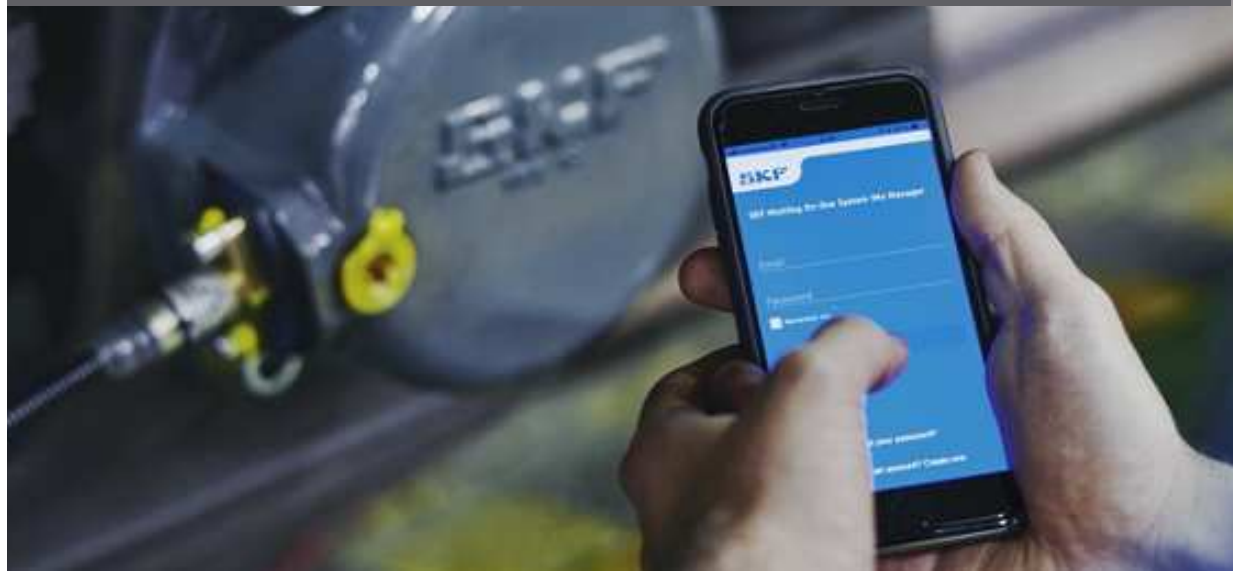

Sustainability

SKF improves sustainability in two main ways

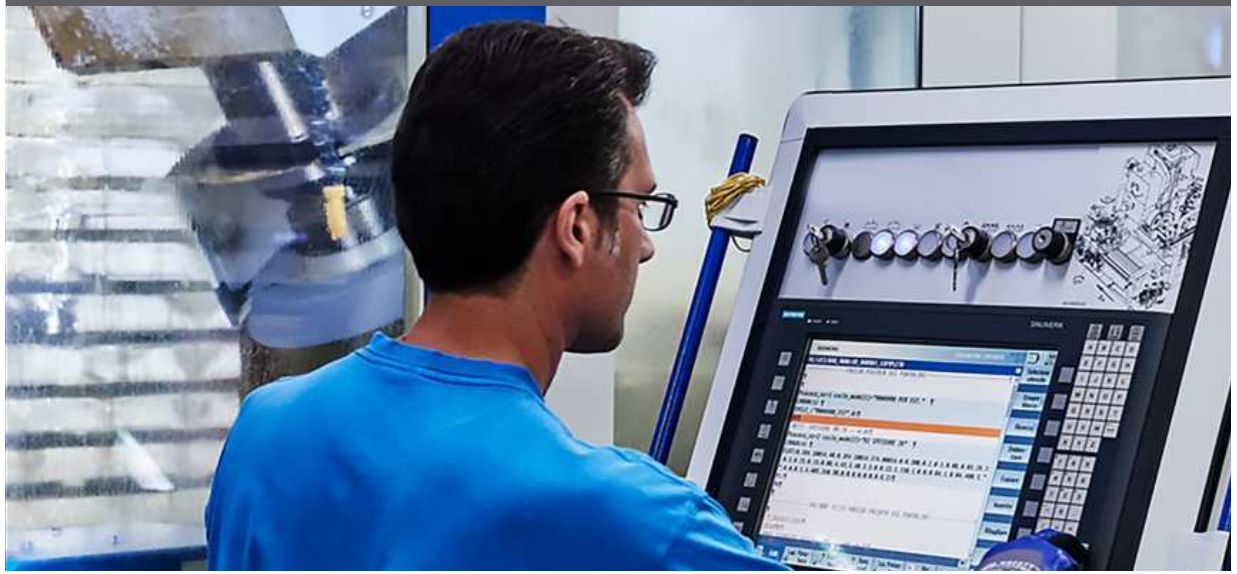


The business we make





