



What has made us strong in the analog world, makes us even stronger in the digital world.

We pioneer motion

Schaeffler at a Glance – Slide Deck

February 14, 2025

We pioneer motion

Schaeffler Group – We pioneer motion

The Schaeffler Group has been **driving forward groundbreaking inventions and developments** in the field of **motion technology** for over 75 years. With **innovative technologies, products, and services** for electric mobility, CO₂-efficient drives, chassis solutions and renewable energies, the company is a reliable partner for making motion more efficient, intelligent and sustainable – over the entire life cycle.

Schaeffler describes its **comprehensive range of products and services** in the **mobility ecosystem** by means of eight product families: From bearing solutions and all types of linear guidance systems through to repair and monitoring services.



Our origin – Significant milestones in our company history



Dr. Wilhelm and Dr.-Ing. E.h. Georg Schaeffler found INA

1946

Global expansion:
Plants opened in Asia, North and South America

1950-1990

Acquisition of 100 percent of **LuK GmbH**

2000

Schaeffler becomes the majority shareholder of **Continental AG**

2008

Purchase of electric motor manufacturer **Compact Dynamics**

2016

- We pioneer motion – Start of Roadmap 2025 focusing on innovation, agility, and efficiency
- Join the global hydrogen initiative

2020



Merger of **Schaeffler** and **Vitesco Technologies**

2024

1950

Cage-guided needle roller bearing patent registered



1996

M.-E. Schaeffler-Thumann and her son G. F. W. Schaeffler take on responsibility for the business after the death of Dr.-Ing. E. h. Georg Schaeffler



2001

Acquisition of **FAG Kugelfischer** Georg Schäfer AG

2015

IPO of Schaeffler AG



2018

Acquisition of **Elmotec Statomat** to implement electric mobility strategy

2023

Voluntary public tender offer of Schaeffler AG to the shareholders of **Vitesco Technologies Group AG** and signing of a Business Combination Agreement

Schaeffler facts and figures – One of the world's largest family-owned companies

~120,000
employees worldwide

>250 locations in
~55 countries

~100 plants and
34 R&D centers

~€16.3 billion
of sales in 2023

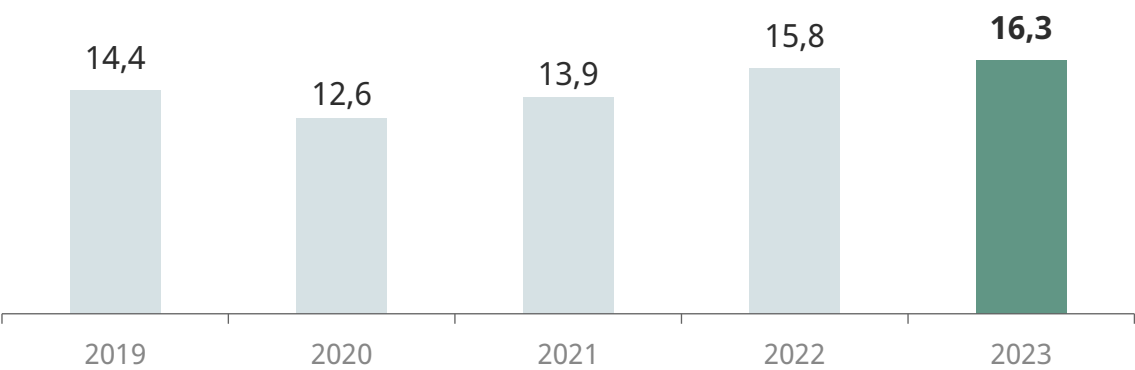
7.3%
EBIT margin in 2023¹

>1,000
patents registered in 2023

¹ Before special items

Schaeffler – A leading global technology company

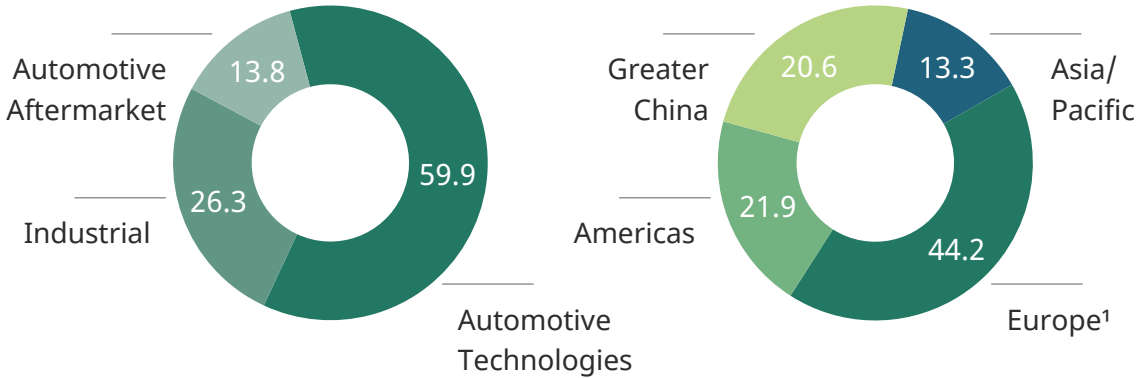
Sales in 2023 in € billions



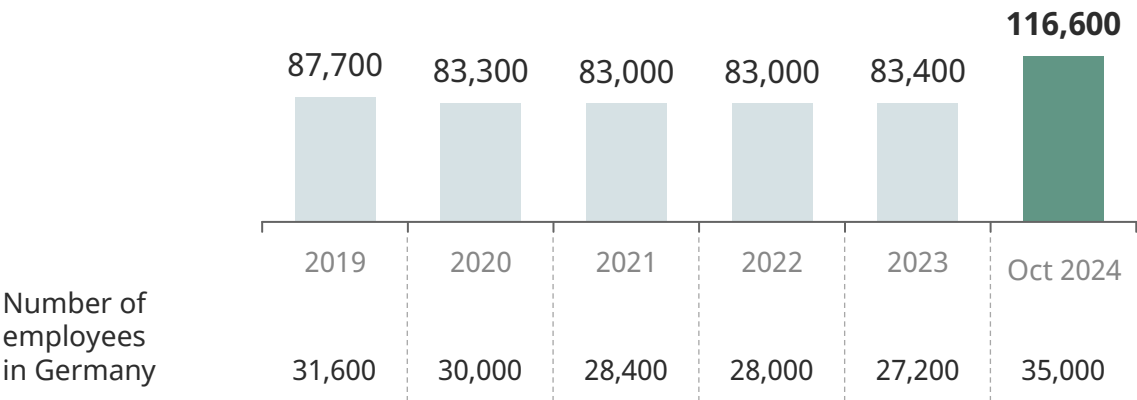
A globally active Motion Technology Company

	Plants	R&D centers	Campus locations
Europe	54	16	10
Americas	19	9	4
Greater China	17	4	3
Asia/Pacific	12	5	-
Total	104	34	17

Sales by division and region 2023 in %



Employees worldwide



¹ Including Germany, Western Europe, Middle East and Africa, as well as Central and Eastern Europe | As of December 31, 2023. The numbers for plants, R&D Centers, and campus locations have been updated as of October 1, 2024.

What sets us apart – The internal strengths of our company

1

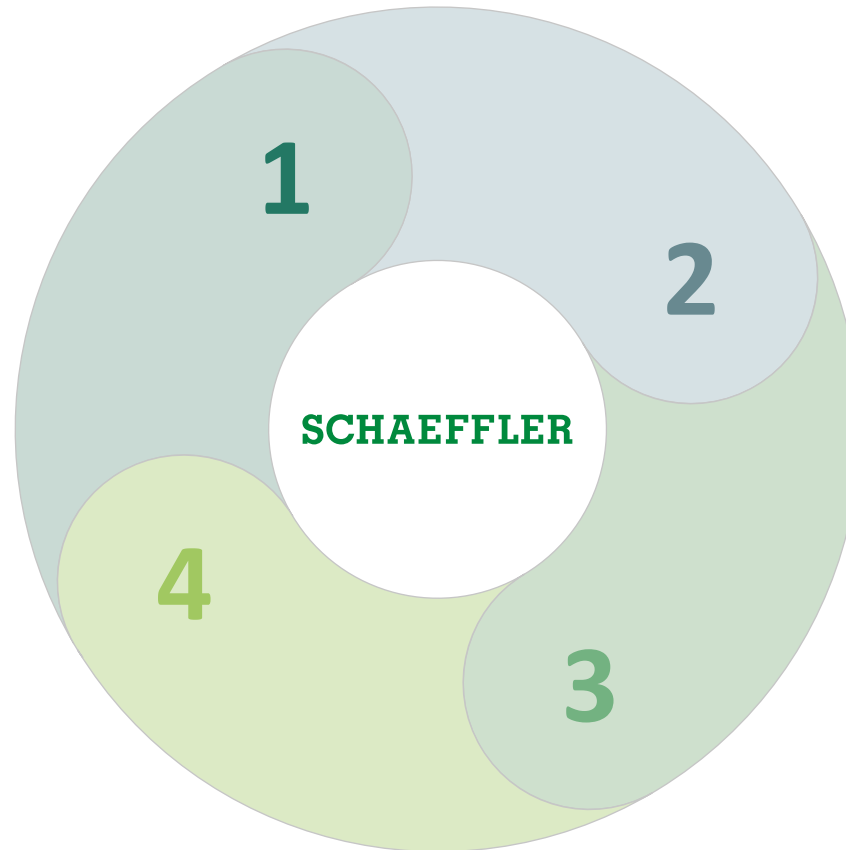
Innovation

As a pioneer in motion, we develop and produce **innovative components**, systems, and services to address important customer needs.

