

# Global Leader in Sustainable Cargo Flow

# Agenda

»» Growth and emission reductions through our validated eco portfolio	<b>Päivi Koivisto</b> Head of Sustainability - Cargotec
»» Pioneer in electrification exploring other low carbon technologies	<b>Mette Kjems Bærentzen</b> Head of Sustainability - Kalmar
»» Building better tomorrow	<b>Tobias Bunne</b> Head of Sustainability - Hiab
»» Q&A	

**NEXT UP:**



**PÄIVI KOIVISTO**

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Head of Sustainability  
Cargotec

**ECO PORTFOLIO  
AND TAXONOMY  
INVESTOR EVENT**

3 April 2023

# Growth and emission reductions through our validated eco portfolio

Cargotec Sustainability, 2023

When we solve our customers' sustainability challenges, we will



Make the industry more **sustainable**



**Grow faster**  
than the market



Significantly  
improve our  
**profitability**

# Performance targets for our core businesses

**Eco portfolio: double sales growth**  
compared to traditional products

**Sales growth faster than market<sup>1</sup>**

**Reduce CO<sub>2</sub> emissions in our value chain<sup>2</sup>**

2025: **-25%** | 2030: **-50%**

**Comparable operating profit<sup>3</sup>**

2025: **12%** | 2030: **15%**

Growing dividend  
**30-50% EPS**

Gearing below  
**50%**

# Our eco portfolio has two main tasks

Our eco portfolio helps us grow by solving customers' sustainability challenges. It has two tasks: reduce emissions and drive growth.

**Reduce emissions**



**Drive growth**

The eco portfolio includes two categories of solutions:

CIRCULAR SOLUTIONS

CLIMATE SOLUTIONS

The portfolio's climate solutions are aligned with the EU Taxonomy (considered sustainable in the eyes of the regulation).



Low and zero-emission equipment & software that enables the equipment's emission saving



Services and spare parts that keep the equipment in operation for longer

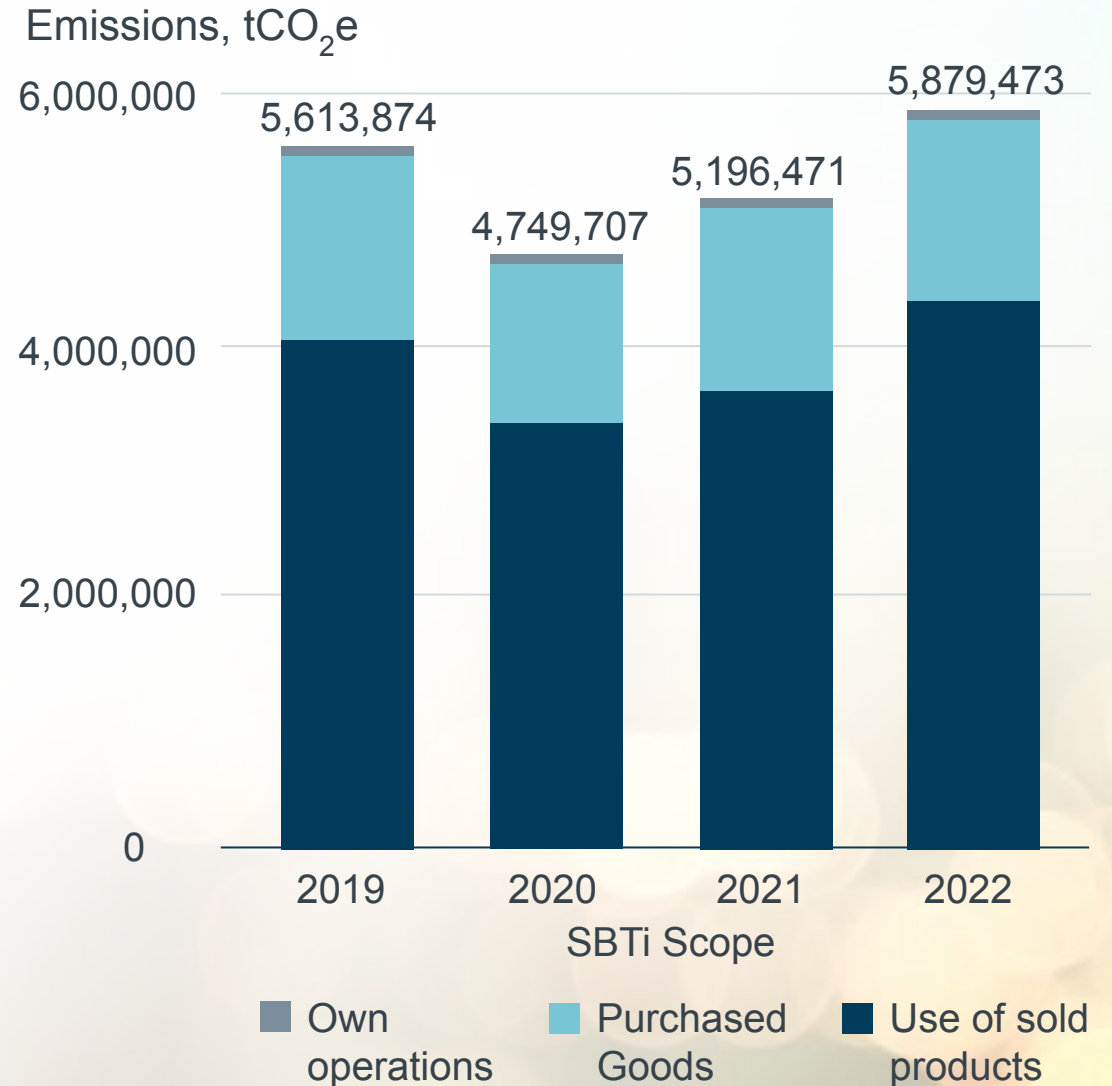


# 2022 CO<sub>2</sub> emissions grew 5% from 2019 baseline - positive trend in emission intensity

Annual level emissions are growing in line with growing revenue, major emission impact from increasing amount of units sold

- › Use phase emission is major share of emissions, where focus to electrification is the solution
- › Own operation with minor impact in overall emission reduction
- › Positive trend in emission intensity (CO<sub>2</sub>/€) and eco portfolio development

## Group SBTi scope development





# EU Taxonomy and Cargotec Eco portfolio

# The EU Taxonomy: why is it needed?

## **The EU's ambitious environmental targets**

can only be achieved if capital is directed into activities that truly contribute to sustainable development.



## **The EU Taxonomy**

defines which business activities are considered sustainable.



## **Green innovation and more sustainable business models**

contribute to achieving the EU's targets.

# What is relevant and what is sustainable?

Two key KPI's in reporting

## Taxonomy-eligible

Eligible business activities are **relevant** in the eyes of the EU Taxonomy: they are evaluated according to the EU's criteria

## Taxonomy-aligned

Aligned activities are considered **sustainable**: they fulfill the criteria.

# The EU Taxonomy's definition of a sustainable activity

**Substantially contribute**  
to at least one  
environmental  
objective



**Do no significant harm**  
to any other  
environmental  
objective



Comply with  
**minimum social safeguards**



**Sustainable activity**

## Six environmental objectives

1. Climate change mitigation (criteria final)
2. Climate change adaptation
3. The sustainable use and protection of water and marine resources
4. The transition to a circular economy (draft criteria published)
5. Pollution prevention and control
6. The protection and restoration of biodiversity and ecosystems

# Cargotec's eco portfolio development

## Old Cargotec eco portfolio

2017 established eco portfolio to highlight the solutions that enhance customers' sustainability with tangible environmental benefits

Sales **964m€** (27%)

## 2022 Taxonomy aligned eco portfolio (climate change mitigation only)

The official Taxonomy alignment reporting, figure only includes the **contribution climate change mitigation** criteria, what is mandatory reporting requirement and therefore comparable for investors etc

**487m€** (12%)

## Cargotec eco portfolio

2022 eco portfolio criteria revised to support the company's commitment to be a 1.5°C company. The revised eco portfolio is structured according to the EU Taxonomy design.

Out of the six environmental objectives of the EU Taxonomy, Cargotec considers its solutions to have the potential to substantially contribute to **climate change mitigation and the transition to a circular economy**.

