

Case Konecranes

Green-Forward Manufacturing



Konecranes is a global leader in material handling solutions, serving a broad range of customers across multiple industries. We consistently set the industry benchmark, from everyday improvements to the breakthroughs at moments that matter most, because we know we can always find a safer, more productive and sustainable way.

Konecranes moves what matters



Konecranes in numbers in 2024

ACTIVE IN

~50

COUNTRIES

13.1%

COMPARABLE
EBITA MARGIN

EQUIPMENT IS

~60%

OF TOTAL SALES

€4.2

BILLION IN SALES

SERVICE IS

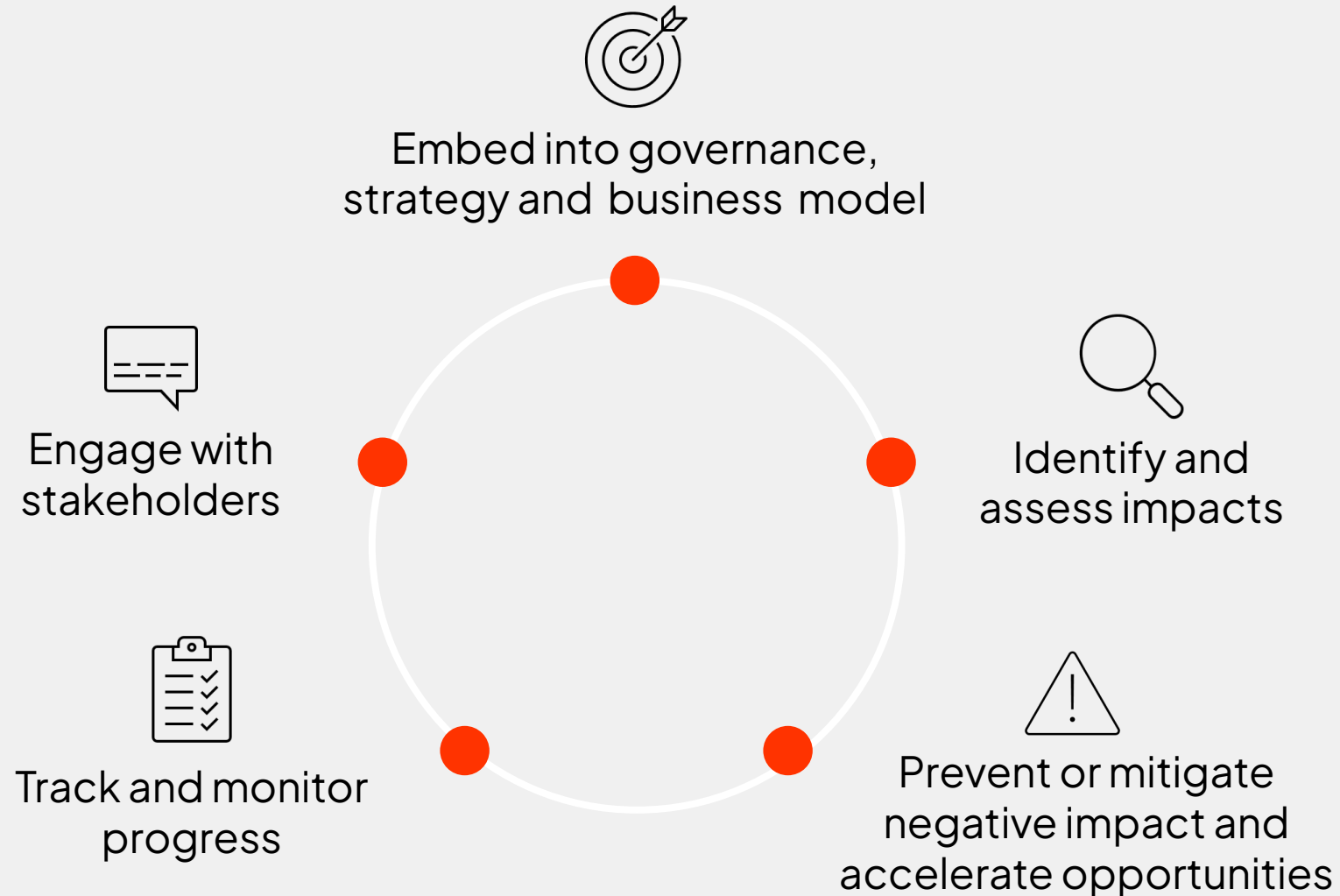
~40%

OF TOTAL SALES

~16,800

EMPLOYEES

How to enable green-forward manufacturing in practice?

