



Global Supply Chain
Forum
Barbados
21-24 May 2024



75 ships will have carbon footprint in 2025
100 vessels on national 1% emissions



22
MAY

LEADING WAY TO SUSTAINABLE PORTS THROUGH PORTS' ENERGY TRANSITION



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NXT 5 YRS PORT SOLUTION ROLES

Adoption of Economic Instrument
Filter and accelerate development

Holistic Approach - can't separate societal concerns from economic

Listen to the Industry

Frame work with ISO standard to aim for
Your role, you work on reduction and other port will have better results

Study that breaks down energy demands based on the sectors, looking at every layer of the port

COLLABORATION

Ports role in decarbonization
Making port operations more sustainable, by energy transition

PERSPECTIVE

International Association of Ports and Harbours
Global Alliance of Ports Worldwide
- 100 ports represented

Multi fuel future

Role of ports in decarbonization (IMO Ports Resolution)

Onshore power supply from a renewable source

Safe and efficient bunkering of low/zero carbon fuels

Port Incentives

Green corridors and energy hubs

↓
root based actions

Environmental Ship Index (Port Incentives)

Evaluates vessels performance

More Ambitious

Innovation Module

Comprehensive Green House Gas Emission Module

Clean Marine Fuels

Bunkering checklists for new fuels

System safety

PORT READINESS LEVEL FOR MARINE FUELS

- 9 port readiness level

to be launched in October

Clean Energy Marine Hubs Initiative

- Governments and Industry seek to establish Clean Energy Marine Hubs worldwide, and provide low - carbon fuels

PORTS:

- play essential role for the production, storage and provision of sustainable alternative fuels
- would benefit from moving to the front of Decarbonization
- group of actors engaged in port operations need to include energy sector
- more cross-value chain collaboration

WE CANNOT DO DIGITALIZATION WITHOUT COLLABORATION AND COLLABORATION CANNOT BE PERSEVED WITHOUT DIGITALIZATION

Predictability of Port System

Ports are Intermodal Hubs - catering for shipment within the same and different modes of transport

43% transport in Maritime Sector is transporting energy

CO₂ Emissions @ highest

SWEDISH SUSTAINABLE PORT:

- Transport and Logistics node - be there to manage goods and passengers
- Energy and digital/information node - as much predictability as possible
- Different modes of transport included
- Consumer and supplier of sustainable energy for the sustainable transport system
- Enabler for transition towards sustainability

MATURITY MODEL

- Levels
- 1 Where we want to go
 - 2 What we are in control over
 - 3 Catering to the needs of visitors
 - 4 Be part of the ecosystem

Encouraging ports to develop and energy strategy

PUT RESEARCH INTO ACTION

GOAL

2050 zero emissions

The stability of today leads to the belief that the stability will continue ignoring the increasing evidence to the contrary

COMPETITIVE SPENDING

- choose the kind of fuel to be used at the port.

How to Decarbonize Port Operations

Measure Port Performance

- energy consumption
- energy costs
- energy container cost



Transport, energy Ministries etc need to be in the same room, change mentalities, realise it can't be done another way

Large Ports MENTOR small ports to avoid Decarbonization traps

Most ports don't know how much they spent on containers

Electricity to save money

Develop electric bill

Ports can't enforce emission standards

1ST MOVER ADVANTAGE

Risky because you're not sure of possible journey and outcome

PORT OF SEATTLE

- Most diversified
- Areas being run
- Cargo
- Cruise
- Commercial fishing
- recreational Marina airport

Maritime Cargo @ 10% gross house emissions if shipping industry is added the amount rises

NW Clean Air Strategy

- parts in the NW of USA & Canada with mutual agreements on green house gas emission reduction standards

DECARBONIZATION COSTS MONEY

Ports are an Arbitrators of demand for alternate fuels.

No Ports work in isolation from each other. They are a supply chain

NW Seaport Alliance

- Pacific NW to Esan Green Corridor
- Pacific NW to Alaska Green Corridor

SCOPE 3 EMISSIONS IS THE BIGGEST CHALLENGE

HOW TO COLLABORATE

- Physical ecosystem (ports, shipping companies clients etc) is highly distributed.
- Find necessary parties, they find common interest
- Stakeholders perspectives
- Transparency

BUILD TRUST

- perspective
- no finger pointing
- Creating systems for efficiency