4

System Understanding

Close partnerships with our customers mean we have a **comprehensive understanding of their systems** which allows us to develop, produce, and constantly optimize complex, customized solutions.



2

Superior Quality

Our **extremely high quality** ensures that we are able to meet our customers' demands in terms of reliability, long service life, and efficiency.

3

High-precision Manufacturing

Our **manufacturing expertise** allows us to quickly introduce extremely promising innovations to the market in high volumes.

Stable values – The motivation behind our actions



SUSTAINABLE

We assume responsibility for the future of Schaeffler Group and coming generations. With continuity and a long-term view.

INNOVATIVE

As pioneers we know: For (almost) every problem there is a solution. If not, we will create one.

EXCELLENT

We strive for the highest quality in everything we do. No matter where and when.

PASSIONATE

What drives us is curiosity, fascination for innovative technologies, and the joint success with our customers.

Purpose, vision, mission, and claim – Framework for our Roadmap 2025



OUR PURPOSE

We pioneer motion to advance how the world moves

Our vision

We are the Motion Technology Company that leads globally through innovation, agility and efficiency.

Our mission

We offer innovative products and services in the field of motion.

We pioneer motion

CUSTOMERS

Schaeffler products facilitate and shape mobility – Our customer sectors

SCHAEFFLER

TWO-WHEELERS



CARS & LIGHT
COMMERCIAL VEHICLES



TRUCK & BUS



OFF-ROAD



RAIL



AEROSPACE



RAW MATERIALS



INDUSTRIAL AUTOMATION



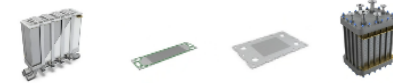
POWER TRANSMISSION



WIND



Our Product & Service Offering – Motion as the connecting element

8 AREAS	8 PRODUCT FAMILIES	PRODUCT & SERVICE OFFERING
Sustain motion	8 Repair & Monitoring Services	
Energize motion	7 Hydrogen Stacks & Plates	
Drive motion	6 E-Motors & E-Drives	
Power motion	5 Power Electronic Units	
Generate motion	4 Actuators	
Control motion	3 Electric Control Units & Sensors	
Transmit motion	2 Transmission & Engine Components	
Guide motion	1 Bearings & Linear Guides	

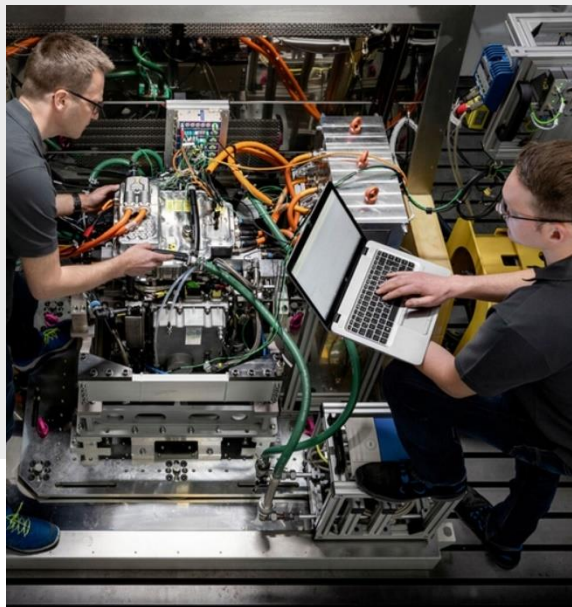
Key Aspects

- Schaeffler product & service portfolio categorized into 8 Product families
- All product families associated with their respective notion of motion
- Product families address customer requirements along all 4 market and 10 sector clusters
- Use all the Schaeffler know-how in our core technologies to create maximum customer value and a unique selling proposition

Motion as the connecting element

The Motion Technology Company – Our four divisions at a glance

E-Mobility



Modular and scalable solutions for all types of electric drives.

Powertrain & Chassis



Innovative solutions for powertrain and chassis systems.

Vehicle Lifetime Solutions



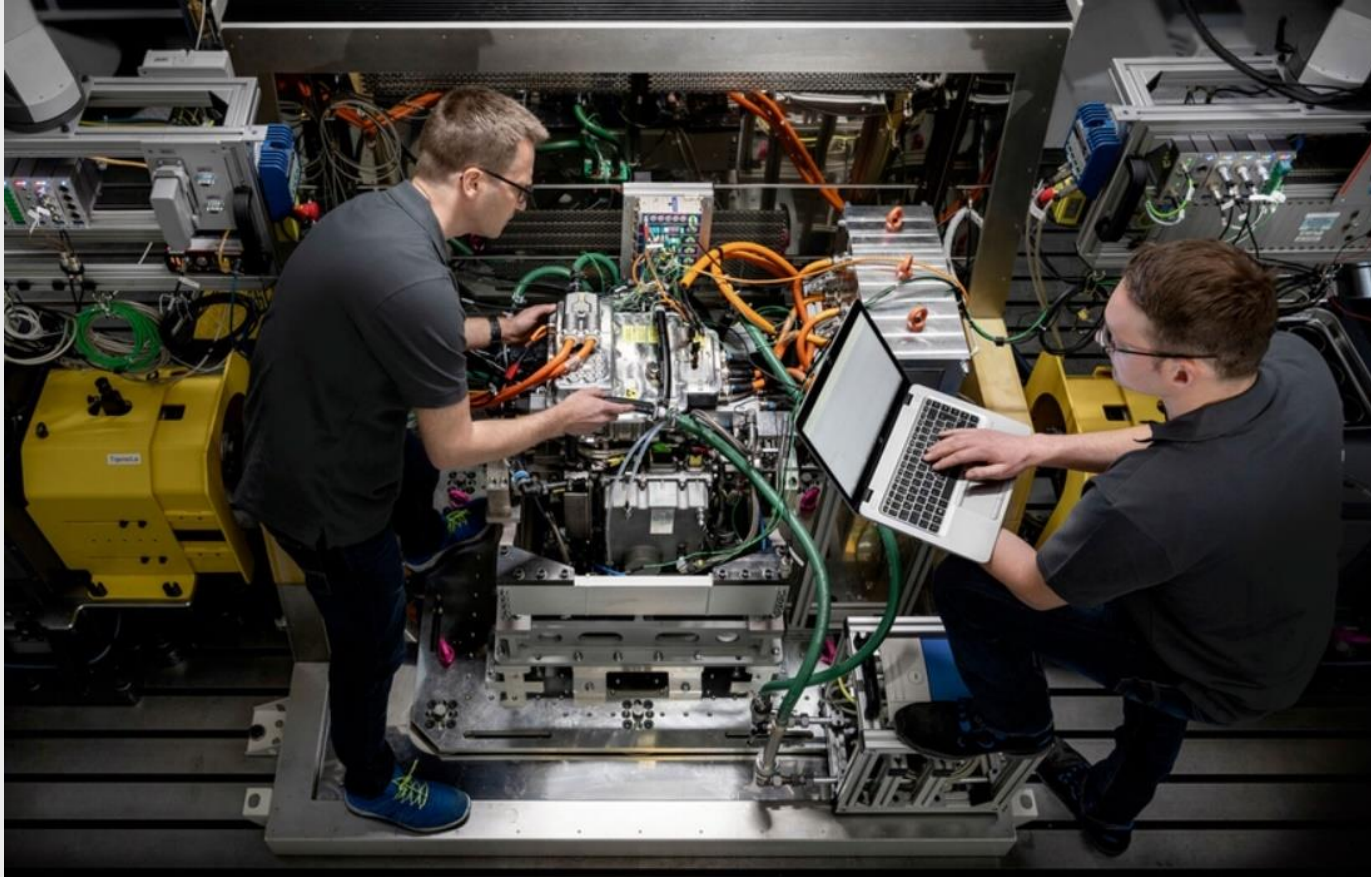
Tailored solutions for the mobility ecosystem.

Bearings & Industrial Solutions



Products and solutions for the industry of the future.

E-Mobility – Modular and scalable solutions for all types of electric drives



Sustainability and System Solutions

The E-Mobility division offers solutions for all types of electrified drive systems – from individual components to intelligent operating strategies, and complete drive systems.

Our system solutions and components are designed to make mobility cleaner, more efficient, and more affordable.

E-Mobility – At a glance

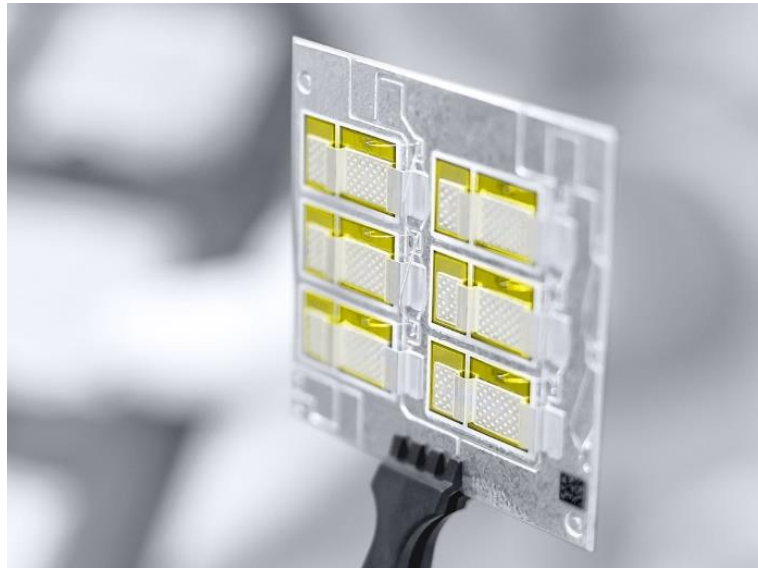


With modular and scalable solutions, we support global automobile manufacturers with a state-of-the-art offering of system solutions designed to make mobility cleaner, more efficient, and more affordable.