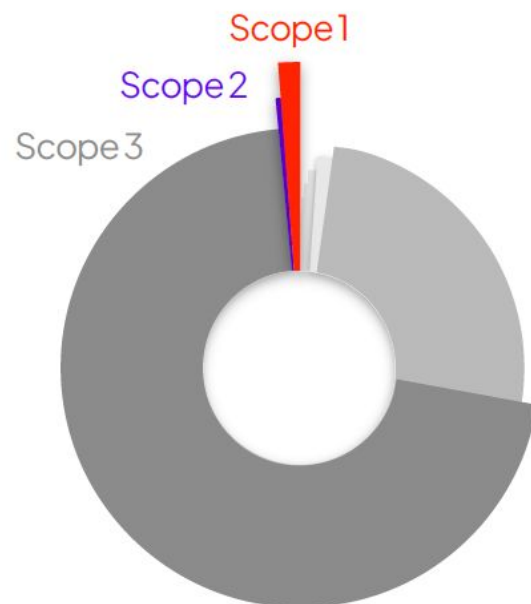


Practical things to consider

- Know your impacts
- Focus on topics that matter – Many small activities can lead to sizeable gains but only significant improvements matter in a big picture
- Talk is nice – but only implemented activities translate to results

Konecranes' climate impact in 2024

5,274,000 CO₂e tons



Category	CO ₂ e tons	Percentage
Scope 1	35,000	0.7%
Scope 2	2,400	0.0%
Total Scope 3	5,236,600	99.3%
● Use of sold products	3,600,100	68.3%
● Purchased goods and services	1,349,900	25.6%
● Upstream transportation and distribution	196,900	3.7%
● Investments	24,500	0.5%
● Downstream transportation and distribution	19,700	0.4%
● Employee commuting	13,500	0.3%
● Business travel	13,000	0.2%
● Fuel and energy related activities	12,600	0.2%
● End-of-life treatment of sold products	4,000	0.1%
● Capital goods	2,300	0.0%
● Waste generated in own operations	200	0.0%

Emissions from our own operations = Vehicle fleet and energy used in manufacturing sites

Value chain emissions

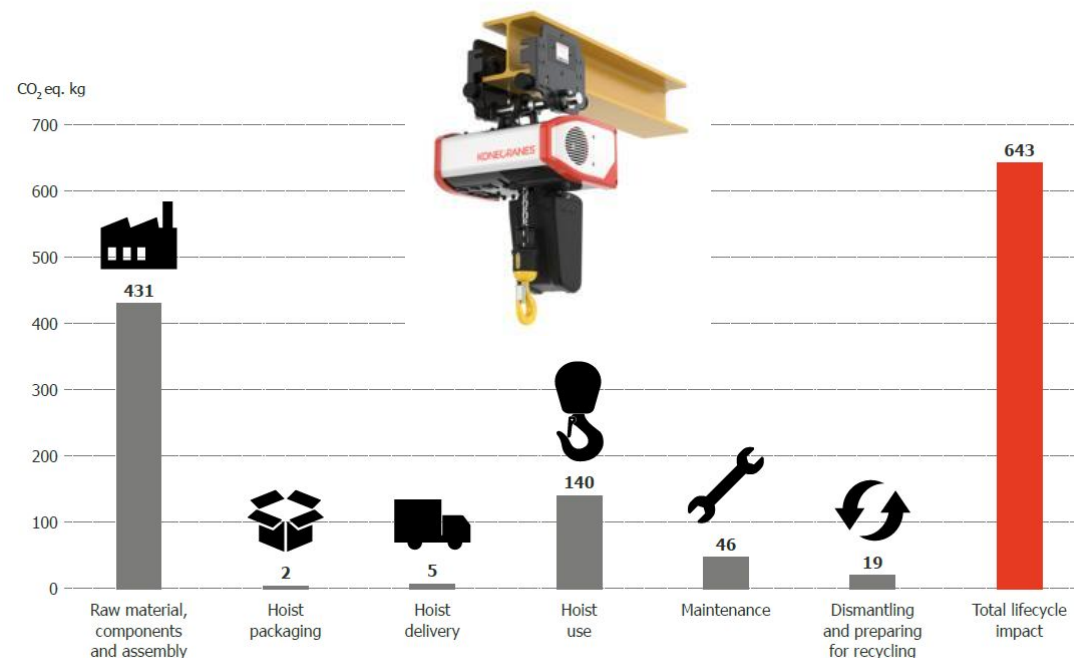
We know the environmental impact of our equipment lifecycle, and use the information in the product design process