The way we make business



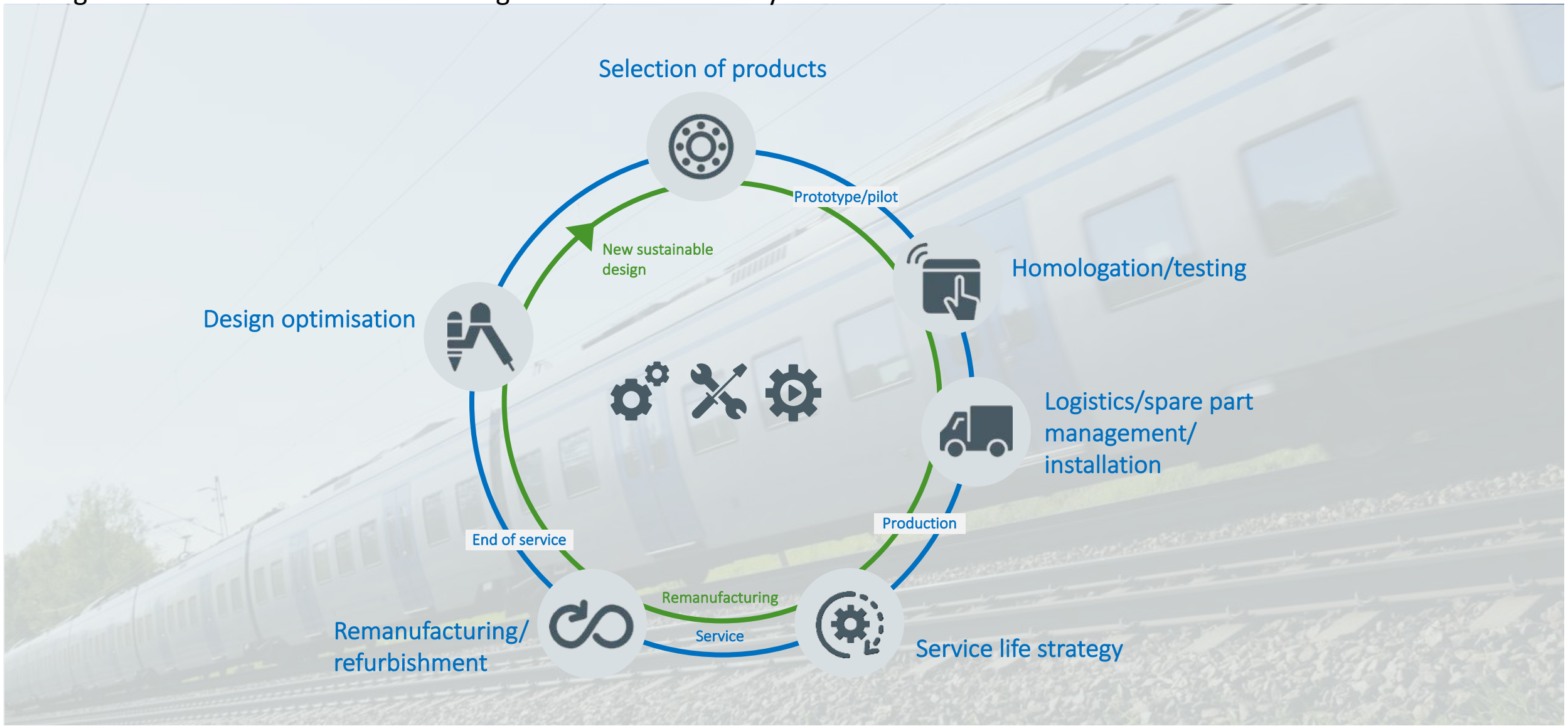


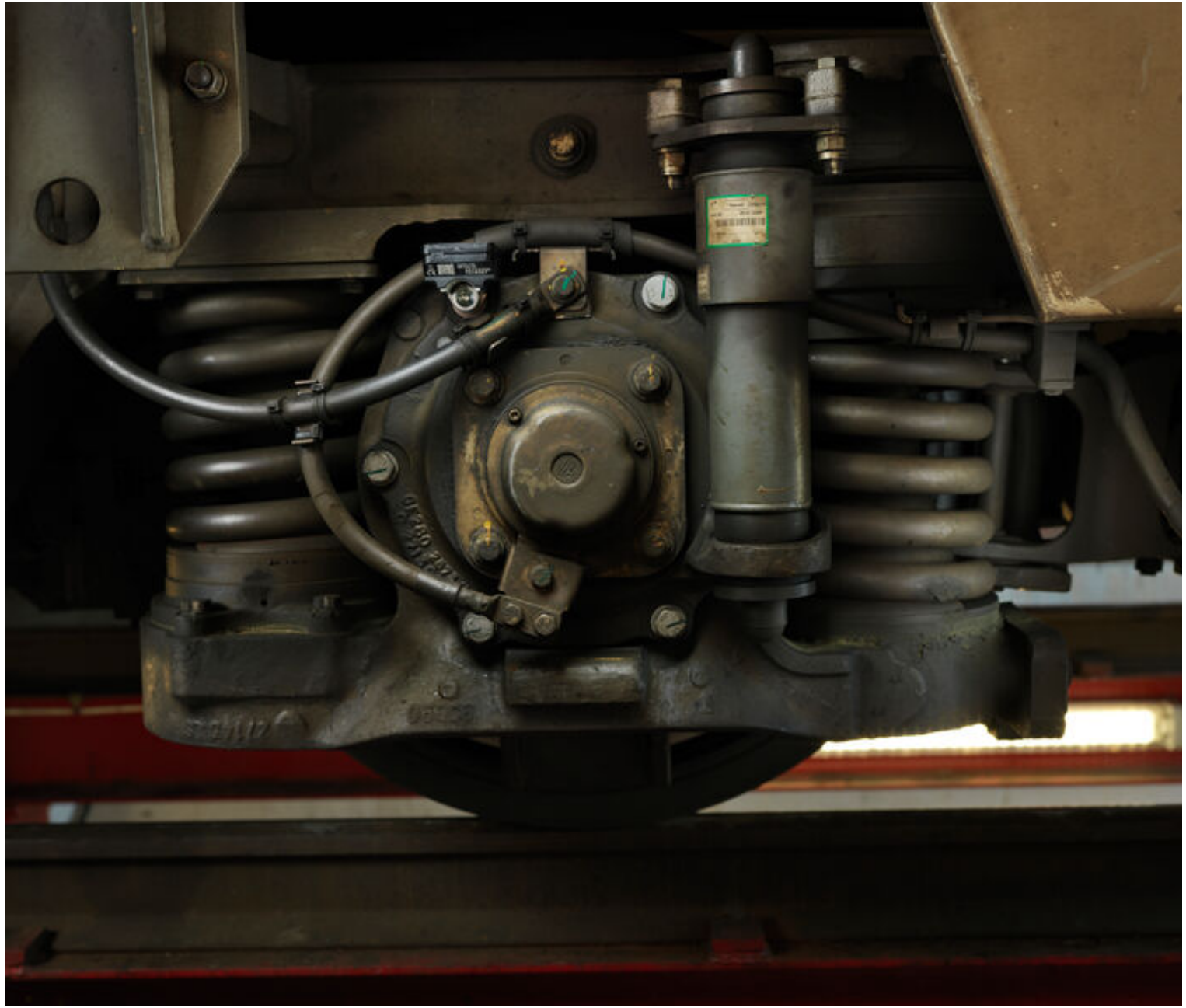
Challenges in the railway industry

- Improve energy efficiency of rail transport systems
- Use clean, recyclable and sustainable materials
- Reduce waste
- Reduce noise and vibrations
- Reduce emissions

