

Fueling the Future of the Global Shipping Sector and Economy

Dominik Englert | Senior Economist | The World Bank

H4D – ESMAP Webinar Series | Powering Clean Shipping in the Power-to-X Economy: from Ports to Offtakers | Thursday, 12 February 2026



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Key messages



Opportunities – Green hydrogen-based fuels for shipping can create business opportunities in developing countries.

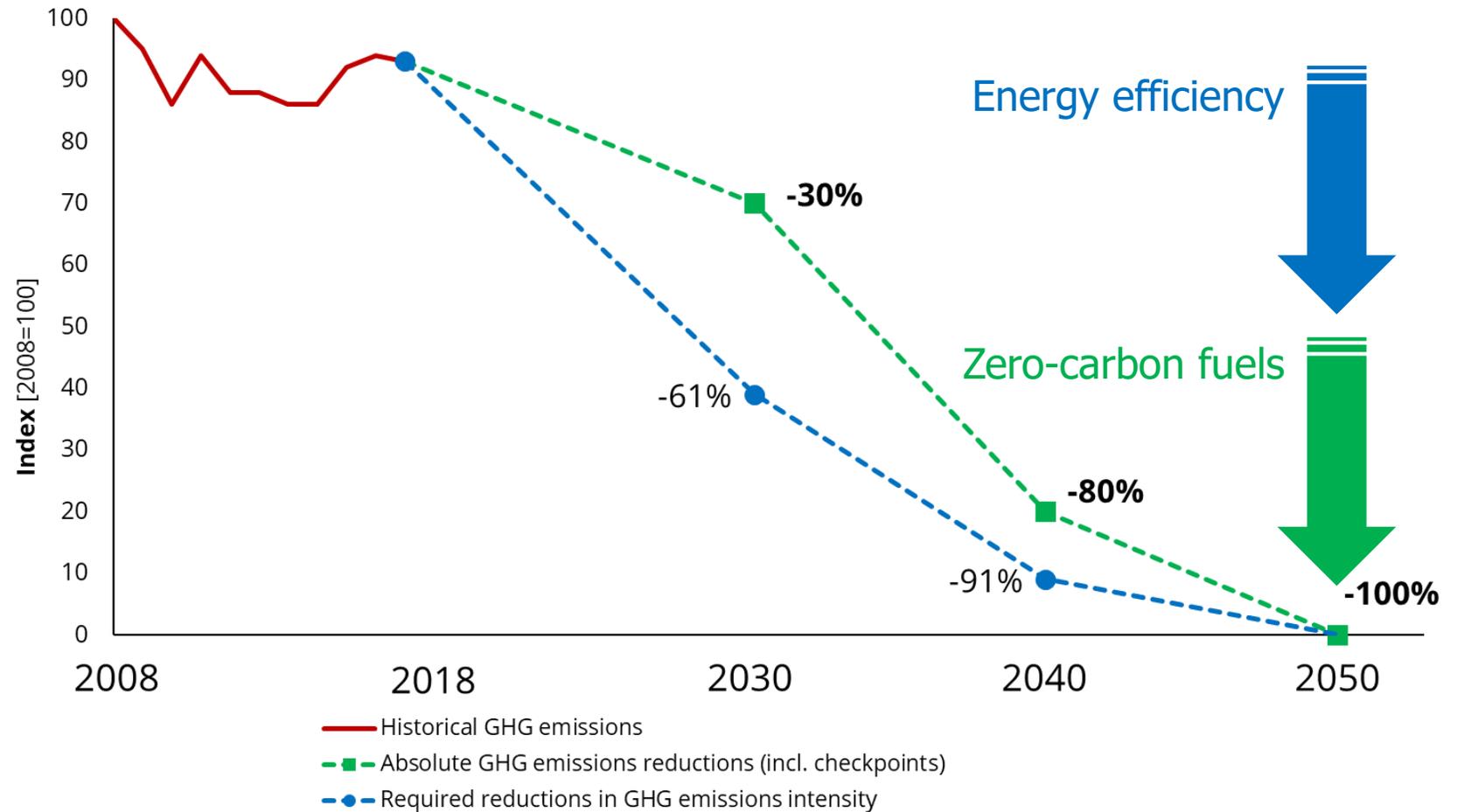


Interdependence – The sustainable future of shipping depends on the sustainable future of hydrogen and vice versa.

