



# Bosch (company)

**Robert Bosch GmbH** (/bɒʃ/; German: [ˈbɔʃ] ), commonly known as **Bosch** (styled **BOSCH**), is a German multinational engineering and technology company headquartered in Gerlingen, Baden-Württemberg, Germany. The company was founded by Robert Bosch in Stuttgart in 1886.<sup>[2]</sup> Bosch is 94% owned by the Robert Bosch Stiftung, a charitable institution.<sup>[3]</sup> Although the charity is funded by owning the vast majority of shares, it has no voting rights and is involved in health and social causes unrelated to Bosch's business.

Bosch's core operating areas are spread across four business sectors: mobility (hardware and software), consumer goods (including household appliances and power tools), industrial technology (including drive and control) and energy and building technology.<sup>[4]</sup> In terms of revenue, Bosch is the largest automotive supplier. Moreover, it is the biggest supplier of the services in the world.

## History

### 1886–1920

The company started in a backyard in Stuttgart-West as the *Werkstätte für Feinmechanik und Elektrotechnik* (Workshop for Precision Mechanics and Electrical Engineering) on 15 November 1886.<sup>[5]</sup> The next year Bosch presented a low voltage magneto for gas engines.

From 1897, Bosch started installing magneto ignition devices into automobiles and became a supplier of an ignition system. In 1902, the chief engineer at Bosch, Gottlob Honold, unveiled the high-voltage magneto ignition system with spark plug.<sup>[6]</sup>

### Robert Bosch GmbH



**BOSCH**



Corporate Sector Research and Advanced Development in Renningen, Germany

<b>Company type</b>	<u>Private</u>
<b>Industry</b>	<u>Conglomerate</u>
<b>Predecessor</b>	<u>Eisemann-Werke</u> <u>Friedrich Hesser</u> , <u>Maschinenfabrik</u>
<b>Founded</b>	15 November 1886
<b>Founder</b>	<u>Robert Bosch</u>
<b>Headquarters</b>	<u>Robert-Bosch-Platz 1</u> , <u>70839 Gerlingen</u> , <u>Baden-Württemberg</u> , <u>Germany</u>
<b>Area served</b>	<u>Worldwide</u>
<b>Key people</b>	<u>Stefan Hartung</u> (CEO), (CTO, CDO)
<b>Products</b>	<u>Automotive parts</u> · <u>power tools</u> · <u>security systems</u> · <u>home appliances</u> · <u>engineering</u> · <u>electronics</u> · <u>cloud computing</u> · <u>IoT</u>
<b>Revenue</b>	<span>▲</span> <span>€</span> 91.59 billion (2023) <sup>[1]</sup>
<b>Operating income</b>	<span>▲</span> <span>€</span> 4.503 billion (2023) <sup>[1]</sup>
<b>Net income</b>	<span>▲</span> <span>€</span> 2.640 billion (2023) <sup>[1]</sup>
<b>Total assets</b>	<span>▲</span> <span>€</span> 108.33 billion (2023) <sup>[1]</sup>

In 1901, Bosch opened its first factory in Stuttgart. In 1906, the company produced its 100,000th magneto. In the same year, Bosch introduced the eight-hour day for workers. In 1910, the Feuerbach plant was founded and built close to Stuttgart. In this factory, Bosch started to produce generators and headlights "Bosch-Light" in 1914. The system had been presented in 1913.<sup>[7]</sup>

The onset of motorization in road traffic meant that the company grew very rapidly after 1900. While Bosch had a workforce of 45 in 1901, it had grown to more than 1,000 by 1908.<sup>[7]</sup>

In 1913, Bosch founded an apprentice workshop in order to recruit qualified young people for the production of automotive electrics.<sup>[7]</sup> Bosch's international development began in 1898 with the opening of a branch in London, followed the next year by Paris, Vienna, and Budapest. By 1909, Bosch was represented by trading partners on every continent: in 1906 in New York (U.S.) and Johannesburg (South Africa), in 1907 in Sydney (Australia), in 1908 in Buenos Aires (Argentina), in 1909 in Shanghai (China), in 1910 in Rio de Janeiro (Brazil), and in 1911 in Tokyo (Japan). Bosch opened the first factory outside Germany in Paris, in 1905, and the first on another continent in 1912 in Springfield, Massachusetts (USA).<sup>[7]</sup>

In 1917, Bosch was transformed into a corporation and remained so until 1937, when Robert Bosch became the sole owner again after buying back his shares. In the process, the company became a limited liability company (GmbH).<sup>[7]</sup>