The business we make

Intelligent and clean solutions for moving to a circular economy





Reduce energy consumption

SKF products and services help you reach your sustainability goals.

- All bearings reduce friction. But some are outstanding, like, new generations of units for very high-speed trains.
- Low-friction seals
- The right lubricants



Reduce waste

SKF products and services help you reach your sustainability goals.

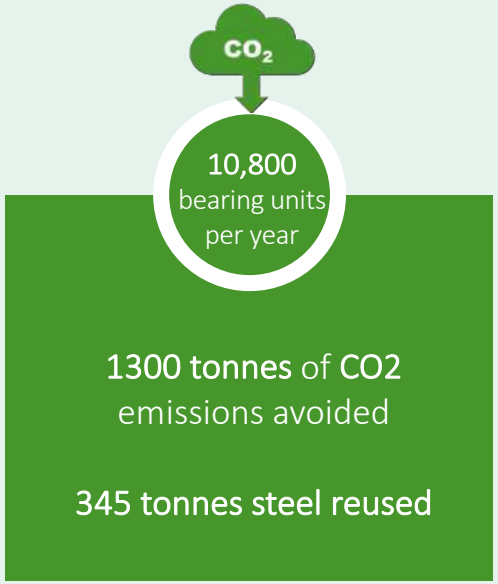
- Remanufacturing
- Sealed bearings
- Condition monitoring
- Reusable packaging for products
- RecondOil

Refurbishment examples from SKF customers

Reducing the carbon footprint while saving time and money

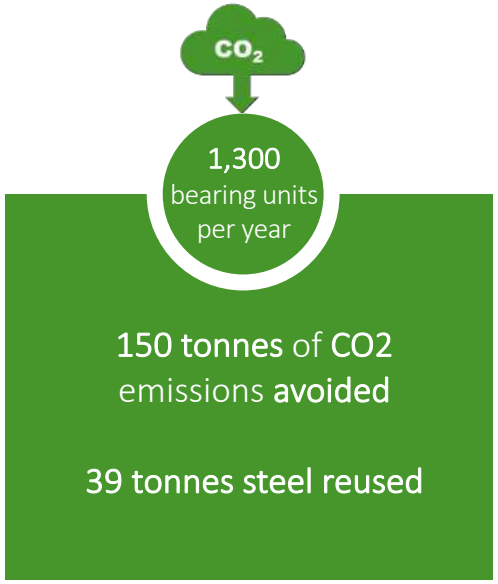
A leading Asian operator started working with SKF in 2021 in a long-term agreement for refurbishment of 900 wheelset bearing units per month for their locomotives.

With each batch of refurbished bearing units, the customer receives a certificate of recognition for contributing to the circular economy.



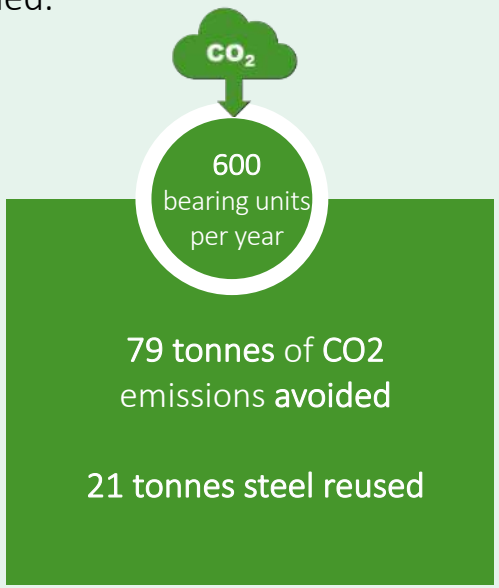
Italian operator is saving cost since 2014

In order to fulfil the safety regulations relating to rail traffic while also reducing costs, an Italian rail operator decided to commission reconditioning of wheelset bearings to SKF. An important aspect in the decision was also the proximity of the SKF service center to the customers' operation.



