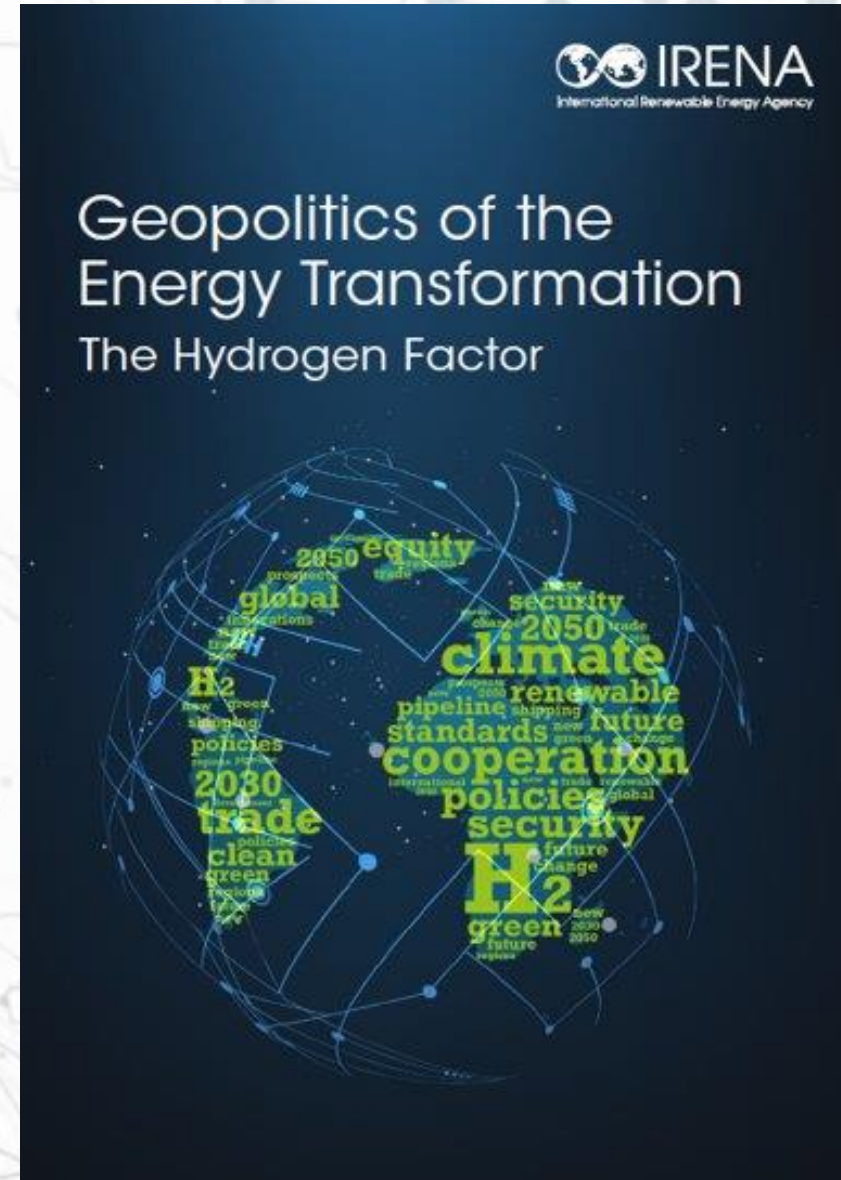
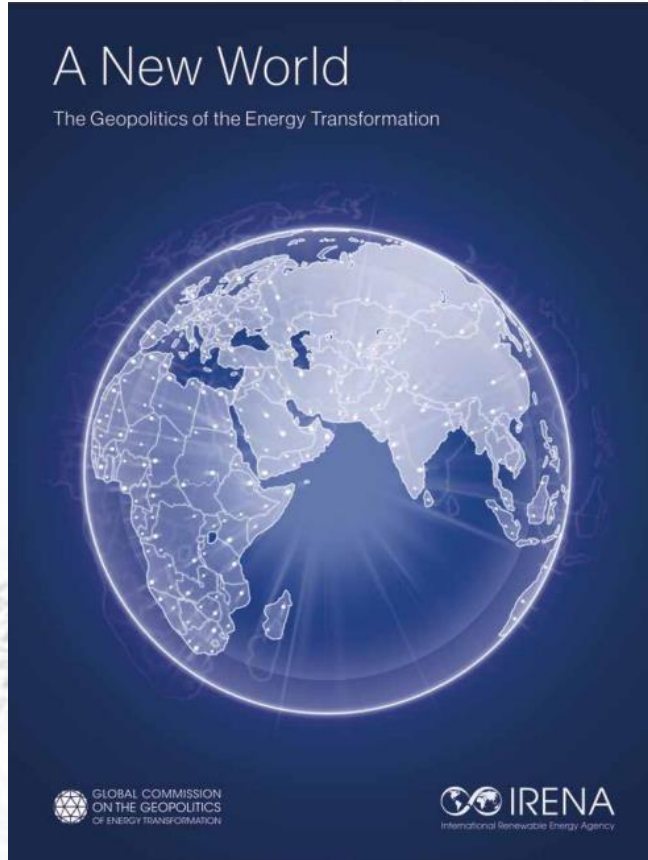


