **EC Infodays:** from 13 to 15 May 2025; agenda/registration [here](#) (...and **replays**)





Innovation Fund

- ▶ Framework programme from European Union, for **innovative decarbonising technology demonstration** (2020-2030). 🇪🇺 **Budget : ~40 B€**

- ▶ 🧑 **Single applicant programme**

- ▶ 🙌 **For who?**

Any legal entity , anywhere in the world

Projects must be located in the EEA (EU Member States and Iceland, Liechtenstein, and Norway)

- ▶ **Eligibility**

- ▶ Eligible activities (cfr next slide) + above State of the Art - **technologically and financially mature projects**
- ▶ **Effective GHG reduction** (cfr calculation methodology)
- ▶ 🇪🇺 Budget : 60% maximum of relevant costs
- ▶ Operate at least 5 years after entry into operation (except SSP & pilots: 3 years), for 10 years **and up**



Innovation Fund



Regular calls

Topic	Project eligibility CAPEX	Sector covered
Large-scale projects	CAPEX > 100M€	<ul style="list-style-type: none"> • Annex I and Annex III to the EU ETS Directive 2003/87, including CCU • CCS • Renewable energy and energy storage technologies • Maritime and aviation
Medium-scale projects	20M€ < CAPEX < 100M€	
Small-scale projects	2.5M€ < CAPEX < 20M€	
Cleantech manufacturing for components	CAPEX > 2.5M€	
Pilot projects	CAPEX > 2.5M€	
Battery call	no limit (1 st call)	EV cells manufacturing (scaling-up, innovation in manufacturing, raw materials utilisation, product performance, ...)

>NEW<

Auction calls

Topic	Funding	Sector covered
Auction as a Service	(depends on production)	• RFNBO hydrogen production

Upcoming: Industrial Heat Decarbonisation



Innovation Fund

Who should you contact?



Jean-Jacques Lemaire

Frenchspeaking Belgium NCP + IFEG Belgium representative



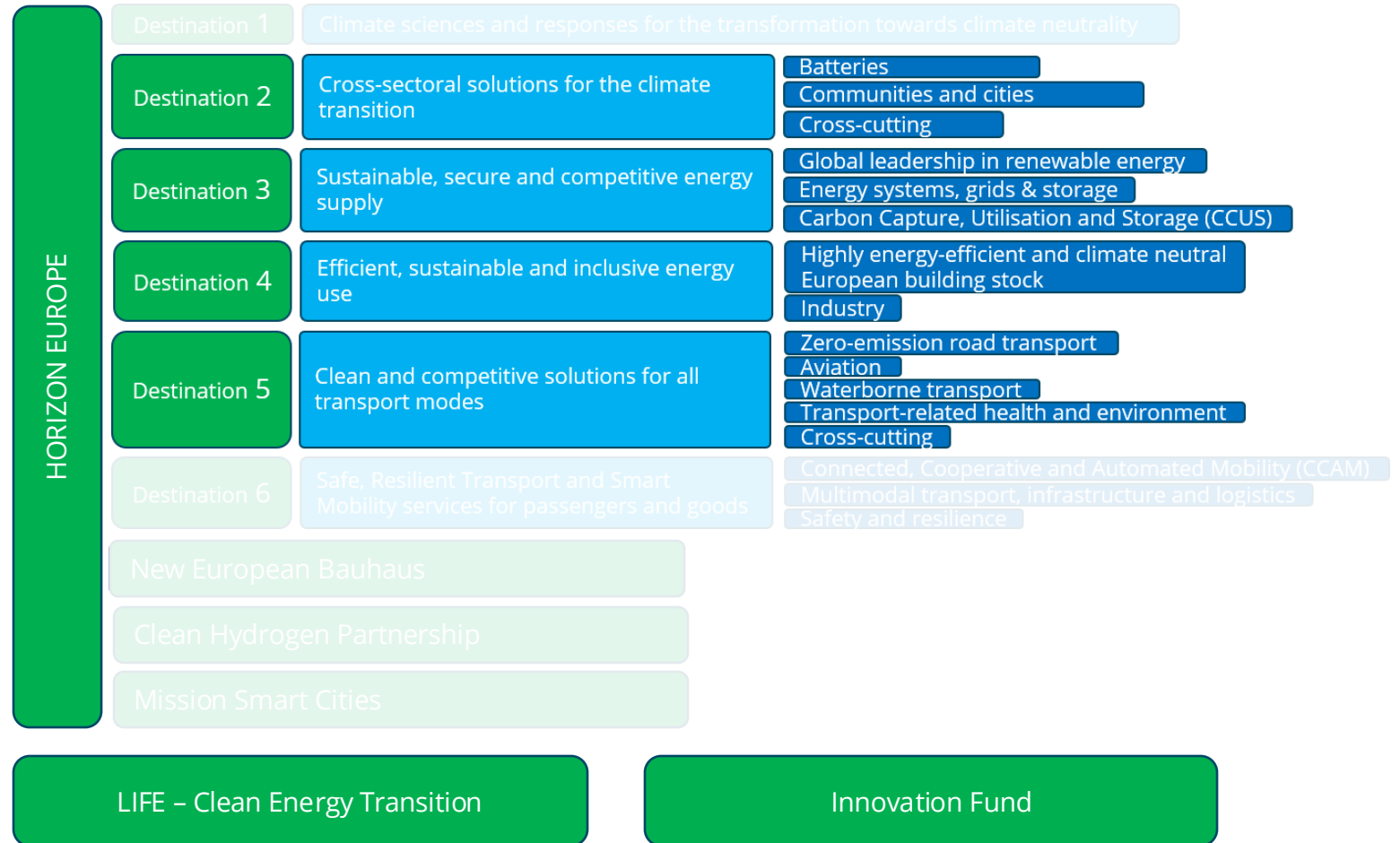
Michiel Maertens

Flemishspeaking Belgium NCP + IFEG Belgium representative



Where to find content for you ?

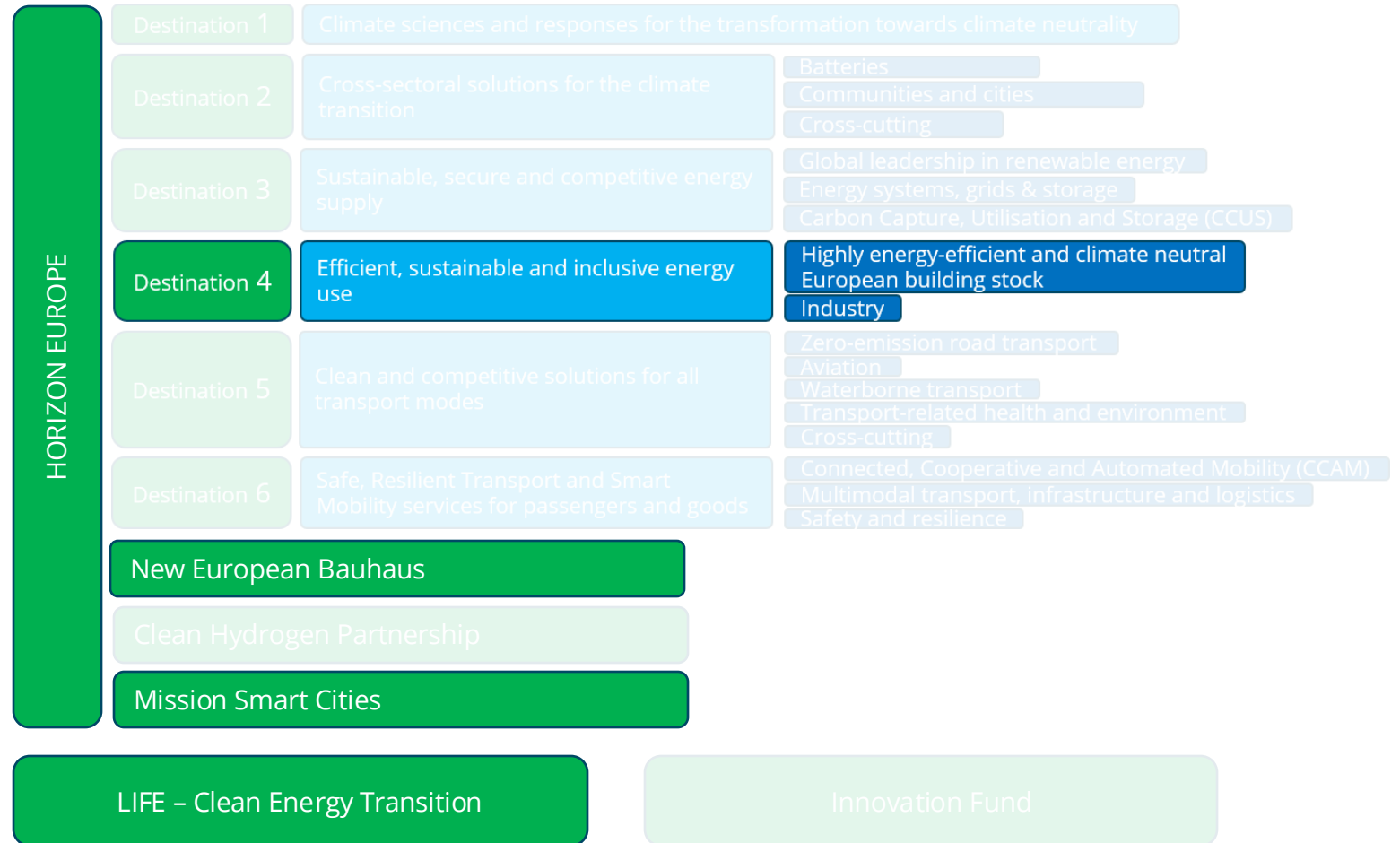
**Energy
Production
Distribution
Communities
Grid
Storage**





Where to find content for you ?

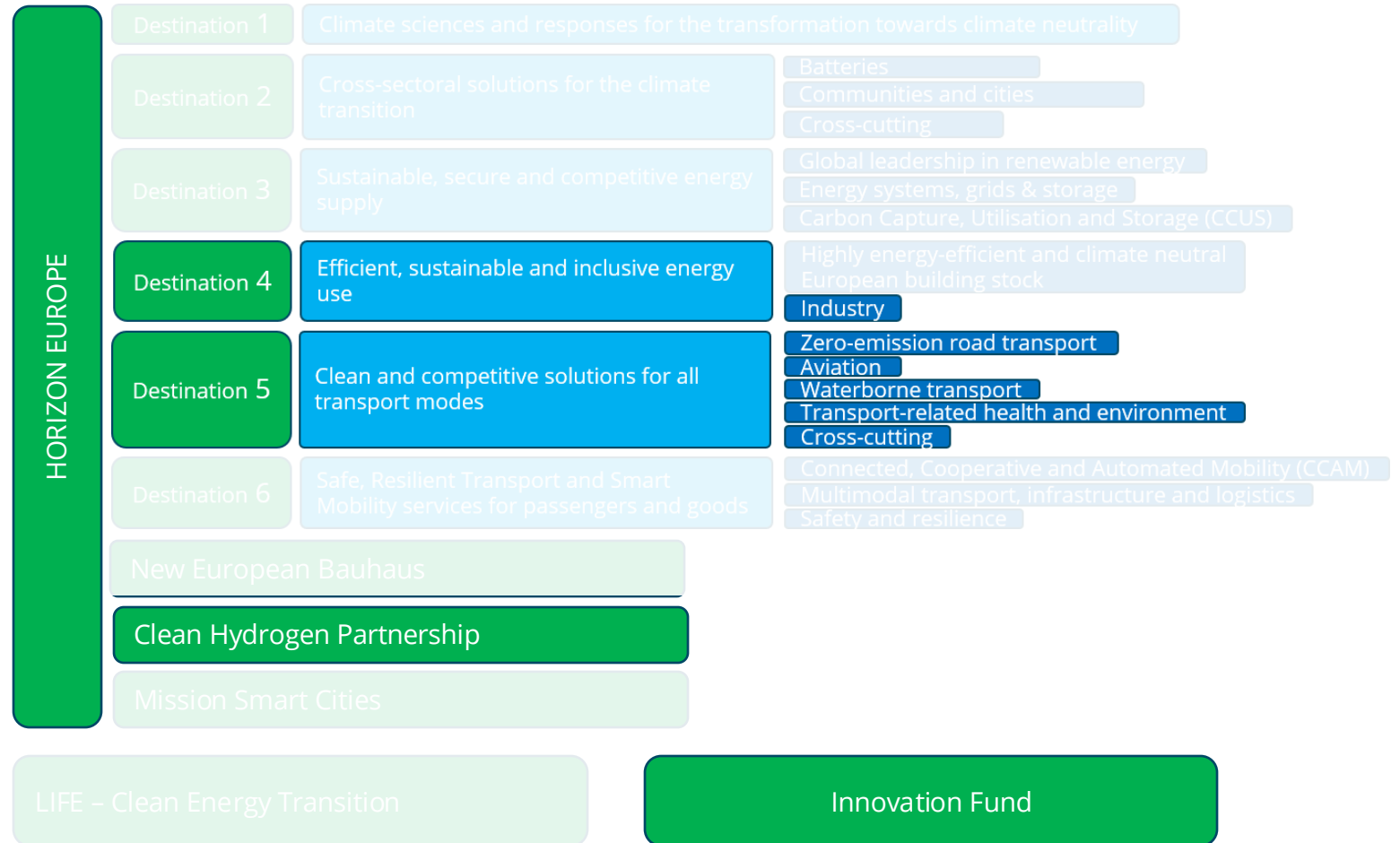
**Building
Retrofitting**





Where to find content for you ?

Hydrogen





Where to find details?



European Commission | **EU Funding & Tenders Portal** | Sign in | EN

Home > Funding > Calls for proposals

Calls for proposals

Calls for proposals are funding opportunities issued by the European Union institutions, agencies and bodies. These are direct financial contributions, known as grants, that are awarded to third-party beneficiaries (e.g., research organisations, public entities, non-governmental organisations, and private companies) to engage in activities that serve EU policies.

