

An aerial photograph of a complex highway interchange with multiple lanes and overpasses. In the center of the interchange is a large, dark, circular pond. The image is used as a background for the slide.

Sustainability, megatrend as a business potential

Cargotec

20th CENTURY

Increasing world trade, GDP growth and globalisation shape industries

Thinking inside the box

World merchandise trade
2012 prices*, \$trn



Sources: World Trade Organisation; US Bureau of Labour Statistics;
Daniel Bernhofen et al; The Economist

Ports worldwide

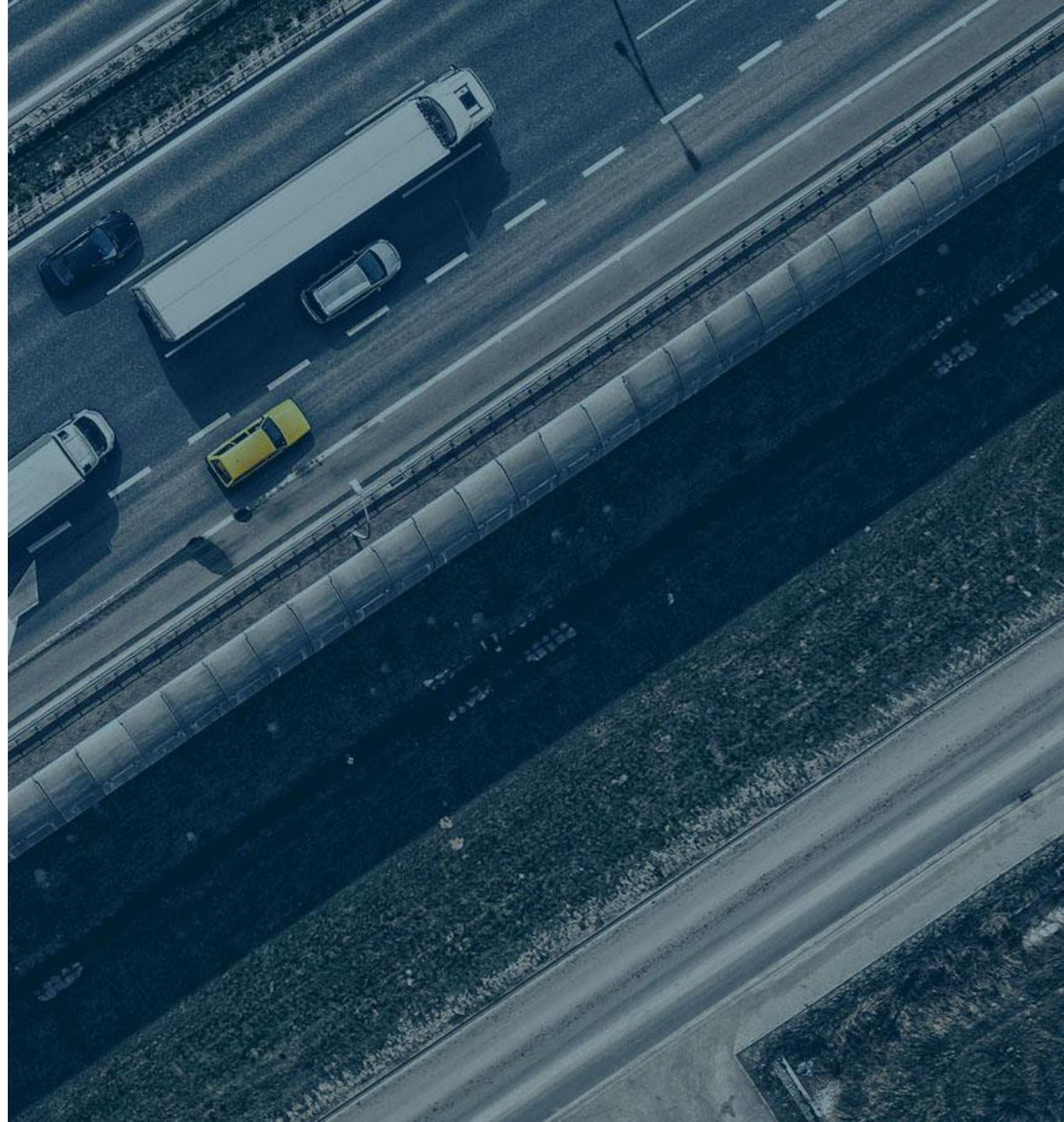
	1965	1970
Port labour productivity, tonnes per hour	1.7	30.0
Average ship size, tonnes	8.4	19.7
Number of loading ports in Europe	11	3
Insurance costs†, £ per tonne	0.24	0.04
Value of goods in transit‡, £ per tonne	2	1