Leading operator in Eastern Europe with strict safety requirements on Intercity rolling stock entrusted SKF

In the middle of 2021 this operator signed a 100/100 model with SKF to gain access to latest technology and competence in remanufacturing while reducing cost and optimizing the supply-chain. In less than a year 600 wheelset bearing units were already refurbished.



Avoided emissions by using SKF Refurbishment Service



SKF

Thank you

By using

Remanufactured by SKF

you contribute to the circular economy.

Your contribution:

9600 kg steel reused

85000 kWh energy use avoided

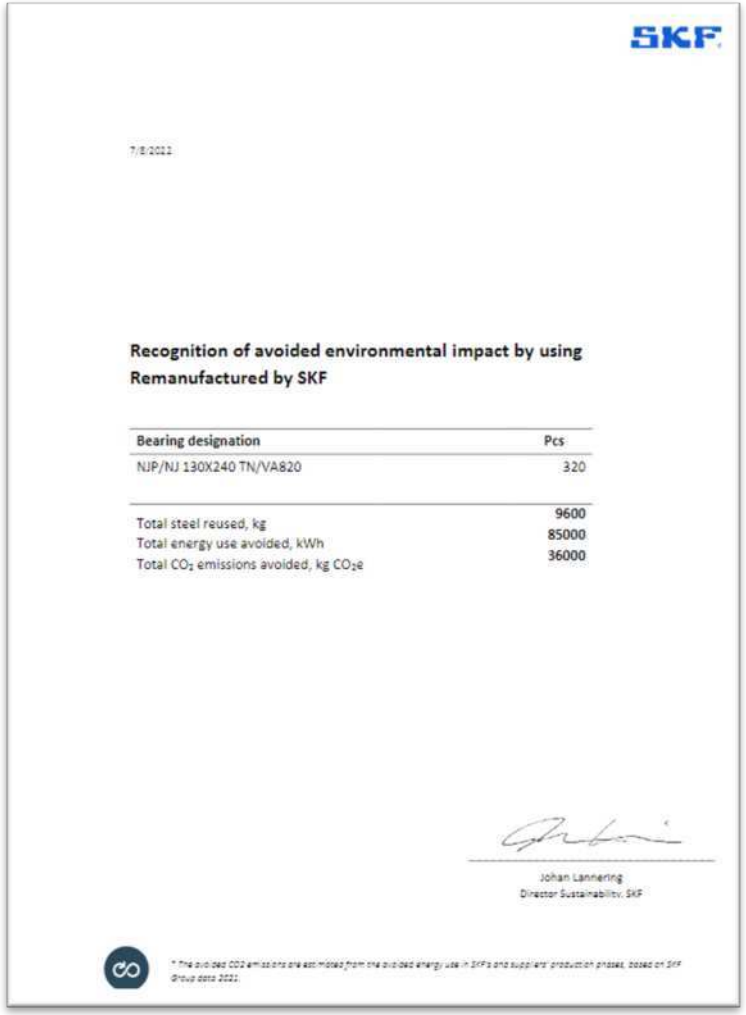
36000 kg of CO_2 emissions avoided*

Without compromising anything.

7/8/2022

Johan Lannering
Director Sustainability, SKF

* The avoided CO2 emissions are estimated from the avoided energy use in SKF's and suppliers' production phases, based on SKF Group data 2021.