[More details](#)

Filters

GRANTS RECOMMENDED FOR YOU

Do you want to receive personalised recommendations? [Log in](#) to your F&T profile or [register](#) an account to activate them.

168 item(s) found

Opening date

Programme: Programme for the Environment and Climate Action (LIFE)

Nature Governance and Information
LIFE-2025-SAP-NAT-GOV | Call for proposal
Opening date: 24 April 2025 | Deadline date: 23 September 2025 | Single-stage
[Open For Submission](#)

Programme: Programme for the Environment and Climate Action (LIFE) | Type of action: LIFE Project Grants

Projects on Legislative and Policy Priorities in the fields of Nature & Biodiversity and Circular Economy & Quality of Life
LIFE-2025-PLP-NAT-ENV | Call for proposal
Opening date: 24 April 2025 | Deadline date: 23 September 2025 | Single-stage
[Open For Submission](#)

Programme: Programme for the Environment and Climate Action (LIFE) | Type of action: LIFE Project Grants

All filters

European Commission | **EU Funding & Tenders Portal** | Sign in | EN

Home > Funding > Calls for proposals > One-Stop-Shops - Integrated services for clean energy transition in buildings

One-Stop-Shops - Integrated services for clean energy transition in buildings

LIFE-2025-CET-OSS

Topic: Call for proposal

Internal navigation

- General information
- Topic description
- Topic updates
- Mission
- Destination
- Conditions and documents
- Budget overview
- Partner search announcements
- Start submission
- Topic QAAs
- Get support
- Call information
- Call updates

General information

Programme
Programme for the Environment and Climate Action (LIFE)

Call
LIFE Clean Energy Transition (LIFE-2025-CET)

Type of action
LIFE-PJG LIFE Project Grants

Type of MGA
LIFE Action Grant Budget-Based (LIFE-AG)

[Open For Submission](#)

Deadline model
single-stage

Opening date
24 April 2025

Deadline date
23 September 2025 17:00:00 Brussels time

Topic description

Expected impact:
Expected impacts - Scope A and Scope B:
Proposals submitted under Scope A and Scope B should clearly present the concrete results to be delivered through the proposed activities and demonstrate how these results

[Show more](#)

Topic updates

24 April 2025
The submission session is now available for: LIFE-2025-CET-BUILDSKILLS, LIFE-2025-CET-OSS, LIFE-2025-CET-ENERPOV, LIFE-2025-CET-OHC, LIFE-2025-CET-ENERO, LIFE-2025-CET-POLICY, LIFE-2025-CET-PRIVAFIN, LIFE-2025-CET-PDA, LIFE-2025-CET-INDUSTRY, LIFE-2025-CET-BETTERRENO, LIFE-2025-CET-LOCAL, LIFE-2025-CET-...

[Show more](#)

Topic conditions and documents



Advantages to participate



1. Funding
2. Risk sharing
3. European dimension
4. Network
5. Gain experience
6. Getting ahead among the competition (excellence)
7. Questioning / projecting
8. Credibility
9. Contribute to common good (societal and global impact)



Success factors

- ▶ Relevant and innovating subject (position yourself)
- ▶ A good coordinator (network with the « influencers » → Which are the most successful organisations)
- ▶ A strong and varied consortium (geographical diversity, SMEs on board, gender balance)
- ▶ Consistency among partners
- ▶ Choose a call with low competition

What if I'm not innovative?

You can take part as an innovation tester (use case)! Make yourself known (publish your profile on the various networking platforms + tell your partners)





Quick guide to setting up projects

► Step 1 : Find the right project call :

- in « workprogrammes » : currently 2025, available for each programme / cluster
- In EU portal: ['Funding and tenders'](#)
- On www.ncpwallonie.be
- Project calls are structured in « calls », divided in several « topics »

European Commission | Funding & tender opportunities | Single Electronic Data Interchange Area (SEDIA)

SEARCH FUNDING & TENDERS | HOW TO PARTICIPATE | PROJECTS & RESULTS | WORK AS AN EXPERT | SUPPORT

Find calls for proposals and tenders

Search calls for proposals and tenders by keywords, programmes...

EU Programmes

Asylum, Migration and Integration Fund (AMIF)	Border Management and Visa Policy Instrument (BMVI)	Citizens, Equality, Rights and Values Programme (CERV)	Connecting Europe Facility (CEF)	Creative Europe Programme (CREA)	Customs Control Equipment Instrument (CCEI)
Customs Programme (CUST)	Digital Europe Programme (DIGITAL)	Erasmus+ (ERASMUS+)	EU External Action (RELEX)	EU4Health Programme (EU4H)	Euratom Research and Training Programme (EURATOM)

Inform | Accompagner | Connecter | Les programmes européens | Thématiques & appels ouverts | Succès & témoignages

Biotech, Food

Climate, Environment

Culture, créativité et sociétés inclusives



Quick guide to setting up projects

▶ Step 2 : Understand the topic :

- ▶ What's the **problem** to solve? The challenge?
- ▶ What's the **aim** ?
- ▶ What are the **expected impacts** ?
- ▶ Do not only look in the topic text : also check the *destination* surrounding it, and the *workprogramme* as a whole
- ▶ What are the **activities** listed in the text topic ? The « mandatory » elements ? (pay attention to should, shall, will...)
- ▶ What is the **expected technological maturity level** (« TRL »)?
- ▶ What's the maximum **funding rate** ?

Quick guide to setting up projects



▶ Step 3 : Build your consortium :

- ▶ What role for your organisation ?
- ▶ What are the missing required skills ? Do you know who can provide them ?

= **skills matrix**



Activité/partenaire	Partenaire A	Partenaire B	Partenaire C	...
Project management	x			
Scoping phase		x	x	
Prototype preparation		x	x	
Testing		x		
Policy recommendations	x			
Dissemination and communication	x			
...				

▶ Step 4 : Find the missing partners :

- ▶ Check within your own network
- ▶ Search on already funded project for the same thematics on [Cordis](#)
- ▶ Publish a request :
 - ▶ Portal '[Funding and tenders](#)' : on the specific topic page
 - ▶ [Entreprise Europe Network](#)

▶ Contact your NCP   **One page expertise**

▶ Take part in networking events



Quick guide to setting up projects

► Step 5 : Define, refine the « red thread » of the project :

► With the partners, specify :

- The needs met by your project (technological, environmental, medical, market, societal, etc.);
- The expected impact of the project and the strategies for exploiting the results;
- The objectives set : they must be **ambitious** (beyond state the art) and **SMART** (Specific, Measurable, Achievable, Relevant, Timebound) !
- The potential for innovation;
- The tasks allowing to reach the goal of the project : divide them in major parts that will form your « work packages » and enable you to define the required skills;

► Incorporate in the common thread the **cross-cutting challenges** (internationalisation, digitalisation, sustainability, open science, gender balance...)



Quick guide to setting up projects

▶ Step 6 : Writing of your project proposal :

- ▶ Ideal start 3-4 months before the deadline ;
- ▶ Check that you already own a **PIC (Participant Identification Code)** with the European Commission; if not, register on the EU portal (< 15 min.)
- ▶ Obtain and analyse all the templates to fill **on the specific topic page** in [‘Funding and tenders’](#) portal;
- ▶ Identify the elements to describe in each section :



- ▶ Write the sections ;
- ▶ Review and have it reviewed (by your NCP !);
- ▶ Finalise ;

▶ Step 7 : Submit !

- ▶ Ideally, keep 1-2 days to safely anticipate technical problems 😊





How to participate ?

One page expertise

ONE PAGE EXPERTISE DESCRIPTION

It is part of the document to introduce your organization to potential project leaders. Since there is a high number of descriptions concerning the same topic, please indicate in which context and program sector your organization can deliver services if your contribution would be called. This document is not an application for funding, but to show in a few words your skills to relevant actors in your sector. Please fill in the following fields:

CONTACT INFORMATION FOR THE ACTORS

Name: _____
 Address: _____
 City: _____
 Postal code: _____
 Country: _____
 Telephone: _____
 E-mail: _____

NAME OF THE PROJECT

Name: _____
 Description: _____
 Start: _____
 End: _____
 Duration: _____

KEYWORDS

Indicate the general domain of your general expertise

REMARKS

Indicate here the specific knowledge, technology or other contribution that your organization can provide to add value to a project. You are encouraged to include references to other members, partners or former projects in particular European projects (FP7, FP8) if relevant.

Indicate the amount that the document will be the base to estimate a key plan to make you a partner.

- Highlight your strengths
- Experiences





Let NCP-W know about you !





Useful tools

- ▶ **Find European calls for projects :**
 - ▶ [‘Funding and tenders’ platform of European Commission](#)
 - ▶ [Website of NCP Wallonie \(« Thématiques et appels ouverts » \)](#)
- ▶ **Look for partners :**
 - ▶ Check within your own network & contact your NCP
 - ▶ Look in the funded project on the same theme on [Cordis](#)
 - ▶ Publish a request :
 - ▶ Portal [‘Funding and tenders’](#) : on the specific topic page
 - ▶ [Entreprise Europe Network](#)
 - ▶ Take part in networking events
- ▶ **Do not miss last European news :**
 - ▶  [Agenda of NCP Wallonie](#)
 - ▶  [Newsletter of NCP Wallonie](#)



Thanks for your attention!

Let's meet on ncpwallonie.be



Morning session moderated by



Contact :

Renaud Dachouffe

✦ Energy & Innovation Catalyst @ Cluster TWEED
:: Smart Grid and Flexibility ⚡ | Green heat &
District Heating & Cooling 🌡️ | R&D&I Renewable
Energy 🌍

rdachouffe@clustertweed.be

TWEED

Clos Chanmurly 13 • 4000 Liège • Belgique





Networking Lunch

Pitch Session starting @13:30





Session 3 – Pitches for new collaborations

Pitch session moderated by

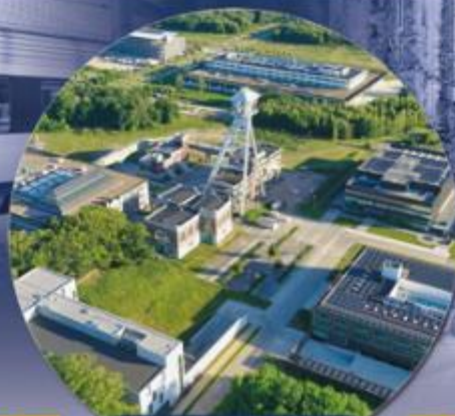
Pôle GreenWin : Tara McCarthy <tara.mccarthy@greenwin.be>



S3 DIS4 • 15th May 2025

Energy and building innovators

Matchmaking : Wallonia meets Flanders



EnergyVille



Pitch session

13h30 – 14h30

Programme

13h30: Intro

13h33: **Buildwise** (A. DAWANS) and **Climact** (J. PONTIF): Upscaling strategies for OSS

13h41: **Gemelio** (S. MOUTHUY)

13h49: **GIM Wallonie** (Ch. ADRIAENSEN)

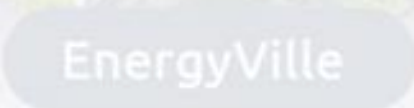
13h57: **Cenaero** (B. DOMPIERRE)

14h05: **SolHyd** (W. VANDEBROEK)

14h13: (F. LANY: Thermo Power Solutions)

14h21: **ULiège** (G. LEONARD)

14h28: **END**



renow

Unlocking the full potential of One-Stop-Shops

*What strategies and institutional frameworks to upscale
one-stop-shops in Europe ?*

CLIMACT

 Buildwise

“

Upscaling : *Different types of actors coming together around a similar vision, creating momentum, and pushing for institutionalised actors to make space for the initiative*

(Hermans, Roep, & Klerkx, 2016)

”

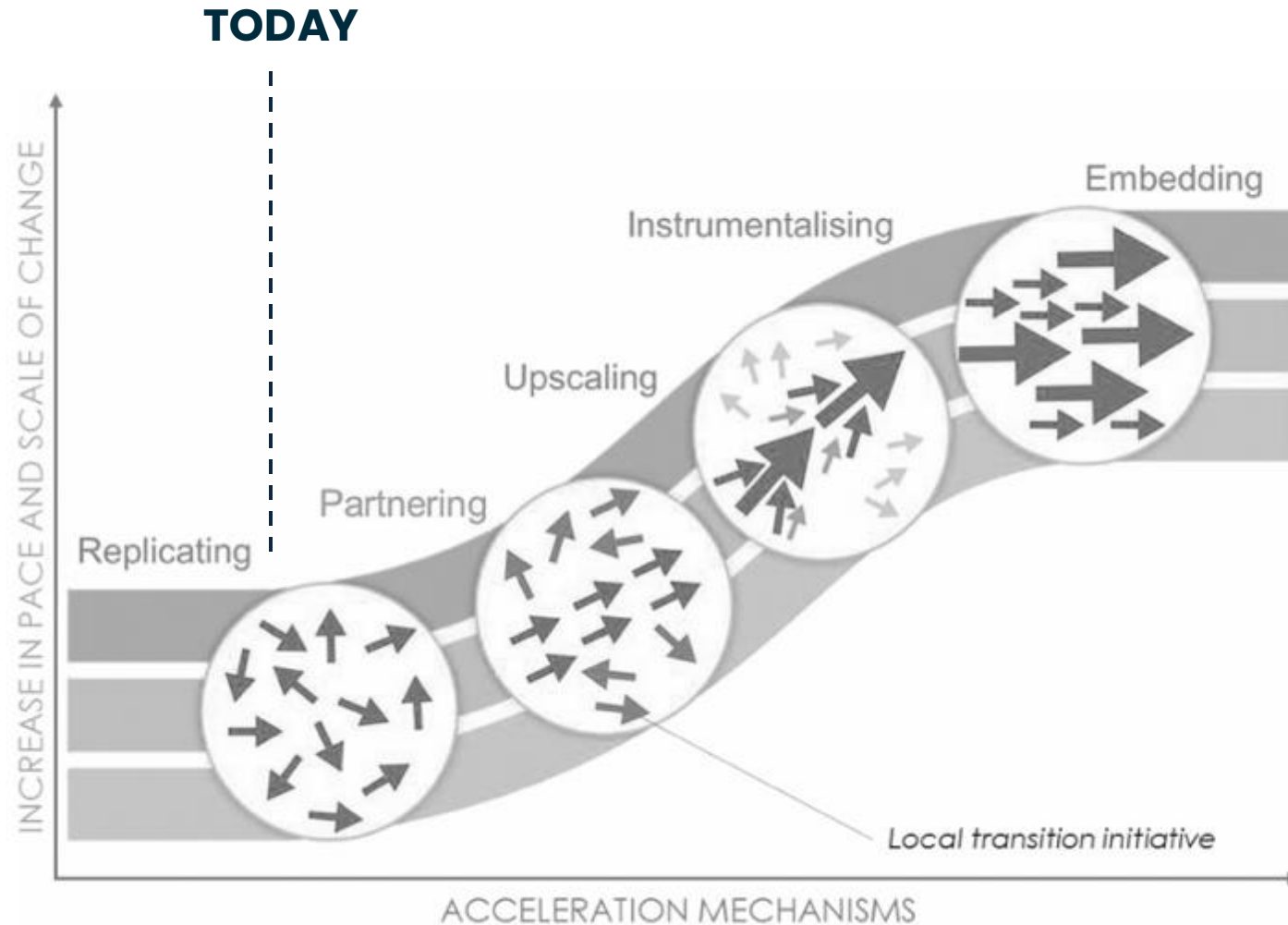
We experiment a lot...

