

BOSCH – CORPORATE PRESENTATION

Bosch – Corporate presentation

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Bosch – A global network



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A global network



 **398 150***
Bosch associates
make these solutions
possible

 **60***
countries –
440 regional
subsidiaries

Four business sectors



Mobility
Solutions



Industrial
Technology



Energy & Building
Technology



Consumer
Goods

✓ Including sales and service partners, Bosch's global manufacturing and sales network covers nearly every country in the world.

* As of 12.19

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Four business sectors – Key figures 2019*

Bosch Group

€ 77.7 billion euros
Sales revenue

 398 150
associates



Mobility Solutions

- ▶ One of the world’s leading providers of mobility solutions



Industrial Technology

- ▶ Leading in drive and control technology, packaging, and process technology



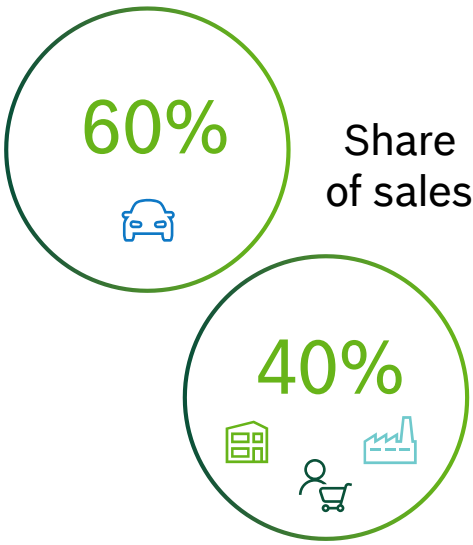
Energy and Building Technology

- ▶ One of the leading manufacturers of security and communication technology
- ▶ Leading manufacturer of energy-efficient heating products and hot-water solutions



Consumer Goods

- ▶ Leading supplier of power tools and accessories
- ▶ Leading supplier of household appliances



* As of 12.19

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Market and figures 2019*

Bosch Group

€

77.7 billion euros

Sales revenue

3 people icon

398 150


associates

factory icon

245

manufacturing sites

Europe




52%

242 506

138

Asia Pacific¹




29%

111 717

72

Americas



19%

43 927

35

* As of 12.19
¹ Including other countries

pie icon

Share of sales

3 people icon

Associates

factory icon

Manufacturing sites

Bosch – Technology to enhance quality of life



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Technology to enhance quality of life



Bosch is one of the world's leading international providers of technology and services

126 Engineering locations worldwide, in a single network

Over the past years, Bosch has invested several **billion euros** in research and development

Our objective:
To develop innovative, useful, and exciting products and solutions to enhance quality of life – technology that is
“Invented for life”

