



European
Investment Bank

Financing the Hydrogen economy - 16/10/2024

Isidoro Tapia – EIB Senior Climate Officer

Insight Harvest

EIB – The EU Climate Bank



CLIMATE CHANGE ADAPTATION



RENEWABLE ENERGY



**RESEARCH, DEVELOPMENT
AND INNOVATION**



LOWER CARBON TRANSPORT



ENERGY EFFICIENCY



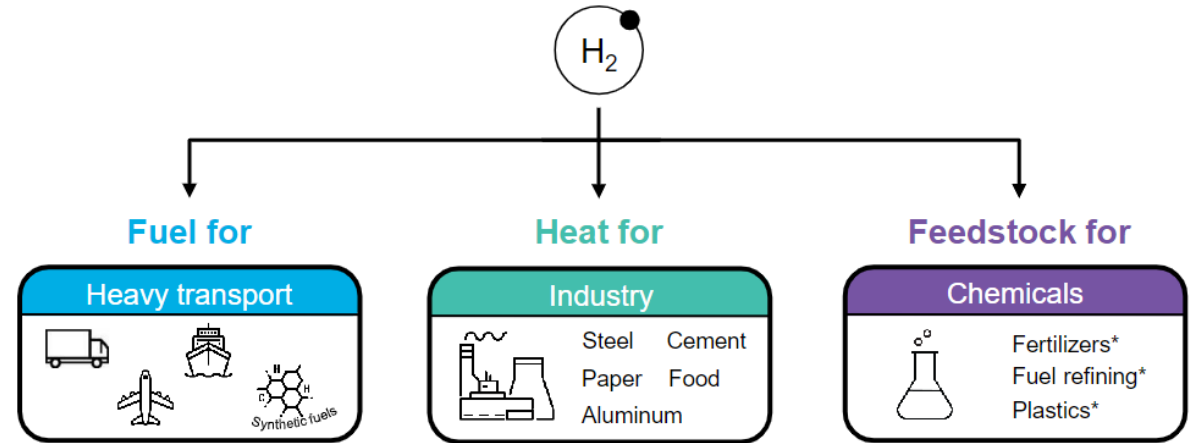
OTHER CLIMATE CHANGE MITIGATION



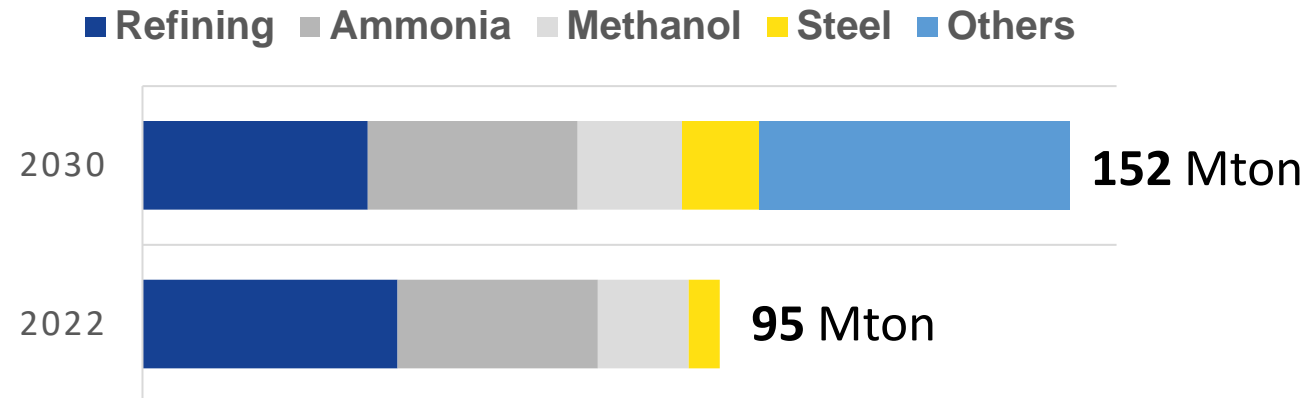
**OTHER ENVIRONMENTAL
SUSTAINABILITY FINANCING***

Green hydrogen can help reduce emissions

- Low-carbon / renewable hydrogen can help to **decarbonise** a range of **hard-to abate sectors**
- **EU regulations** define what is considered **renewable hydrogen** based on the origin of the electricity used
- Consumption of conventional hydrogen in EU is currently 9.7 million tonnes per year (= produced from unabated fossil fuels)
- EU strategic target is to annually **produce 10 million tonnes** and **import 10 million tonnes** of renewable hydrogen by 2030



