



PIANC APAC Conference 2024

Coupling sustainability and technology in port equipment

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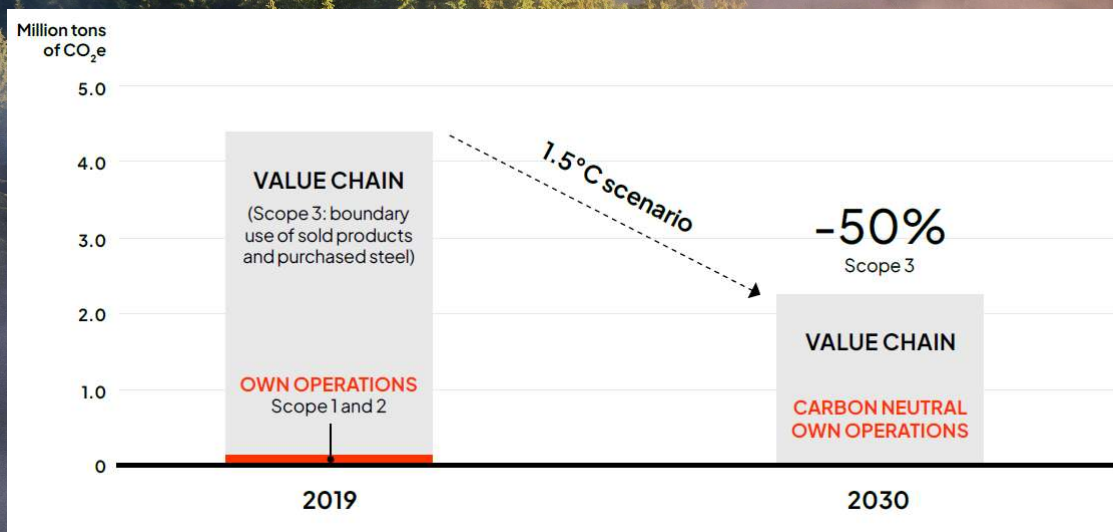
KONECRANES

Sustainability at the core of Konecranes business strategy

Konecranes makes material handling safer, more productive and sustainable. Uncompromised safety, high ethics and inclusiveness drive us. We work for a decarbonized and circular world for customers and society.



Sustainability at the core of Konecranes business strategy



KEY FOCUS AREAS

- Electrification of diesel-powered equipment
- Smart product design focusing on energy efficiency, durability and maintainability
- Optimizing material handling with automation and digital solutions
- Purchasing steel with minimum emissions
- Focusing on energy efficiency and renewable energy and offsetting the unavoidable emissions of own operations.

Konecranes' sustainability work is being valued by external parties – Ratings and recognitions

Rating	Scale	Score	Year
EcoVadis	100 to 0	73 (Gold)	2023
CDP Climate Change	A to D-	A-	2023
Sustainalytics ESG Risk Rating	0 to 100	14.4. (Low risk)	2023
MSCI ESG Rating	AAA to CCC	AAA (Leader)	2024
ISS ESG Rating	A+ to D-	B- (Prime)	2023
Moody's ESG Scorecard	100 to 0	50 (Robust)	2022



Further information on Konecranes.com > Sustainability at <https://www.konecranes.com/about/sustainability/the-strategic-role-of-sustainability>

Design for Environment

Konecranes' targets:

- All new products and services shall be more sustainable than the previous generation
- Halving the absolute Scope 3 GHG emissions from purchased goods and services and use of sold products by 2030 (base year 2019)

Raw materials and component manufacturing

- Weight and material optimization
- Manufacturing method selection
- Substance management
- Reusable / recycled / renewable materials and substances
- Low-carbon steel





Product use phase


























- Efficiency improvements
- Technologies using less energy
- Smart power management
 - Regenerative energy
 - Standby/idle energy reduction
 - Energy storages
- Automation for less waste