The environmental impact can be reduced e.g. by

- Optimizing material and componentry use
- Using components with high durability and a long lifetime to enable reuse and repairing
- Minimizing substances of very high concern (SVHCs)
- Utilizing packaging made of renewable and recyclable material
- Improving the energy efficiency

3rd party verified Life Cycle Assessments of our core products available by request.

Example: Konecranes C-series hoist (C05) lifecycle climate impact results in kg CO₂ eq., representing 10 years of use in a workshop application, use in Europe



Examples of the benefits of energy efficiency improvements



Factory in Hämeenlinna, Finland: Case hardening process modernization

- No longer flames (improves safety)
- No longer need for detergents and oil (better for the environment)
- Process time is shorter (efficiency)
- Parts come out clean and with better quality



Factory in Markaryd, Sweden: Geothermal heating and renewable fuel

- Fossil-oil based heating of the warehouse changed to geothermal heating
- As lift trucks used in manufacturing use renewable fuel (HVO), diesel not needed anymore

It will become reality when
integrated into policies and
processes

Living-wage guideline
REACH Statement Long-range planning instructions
Design for Environment Know Your Customer HSE Excellence
M&A process **Human Rights Policy** Procurement process
Investment Policy **Code of Conduct** Know Your Supplier
Fair Labor Frame RoHS Statement
Annual planning **Environmental Policy** Health and Safety Policy
Global Vehicle Policy **Supplier Code of Conduct**
Inclusion and Diversity Policy Statement
Whistleblowing Instruction Restricted Substances List

Design for Environment approach means that environmental aspects are considered early in the product design process and in the product development

Targets: All new products and services shall be more sustainable than the previous generation.