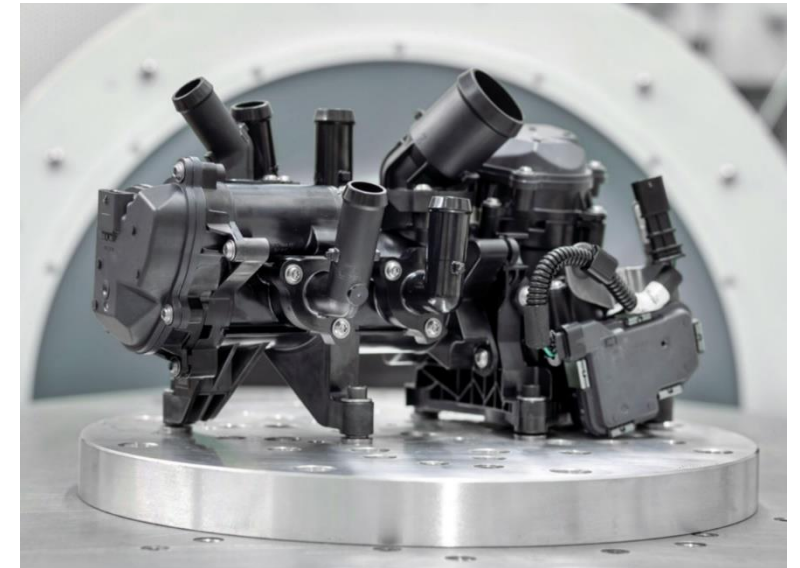
Application examples



Solutions for electric drive systems



Control Systems



Solutions for thermal management

Powertrain & Chassis – Innovative solutions for powertrain and chassis systems



Innovation and systems intelligence

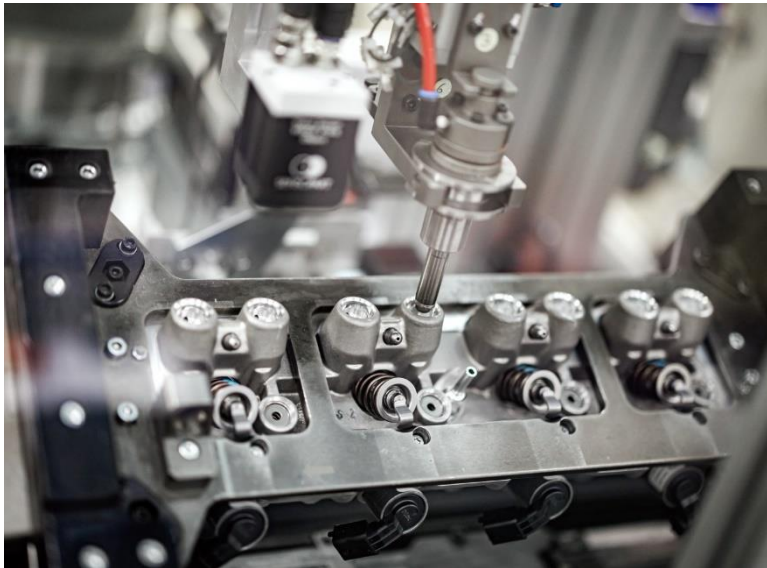
The Powertrain & Chassis division develops and manufactures pioneering components and system solutions, for highly efficient powertrains and intelligent chassis systems, serving 2-wheelers, passenger cars, and commercial vehicles.

Powertrain & Chassis – At a glance



We undertake pioneering work in innovative components and systems for highly efficient powertrains, and intelligent chassis systems.

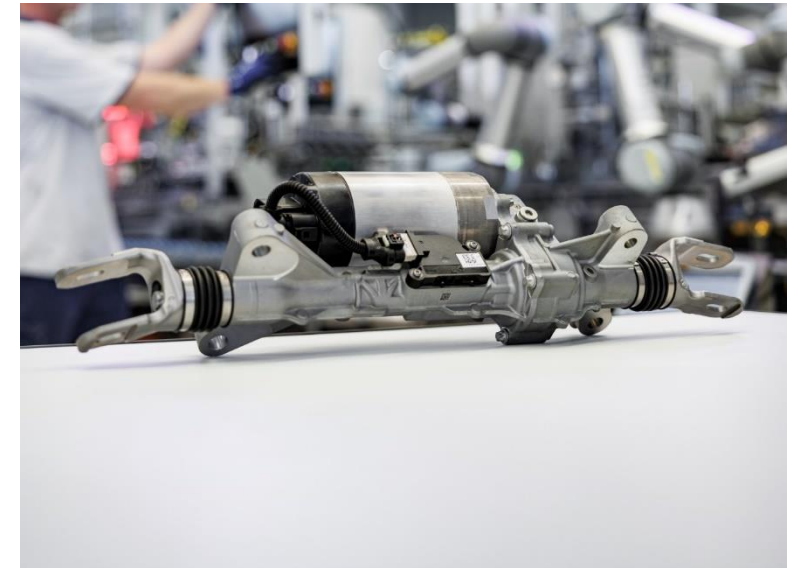
Application examples



Engine and transmissions systems



Sensorics and control units



Chassis systems

Vehicle Lifetime Solutions – Tailored solutions for the mobility ecosystem



Tailored to the needs of repair shops

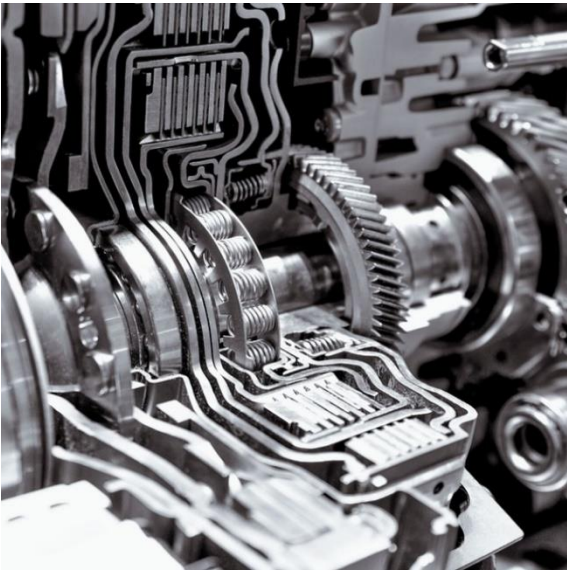
The Vehicle Lifetime Solutions division is responsible for the global mobility ecosystem and supplies components and comprehensive repair solutions for passenger cars, light and heavy commercial vehicles and tractors. With a comprehensive understanding of the system and extensive service offerings, the division also supports workshops with complex repairs.

Vehicle Lifetime Solutions – At a glance



The Vehicle Lifetime Solutions division is responsible for the Schaeffler Group's global replacement parts business.

Application examples



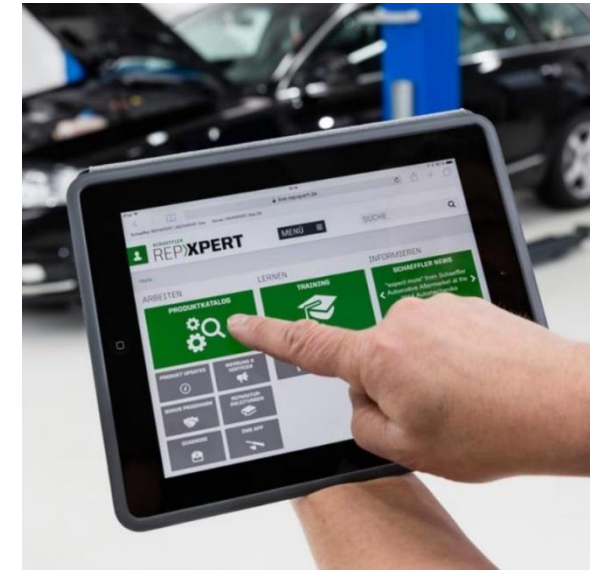
Drive solutions



Engine solutions



Chassis solutions



Repair shop services

Bearings & Industrial Solutions – Products and solutions for the industry of the future



Products and solutions for the industry of the future

In addition to bearing solutions for the automotive sector, the Bearings & Industrial Solutions division supplies rolling bearings, plain bearings, linear and direct drive technology as well as smart maintenance solutions to all industrial sectors. The products are supplied both directly and via a global network of certified sales partners.

Bearings & Industrial Solutions – At a glance



The Bearings & Industrial Solutions division provides an extensive array of bearing solutions tailored to meet the unique needs of Renewables, Machinery & Materials, Transportation & Mobility, and Industrial Automation. Our engineers work closely with customers to identify the ideal solutions, taking into account the entire system and considering specific environmental influences and operating conditions of the application.

