



DECARBONIZATION

IN THE PORT OF HAMBURG

Catalyst for Green Innovation: The Port of Hamburg

IAPH Seminar

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The Port of Hamburg: Gateway to Global Trade

Germany's most
crucial gateway

120 million tons
of cargo annually

Hub for **diverse**
goods

Eco-friendly
integration of sea
and rail transport

Europe's **largest**
rail port, handling
over 50% of traffic
by rail

Largest cruise
port in Germany
and beyond

The port is a **key guarantor of resilience** for
Hamburg, Germany and beyond



Part of the Solution: Green Transformation in and through the Port of Hamburg

Germany's National Port Strategy:

„Ports in Germany play a significant role in implementing the energy transition, transforming the economy, and decarbonizing maritime and hinterland transport on roads, rails, and waterways.“

Hamburg's Target: **Carbon Neutrality by 2040**

Through initiatives like:

1. The formation of a **Sustainable Energy Hub**
2. Turning **shipping greener**
3. Fostering the establishment of **circular economy** in the port

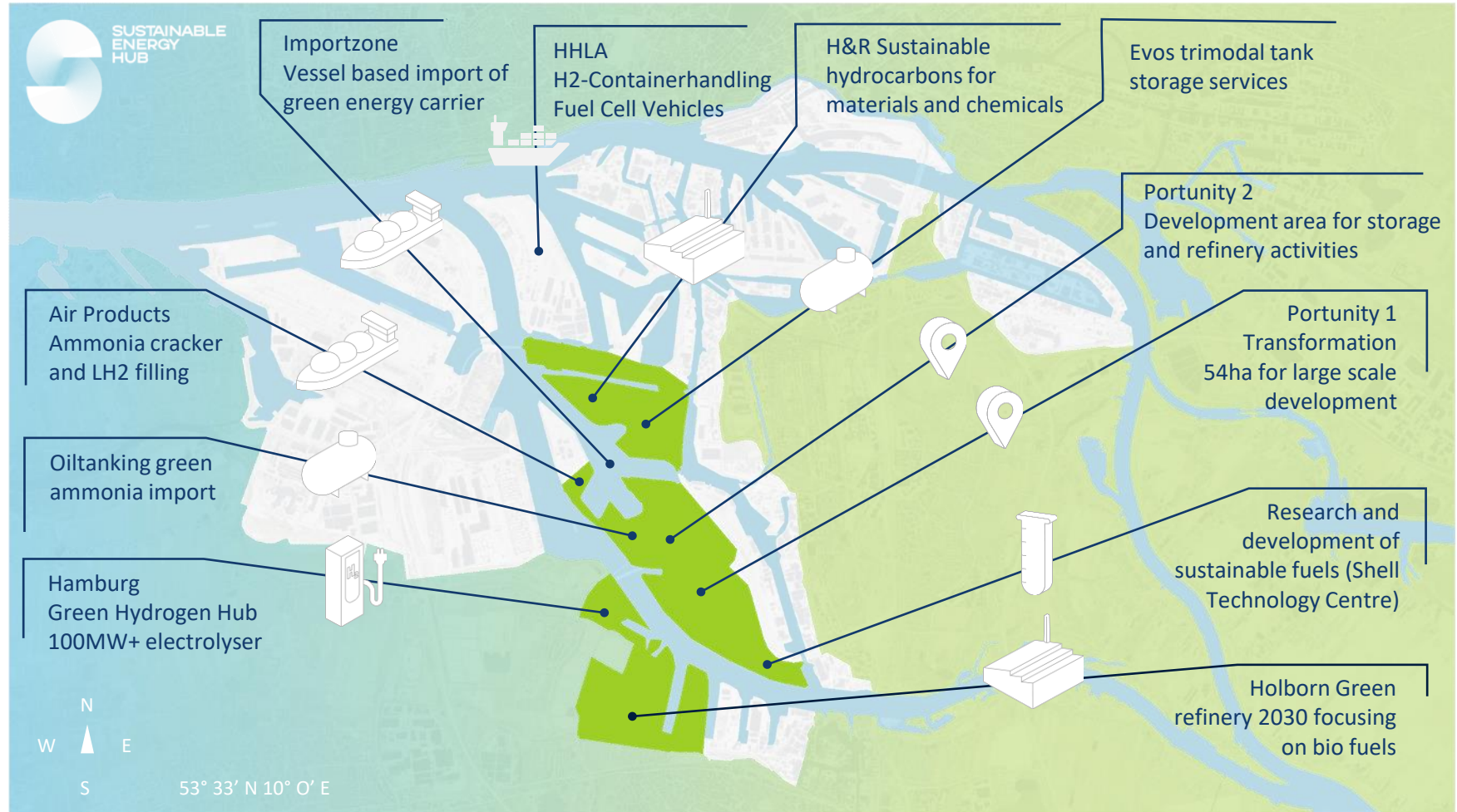


Sustainable Energy Hub Hamburg: Fueling a Fossil-Free Future

The sustainable energy hub builds on a **strong cluster** with decades of experience, cooperation as well as ambitious transformation projects of global scale:

- Green ammonia
- Green methanol
- E-fuels for maritime and aviation sectors
- CO2 Hub

The primary drivers of this initiative are both the commitment to sustainable energy and the securement of energy supply.