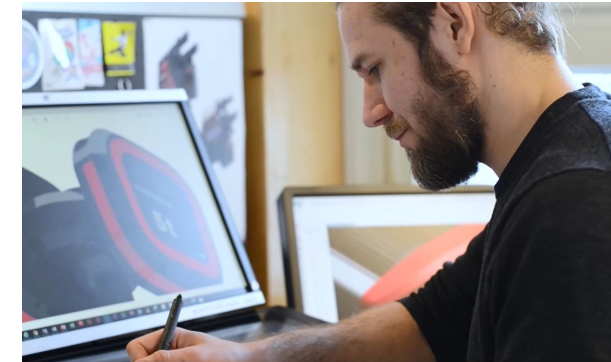


Design for Environment(DfE) concept **is integrated to all design projects.**



Key areas in DfE

- Maintainability
- Energy efficiency
- Material selection



Practical tools

- DfE Checklist
- Life Cycle Assessment
- Material data library
- Trainings

Case example: Towards carbon neutral own operations

Konecranes Markaryd factory reduced emissions 99% – powering plant fossil free

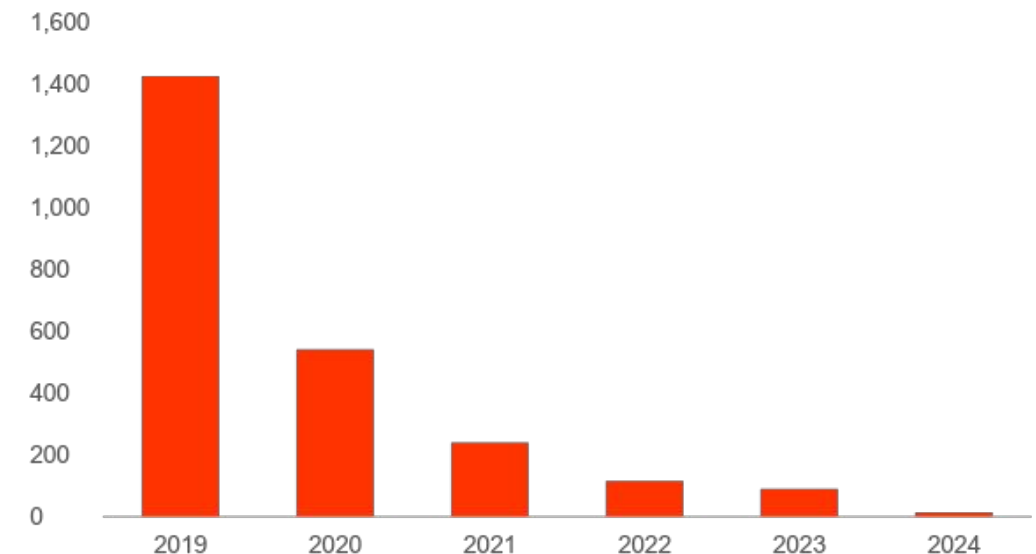


The certification highlights our commitment to reduce global GHG emissions and adds to the successful implementation of energy efficiency measures and the adoption of renewable energy sources.

In 2024, all energy consumed at the factory came from non-fossil sources

- Internal absolute emissions **-99 %** from 2019
- CarbonNeutral® building certification in accordance with The CarbonNeutral Protocol
- As all the emissions cannot be fully eliminated yet, verified carbon credits have been purchased corresponding to the currently remaining 13 tons of CO₂e emissions.
 - These are helping to finance the [Darkwoods Forest Conservation project in Canada](#) working to immediately reduce emissions through nature-based solutions
- The work to further reduce the emissions continue

Markaryd factory total Scope 1 & 2 emissions*, tCO₂e



*Emissions from energy consumption, waste, refrigerant refills and distribution and transmission losses

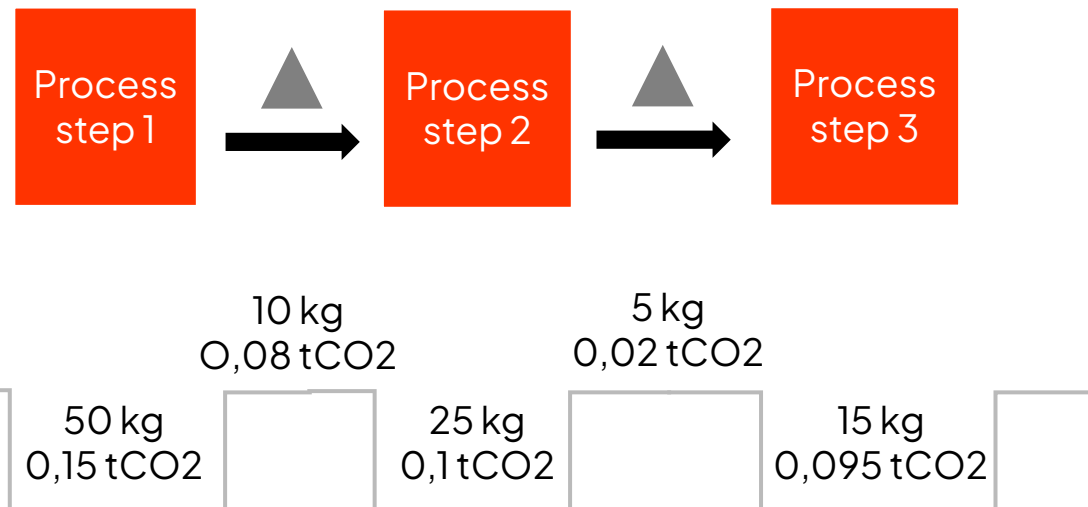
Lean practices benefit the environment, bring efficiencies and reduce costs.