The Geopolitics of the Energy Transformation: The Hydrogen Factor

Elizabeth Press

Director, Planning and Programme Support

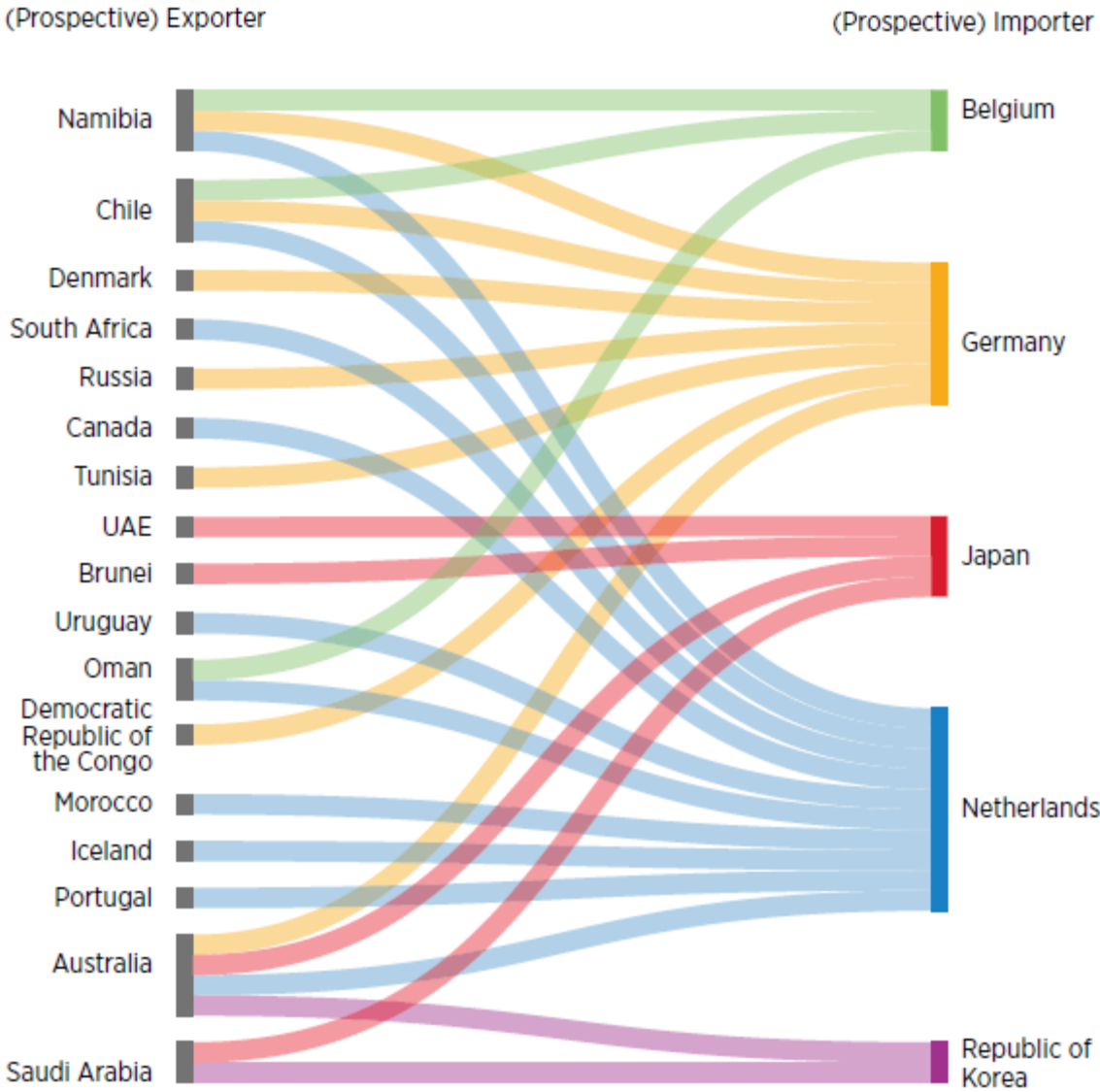
February 2022



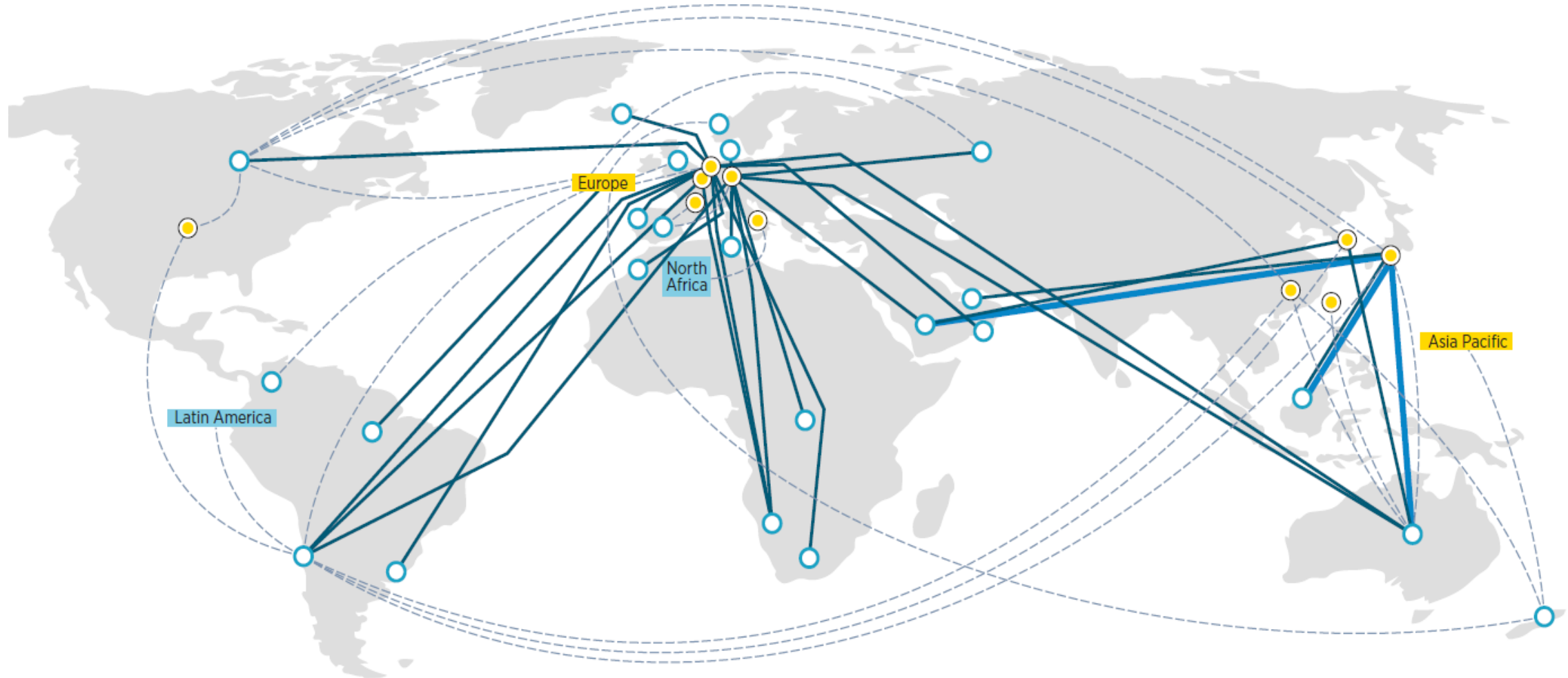
Hydrogen Strategies (October 2021)



