

Geopolitics of the Energy Transformation: The Hydrogen Factor

Presenter:

- **Elizabeth Press**, Director - Planning and Programme Support, IRENA

TUESDAY, 22 MARCH 2022 • 14:00-14:30 CET

SPEAKER



Elizabeth Press

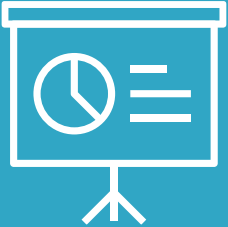
Director

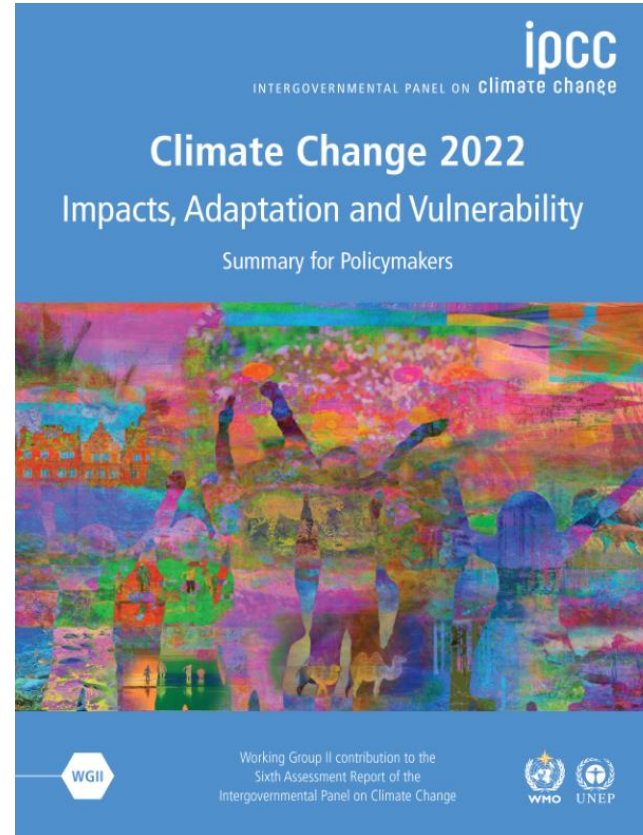
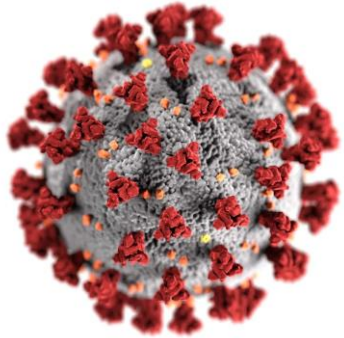
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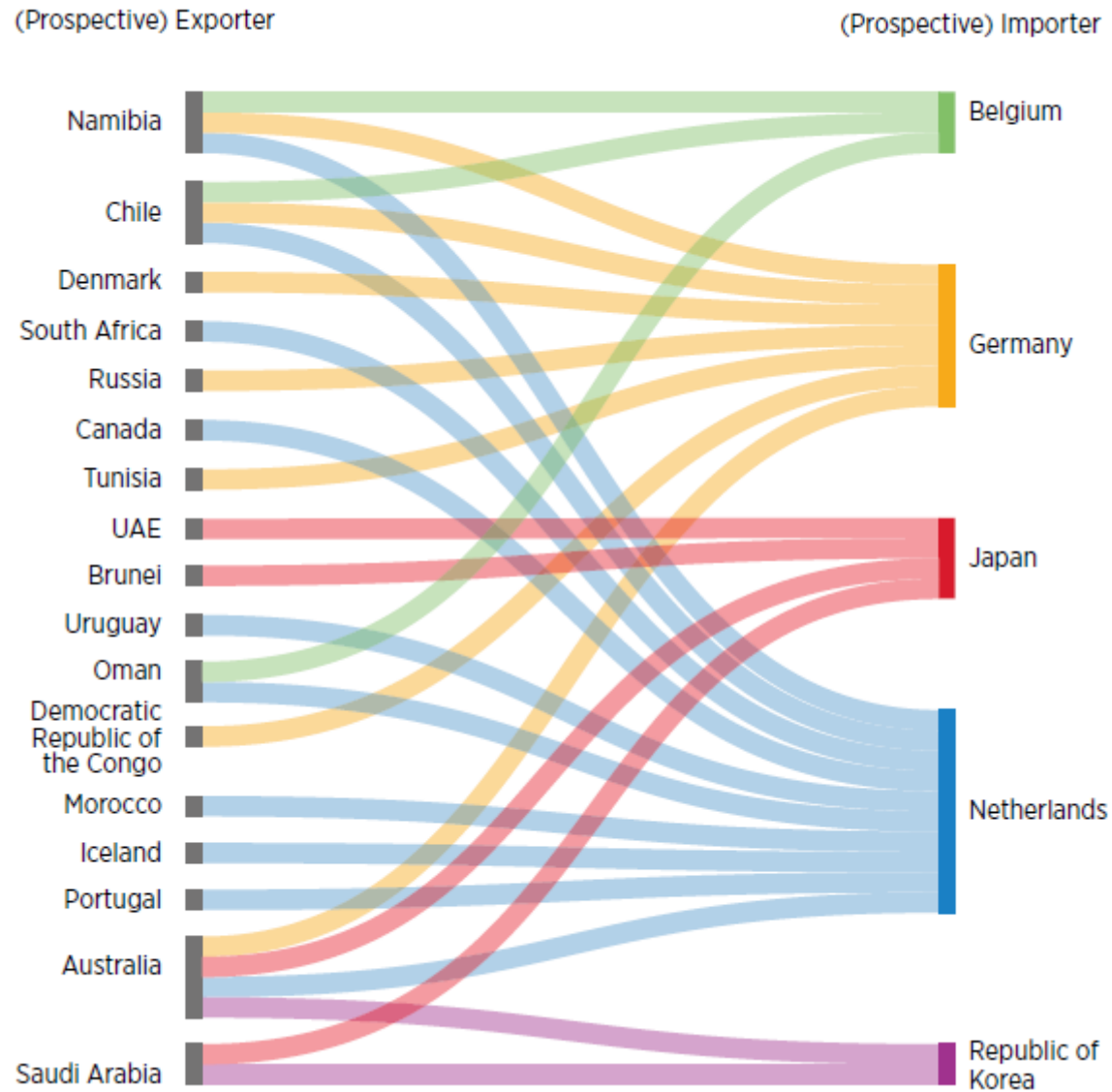