*Deflated by US consumer prices
†Australia to Europe ‡Hamburg to Sydney

21st CENTURY

Tackling climate change will be the grand narrative for all companies

1. Consuming population and growing energy demand will drive the need for continued global trade.
2. Regulation to lower CO₂ emissions to combat climate change will shape all industries. Global climate contract COP21 will eventually result in all companies being carbon neutral most likely by 2050, with forerunners setting targets to 2030.

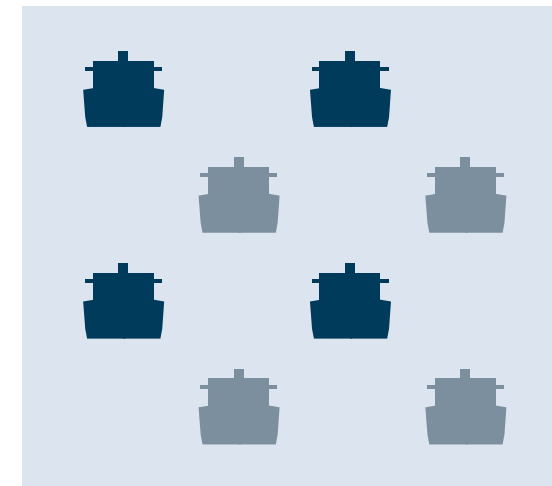




Cargotec has operations in more than **100 countries**

Over **700 million** containers go through ports every year. Every fourth of them is handled by a Kalmar solution.

$\frac{1}{4}$

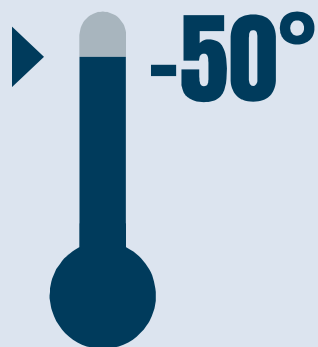


Every other ship in the world carries **MacGregor** equipment

1883

1880s There were no cars

Kalmar history started over **100 years** ago.



Equipment designed for arctic conditions can operate in **-50° Celsius**



0.5
million

Over the **past 70 years** Hiab has delivered more than **0.5 million loader cranes** to its customers.

Strong global player with well-balanced business

Sales:
EUR 3,311 million
EBIT: 7.5%

Kalmar

Sales: **EUR 1,621 million**
EBIT: **8.2%** (EUR 133.6 million)

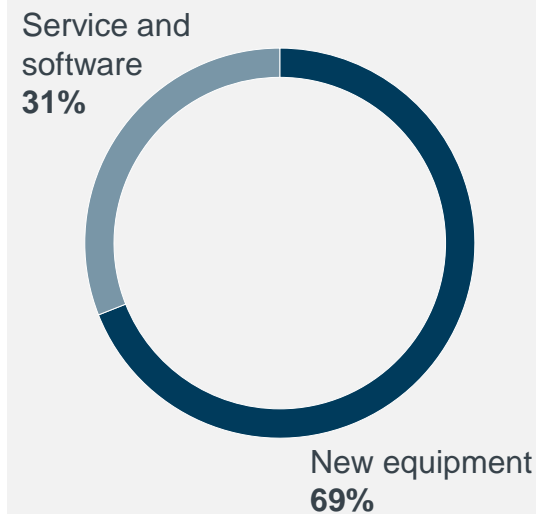
Hiab

Sales: **EUR 1,061 million**
EBIT: **14.2%** (EUR 150.2 million)