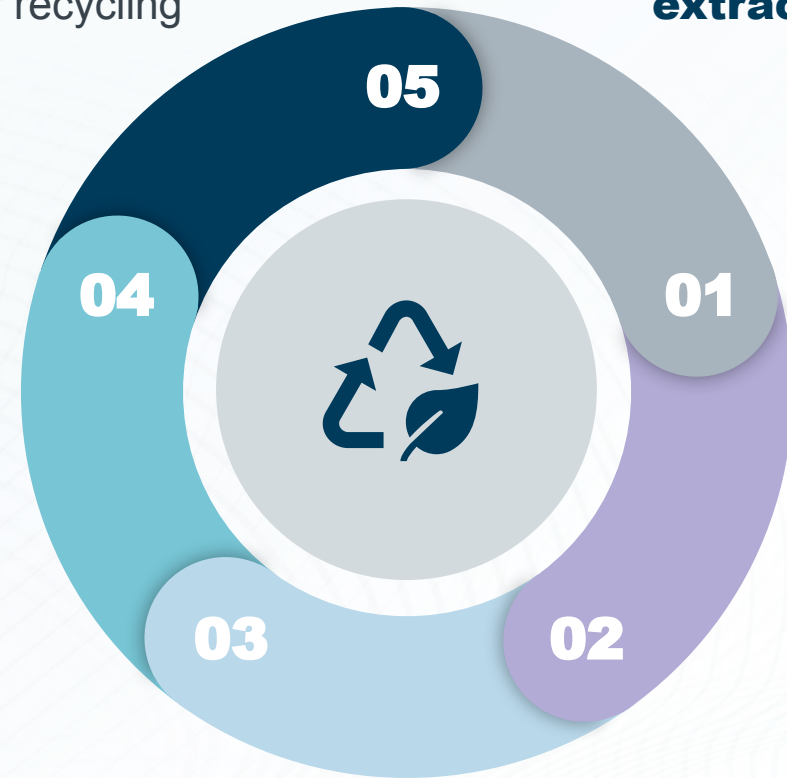
**1,287m€** (31%)

# A life cycle assessment calculates the environmental impacts of a product

Life cycle assessment (LCA) is a methodology for quantitatively assessing climate and other environmental impacts throughout the life cycle of a product, process, or service.

**End-of-life**  
Disposal or recycling

**Raw material extraction**



**Product use**  
Repair and maintenance

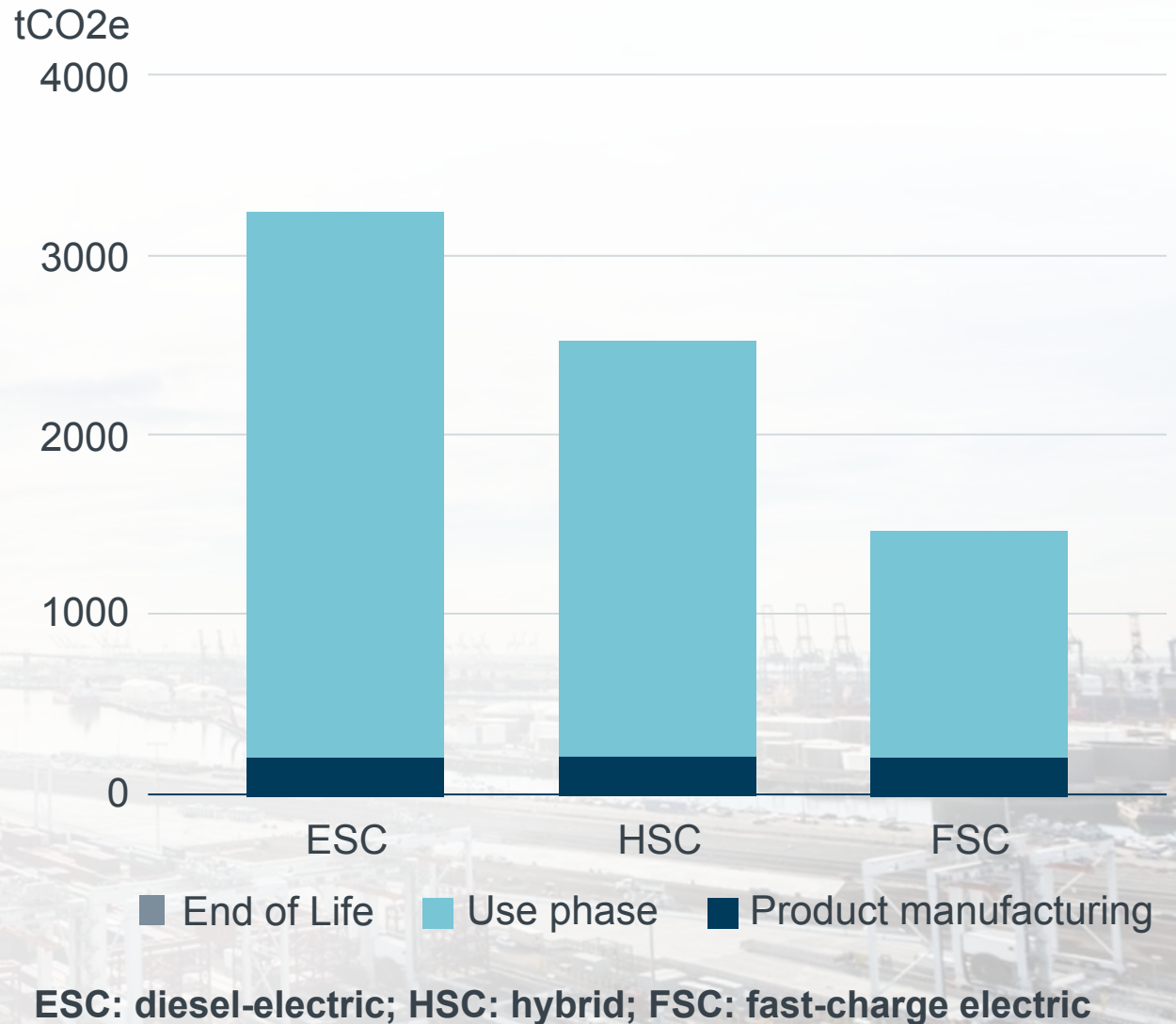
**Distribution**

**Manufacturing**

Our LCAs are based on the internationally recognised ISO 14067 standard.

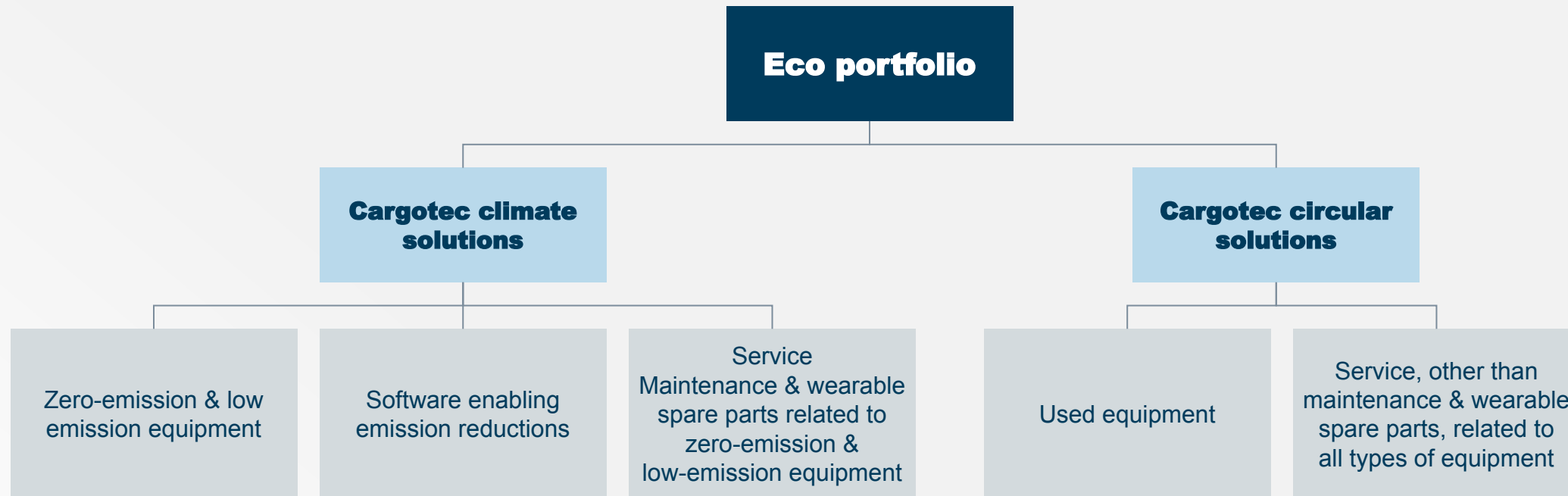
# All our eco portfolio equipment have third-party reviewed LCAs in place

