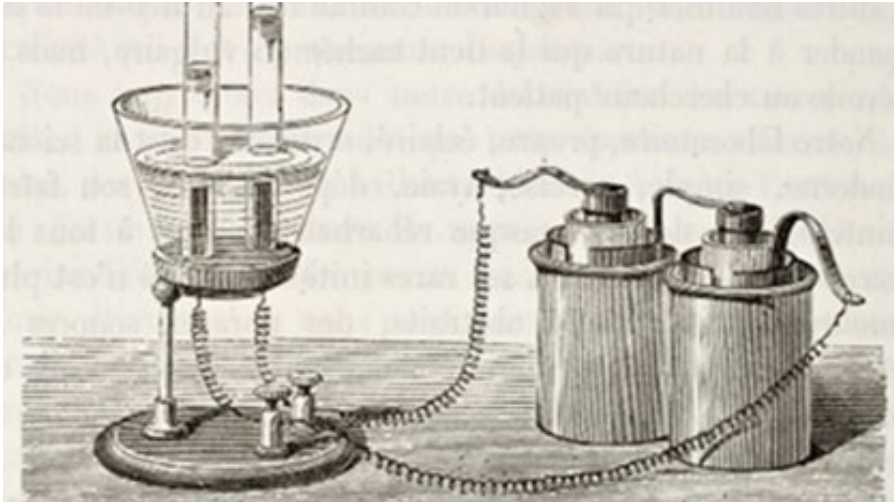


Keynote

by Roland Schulze

Managerial Adviser/Conseiller de Direction - Low Carbon Energy Technology
European Investment Bank



Antique illustration of electrolysis laboratory equipment. Paris, 1873.

Die Finanzierung der europäischen Wasserstoffinfrastruktur

Erzeugung, Import und Transport von Wasserstoff in Deutschland und Frankreich

Online-Konferenz

Mittwoch, 05. November 2025

09.00-12.30 Uhr

Organised by



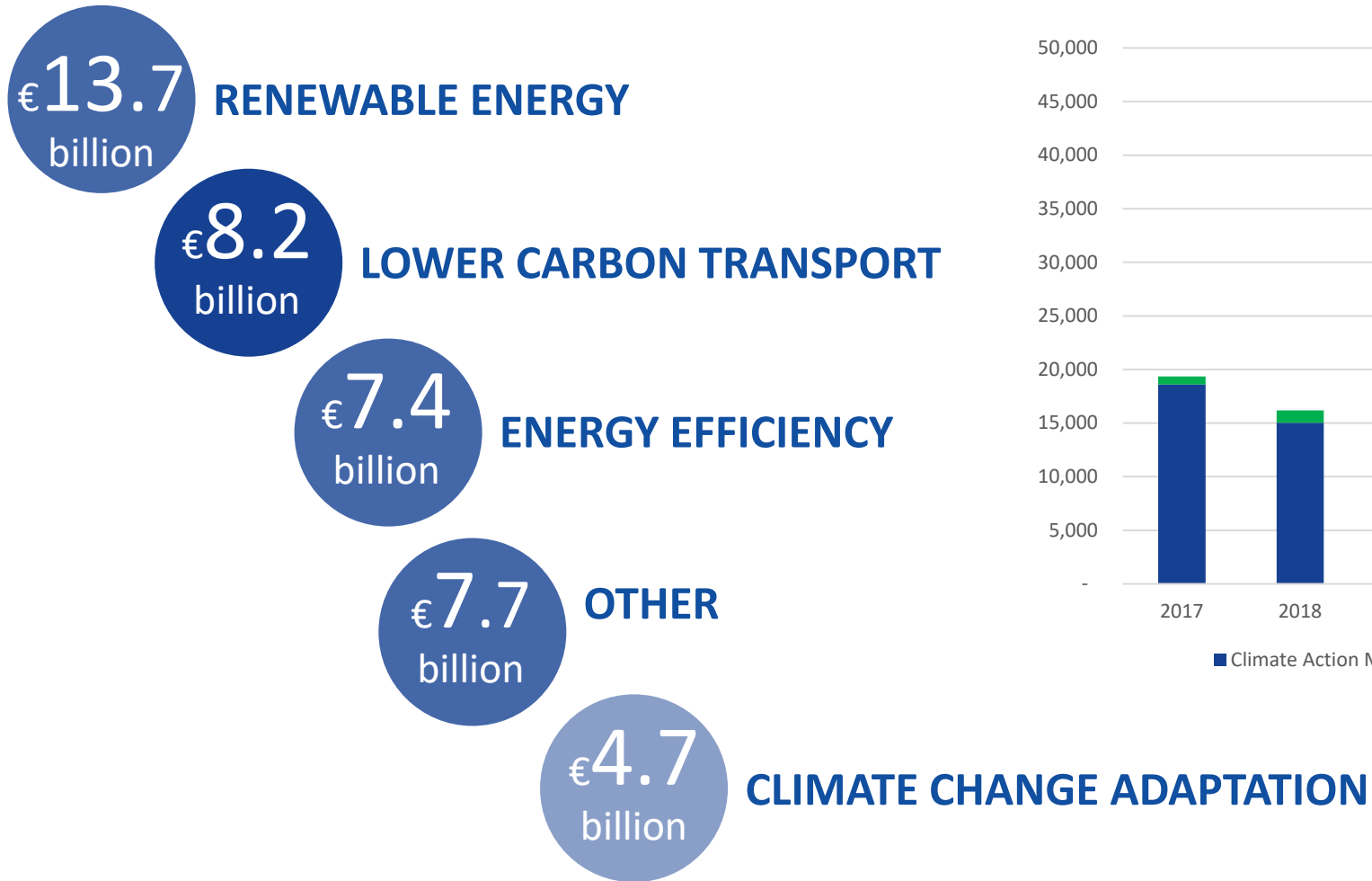
Office franco-allemand pour la transition énergétique
Deutsch-französisches Büro für die Energiewende