- **63 OSS in Europe in 2021**
Probably >**100 today**
- Many up and running OSS models, very well documented
- Much public subsidies

...yet we don't upscale

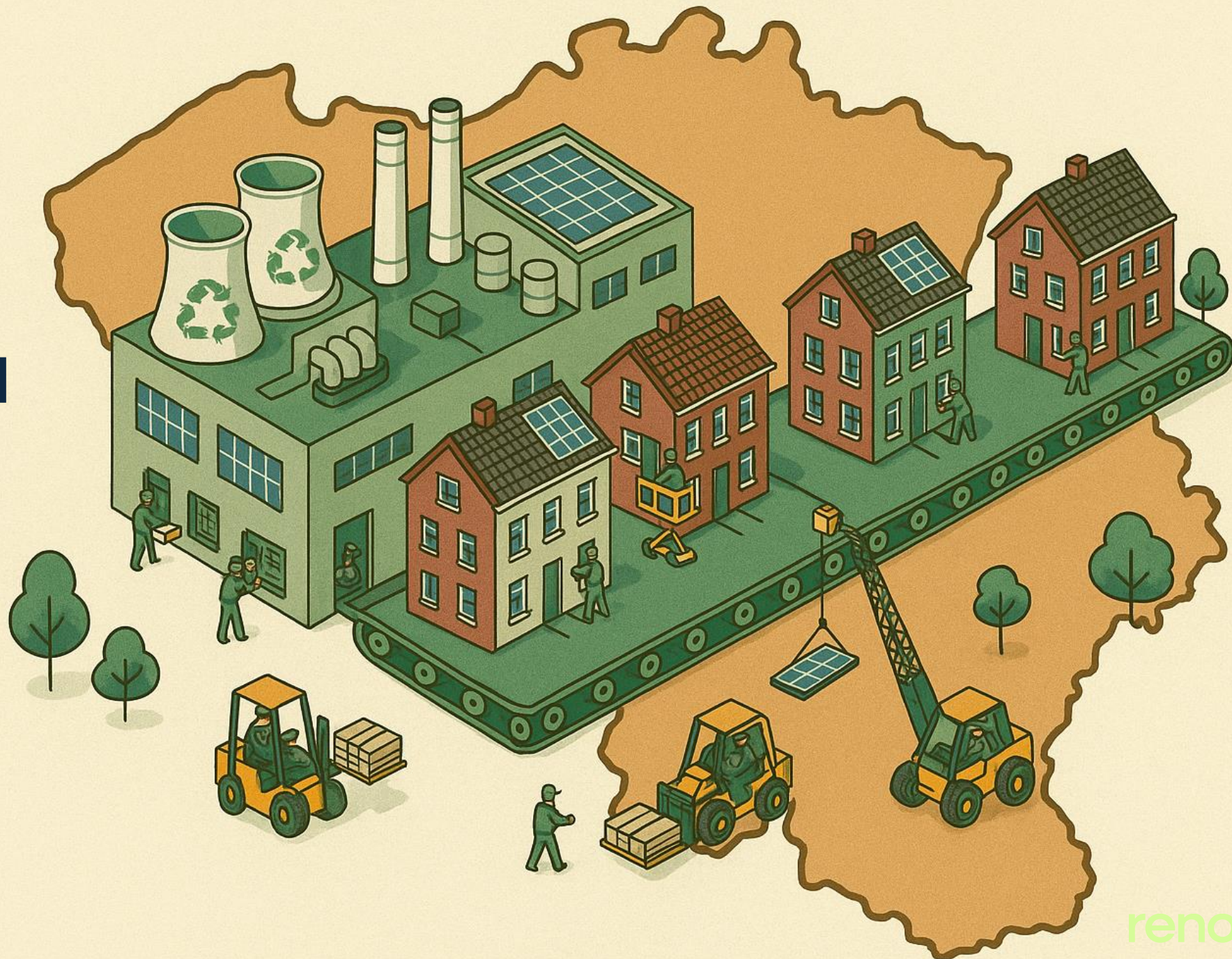
- Only 100.000 projects in EU in 2021.
In France, 6000 projects by SERAFIN vs. 370k / year until 2030.
- More than 5000 OSS needed to reach 1 OSS / 80 000 habitants (*EPBD, art. 18*) in Europe
- Reliance on public subsidies vs. Financial autonomy and sustainability
- A majority of lights/one-shot renovations vs. only deep renovations (staged or not)

From scattered initiatives to collaborative and institutionalised ecosystems...



Growth of members, users, or supporters, resulting in strengthening the initiatives

**... running
industrialised
processes**



Foreseen work packages

WP1

Scaling up renovation through industrialisation strategies and concepts

- What are the **main barriers for upscaling** one-stop-shops ?
- What **critical size** (*projects, revenues, FTEs*) **and business models types** should one-stop-shops aim for to deliver volumes and achieve financial sustainability ?
- What **industrialization strategies and concepts** can support scaling-up OSS across Europe?

WP2

A critical review of existing institutional frameworks for OSS in Europe

- What are the different **geographical areas of action** for OSS in the EU and which ones are the most adequate ?
- What is the **current institutionalisation level** of one-stop-shops in Europe ?

WP3

Upscaling strategies and institutional framework prototypes

- **What institutional frameworks** (*regulation, processes, stakeholders' roles & responsibility, territorial anchorage*) to support the industrialisation of renovation through upscaled OSS ?
- What **collaborations** across the renovation value chain, and between public and private players, should they support ?

Programme

13h30: Intro

13h33: **Buildwise (A. DAWANS) and Climact (J. PONTIF)**

13h41: **Gemelio (S. MOUTHUY)**: call for pilots, expertise, innovative assets

13h49: **GIM Wallonie (Ch. ADRIAENSEN)**

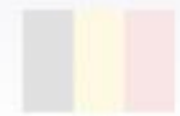
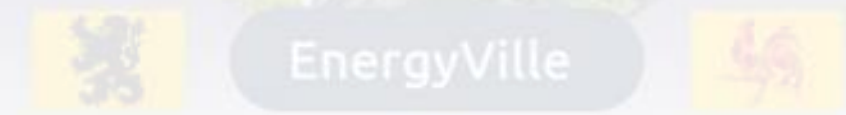
13h57: **Cenaero (B. DOMPIERRE)**

14h05: **SolHyd (W. VANDEBROEK)**

14h13: **F. LANY: Thermo Power Solutions**

14h21: **ULiège (G. LEONARD)**

14h28: **END**





What we thrive for

How to best invest money in decarbonisation projects, mainly with heat production

- Always focus on real projects
- State-of-the-art models
- Integrated model: Break silos and vertical integration
 - Geothermal ↔ DHN ↔ buildings
 - Heat – electricity
 - Design ↔ Operations
 - Technical ↔ markets ↔ **Fairness**

Our added value

- We work for customer exposed to the capex and opex of decarbonised projects: ESCOs, developpers with EPC for operations, owners (including citizen cooperatives)
- -30% capex, with clear description how to best operate the system
- Focus on geothermal systems (>< aerothermal)
 - Inter-seasonal flexibility
 - Reduced peaks
 - Huge amount of energy storage

Jodoigne - OPEX



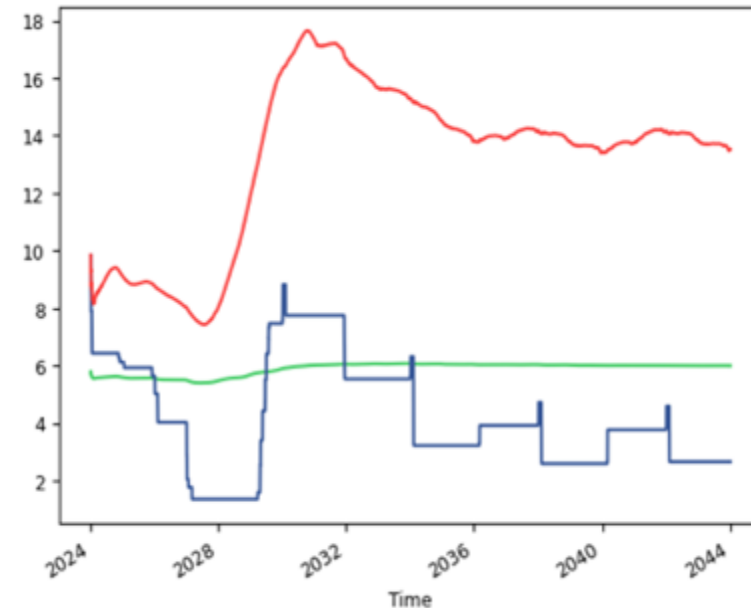
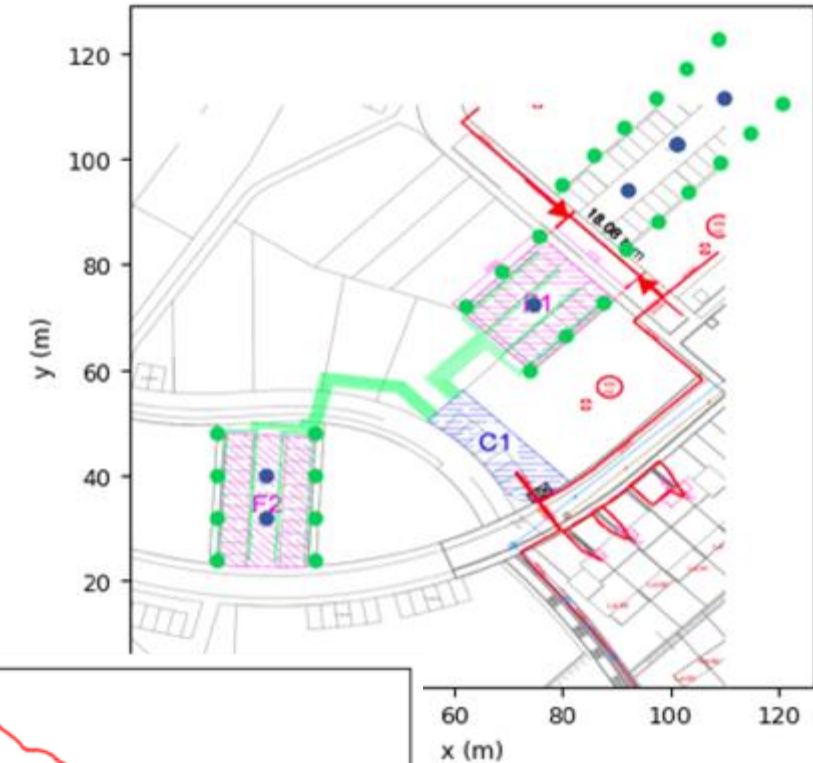
“How to design my system to produce maximum energy given a fixed footprint?”

Our impact:

- **Digital Twin of system**
- **Evaluation** of key KPIs
- **Regeneration:** optimisation
- **Multi-phase simulations**

Results:

- **Regeneration : 66% less** energy required for sub-soil
- When regneration needs to start
- Quantification of **geo-cooling** energy
- **Energy center** optimisation
- **OPEX gains: +500.000€ over 30yr**



Bomal – POSITIVE ENERGY DISTRICT



Fair Estate

Living in harmony.

“How can we design low-carbon, affordable housing while minimizing risks and optimizing economics?”

