

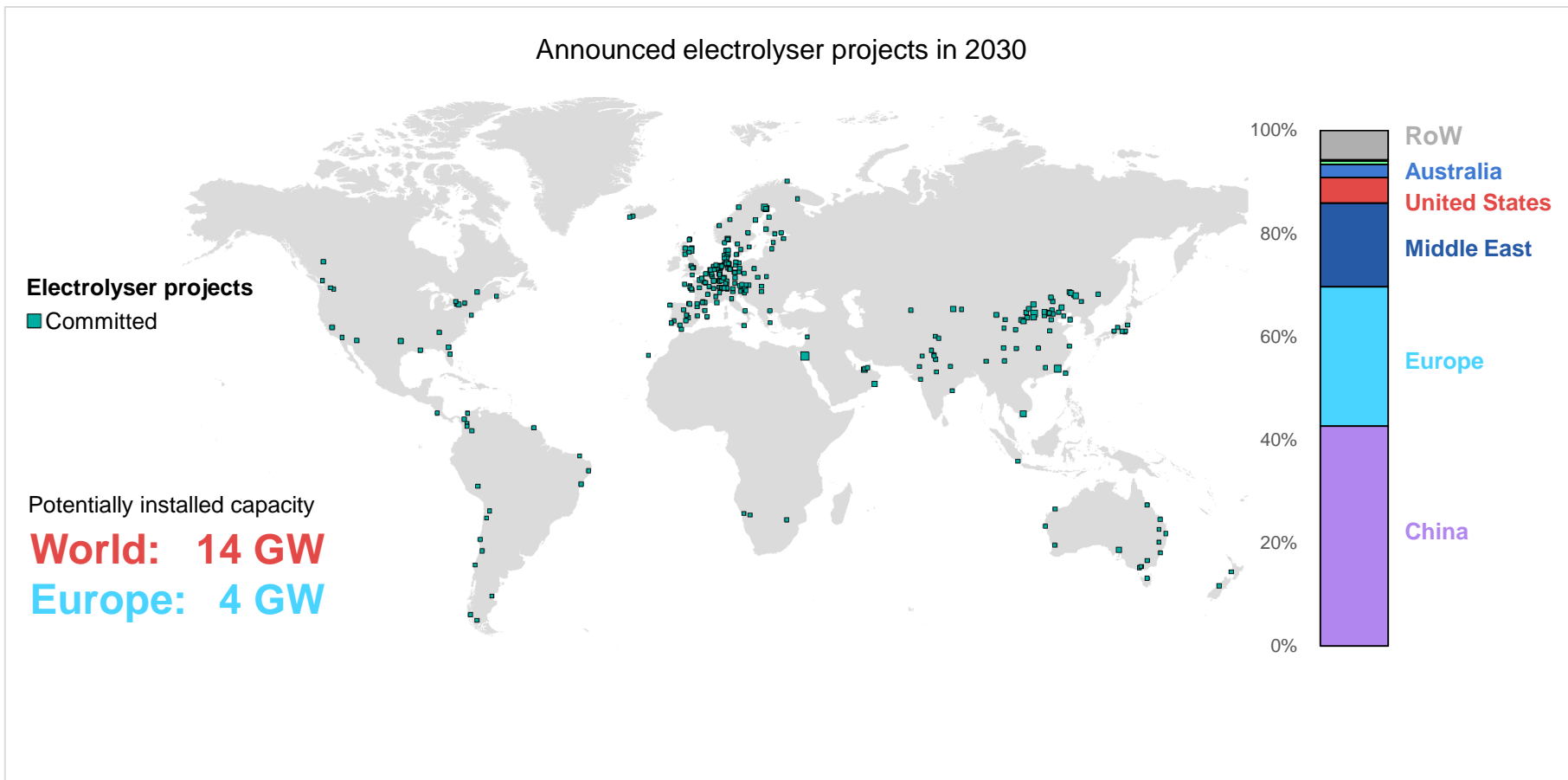


Global trends in hydrogen production and use