THE EIB

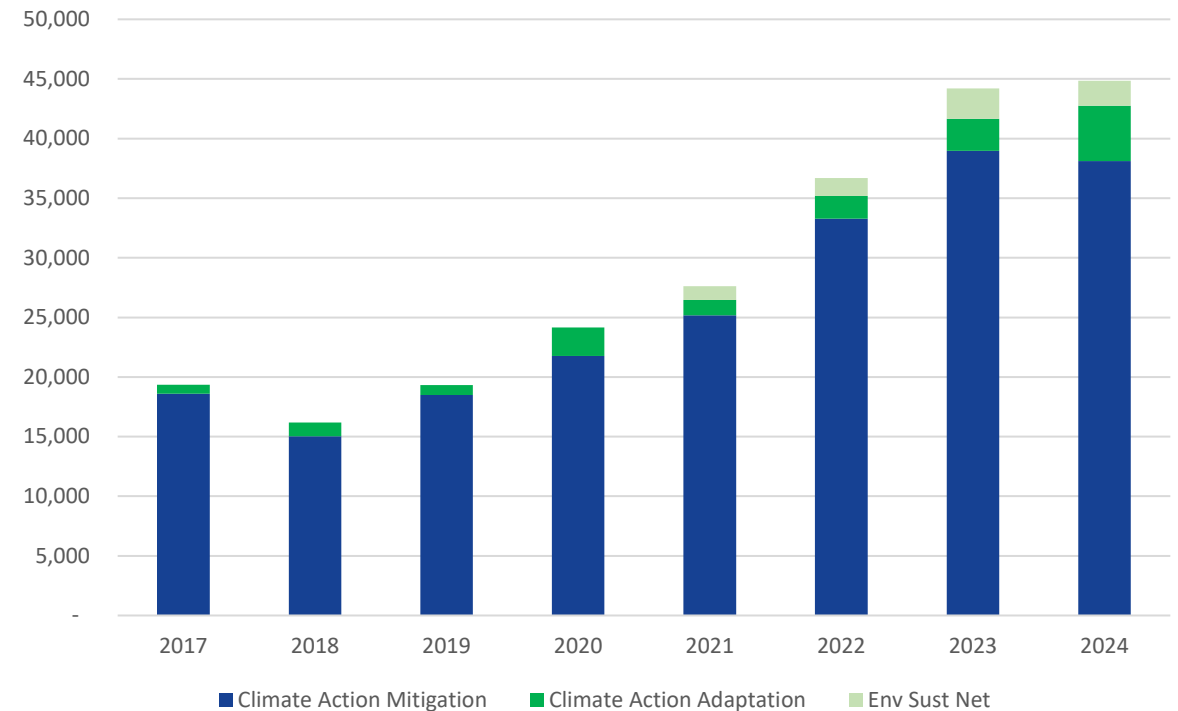
- EIB has a **longstanding track record** in supporting climate investment
- **World's largest multilateral lender** and the biggest provider of climate finance
- **Governed by EU Member States**
- First MDB to be **Paris aligned**
- Over **50% of our work** supports **climate** action and **environmental** sustainability
- **85% of lending** is within the **EU**