Our responsibility:

- **Demand modelling:** 200 homes, hourly demand over 30 years with climate change scenarios
- **System feasibility assessment:** demand, production, storage, management, elec. procurement, D&S, energy community, mobility charging points, etc.
- **Multi-scenario simulations**
- **Multi-energy**
- **Expected CAPEX gain : min 20%**
- **Expected OPEX gain : min 15%**



What we are looking for

- Pilot sites: multi-energy, challenging business case, willingness to be exemplary
- Comfort-as-a-Service operators
- Research centers with the same vision
- Innovative asset manufacturers/distributors

Sébastien.Mouthuy@gemel.io

+32 475/22.17.98



Matchmaking : Wallonia meets Flanders

Programme

13h30: Intro

13h33: **Buildwise (A. DAWANS) and Climact (J. PONTIF)**

13h41: **Gemelio (S. MOUTHUY)**

13h49: **GIM Wallonie (Ch. ADRIAENSEN):** Geo Digital Twin – MLAAS platform

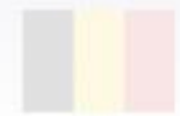
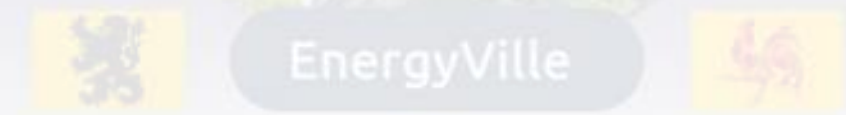
13h57: **Cenaero (B. DOMPIERRE)**

14h05: **SolHyd (W. VANDEBROEK)**

14h13: **F. LANY: Thermo Power Solutions**

14h21: **ULiège (G. LEONARD)**

14h28: **END**





Christophe Adriaensen
CEO

Smart Geo Insights

www.gim.be

A Merkator Company



CLIMATE
NEUTRAL
2050

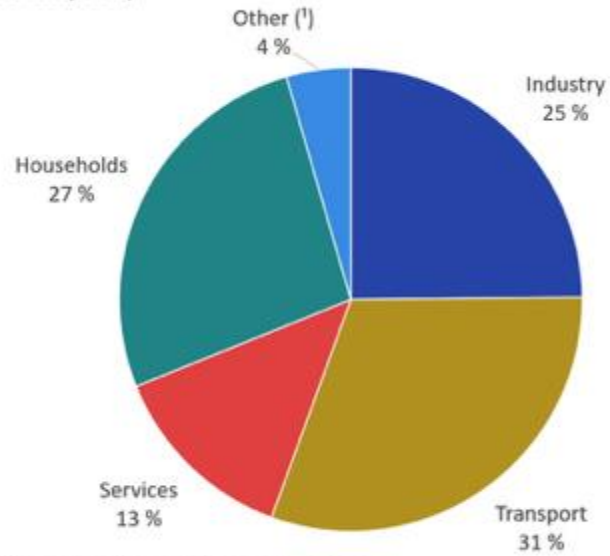


Bruxelle
décemb

Brussels
December 2019

Cor

Final energy consumption by sector, EU, 2022
(% of total, based on terajoules)

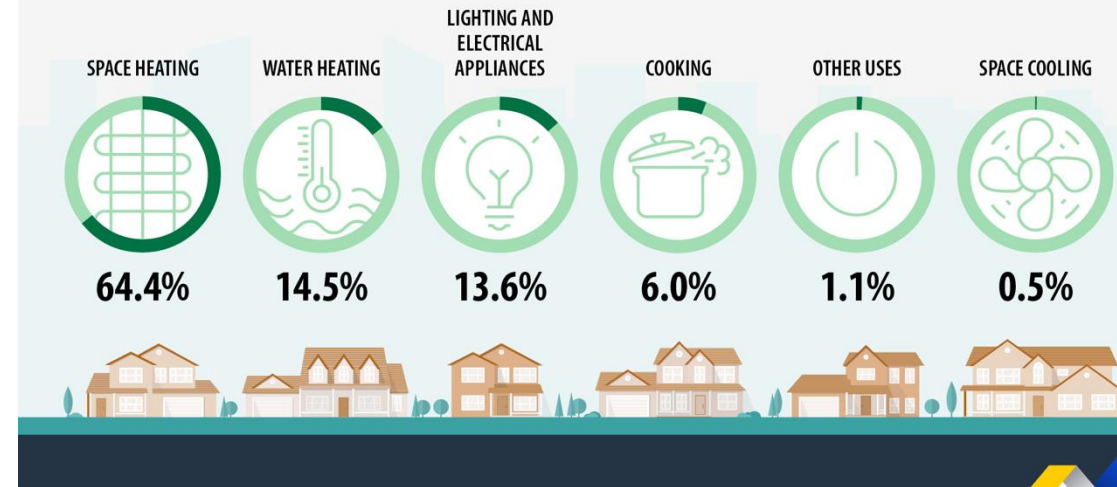


(¹) International aviation and maritime bunkers are excluded from category Final energy consumption for transport.
Source: Eurostat (online data code: nrg_bal_s)

eurostat

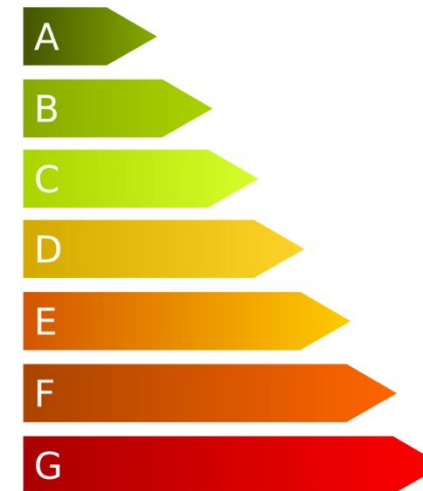
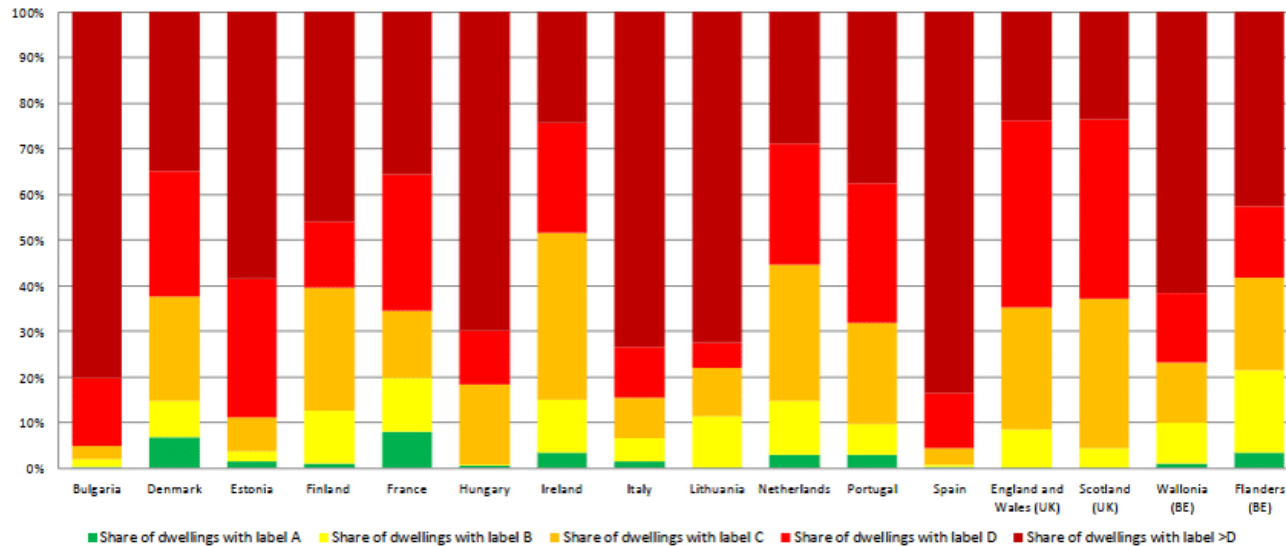
Energy consumption in EU households

(% share, 2021)



eurostat

Distribution of the building stock in the EU per EPC class



Challenges for a real-estate manager

- **EPC score** is often **unknown** at the individual building level
- **Building configuration data** is lacking, making it hard to evaluate renovation **feasibility**
- **Difficult to set renovation priorities** due to fragmented information
- **Data sources are siloed**
- **Manual data collection** is time-consuming, error-prone, and not scalable
- Uncertainty around **cost-benefit analysis**, ROI, and long-term planning

Data is often **unavailable, fragmented, outdated or incomplete**, leading to **delays and underinvestment** in renovation.

Let's dream...





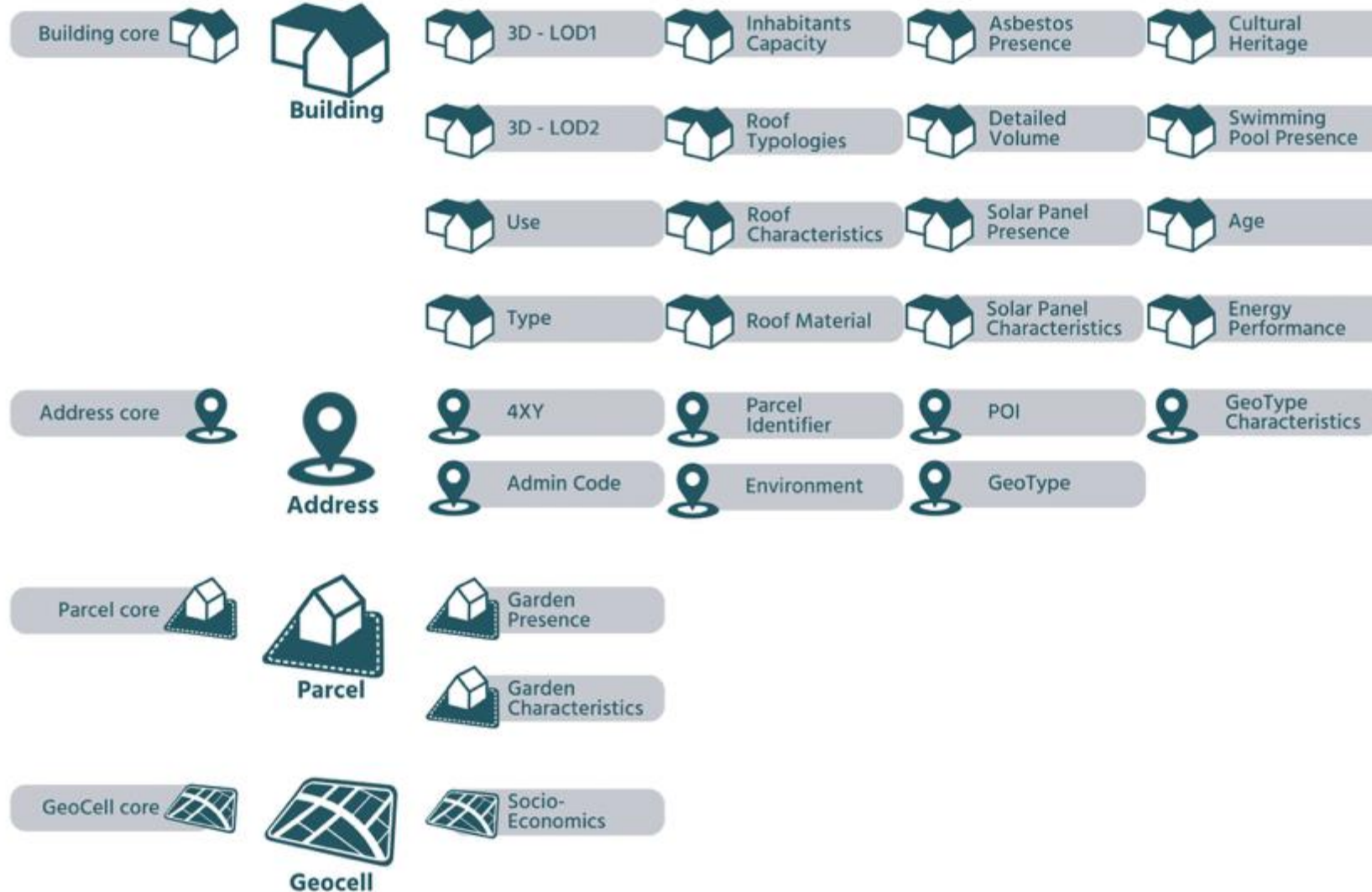
Belmap
EMBRACE REALITY

- Utilities
- Logistics
- Marketing & prospection
- Banking & insurance
- Energy & climate

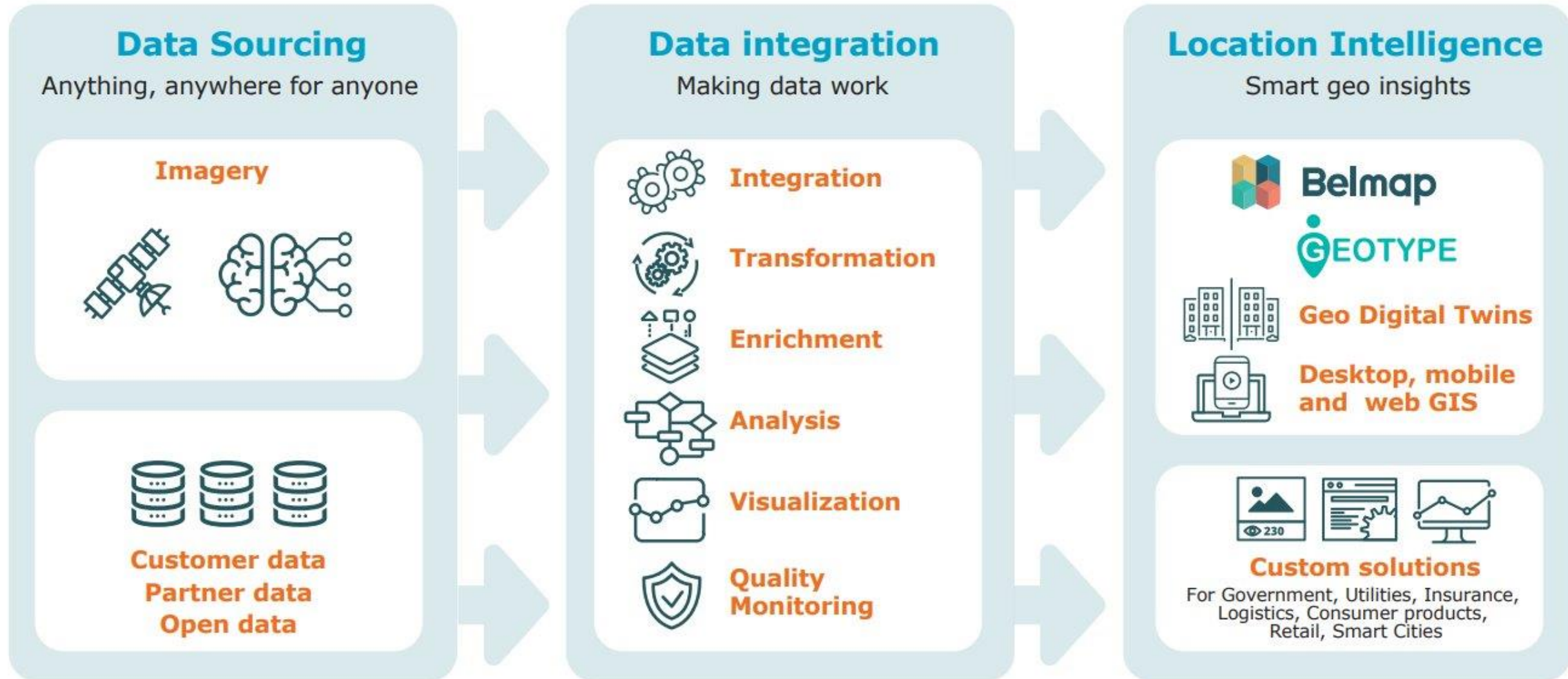


Build future-proof location strategies and streamline operations with the 3D digital twin of the built environment

Overview Data Modules



How Belmap is built?