Maintenance and end of life

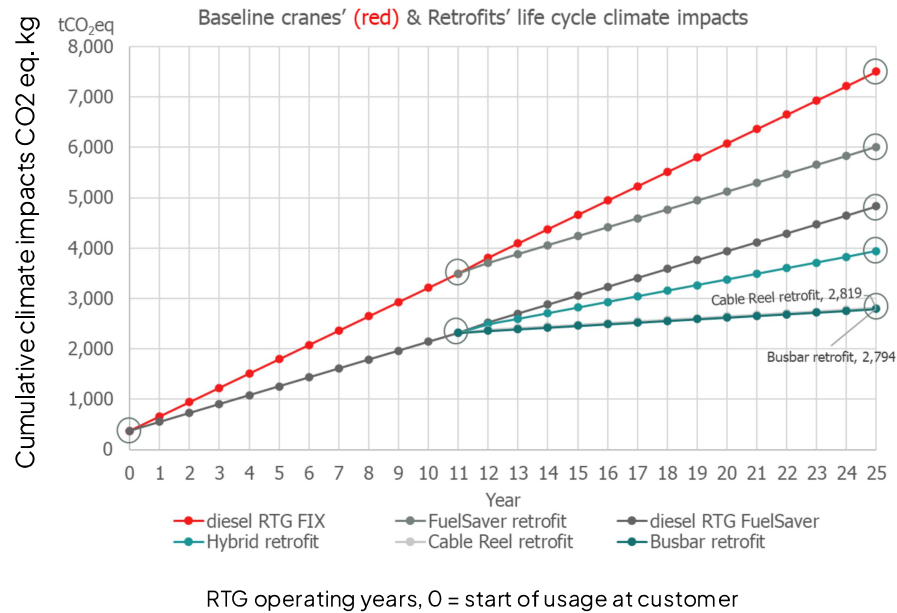
- Smart maintenance practises
- Remote monitoring
- Remote feature upgrades
- Repurposing
- Remanufacturing
- Enabling recycling

KONECRANES® ecolifting™

-  Available today
-  Feasible to develop
-  Available as retrofit to Konecranes equipment
-  Available as retrofit to any brand of equipment
- *) New alternative energy such as Hydrogen (H₂) via dual fuel combustion engine or fuel cells pure

RTG		 Ultra-cap	 Li-ion battery	 Cable reel Busbar Li-Ion battery	 New energy*
MHC		 Ultra-cap	 Li-ion battery	 External power supply Li-Ion battery	 New energy*
SC		 Li-ion battery	 New energy*	 Li-ion battery	 New energy*
Lift Trucks		 Ultra-cap	 New energy*	 Li-ion battery	 New energy*
AGV		 Li-ion battery	 New energy*	 (Lead-acid battery) Li-ion-battery	 New energy*

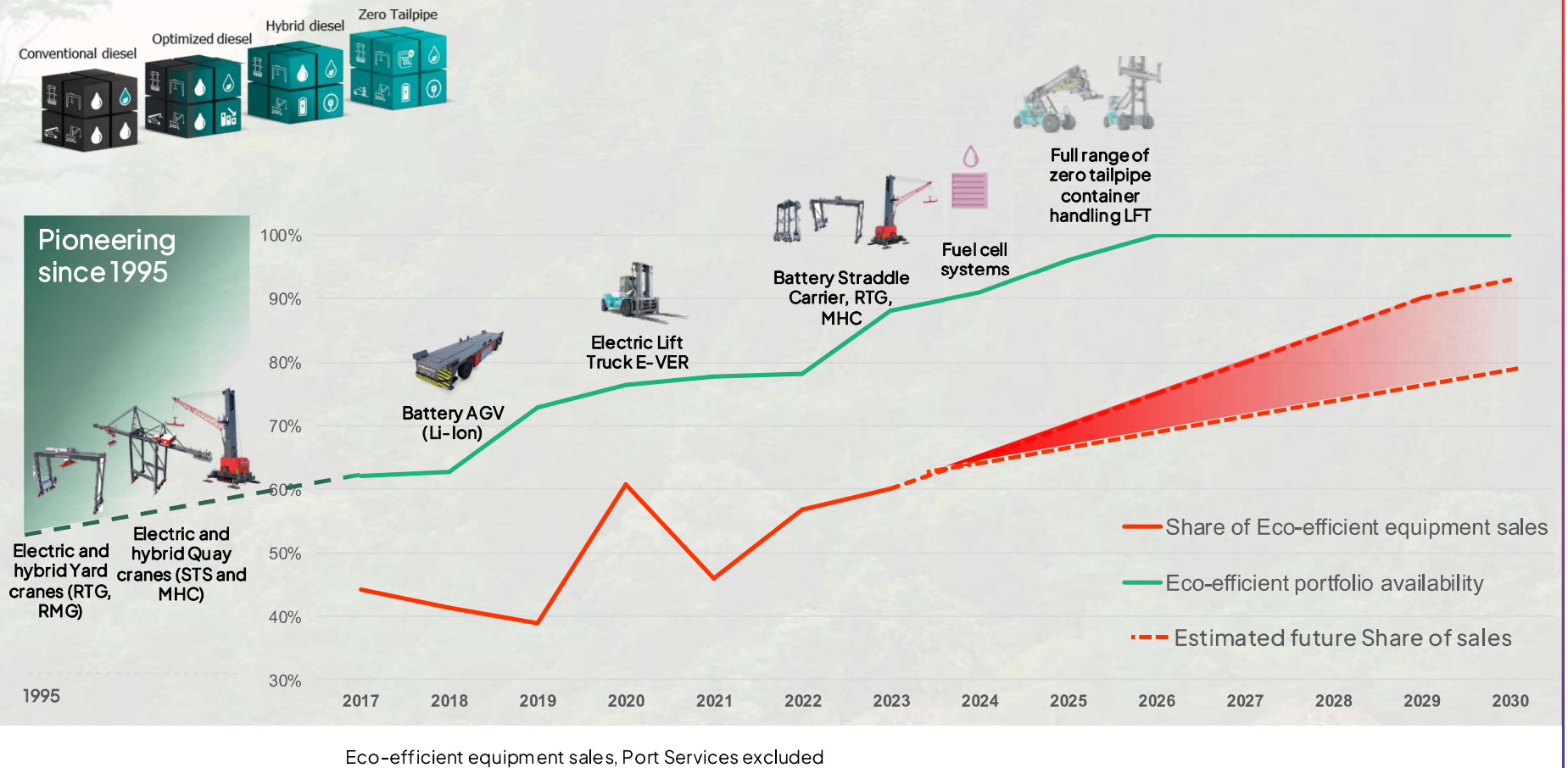
Climate impact results RTG Ecolifting retrofit



