

Global Supply and Demand Trade Flow of Green Ammonia

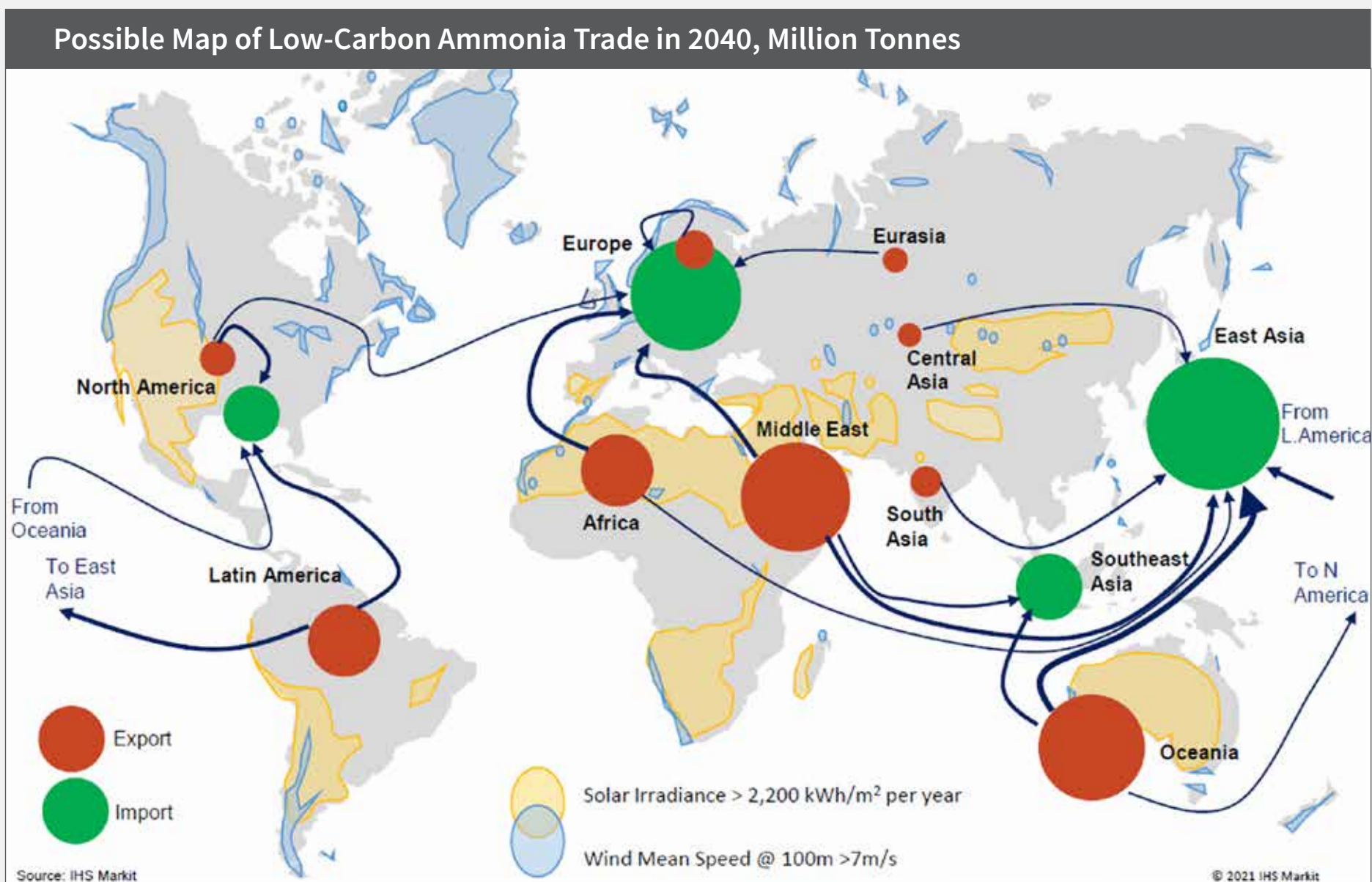
Green ammonia is a promising global sustainable energy solution, with growth encouraged by its ability to store as “green” electricity and carry hydrogen.

Market development will be affected by how quickly green ammonia production costs can be lowered and how much demand materializes. While pilot uses will be increasingly seen in the short-term, commercialization will likely take 10+ years. Changing market conditions may spur faster growth. Countries in the EU, North America, and APAC have targeted green ammonia and will likely adopt solutions early.

The emergence of the green ammonia energy market—alongside the market for this commodity as a sustainable agribusiness feedstock—may lead to dramatic price shifts. Firms need to incorporate green ammonia into their long-term forecasts.