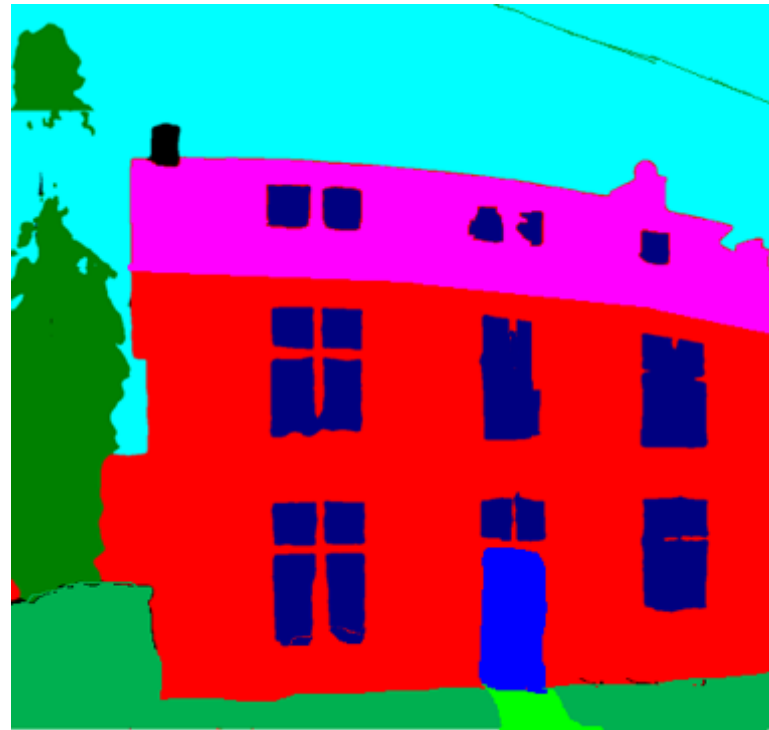


EPC score



What's next?

Apply AI on façade imagery to determine the number of floors, windows, doors, ...

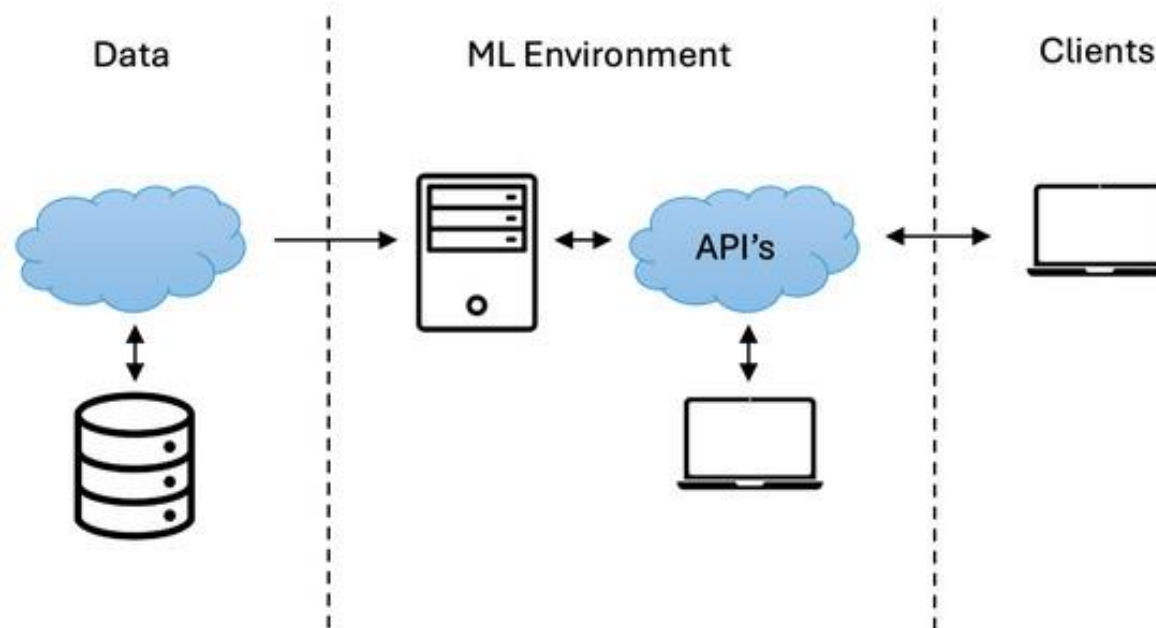
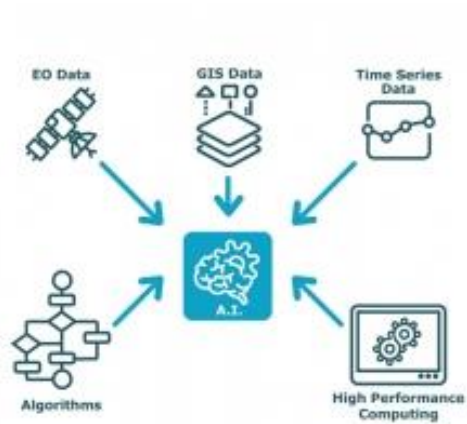


Facade	
Sky	
Window	
Door	
Roof	
Road	
Pavement	
Vegetation	
Other	

What's next?



What's next?



Real-Estate

Insurance/ banking

Energy distributors

Energy service company

Renovation company

Government

...

What are we searching for?

Collaboration with

- **Research centers** to finely model consumption patterns/ potential gains and renovation potentiels
- **Energy providers** to integrate real-world data
- **Property managers** to ground the platform in on-the-field realities
- **Renovation companies** to incorporate practical, implementable solutions

+ **Inspiration for business cases !**

Unlocking the power of location



**EVERY LOCATION
HAS A STORY.**

**WE BRING IT
TO LIFE!**

Programme

13h30: Intro

13h33: **Buildwise (A. DAWANS) and Climact (J. PONTIF)**

13h41: **Gemelio (S. MOUTHUY)**

13h49: **GIM Wallonie (Ch. ADRIAENSEN)**

13h57: **Cenaero (B. DOMPIERRE)**: EU projects – call for partners

14h05: **SolHyd (W. VANDEBROEK)**

14h13: **F. LANY: Thermo Power Solutions**

14h21: **ULiège (G. LEONARD)**

14h28: **END**





Innovation in Energy & building thanks to simulation & AI
S3 DIS4 – 15th May 2025

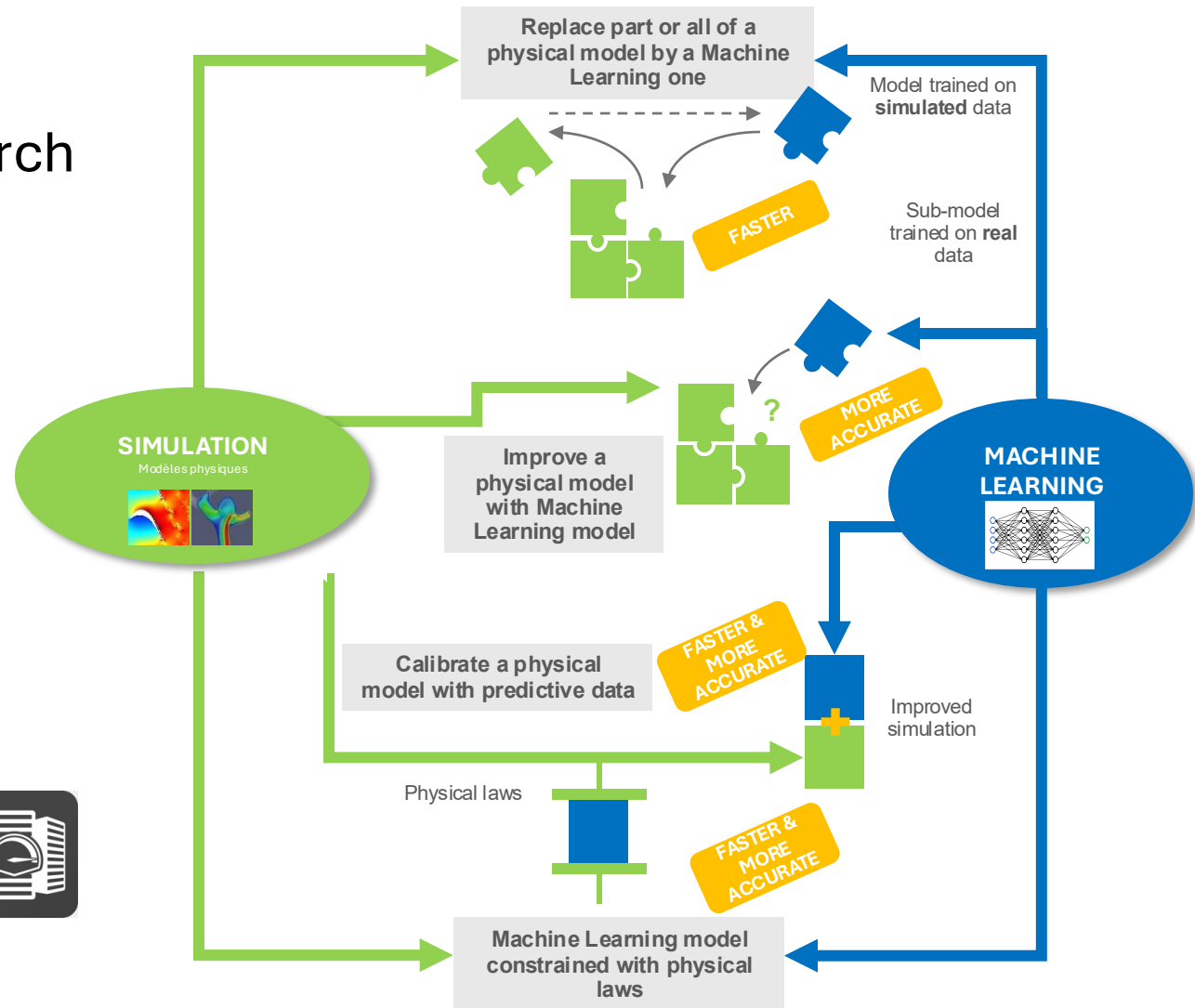
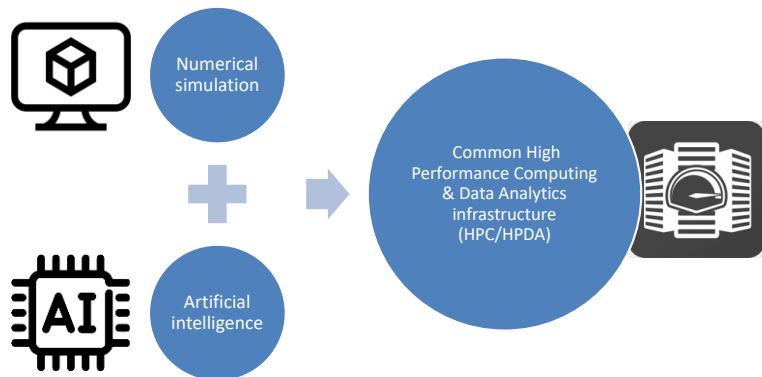
Benoît Dompierre, Cenaero

Cenaero

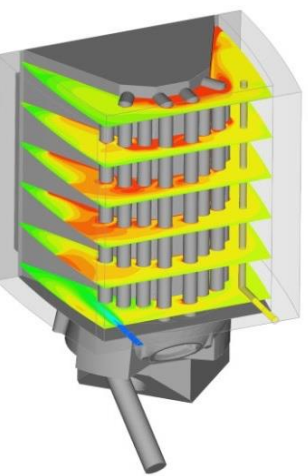
- Private research center (80+ employees) located in Charleroi, Liège & Paris
- Background in digital simulation for the aeronautical sector
- Operator of a 4 Pflops supercomputer



- Our daily job
 - Collaborative research
 - Contract based innovation
 - Niche Software development
 - HPC cycle sales & support