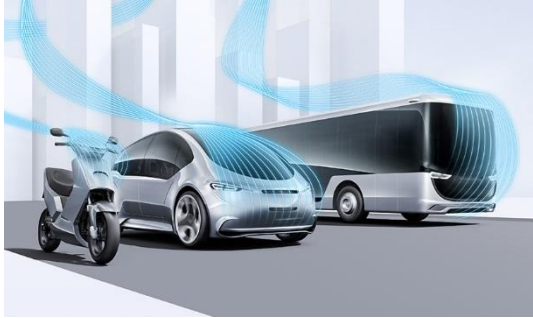
BOSCH – TECHNOLOGY
TO ENHANCE QUALITY
OF LIFE

MOBILITY
SOLUTIONS

Bosch – technology to enhance quality of life

Integrated system solutions

Personalized mobility



Automated mobility



Connected mobility



Powertrain systems and electrified mobility



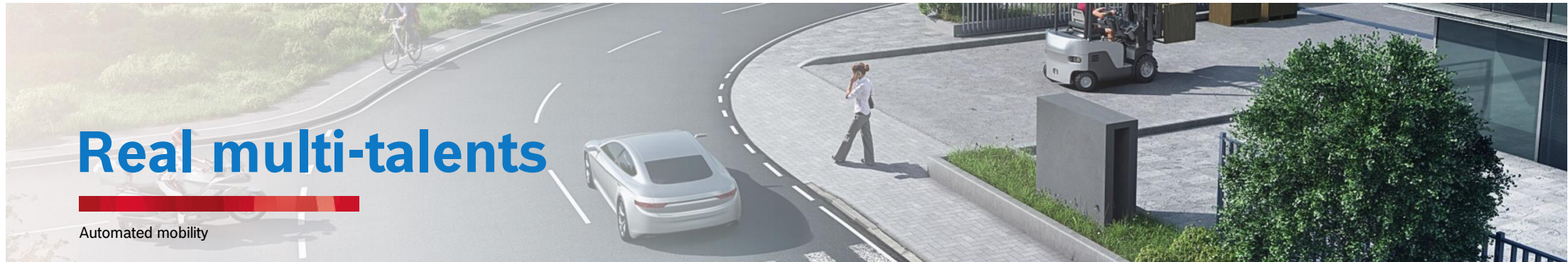
**fun and
fascinating**

**safe and
comfortable**

**efficient and
economical**

Bosch – technology to enhance quality of life

Driver assistance systems as an example



Bosch is developing an ever-increasing range of driver assistance systems which protect all road users.



- ▶ Bosch is constantly extending its comprehensive portfolio of safety systems for cars into other market segments such as two-wheelers, trucks and even rail vehicles and forklifts.
- ▶ Bosch also attributes a particular focus to protect pedestrians and cyclists who are at most risk in traffic.
- ▶ Thanks to the consistent technical advancement of its driver assistance systems, Bosch also creates the technical basis for automated driving in the future.
- ▶ Bosch is a one-stop supplier for all technologies for driver assistance systems, from individual components to complete systems.

more safety

for all traffic participants and vehicle classes,
in road traffic, in logistics depots and in warehouses

less stress

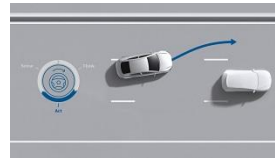
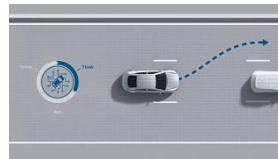
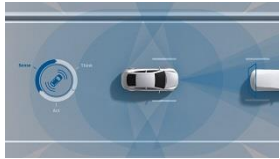
thanks to effective driver support in complex
and monotonous driving situations

Bosch – technology to enhance quality of life

Automated driving as an example



Key technologies for sensors, software, artificial intelligence, powertrain, steering and braking.



- ▶ Be safer on the road: Automated vehicles never tire and can perceive critical situations much sooner and avoid them better than a human being.
- ▶ Arrive more relaxed: In automated mode, drivers can use the time gained to relax, work, communicate or be entertained.
- ▶ Drive more efficiently: Automated vehicles can cover distances in a much more coordinated manner and thus save fuel.
- ▶ Improved flow of traffic: Automated vehicles can drive close to vehicles in front, thereby optimally utilizing the capacity of busy roads.

Bosch, innovative leadership

in all key areas of automated driving

Portfolio with Sense, think, act

covers all of the requisite technologies
in a highly-developed combination of hardware and software

Bosch – technology to enhance quality of life

Mobility as a Service



- ▶ Bosch enables convenient, individual and sustainable mobility in urban areas.
- ▶ Connected services can turn mobility into a personalized experience for users that is precisely tailored to their personal wishes, preferences, and needs.
- ▶ Smart connectivity and user-friendly apps turn mobility into a personal all-in-one service, in which there is a perfect synergy between various modes of transportation and mobility solutions.
- ▶ Bosch makes personalized mobility possible through its own dedicated services and by developing innovative mobility platforms.



Perfectly keyless

With Perfectly Keyless, Bosch offers something that no other keyless entry system has done before, namely offering both convenience and security. The smartphone-based key can be used in cars, entire car-sharing fleets, and commercial vehicles. This enables new services, such as leaving deliveries inside a car.



SmartphoneHub

The connected biking system uses smartphones and the COBI.Bike app to turn the SmartphoneHub into a control center. Once connected to the e-bike, the driver has control over navigation, weather data, driving information, security systems, and much more.



Convenience charging

Bosch Convenience charging turns charging stops into a personalized experience. The intelligent system shows exactly what the range is, where the next charging stations is and what opportunities for shopping, leisure and activities there are nearby.