## Life-cycle greenhouse gas savings of Straddle Carrier FSC -52% and HSC -24%



# New eco portfolio categories

Aligned with EU Taxonomy objectives of climate change mitigation and transition to a circular economy (draft)



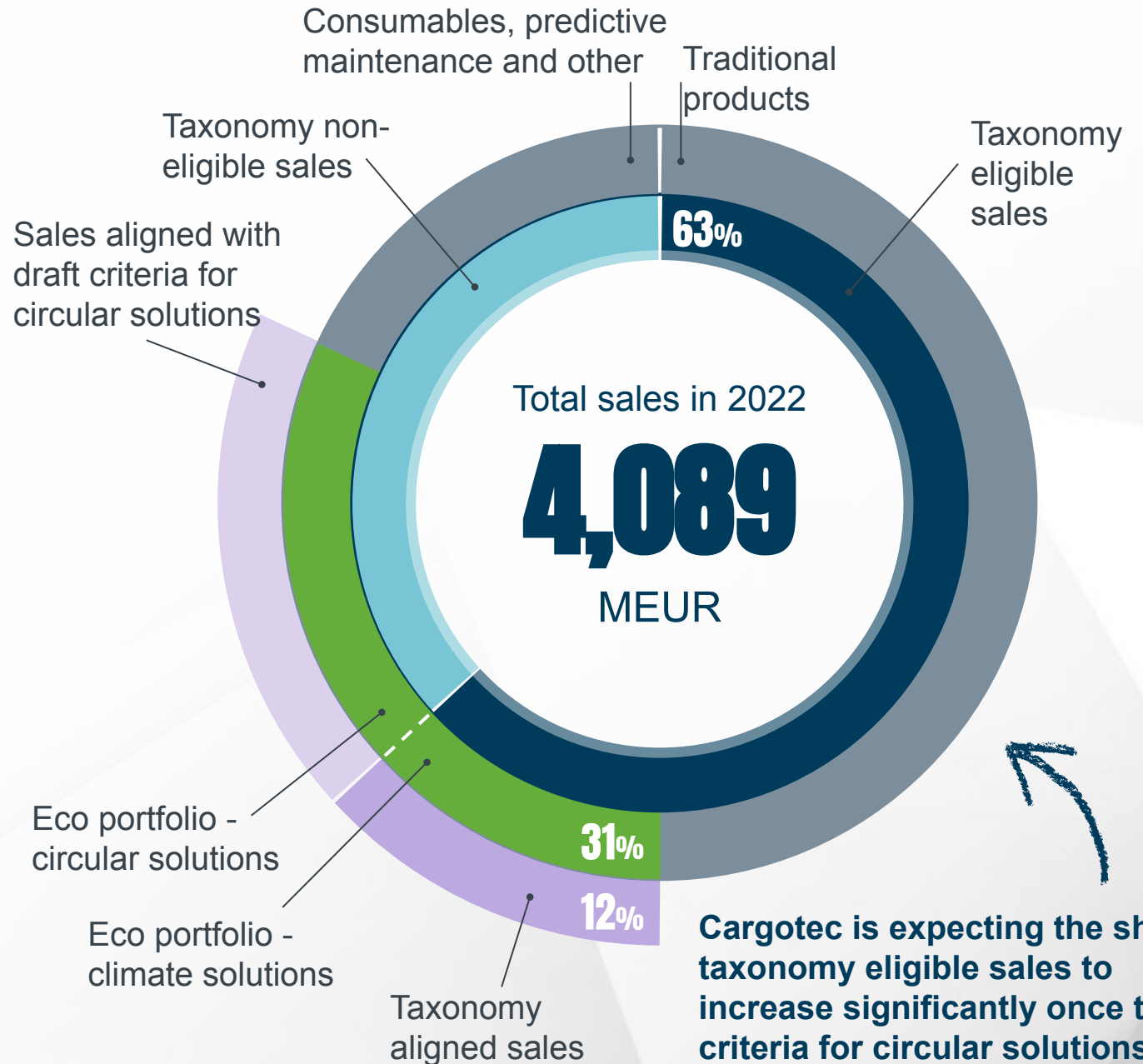
- *Zero-emission equipment*: means an equipment with no tailpipe emissions
- *Low-emission equipment*: means an equipment that provides substantial life-cycle GHG emission savings aligned with the 1.5°C pathway. Low-emission equipment shall demonstrate **-42% GHG savings by 2030**, -63% by 2035 and -90% by 2050 compared to best performing alternative in 2020
- *Transitional equipment*: means an equipment that provides GHG emission savings but insufficient in the context of the 1.5°C pathway. Transitional equipment shall demonstrate **-17% GHG savings by 2024**. Transitional equipment are included when considered the best performing solution in lack of better options, given the technological and economic feasibility. The transitional equipment are included in the eco portfolio until the end of the strategy period (2024) and re-evaluated thereafter.



# Cargotec's eco portfolio is based on EU taxonomy

Cargotec's equipment are reported under activity 3.6 Manufacture of other low carbon technologies

Cargotec's services will be reported under activity 2.10 Repair, refurbishment and remanufacturing, and sale of spare parts



Cargotec is expecting the share of taxonomy eligible sales to increase significantly once the criteria for circular solutions is finalised

**NEXT UP:**



**METTE KJEMS BÆRENTZEN**

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Head of Sustainability  
Kalmar

**ECO PORTFOLIO  
AND TAXONOMY  
INVESTOR EVENT**

3 April 2023



# SUSTAINABILITY

at Kalmar

# AGENDA

- Kalmar's baseline and current CO<sub>2</sub> emissions
- Decarbonisation actions
  - Supply chain (Scope 3 upstream)
  - Own operations (Scope 1 and 2)
  - Product use phase (Scope 3 downstream)
- Further decarbonisation opportunities
  - HVO100
  - Hydrogen