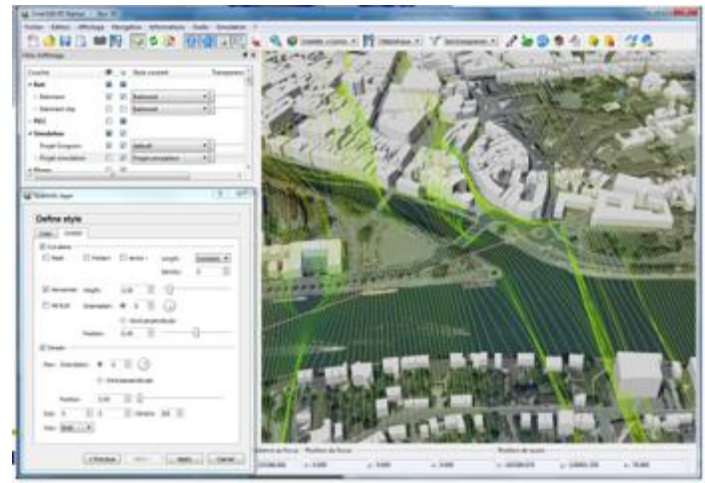


Energy Efficient & Resilient Built Environment

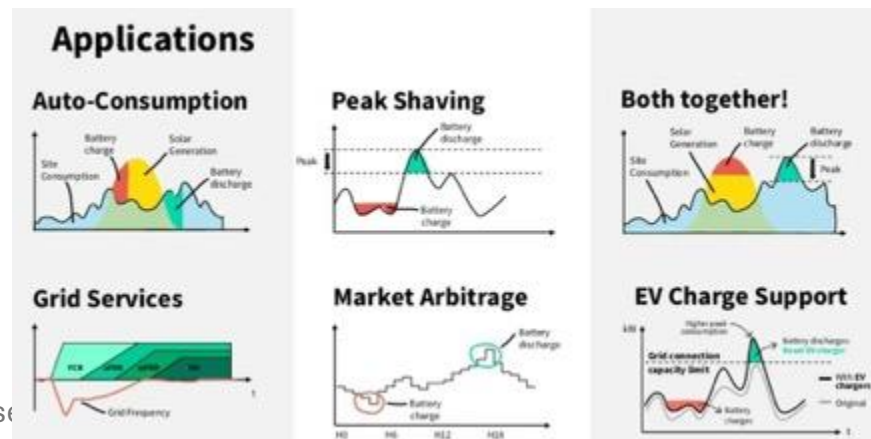
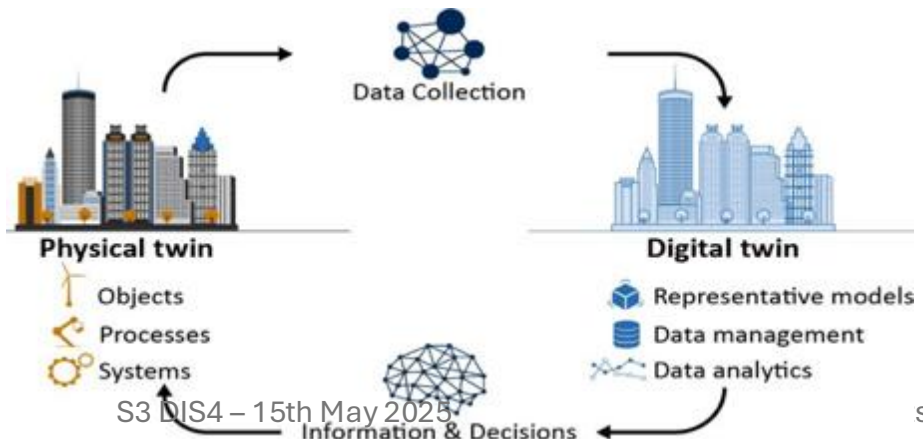


- Low carbon & environmental stationary technology development
 - Storage, production, conversion
 - Air/Energy/Water/CO2

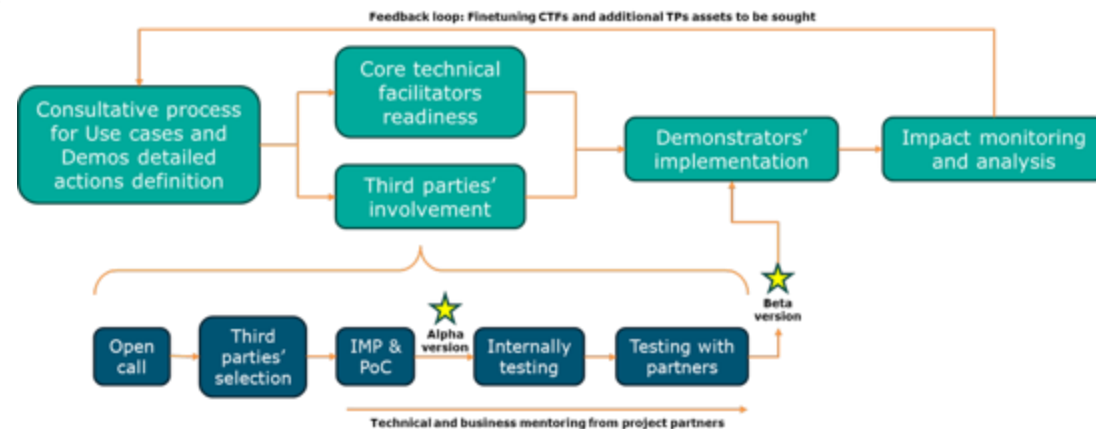
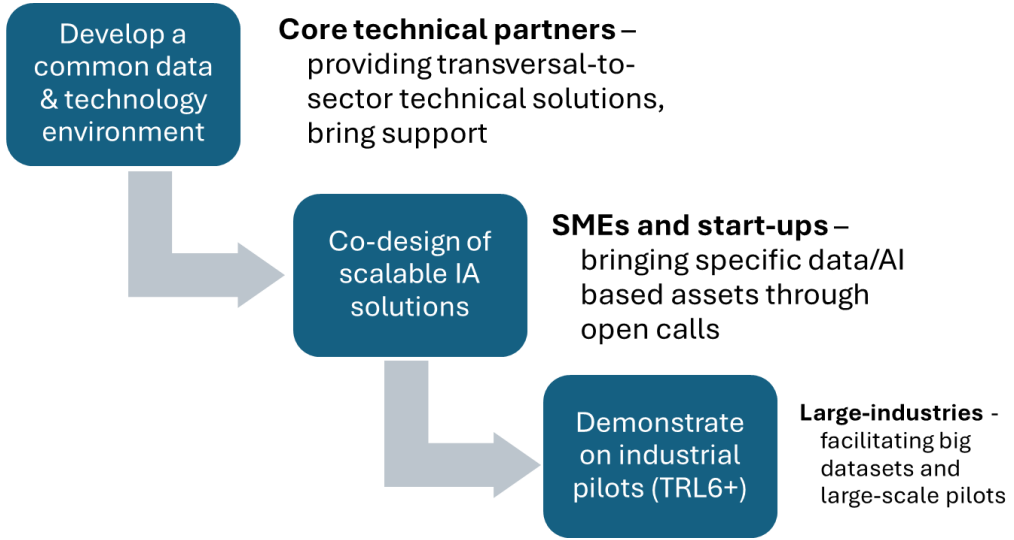
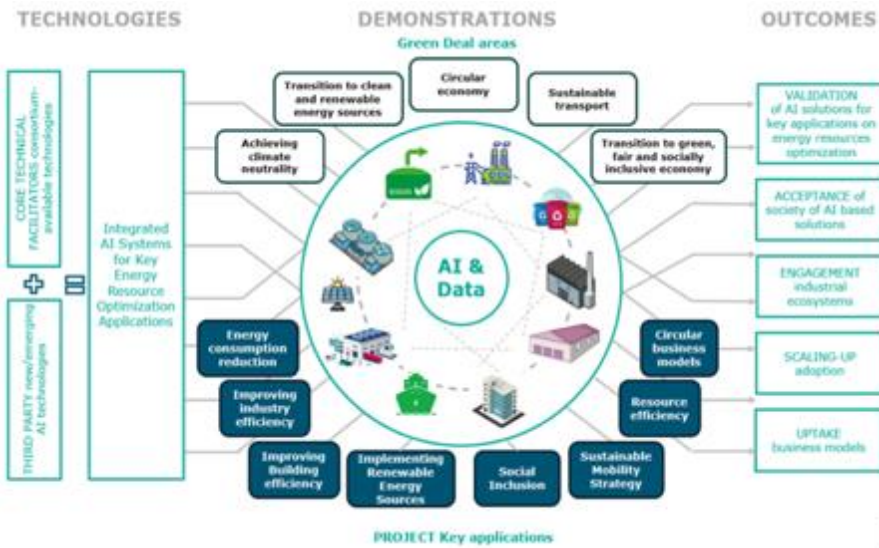
- **Urban adaptation & attenuation to climate changes**
 - Climate stress mitigation at the μ scale level
 - Energy Community sizing tool
 - Digital solutions for building retrofitting system



- **Data-driven and model-based Digital twins**
 - Awareness and decision making
 - Validation
 - Energy Management system
 - Predictive maintenance & control



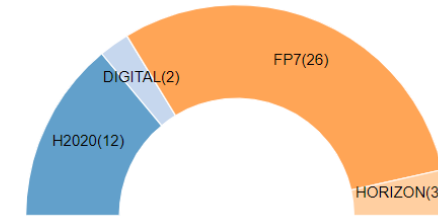
Create an impactful ecosystem for energy optimization using IA & data solutions



- 2 Calls
- 25-30 Third Parties
- PoC of 150k€/10 months max
- 1st Open call in August 2025

What we look for?

- Contract based and EU collaborations in open & upcoming calls in various topics including
 - Clusters 4, 5, 6, NEB, MISSION, ...
 - Active (past & current) in 40+ EU projects
 - Coordinating 7 of them
 - 3 projects submitted in Clean Hydrogen Partnership
- Active in all topics of DIS4
 - E-WallonHY: Tintin
 - Contribute: WINGS, Electron, Didearot
 - CETWA: ILES
 - RENOW: Sumotori



Contact and follow us

- benoit.dompierre@cenaero.be
- www.linkedin.com/company/cenaero



Programme

13h30: Intro

13h33: **Buildwise (A. DAWANS) and Climact (J. PONTIF)**

13h41: **Gemelio (S. MOUTHUY)**

13h49: **GIM Wallonie (Ch. ADRIAENSEN)**

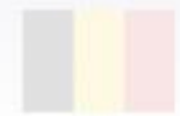
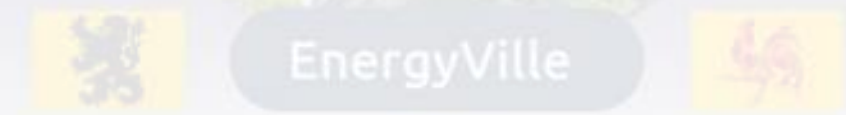
13h57: **Cenaero (B. DOMPIERRE)**

14h05: **SolHyd (W. VANDEBROEK): Innovative H2 – call for partners**

14h13: **F. LANY: Thermo Power Solutions**

14h21: **ULiège (G. LEONARD)**

14h28: **END**



S3 DIS4 • 15th May 2025
Energy and building innovators
Matchmaking : Wallonia meets Flanders



CETWA
CERACLIC & H2
S3 Innovation HUB

e-WallonHY
H2 innovation hub

CONTRIBUTE
renow

EnergyVille

GREEN WIN
Pôle MecaTech
Cluster Tweed



Wim Vandebroek 15/05/2025

SOLHYD GREEN HYDROGEN MODULES

The smartest, most sustainable, affordable and scalable way to produce renewable hydrogen

More info: solhyd.eu or info@solhyd.eu

THIS IS SOLHYD



Experience

**>40 years Solar Hydrogen
Technology Research**

**>225 years Business
Experience**

**>50 years Academic
Experience**



Sponsors & Partners



Smart dHYstrict



Awards & Honors

'16 - Febeliec Energy Award

'19 - Da Vinci Prize

'20 - Moonshot LSI funding

'22 - European Inventor Award

'22 - WoTS TechAward

'24 - Changemakers (De Tijd/L'Echo)

'25 World Hydrogen Awards



34 Peer-reviewed Publications

Hydrogen Simplified - Technology benefits



PERFECT MATCHING WITH SOLAR

No degradation issues, no minimal load, low OPEX

MODULAR

No lock-in, no scaling limits, low CAPEX

NO WATER

No pumps, no purification, no contaminants, no frost, low OPEX

NO GRID DEPENDENCY

No copper, no rectifier, no additionality issues, low OPEX

ZERO NOBLE METALS

No expensive materials, no supply chain issues, low CAPEX

AUTONOMOUS OPERATION

No energy management, no maintenance, low OPEX

Lower CAPEX - Less OPEX - Less Management – Scalable



SHP-Utility (5-100 MW)

Off-site hydrogen production

- Solar parks
- Via pipeline or tube trailers (chemical sector, mobility, electronics)



SHP-Industrial (100 MW – 2 GW)

Hydrogen large project development

- Low cost renewable energy areas
- Direct (methanol, ammonia, eSAF, steel)



SHP-Commercial (0.5 – 2 MW)

On-site hydrogen production

- On-site consumption by various industries (metallurgy, electronics, semiconductor, food, etc.)



APPLICATIONS

Scalable from MW to GW

Commodity: Solar Plant Energy optimization

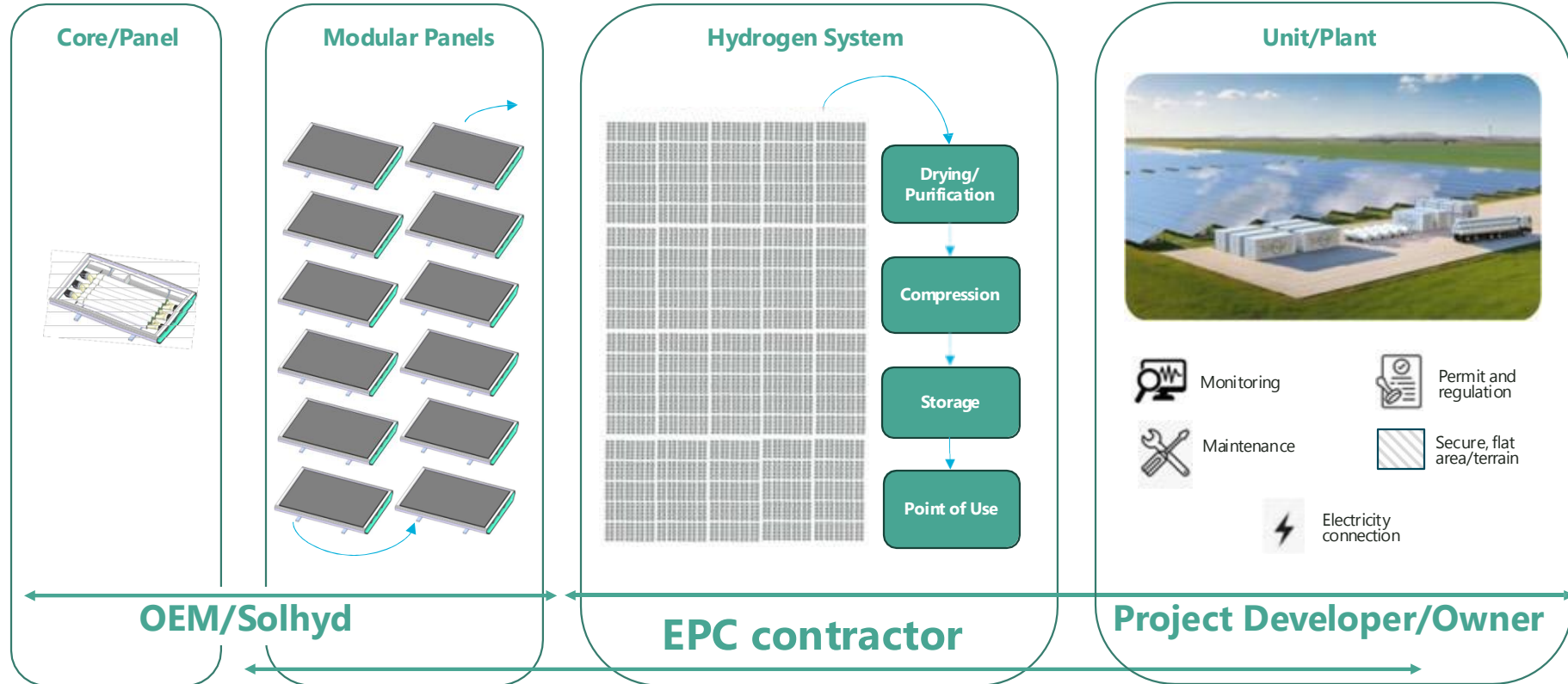
Transportation: Heavy Duty/Long haul Mobility, Shipping, Drones

Feedstock: Industrial processes: Chemicals, gases, metal, glass, semiconductor,...