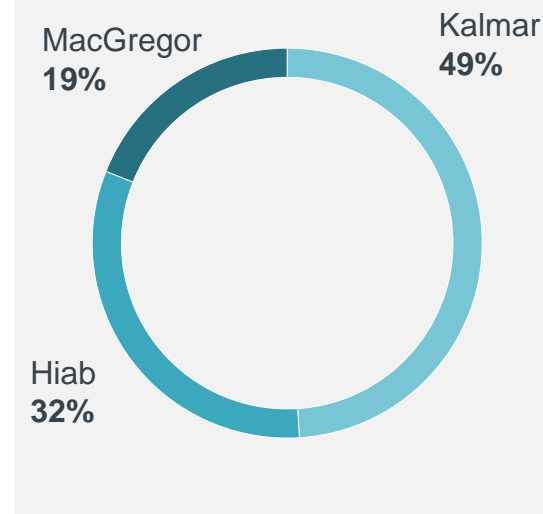
MacGregor

Sales: **EUR 631 million**
EBIT: **1.6%** (EUR 10.0 million)

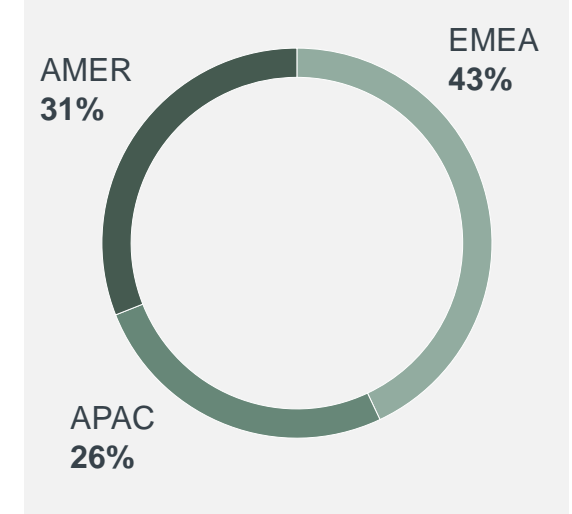
**Sales split: new
equipment vs service
and software**



**Sales by
business areas**



**Sales by
geographical area**



Strengths we are building upon

Leading market positions
in all segments

Strong brands

Loyal customers

Leading in technology

Megatrends

Consuming population
Urbanisation
Growing energy demand
Digitalised world

Customers need
solutions for
Better efficiency
Sustainability
Safety

Global industry leader

Service and software offering,
equalling 40% of revenue.

2020 Leader in intelligent
cargo handling

2018 Services
leadership

Engaging and
developing world-class
leadership

Leading in
cargo flow
digitalisation

Building
a world-class
service offering

We will
win by

2016 Leader in cargo
handling equipment

We shape the future
of cargo handling

Sustainability is a great business opportunity

We serve an industry, which produces the majority of emissions as well as GDP in the world.

It is a surprisingly inefficient industry with potential to improve.

Our vision to be the leader in intelligent cargo handling also drives sustainability.

Future business growth will not come from from increasing efficiency and life-time solutions

We are in a position to be the global frontrunner, setting the sustainability standards for the whole industry.

We are ready to shape the industry to one that is more sustainable.

Our customers in varying sectors face an increasing need to decrease inefficiency and energy usage



MACGREGOR is part of sea cargo handling value chain that transports 90% of global trade. Container shipping accounts 60% of that. 2.2% of annual global GHG emissions in 2014 were emitted by international maritime shipping, with container ships 1/4 of the amount.

MacGregor is calling for industry collaboration to increase efficiency in the maritime transportation with it's "so much potential do not waste it" initiative



As an example, **HIAB** connects with industries that account directly or indirectly for an estimate of 50% of global GDP. One of these industries, construction and housing, is responsible of 30% of global CO₂ emissions.

Hiab is developing light-weight solutions to decrease the amount of emissions produced by the truck when transporting Hiab products



In the big picture, **KALMAR** is a part of the logistics industry, which emissions contribute to ~6% of GHG emissions worldwide. 230 million people are directly exposed to other air emissions in the top 100 world ports.

