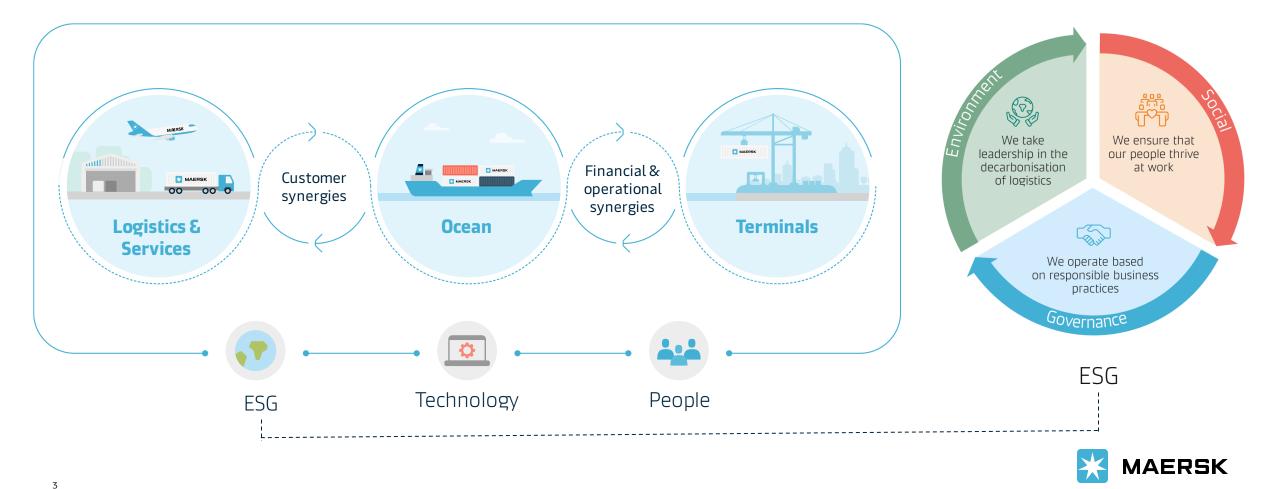
# Decarbonising our global operations all the way



Last Updated: March 2024

### Sustainability integrated into our business and enabler of strategic value creation



OUR PURPOSE

# Improving life

for all by integrating the world

— The integration illustrated by five years of Automatic Identification System (AIS) transponder data from AP. Moller - Maersk vessels registered in the company's scheduling system GSIS

Gateway and hub terminals

A.P. Moller - Maersk is an integrated logistics company working to connect and simplify its customers' supply chains. As a global leader in logistics services, the company has 100,000+ customers, operates in more than 130 countries and employs around 100,000 people. A.P. Moller - Maersk is aiming to reach net zero emissions by 2040 across the entire supply chain with new technologies, new vessels and green energy solutions.

)cean	
reen methanol-enabled essels on order	25
ontainers per annum (m FF erving over 475 ports world	
ontainer vessels operated	670+
ogistics Services	
800k+ sqm warehousing apacity worldwide across	460+ sites
ectric vehicles in operatior 00+ more on order	<sup>*</sup> 100+
termodal volumes anaged (m FFE)	4.0

erminals*	
es in 2023	21.7m
sel calls	27,000+
rating facilities across 33 ntries; 3 new port projects	60

\* Gateway terminals and hubs

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### Committed to accelerating a green and equitable energy transition

2023 was a year of extraordinary challenges affecting millions around the world, from geopolitical conflicts to record-setting weather events. But there were also highlights we can celebrate, such as the International Maritime Organization setting ambitious intermediate and long-term targets for shipping to reach net zero, and the COP 28 agreement on the need to transition away from fossil fuels.

The arrival of Laura Mærsk, the world's first green fuel-enabled container vessel, is a major milestone in our ESG strategy and our efforts to decarbonise logistics. The vessel serves as a clear signal to green fuel producers, policy makers and our customers that the energy transition is happening and will play a pivotal role in shaping global supply chains.

We know the journey to achieve the targets will be challenging, and we cannot do it alone. Maersk continues to rely on support from the industry, regulators and, the starting point for all we do, our customers. Many of them have been willing to co-lead this journey with us, in support of their own ambitious climate goals.



#### - Vincent Clerc, CEO A.P. Møller - Mærsk



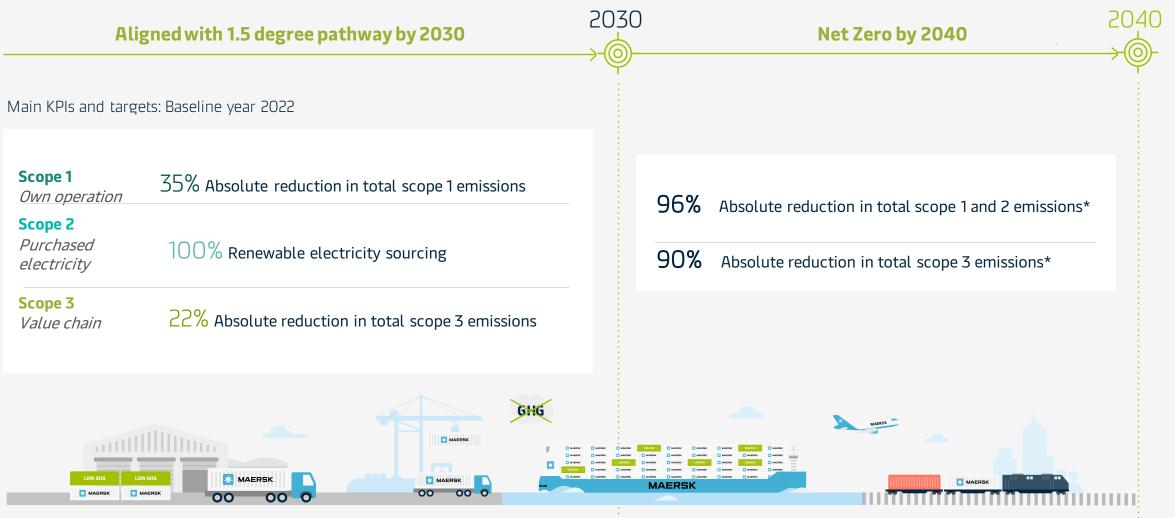
### Shipping is responsible for ~3% of global greenhouse gas emissions

### ~833 million tonnes of GHG/2021\*

\*\*Latest available report for the industry: https://www.ssyonline.com/media/2016/ssy-2022outlook-final.pdf



### Maersk's climate commitments validated by the Science Based Targets initiative



\* Residual emissions will be neutralised in accordance with the Net Zero criteria of the Science Based Targets initiative.