EIB FINANCING TO CLIMATE ACTION PROJECTS



EIB CA&ES Evolution



EIB DIRECT FINANCING - ^{Public} LENDING PROCESS

PROJECT CYCLE

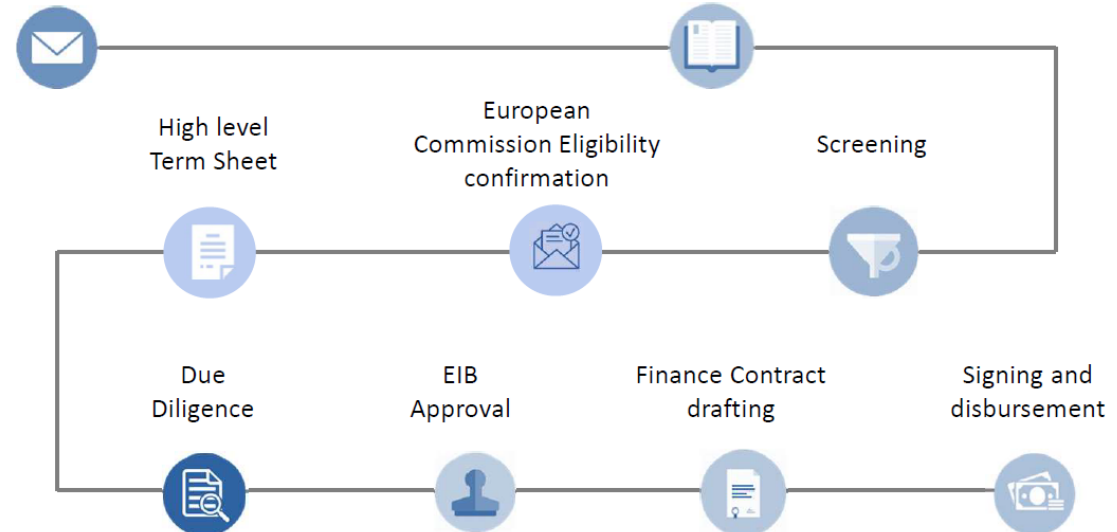


- Financial
- Economic
- Social
- Environmental
- Technical assessment

- EIB Management Committee
- EIB Board of Directors

Initial contact

Pitch deck, business plan, and eligibility questionnaire sent to the EIB team



EIB – SUPPORTS RENEWABLE H2 UPTAKE ACROSS THE VALUE CHAIN

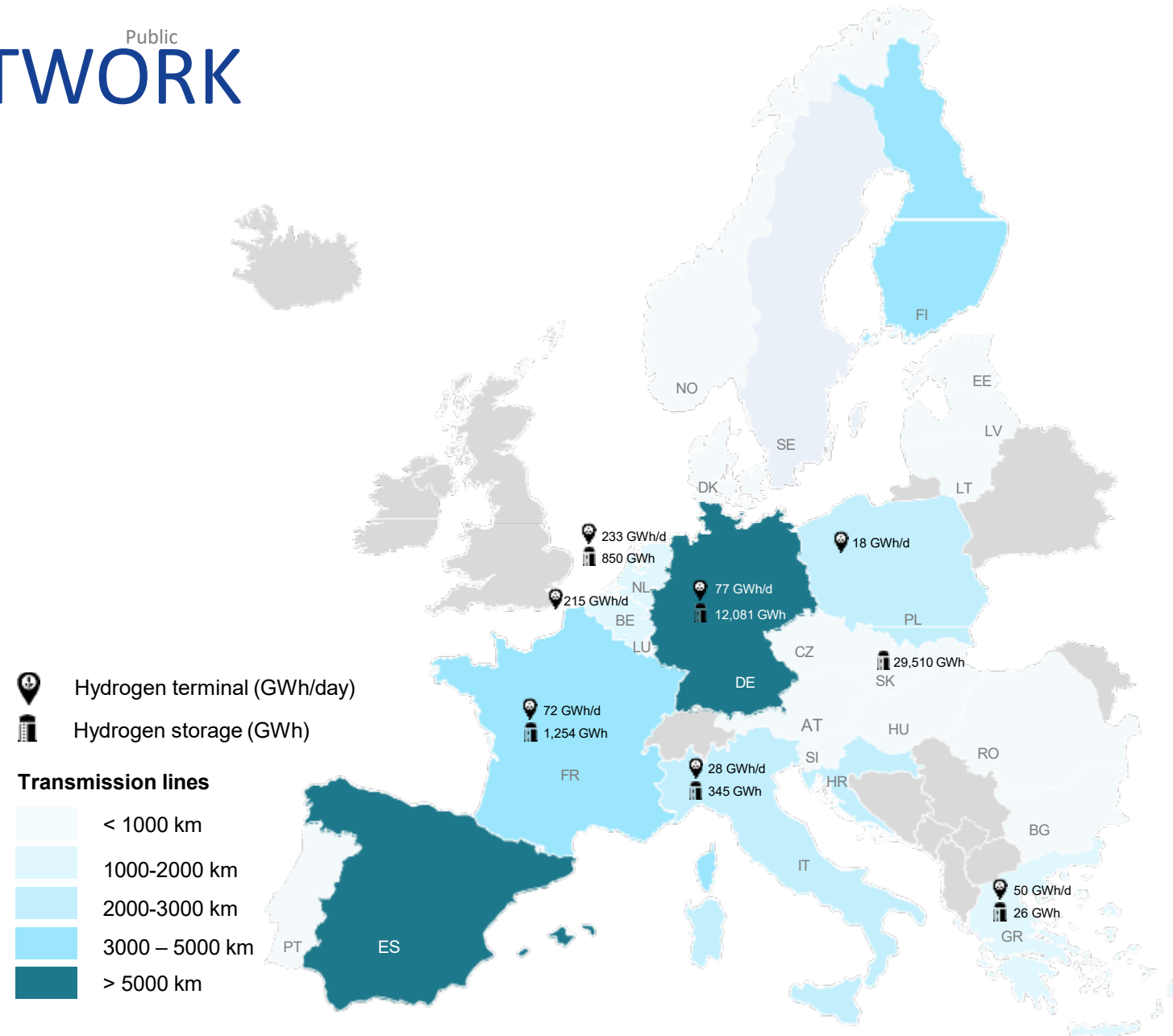
1. Create **additional** renewable energy capacities and **dedicated infrastructure**
2. Back industrial clusters, to **replace local conventional** H2 production
3. Improve **competitiveness** of H2 production technology
4. Support **early adoption** by end users (e.g. H2 steel)
5. Enable **positive net impact** on **energy access and decarbonisation** of the **electricity supply** – particularly relevant OEU

-  **Energy Sector Orientation** sets out EIB's **technology neutral approach**
-  **EIB Group Climate Bank Roadmap Phase 2 - 2026-2030** sets framework for EIB's Paris Alignment (**sustainability** of hydrogen production)
-  Paris Alignment Framework – Low carbon Version 1.1



EU - HYDROGEN NETWORK

- Future **demand** is **uncertain**, increasing financing risks
- Actual **cost of repurposing** may vary significantly
- Inter-dependencies with gas and electricity system **call for integrated planning**
- Electricity grid delays affect deployment of electrolyzers and renewable generation
- Where to locate electrolyzers is important



DIFFERENT VISIONS AND AMBITIONS.....

Public

INDUSTRIAL HUBS...