Application examples



Solutions for renewable energies



Bearing solutions for the automotive sector



High-precision bearings for engines



Solutions for robot-based automation

12 Core Manufacturing Technology Fields - A first-class combined technology portfolio

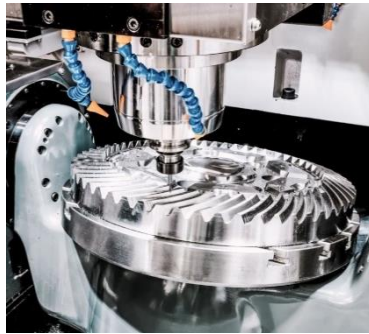
HOT FORMING



COLD FORMING



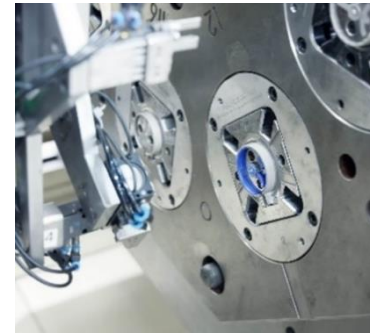
MACHINING



HEAT TREATMENT



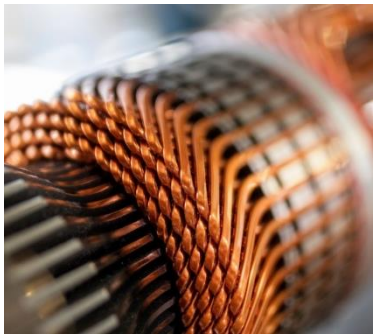
INJECTION MOLDING



COATING



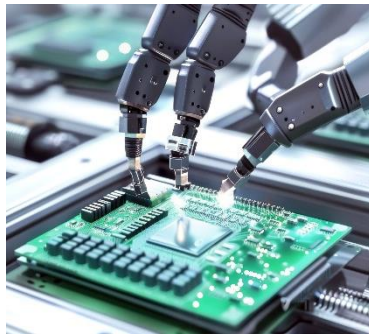
WINDING
TECHNOLOGIES



ASSEMBLY & TESTING
TECHNOLOGIES



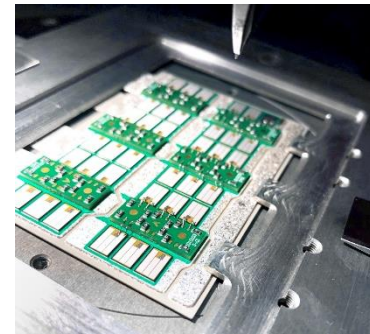
SURFACE MOUNTING
TECHNOLOGIES (SMT)



ELECTRONICS
PROTECTION TECHNOLOGIES



INTERCONNECTION
TECHNOLOGIES



ADDITIVE
MANUFACTURING



Proximity to customers – Global plants and R&D centers

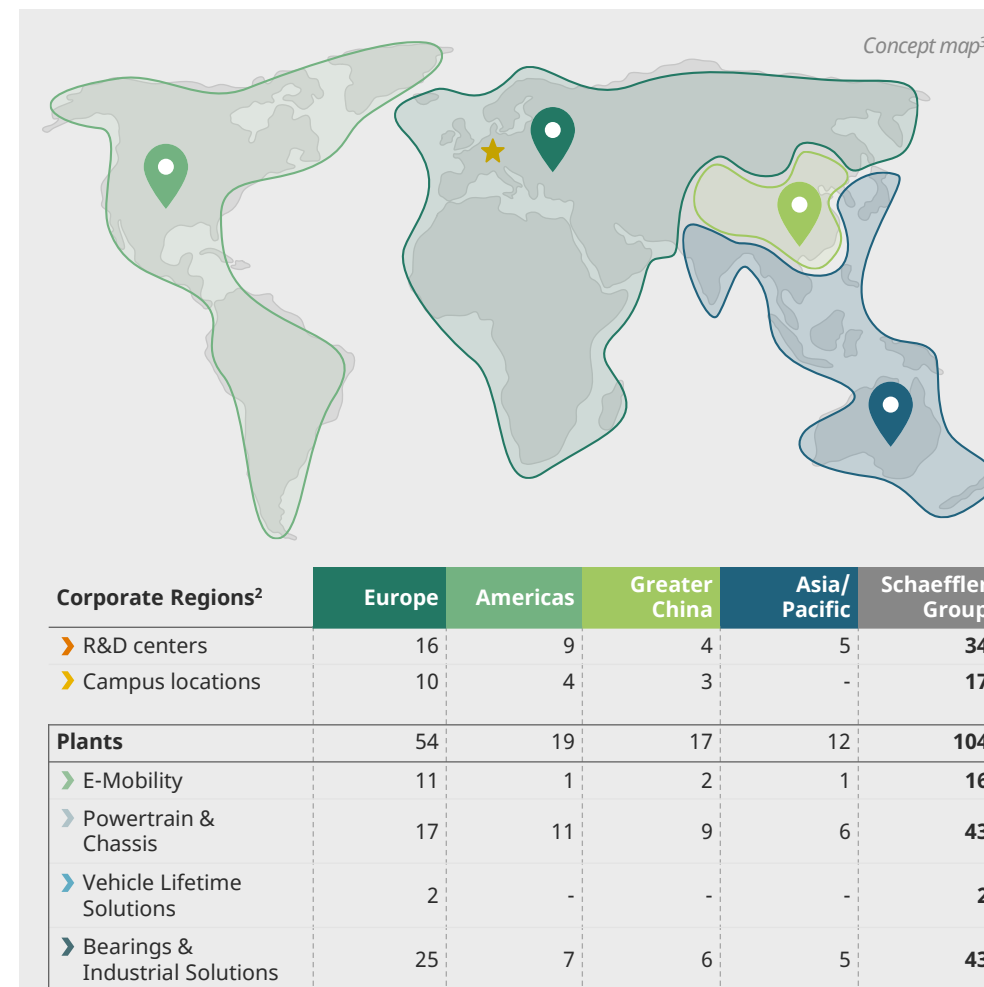
Europe		Americas	Greater China	Asia/Pacific
Germany	France	Brazil	China	India
› Bebra/Mühlhausen	› Boussens	››› Sorocaba	› Changchun	› Bangalore
› Berlin	› Chambéry	Canada	› Changsha	› Hosur
››› Bühl	› Chevilly	› Chatham	›› Nanjing	›› Pune
› Dortmund	› Foix	›› Stratford	› Pinghu	› Vadodara
› Erlangen	››› Haguenau	Mexico	›› Shanghai/Anting	› Savli
› Gunzenhausen	› Toulouse	› Cuautla	› Suzhou	Japan
› Hameln	Great Britain	› Guadalajara	››› Taicang	› Yokohama
› Herzogenaurach ★	› Sheffield	› Huejotzingo	› Taoyuan	South Korea
› Hirschaid	Hungary	› Irapuato	› Tianjin	› Ansan
››› Höchststadt	›› Debrecen	› Juarez Aerotech	› Wuhu	› Changwon
›››› Homburg	››› Szombathely	› Juarez Viotech	› Xiangtan	› Icheon
› Ingolstadt	Italy	› Puebla	›› Yinchuan	› Jeonju
››› Lahr	› Momo	USA		Thailand
› Limbach-Oberfrohna	Portugal	› Armada		› Amata City
› Meckesheim	› Caldas da Rainha	› Auburn Hills		› Chonburi
› Morbach	Romania	››› Cheraw		Vietnam
› Nürnberg	›››› Braşov	› Danbury		› Biên Hòa City
› Regensburg	› Iasi	› Deer Park		
› Schwalbach	› Sibiu	››› Fort Mill		
›››› Schweinfurt	Slovakia	› Joplin		
› Steinhagen	›››› Kysucké Nové Mesto	› Seguin		
› Suhl	››› Skalice	› Troy		
Austria	South Africa	›› Wooster		
› Berndorf-St. Veit	› Port Elizabeth			
Bulgaria	Spain			
› Sofia	› Elgoibar			
Czech Republic				
›› Frenstat/Ostrava				
› Svitavy/Lanškroun ¹				
› Trutnov				

¹ The Svitavy and Lanškroun plants are considered as one facility for reporting purposes, which is why they are displayed together. Organizationally, however, they are two distinct plants that are accounted for separately in the total quantity.

² The regions represent the regional structure of the Schaeffler Group.

³ Visual reference only. Not intended for accurate geographical reference.

★ Headquarters



Our Executive Board – A strong management team

BOARD OF MANAGING DIRECTORS



Klaus Rosenfeld
Chief Executive Officer (CEO)



Claus Bauer
Chief Financial Officer (CFO)



Dr. Astrid Fontaine
Chief Human Resources Officer (CHRO)



Andreas Schick
Chief Operating Officer (COO)



Jens Schüler
CEO Vehicle Lifetime Solutions



Thomas Stierle
CEO E-Mobility



Uwe Wagner
Chief Technology Officer (CTO)



Sascha Zaps
CEO Bearings & Industrial Solutions



Matthias Zink
CEO Powertrain & Chassis

REGIONAL CEOs



Dr. Jochen Schröder
Regional CEO Europe



Marc McGrath
Regional CEO Americas



Dr. Yilin Zhang
Regional CEO Greater China



Dharmesh Arora
Regional CEO Asia/Pacific



Watch our [‘Meet the Board’ video series](#) for insights on Digitalization.