Selected country bilateral trade agreements and MOUs (November 2021)

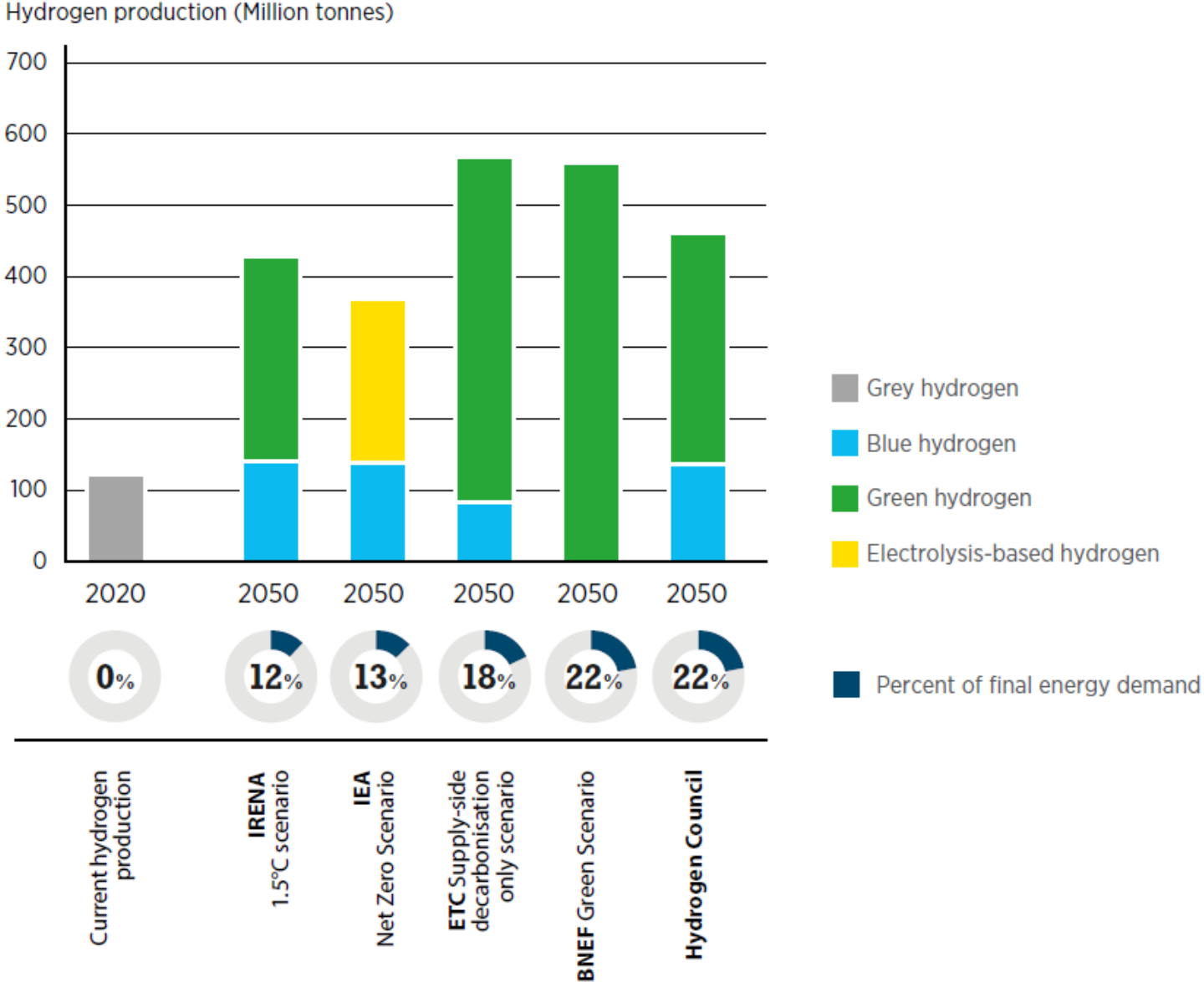


An expanding network of hydrogen trade routes, plans and agreements



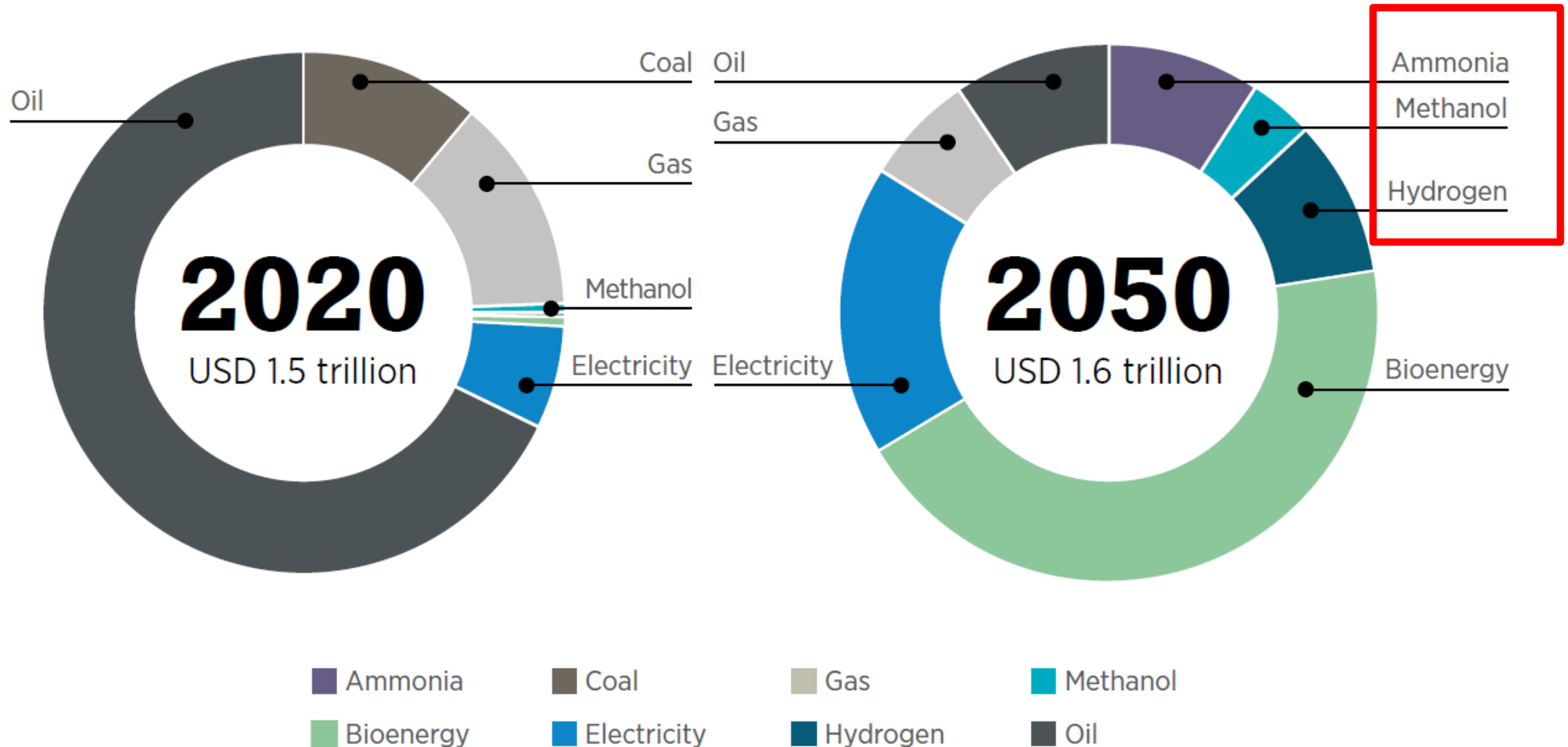
- Exporter
- Importer
- Exporting region
- Importing region
- New routes in place or under development
- MoUs in place establishing trade routes
- - - Potential trade route explicitly mentioned in published strategies