SKF

7/8/2022

Recognition of avoided environmental impact by using Remanufactured by SKF

Bearing designation	Pcs
NJP/NJ 130X240 TN/VA820	320

Total steel reused, kg	9600
Total energy use avoided, kWh	85000
Total CO_2 emissions avoided, kg CO_2e	36000

Johan Lannering
Director Sustainability, SKF

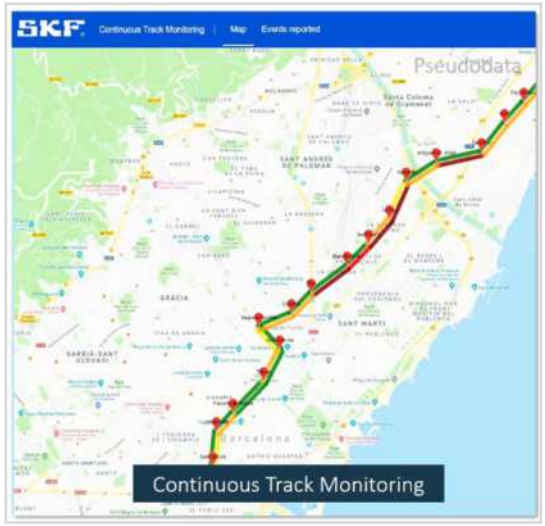
* The avoided CO2 emissions are estimated from the avoided energy use in SKF's and suppliers' production phases, based on SKF Group data 2021.

By using refurbishment, you are not only saving costs but also CO_2 emissions.

Read more about the benefit of SKF Refurbishment in the Remanufacturing presentation.

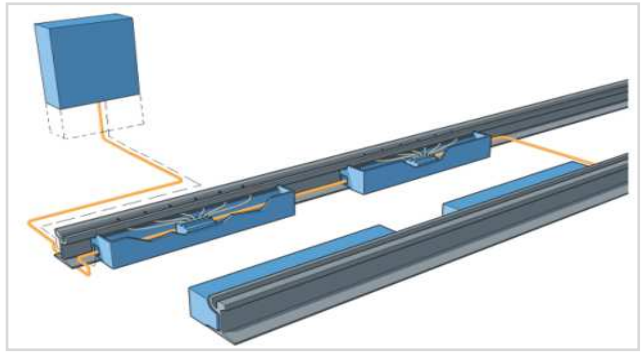
The calculation take SKF Scope 1, 2 and 3 Upstream emissions into account.

Detect

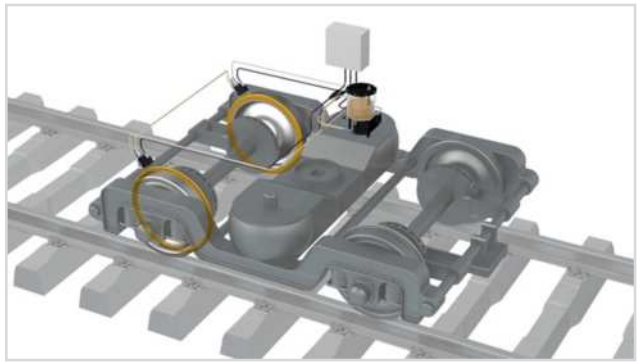


Continuous recording of vibration and noise data when travelling between two stations to detect peaks. The event gets stored together with the corresponding GPS data.

…and solve



Wayside lubrication systems



On-board lubrication systems

Reduce noise and vibrations

SKF products and services help you reach your sustainability goals.

- Reducing noise and vibrations by lubricating the WRC (wheel-rail-contact)
- Optimizing the application of grease to reduce waste and environmental impact
- Customized solutions for lubricating the WRC
  - On-board lubrication systems
  - Wayside lubrication systems
- Monitoring systems to:
  - Localize rail surface defects and noise
  - Validate corrective actions in terms of WRC



Reduce your emissions

SKF products and services help you reach your sustainability goals.