“The scientific evidence is unequivocal: climate change is a threat to human wellbeing and the health of the planet. Any further delay in concerted global action will miss a brief and rapidly closing window to secure a liveable future,”

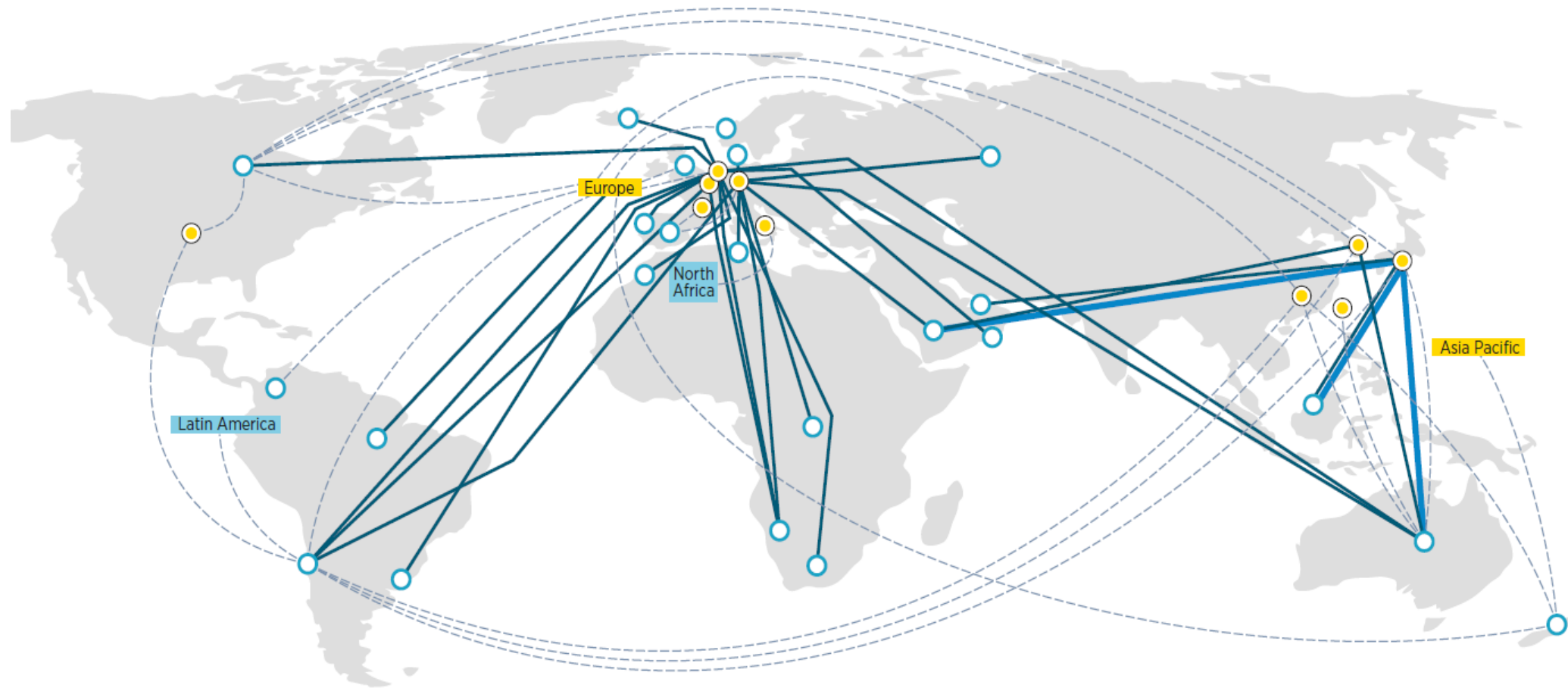
Hydrogen Strategies (October 2021)



Selected country bilateral trade agreements and MOUs (Nov 2021)