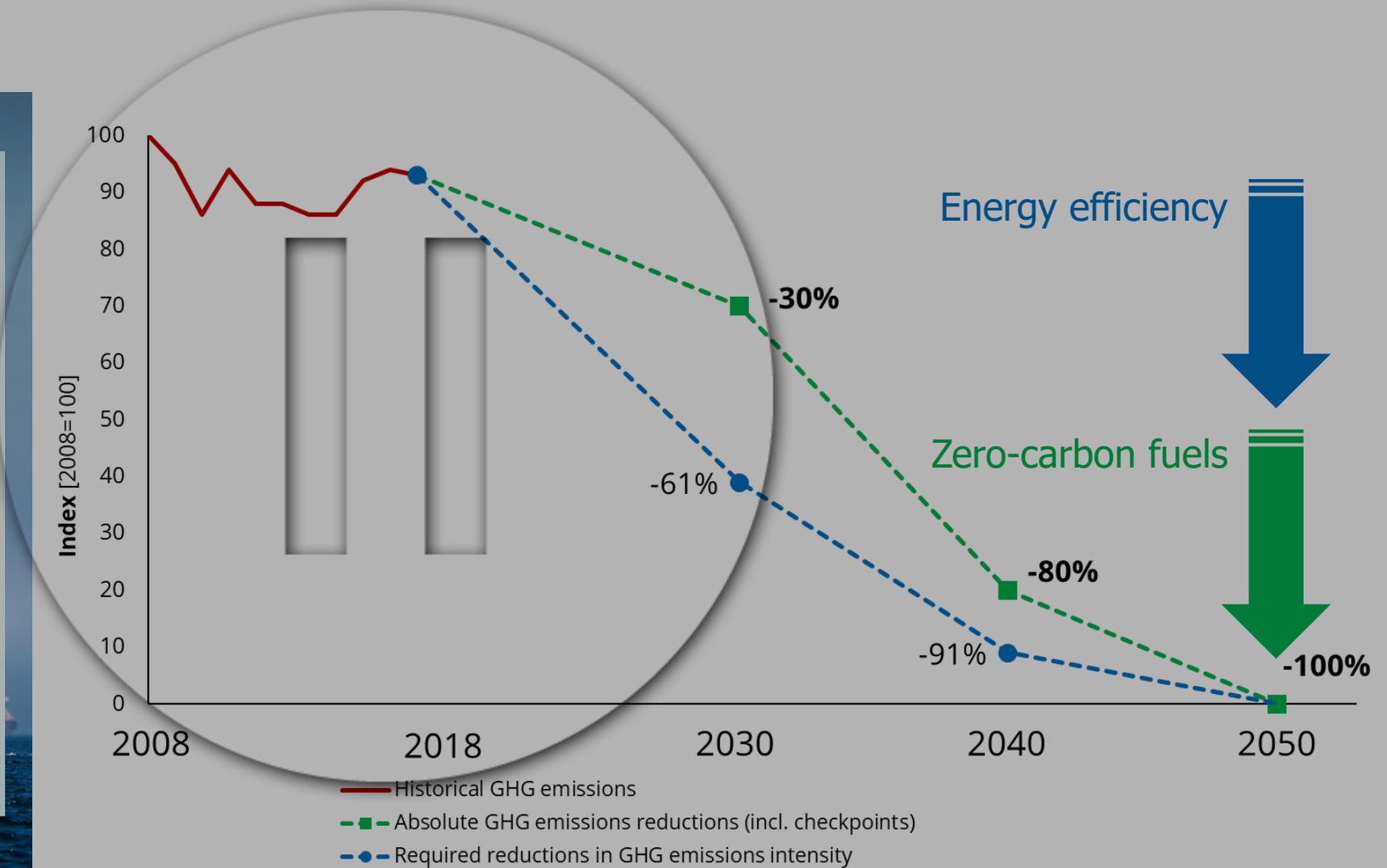