- Low friction products
- NetZero production facilities
- Responsible sourcing
- Short supply chains
- Products with a documented carbon emission value

Decarbonizing railways - Reducing product CO_2 footprint on tapered roller bearing units, TBUs

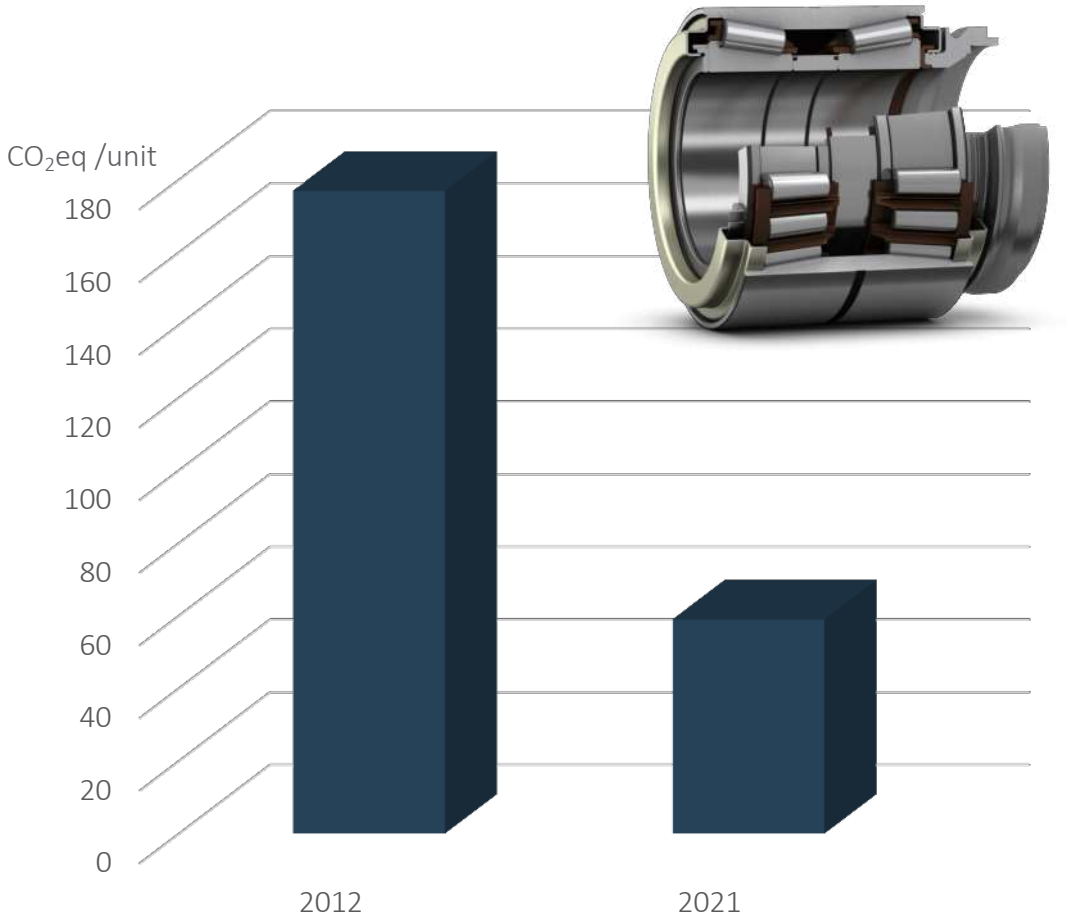
Example:

Comparing the product carbon footprint of a SKF BT2-8690 produced in 2012 with one produced in 2021.

Product CO_2 footprint comparison of the SKF BT2-8690:

- 177 kg CO_2eq /unit in 2012
- 58 kg CO_2eq/unit in 2021

67% reduction of the product CO_2 footprint in 9 years.



*CO_2 footprint of SKF BT2-8690 produced in 2012 compared with 2021**

* Based on LCA performed in 2012 and new estimations based 2021 data



SKF RecondOil

SKF RecondOil offers a fully circular use of oil, reducing costs and environmental impact.

Industrial oil no longer has to be viewed as an expensive and environmentally harmful consumable, but rather as a sustainable, circular asset.