Classification: Internal

### KPIs and targets across the business



**35%** Absolute reduction in **scope 1** and **scope 3** well-to-wake emissions from own container shipping operations

**17%** Absolute reduction in **scope 3** well-to-wake emissions from subcontracted container shipping operations

#### **Other Operations**

**Maritime Operations** 



- **42%** Absolute reduction in **scope 1** emissions from all other sources
- **25%** Absolute reduction in **scope 3** fuel and energy related activities and upstream transportation
- **42%** Absolute reduction in **scope 3** emissions from use of sold products covering distributed fossil fuels

#### 2040

#### **Maritime Operations\***



2030

- **96%** Absolute reduction in **scope 1** and **scope 3** well-towake emissions from own container shipping operations
- **97%** Absolute reduction in **scope 3** well-to-wake emissions from subcontracted container shipping operations

#### **Other Operations**



- **90%** Absolute reduction in **scope 1** and **scope 2** emissions from all other sources
- **90%** Absolute reduction in **scope 3** emissions from all other sources

Net zero across our business and 100% green solutions to customers



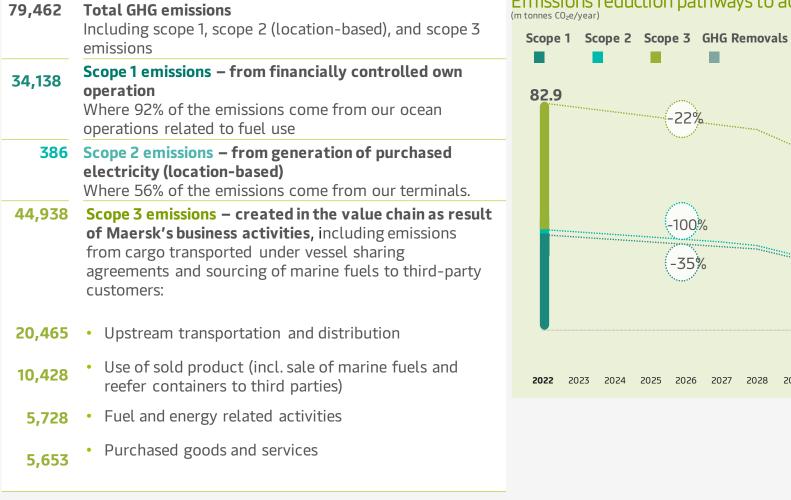


\* From 2022 baseline. Residual emissions will be neutralised in accordance with the Net Zero criteria of the Science Based Targets initiative.

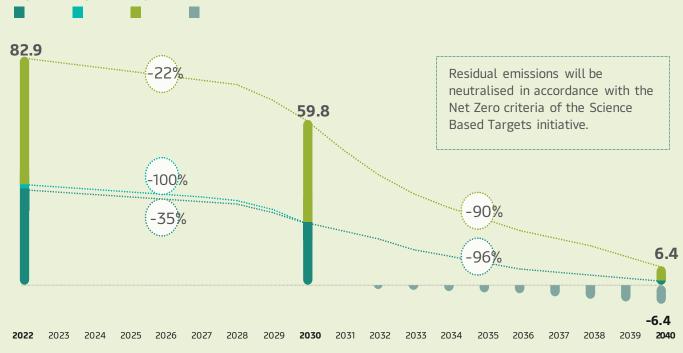
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### Maersk's GHG Emissions Footprint for 2023

#### Maersk's GHG emissions footprint 2023 (1,000 tonnes CO2e)



### Emissions reduction pathways to achieve SBTi-aligned 2030 and 2040 targets (m tonnes CO2e/year)



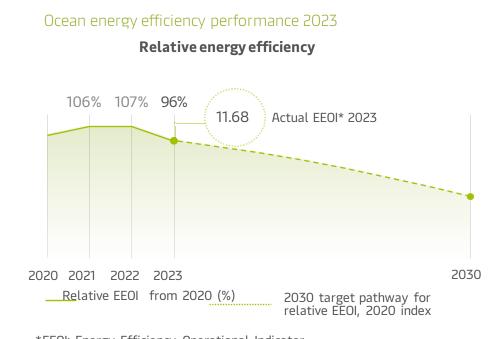




# Decarbonising Ocean



### Ocean Energy Performance 2023



\*EEOI: Energy Efficiency Operational Indicator

The indicator underlying the relative  $CO_2$  reduction is EEOI, Energy Efficiency Operational Indicator, calculated as g  $CO_2/(Ton \times Nm)$ .

In 2023, Maersk continued increasing the energy efficiency of our fleet through more fuel-efficient operations and the continuous roll-out of efficiency technologies on owned and time charter vessels including new and improved propellers, bulbous bows, shore power enablement and tech solutions like the Maersk's energy efficiency platform StarConnect.

Combined with the continued use of second-generation biodiesel in our fleet, we managed to lower our emissions intensity measure, EEOI<sup>5</sup>, from 13.0 in 2022 to a record low of 11.68 in 2023.

In 2023, we also implemented better governance and forecasting processes for EEOI and leading indicators to be able to better track and act on progress during 2024.