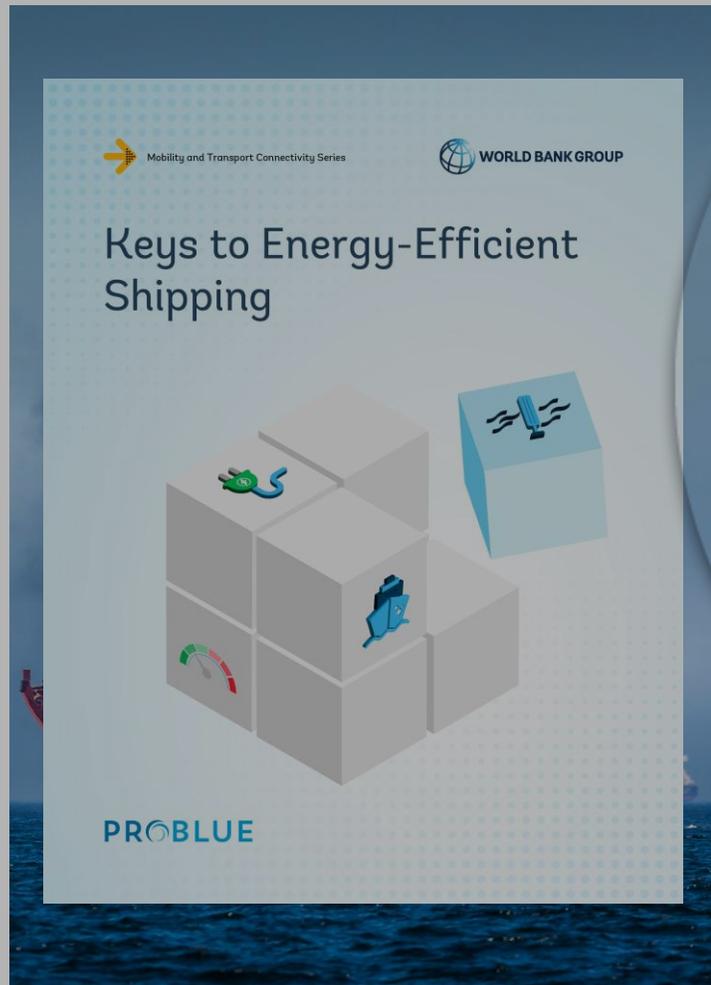