The way we make business

We reduce our products' carbon footprint along the product life cycle

Relative CO_2 emissions along the product life cycle

Net Zero by 2050



Purchased materials

SCOPE 3

Net Zero by 2030



SKF Manufacturing

SKF SCOPE 1 & 2

Net Zero by 2050



Goods transportation

SKF can help in reducing CO_2 in the use phase by

- Service agreements including refurbishment
- Bearing & units that reduce friction
- Lighter, stronger materials



Use by customers

Scrap as high qualitative steel via refurbishment

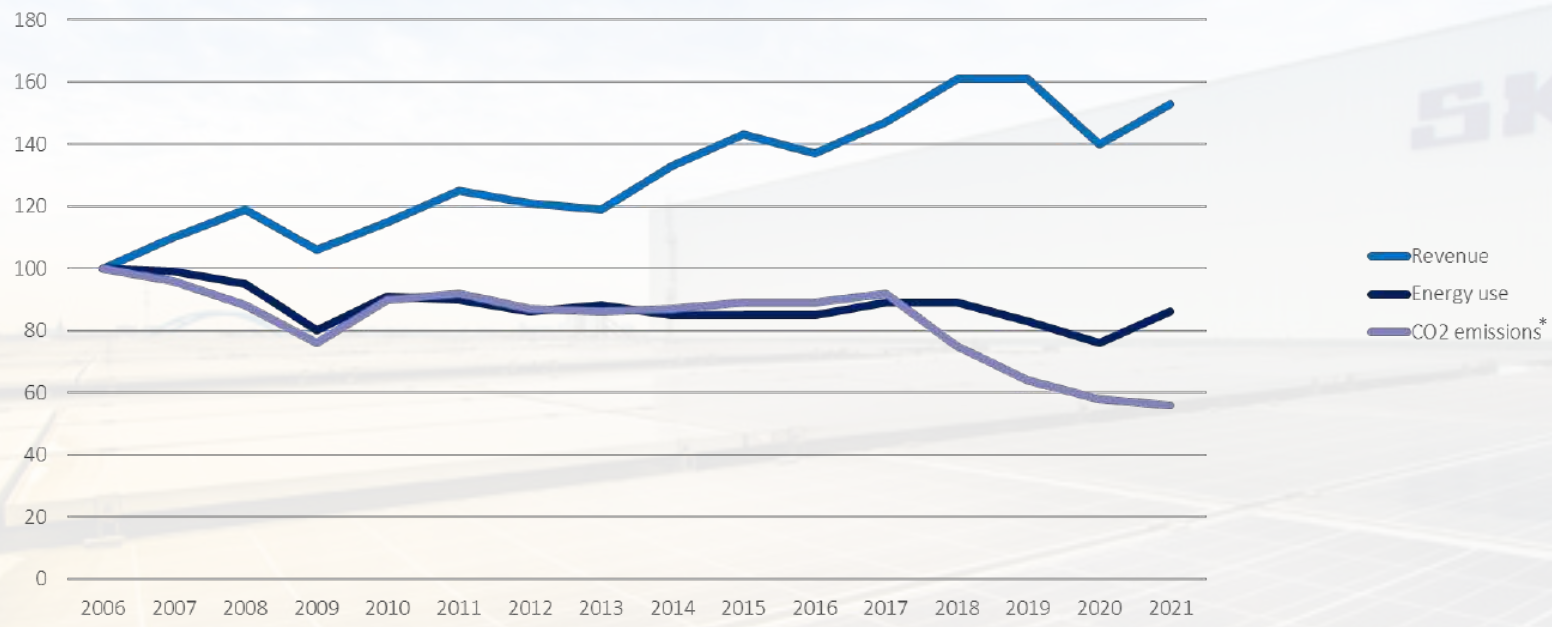


End of use

SCOPE 3

The way we make business

Decoupling between economic growth and environmental impact



SKF has been measuring, reporting, and reducing greenhouse gas emissions associated with our own operations for more than two decades. By driving energy efficiency, waste elimination and increasing the use of renewable energy, we have been able to decouple business growth from emissions caused by our production activities.

*SKF's operations scope 1 and 2









Doing even more

Pushing the industry through sustainability initiatives

- Railsponsible
- Steel Zero
- ResponsibleSteel
- Science based targets



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