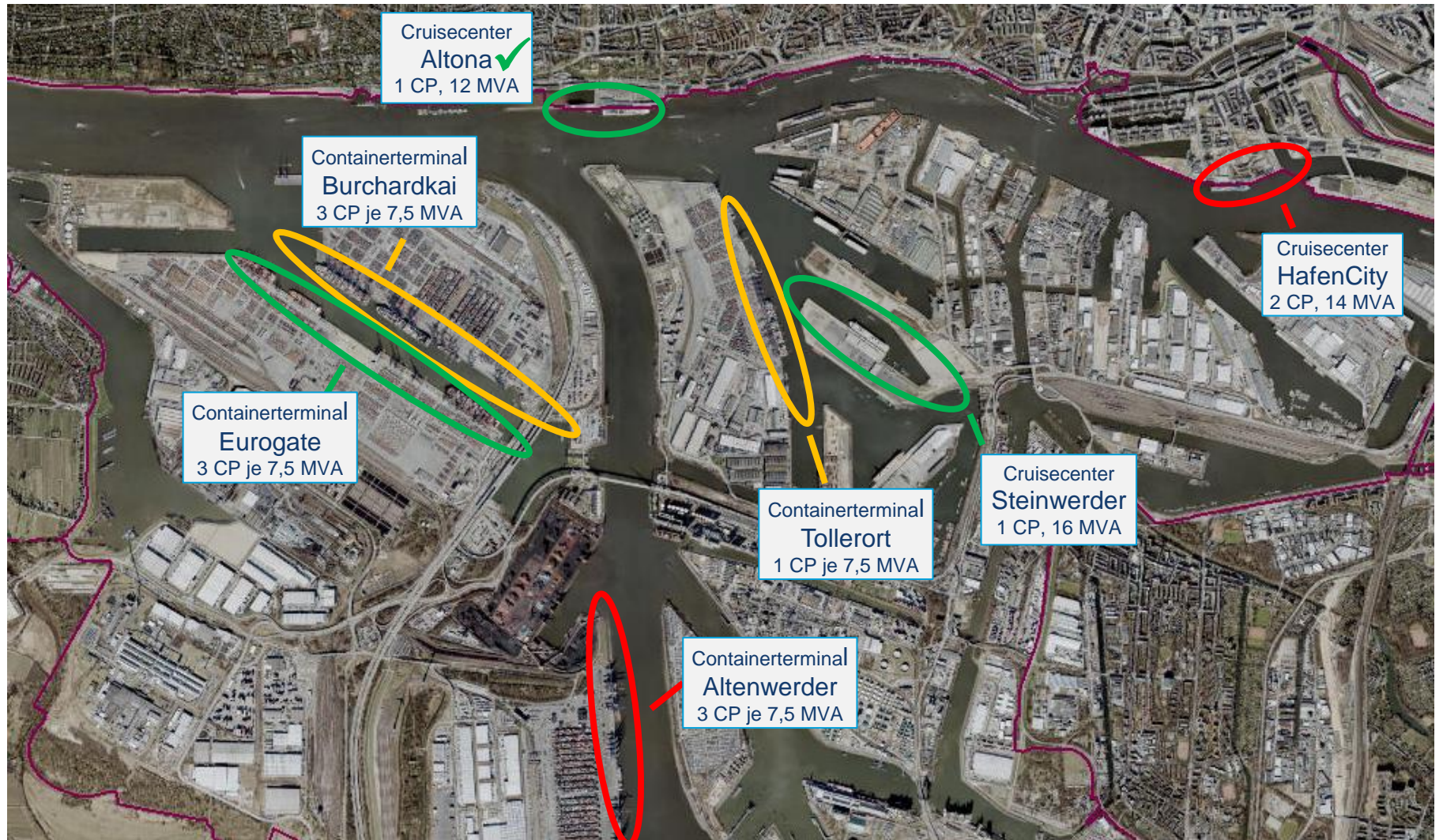


Green Shipping: Onshore Power Supply

Hamburg pioneers solutions to reduce the environmental impact of stationary ships at ports ahead of regulations.

Launch

Altona (CC)	2016
Steinwerder (CC)	2024
Eurogate (CV)	2024
Tollerort (CV)	2024
Burchardkai (CV)	2024
Altenwerder (CV)	2024
Hafencity (CC)	2025



CV = Container vessels CC = Cruise vessels CP = connection point; MVA = Mega Volt Ampere