Drivers – Conventional market forces are not strong enough yet. Regulatory, financial, and infrastructure support is needed.

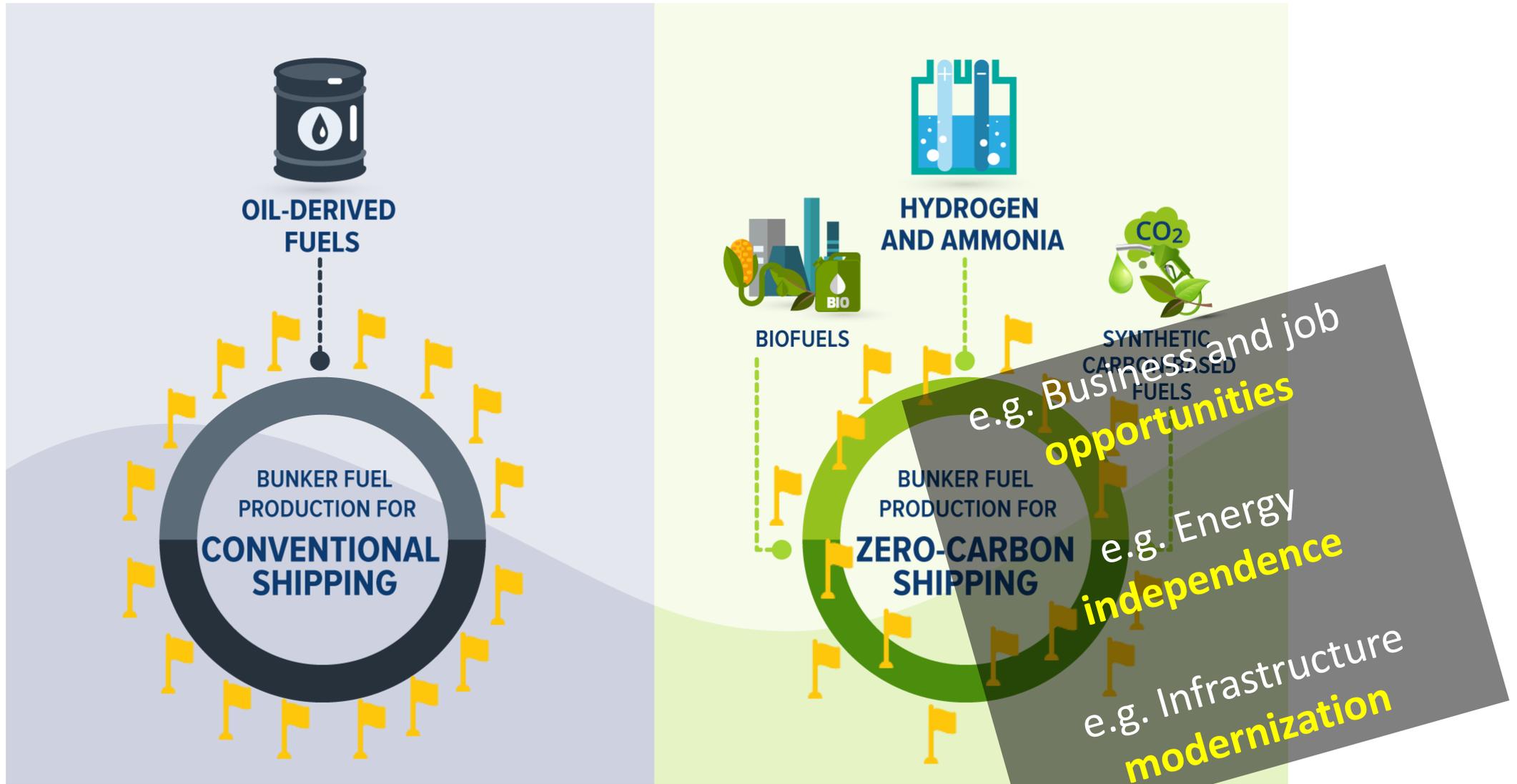
International shipping has committed to fully decarbonize by 2050



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Many countries can enter a more inclusive, decentralized global energy market



 Country with no or insignificant oil reserves, but large renewable energy resources



Ports will play a triple role and facilitate the energy transition of the global economy