low-carbon **reindustrialisation** opportunity

Sources: SNH2, FNB Gas

...OR NATION-WIDE BACKBONE



2032

vs

industrial decarbonisation and future-proofing

EIB – PARIS ALIGNMENT FRAMEWORK - H2

Public

Part I: Sector alignment, Table A: Energy

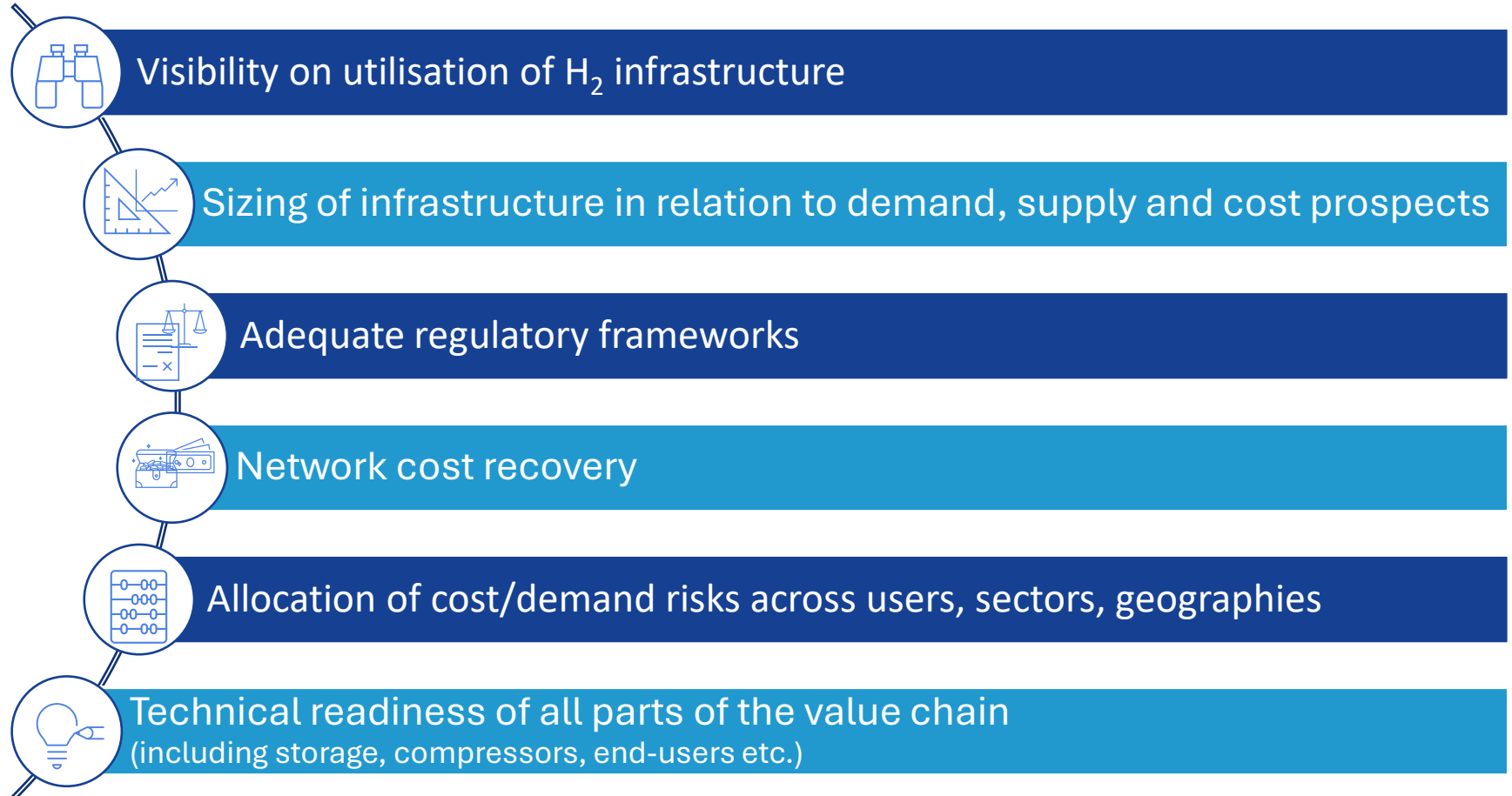
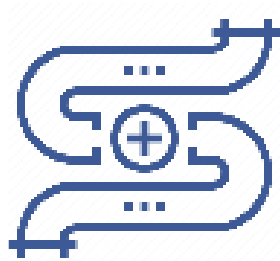
 Paris Alignment Framework – Low carbon Version 1.1 		Production of fuels and energy carriers from renewable and low-carbon energy sources	• As applicable, projects that comply with the sustainability and GHG emissions saving criteria of Directive (EU) 2018/2001 and its subsequent amendments and Directive (EU) 2009/30. The technologies considered should demonstrate acceptable energy conversion efficiency. For projects outside the European Union, equivalent principles apply. Projects based on biomass feedstock should be compliant with sustainability of biomass sourcing criteria laid down in Table E. Projects involving the use of waste for the production of energy carriers or fuels will have to demonstrate their alignment with the European Union's circular economy strategy and the relevant national and regional waste management plans. • Renewable and low-carbon hydrogen: Manufacture of hydrogen, including through fossil fuels (mainly natural gas, steam methane reforming) with carbon capture (use) and storage, that meets the EU Taxonomy's corresponding Do No Significant Harm (DNSH) to climate change mitigation criteria. The technologies considered should demonstrate acceptable energy conversion efficiency. For projects outside the European Union, equivalent principles will apply. • Biomass fuels: For projects based on biomass feedstock, additional criteria may be required by the Bank on sustainability of biomass supply (see Table E).
		Enabling infrastructure	• Electricity networks: All electricity transmission and distribution infrastructure, with the exception of the direct connection of generating capacity that is not supported (in particular having an emission standard above 250g CO₂/kWh). • Renewable and low-carbon gas infrastructure (including hydrogen): Projects that are planned to transport or store low-carbon gases³, which meet the EU Taxonomy's corresponding Do No Significant Harm (DNSH) to climate change mitigation criteria. Smart meters intended to reduce gas consumption. • Transport and storage of CO₂ for abatement purposes: Projects featuring a monitoring plan for CO₂ leakages, and compliance of CO₂ storage with Directive 2009/31/EC (for projects inside the European Union) or ISO 27914:2017 (for projects outside the European Union). • District heating/cooling infrastructure (networks and storage): The rehabilitation or extension of existing networks, or construction of new networks if, as a result of the project, there will be no increase in combustion of solid or liquid fossil fuels or non-organic waste on an annual basis. Thermal storage facilities are considered to be a network investment.