BOSCH – TECHNOLOGY
TO ENHANCE QUALITY
OF LIFE

INDUSTRIAL
TECHNOLOGY

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Industrial Technology as an example



The Business Sector Industrial Technology

This business sector includes the Drive and Control Technology division, which specializes in drive and control technologies for efficient, powerful, and safe movement in machines and systems. The division combines global application experience in the market segments of mobile applications, plant construction and engineering, and factory automation. The division offers its customers hydraulics, electric drives and controls, gear technology, and linear motion and assembly technology, including software and interfaces to the internet of things. Industrial Technology includes the Bosch Connected Industry business unit.

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ENERGY AND BUILDING
TECHNOLOGY

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Energy and Building Technology as an example



The Thermotechnology Division

The Thermotechnology Division offers solutions for air conditioning, hot water, and decentralized energy management to customers worldwide. It provides heating systems and energy management for residential buildings, water heaters, and commercial and industrial heating and air-conditioning systems. Becoming increasingly important, as is the division's business with electric heat pumps. Robert Bosch Smart Home GmbH offers web-enabled, app-controlled products for the home.

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Energy and Building Technology as an example



The Building Technologies Division

The Building Technologies Division offers solutions and customized services for building security, energy efficiency, and building automation in selected countries. Both units focus on commercial buildings and infrastructure projects. The product portfolio encompasses video-surveillance, intrusion-detection, fire-detection, and voice-alarm systems, as well as access control and professional audio and conference systems.

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CONSUMER GOODS

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Home appliances – **Cookit** as an example



Home appliances for everyone who wants to achieve perfect results easily.

Cookit – is the first digitally connected multifunctional kitchen machine for real cooking, with multiple automatic programmes and temperature precision up to 200 °C.

Connectivity for selected models: “With WLAN technology, they can be controlled conveniently using an app on mobile devices such as tablet PCs or smartphones”.

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Power tools as an example



World-first Biturbo tools

With its Biturbo tools, Bosch is taking performance to a new level: for the first time, cordless tools have outstripped corded ones.

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Power tools as an example



X-Lock - click it in – and you're good to go

The tool mount on angle grinders wasn't changed for 80 years – Bosch has revolutionized it with X-Lock, a world's first and the easiest accessory-change system for angle grinders: Position the wheel in the X-Lock mount, click it in – and you're good to go.

X-Lock makes work easier for professionals and increases their productivity. The system is one of a series of milestones Bosch has set in quick-change systems – like SDS plus and SDS max for rotary hammers.

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Power tools as an example



Slotted, cross-headed and Torx – in letters I-X-O – with a name inspired by these three screw types, the IXO set out to conquer the world more than 15 years ago. Today it is the world's most popular power tool – around 19 million units have been sold so far. The cult status is owed to its uniqueness right down to the packaging.

The **IXO** is small, light, convenient – and powerful thanks to lithium-ion battery technology.

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OF LIFE

FROM “THINGS” TO IOT
WITH A BOLD “T”

Bosch – technology to enhance quality of life

From “Things” to IoT – with a bold “T”

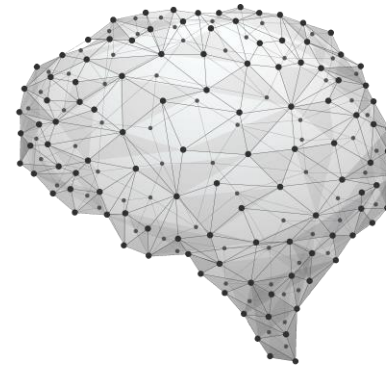
Bosch strives to become a world-leading IoT² company