Estimates for global hydrogen demand in 2050

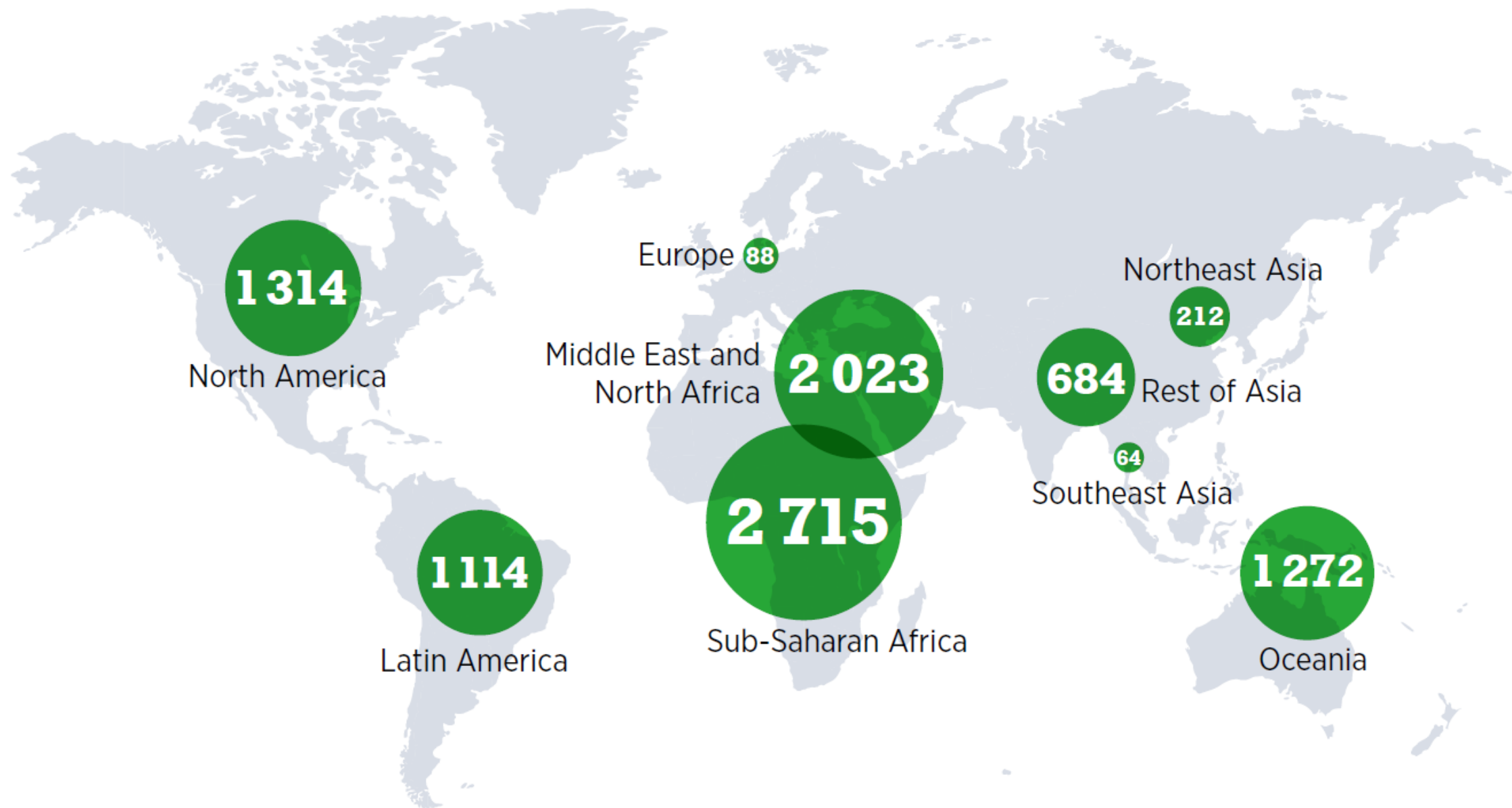


Shifts in the value of trade in energy commodities, 2020 to 2050

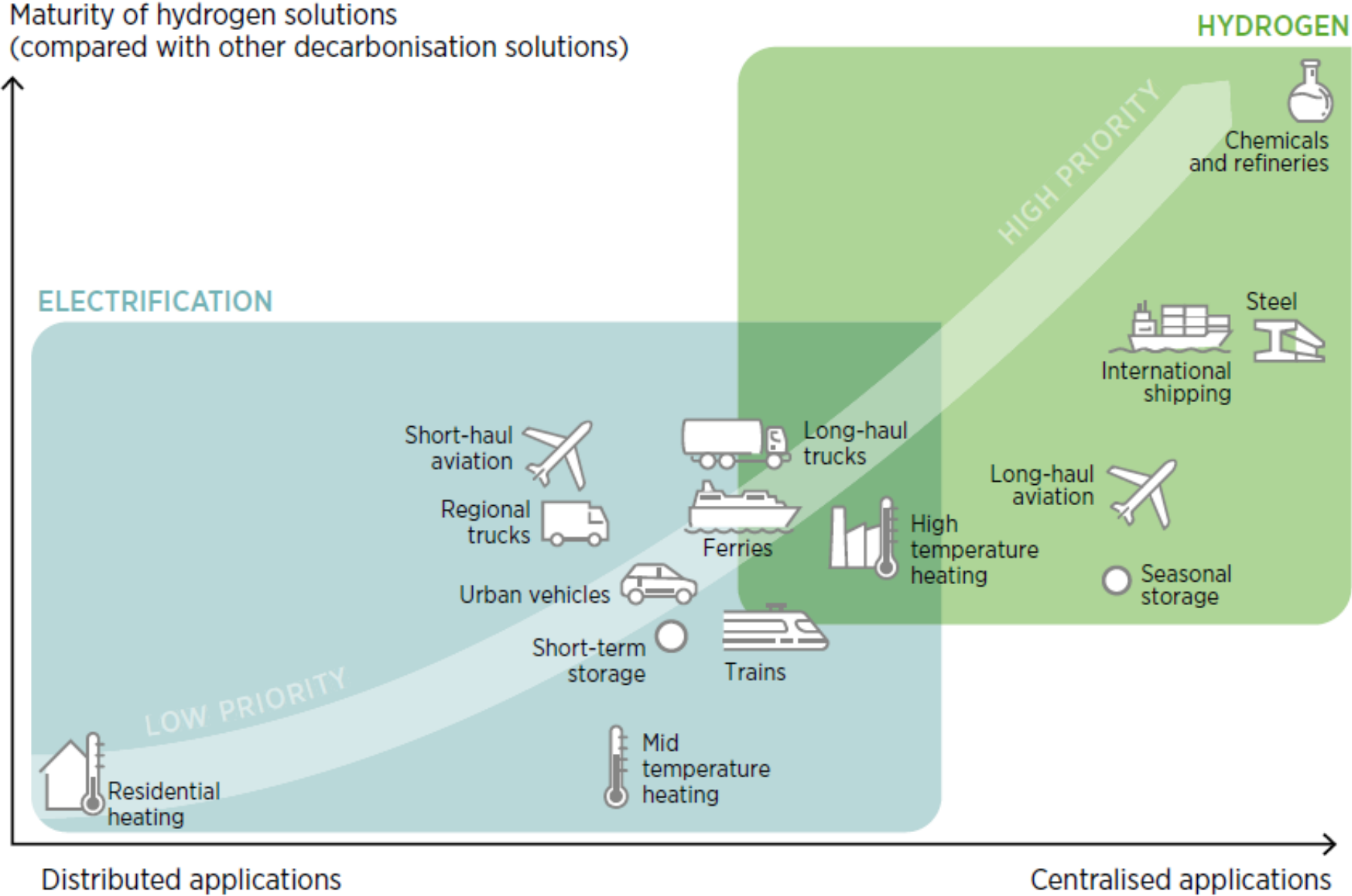
20% hydrogen and its energy derivatives



Technical potential for producing green hydrogen under USD 1.5/kg by 2050, in EJ



Clean hydrogen policy priorities



- Hydrogen is part of a much bigger energy transition picture, and its development and deployment strategies should not be pursued in isolation.
- Setting the right priorities for hydrogen use will be essential for its rapid scale-up and long-term contribution to decarbonisation efforts.