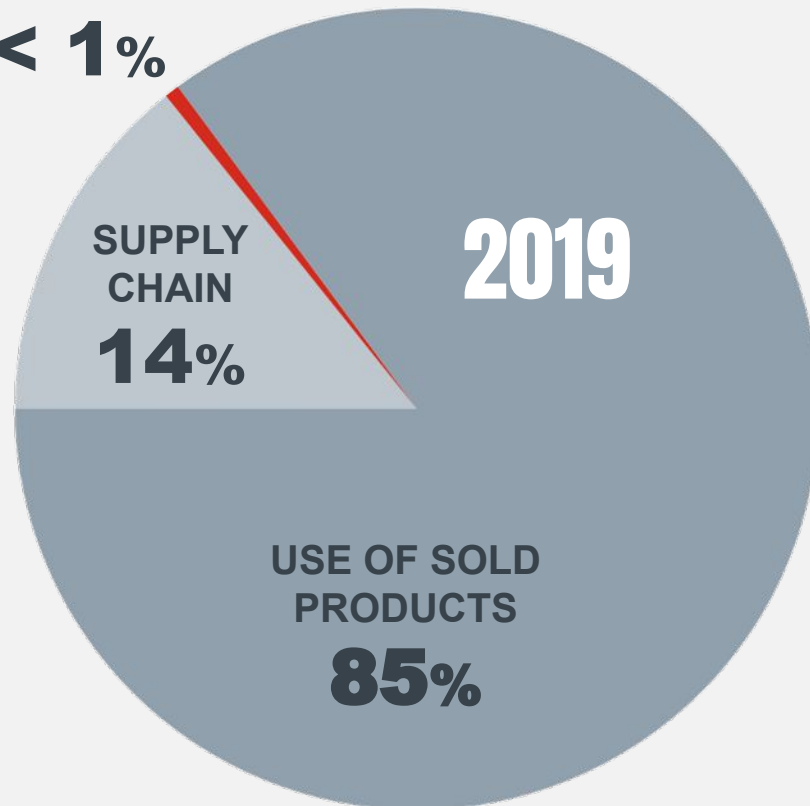


# Kalmar's emissions

10% increase in total emissions  
37% decrease in carbon intensity

OWN OPERATIONS

< 1%



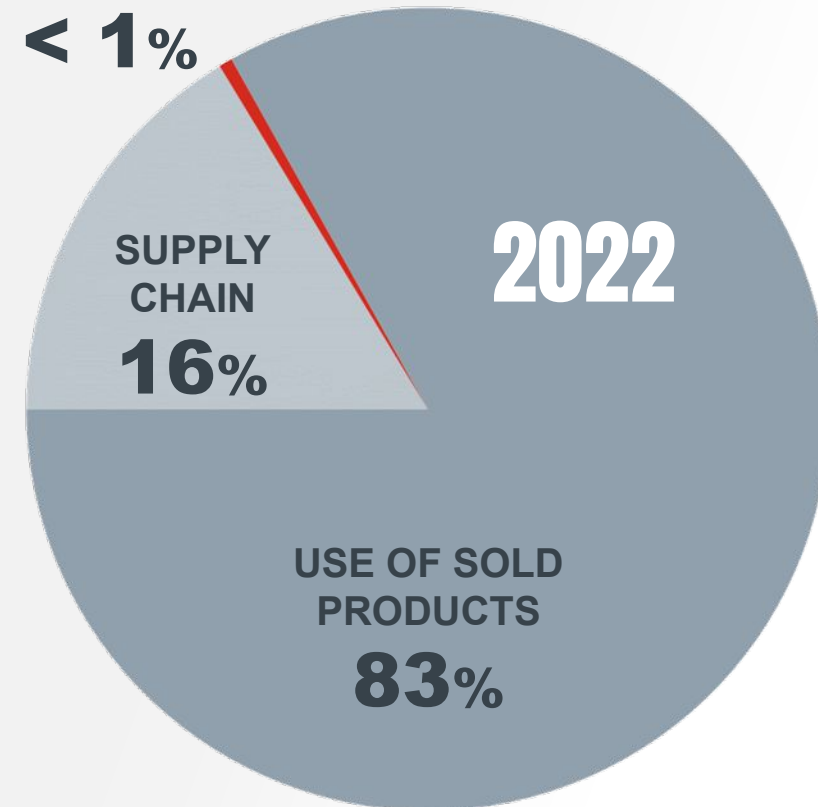
TOTAL EMISSIONS

**3,1 M t CO<sub>2</sub>e**

2.660 t CO<sub>2</sub>e/M€ order intake

OWN OPERATIONS

< 1%



TOTAL EMISSIONS

**3,4 M t CO<sub>2</sub>e**

1.667 t CO<sub>2</sub>e/M€ order intake

# Supply chain emissions reduction actions



## Components

Alternative materials  
Alternative technologies  
Green solutions



## Suppliers

Supplier engagement  
Innovation through partnership  
CO2 requirement setting



## Processes

Supplier selection criteria  
RFP processes  
Supplier development



## Solutions

Innovative solutions  
Circular economy  
Support electrification

## SUPPLIER ENGAGEMENT

# Own operations' emissions focuses on solar panels and renewable electricity at our facilities

Solar panels installed at Tampere & Shanghai sites - Bromma factory to follow in 2023



Expanding share of renewable electricity supply to sites and offices



Electrification of service vans  
Company cars can only be electric



**100%**  
renewable  
electricity by 2030

# Use of sold products' emissions will mainly be reduced with our eco portfolio



## Emissions

- › Eco portfolio (diesel and electric)
- › HVO compatible equipment



## Elimination of inefficiencies

- › Driver training
- › Digitalisation
- › Automation
- › Robotics



## Equipment lifetime

- › Service and maintenance
- › Refurbishment
- › Recycling







## Our eco portfolio: ensuring profitable growth while lowering emissions

### Our eco portfolio has two tasks:

- › **Drive growth** with an offering that responds to an increasing demand for sustainable solutions.
- › **Reduce emissions** where it matters most - in the use phase of our equipment

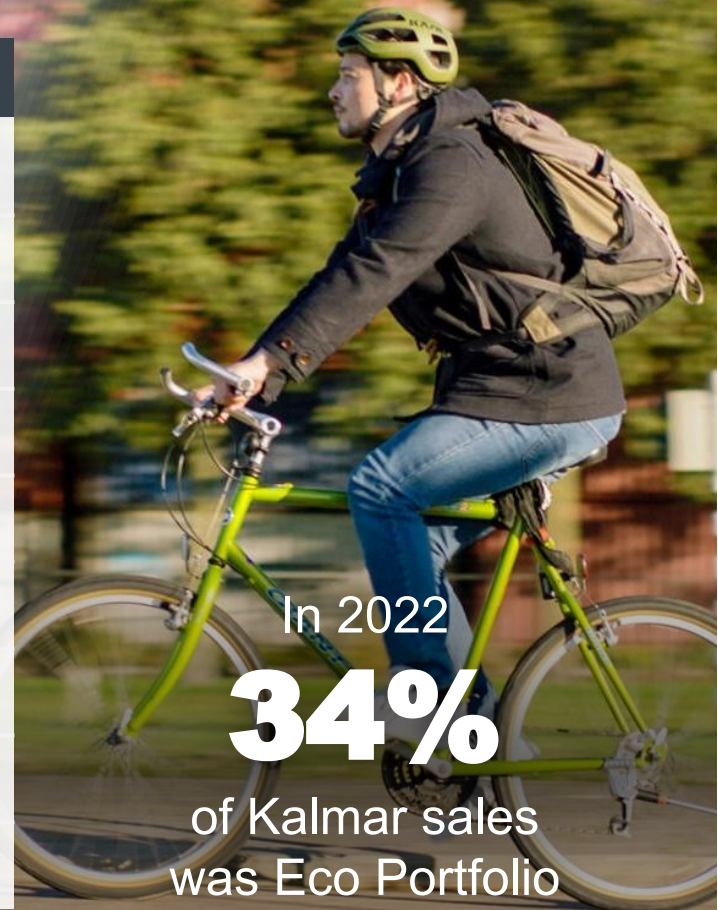
### The eco portfolio includes:

- › Low and zero-emission **equipment** and **software** that enables these emission savings.
- › **Services and spare parts** that keep our equipment in operation for longer.

# Eco portfolio equipment

Climate solutions

DIVISION	PRODUCT
Horizontal Transportation	Fastcharge straddle carrier
	Hybrid straddle carrier
Counterbalanced	Electric Reachstacker
	Eco Reachstacker
	Heavy electric Forklift
	Medium electric Forklift
Bromma	Light electric Forklift / Empty Container Handler
	Electric spreaders
Terminal Tractors	Electric medium Terminal Tractor



In 2022  
**34%**  
of Kalmar sales  
was Eco Portfolio

# Eco portfolio services

Circular solutions

## Maintenance services & spare parts

Regular maintenance and replacing individual parts keep our equipment in operation for longer.



## Used equipment

Our sales and rental of pre-owned equipment enable longer product life cycles.



## Rental services

We advance the “sharing economy” by renting out equipment when the customer does not need to own it.