## 1920s–1945

After the First World War, Bosch lost most of its international holdings, including its U.S. factories. The company had to largely rebuild its international activities. This included opening up further South American and Asian regions. In 1922, for example, Illies & Company established a sales office for Bosch goods in Calcutta, India. In the years that followed, Bosch concluded contracts in Asia with sales partners in Malaysia, Singapore, Thailand, and what is now Indonesia, for example, and on the American continents with partners in Mexico, Peru, Colombia, and Ecuador.<sup>[7]</sup>

In the 1920s, Bosch expanded its product range to include numerous automotive technology products that were required for cars in everyday use: electric horn (1921), windshield wipers (1926), and direction indicators ("trafficator", 1927).<sup>[7]</sup>

<b>Total equity</b>	▲ €47.89 billion (2023) <sup>[1]</sup>
<b>Owners</b>	Robert Bosch Stiftung (92%) Bosch Family (8%)
<b>Number of employees</b>	429,416 (2023) <sup>[1]</sup>
<b>Subsidiaries</b>	BSH Hausgeräte ETAS Bosch Rexroth
<b>Website</b>	<a href="https://www.bosch.com/">bosch.com (https://www.bosch.com/)</a>



Robert Bosch, founder of the company

In 1927, Bosch launched injection pumps for diesel. Bosch bought the gas appliances production from Junkers & Co. in 1932, as a part of a diversification strategy. In 1932, the company developed its first electric drill and presented its first car radio. In 1933, Bosch presented its first electric refrigerator for private households.<sup>[7]</sup>

## Nazi collaboration

In late 1933 negotiations between Robert Bosch AG and the Nazi Party began on relocating parts of armaments production to Germany's interior. Bosch founded two such alternative plants in 1935 and 1937: Dreilinden Maschinenbau GmbH in Kleinmachnow near Berlin and Elektro- und Feinmechanische Industrie GmbH (later Trillke-Werke GmbH) in Hildesheim. Both plants were used exclusively for armament production. These "shadow factories" were built under great secrecy and in close cooperation with the Nazi authorities.<sup>[8]</sup> In 1937, Bosch AG became a limited liability company (GmbH).

The Bosch subsidiary Dreilinden Maschinenbau GmbH (DLMG) in Kleinmachnow employed around 5,000 people, more than half of whom were forced laborers, prisoners of war, and female concentration camp prisoners, including many women from the Warsaw Uprising.<sup>[9]</sup> They had to produce accessories for German Luftwaffe aircraft. In Hildesheim, a secret plant for the entire electrical equipment of tanks, tractors, and trucks of the Wehrmacht was built. In 1944, 4,290 men and women worked in the Trillke factory, 2,019 of whom were forced laborers, prisoners of war, and military internees. During the Second World War, there were at least 3,000 workers at the mechanics division at the Bosch Hildesheim plant, almost all of them from nearby occupied countries; there were only 200 recorded German workers.<sup>[10]</sup>

In the last years of the war, no new German tank ever drove without the starter elements from the Bosch factory in Hildesheim. Bosch also had a monopoly position in the outfitting of German Luftwaffe aircraft.<sup>[11]</sup>

During the war, production was further decentralized, Bosch produced in an ever larger number of factories, and relocated parts of its production to 213 plants in more than 100 locations.

## 21st century

In 2001, Bosch acquired *Mannesmann Rexroth AG*, which they later renamed to Bosch Rexroth AG. In the same year, the company opened a new testing center in Vaitoudden, close to Arjeplog in north Sweden. A new developing center in Abstatt, Germany followed in 2004.

In 2002, Bosch acquired Philips CSI, which at the time was manufacturing a broad range of professional communication and security products and systems including CCTV, congress, and public address systems.<sup>[12]</sup>

In the 2000s the company developed the electric hydraulic brake, common rail fuel injection with piezo-injectors, digital car radio with a disc drive, and the cordless screwdriver with a lithium-ion battery in 2003.

In 2004, Bosch bought Sigpack Systems from SIG.<sup>[13]</sup>

Bosch received the *Deutsche Zukunftspreis* (German Future Prize) from the German president in 2005 and 2008. A new development center was planned in 2008 in Renningen. In 2014, the first departments moved to the new center, while the remaining departments followed in 2015.

In 2006, Bosch acquired Telex Communications and Electro-Voice.

In 2009, Bosch invested about 3.6 billion Euro in development and research. Approximately 3900 patents are published per year. In addition to increasing energy efficiency by employing renewable energies, the company plans to invest in new areas such as biomedical engineering.