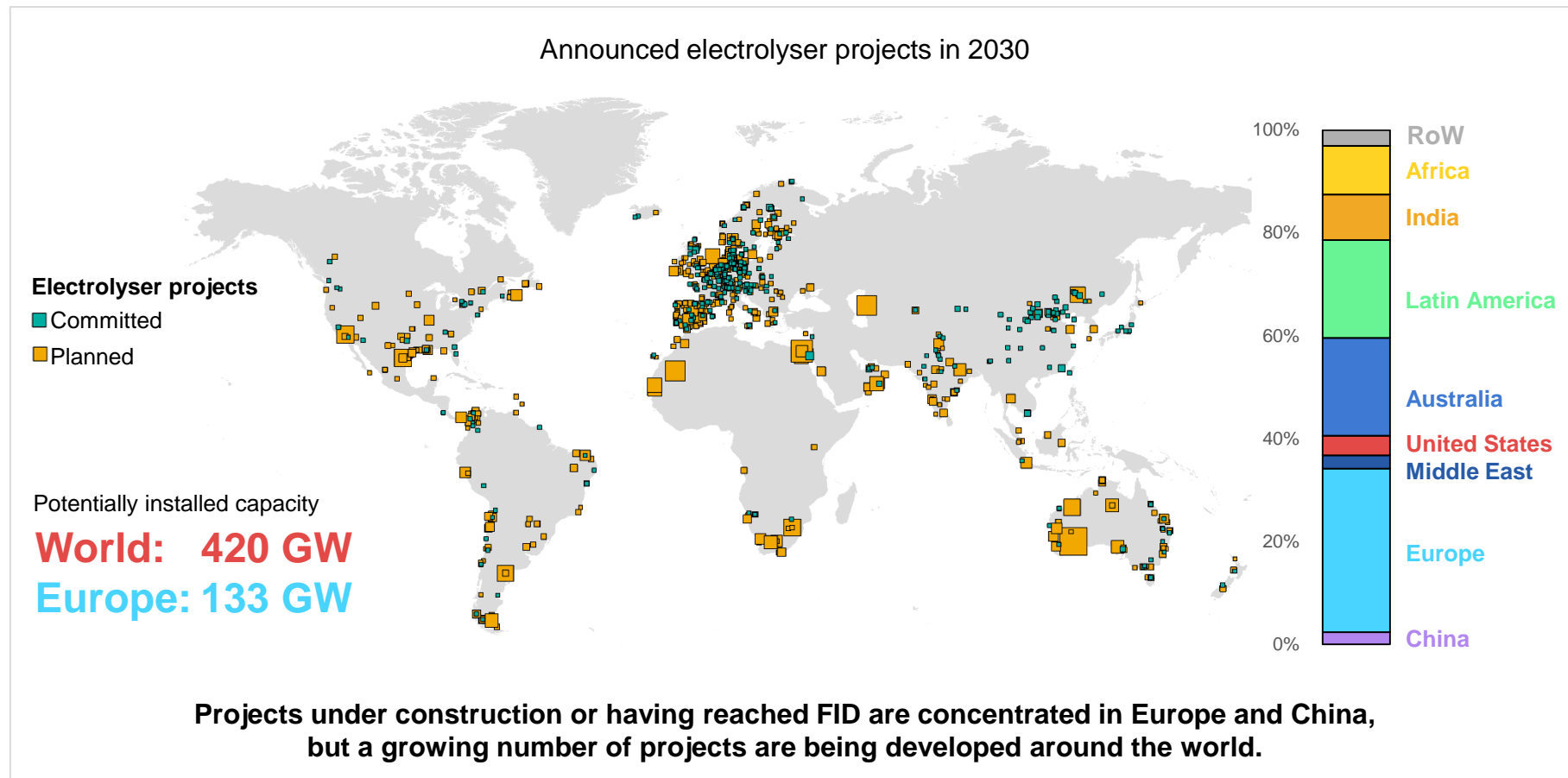
Dr. Timur Gül, Chief Energy Technology Officer, IEA