### Decarbonising Ocean

2030 Targets



- 35% Absolute reduction in scope1 and scope3 well-to-wake emissions from own container shipping operations
- 17% Absolute reduction in scope 3 well-to-wake emissions from subcontracted container shipping operations

#### Key Levers

#### **Fuel efficiency improvements**

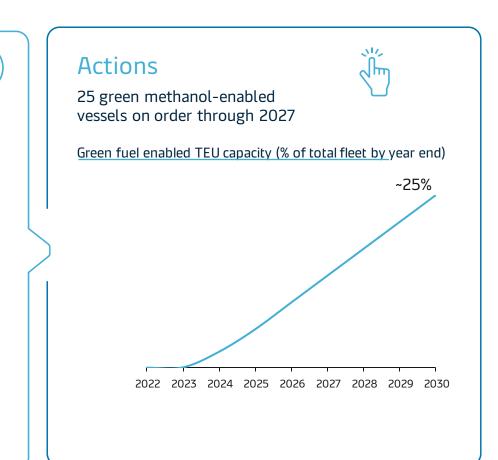
- Network optimisation
- Network execution
- Technical management

#### Transitioning to green fuels

- Investment in green vessels via existing fleet renewal plan
- Retrofit select existing vessels
- Securing the green methanol needed today and continuing to explore green fuel options
- Introduce chartered green vessels
- Use of bio-diesel as a gap closer

#### **Continued growth in Maersk ECO Delivery**

- Commitment from key customers for ECO Delivery shipping
- Improved methodology to support accurate emissions reporting







### Maersk new generation of green fuel vessels

25 vessels with **dual-fuel engines**, able to operate on green methanol





with a capacity of **2,100 TEU**, in operation since September 2023

#### 16,000 / 17,000 container capacity



#### 18 vessels

Laura Mærsk

with a capacity of **16,000/17,000 TEU**, powered by MAN G95 dual-fuel engines (main engine) and 16,000 m<sup>3</sup> methanol tanks, to be delivered 2024-2025

#### 9,000 container capacity



#### 6 vessels

with a capacity of **9,000 TEU**, scheduled for delivery in 2026 and 2027



### Sourcing green fuels at scale through strategic partnerships





Our current green fuel of choice is **green methanol, while** we continue to explore green fuel options and build a supply portfolio of different green fuels.

#### What is a green fuel?

In Maersk, 'green fuels' refers to **fuels with low to very-low GHG emissions over their life cycle**, compared to fossil fuels. 'Low' means a reduction of 65-80% in GHG emissions, and 'very low' means a reduction of 80-95% in GHG emissions, compared to fossil fuels.

- We are **developing a diverse portfolio of partnerships for securing the green fuel needed** to sail our new vessels
- For the Laura Mæersk, the first methanol vessel sailing in 2023 and Ane Mærsk, the first large ocean-going dual fuel engine vessel. we have secured the needed volumes of bio-methanol from our partners OCI Global and Equinor.
- The **green fuel facility in Kassø, Denmark**, established by our partner European Energy, is expected to produce 16.000 tons of emethanol a year, starting in 2024
- We have signed a long term offtake agreement with green methanol producer Goldwind for 500KT fuel, first volumes expected in 2026
- We expect a diverse green fuel mix for our methanol-enabled vessels in the transition years towards sufficiently scaled green methanol production