China is both a market and a manufacturing location for Bosch. In 2012, Bosch had 34,000 employees and a revenue of 41.7 billion Yuan (about 5 billion Euro) in China.

- 2012 – Purchased SPX Service Solutions<sup>[14][15]</sup>
- 2012 – Bosch sold its foundation brakes activities to KPS Capital Partners, which led to the establishment of Chassis Brakes International<sup>[16]</sup>
- 2013 – Bosch announced it would exit its solar business
- 2014 – Bosch entered talks to acquire Israeli Red Bend Software.<sup>[17]</sup>
- 2014 – Bosch takes over 100% of the shares from the former BSH Bosch and Siemens Hausgeräte GmbH joint venture (home appliances)<sup>[18]</sup>
- 2014 – Bosch received the 2014 U.S. Smart Partner award for Physical Security from Ingram Micro Inc.<sup>[19]</sup>
- 2015 – Bosch takes over 100% of the shares of the former ZF Lenksysteme (Steering Systems) GmbH joint venture (was 50/50 with ZF Friedrichshafen)
- 2015 – Bosch purchases Seeo, Inc, a start-up working on solid-state lithium-ion batteries.<sup>[20][21]</sup>

In 2020, Bosch funded the creation of a report entitled *Decarbonising Road Transport: There Is No Silver Bullet*, which contained disputed information about the environmental performance of electric vehicles.<sup>[22]</sup>

In January 2021, Volkswagen filed a \$1.2 billion class-action against Bosch and Continental AG in the United States after VW was forced to reduce production due to a lack of automotive microchips.<sup>[23][24]</sup> On January 26, 2021, the US Court of Appeals for the Ninth Circuit affirmed that Bosch won on all claims.<sup>[25]</sup>

In January 2020, Bosch Packaging Technology became Syntegon.<sup>[26]</sup>

In June 2021, Bosch christened its newly built semiconductor manufacturing plant in which it invested \$1.2 billion, its largest-ever spending on a single project.<sup>[27]</sup>

In April 2022, Bosch announced to acquire Five.ai, an autonomous driving startup.<sup>[28]</sup>

in April 2022, Bosch announced it had acquired the Dresden-based MEMS micro speaker producer, Ariosio Systems. The company will form part of Bosch Sensortec GmbH.<sup>[29]</sup>

In July 2022, Bosch said the company is looking to invest approximately 3 billion euros into its semiconductor chip production and R&D over the next four years. They will be opening two new facilities for manufacturing a computer chip development in the cities of Dresden and Reutlingen.

Chairman Stefan Hartung said the company is not interested in building cutting-edge semiconductor facilities but focuses on 40 and 200-nanometer chips used in the automotive industry.<sup>[30]</sup>

In September 2023, it was announced Bosch had completed the acquisition of the Roseville-headquartered silicon carbide (SiC) power device manufacturer, TSI Semiconductors.<sup>[31]</sup>

In July 2024, Bosch announced the acquisition of Johnson Controls' heating and air conditioning operations for \$8 billion.<sup>[32]</sup>

## Role in emission cheating software

In 2006, Volkswagen executives asked Bosch for help in developing software for their emission defeat devices. Volkswagen is one of Bosch's biggest customers. Volkswagen engineers provided detailed specifications to Bosch, which wrote the necessary code. Bosch was apparently concerned about the legality of the software and asked Volkswagen to assume responsibility if the fraud was discovered, but Volkswagen refused.<sup>[33]</sup>

Starting in 2008, Bosch supplied approximately 17 million motor control and mixture control devices containing illegal software to various manufacturers both domestically and globally. With such software, the automobiles fitted with Bosch's devices emitted more nitrogen oxides than allowed under regulations.<sup>[34][35]</sup>

On 1 February 2017, Bosch agreed to pay consumers in the United States \$327.5 million as compensation for its role in devising the software.<sup>[36][37]</sup> Bosch also provided emissions software for Fiat Chrysler's 3.0 L V6 diesel engine used in 100,000 model year 2014–2016 Grand Cherokee SUVs and Ram Trucks and agreed to pay affected consumers \$27.5 million as part of a broader settlement in January 2019.<sup>[38]</sup> In May 2019, Bosch paid another \$100 million fine for its connection to the Dieseltgate scandal.<sup>[34][35]</sup>

## Operations

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The majority of Bosch Group businesses are grouped into the following four business sectors.<sup>[39]</sup>

### Mobility solutions

The Mobility Solutions business sector accounts for 60 percent of total sales in 2019.<sup>[3]</sup> Its main areas of activity are injection technology and powertrain peripherals for internal-combustion engines, powertrain electrification, steering systems, safety and driver-assistance systems, infotainment technology as well as vehicle-to-vehicle and vehicle-to-infrastructure communication, repair-shop concepts, and technology and services for the automotive aftermarket.