Specific lean tools designed to identify and reduce environmental waste can help boosting the effect.

Case example: Lean and green

Using lean tools to identify and reduce environmental waste – energy, raw materials, trash or water

Identify – Value Stream Mapping



Materials needed: 90 kg
Wasted materials*: 15 kg

* E.g. Metal scrap, packaging materials and quality defects.

Reduce – Lean methods

5S:


Sort phase: What is needed in the work area and what is not.

- Include e.g. environmental waste, hazardous chemicals and other hazardous materials

Kaizen event:

Elimination of non-value-adding environmental waste:

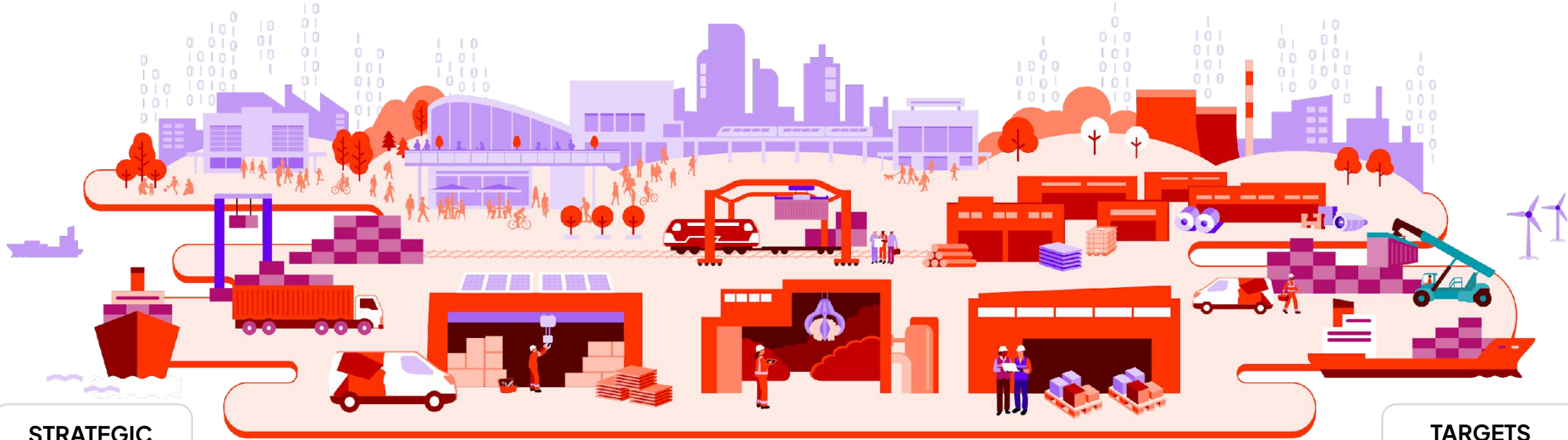
- Excess use of raw materials, energy and water save money
- Hazardous chemicals increases safety risk and administrative work

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If sustainability is visible in the strategy it starts to cascade

- Is sustainability and green manufacturing seen as a strategic enabler?
- Do you see targets related to it like top management incentives?