50% of Kalmar's offering portfolio is available with electric and hybrid solutions decreasing the GHG emissions and decreasing the air emission impacts on human health





Our actions are more
sustainable than we even claim.

20%

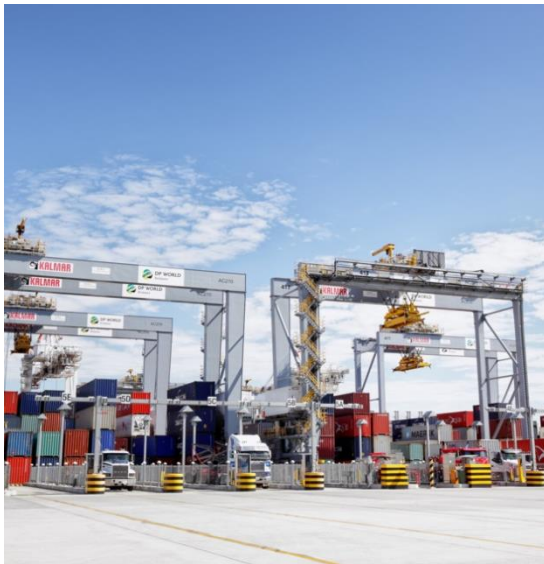
of our revenue in 2016
was related to promoting
environmental efficiency

Offering for Eco-Efficiency is our competitive advantage

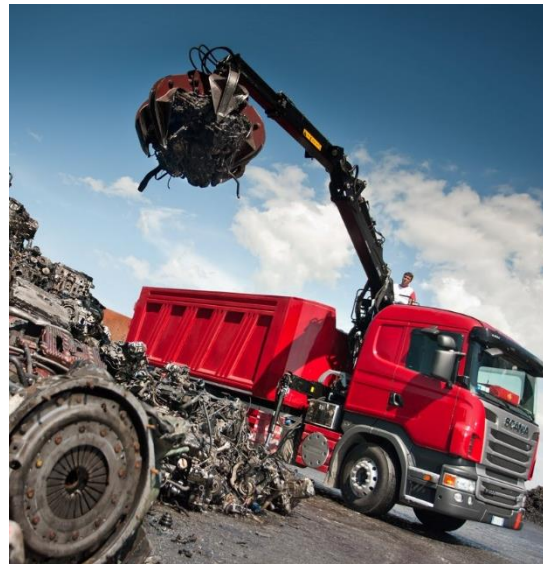
Sales account for around 20% of the total revenue in 2016:

Significant R&D and digitalisation investments drive the growth of offering for eco-efficiency