Shipping

Chemicals

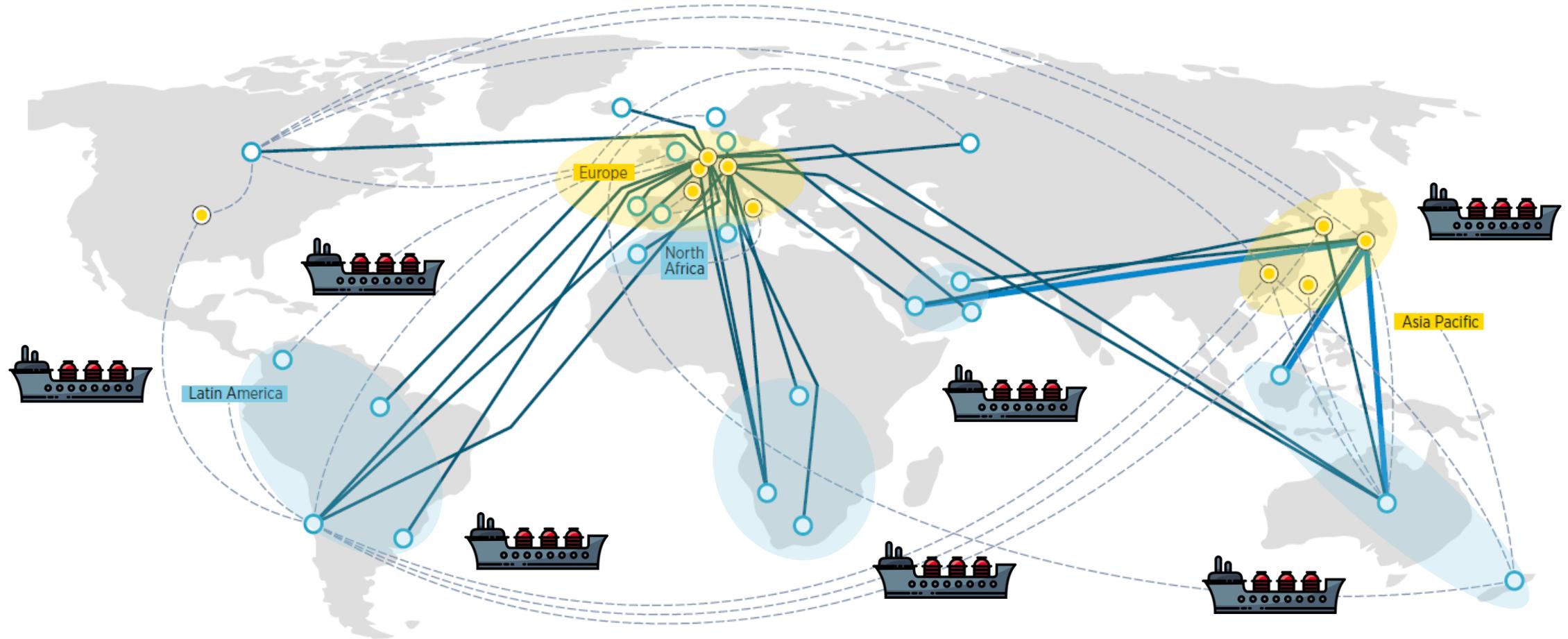
Fertilizers

Heavy industry

Aviation



Ports are to serve as facilitators of the global green hydrogen economy



- 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

Source: Based on IRENA (2022), *The Geopolitics of the Energy Transformation: The Hydrogen Factor*