Particular strategic priorities for the sector include transforming the powertrain and expanding the business in the areas of electrification, automated driving, new electrical and electronic



The Bosch R&D center in Abstatt, Germany, which is a major site for the development of automotive components

architectures for vehicles, accessing adjacent market segments, and developing additional services.

The new Powertrain Solutions division was formed effective 1 January 2018, in order to develop powertrain technology products, regardless of the energy source. The new division resulted from the merger of the former Gasoline Systems and Diesel Systems divisions. It offers products for powertrain technology, from gasoline and diesel direct injection to electrified powertrains with battery systems and, in the future, it will offer fuel-cell technologies as well.

Brands within this sector include:

- AutoCrew
- Bosch Car Service
- ITK Engineering
- Robinair
- HC Cargo
- Zexel
- ETAS

## Industrial technology

In the 2019 business year, the Industrial Technology business sector generated roughly 10 percent of total Bosch Group sales.<sup>[3]</sup> The sector includes the Drive and Control Technology division, whose products include customized drive, control, and linear motion for factory automation, plant construction and engineering, and mobile machinery.

The second division, Packaging Technology, provides process and packaging for the pharmaceuticals and foodstuffs industries. Its range includes stand-alone machines, systems, and services. In the early 2000s, it was portrayed as the world's No. 1 company for packaging technology.<sup>[40]</sup> In 2018, Bosch decided to look for a new owner for this business. Bosch's in-house provider of assembly systems, Robert Bosch Manufacturing Solutions GmbH, Stuttgart, remains part of the Bosch Group; up to now, it has been part of the Packaging Technology division.

In addition, the Bosch Connected Industry business unit, which develops software and carries out Industry 4.0 projects for internal and external customers, has been part of the Industrial Technology business sector since the start of 2018.

In January 2020, Bosch Packaging Technology became Syntegon <sup>[26]</sup>

## Consumer goods

The Consumer Goods business sector contributed some 23 percent of total Bosch Group sales in 2019.<sup>[3]</sup> Its Power Tools division is a supplier of power tools, power tool accessories, and measuring technology. In addition to power tools such as hammer drills, cordless screwdrivers, and jigsaws, its products also include gardening equipment such as lawnmowers, hedge trimmers, and high-pressure cleaners. One of the division's focal points is convenient, high-performance cordless tools, and increasingly also web-enabled tools and services.

Overlapping with its mobility interests, it provides traction motors for electric bicycles with sophisticated control systems.

The Consumer Goods business sector also includes BSH Hausgeräte GmbH, which offers a broad range of modern, energy-efficient, and increasingly connected household appliances. Its products range from washing machines and tumble dryers through refrigerators and freezers, stoves and ovens, and dishwashers, to small appliances such as vacuum cleaners, coffee makers, and food processors.



Bosch e-bike motor, 2015

Brands in this sector include:

- Dremel
- Siemens (under licence)
- Constructa-Neff
- Gaggenau Hausgeräte
- Thermador

## Energy and building technology

In 2019, the Energy and Building Technology business sector generated 7 percent of total Bosch Group sales.<sup>[3]</sup> Its Building Technologies division (formerly Security Systems) has two areas of business: the global product business for security and communications, and the regional integrator business. The latter offers services for building security, energy efficiency, and building automation in selected countries. Both units focus on commercial applications. The products encompass video surveillance, intrusion detection, fire detection, and voice-alarm systems, as well as access control and professional audio and conference systems.



A CCTV camera manufactured by Bosch

The Thermotechnik GmbH Thermotechnology division offers systems for air conditioning, hot water, and decentralized energy management. It provides heating systems and energy management for residential buildings, water heaters, and commercial and industrial heating and air-conditioning systems.

The Bosch Global Service Solutions division offers outsourcing for business processes and services, primarily for customers in the automotive, travel, and logistics industries and in information and communications technology. Within Bosch, it also provides shared-service functions.

Robert Bosch Smart Home GmbH offers web-enabled, app-controlled products for the home.