Current key financing considerations for networks

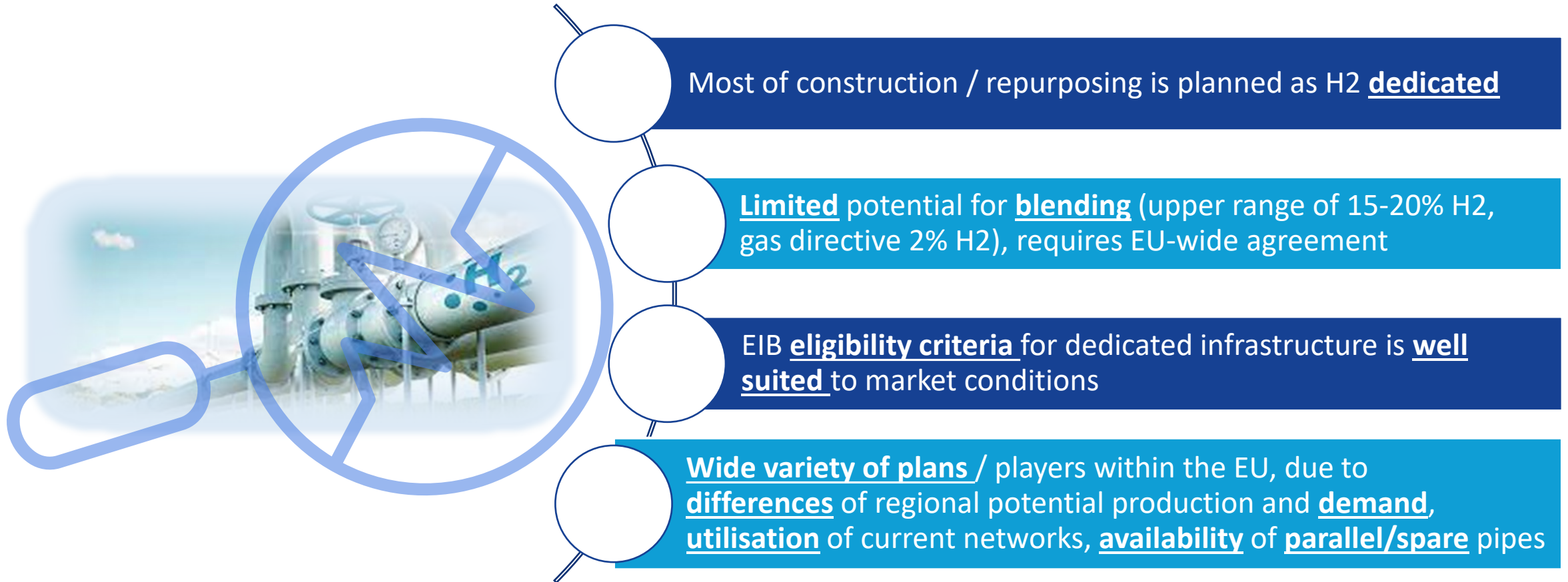
- assets “planned to be dedicated” to renewable and low-carbon gases
- technical feasibility assessment and CBA
- detailed justification of the investment decision approved by the management bodies of the investor
- For RAB: endorsed by the relevant regulatory body
- Role of PCIs

H2 INFRASTRUCTURE

MAIN FINANCING AND TECHNICAL CHALLENGES



MARKET SOUNDING – REFLECTION TO TSO PLANS ON H2 ENABLING INFRASTRUCTURE



EU COURT OF AUDITORS^{Public}

SPECIAL REPORT 11/2024, Performance Audit of Commission

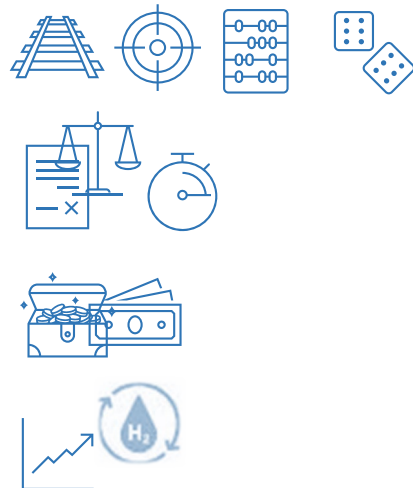
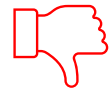
assessed, whether the EU is