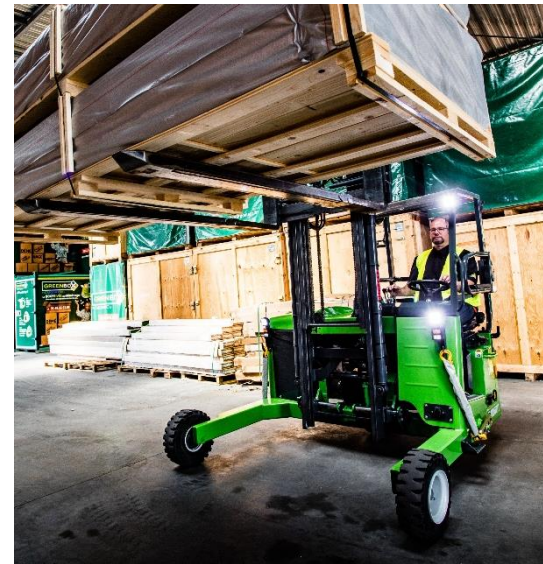
Systems
efficiency



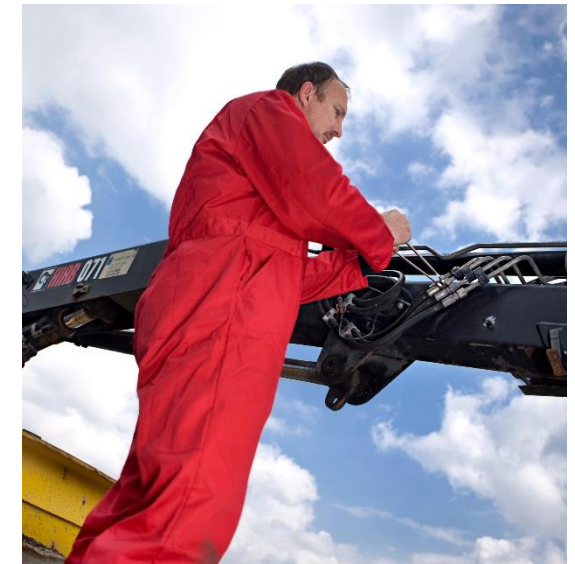
Efficiency for
environmental industries



Emission
efficiency



Resources
efficiency



Sea Freight Transport is by far the most sustainable transport mode in terms of emissions

Compared to transportation of goods

- by trains, sea freight emits
~2-3 times less emissions.
- by trucks, sea freight emits
~3-4 times less emissions.
- by air cargo, sea freight emits
~14 times less emissions.

Case: Navis Terminal and Carrier Solutions aim to reduce inefficiency and waste in the global supply chain

Planning & Execution: plan and execute all moves across terminal/
Increases throughput and lowers cost

Analytics for better operational decision making

Capture all billable events for accurate and timely billing

Automate & improve truck turn times

Optimise container yard moves, save cost and reduce moves

Optimise vessel load and discharge across cranes

Optimise rail load and discharge processes

€17 BILLION inefficiency
19m. CO₂ eqv tonnes on moving only empty containers

Optimise vehicle routing and costs

Track vessel operational performance and environmental compliance

Optimise vessel stowage planning

Source: McKinsey

Capitalising global opportunities for future automation and software growth

Industry trends support growth in port automation:

- Only 40 out of 1,200 terminals are automated or semi-automated currently globally
- Ships are becoming bigger and the peak loads have become an issue
- Increasing focus on safety
- Customers require decreasing energy usage and zero emission ports
- Optimum efficiency, space utilization and reduction of costs are increasingly important
- Shortage and cost of trained and skilled labour pushes terminals to automation

Significant possibility in port software:

- Container value chain is very inefficient: total value of waste and inefficiency estimated at ~EUR 17bn
- Over 50% of port software market is in-house, in long term internal solutions not competitive
- Navis has a leading position in port ERP

Automation creates significant cost savings*

Labour costs	60% less labour costs
Total costs	24% less costs
Profit increase	125%



* Change when manual terminal converted into an automated operation

Case: Hiab as digital pioneer in on-road sector – the future of crane operation today with HiVision™

HiVision™ is the revolutionary and award-winning vision-based crane control and operation system

- First application for timber handling operation
- Increasing efficiency, safety, and comfort
- Commercially available since Q1 2017
- Proven by customers in 9+ countries already

Developing HiVision as platform to enable further applications and usage scenarios. Key step towards **semi-automated and autonomous** operation

Additional value to attract a **new generation of talents.**



Case: MacGregor, entering into new industry sectors

MacGregor supplied mooring systems for the world's first floating wind farm; Statoil's 30MW Hywind pilot wind farm, in Scotland, UK.

Currently, there are around 14,384MW of installed offshore wind power capacity in 14 markets worldwide. According to the Global Wind Energy Council (GWEC), 2017 is forecast to surpass 2015's record total, with roughly 60GW of additional installed grid-connected capacity globally; 3GW is scheduled to be installed across Europe alone. This figure is predicted to rise to an annual market total of around 75GW in 2021, resulting in a combined worldwide total of 800GW by the end of the year.

MacGregor technology for oil and gas sector is adaptable to new renewable units. MacGregor has designed and delivered reliable mooring solutions for offshore floating production units for a long time operating in harsh North Sea conditions.