Colombia: converting coal-exporting ports into green energy hubs



South Africa: combining green shipping fuels and green iron and steel

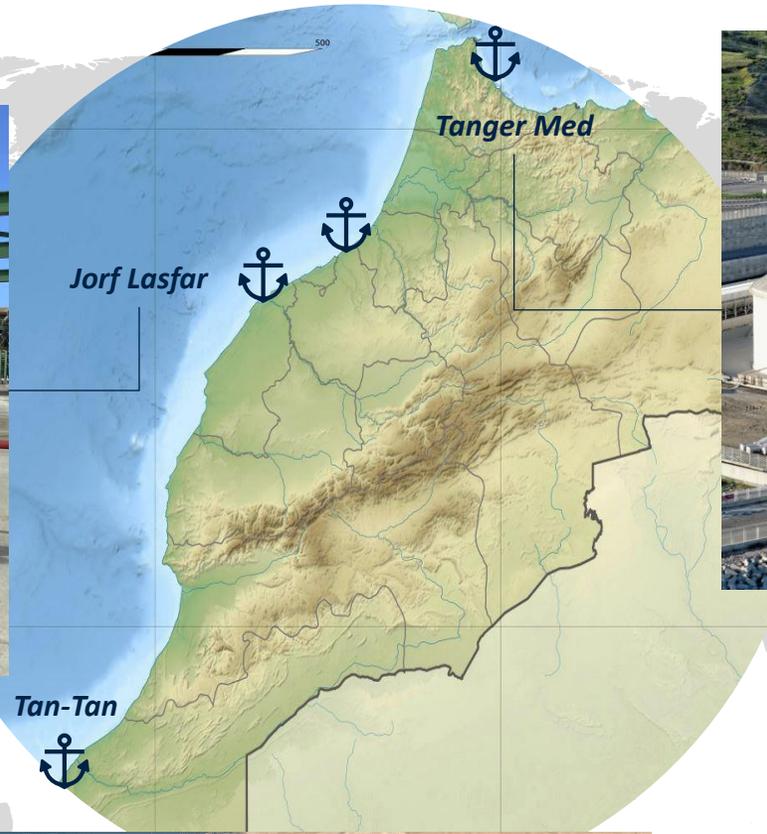




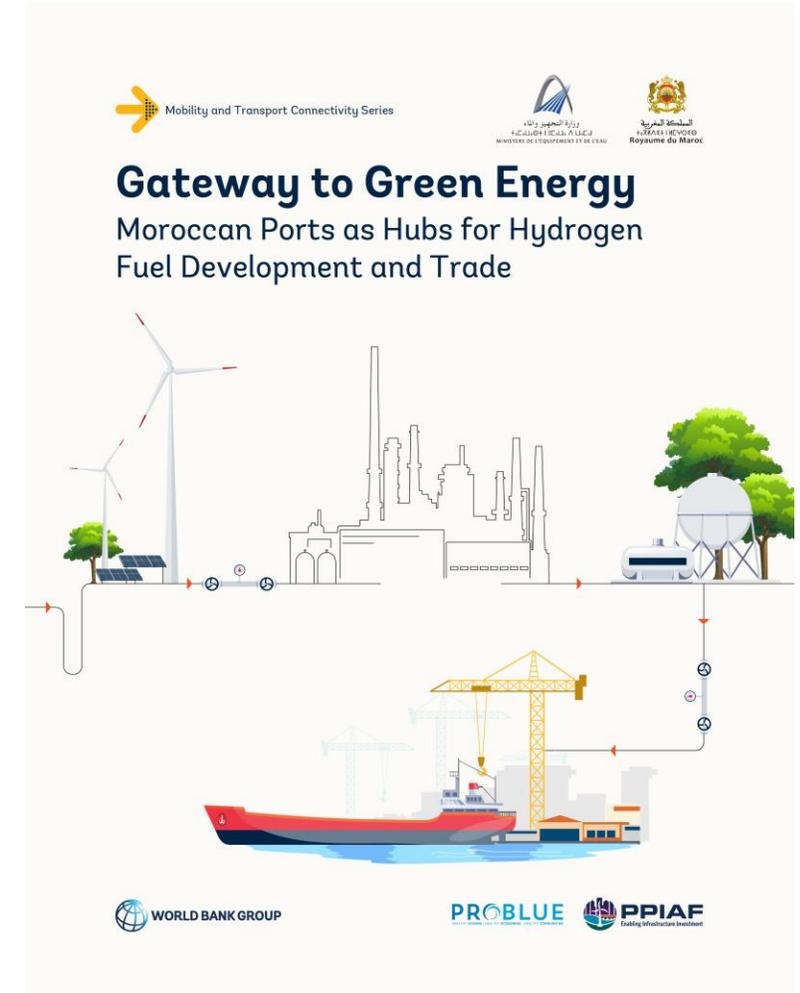
Saldanha Bay



Morocco: linking hydrogen production with consumption and distribution



Find all relevant resources on www.worldbank.org/shipping



The World Bank has been engaging in various developing countries



Shipping's propulsion has always evolved thanks to strong market forces

c. 10,000-8,000 B.C.



c. 5,500 B.C.



