



Power Technology Research
Research | Analysis | Consulting

Shore Power Market Outlook – Deep Dive into European Market

Mustafa Mirza

Market Analyst - Power Electronics Systems

mustafa.mirza@powertechresearch.com

Table of Contents

1. Shore Power Service Overview
2. Shore Power Market in EU
 - EU Green Deal and Incentives In Norway
 - European Climate, Infrastructure and Environment Executive Agency (CINEA)
 - Connecting Europe Facility (CEF)
 - TEN-T
3. Regional Trends in Europe
 - Scandinavia
 - Norway, Sweden, Finland
 - Western Europe
 - Spain, France, Italy, Germany, Netherlands
4. PTR Analysis
5. Q&A

Shore Power Service Overview

Shore to Ship Market Research

Service Description

Technology Covered



Shore-side power facility



Global Shore Power Systems Database:

- Installed base Shore-side power facilities
- Shore-side power facilities in the pipeline



Shore to Ship Market Report:

- Business Practices
- Standards and Selection Criteria
- Policies and Incentives

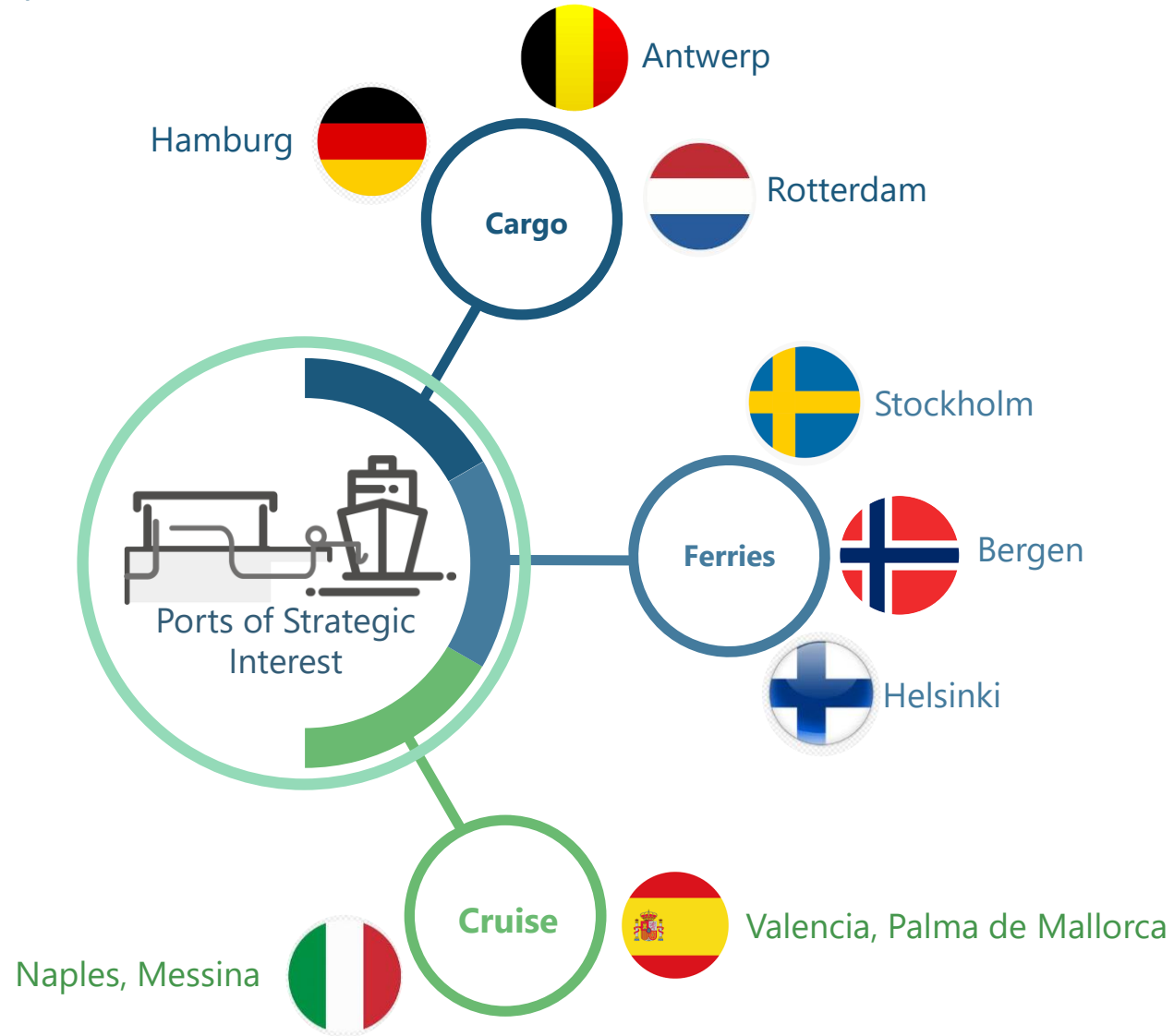
Shore Power Market in Europe

- Policies and Incentives

- European Green Deal
- EU Fit for 55
- CEF
- TEN-T

Ports Ready To Invest In Shore Power Technology

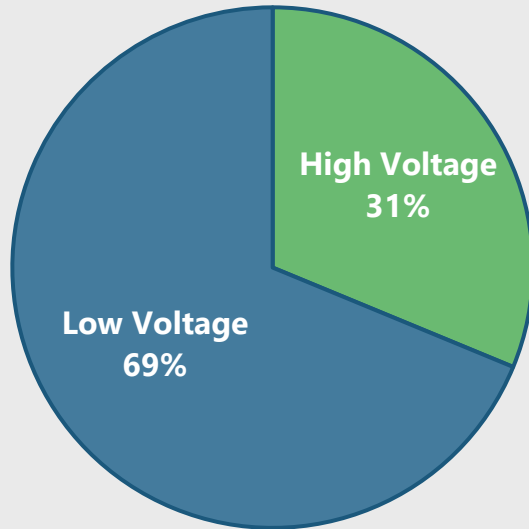
Shore Power Market in Europe



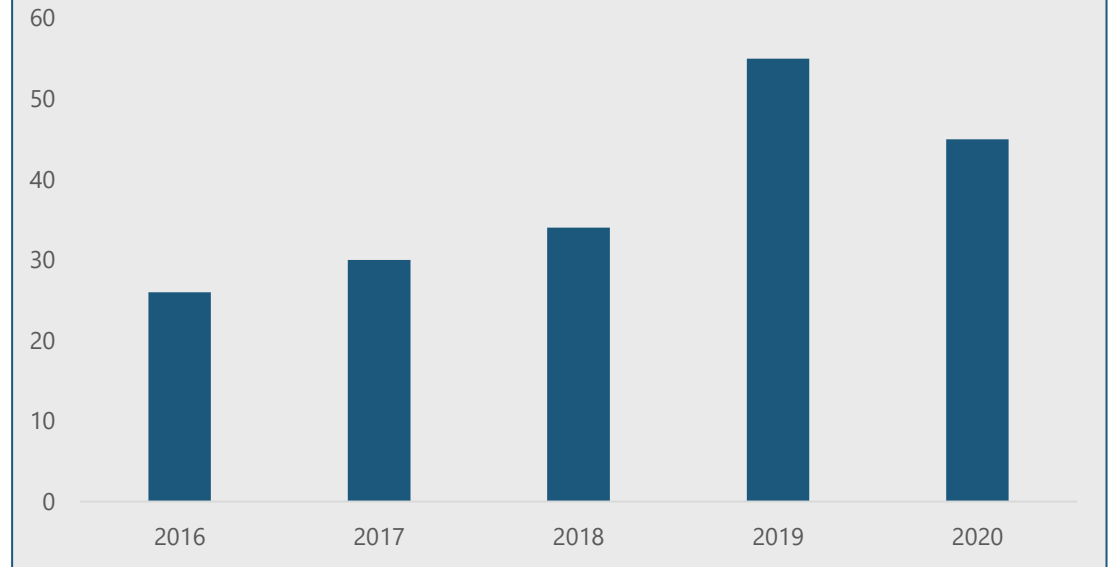
Key Trends for OPS in Europe until 2021

Shore Power Market in Europe

TECHNOLOGY SPLIT EUROPE

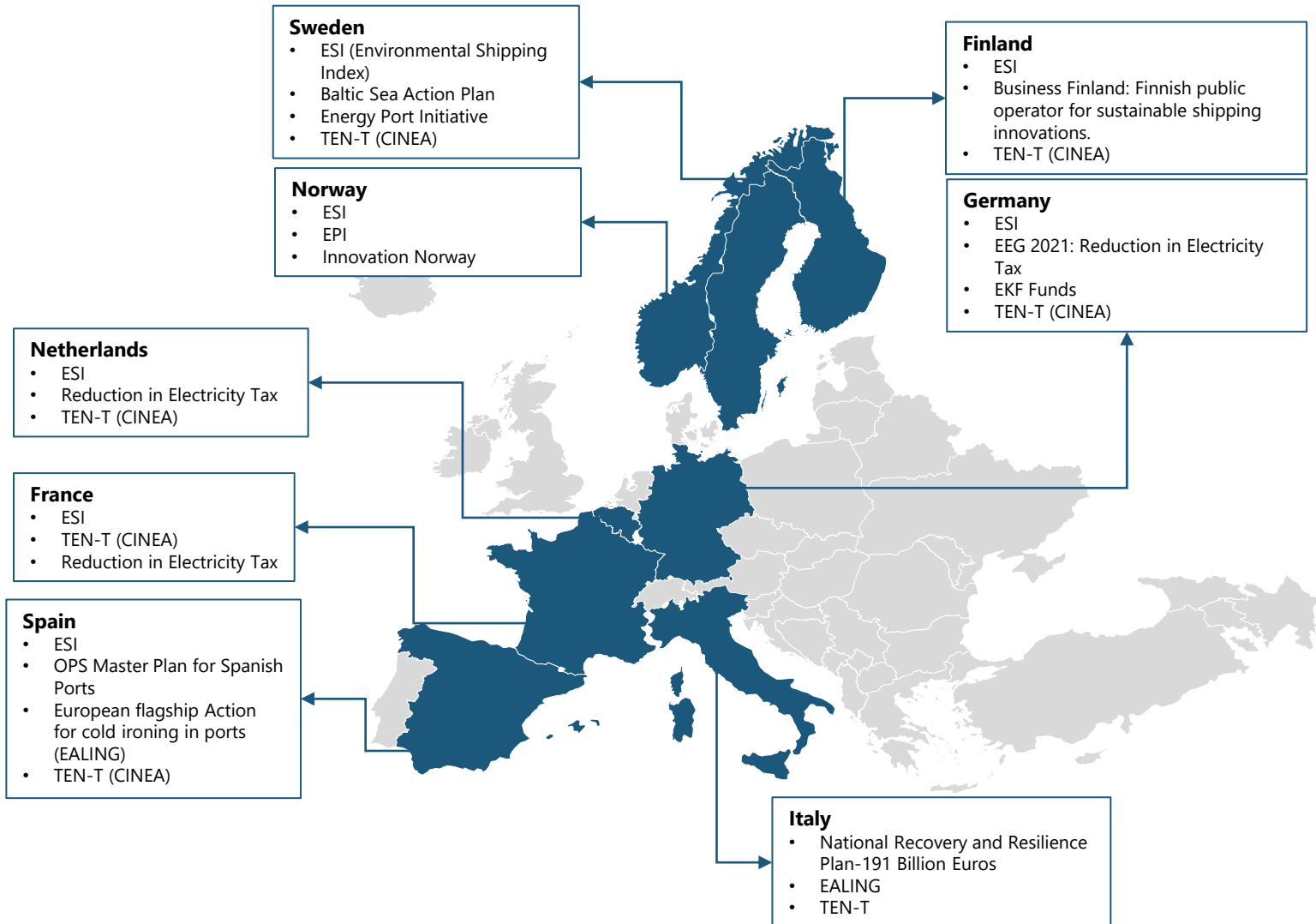


SHORE POWER INSTALLATIONS (2016-2020)