Photo: Roar
Lindefjeld/Statoil

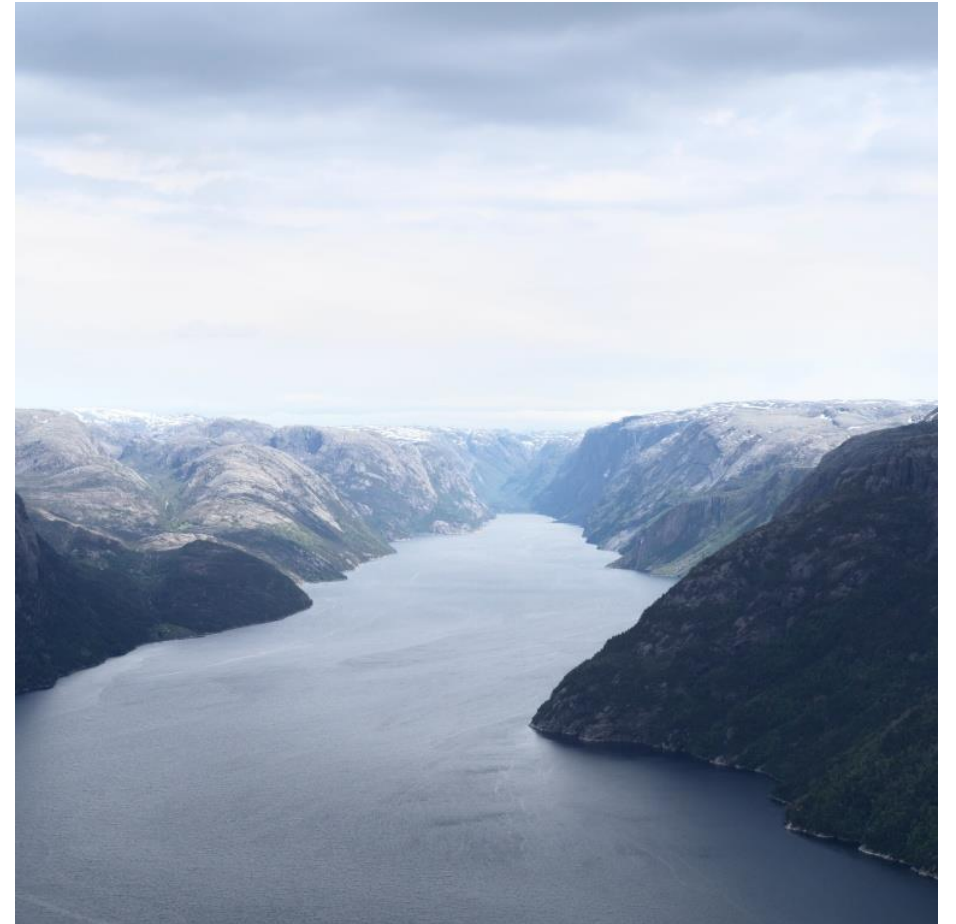
Having the impact – on the business and on the planet

Transportation, including logistics are under enormous change due to digitalisation and automatisisation

Global annual GHG emissions from transportation sector is around 24%, or even more, and due to expected growth in volumes, emission increase is estimated to multiply in road freight traffic and in international maritime logistics

With current systems, the waste in cargo handling industry is estimated to be around 17-20 billion euros due to inefficiency. That waste produces annually around 19m. CO₂ eqv. tonnes in moving empty containers only

Cargotec has the software to decrease efficiency, products to make operations cleaner, service to upgrade and optimise existing fleets to be cleaner and live longer, and innovations to shape the current industry processes.



Having the impact on the planet – but how much for the business

Cargotec's own operations produce annually around 36,000 CO₂ eqv tonnes.