Our Leadership Principles – The benchmark for our collaboration

Leadership Principles and guidelines

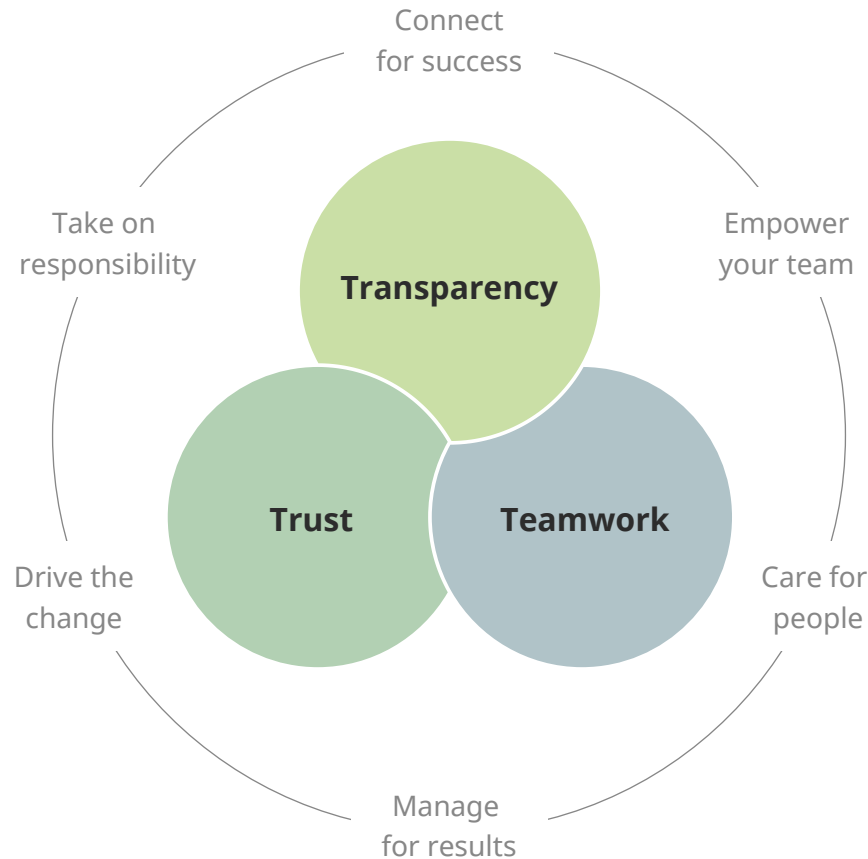
Our Leadership Principles

clearly state what we want to achieve through leadership at Schaeffler. We all want to work in a company with transparency, trust and teamwork at its core.

Our Leadership Essentials

describe how we approach leadership and collaboration at Schaeffler.

They help our leaders make better decisions in day-to-day business, strengthen our organization and ensure the success of the business.



Global leadership programs

- Our global leadership programs support and promote a mutual understanding of leadership and leadership behavior, an important basic element of our leadership culture
- The offers are structured in a global learning landscape and tailored to the experience and area of responsibility of leaders
- The main topics in the programs are derived from our corporate strategy and are based on our (corporate) values, Leadership Principles and Leadership Essentials

Together we can achieve more



Relevant future trends – Our mission is future-proof

Pioneering work in motion

Since the founding, Schaeffler has always distinguished itself by one thing: Pioneering work in motion and mobility. In the face of global challenges, we continue to develop and work on innovative technologies that make motion and mobility even more sustainable and better. In this context, these future trends are particularly relevant for us.



1 Sustainability & Climate Change

- Innovative drive technologies
- Reduced CO₂ emissions
- Maximum energy efficiency



2 New Mobility & Electrified Powertrain

- Groundbreaking innovations to shape future mobility
- Mobility for automotive and industrial business



3 Autonomous Production

- Automation of production
- Efficiency gains through the application of Internet of Things (IoT) in industrial connectivity



4 Data Economy & Digitalization

- Intelligent sensor technology offers digital services
- Transparency and data interpretation generate high added value



5 Demographic Change

- Global employer
- Long-term job security and qualifications
- Sustainably oriented diversity management

Five focus areas – Where we set our priorities

Progress depends on motion

Our aim is to shape progress that will move the world in line with the defined five future trends. From these trends, we have derived five focus fields, in which we will establish an even stronger position. They are tailored to cover not only the products and services offered by our four divisions but also the 10 customer sectors and 4 sector clusters we have defined across all divisions.



1 CO₂-efficient Drives

- Decarbonization of motorized transport
- Our portfolio comprises internal combustion engines, hybrid solutions & drive systems



2 Chassis Applications

- Manufacture of reliable and safe components and systems for progressive automation
- Autonomous vehicles in logistics and transport



3 Industrial Machinery & Equipment

- Development of innovative, performance-enhancing components, mechatronic systems, and services
- Robot arm actuators for handling and processing tasks



4 Renewable Energy

- Development of regenerative energy production
- Bearing solutions make wind energy, solar-powered and hybrid electricity more economical



5 Aftermarket Solutions & Services

- IoT solutions to reduce downtimes
- Innovative repair solutions in the automotive aftermarket
- Holistic solutions achieved through industrial partnerships

Our key topics – Pioneering in motion



We are driving the technological future forward, creating the conditions for our innovations to make the mobile world of tomorrow even better than it is today.

Mobility, we are convinced, means progress.

INNOVATION



The Schaeffler Group is facing up to the challenges of climate change and is pursuing the goal of climate-neutral operations from the year 2040.

On this journey to climate neutrality – the Climate Journey – the company is including the entire supply chain.

SUSTAINABILITY



There is no way around Digitalization in the world today. It is omnipresent. Modern information technologies offer a wide range of potential such as Artificial Intelligence.

Insights out of data or the increasing fusion of the real and digital worlds provide Schaeffler and its customers with opportunities along the entire value chain.

DIGITALIZATION

Innovation – We are shaping the motion technology of tomorrow

INNOVATION

5

Schaeffler Hubs for
Advanced Research
(SHARE) initiatives

3

Partnerships
with startup hubs

30+

research partnerships
with universities
in **9 countries**

Innovation partners

SCHAEFFLER HUBS



STARTUP HUBS



Key Aspects

- With more than **1,000 patent applications** Schaeffler is one of the most innovative Companies in Germany.
- **€768 million invested** in research and development in 2023
- **Ø7,797 R&D employees** (~9%) in 2023

Sustainability – Ecological and social responsibility throughout the entire value chain

SUSTAINABILITY

Five Action Fields: We have refined our sustainability strategy in a holistic approach and designed it along the three ESG¹ dimensions.

ENVIRONMENT

1. Driving Climate Action towards Net-Zero

Reducing greenhouse gas emissions in own operations and along the value chain.

2. Transitioning towards a Circular Economy

Reducing the impact on the environment by embedding circularity principles across the value chain and realizing opportunities from circular business models.

SOCIAL

3. Protecting Human Rights & Work Conditions

Ensuring and promoting human rights and fair work conditions in own operations and in the supply chain.

4. Empowering People for a Sustainable Future

Enhancing the capabilities of own workforce and workers in the value chain, focusing on D&I, and retaining talent.

GOVERNANCE

5. Ensuring Integrity in Decision Making

Ensuring Schaeffler's decisions are guided by standards of integrity and stakeholder exchange, with reliable data and transparent reporting.

Key Aspects

- Successful sustainability management through cross-functional and cross-divisional activities
- Structure of the sustainability management approach reflected in internal & external reporting



The [Sustainability Report](#) is available online².

¹ Environment, Social and Governance | ² The Sustainability Report 2023 still contains the old ten fields of action, which have now been replaced by the new five fields of action

Digitalization Mission – Discover, deliver, delight

DIGITALIZATION

We discover



- Emerging digital **technologies** with effects for innovation, agility, efficiency and sustainability
- Digital ecosystem **partners** with impactful contribution
- Digital business **opportunities** with promising bottom-line and top-line impact

We deliver



- Digitalization **expertise** with cross-enterprise perspective
- Data-driven **insights** with trust and intelligence
- Digital **solutions** with proven business benefits and holistic protection

We delight



- Our **customers** with compelling digital value propositions
- Our **stakeholders** with digitally-driven added value
- Our **employees** with intuitive digital experience and productivity gains

Digital Agenda – Innovation, agility, efficiency & sustainability for customer value

DIGITALIZATION

DIGITAL FOR BOTTOM-LINE EXCELLENCE

Digital Workplace

Equipment and software for workplaces e.g.:

- Digital office- & shopfloor workplace
- Digital collaboration tools

Cyber-physical Equipment

Smart, connected physical objects e.g.:

- Factories, warehouses, distribution centers & office buildings
- Production machines & robots
- Test rigs & measuring devices
- Transportation vehicles

DIGITAL FOR TOP-LINE GROWTH

Digital Value Chain

Digitalized direct (R&D, ops, sales, marketing, etc.) and indirect processes (HR, finance, etc.) with:

- End-to-end process & data flow integration
- Integrated interactions with suppliers, customers & other stakeholders

Smart Product

Digitally empowered products and services for all product families, covering:

- Smart, connected mechatronic systems
- Data-driven software products
- Digital services

Digital Enablers: Digital Competence, Digital Foundation & Digital Ecosystem

SCHAEFFLER

We pioneer motion

SCHAEFFLER

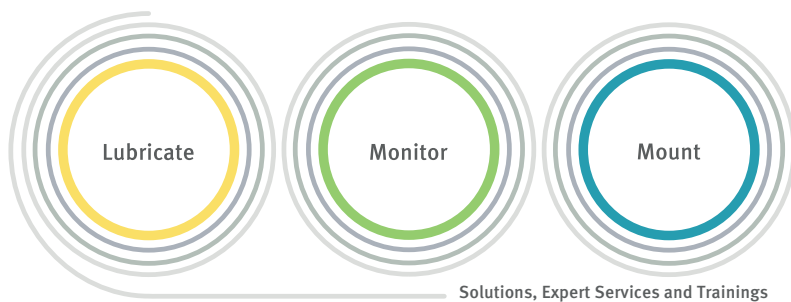
We pioneer motion

SCHAEFFLER LIFETIME SOLUTIONS

Keep your machines rolling



Schaeffler Lifetime Solutions



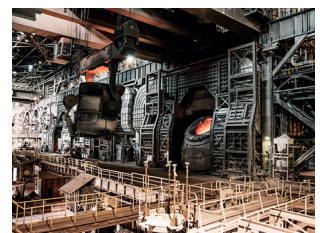
From mounting to condition monitoring and smart lubrication: our products, solutions and services work together to eliminate up to 100 % of all machine failures.