Retrofit	Δ [tCO ₂ eq/lifetime]	Δ %
Diesel RTG Fixed Speed Generator → Diesel RTG FuelSaver	-1 497	-20 %
Diesel RTG FuelSaver → Hybrid RTG	-889	-18 %
Diesel RTG FuelSaver → eRTG Cable reel	-2 010	-42 %
Diesel RTG FuelSaver → eRTG Busbar	-2 035	-42 %

Results represent this scenario within the presented boundaries, absolute values may vary with different LCI input data sources

We have a clear eco-portfolio road map

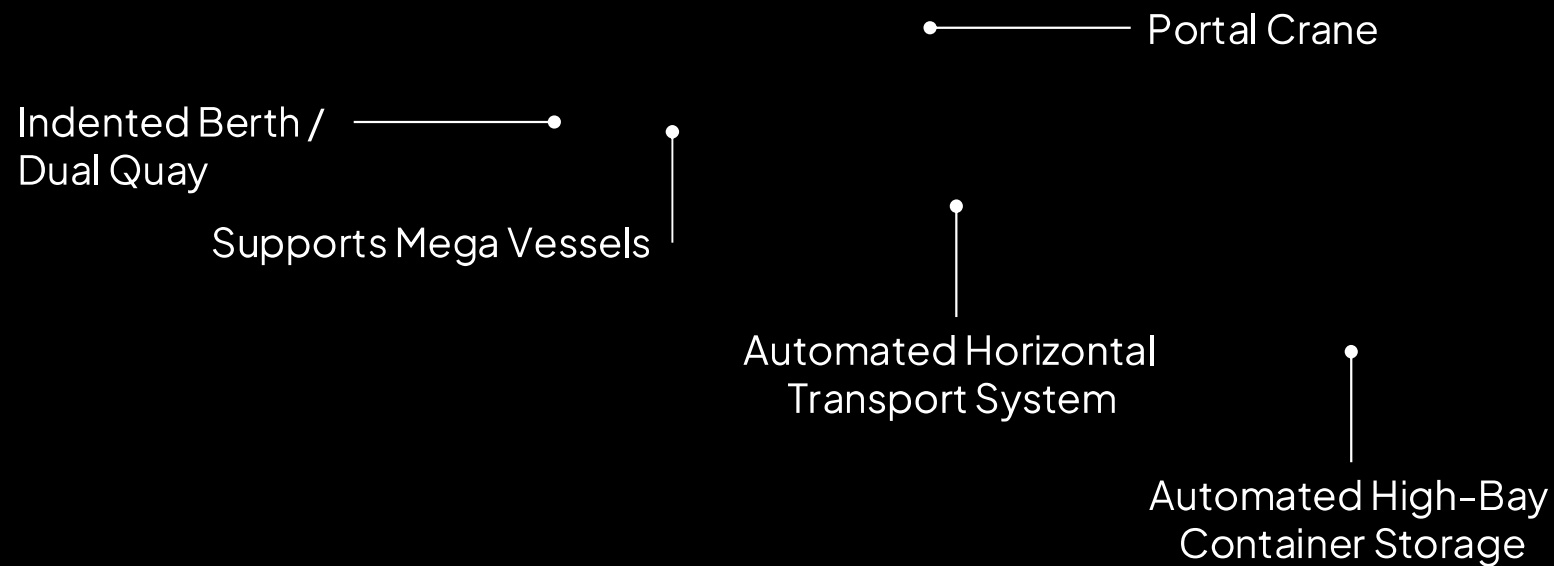


Technological leadership in automation



Future Fields Concept

Redefining the relationship from ship to stack



Digital Services



Digital services across systems, across fleets, terminal-wide



Coupling sustainability and technology
is a wider effort within the entire supply
chain, governmental regulations, and
commercially technological
advancements that extends the realm of
a traditional OEM