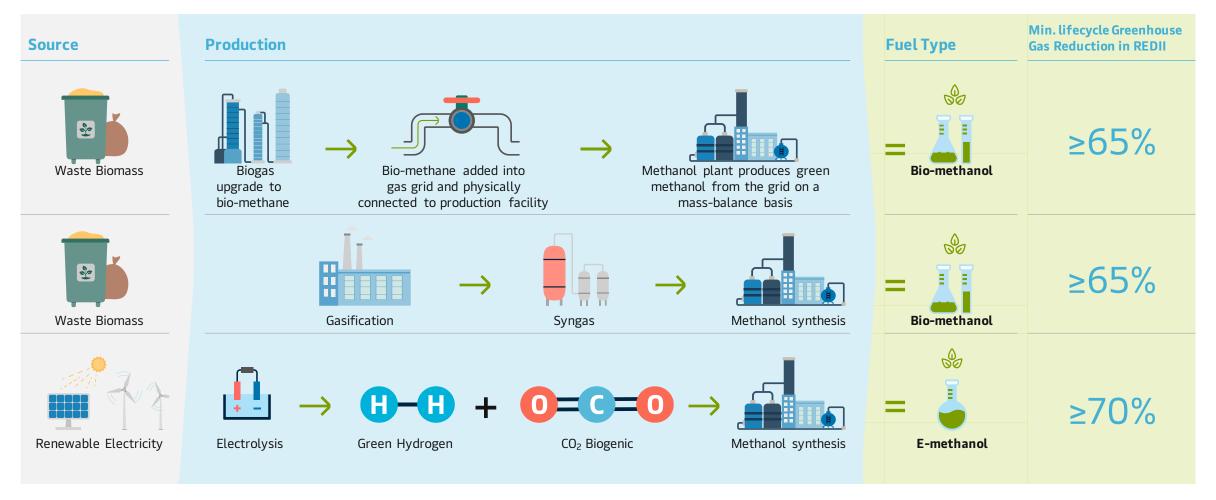


### Pathways to green methanol, the current green fuel choice for Maersk

Learn more about what makes green fuels green



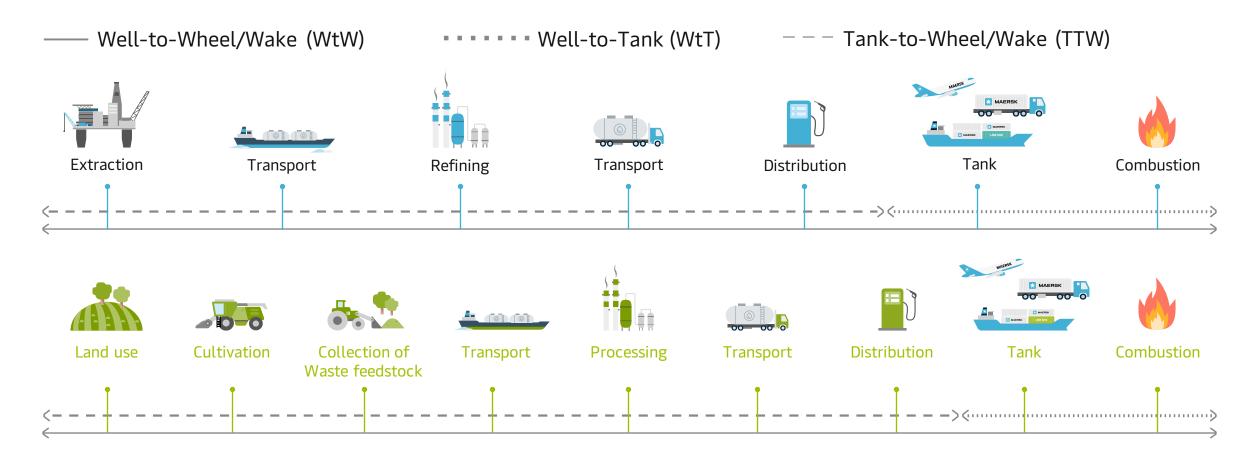
Watch Video 🔿





### Maersk evaluates all new fuels on a 'well-to-wake' life cycle basis

**Lifecycle assessment (LCA)** is the compilation and evaluation of the inputs, outputs, and the potential environmental impacts of a product or service throughout its lifecycle.

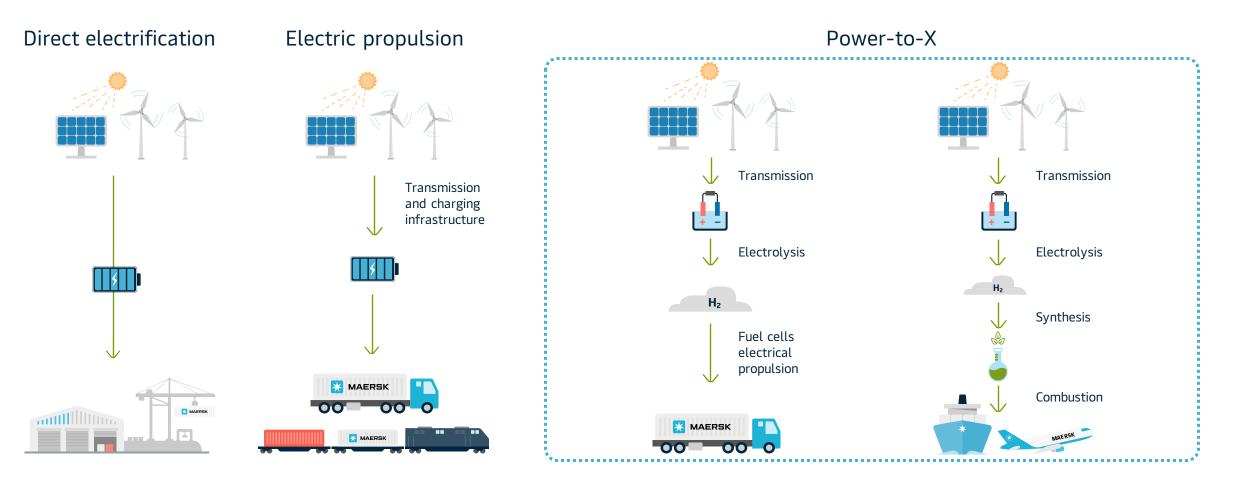




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Classification: Public

### Our decarbonisation roadmap from renewables to Power-to-X





# Decarbonising Logistics and Service

MAERSK



MAERSK

### KPIs and targets across the business



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Net zero across our business and 100% green solutions to customers

2040





\* From 2022 baseline. Residual emissions will be neutralised in accordance with the Net Zero criteria of the Science Based Targets initiative.

Classification: Public

### Decarbonising

### landside transportation

#### Key Levers



#### **Efficiency improvements**

- Modal shifts (shifting of transport modes towards more sustainable ones)
- Digitally enabled optimized network and routing

#### Electrification

- Equipment: 100% indoor, outdoor where possible
- Renewable electricity sources, e.g. power purchase agreements or on-site installation

#### **Energy transition**

- Battery-electric trucks as the dominant energy system
- Potential use of biofuels



Actions

2021-2022: investments in Volvo e-trucks and Einride trucks



1.1.1.1

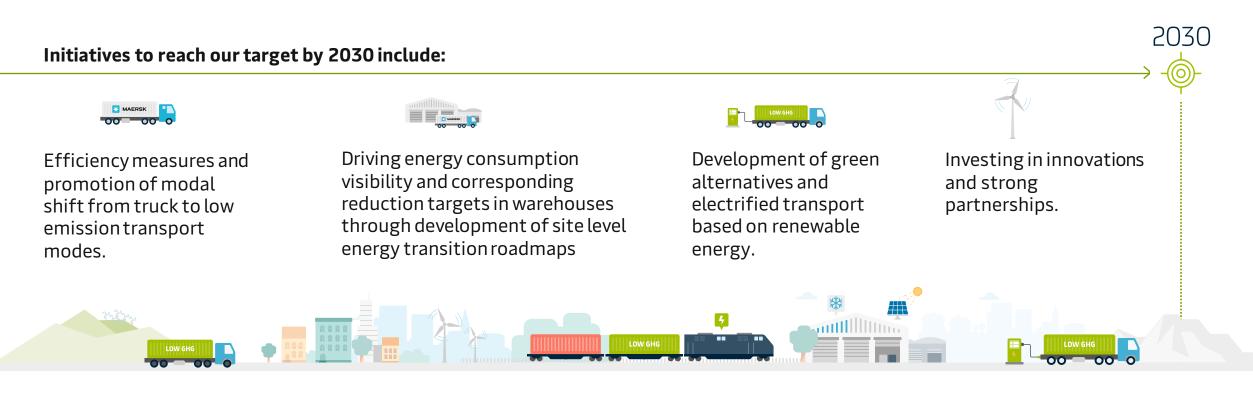
- 2023: Launch of ECO Delivery Inland product in select location in the US using owned/leased electric vehicles
- 2024: Broadening ECO Delivery Inland offerings across geographies and transport modes
- Investments in 12 warehouses with BREEAM, LEED, or Green 5-star certified
- 2024: Strategy for sourcing renewable electricity in 100+ key locations



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### Landside transportation road to 2030

Our landside footprint is **mainly indirect emissions from truck, rail and barge suppliers** – local businesses where energy infrastructure and regulation decide the reduction potential.