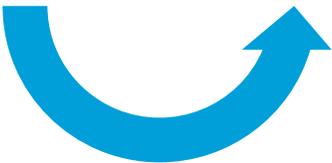
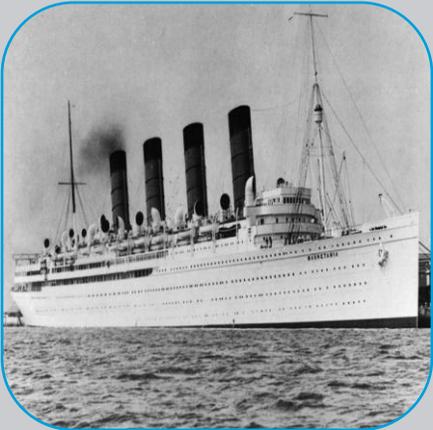
late 18th/
early 19th century



early 20th century



now



Cheaper and more efficient



Faster and more reliable



Farther and more flexible



Only cleaner. **Who cares?**

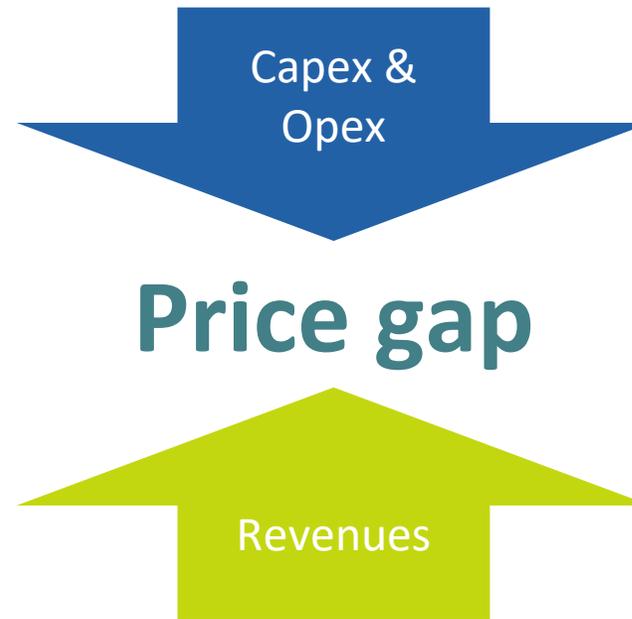


How to address the price gap between fossil and green marine fuels?

- Economies of scale and learning curves
- Administrative fast-tracking
- Innovative (concessional) finance
- Fiscal incentives
- Common-user infrastructure

Supply-side enablers

Lower production costs of green hydrogen-based fuels



Demand-side enablers

Increase the willingness to pay for green hydrogen-based fuels

- Specific regulation



Key messages



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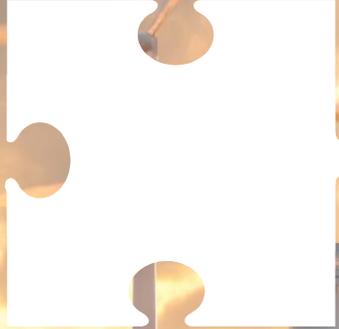


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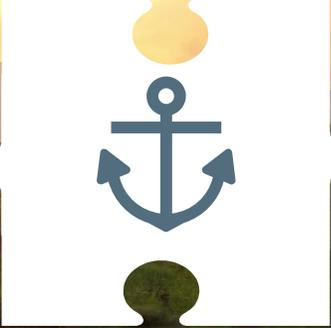
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Opportunities



Drivers

Interdependence



Opportunities



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