Keep your machines rolling

Your machines are running smoothly – and you can keep them going that way with Schaeffler Lifetime Solutions. Designed with maintenance teams and plant managers in mind: the portfolio offers you everything you need to ensure that uninterrupted rhythm in your workshops and plants. This applies to all industries.



› [Schaeffler Lifetime Solutions](#)



- › 27 YEARS OF CONDITION MONITORING EXPERTISE
- › 75 YEARS OF BEARING TECHNOLOGY EXPERIENCE
- › 75 YEARS OF EXPERTISE IN PLANT OPERATION

Monitor

Condition Monitoring (CM) & Digital Services



Condition Monitoring solutions at a glance [› Link](#)



Schaeffler OPTIME CM

Monitoring solution for hundreds of rotating machines



[› Product page](#)



Schaeffler ProLink CMS

Monitoring solution for multiple machines critical for production



[› Product page](#)



Schaeffler SmartCheck

Monitoring solution for individual machines critical for production



[› Product page](#)



Schaeffler GreaseCheck

For monitoring bearings lubricated with grease. It provides reliable data on the grease condition inside the bearing.



[› Product page](#)



Schaeffler Premesy

Preload measurement system that detects preload-equivalent axial displacements in rolling bearings.



[› Product page](#)

Awards

Premesy

2021 Wind Future Award

OPTIME CM

2020 Industry 4.0 Innovation Award

2021 Red Dot Award

2021 Business Brilliance Award (UK)

2021 IDEA Award (US)

2021 BSB Award

2021 Manufacturer Excellence Award

SmartCheck

2018 Predictive Maintenance Concept

2013 IEN Europe Award

Lubricate

Lubricators and Lubricants



Lubrication solutions at a glance [Link](#)



Schaeffler OPTIME C1

Lubricator that alerts via app when a lubrication point requires attention



[Product page](#)



Schaeffler CONCEPT1

Gas-powered lubricator that can also be filled with greases from other manufacturers



[Product page](#)



Schaeffler CONCEPT2/4/8

Lubricator with two, four or eight outputs that can be controlled separately



[Product page](#)

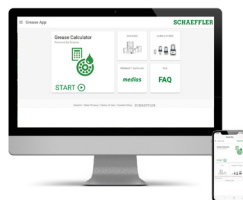


Schaeffler Arcanol

17 Premium Arcanol quality greases (100% quality control) for different application areas



[Product page](#)



Schaeffler Grease App

identifies suitable Arcanol grease, grease operating life, relubrication interval as well as the lubricant quantity



[Product page](#)

Schaeffler OPTIME C1 adapter

You want to stick with your old cartridge supplier – but still bring fresh momentum into your machines? While enjoying all the possibilities offered by the world's first truly smart lubricator?

The adapter works with device types of the following manufacturers:

perma-tec: FLEX, FLEX PLUS, NOVA

SKF: System 24 LAGD

NTN: READY BOOSTER, SMART BOOSTER

Klüber: KlübermaticFLEX, KlübermaticNOVA

Cartridge compatibility:

Cartridge sizes: 60 ml, 125 ml

OPTIME C1 adapter

OPTIME C1



Mount & Services

Mounting, Dismounting, Alignment & Services



Maintenance tools & services at a glance [› Link](#)



Schaeffler tools

Mechanical, hydraulic and thermal tools, testing equipment and other auxiliary devices. Here: HEATER



[› Product page](#)



Schaeffler alignment systems

Belt alignment device, belt tension meter and shaft alignment device



[› Product page](#)



Schaeffler trainings

Product trainings, certification trainings, machine diagnostics for different applications



[› Product page](#)



Schaeffler services

Troubleshooting, inspections, remote service, endoscopies and asset integrity management



[› Product page](#)

Schaeffler Lifetime Solutions

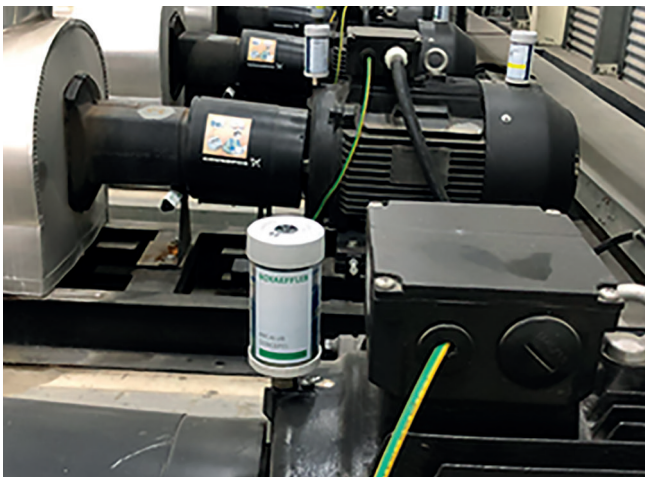
In application



Condition monitoring solution
Paper mill: OPTIME CM does well in engine monitoring



Condition monitoring solution
Logistics center: SmartCheck monitors rack feeder motors



Lubrication solution
Industry: CONCEPT1 lubricates umpteen motors



Lubrication solution
Cement: OPTIME C1 lubricates with pinpoint accuracy and, thanks to smart technology, always indicates the status on a (mobile) end device regardless of location



Industrial tools – Assembly
Industry: through gentle inductive heating, HEATERS prevent damages such as uneven running, fractures or abrasion marks.



Industrial tools – Alignment
Industry: LASER-EQUILIGN2 always ensures professional alignment of your machines thanks to single laser technology

Schaeffler Lifetime Solutions

Customer Success Stories



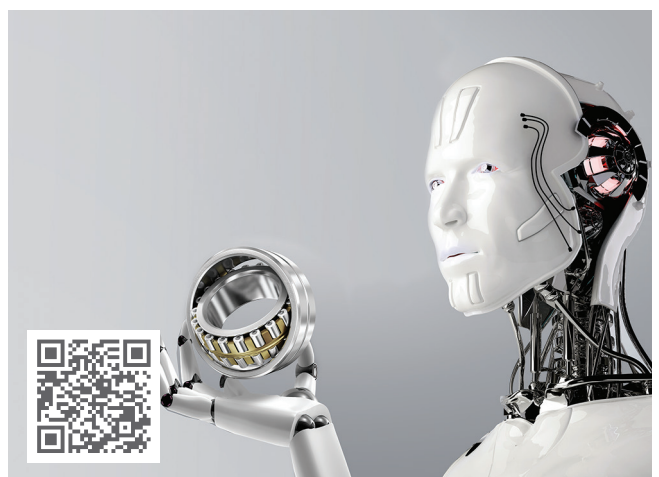
62 tons less CO₂ emissions, savings of up to 145,000 Euro
Sustainable concept – monitoring and lubrication solution with ProLink CMS and CONCEPT8 on a fan



Dongfang Electric Corporation saves 1 million Euro
thanks to optimal lubrication with Arcanol Load460 in the shaft bearing



Approximately 90 machines failures less per year
thanks to comprehensive vibration monitoring solution with OPTIME CM



Lucrative business model for service providers
The OPTIME monitoring solution makes service operations easier



Just one avoided mill failure saves 47,000 Euro
Keep a close eye on the filling quantity of the lubricator, regardless of location



Easy setup - immediate failure identification with Condition Monitoring
saves Lehigh Hanson approximately \$15,000 per prevented shutdown.