GLOBAL HYDROGEN CONSUMPTION

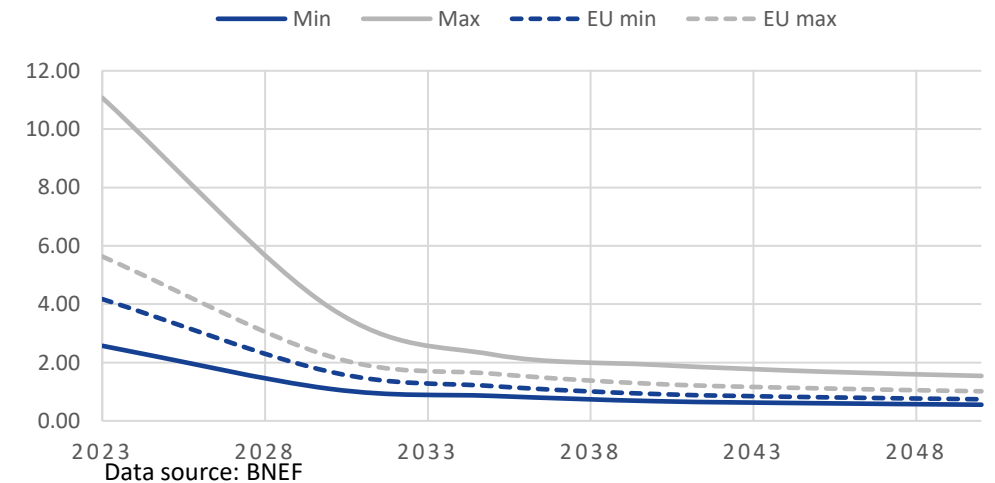


Data source: IEA

The policy momentum behind renewable hydrogen is strong but significant challenges still remain

- **Huge** additional renewable **capacity needed** in EU (+300 GW to produce 10 MtH₂)
- **Electrolyser** technology is **mature** but still “teething”
- **Transport** of H₂ over long distance is **inefficient** and **lacks infrastructures**
- Renewable hydrogen **production cost not** yet financially **competitive** with conventional production; decrease **requires lower cost** of renewable **electricity** and **electrolysers**
- **No trading** market for H₂ to set a price; scale –up in demand for renewable H₂ needed to unlock investment