Hydrogen Partnership Austria Jahreskonferenz, 26. Januar 2024

Geographical diversity of electrolyser projects is increasing

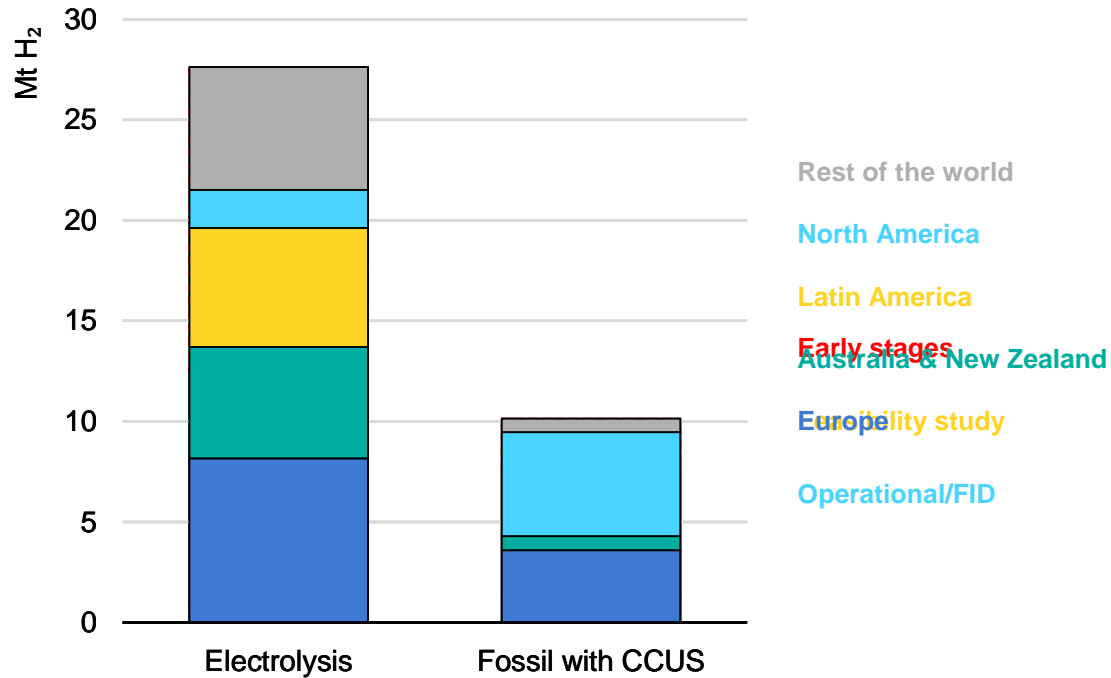


Geographical diversity of electrolyser projects is increasing



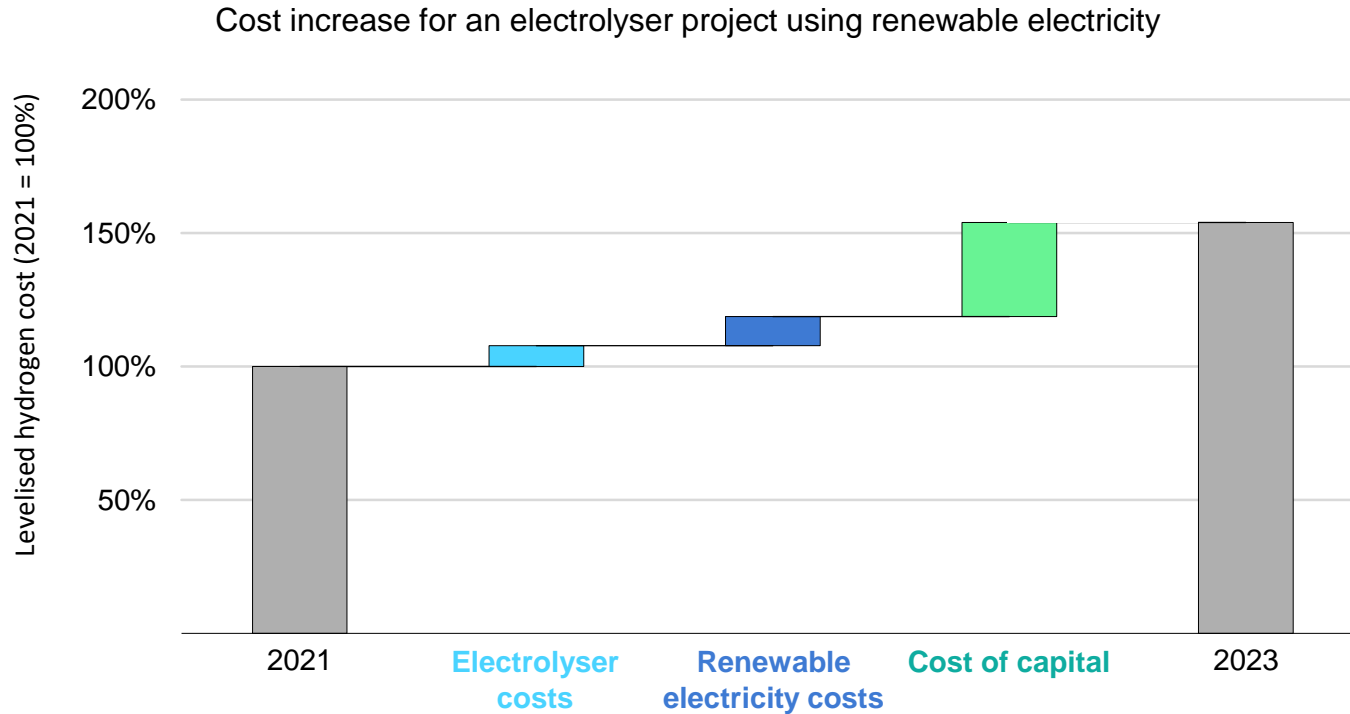
A growing pipeline of projects for low-emissions hydrogen

Low-emissions hydrogen production in 2030 based on announced projects