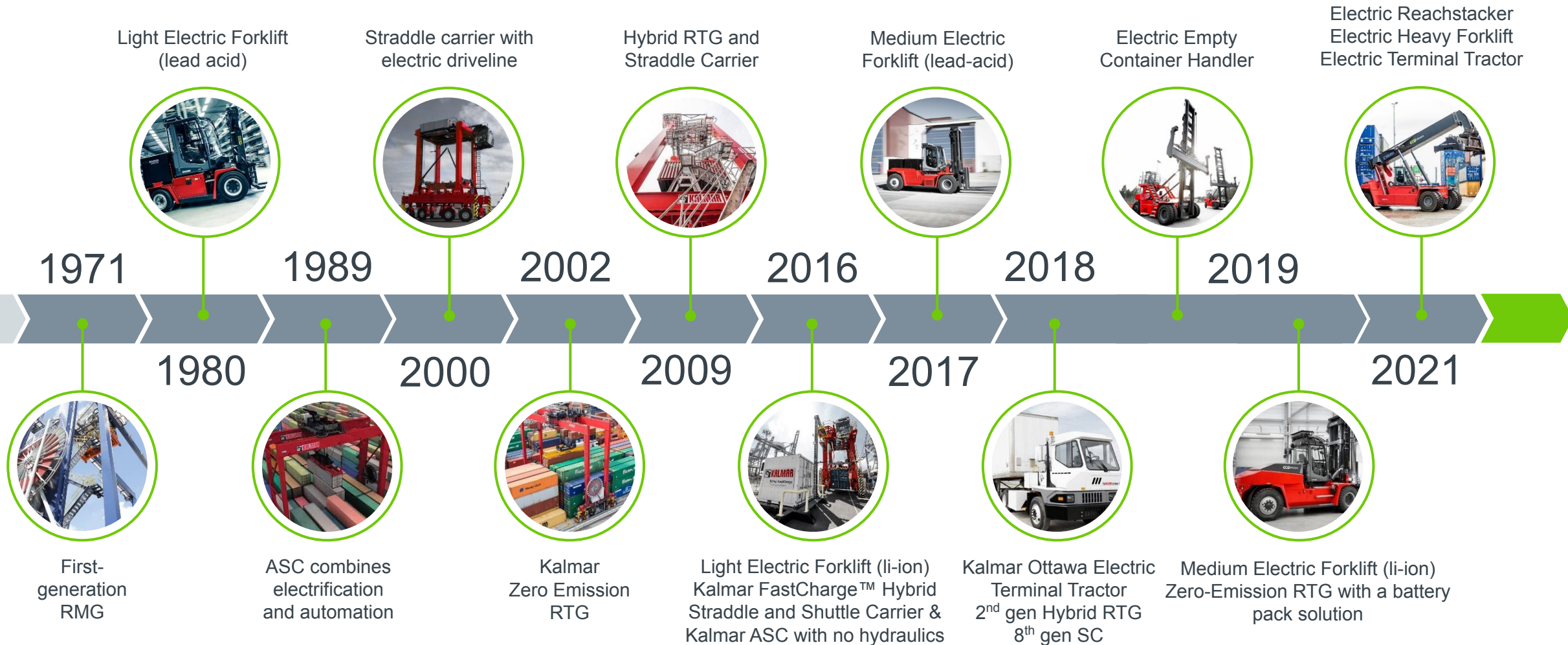
## Refurbishments & modernisation

Our upgrades and modernisations help customers get more out of their equipment and reduce the need to buy new machinery and spare parts.



# Kalmar's electrification journey

Full offering to be available as electrically powered options.



Strong interest in the new

# Kalmar Electric Reachstacker

“ The new Kalmar Electric Reachstacker will play a key role in helping us to achieve our target of zero emissions by 2030. Our investments in electrification, hybrid solutions and biodiesel will enable us to reduce our emissions by 56% in 2022.

**Kurt A. Ommundsen, CEO Westport Norway**

5 year total cost of ownership comparison

**89%**

Eco reachstacker

**100%**

Gloria reachstacker

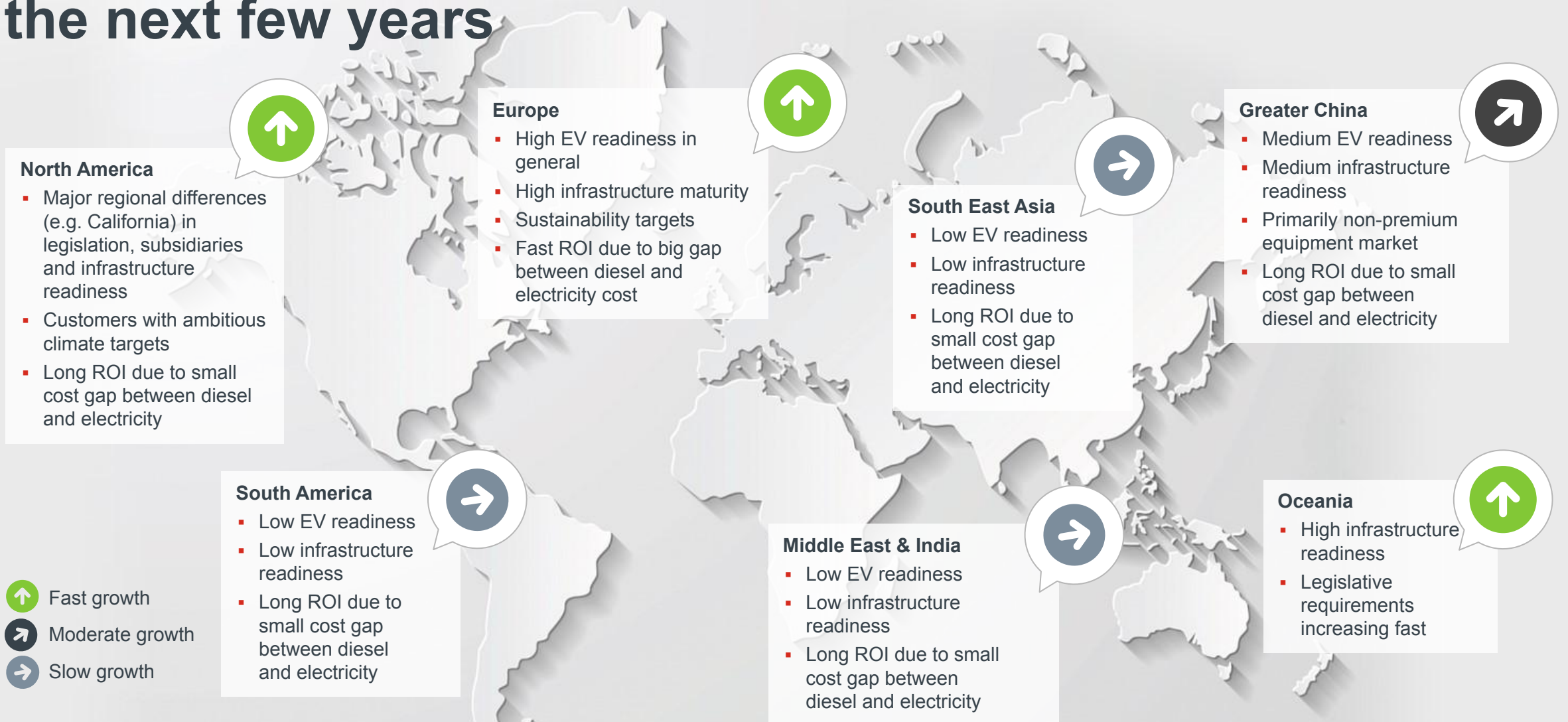
**77%**

Electric reachstacker (326 kWh battery)

No charger included



# Projected market demand for electric equipment in the next few years



# HVO (Hydrotreated Vegetable Oil)

- › HVO is a paraffinic synthetic diesel fuel made of renewable raw materials
- › Reduces CO2 emissions by up to 90% compared to fossil based diesel
- › Same consumption as normal diesel
- › No problems with long time storage
- › Perfect transition towards electrification until production capacity matches market demand and pricing levels reflect mass production
- › HVO certificates from customers allows us to report low diesel equipment emissions

Data Classification: Public / Internal / Restricted / Confidential

**KALMAR**

Terms and conditions of verification

Data Classification: Internal

**KALMAR**

1 (2)

DPWorld Southampton  
204-207 Western Ave  
Southampton  
SO15 1DA  
United Kingdom

20th December 2022

**HVO use verification**

Verification to use HVO as an energy source for the following equipment. Cargotec will use this information as a proof to verify CO2 emissions in the annual reporting.