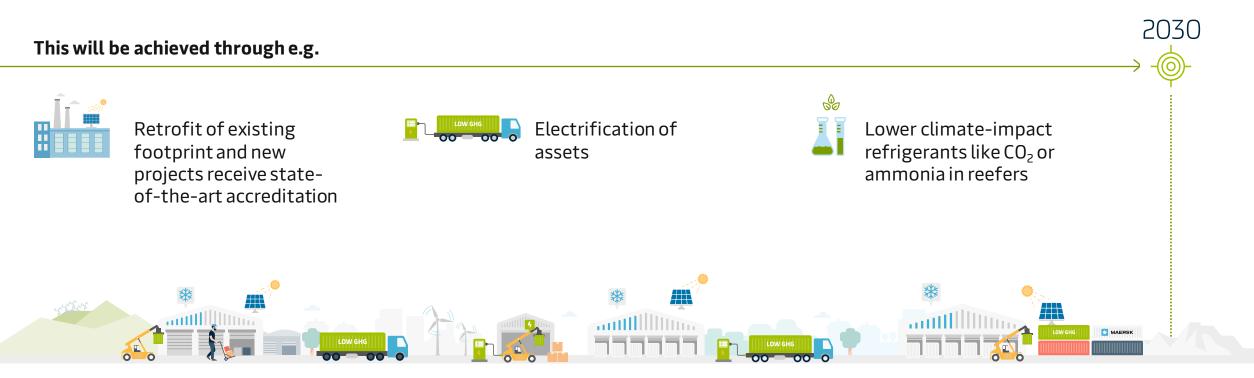




### Contract Logistics and Cold Chain road to 2030

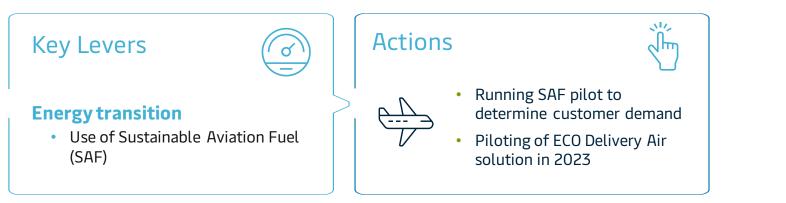
Our global portfolio of dry and reefer warehouses and depots will **serve our customers with green\* contract logistics operations** (scope 1 and 2) by 2030.

\*'Green' contract logistics refers to operations with reduced emissions and environmental impact





### Decarbonising Air Freight\*



\*Our **air emissions** currently make up **less than 1%** of our total emissions but are set to increase with the growth projected to serve our customers.



Strong collaboration with our carrier partners and engagement in SAF development and production



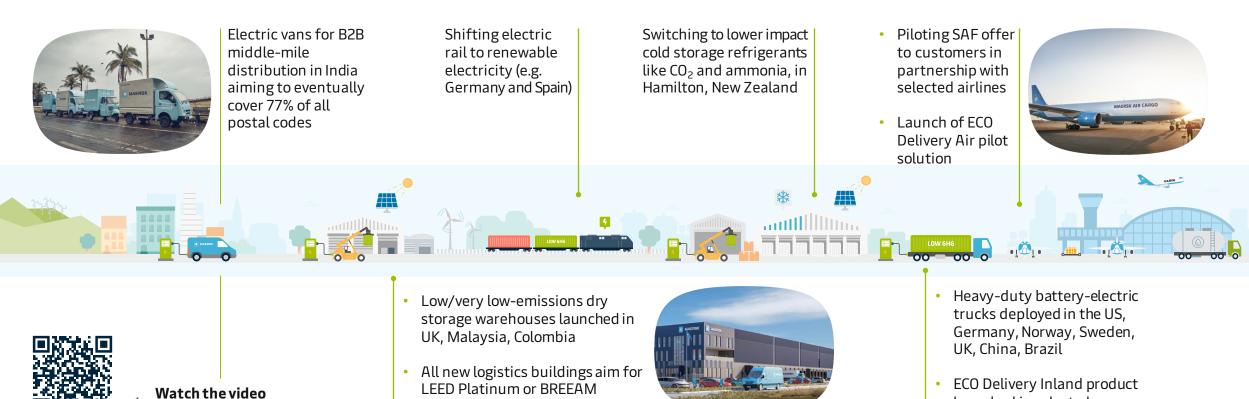
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Expansion of our own aircraft fleet with fuel efficiency technology above industry-average.



2030

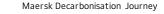
### Logistics & Services Decarbonisation highlights to date



- LEED Platinum or BREEAM

24

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to learn more

Excellent certification, like Taulov, Denmark, Sao Paulo, Brazil, and Doncaster, UK



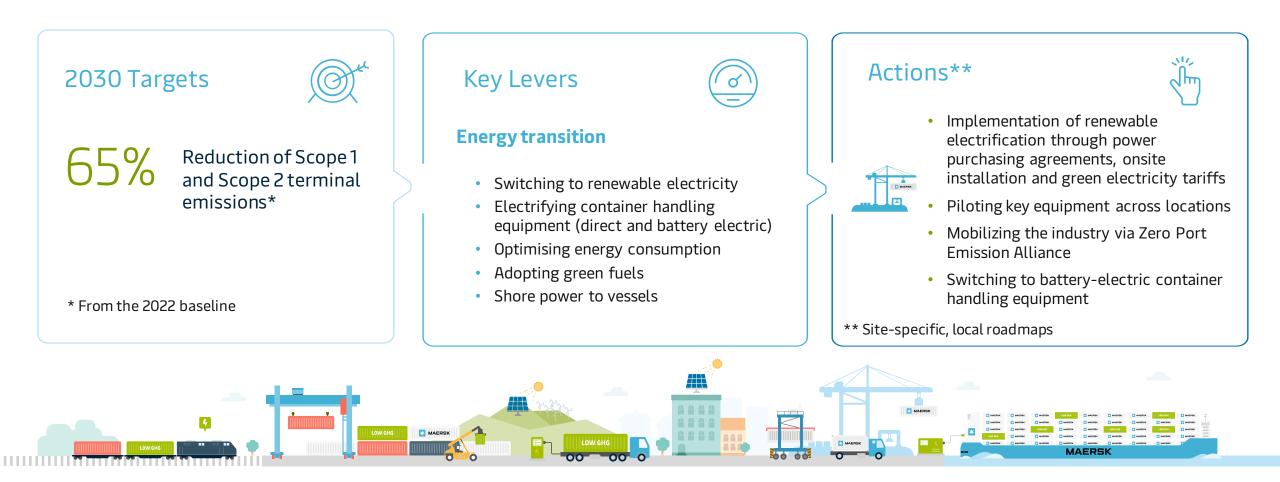
launched in selected locations in the US