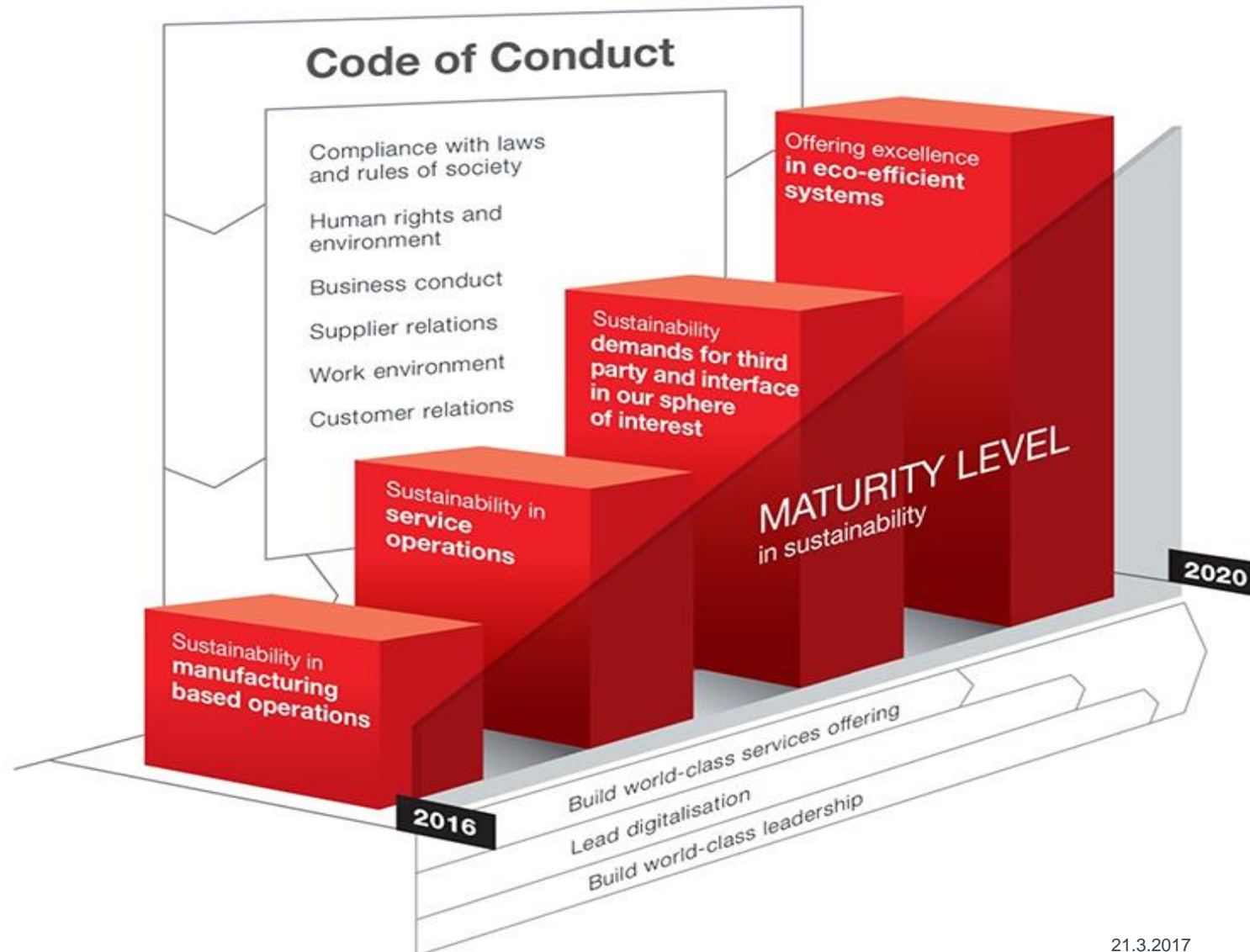
In Tampere we have the biggest European inland terminal test field powered with renewable energy.

Our factories go through several actions per year in decreasing energy usage in production

However, CO₂ from Cargotec's own production is comparable with the CO₂ emissions of lifetime consumption from about 11 traditional diesel-driven RTG cranes.



Cargotec sustainability roadmap: supporting the growth strategy and managing the risks



Pushing the operational efficiency: high standards in compliance and sustainability

Code of Conduct sets the foundation for our way of working.

We continuously monitor and develop our environmental and safety management with QEHS standards and tools.

Our HR policies, processes and tools target to equal treatment and competence development of our employees to develop high performing teams.

We set clear ethical sustainability criteria to our suppliers with systematic audits and assessment processes.

Our compliance programme ensures global compliance policies and processes with grievance mechanism in place.



Cargotec managing the impacts on sustainable development

Own operations

Within the sphere of interest