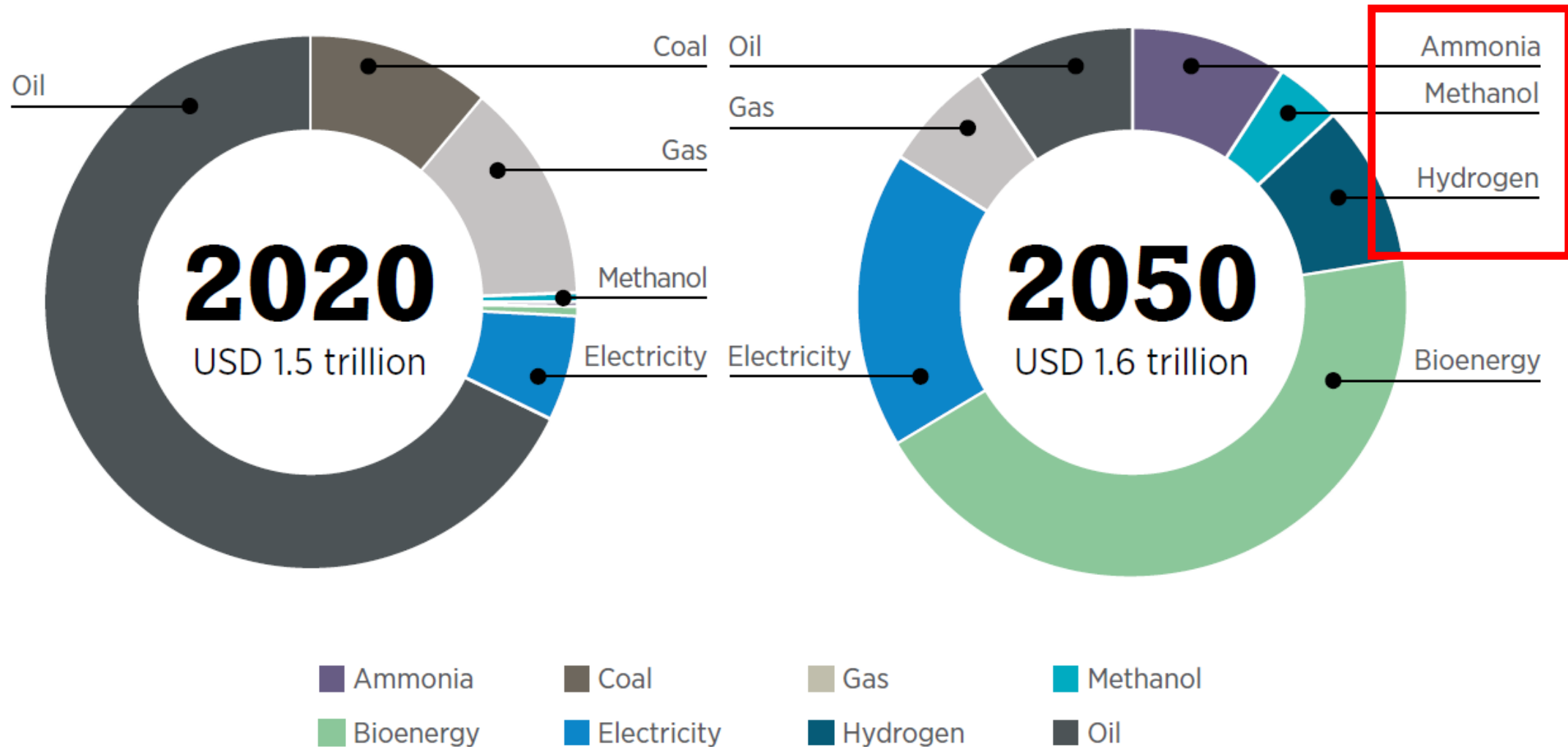
An expanding network of hydrogen trade routes, plans and agreements