-
-
-
-

- EU targets overly ambitious
- unlikely to be met by 2030

FINDINGS



No robust analyses, no cross-checking with MS

legal framework is now mostly complete, but complex

No overview of huge investment needs or available public funding

Some market coordination across H2 value chain, but lack of strategic choices

GERMAN COURT OF AUDITORS^{Public} (BUNDESRECHNUNGSHOF)

SPECIAL REPORT 10/2025, Audit of H2 strategy of German governments

BUNDES
RECHNUNGS
HOF

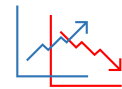


Bericht nach § 99 BHO

Umsetzung der Wasserstoffstrategie
des Bundes



- Significant **deviations** from **targets** for domestic “green” hydrogen **production** by **2030**



- **Subsidies** have **not triggered expected demand**, particularly in the steel industry

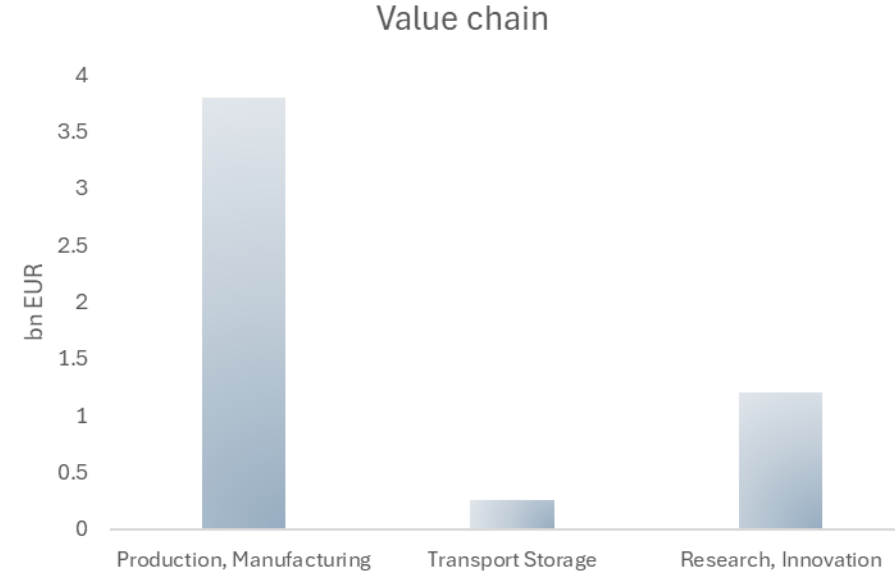
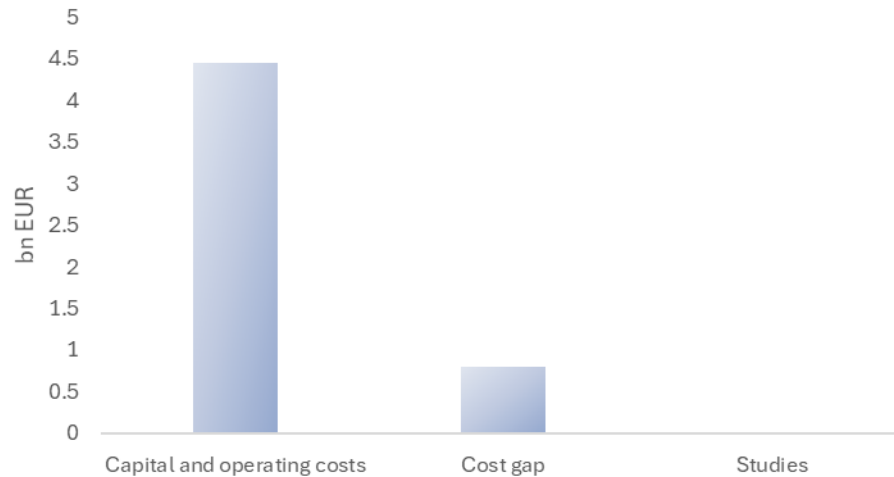
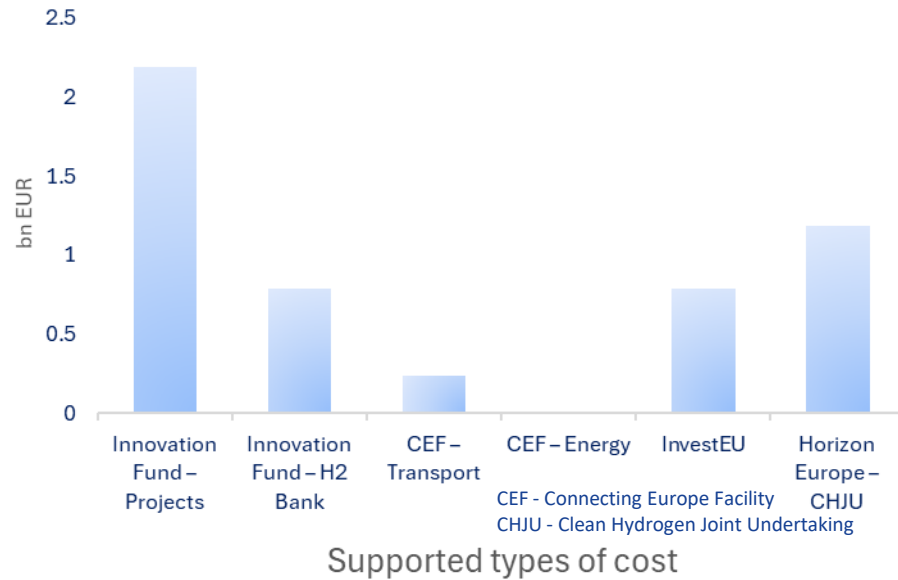