**HVO type specification:**

- Green D+ (On Road) EN15940
- CO2 emission reduction for using HVO is 90% compared to fossil diesel

**Products HVO use is verified**

- Seven (7) Kalmar Straddle Carriers HSC450

Serial number	Internal project number	Internal Project name	Delivery year
66671	681700	DPW Southampton 2022-01	2023
66672	681700	DPW Southampton 2022-01	2023
66673	681700	DPW Southampton 2022-01	2023
66674	681700	DPW Southampton 2022-01	2023
66675	681700	DPW Southampton 2022-01	2023
66676	681700	DPW Southampton 2022-01	2023
66677	681700	DPW Southampton 2022-01	2023

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Tampere, Finland  
Business identity code  
0956820-1  
Registered office  
Porkkalankatu 5 Helsinki 00180  
FIN-00001

HVO type in the specified equipment for the  
son use of HVO as energy source in specified

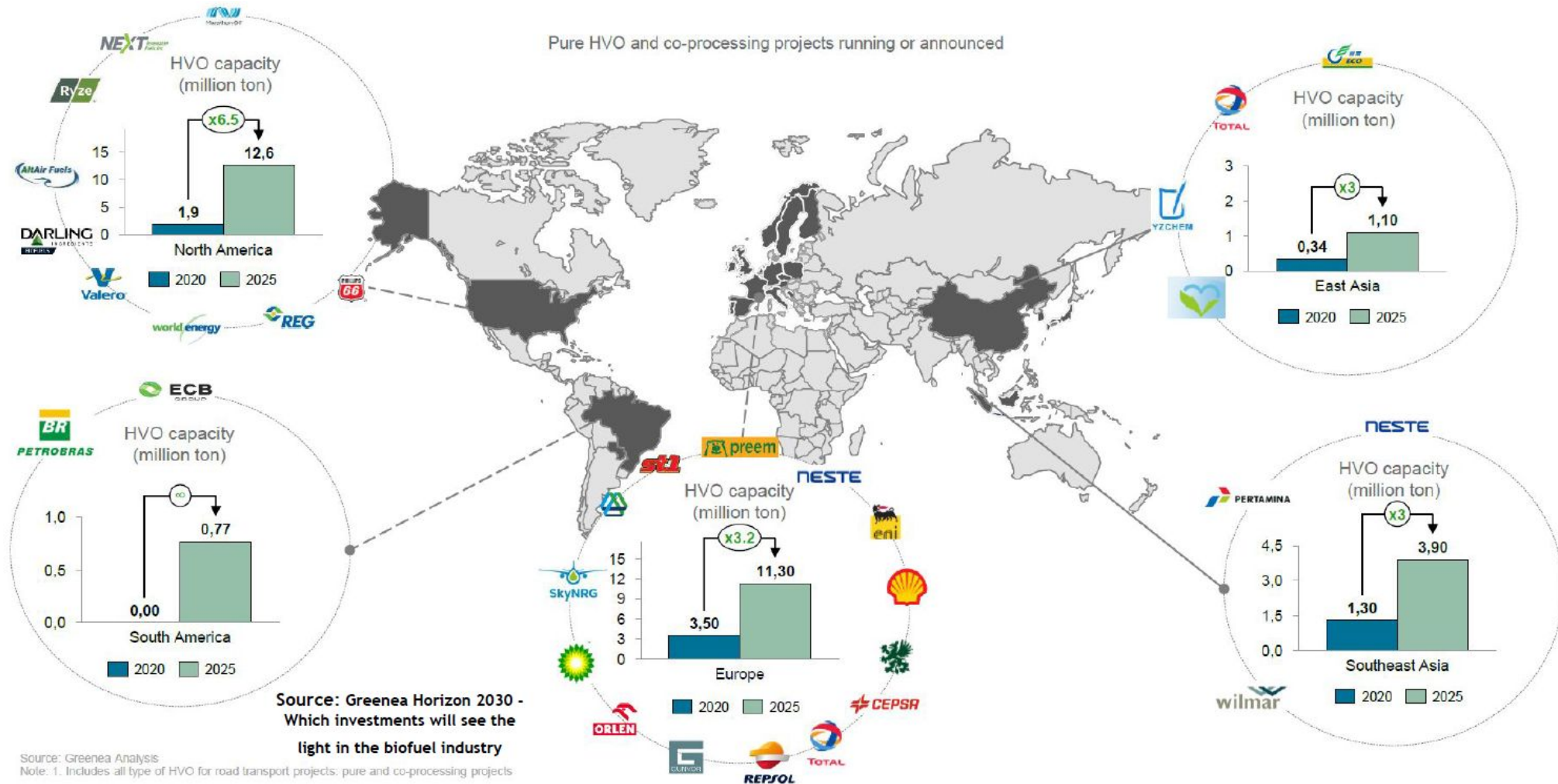
ms above defined conditions and Cargotec  
or climate target related emission reporting

*Mikko Mononen*

Name: Mikko Mononen  
Title: VP Sales Management  
Cargotec Finland Oy, Kalmar

All Kalmar  
diesel  
equipment  
is HVO100  
compatible

# Global HVO production is expected to reach 30 Mton by 2025



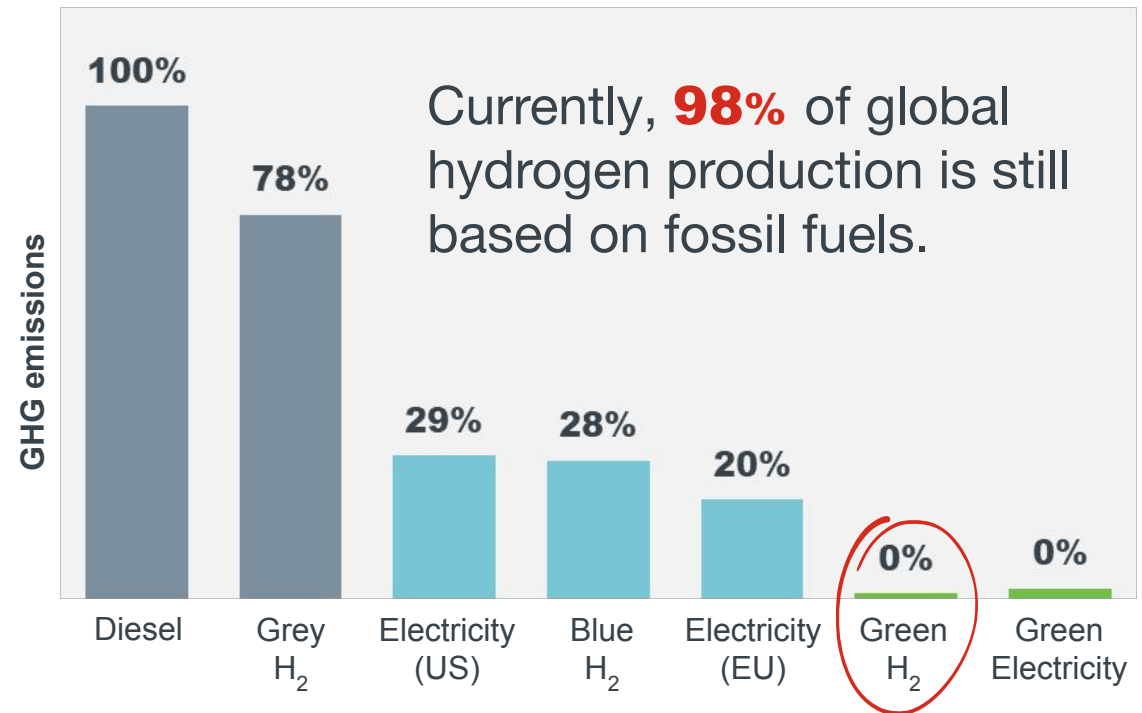
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# Hydrogen as energy source

PROS	CONS
Clean power with no on-site emissions	Limited worldwide production of green hydrogen
Long operating times compared to battery solutions	Global transport and storage infrastructure required
Lower demand on electrical grid	Higher cost
Smaller on-site infrastructure if H <sub>2</sub> is readily available	Special challenges in handling hydrogen

