

Developing the H₂ economy across EU regions. From policy to practice: barriers, challenges & success factor

H2BE

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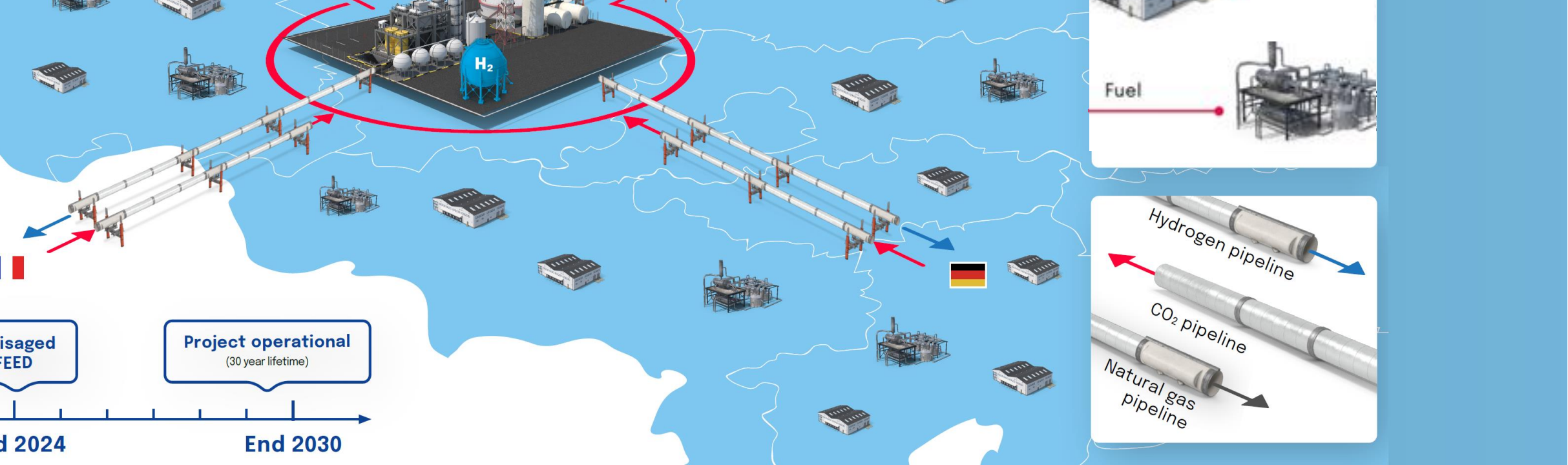
ENGIE - Head of Gas Asset Regulation & Analysis

EU H2 Valleys Days - June 17, 2024

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H2BE offers a deal for Belgian reindustrialization

Future-proofing Belgian industrial competitiveness and generating growth for Ghent Valley (Flanders)



By 2030

€ 630 millions added value created by **H2BE**
€ 2,1 billion added value of local H2 economy



7.500 new jobs in H₂ value chain
54.000 protected jobs for Belgium

Kickstarting H₂ and CO₂ value chains



To scale investments in **local hydrogen infrastructure**, paving the way for a future renewable-driven hydrogen



Through necessary investments in **local CO₂ infrastructure**, co-constructing the future CO₂ ecosystem across Belgian & adjacent countries industrial Valleys

H2BE offers a deal for Belgian reindustrialization

Contributing to climate neutrality



Carbon capture rate > 95%

Bio-methane instead of natural gas could be used as an input (→ negative emissions) thereby avoiding stranded assets



Average reduction of **1,7 Mton of CO₂ per year** at its off-takers within Ghent Valley

Representing **12%** of Belgium's ETS emission reduction target by 2030 **or 2% of total Belgian emissions** observed in 2022



A cost-competitive transition, with a **CO₂ abatement cost 3 times lower** than for renewable (imported) H₂

Producing hydrogen locally in a cost-competitive way



In 2030, the CO₂ abatement cost for low-carbon hydrogen from H2BE is approximately **3 times lower** than for renewable (imported) hydrogen