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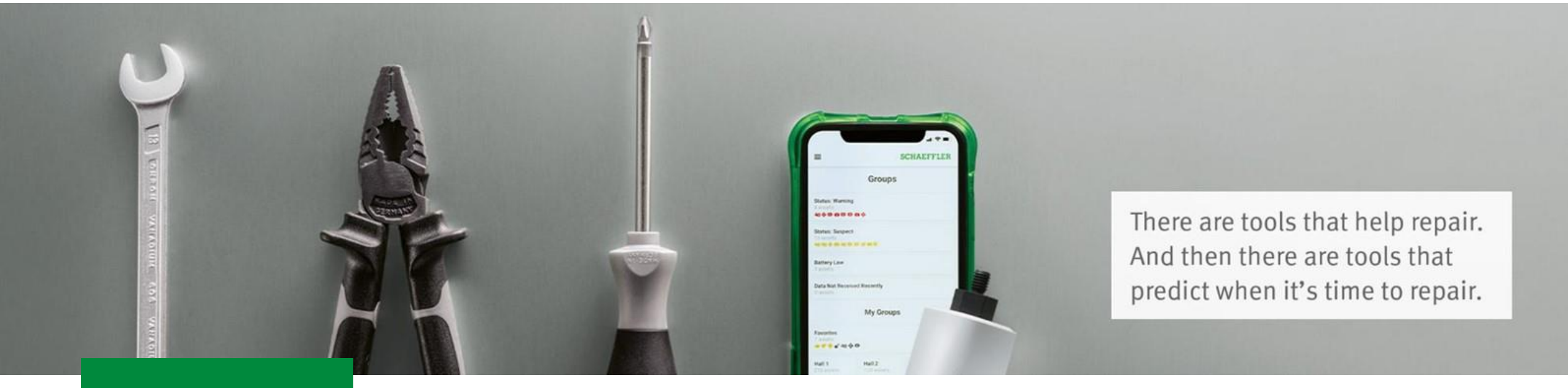
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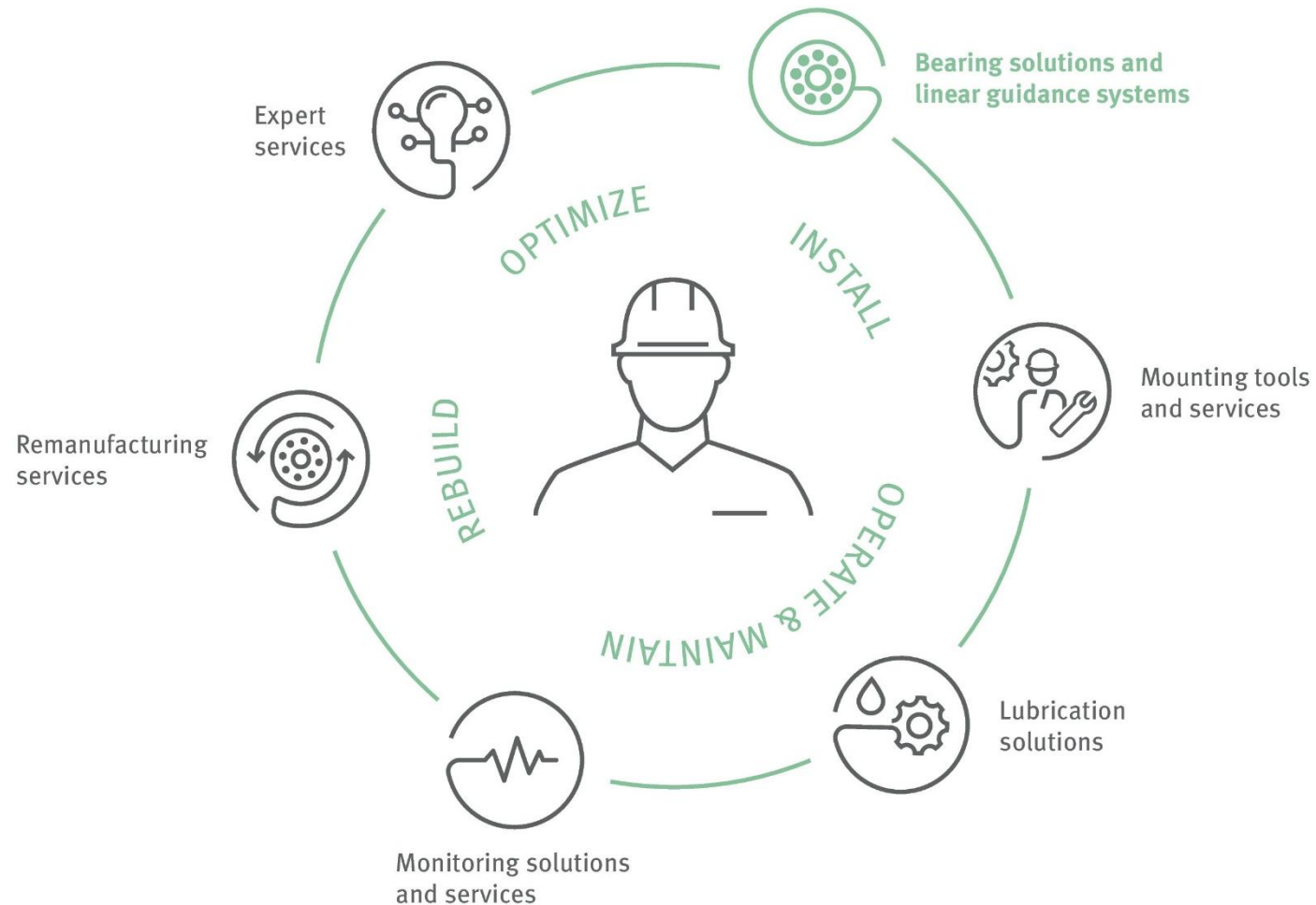
There are tools that help repair.
And then there are tools that
predict when it's time to repair.

Schaeffler Lifetime Solutions / Predictive Maintenance / OPTIME

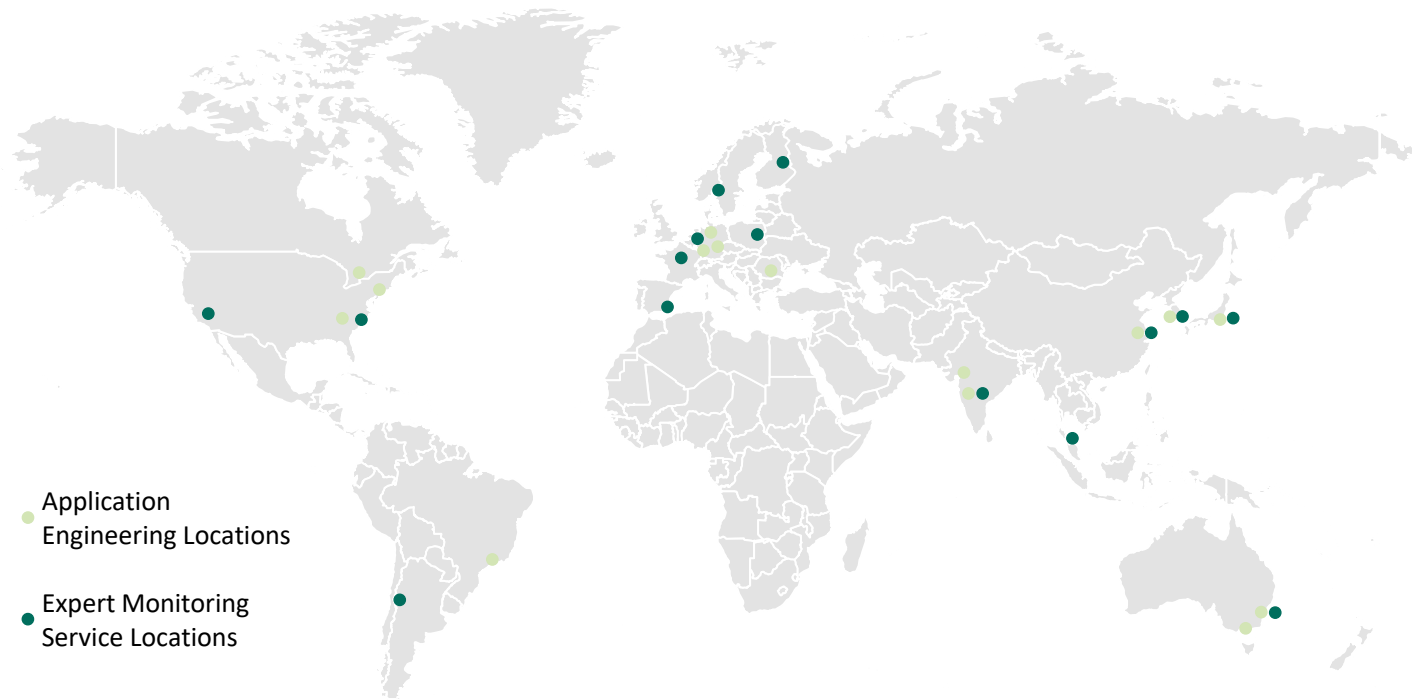
Dr. Philipp Jussen
Managing Director / CEO Schaeffler Monitoring Services GmbH
Head of Predictive Maintenance

We pioneer motion

The Mission of Schaeffler Lifetime Solutions is to make the Maintenance of rotating machines as easy and productive as possible



A globally available team of Schaeffler experts supports our customers in optimizing their performance during all phases of the product lifecycle



Schaeffler Value Offering

- Over 350 customer facing experts for Application Engineering, Technical Consulting and Remote or On-site Monitoring
- Global offering of IoT Delivery, Remote and On-site Monitoring Services
- Expert assessment of machine failures beyond monitoring including recommendations for improvement and optimisation of applications
- Product-related and ISO accredited Certification Trainings
- Over 125 million machine operating hours monitored annually*

*Incl. Over 100 Cruiseships, tankers, ferries, ice breakers monitored with boroscopes

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OPTIME Ecosystem - Full-service predictive maintenance & smart lubrication solution with a 2 to 3-year competitive edge

Fast Roll Out: Install hundreds of sensors in a few days

Full Support: Easy start with turn-key installation and monitoring services.