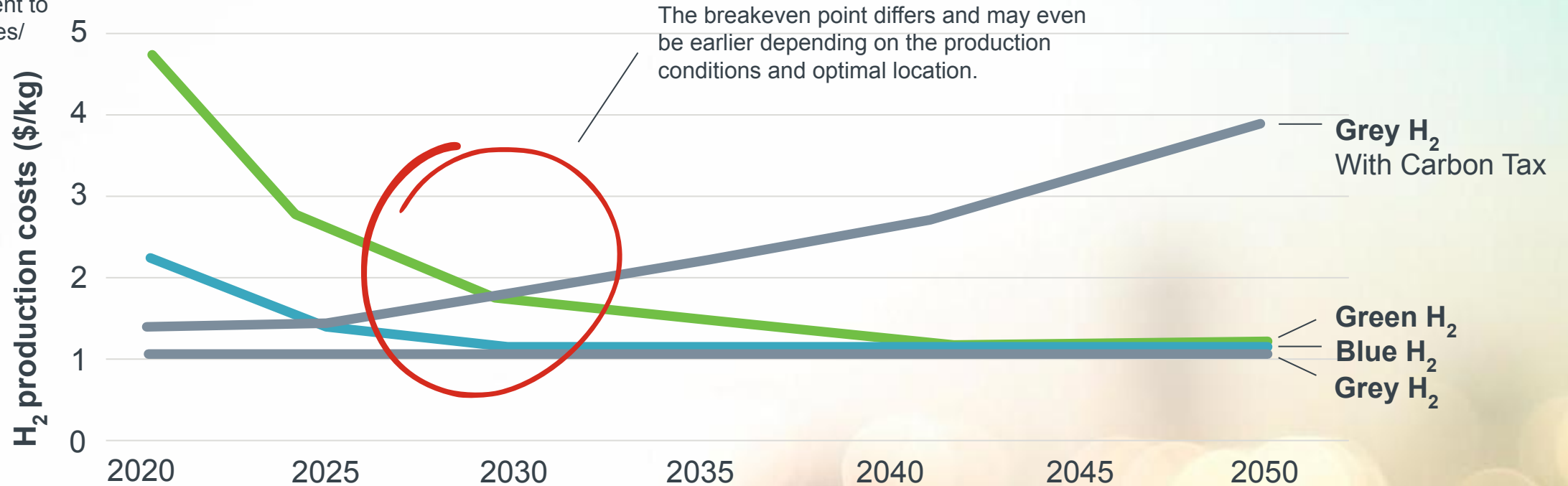
## Pros and cons of hydrogen fuel cell technology versus battery-powered technology



- Manufactured by the electrolysis of water using electricity generated from renewable sources
- Produced from natural gas or methane using steam methane reforming
- Produced by steam methane reforming, or coal gasification, with CO<sub>2</sub> captured and sequestered using carbon capture and storage

# Shift towards green H<sub>2</sub> is driven by its decarbonization potential and increasing cost competitiveness

1kg/H<sub>2</sub>, is equivalent to ~0.3 litres/diesel



# Fuel cell Terminal Tractor pilot project ongoing

- › Fuel cell technologies are emerging as a viable alternative to batteries for zero-emission vehicle solutions.
- › Pilot project will spearhead the fuel cell development for the rest of Kalmar's mobile equipment.
- › Introduction of fuel cell electric machines expected by 2025 in selected product categories.



## Kalmar Collaborates with Toyota Tsusho America and Ricardo to Develop Fuel Cell-Powered Terminal Tractors

BY [CHRISTOPHER HARRISON](#) — January 4, 2023 in [Hydrogen](#)



**137** **1.2k**  
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**THANK YOU**

for your attention

**NEXT UP:**



**TOBIAS BUNNE**

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Head of Sustainability  
Hiab

**ECO PORTFOLIO  
AND TAXONOMY  
INVESTOR EVENT**

3 April 2023

# BUILDING A BETTER TOMORROW

Growing sales and reducing  
the Carbon footprint

Cargotec eco portfolio & taxonomy event

Tobias Bunne

Head of Sustainability, Hiab





# AGENDA

- › What is the problem?
- › Understanding our emissions
- › What makes the biggest impact?
- › Reducing use phase emissions with our eco portfolio
- › How do we do it?
- › Supporting our customers electrification journey

# HIAB'S VALUE CHAIN EMISSIONS



2019 Total emissions  
**1,299 ktCO<sub>2</sub>e**



2022 Total emissions  
**1,594 ktCO<sub>2</sub>e**



# REDUCING OUR FOOTPRINT

## RENEWABLE ENERGY AND MORE SUSTAINABLE PRODUCTION

- › Hudiksvall site net zero
- › Reducing hazardous chemicals
- › Stargard site in Poland switched to 100% renewable electricity
- › 70 green electricity coverage

## ENGAGING SUPPLIERS

- › Decarbonisation handbook
- › Decarbonisation workshops to reduce emission in their production and supply chain
- › Decarbonisation road map

## FOSSIL-FREE STEEL

- › First product with fossil free steel produced
- › SSAB Zero™ — fossil carbon emission-free steel based on recycled steel made using fossil-free electricity and biogas

# USE PHASE **ECO** PORTFOLIO



**SELF PROPELLED**



**SELF POWERED / INTEGRATED**



**POWER AGNOSTIC  
- BEV/ZET**



**TRANSITIONAL**

**Supported by Services for longer life and circularity**

# SERVICES - IMPROVING PRODUCT LIFETIME & CIRCULARITY

## ECO PORTFOLIO



### ORIGINAL PARTS & ACCESSORIES

Original parts maintain performance, reliability, safety, and re-sell value.



### LIFECYCLE SERVICES

Extending the lifetime of the equipment and ProCare service agreements for maintenance at a fixed cost.



### CONNECTED SERVICES

Next generation HiPerform digital services such as HiConnect to further enhance productivity, efficiency, sustainability, and safety.



### SERVICE NETWORK

A global service network and experts to support customers when and where they need it.



### REFURBISHMENTS

Hiab's Refurbishment Center in the US inspects and refurbishes pre-owned truck mounted forklifts and loader cranes.

# TOP PRIORITIES TO **INCREASE** ECO PORTFOLIO SALES AND **REDUCE** CARBON FOOTPRINT - IN DIFFERENT STAGES

## WHAT WE HAVE NOW

Improve performance for products to be more energy efficient

Separate battery power ePTO/eDrive

## STARTING TO HAPPEN

Support installations on electric vehicles and native electric energy sources

## NEAR FUTURE

Power agnostic approach to (BEV/ZET)