EU Green Deal - The Driving Force in Europe

Shore Power Market in Europe



Funding Agencies

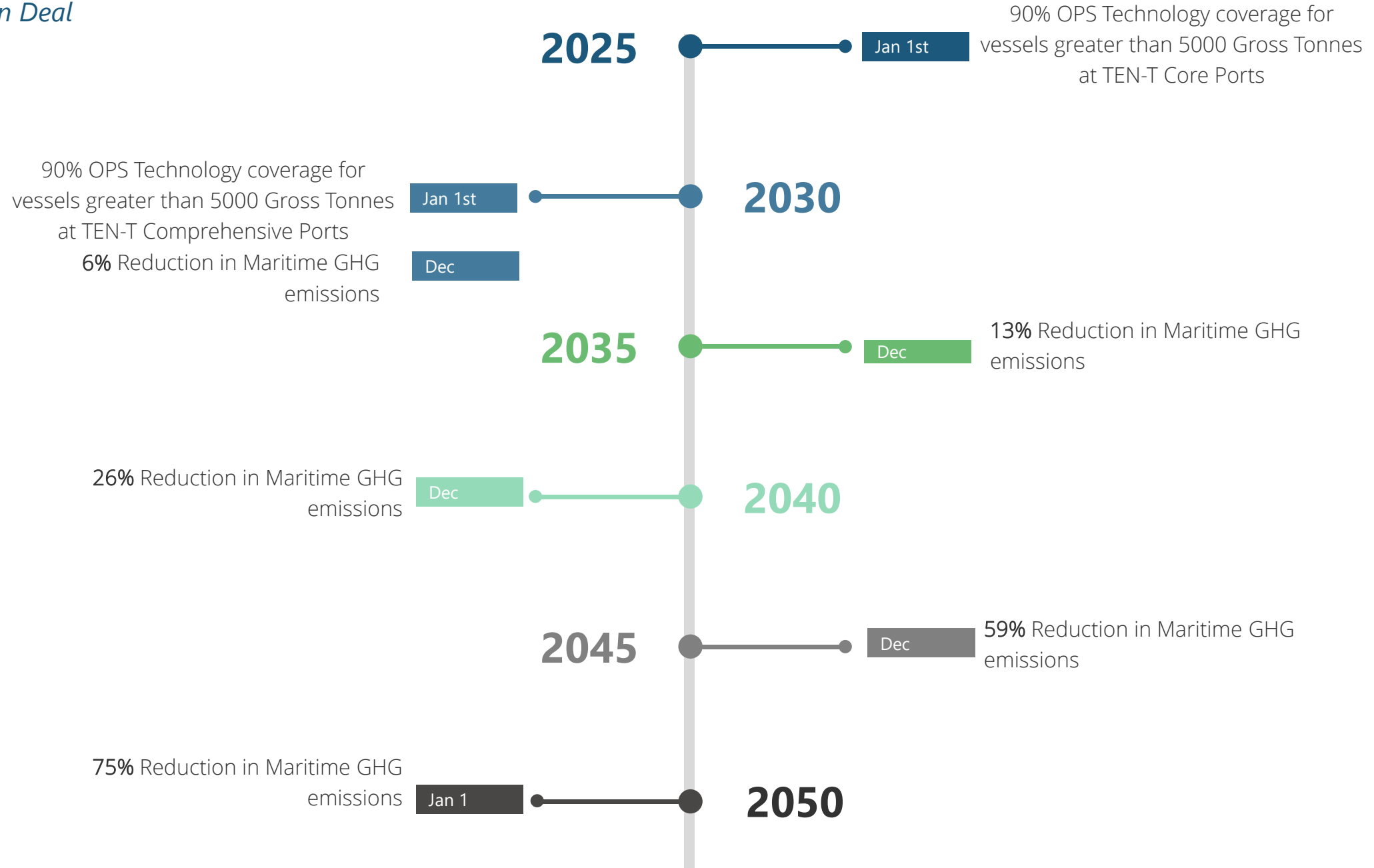
- EU Horizon 2020
- European Climate, Infrastructure and Environment Executive Agency (CINEA)
- ENOVA SF, Norway
- CEF Funding by CINEA