# Decarbonising Terminals



### Decarbonising Terminals

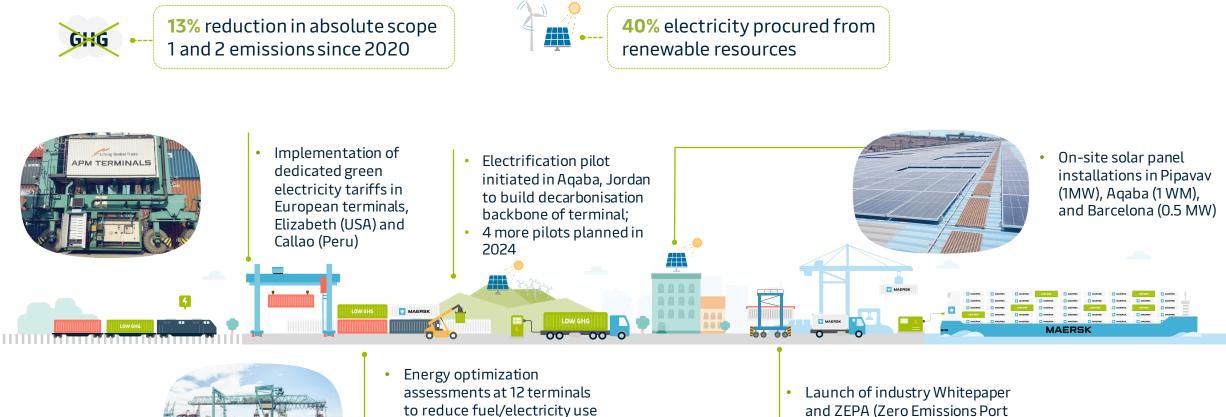




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### Terminals decarbonisation 2023 highlights



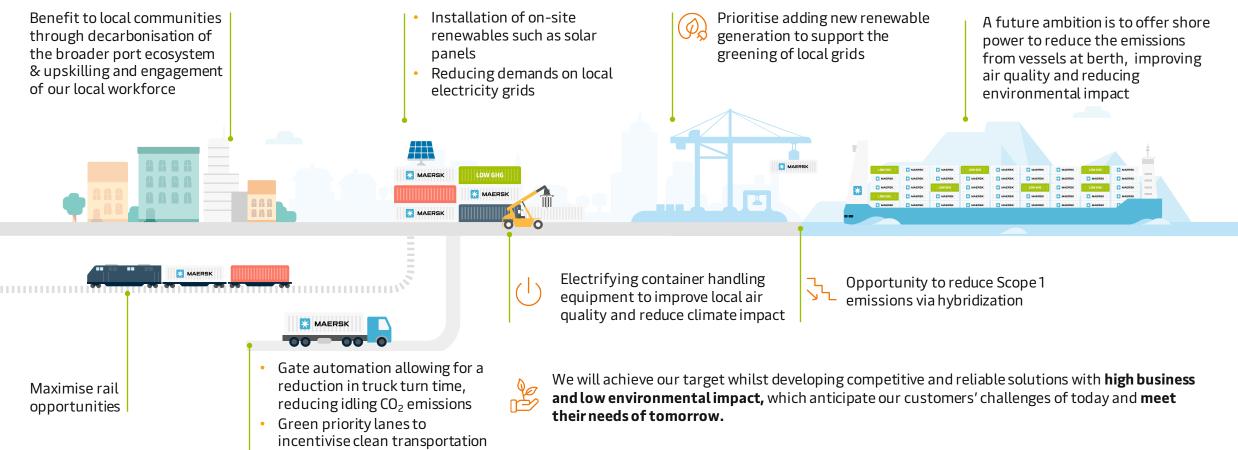
- Power purchase agreement covering 40% electricity in Pipavav (India)

Alliance) to accelerate the electrification of container handling equipment (CHE) in ports & terminals



27

# In practice, the value creation for customers and communities is multi-faceted and terminal specific



### Leading decarbonisation in the port and terminals industry

The **Zero Emission Port Alliance (ZEPA)** is an industry-wide strategic coalition founded by APM Terminals and DP World in 2023, to drive decarbonisation of ports and terminals by accelerating electriffication





Make battery-electric container handling equipment (CHE) affordable, accessible and attractive by 2030.



# What ZEPA will do | Collective action to accelerate the adoption of battery-electric CHE



MAERSK

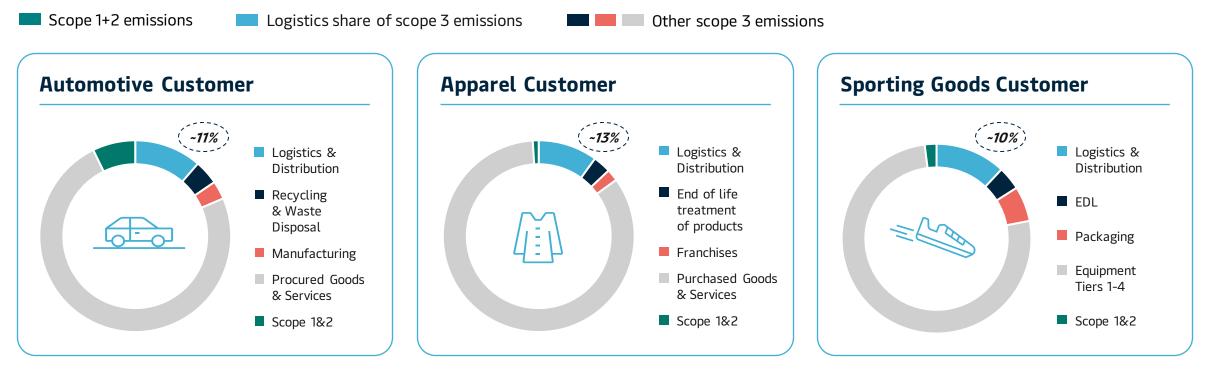
Note: (1) Proposed ZEPA scope for WS2 are battery-electric terminal tractors, straddle carriers and reach stackers (2) For container handling equipment, shore power and other cargo port segments

## Creating value for our customers



### Solving the Scope 3 challenge for our customers

#### Select customer emission scopes\* and characteristics



ECO Delivery is an attractive and proven value proposition for customers

\*Emissions from use of sold goods excluded in the above data.