## IN THE FUTURE

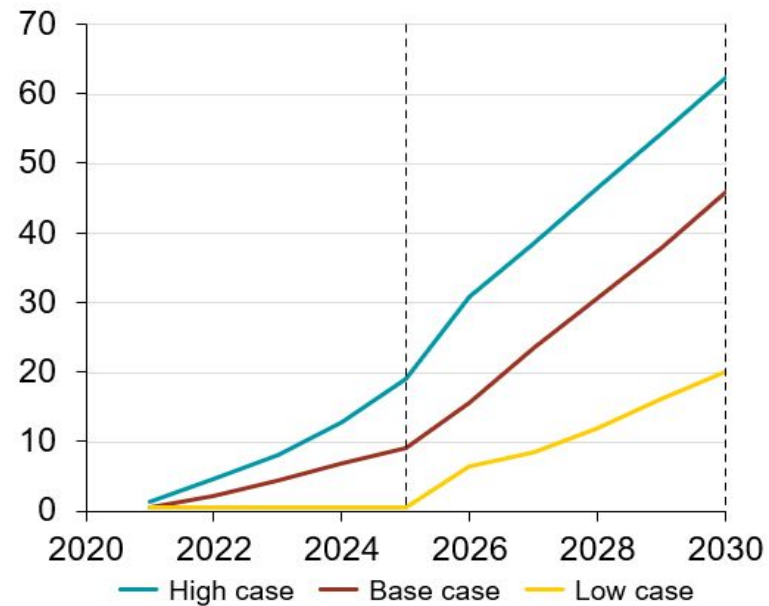
Alternative manufacturing

Alternative materials

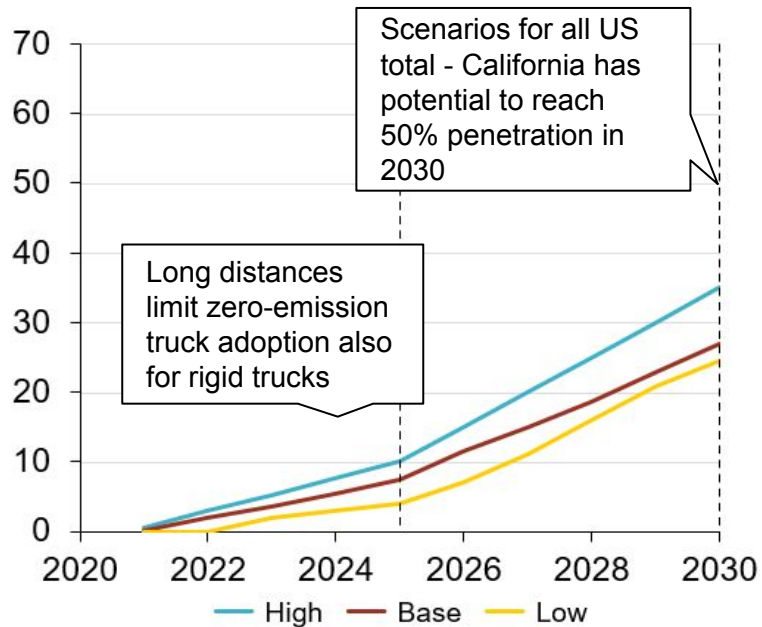
Supply chain efficiencies

# ZERO-EMISSION RIGID TRUCK PENETRATION SCENARIOS

## Europe (2021-2030) %



## USA (2021-2030) %



- › Hiab equipment is compatible with zero-emission trucks
- › Automation features
- › Investing in R&D to make equipment more energy efficient to increase performance
- › Strong OEM relationships

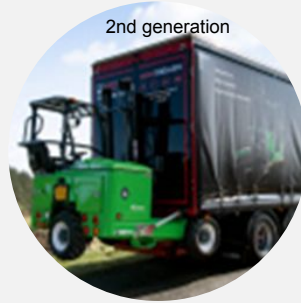
# HIAB ELECTRIC HISTORY

## SECOND GENERATION ELECTRIC EQUIPMENT ALREADY LAUNCHED AND FULL SUITE OF ELECTRIC MOFFETTS

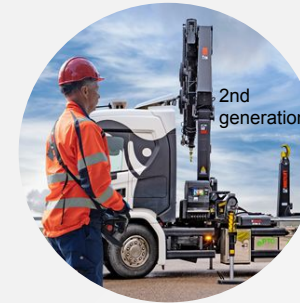
ePT0 launch



Next generation  
MOFFETT E4 NX



ePT044



2012

2014

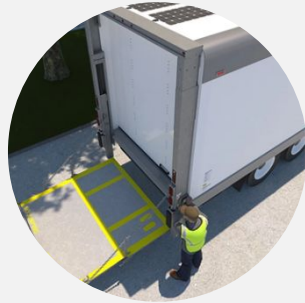
2018

2020

2022



MOFFETT E2 and E4  
electric truck  
mounted forklifts



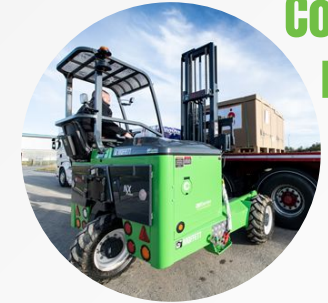
WALTCO solar charger



First loader crane installed  
on electric chassis



MOFFETT E5 NX



MOFFETT E8 NX

Complete  
range



# ALREADY **ELECTRIC** AND **BIOGAS** COMPATIBLE OFFERING

**Noblet groupe France**



**Rivenes Norway**



**Aarstiderne Denmark**



**Lawsons UK (GAS)**



**RT Keedwell Group UK (GAS)**



**DB Schenker Norway**

# BUILDING A BETTER TOMORROW

## HALVING THE CARBON FOOTPRINT AND INCREASING SALES

### CUSTOMERS

New legislation  
demanding electric  
vehicles

Equipment already  
electric compatible

Offer separate  
battery power

Energy efficient

Lifecycle Services

**\*62%**  
of 2022  
emissions

### SUPPLIERS

Fossil-free steel coming

Actively helping suppliers  
to reduce their carbon  
footprint

**\*37%**  
of 2022  
emissions

### HIAB

Renewable energy

Less hazardous material

**\*1%**  
of 2022  
emissions





# Q&A

# Appendix



# Cargotec climate solutions

# Criteria for climate solutions

Compatible with the GHG emission reductions needed in the 1.5°C scenario to reach the net zero by 2050

## Equipment

### Climate solutions include equipment that are:

1. Zero-emission equipment, or
2. Low-emission equipment, including transitional equipment

## Service

### Climate solutions include the following type of service:

1. Maintenance related to zero-emission and low-emission equipment
2. Sale of wearable spare parts related to zero-emission and low-emission equipment

## Software

### Climate solutions include software that enables GHG emission reductions.

For the software, there shall be a clear rationale that explains the GHG savings. The rationale shall clarify the magnitude of the software's climate footprint (GHG emissions) compared to its climate handprint (GHG emission reductions enabled).

## Equipment

- *Zero-emission equipment:* means an equipment with no tailpipe emissions
- *Low-emission equipment:* means an equipment that provides substantial life-cycle GHG emission savings aligned with the 1.5°C pathway. Low-emission equipment shall demonstrate **-42% GHG savings by 2030**, -63% by 2035 and -90% by 2050 compared to best performing alternative in 2020
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# Cargotec circular solutions

# Criteria for circular solutions

Transition to a circular economy by promoting resource efficiency throughout the value chains

## Equipment

### Circular solutions include:

1. Used equipment

## Service

### Circular solutions include the following type of service:

1. Service related to repair, refurbishment and/or remanufacturing of equipment
2. Sale of spare parts

Note: inclusion/exclusion of maintenance and “wearable spare parts” shall be reassessed when the final criteria are published. Those activities are considered crucial to make the equipment last the expected lifetime, ensure optimal use phase and to keep them in the economy.



# Do No Significant Harm criteria and Minimum Social Safeguards

**Do no  
significant  
harm**

to any other  
environmental  
objective

# DNSH criteria focus on Cargotec's operations (as opposed to product performance)

Criteria	Implications for Cargotec
<b>1</b> Climate change mitigation	Activities should not cause substantial additional emissions
<b>2</b> (Climate change adaptation	Physical climate risks should be considered in business continuity planning
<b>3</b> Sustainable use and protection of water and marine resources	Ensure compliance with relevant regulation
<b>4</b> Transition to a circular economy	Ensure that circularity principles are considered in product and service design
<b>5</b> Pollution prevention and control	Ensure compliance with relevant regulation and taxonomy specific requirements
<b>6</b> Protection and restoration of biodiversity and ecosystems	Ensure compliance with relevant regulation and taxonomy specific requirements



Comply with  
**minimum  
social  
safeguards**

# The Minimum Social Safeguards (MSS) are company-level criteria

Criteria	Implications for Cargotec
<b>1</b> Human rights	Have due diligence processes in place to ensure that human rights are respected throughout the value chain
<b>2</b> Anti-corruption	Have safeguards in place to ensure that Cargotec nor its business partners engage in corruption
<b>3</b> Taxation	Ensure that Cargotec complies with all relevant tax legislation
<b>4</b> Fair competition	Have safeguards in place to ensure that Cargotec nor its business partners engage in unfair competition

# Abbreviations and terms

**EU Taxonomy:** a classification system established to clarify which investments are environmentally sustainable, in the context of the European Green Deal. The aim of the taxonomy is to prevent greenwashing and to help investors make greener choices.

**Taxonomy eligible:** eligible business activities are relevant in the eyes of the EU Taxonomy; they are evaluated according to the EU's criteria.

**Taxonomy aligned:** aligned activities are considered sustainable; they fulfill the criteria

**LCA (Life cycle assessment):** a systematic approach to assess environmental impact of a product/system throughout the life cycle

**GHG emissions:** Greenhouse gas emissions from human activities strengthen the greenhouse effect, contributing to climate change. Most is carbon dioxide from burning fossil fuels: coal, oil, and natural gas.