- International co-operation will be necessary to devise a transparent hydrogen market with coherent standards and norms that contribute to climate change efforts meaningfully.
- Supporting the advancement of renewable energy and green hydrogen in developing countries is critical for decarbonising the energy system and can contribute to global equity and stability.
- Geopolitical risks can be mitigated by reducing unnecessary energy consumption across many final uses.
- Policy makers should consider broader impacts of hydrogen development on sustainable development to ensure positive, long-lasting outcomes.

UN Energy Compacts for green hydrogen (Catalogue)

Geopolitics of hydrogen (new report)

Hydrogen **trade perspectives** (upcoming report series)

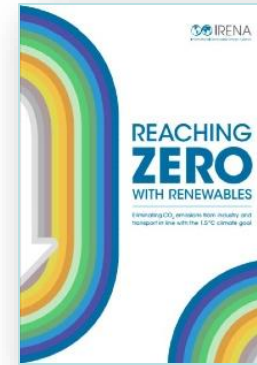
Collaborative Framework on Green Hydrogen

Collaboration with WEF on **enabling frameworks** for green hydrogen

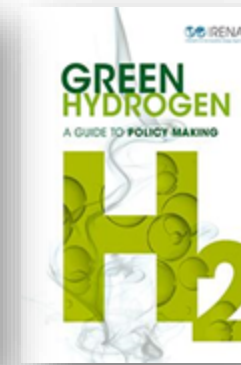
Collaboration with Ammonia Energy Association on Innovation Outlook for **Green Ammonia**

Hydrogen **policy** briefs

Deep dives into topics; hydrogen in the gas grid, certification & standards, electrolysis cost



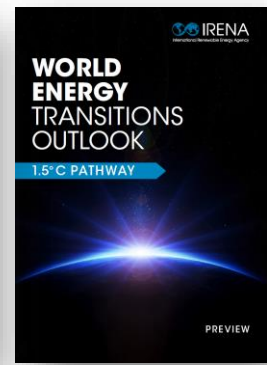
September 2020



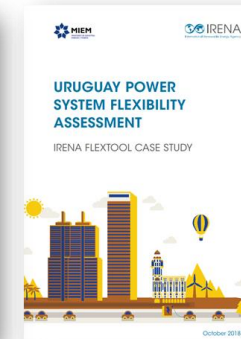
November 2020



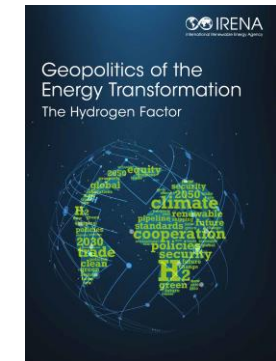
December 2020



March 2021



Country-specific studies of hydrogen as flexibility option



January 2022



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