- Financial risks: **High hurdles** for ramp-up of H2 economy, “green” hydrogen **more expensive** than alternatives, long-term government subsidies necessary



- **Risks for the federal budget** due to planned billions in subsidies and development of core network
- Recommended action:
‘reality check’, a more targeted approach, review of targets and financing mechanism

EU FUNDING PROGRAMMES ^{Public}



Total: 5.2 bn EUR

Period 2021 – 2023

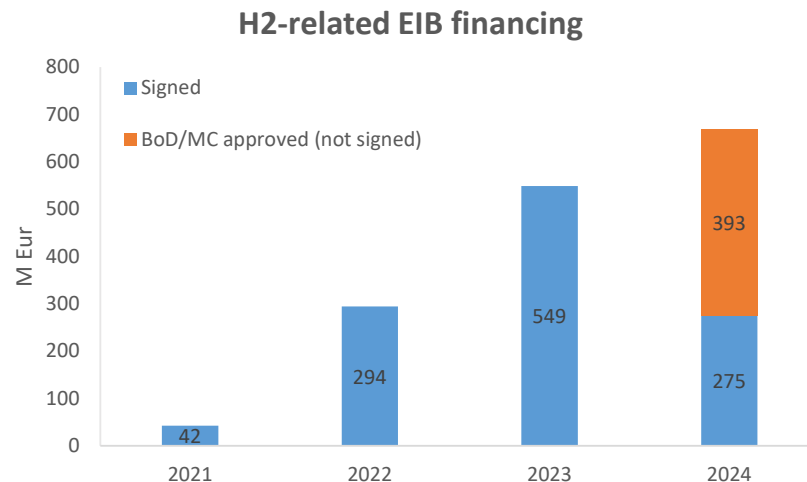
In addition:

- Recovery and Resilience Facility – **RRF** - (including REPowerEU chapter) **13.5 bn EUR** funding volume related to H2 unknown
- Funds under cohesion policy (European Regional Development, Cohesion and Just Transition Funds)
- Modernisation Fund

All managed by various EC DGs (CLIMA, ENER, REGIO, MOVE, RTD, ECFIN)

RECENT EIB INVESTMENTS - PERCEIVED FINANCING CHALLENGES

- EIB supporting **all segments of the H2 value chain** with a **wide array of financial products**
- Main **financing challenges are:** availability of electricity, long-term supply and offtake contracts, price risks
- Challenges exacerbated by high interest rates, inflation and **volatility of energy prices**



Examples

Supply



EUR 100m / Corporate risk



EUR 180m / Corporate risk

Enabling infrastructure



EUR 40m / Public sector



EUR 40m / Quasi-equity (IEU)

Demand

H2green steel

EUR 314m / Project Finance (IEU)

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L-2950 Luxembourg

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Managerial Adviser/Conseiller de Direction

Low Carbon Energy Technology

Energy Department

email: r.schulze@eib.org



THANK YOU



European
Investment Bank