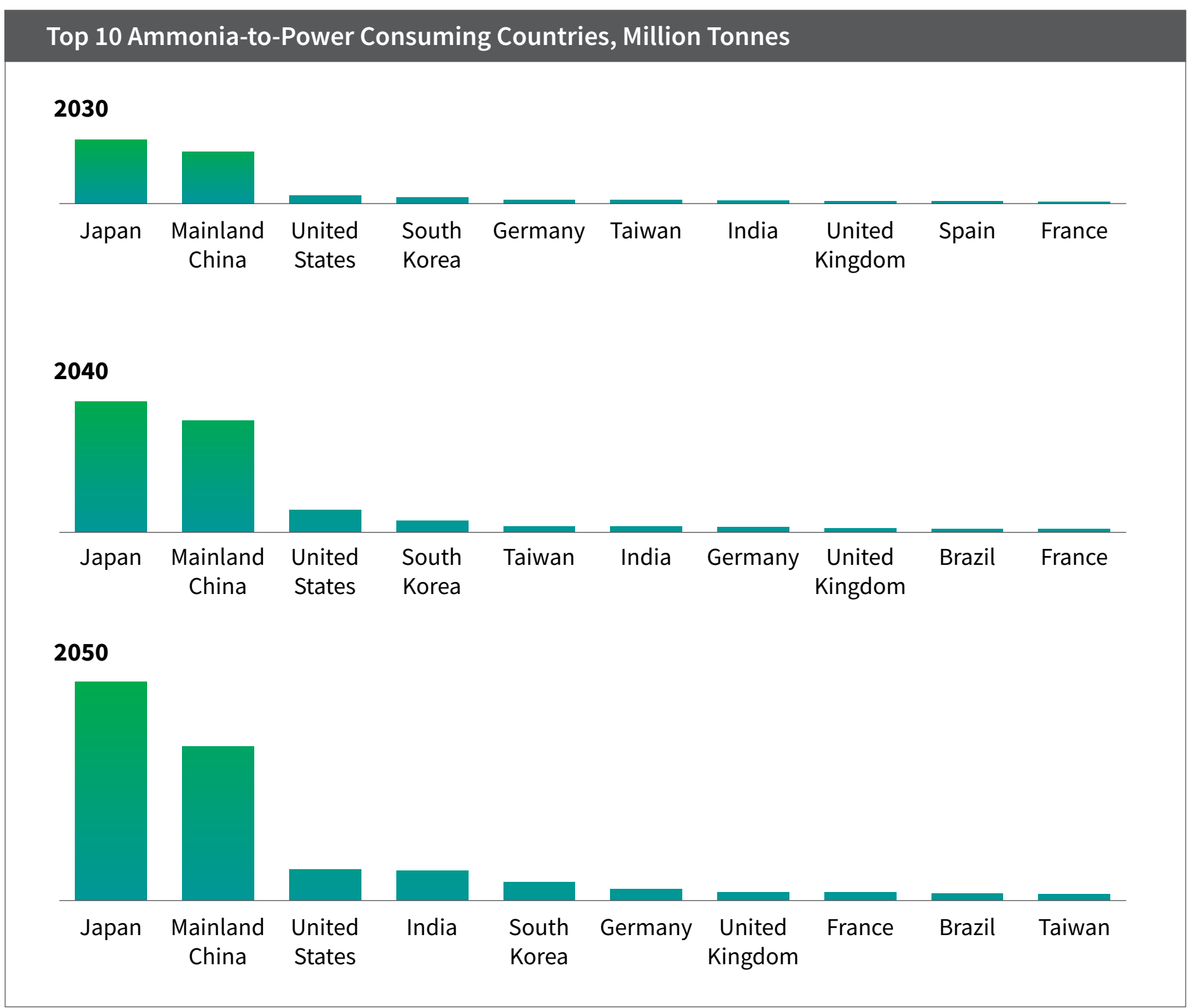
By 2040, the total volume of world trade in low-carbon ammonia may reach 69 million tonnes, three-to-five times the volume of global trade in gray ammonia in 2020.

Green ammonia’s potential as a hydrogen carrier may make it key in transporting energy between continents as renewable energy markets thrive. The possible geography of low-carbon ammonia trade flows in 2040 are represented in this diagram, based on IHS Markit forecast models for ammonia production and consumption:

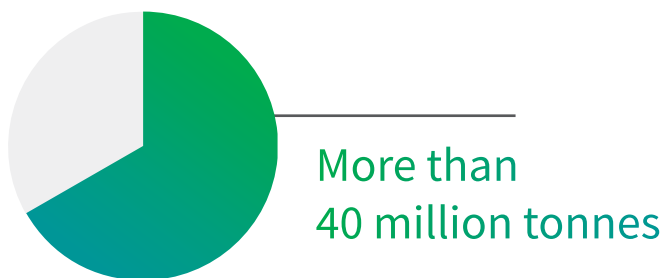


Importers

East Asia will become the largest market for low-carbon ammonia, primarily through imports from countries like Japan and South Korea. Europe will become the second-largest import region.



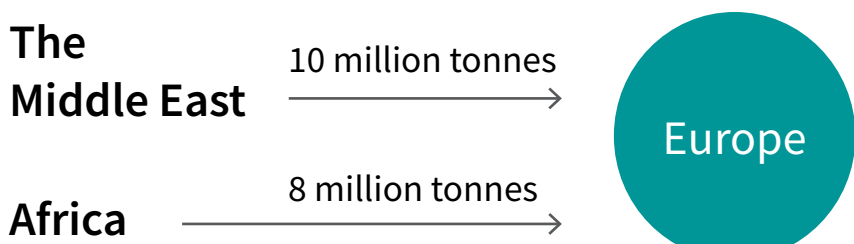
Exporters



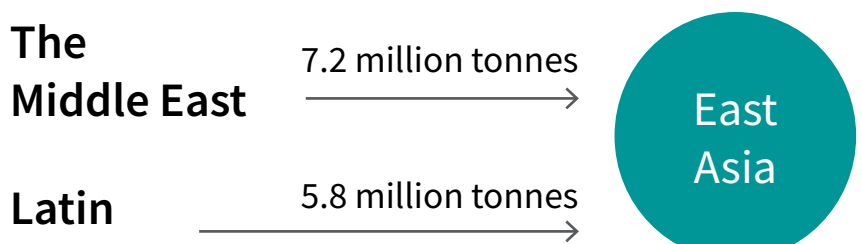
The main exporters will be countries in the Middle East and Australia. They will supply more than **40 million tonnes**, or two-thirds of the total volume of world trade.

The largest world trade flow

will be exports from Australia to East Asia, some **15 million tonnes**.



The Middle East will send **10 million tonnes** to Europe, while Africa will supply **8 million tonnes**.



The Middle East and Latin America will send, respectively, **7.2 million tonnes** and **5.8 million tonnes** to East Asia.