# Where are customers today?

#### Level 1: Explorers

- Acknowledge that sustainability in logistics is important
- Are defining their sustainability logistics priorities
- Are seeking information/guidance from suppliers on sustainability
- May be willing to invest in sustainable logistics options over time, but need guidance

**35%** of our top 200 customers

### Level 2: Risk managers

- Have basic minimum
  sustainability requirements
- Have integrated sustainability parameters into logistics decisions
- Engage with industry forums (e.g., Clean Cargo)
- Are considering investing in sustainable logistics options

**39%** of our top 200 customers

X MAERSK

#### Level 3: Implementers

- Have ambitious sustainability strategy integrated with logistics
- Have sustainability parameters integrated into logistics decisions
- Contribute financially to industry sustainability investment
- Are willing to invest in sustainable logistics options

**15%** of our top 200 customers

#### Level 4: Leaders

- Are visible first-movers interested in sustainable transformation
- Have high interest in long-term partnerships and co-innovation
- Engage in long term partnerships and investment
- Exhibit high willingness to invest in long-term sustainable logistics transformation

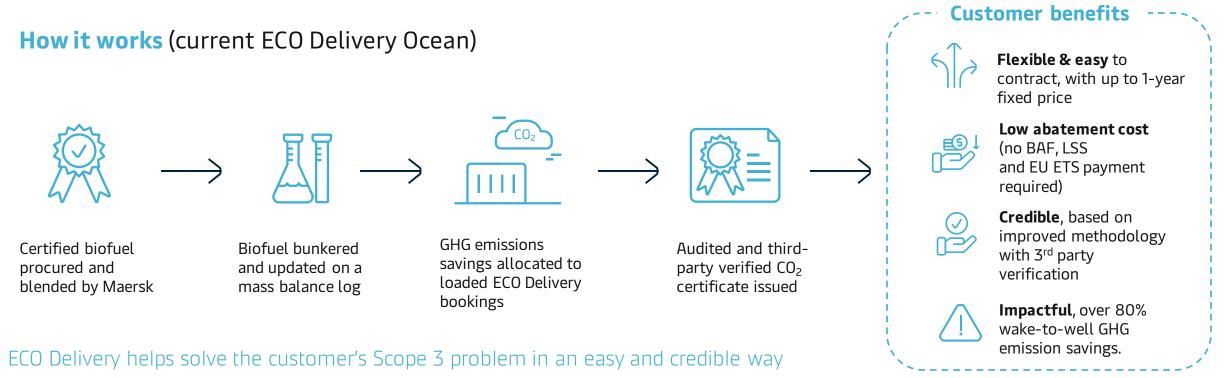
**11%** of our top 200 customers

Customers are at differing levels of maturity. We can help them wherever they are.



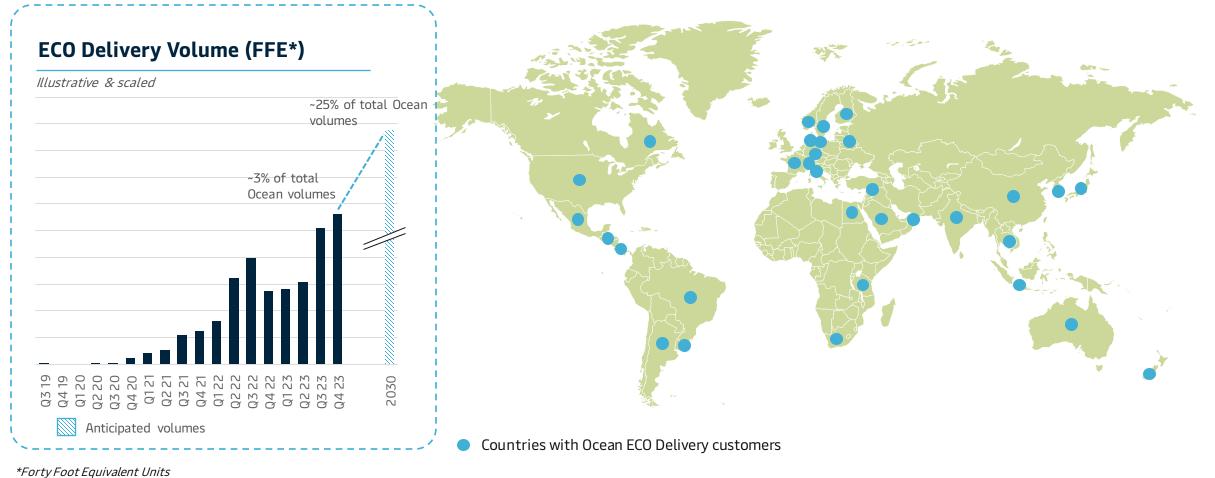
### ECO Delivery Ocean: the differentiator

ECO Delivery Ocean offers emissions reduced shipping based on green fuels, enabling immediate and externally verified GHG savings for customers





### ECO Delivery Ocean strong and expanding demand from our customers





### Maersk's latest investments to accelerate green logistics solutions

Inland







Maersk signs Sustainable Aviation Fuel contract with Air France -



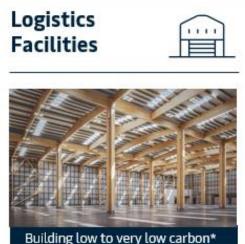
Maersk joins United Airlines' Eco Skies Alliance Program