Announced low-emissions hydrogen projects of 38 Mt could meet government targets to produce 35 Mt by 2030.

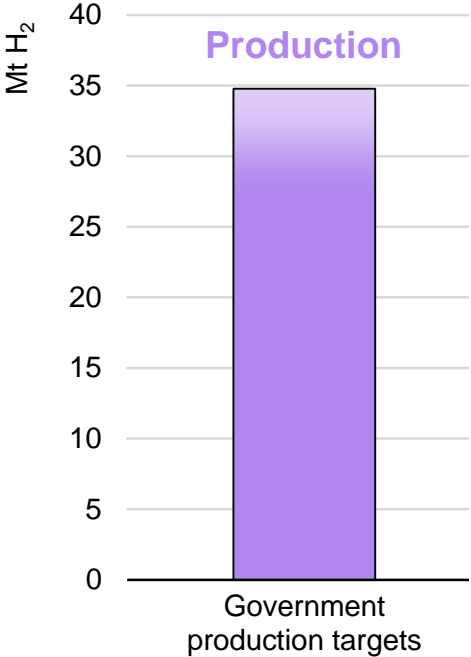
The costs for low-emissions hydrogen projects are increasing



Inflation had a strong impact on the costs of hydrogen production from proposed electrolyser projects, with implications for the economics of projects under development and investment decisions.