Incentive Based Schemes

- IAPH's Environmental Ship Index (ESI)
- IAPH 's Environmental Port Index (EPI)
- EALING
- EU Fit for 55
- TEN-T Program

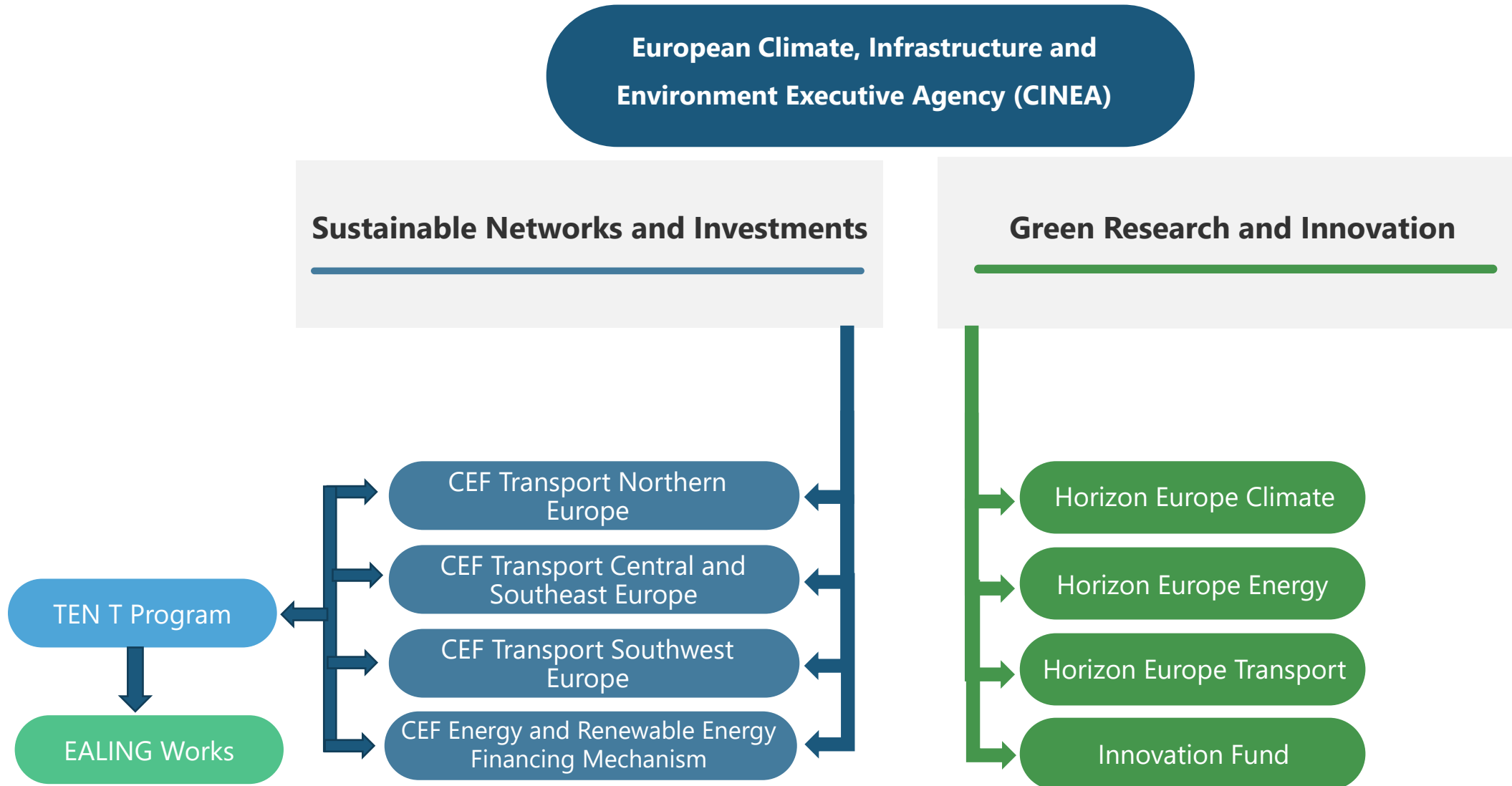
EU Green Deal Maritime Industry Targets

EU Green Deal



European Climate, Infrastructure and Environment Executive Agency (CINEA)