2020

All electronic **products connected.**

2019: 92% of electronic product classes are connected



2025

All **products** either **possess AI**¹ or are created by **utilizing AI**¹

¹ AI Artificial Intelligence ² IoT Internet of Things

Bosch – technology to enhance quality of life

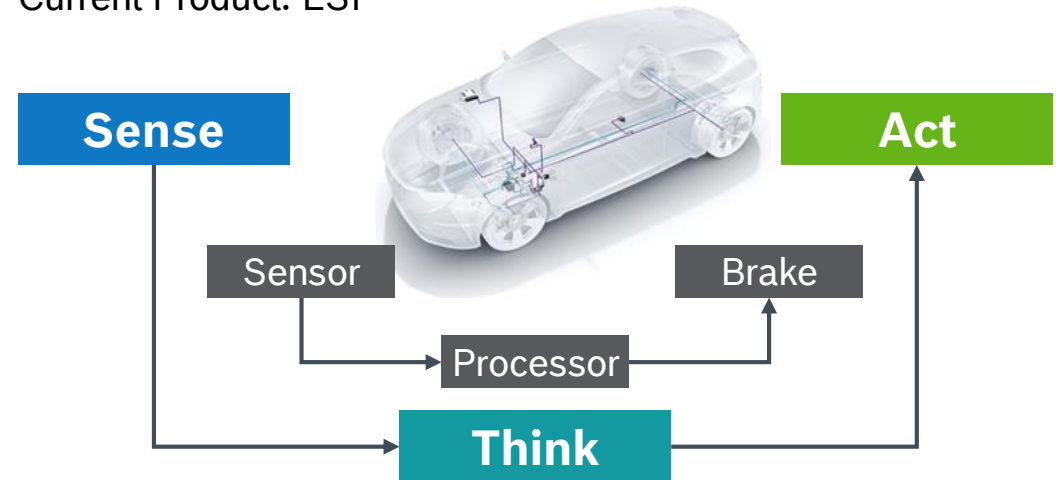
From “Things” to IoT – with a bold “T”

We **connect** our products and their production with the **Internet of Things (IoT)**² to collect and utilize more data

Artificial Intelligence (AI)¹ enables complex functionality based on this data

IoT² and **AI**¹ enable the next level of **intelligent products and services**
They will also enhance the capabilities of current products plus increase efficiency to create them

Current Product: ESP



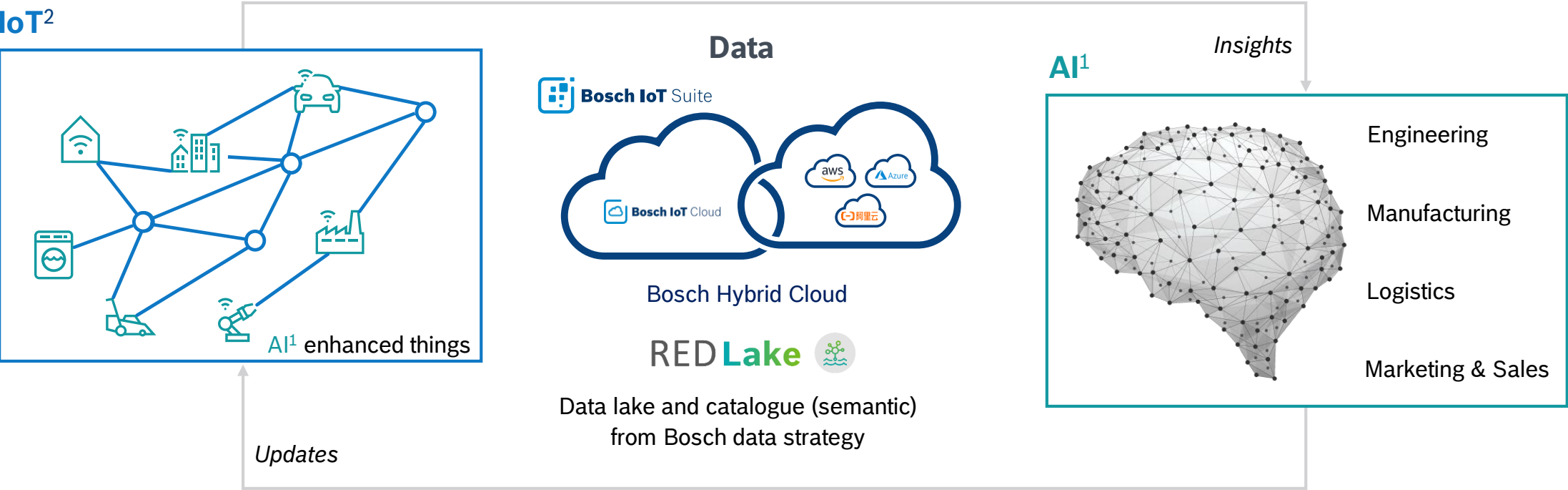
IoT² and **AI**¹ directly support our mission: **Invented for life**

¹ AI Artificial Intelligence ² IoT Internet of Things

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From “Things” to IoT – with a bold “T”

Target operating state: Bosch **AIoT** ecosystem



Things & Services are accessible via **Application Programming Interface (API)**

¹ AI Artificial Intelligence ² IoT Internet of Things

BOSCH – TECHNOLOGY
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OF LIFE

THE BOSCH BRAND

The Bosch Brand

Brand core – setting the direction for everything we do



The Bosch Brand

Brand personality

The empowering partner who is ...