Unmatched value: Exceptional Price/Performance ratio

Rapid ROI: Proven ROI in 1-10 months

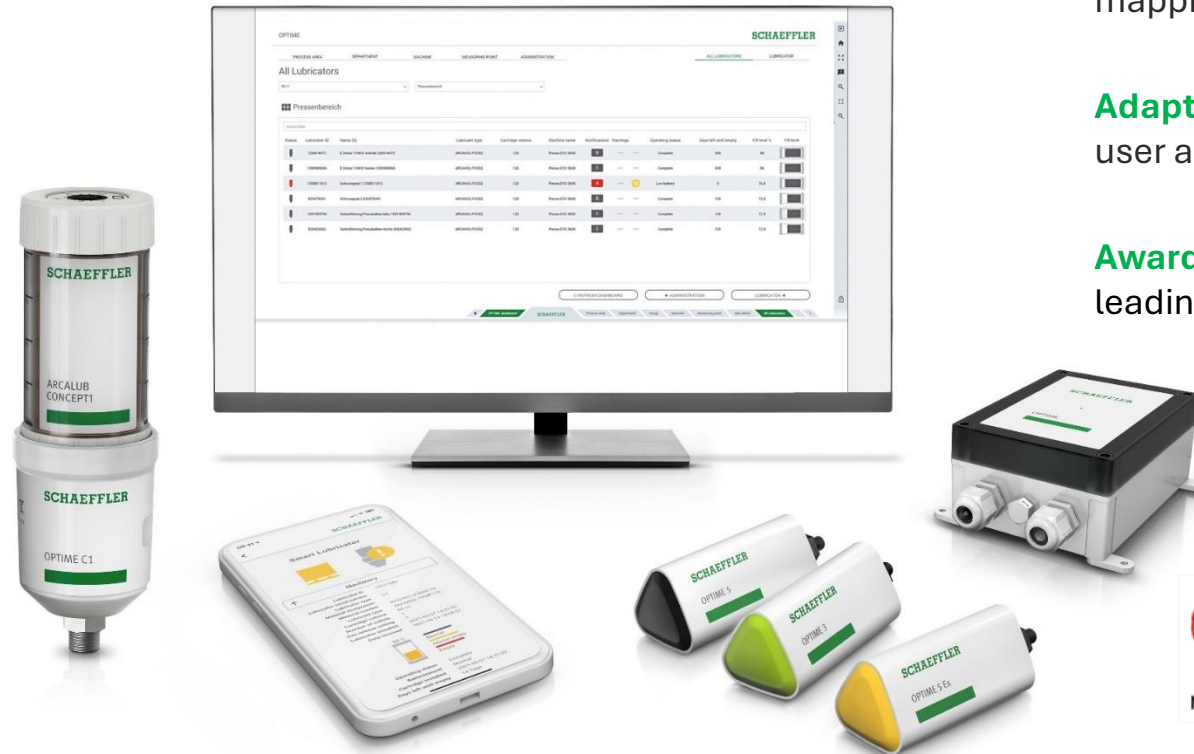
Expanding network: Connecting a new industrial plant every workday since 2023

Unique ecosystem: World leading solution for predictive maintenance and smart lubrication

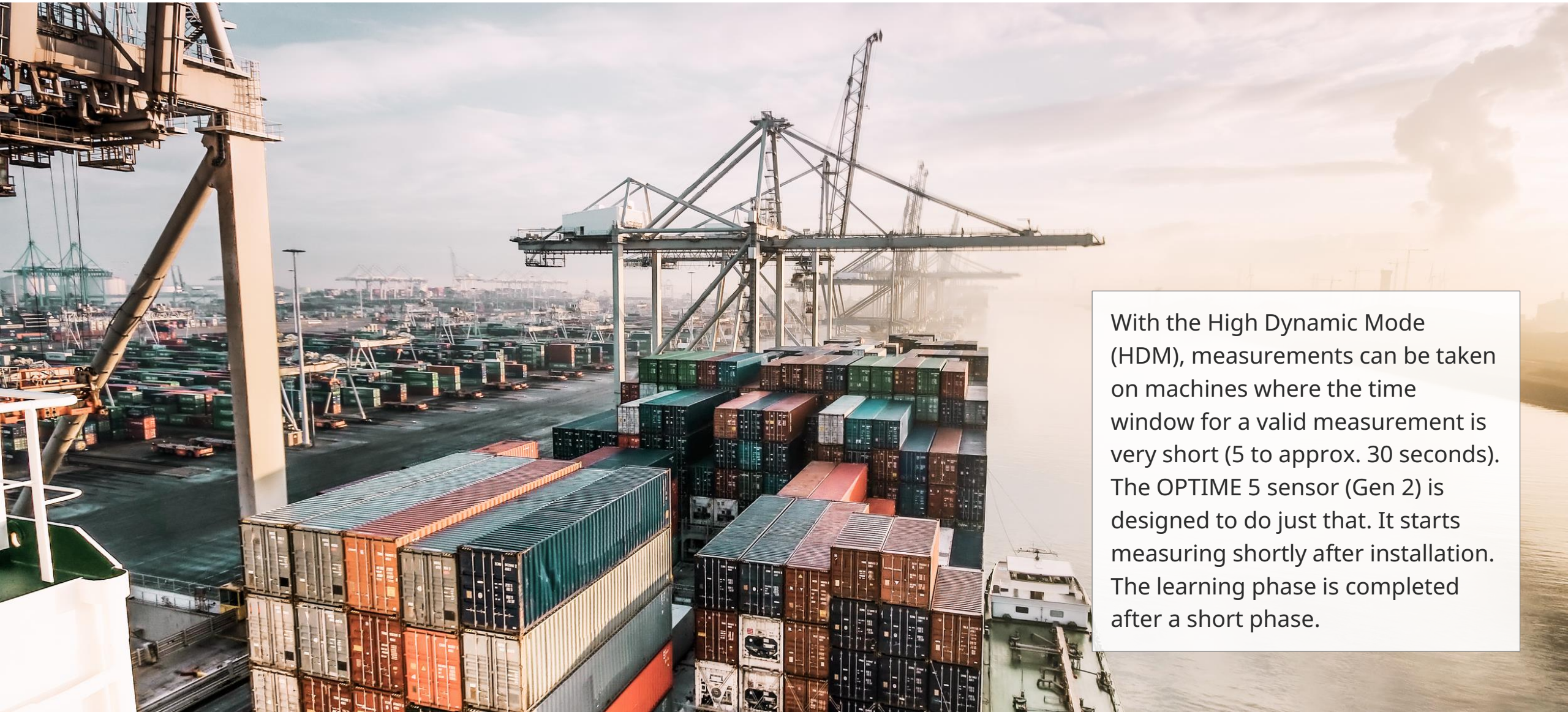
AI Analytics: Capable of immediate fault mapping without prior damage

Adaptive analytics: OPTIME adapts to user actions and machine behavior

Award-Winning solution: Recognized by leading global agencies

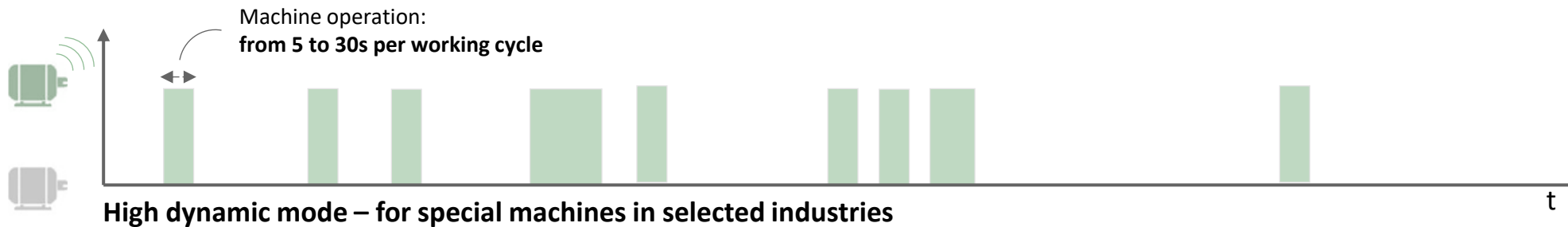
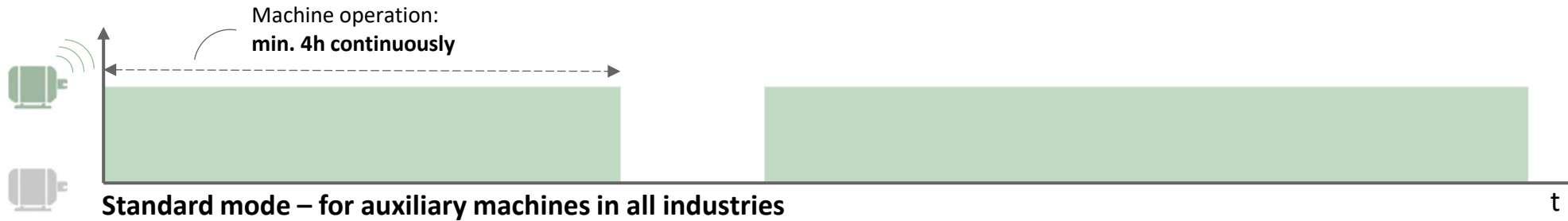


High Dynamic Mode for Container cranes



With the High Dynamic Mode (HDM), measurements can be taken on machines where the time window for a valid measurement is very short (5 to approx. 30 seconds). The OPTIME 5 sensor (Gen 2) is designed to do just that. It starts measuring shortly after installation. The learning phase is completed after a short phase.

Overview OPTIME operating modes (2)



High Dynamic Mode in practice

CONTARGO®
trimodal network



< More on the story

SCHAEFFLER



Challenge

Container handling at Contargo is carried out under very dynamic operating conditions. Some of the engines and gearboxes have only short operating phases (less than 30 seconds) in which measurements can be taken.



Solution

The OPTIME 5 wireless sensors and gateways were installed and activated via the OPTIME app.



Success

After 7 months of use on the crane hoist, OPTIME CM issued an alarm on one of the motors. The customer acknowledged the alarm. After further investigation and analysis of the data, it was found that the cause of the alarm was a bearing failure. The damage was repaired and the motor was able to continue operating.

The Schaeffler Lifetime Solutions Portfolio

Predictive Maintenance	Premesy SmartCheck ProLink CMS incl. I/O Modules & Fieldbus OPTIME Ecosystem incl. ExpertViewer/REST API/new HW/WebUI/A.I. analytics/dynamic mode
Lubrication	Lubricants (Arcanol) Grease App CONCEPT1 CONCEPT 2/4/8 OPTIME C1 OPTIME C4
Maintenance Tools	Hydraulic tools Mechanical tools Rail & Wind Tools Thermal tools Alignment
Services	Expert Services Remote Monitoring Installation Services On-site Troubleshooting Training & Certification Remanufacturing & Mounting Services Remanufacturing & Mounting Services
Energy Solutions	Power-ELEC-6 Power Adapt Power Transmitter Predict Adapt Early OPTIME integration of EcoAdapt portfolio

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