Green Shipping: Making Maritime Transport More Sustainable

- **Adopting the Environmental Ship Index (ESI)**

Recognized as the global standard for ship environmental performance

- **Modernizing the Port Fleet**

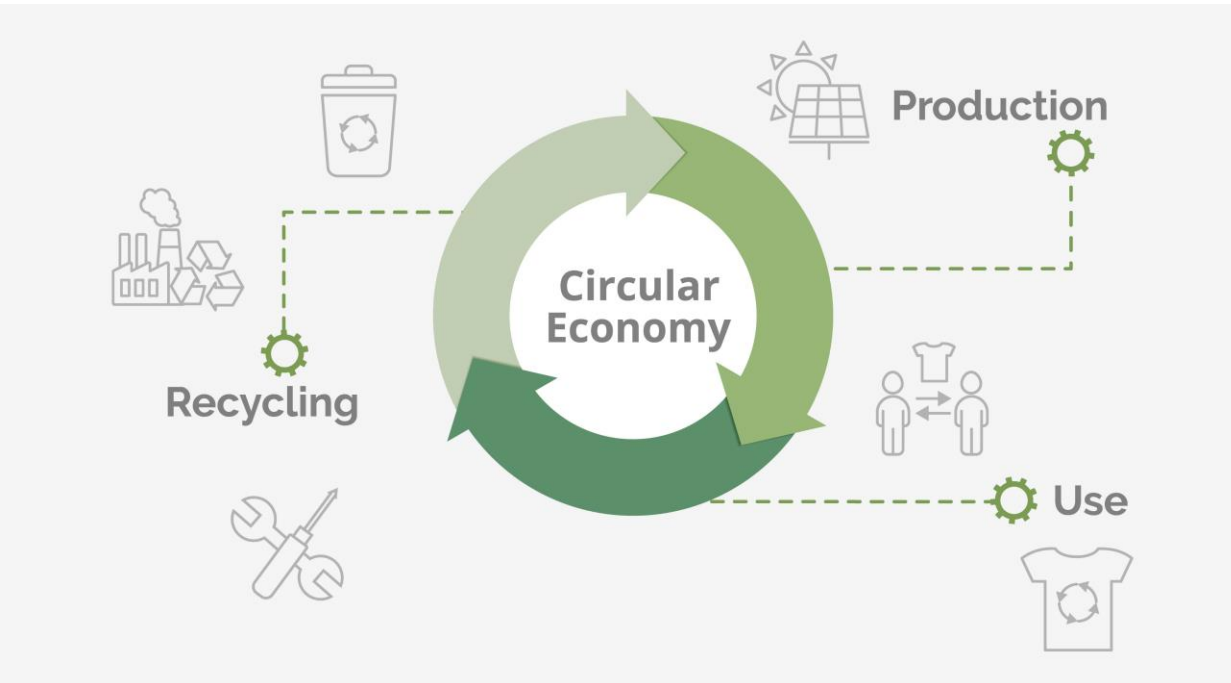
Embracing zero-emission vessels and plug-in hybrid ships to ensure emissions-free operations