Demand creation is falling behind production ambitions

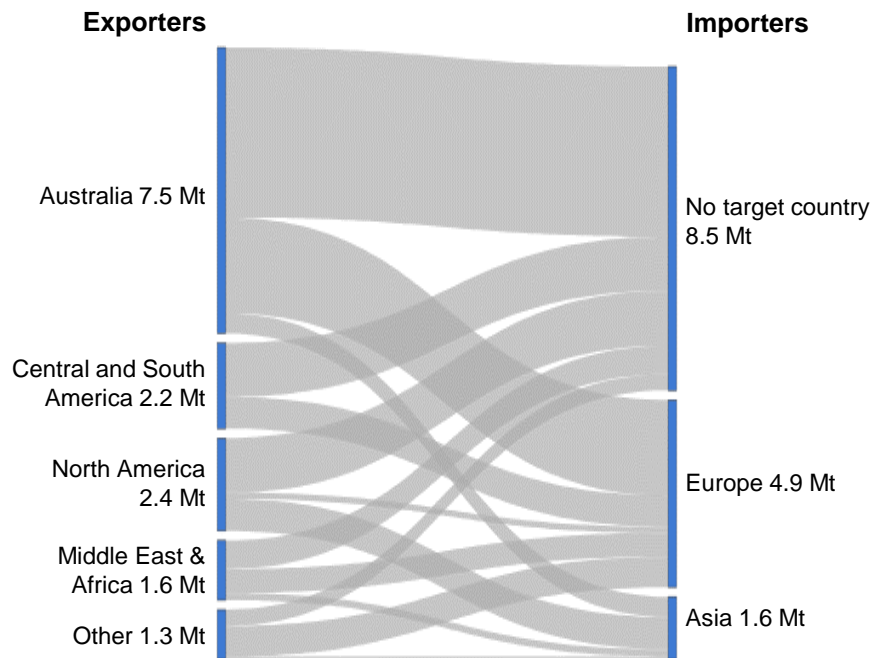
Low-emissions hydrogen production targets compared with potential demand



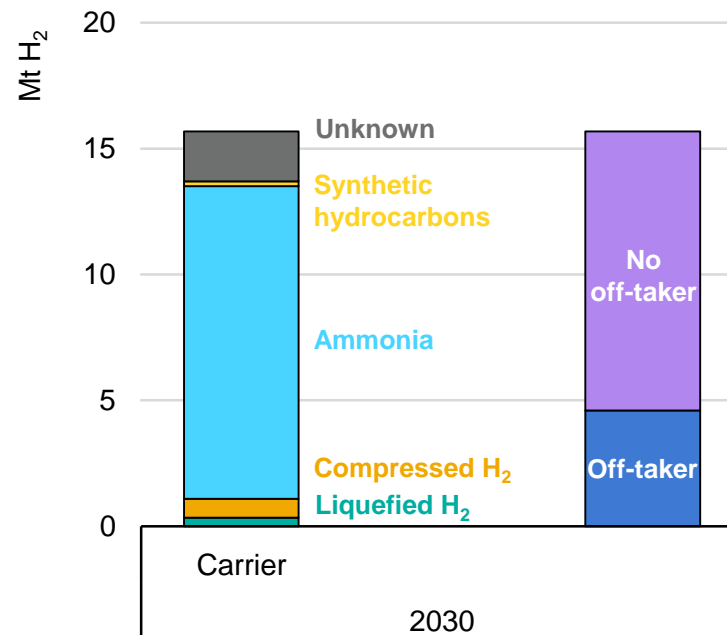
Actions from governments, international co-operation initiatives and the private sector to create low-emission hydrogen demand fall short of production ambitions

Interest in hydrogen trade is growing, but barriers remain

Announced low-emission hydrogen trade flows in 2030



Low-emission hydrogen trade



Planned hydrogen exports could reach 16 Mt by 2030, though almost all projects are at early stages and less than one-third have identified a potential off-taker.

1. **Implement support schemes** for low-emissions hydrogen production and use
2. **Take bolder action to stimulate demand** for low-emissions hydrogen, particularly in existing hydrogen uses
3. **Foster international co-operation** to enable hydrogen certification and mutual recognition
4. **Address regulatory barriers**, particularly for project licensing and permitting
5. Support project developers to **keep momentum despite inflationary pressures** and to extend regional reach

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