Located in the **immediate vicinity** of its off-takers within the Ghent Valley

H2BE CHALLENGES & SUCCESS FACTOR

**NEED FOR FINANCIAL SUPPORT
TOOLS FROM POLICY MAKERS
(EITHER AT MEMBER-STATE OR EU LEVEL)**

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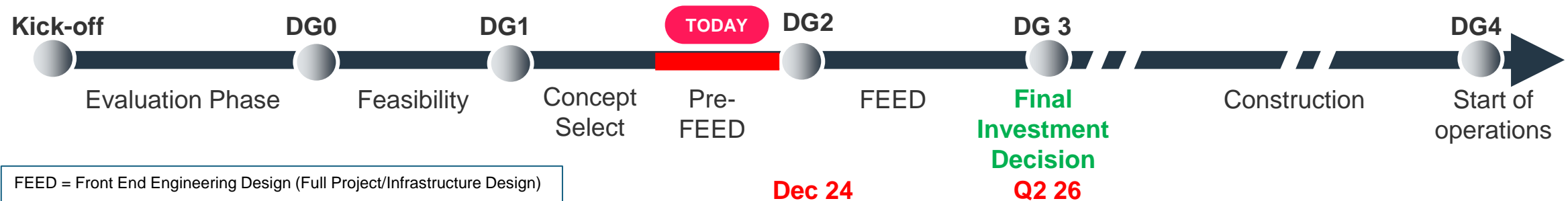
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Urgent need for well-designed & regulated support mechanisms for **low-carbon H₂ projects**, in compliancy with competition principles & state rules

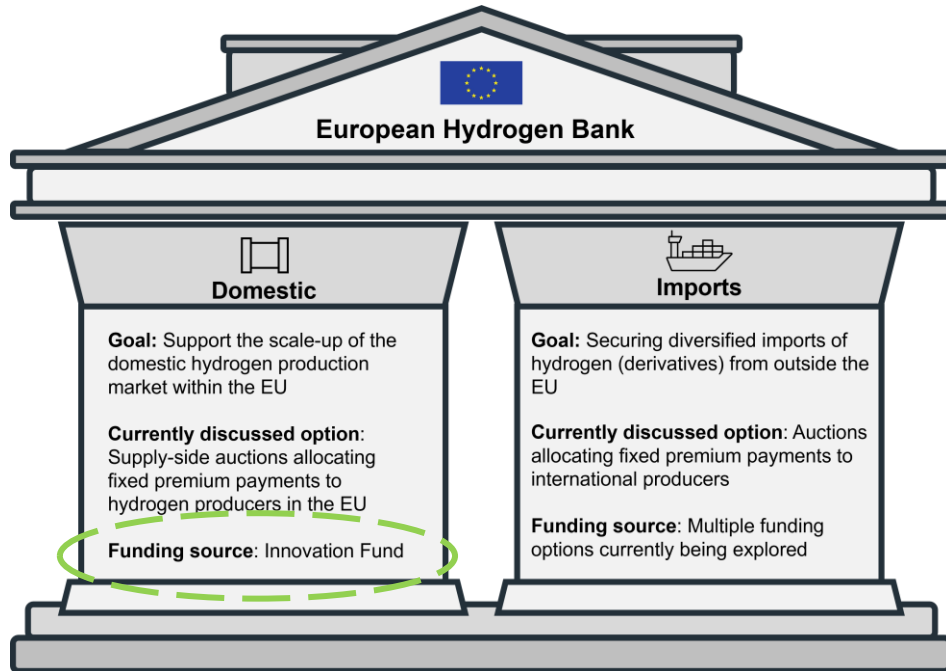
➤ The missing building block : currently no financial support scheme for low-carbon H₂

- **RED III Directive: a non-comprehensive tool for low-carbon H₂** (technologically – RNFBO – oriented, Art 22.a & 22.b not giving a clear role or room for low-carbon H₂)
- **EU Decarbonization package** (cf. future EU H₂ market design): a **definition for low-carbon H₂** (i.e. non-renewable H₂ saving ≥ 70% of GHG emissions vs. fossil fuel comparator) and a certification scheme for H₂. Detailed methodology for GHG emissions saving calculation to be adopted within 12 months after entry into force of the package.