Power & heating: distribution grid , direct consumption

Specialty applications: labs, ... starting from 5kW

FROM PANEL TO PLANT





- Call to experienced partners for:
- Innovative hydrogen after treatment solutions in drying, compression, storage and/or full project execution

Thank you for the opportunity!

“We make renewable hydrogen accessible to anyone, anywhere”

More info: Wim.vandebroek@solhyd.eu or solhyd.eu or info@solhyd.eu

Programme

13h30: Intro

13h33: **Buildwise (A. DAWANS) and Climact (J. PONTIF)**

13h41: **Gemelio (S. MOUTHUY)**

13h49: **GIM Wallonie (Ch. ADRIAENSEN)**

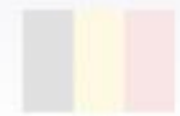
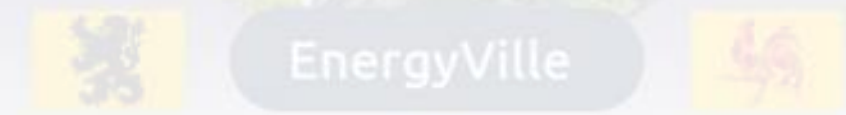
13h57: **Cenaero (B. DOMPIERRE)**

14h05: **SolHyd (W. VANDEBROEK)**

14h13: **F. LANY: Thermo Power Solutions** (innovative thermo-electric modules)

14h21: **ULiège (G. LEONARD)**

14h28: **END**





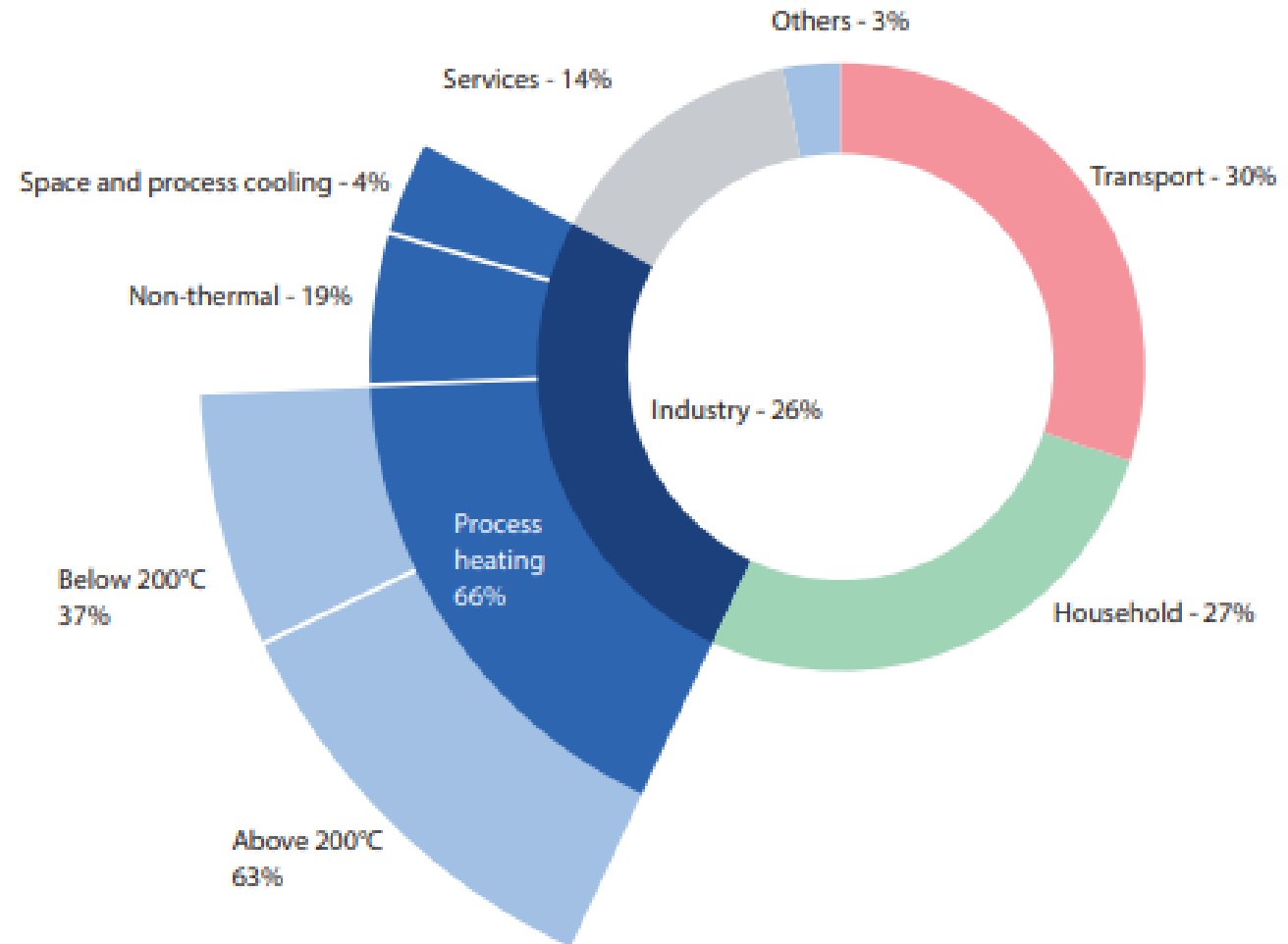
Thermo Power Systems

Advanced Energy Extraction

Innovative thermo-electric modules to significantly increase heat waste recovery and promote sustainability

Powered by **bxventures**
the biosphere venture studio

66% of waste heat from industrial activities (Europe)

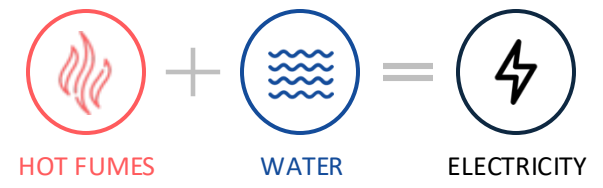
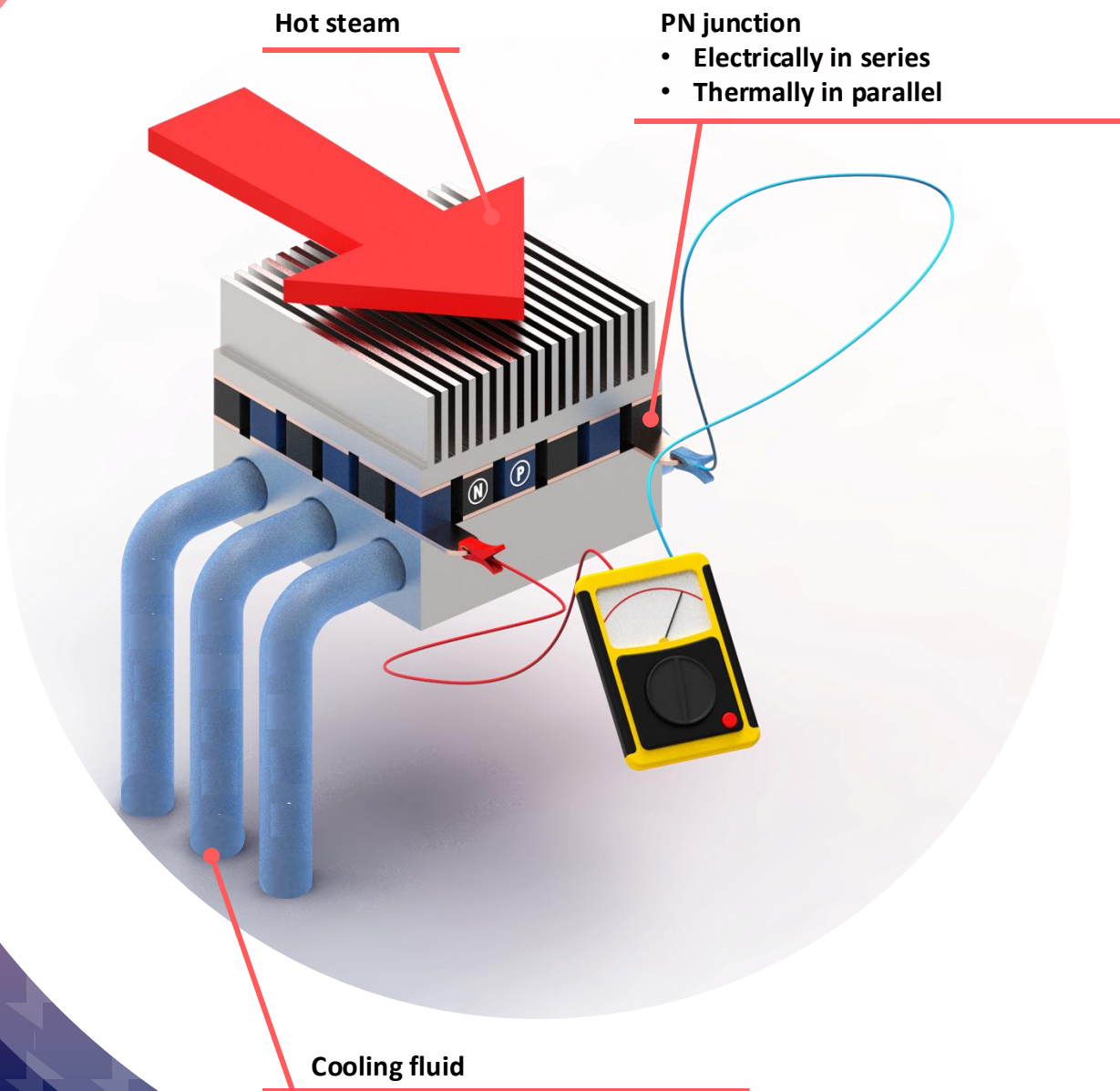


The needs expressed by manufacturers to better address the challenge of waste heat

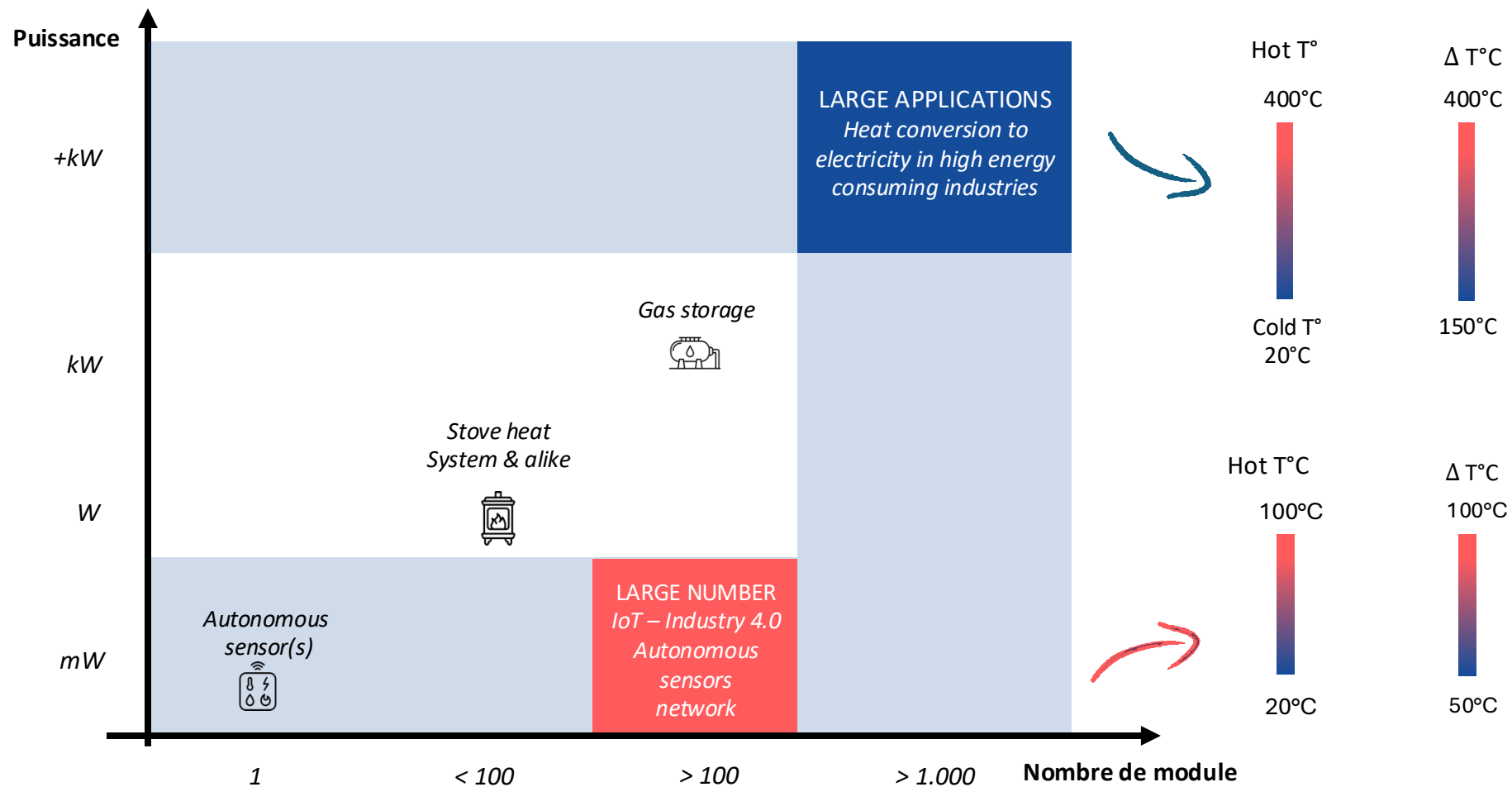
- Extending the range of **high-temperature applications**
- No disruption to industrial activities**
- Keep maintenance** to a minimum
- Ensuring **long-term solutions**