Shaping next generation material handling for a smarter, safer and better world



STRATEGIC ENABLERS

Deepening customer focus

Accelerating efficiency

Scaling technology innovation

Advancing responsible business

Enhancing our winning culture

Business Areas

INDUSTRIAL SERVICE

Unmatched global service footprint

INDUSTRIAL EQUIPMENT

World leader in industrial cranes

PORT SOLUTIONS

Widest and deepest offering for container handling

Values

Putting customers first

Doing the right thing

Driving for better

Winning together

TARGETS

Sales growth faster than the market¹

Comparable EBITA margin 12–15%

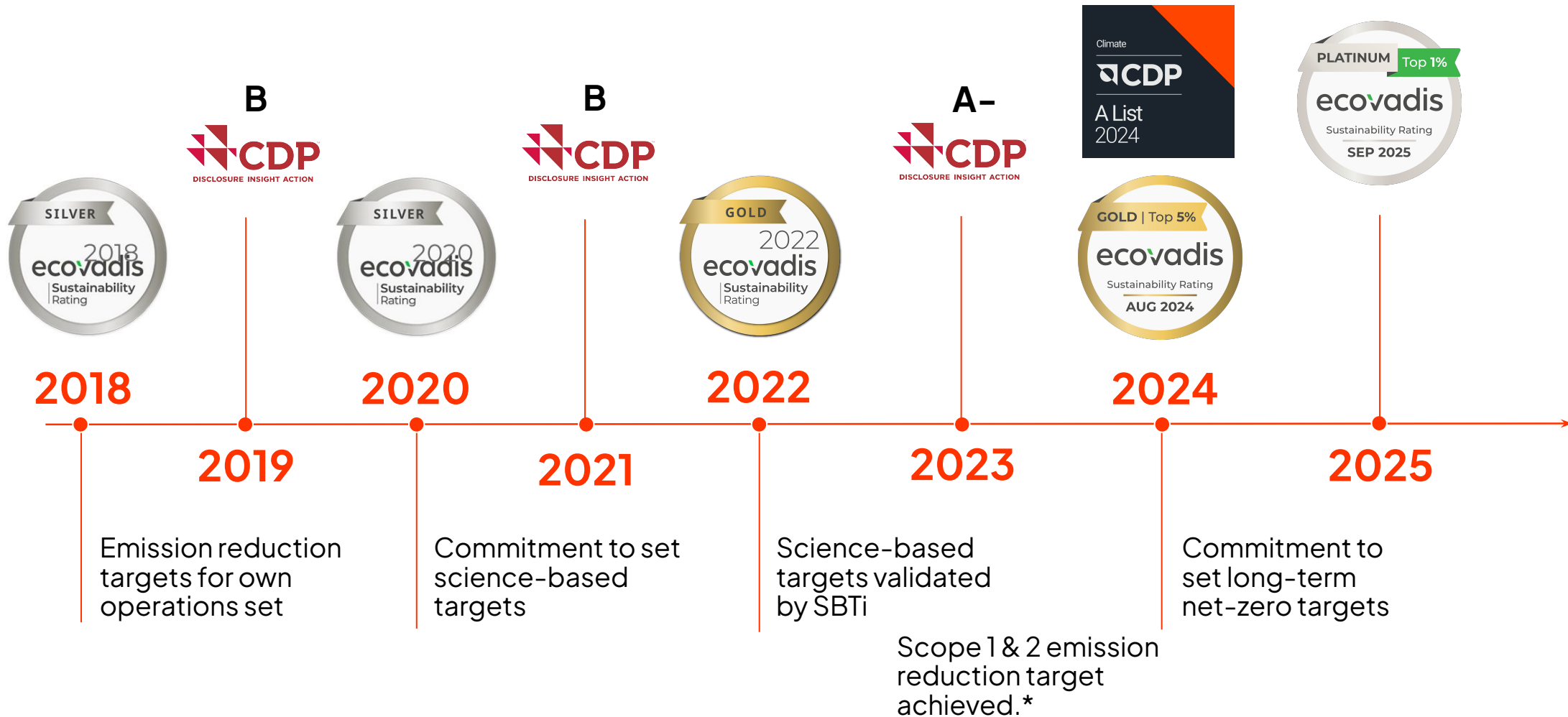
Carbon neutral own operations²

Value chain emissions -50%³

KONECRANES Moves what matters.

1) Nominal world GDP growth, IMF World Economic Outlook. 2) Scope 1 & 2 science-based target to halve (absolute GHG) emissions from own operations by 2030 was reached in 2022. Therefore, a new, separate target of carbon neutral own operations by 2030 was set. 3) Scope 3 science-based target: Reduce absolute GHG emissions by 50% by 2030 from base year 2019, encompassing the use of sold products and steel-related purchases. The target covers over 70% of Konecranes' value chain emissions.

The evolution of Konecranes' sustainability ambitions and performance



*A new, separate target for own operations set: Carbon neutrality by 2030.

Key to success: The president and CEO shows the way

Helps to get top management support
for implementing your sustainability
strategy across the company.

...and do not forget:
Communicate, engage,
communicate.

Corporate culture is the key for
an environmentally sustainable
future

Thank you.