Shore Power Market in Europe



Trans-European Transport network (TEN-T)

Shore Power Market in Europe



Ports

Core Ports: **83**
Comprehensive Ports: **236**



Budget

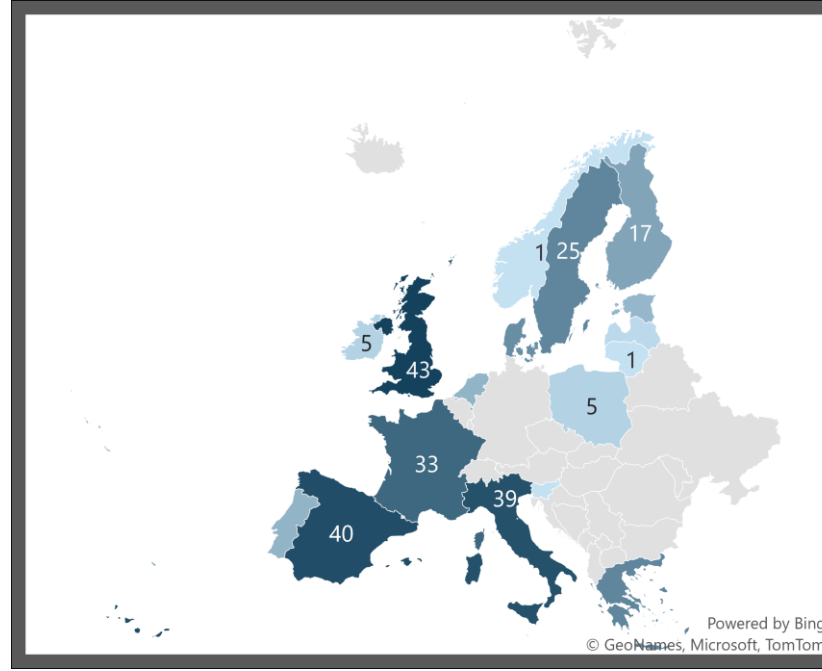
23 Billion grants from CEF



Target

Equip all core ports with OPS by **2025**

TENT Ports



Powered by Bing
© GeoNames, Microsoft, TomTom

Presence across all major European Ports

Key Projects

Genoa Port Authority
Service Year: 2019

Port of Stockholm
Service Year: 2019

Las Palmas Port Authority
Service Year: 2020

Port of Den Helder
Service Year: 2021

Regional Trends in Europe

- Scandinavia
 - Norway, Sweden, Finland
- Western Europe
 - Spain, France, Italy, Netherlands, Germany

Scandinavia

Regional Trends in Europe

Norway

- Norway leads the Scandinavian shore power market with more than **180** shore power facilities at shoreside.
- **Driving Forces:**
 - Consortium of 13 Norwegian Cruise Ports to deploy OPS by 2025
 - Stringent Government policies to deploy shore power.