Example of waste heat conversion from a hot gas stream and water cooling



Solution pertinente des cas d'alimentation déportée de capteurs (mW, IoT) aux applications de conversion de chaleur fatale industrielle (+kW)





Examples of possible conversions

01



EXTRACTING HEAT FROM A HOT GAS PIPELINE



HOT FUMES

+



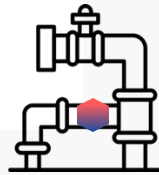
WATER

=



ELECTRICITY

02



HEAT EXTRACTION FROM PIPELINE LIQUID



LIQUID

+



AIR

=

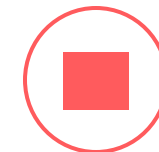


ELECTRICITY

03



EXTRACTION OF HEAT FROM A SURFACE BY CONTACT OR RADIATION



SOLID / RADIANT

+



AIR

=



ELECTRICITY

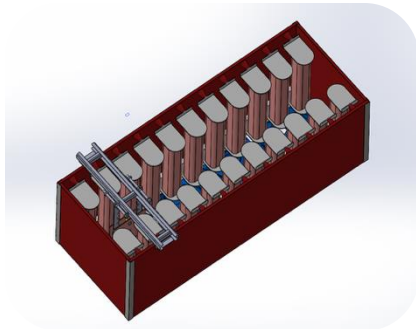
...

Current deployment of Thermo Power solutions in various set-up

1

Prove the technical and economic feasibility of the thermoelectric generator on an initial test load to **validate the retrofitting of a thermoelectric system**

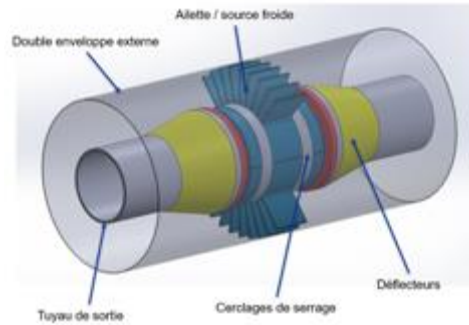
TEG IN DIRECT



2

Prove the technical and economic feasibility of the **thermoelectric generator on pilot laboratory equipment**, to unlock new efficiency gains

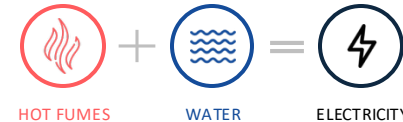
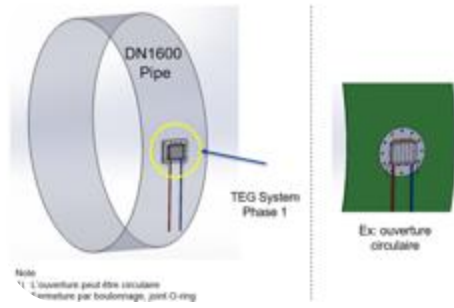
TEG VIA OEM



3

Prove the technical and economic feasibility of the **thermoelectric generator on an incinerator** to improve the energy efficiency of the waste-to-energy plant

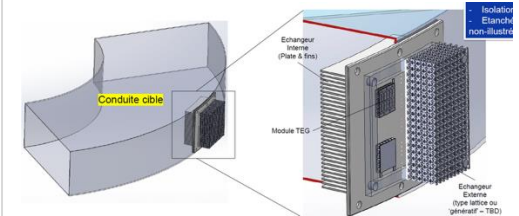
TEG IN DIRECT



4

Prove the technical and economic feasibility of the **thermoelectric generator on the hot gas extraction line of a calciner furnace**

TEG IN DIRECT



Programme

13h30: Intro

13h33: **Buildwise (A. DAWANS) and Climact (J. PONTIF)**

13h41: **Gemelio (S. MOUTHUY)**

13h49: **GIM Wallonie (Ch. ADRIAENSEN)**

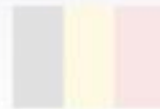
13h57: **Cenaero (B. DOMPIERRE)**

14h05: **SolHyd (W. VANDEBROEK)**

14h13: **F. LANY**

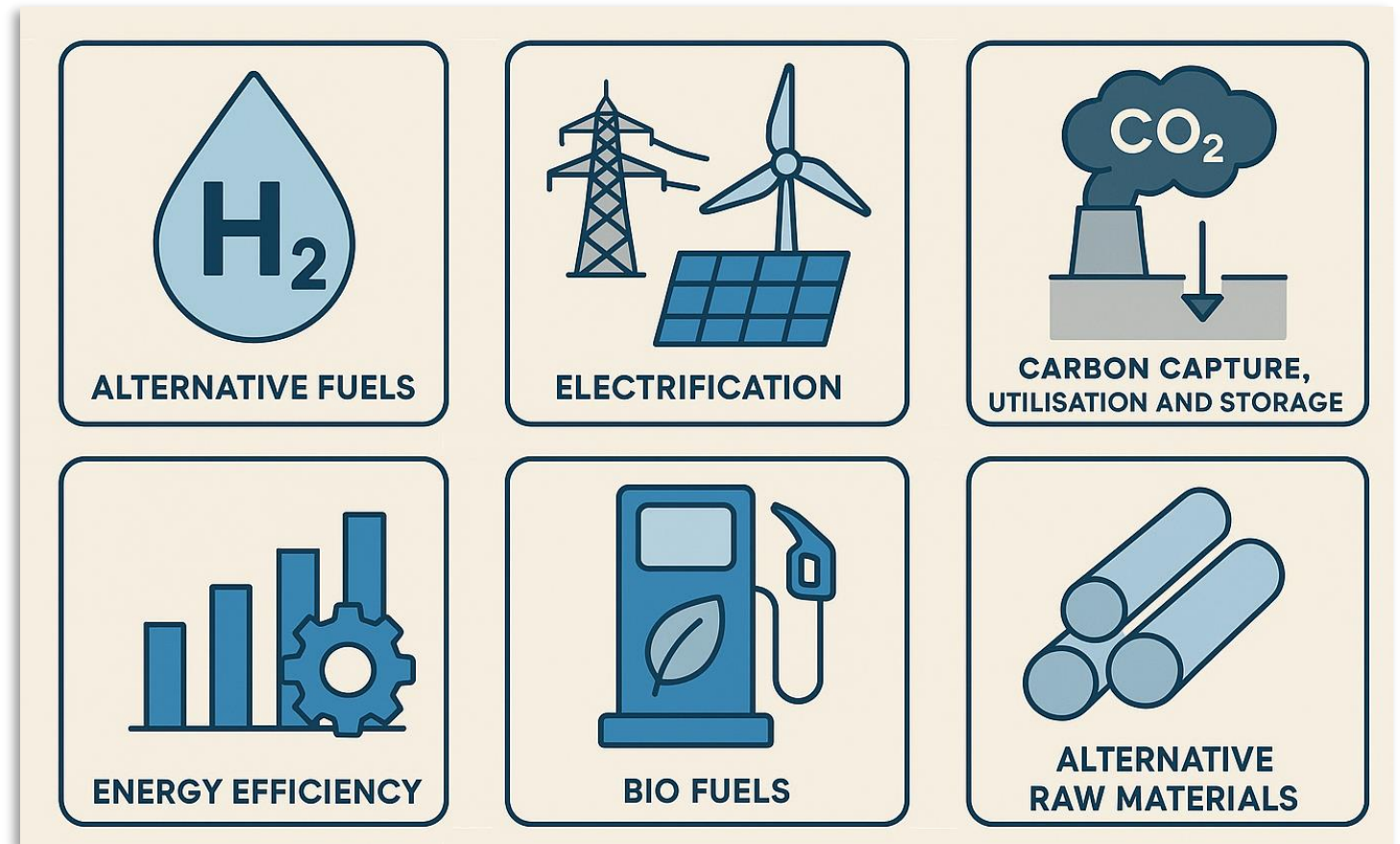
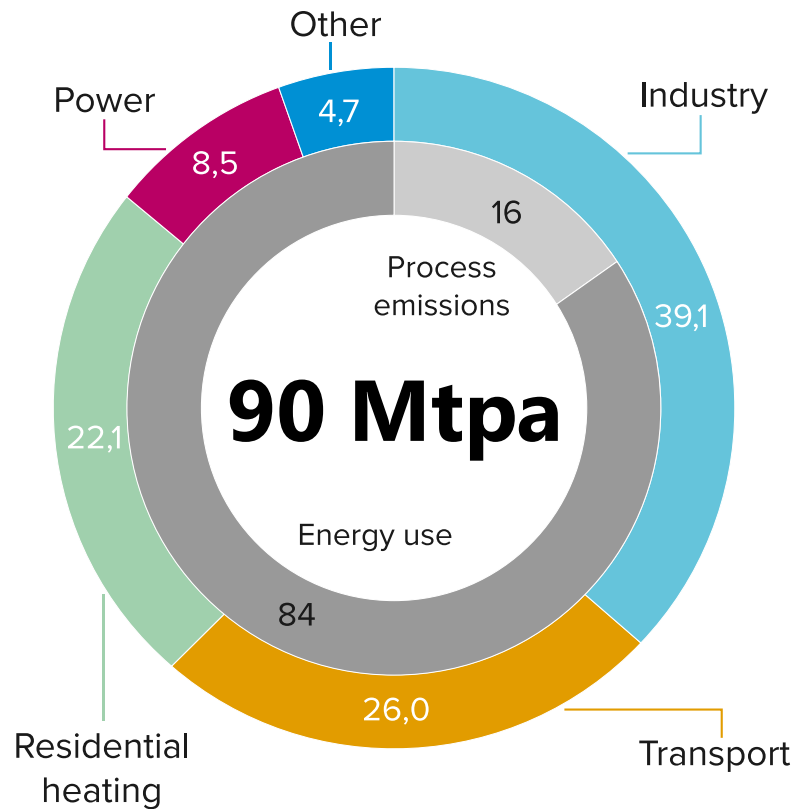
14h21: **ULiège (G. LEONARD)**: Call for partners (innovative energy & carbon management) + Call for technological solutions for impact & sustainability

14h28: **END**



Industry decarbonization pathways

Energy Transition in the Belgian Industry



Comparison of technologies for industrial sectors
Decision support tool for CO₂ capture technology choice⁹³

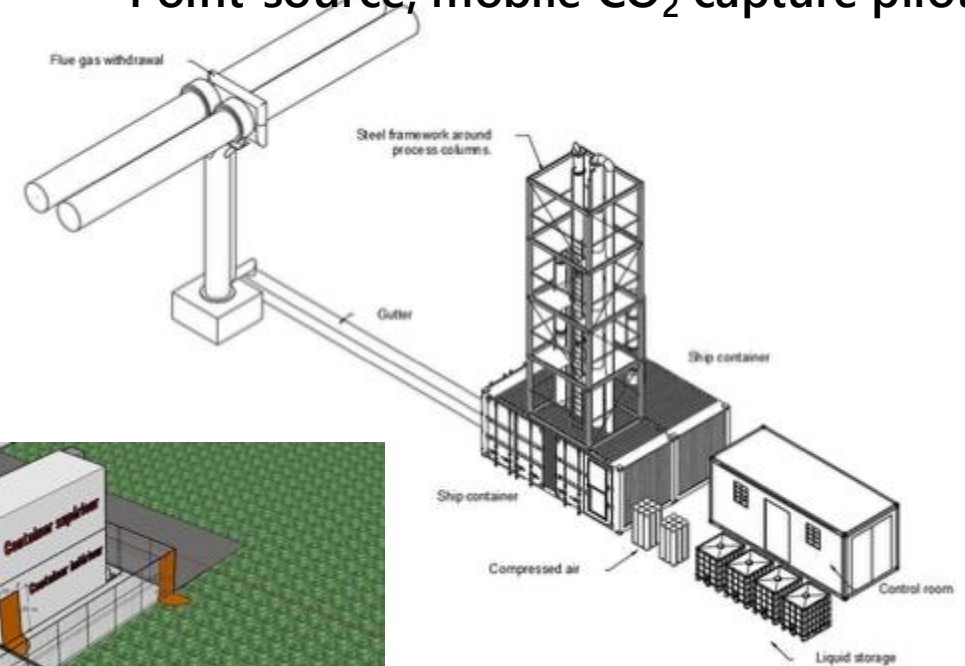
ULiège strategic plan 2022-2027

► Transforming the campus into a laboratory for the transition



+ Direct Air Capture & building-integrated DAC

Point-source, mobile CO₂ capture pilot



CO₂ hydrogenation lab

Who we are, what we look for?

- ▶ Carbonara team (15+ years of experience)
- ▶ Entrain Engineering Spin-off
- ▶ FritCO₂T Platform



=> Projects to explore innovative energy & carbon management strategies

=> Implement technological solutions for impact & sustainability

Thank you and let's keep in touch

B2B/visits





Session 4 – MatchMaking & Visits

Visits co-organized by

Cluster Pôle MecaTech : Philippe Stegen <philippe.stegen@polemecatech.be>

Conclusion & Drink @ 16:30