LEVELISED COST OF HYDROGEN PRODUCTION FROM RENEWABLES

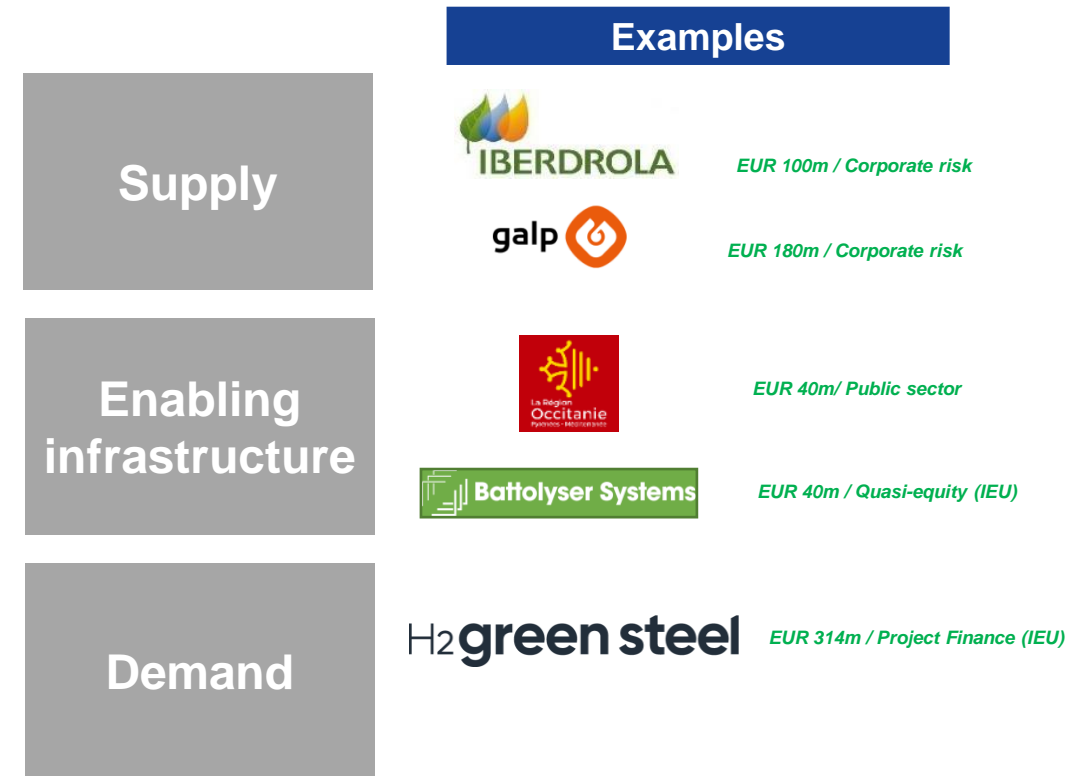


EIB supports investments that accelerate renewable hydrogen uptake across the value chain

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

Energy Lending Policy sets out EIB's **technology neutral approach**

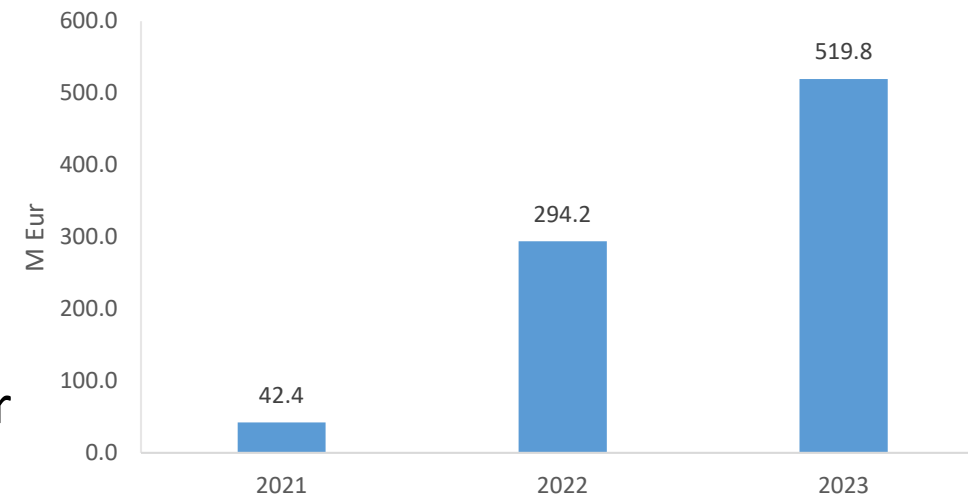
Climate Bank Roadmap defines **sustainability** of hydrogen production



Pipeline and investment outlook

- **Pipeline is building up** both inside and outside of the EU
 - **Across value chain: RDI, mobility and energy** (demonstration projects and scale-up) **and infrastructure**
 - **With whole financial toolkit (including PF)**
- **EIB proactive origination effort:**
 - **Market sounding exercise on infra**
 - **Targeted advisory support** to complement lending offer
 - **Others: partnerships, EHB, industrial alliances**
- EIB volumes follow **market developments**: the Bank is well-positioned to support the market build-up

H2-related EIB financing (signatures)



THANK YOU



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