End to end with the Emissions Dashboard



Maersk purchases 25 Volvo etrucks for climate-friendly container transports in Germany

6



warehouses by Liverpool and Dublin



Maersk to build first green and smart flagship logistics centre in Lin-gang, Shanghai



### On the horizon the end-to-end challenge

Industry-leading green offerings across the supply chain by 2030 – net zero by 2040 A holistic approach in which we partner with our customers

- Create and provide visibility tools for customer emissions for all our services (e.g, end-to-end Emissions Dashboard)
- Understand supplier engagement for innovation and engage in pilot projects
- Collaborate using long-term commitments including co-investment for network coverage
- **Co-create solutions** with our customers
- Aggregate demand in order to scale





## Regulatory drivers of progress

\* MAERSI

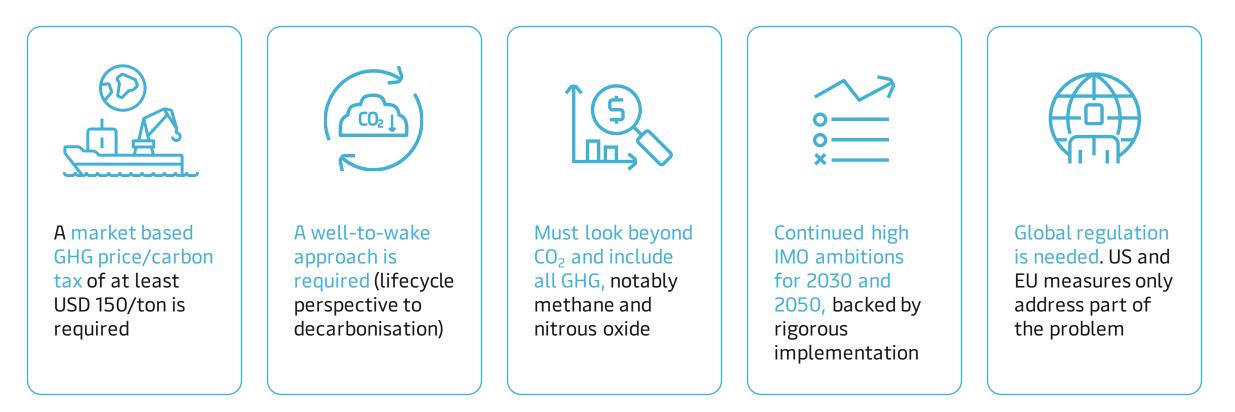
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### A level regulatory playing field is key to achieving full decarbonisation

Five critical policy levers for a level regulatory playing field to achieve full decarbonisation





### Advocating for global solutions through the IMO



Maersk is committed to conducting all our policy outreach in alignment with the goal of limiting global temperature rise to 1.5°C.

We actively engage with policymakers and stakeholders to advocate for regulations

Two important short-term emission-reducing measures adopted by the IMO are effective in 2023:

- Energy Efficiency Existing Ship Index (EEXI) is a technical measure for existing ships requiring them to attain a certain minimum energy efficiency standard
- **Carbon Intensity Indicator (CII)** determines the operational energy efficiency performance of vessels via a rating system from A to E



Learn more about the Carbon Intensity Indicator and how it will help decarbonise shipping

Watch now  $\rightarrow$ 





### Regulatory progress in 2023

- The EU Emissions Trading System aimed at reducing net GHG emissions by min. 55% by 2030 (1990 baseline)
- FuelEU Maritime Standard 'well-to-wake' approach to ensure emissions are not merely shifted from sea to shore
- **IMO revised strategy for reducing emissions** from shipping and reaching net-zero GHG by 2050, including mandate to develope:
  - <u>a global fuel standard</u> a global fuel standard of 5-10% green fuels by 2030 will ramp up production/use of green fuels
  - <u>a maritime GHG emissions pricing mechanism</u> Maersk has put forward a proposal for a Green Balance Mechanism
- UN COP28 agreement calling all countries to move away from fossil fuels, and commitment from 118 countries to increase renewable energy.



Maersk CEO Vincent Clerc, together with the CEOs of CMA-CGM, Hapag Lloyd, MSC and Wallenius Wilhemsen, jointly called for a phase out of fossil-fueled vessels and a global green balance mechanism at COP28.



### We cannot do it alone: Key partnerships and coalitions





### The importance of a just transition

1. Responsibly supporting green fuel supply chains creation We are committed to ensuring that our green fuels are sourced sustainably: the development of green fuels should not come at the expense of people, including workers and local communities

#### 2. Preparing the workforce of tomorrow

The green transition will create new job opportunities in the value chain, and we are committed to supporting the shift in workforce skills to enable decent work

#### 3. Policy advocacy

We actively advocate for a low-carbon transition in the industry and promote a human-centred approach to make sure that this transition is just





## Appendix / Other

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### Natural Climate Solutions

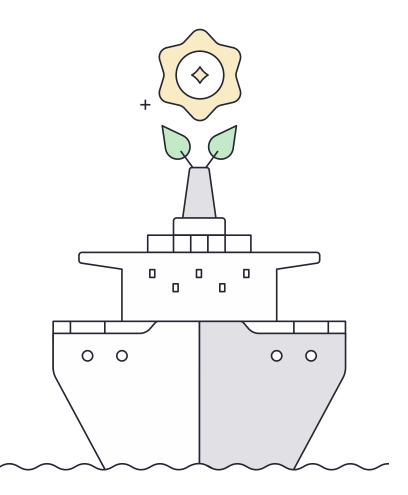
- SBTi Net Zero standard recommends that companies compensate for emissions above and beyond what is required to deliver net zero.
- Maersk continues to evaluate the options for building a portfolio of Natural Climate Solutions
  - voluntary activities to avoid and remove GHG emissions from the atmosphere through projects such as reforestation, renewable energy and methane capture.





### Maersk Mc-Kinney Møller Center for Zero Carbon Shipping





Join us to decarbonize the Shipping Sector now



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### - an integral part of our value chain

