



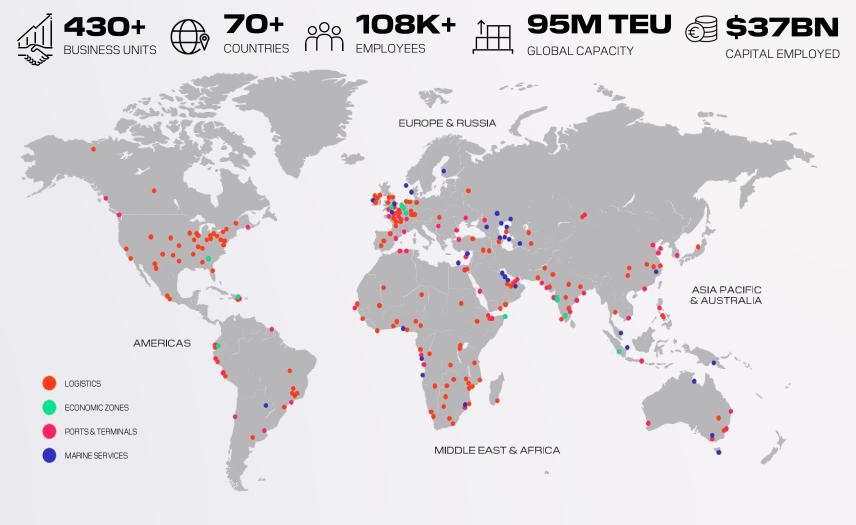
# DECARBONIZING PORTS: BUILDING A NET-ZERO CARBON ROADMAP

Integrating Policy Tools for Maximum Impact

## PREAMBLE: CHALLENGING REGULATORY LANDSCAPE

## **DP World Driven by "Our World Our Future"**

- At DP World, we handle 10% of world trade and are committed to netzero by 2050 via SBTi Verification.
- As an end-to-end logistics provider, we need net-zero solutions for our Ports, Logistics, Maritime, and Economic Zone businesses.
- Regulation is upon us, but there are limitations of isolated policies
  - Regulation without subsidies, such as emission caps / efficiency requirements result in financial burden
  - Subsidies without mandates may be slow to adopt, especially if economic benefits are deferred



## REGULATIONS SHAPING DECARBONIZATION

## Regulations bring unique demands for shipping sector

- Each of these regulations brings unique requirements, pushing the industry toward decarbonization from different angles, and when paired with incentives, they become powerful tools for accelerating change
- Historical evidence shows that regulation alone cannot drive change
  - Fuel standards and tax subsidies for hybrids in the US ~8% emissions drop
  - "ETS" paired with elimination of fossil fuel subsidies in China resulted in 20% emissions drop for industrial sector
  - In the U.K., a combination of an announced phaseout of coal plants, a minimum price for electricity and stricter air pollution standards led to a 44% cut in emissions in the electricity sector

#### IMO

- 20% reduction by 2030 for shipping sector
- Fuel efficiency and carbon intensity are the main "KPIs"
- Reaching target will require subsidies, new technology and deployment of large scale alternative fuel



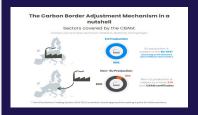
#### **EU ETS**

- 20-30% reduction by 2030 for shipping sector in Europe
- Cap and trade system = cost for emissions and incentivizes green
- In 2025, 5000+GT vessels to submit emissions data
- €100/tonne CO2 penalty for failure to surrender allowance



### **CBAM**

- Implementation of carbon tax on imported goods into EU starting 2026
- Lifecycle emissions of imported goods included, encourages importers to choose green producers and shippers
- "Regulation on regulation" CBAM & EU ETS



#### **CSRD**

- Reporting applies to entities >250 FTE, €40M revenue, or €20M assets
- S1+2+3 reporting, emissions targets, climate risk impact, double materiality, verification & assurance
- Drives transparency but SME resources required



Multi-Prong Decarbonization Regulation

## WHAT DOES FUTURE ENABLEMENT LOOK LIKE

## Integrating Policy Tools for Maximum Impact

- A recent study analyzing over 1,500 climate policies from 41 countries revealed that only 4% (63 policies) effectively reduced greenhouse gas emissions.
- The study highlighted that subsidies and regulations alone rarely achieve emissions reductions unless combined with price-based strategies like carbon pricing and energy taxes.
- By creating a cohesive policy framework that combines incentives with regulations, we can drive the maritime sector's transformation into a cleaner, more sustainable industry

#### **Shore Power**

- Shore power subsidies with carbon pricing during port stays; how to make the switch to clean energy more appealing
- Ex."ETS" paired with elimination of fossil fuel subsidies in China resulted in 20% emissions drop for industrial sector



## Green Equipment

- New equipment emissions regulation paired with tax incentives for green or alt. fuels infrastructure
- Ex. Fuel standards and tax subsidies for hybrids in the US ~8% emissions drop

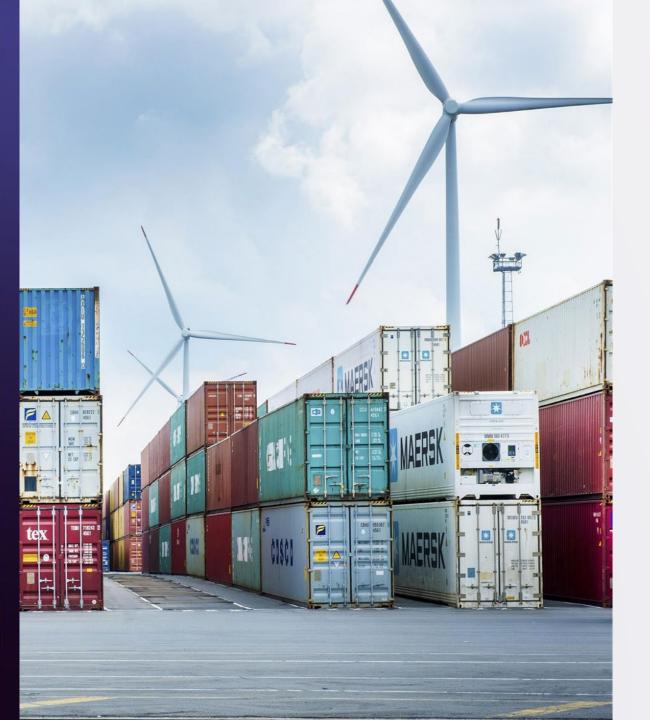


### New Fuels & Tech

- Grants or low-interest loans for port infrastructure upgrades, alternative fuels production & distribution, and carbon capture
- Ex. Phase out of coal plants and a minimum price for electricity and stricter air pollution standards led to a 44% cut in emissions in the electricity sector in the UK



Leveraging "the carrot" and the "stick"



## **PARTING THOUGHTS**

### Pathways to Net-Zero Through Technology

- Regulation is abundant and we need to lobby for incentive mechanisms paired with regulation for adoption of clean technology
- Utilize energy management technologies to reduce energy consumption through optimization (can already use subsidies from utility sector)
- Collaboration is required to tackle our emissions as well to ensure that we connect with service providers and regulators in difficult regions that we operate

## **THANK YOU**



Andy Tam
Global Vice President
Energy Management & Decarbonization
DP World