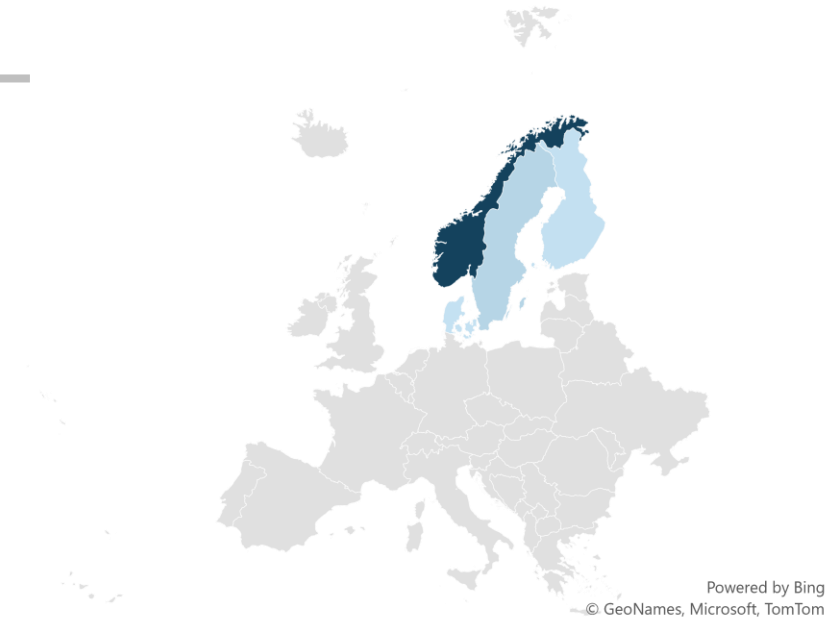
Sweden

- As of now **27** shore to ship power facilities serve vessels coming at the port.
- **Driving Forces:**
 - Baltic Scope, interreg Baltic Sea Region, MSP
 - JVs between Ports and Shipping companies

Finland

- Around **15** shore side power connections are available across main Finnish sea ports for vessels.
- **Driving Forces:**
 - National Policy Framework (NPF), Finland
 - Tax exemptions in electricity supply for vessels.
 - Shipping companies playing role.
 - Baltic Sea port plans

Scandinavia



Western Europe

Regional Trends in Europe

France

- As of now **20** shore to ship power facilities serve vessels coming at the port.
- **Driving Forces:**
 - France's National Energy and Climate Plan (ENCP)
 - National Low-Carbon Strategy (SNBC)
- National policy framework (NPF) for France

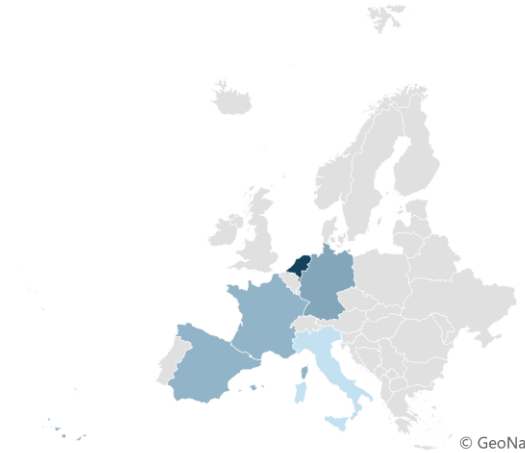
Spain

- As of now **20** shore to ship power facilities serve vessels coming at the port.
- **Driving Forces:**
 - OPS Mater Plan for Spain, and EALING works, JVS between shipping owners related to R&D.

Italy

- Around **7** shore side power connections are available across Italian ports for vessels.
- **Driving Forces:**
 - National Recovery and Resilience Plan
 - European Flagship Action for cold ironing in ports (EALING).

Western Europe



Powered by Bing
© GeoNames, Microsoft, TomTom

Western Europe

Regional Trends in Europe

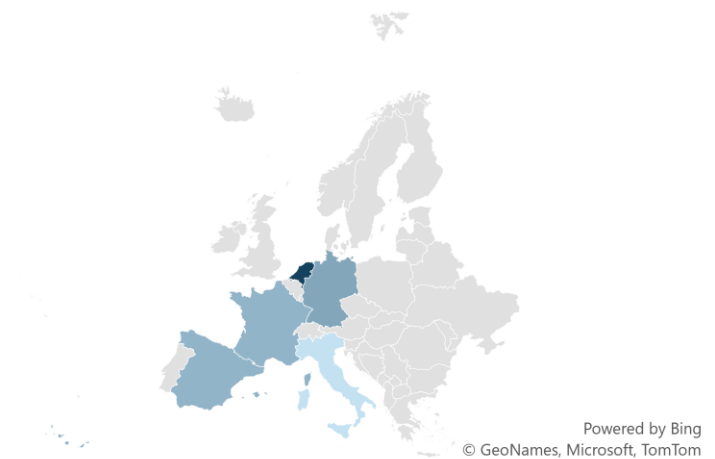
Germany

- As of now **24** shore to ship power facilities serve vessels coming at the port.
- **Driving Forces:**
 - Clean Energy Wire
 - EEG 2021, Electricity Tax exemption
- Climate Action Programme 2030