- **Developing Alternative Fuel Bunkering Strategies**

- **Establishing Green Shipping Corridors (GSC) and partnerships**

Creating sustainable supply chains and forging international collaborations



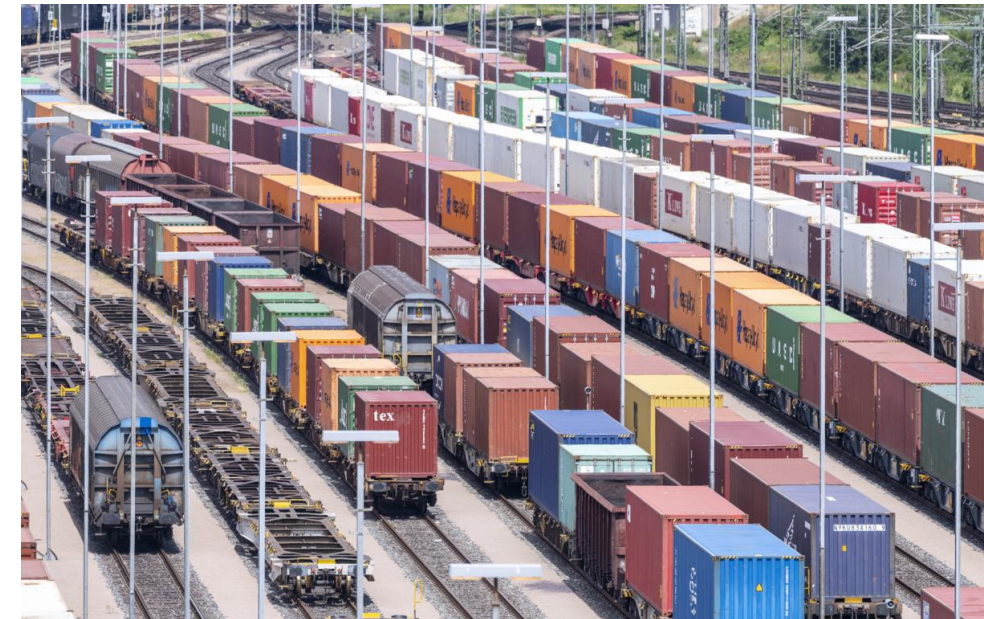


Hamburg's strategic location facilitates ideal business clustering in the circular economy

- Waste stream conversion initiatives
- Emerging metal recycling sector
- Launching a battery recycling pilot plant
- Major hub for critical raw materials
- Integrating circular practices at the port
- New business opportunities in sustainability

The Port of Hamburg as a Driver of Green Transformation

- Harnessing **Digitalisation for Decarbonisation**
- Leading Environmental Protection Initiatives (SeaClear 2.0)
- Advancing Inland Transportation Decarbonization
 - Hydrogen- or battery-powered shunting locomotives
 - Battery- or fuel cell-powered trucks
- Optimizing Resilient Transportation Networks



Catalyst for Green Innovation: The Port of Hamburg

- **Connecting** Germany to the World
- **Integrating** Eco-Friendly Transport
- **Aiming** for Carbon Neutrality by 2040
- **Establishing** a Sustainable Energy Hub
- **Pioneering** Green shipping Solutions
- **Advancing** Circular Economy Practices
- **Advocating** for Sustainable Legislation



IAPH's Pivotal Role in the Decarbonization of Ports



- Plays a **crucial role in port decarbonization**
- Provides **valuable tools** like Port Readiness Level
- Offers **guidelines** for bunkering of alternative marine fuels
- Facilitates continuously **best practice exchange** through technical committees, working groups, webinars (IAPH Harbor Café), World Ports Sustainability Program (WPSP), workshops (Port Endeavor Game), etc.
- Establishes **global standards** to adopt alternative fuels



HAMBURG PORT AUTHORITY

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