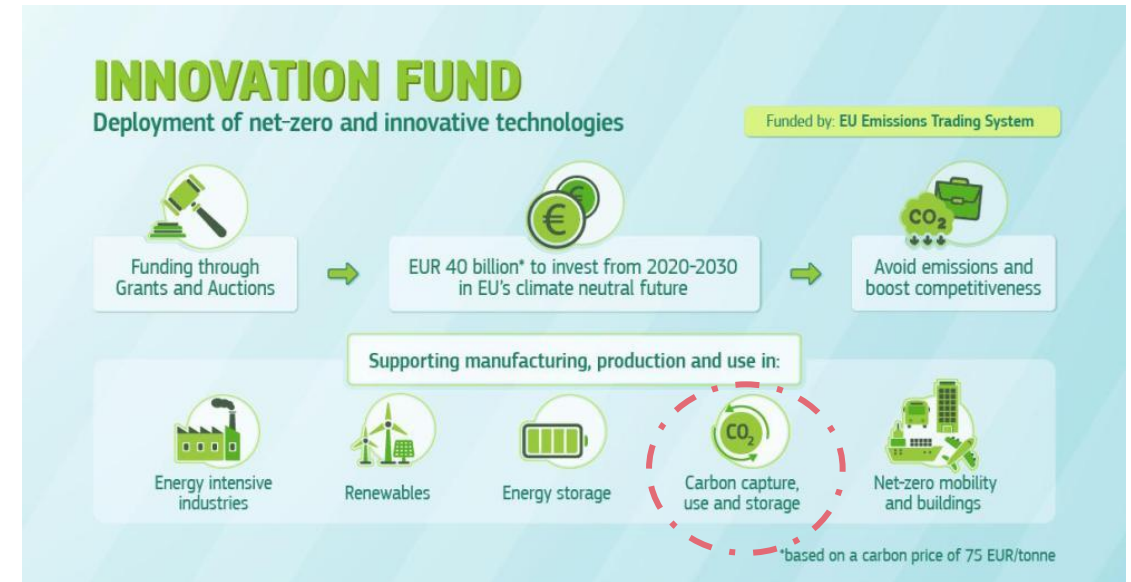
➤ Need for further regulatory provisions to make low-carbon H₂ projects & valleys real



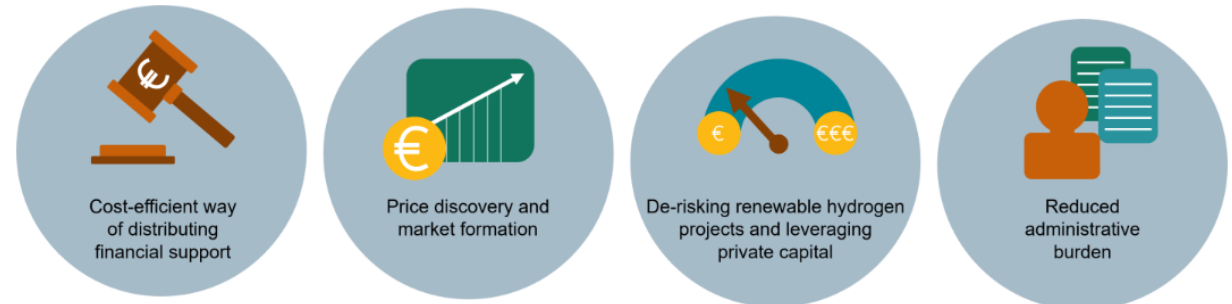
Clear commitment from authorities needed to progress H2BE, e.g. via an expanded scope of the EU Innovation Fund (i.e. beyond RES H₂) under the banner of the EU H₂ Bank



Source: https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/competitive-bidding_en#overview



Objectives of the 1st pilot auction for RES H₂ production launched in Nov 23



Source: https://climate.ec.europa.eu/eu-action/eu-funding-climate-action/innovation-fund/what-innovation-fund_en

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THANK YOU

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