Netherlands

- As of now **53** shore to ship power facilities serve vessels coming at the port.
- **Driving Forces:**
 - JVs between government body Rijkswaterstaat and shipping companies,
 - SEP Amsterdam
 - Clean shipping program
 - Netherlands Policy framework for the alternative fuels

Western Europe

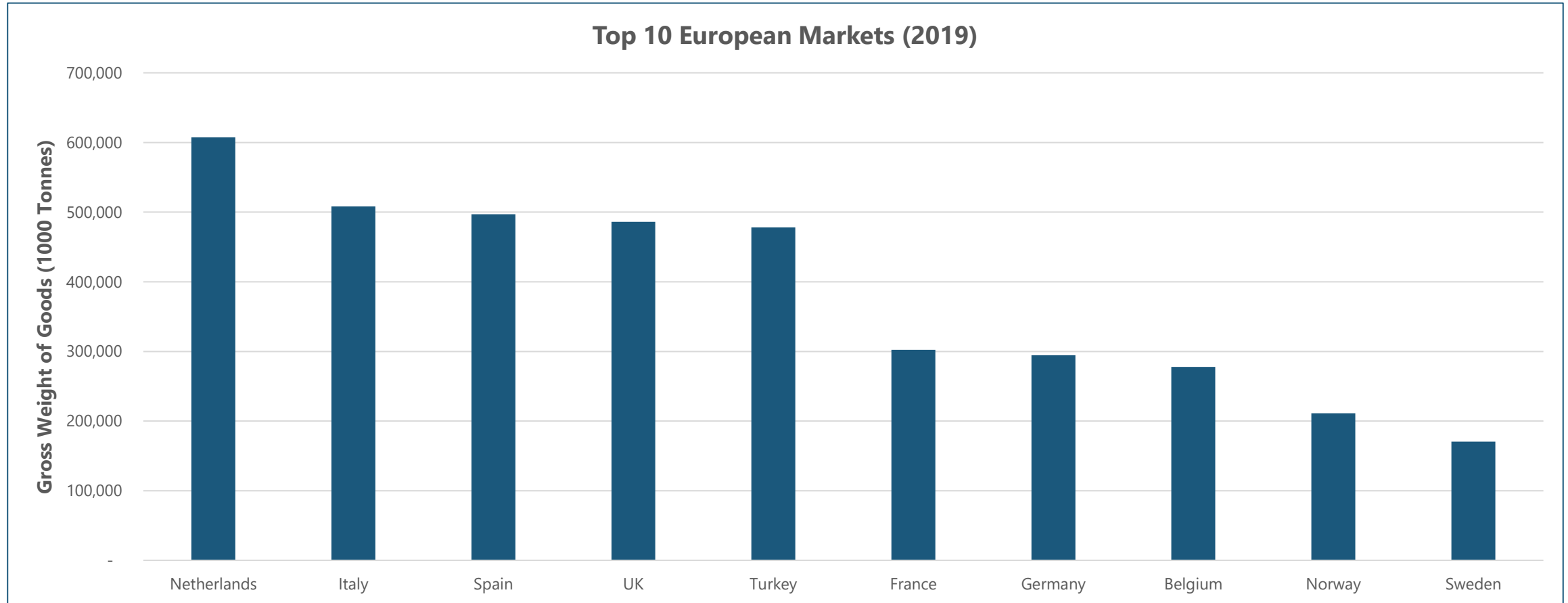


PTR Analysis

- Top 10 European Markets in terms of shore activity

PTR Analysis

*Top 10 European Markets in terms of shore activity**



Source: Eurostat

*Based on gross weight of goods handled in all ports

Q&A Session

PTR's Shore to Ship Power Service

Country specific analysis of key markets

Global Shore Power Systems Database

- Installed Base
- Pipeline Projects

Shore to Ship Power Report – Analysis of European Market

- Analysis of top 8 EU markets of shore power
- Business Practices
- Selection Criteria

Policies, Grants, Incentives & Projects

- Country specific policies, grants and incentives



Contact Us

Hassan Zaheer

Exec. Director - Client Relations & Advisory

+498912250950

hassan.zaheer@powertechresearch.com