Passionately
committed

A partner who is genuinely interested in customers' needs, understands those needs, and enthusiastically sets about satisfying them.

Inspirational

A partner who empowers its customers by thinking ahead and forging new paths.

Engagingly
capable

A partner whose comprehensive experience and expertise win over its customers.

Trustworthy

A partner who has a clear sense of values and is true to its word, even in difficult times. A partner you can depend on.

The Bosch Brand

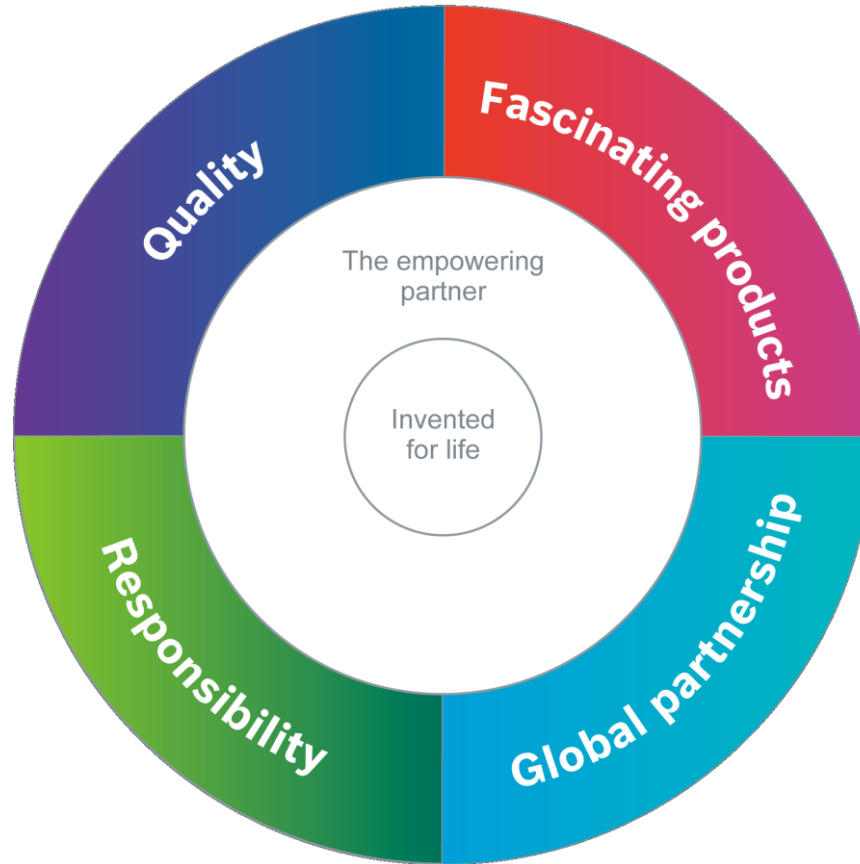
Our brand promises

Quality

Bosch quality stands for **convincing reliability** and **tangible excellence**. Products and services that **perfectly fulfill customer requirements**, combined with our comprehensive support, assure people that they have made the right choice when they opt for Bosch.

Responsibility

Bosch stands for **values-based, responsible business practices**. Our processes and products **conserve resources** and contribute over the long term to a **better quality of life**.



Fascinating products

Thanks to its innovative strength, Bosch sparks enthusiasm with **surprisingly simple** solutions in an **aesthetic, functional design**. We dynamically market our tangibly superior products, delighting our stakeholders.

Global partnership

Bosch's global presence means we are **close to our stakeholders** and markets worldwide. Easy access and close, uncomplicated collaboration make Bosch a **preferred partner**.

THANK YOU



BOSCH Parkhaus