- 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

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

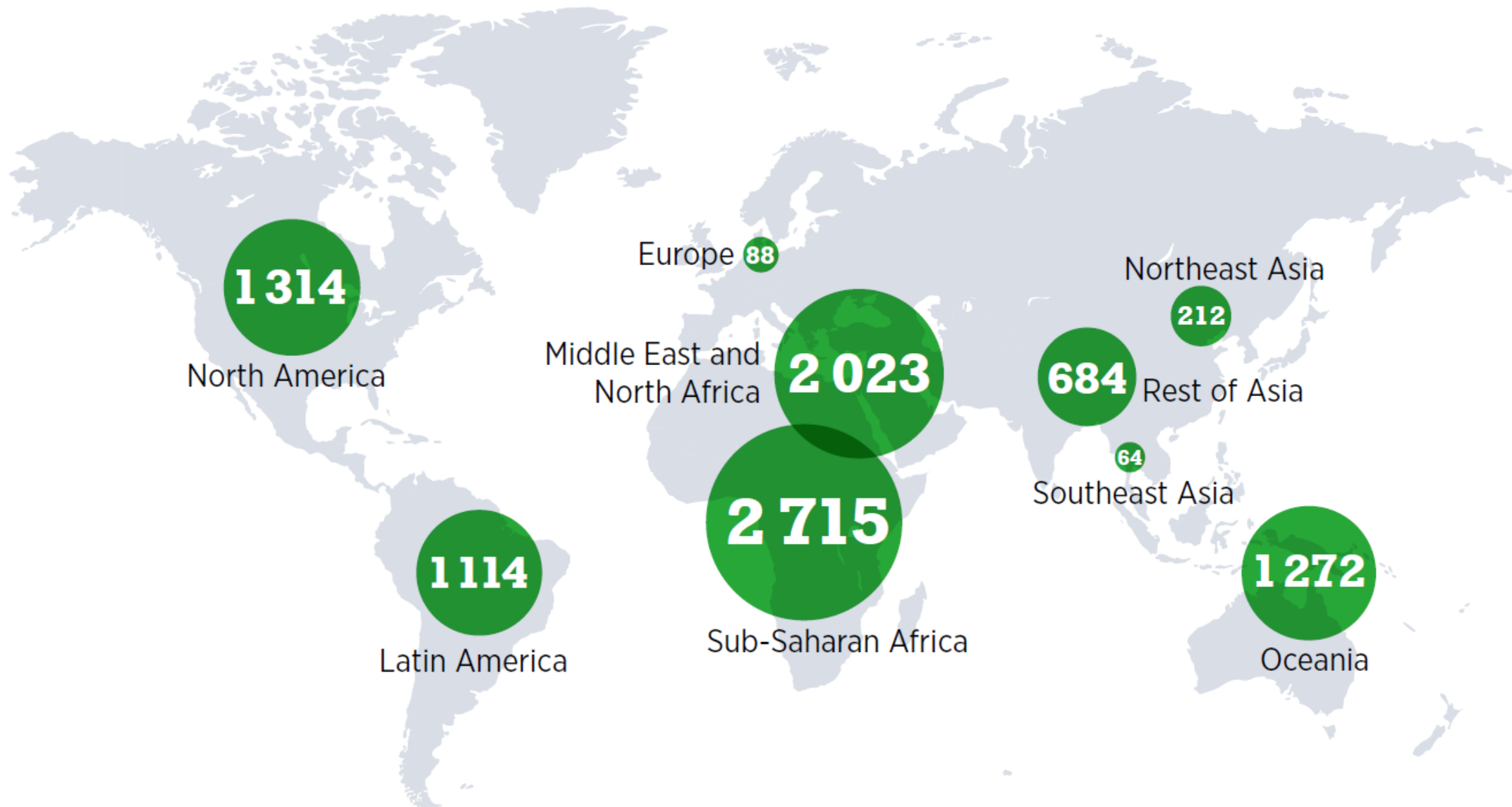
20% hydrogen and its energy derivatives



Global map of natural gas transmission pipelines



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



- 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.

IRENA's hydrogen work programme

UN Energy Compacts for green hydrogen (Catalogue)

Geopolitics of hydrogen (report)

Hydrogen trade perspectives (upcoming report series)

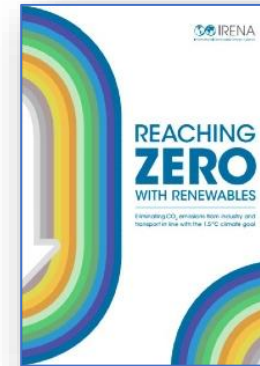
Collaborative Framework on Green Hydrogen

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

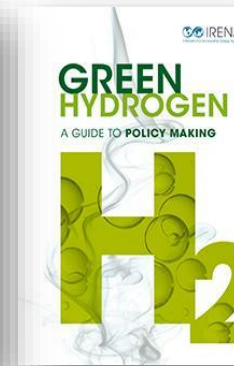
Collaboration with Ammonia Energy Association on Innovation Outlook for **Green Ammonia**

Hydrogen **policy** briefs

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



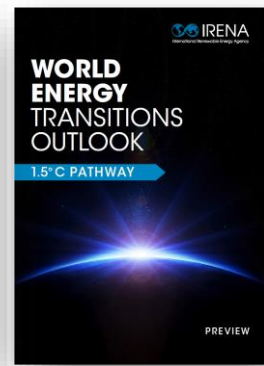
September 2020



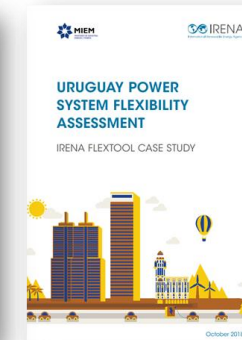
November 2020



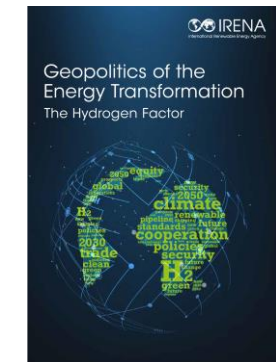
December 2020



March 2021



Country-specific studies of hydrogen as flexibility option



January 2022



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Thank you for your attention!



Q & A
10 min

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