Brands within this sector:

- Dynacord
- Electro-Voice
- Telex



- Worcester Bosch
- Junkers

## Other business areas

The Bosch Group also operates in other business areas that are not assigned to a particular sector.<sup>[39]</sup>

Bosch Healthcare Solutions GmbH is a wholly-owned subsidiary of Robert Bosch GmbH. The subsidiary was established in 2015. The business offers products and services in the area of healthcare and medical technology.<sup>[41]</sup> In March 2020, Bosch Healthcare Solutions announced that it has developed a diagnostic tool for detecting the coronavirus SARS-CoV-2 responsible for the COVID-19 pandemic in under three hours. According to Bosch, the test can be performed directly at the point of care, eliminating the need to transport samples.<sup>[42]</sup>

The Grow Platform GmbH is the legal entity of Grow and a 100% subsidiary of the Bosch corporation. Grow is an internal start-up incubator.

Robert Bosch Venture Capital GmbH (Rbvc, also known as Bosch Ventures) is the corporate venture capital company of the Bosch Group. RBVC invests worldwide in innovative start-up companies. Its investment activities focus on technology companies working in areas of business of current and future relevance for Bosch, above all, automation and electrification, energy efficiency, enabling technologies, and healthcare systems. RBVC also invests in services and business models as well as new materials that are relevant to the above-mentioned areas of business.<sup>[43]</sup>

## Locations

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Through a complex network of over 468 subsidiaries and regional entities, the company operates in over 60 countries worldwide. Including sales and service partners, Bosch's global manufacturing, engineering, and sales network covers nearly every country in the world. At 125 locations across the globe, Bosch employs roughly 90,100 associates in research and development.



Headquarters in Gerlingen,  
Germany

### British operations

In the UK, Bosch has its corporate head office in Denham, Buckinghamshire, and employs circa. 5200 associates. There are also around 40 other Bosch Group locations throughout the country, including Coventry, Glenrothes, St Neots, Stockport, Stowmarket, Liverpool, Milton Keynes, Worcester, and York.<sup>[44]</sup>

Alongside sales and support functions for all Bosch business sectors in the region, the company also manufactures boiler systems, mobile hydraulics, as well as packaging machinery alongside lawn and garden products in the UK.<sup>[45]</sup>



In March 2019, Bosch opened its London Connectory, a Shoreditch-based "co-innovation space" open to partners from the public, private, and academic sectors, from start-ups to multinational organizations.<sup>[46]</sup>

## North American operations

In North America, Robert Bosch LLC (a wholly owned Bosch subsidiary) has corporate headquarters in Farmington Hills, Michigan. Three Research Technology Centers are located in Pittsburgh, Pennsylvania, Sunnyvale, California, and Cambridge, Massachusetts.<sup>[47]</sup> Factories and distribution facilities are located in Mt. Prospect, Illinois; Hoffman Estates, Illinois; Broadview, Illinois; Kentwood, Michigan; Warren, Michigan; Owatonna, Minnesota; Waltham, Massachusetts; Clarksville, Tennessee; Anderson, South Carolina; Charleston, South Carolina; New Bern, North Carolina; and 11 other cities. There are also two corporate sites in Brazil and ten in Mexico. A central purchasing office for all divisions of Bosch Group is located in Broadview, Illinois. In North America, Bosch employs about 24,750 people in 80 locations, generating \$8.8 billion in sales in 2006.<sup>[48]</sup>

In May 2015, Bosch Security Systems opened its newly constructed distribution center in Greer, South Carolina. The distribution center adds more than 50 new associates in the state and will receive, store and ship more than 50,000 different products for video surveillance, intrusion and fire detection, access control and management systems and professional audio and conference systems.<sup>[49]</sup>

In 2017, Bosch launched its first co-creation IoT innovation space in the world, the Connectory. A partnership with 1871, it is located within the Merchandise Mart in downtown Chicago, Illinois.

## Indian operations

Bosch entered India in 1922, when Illies & Company set up a sales office in Calcutta. For three decades, the company operated in the Indian market only through imports. In 1951, the Motor Industries Company Ltd. (MICO) was founded, with Bosch instantly buying 49% of its stock. MICO became the sole distributor and, after the Indian state implemented restrictive import regulations, a factory was set up at Adugodi, Bangalore in 1953, to manufacture various products with Bosch licensing. From this point onward, vocational training took place as well, culminating in the creation of a Vocational Centre in 1960. By 1961, 2,000 people worked at the Bangalore plant, which had already started an export business, and 57.5% of MICO shares had been bought by Bosch. This was followed by increased investments into MICO plants in India in the late 1960s and early 1970s; a second plant was installed in Nasik in 1969–1971, and a third in Naganathapura in 1988. In the late 1980s, the second-largest contingent of Bosch employees outside of Germany was based in India until eventually, in 2008, MICO was renamed Bosch Limited.<sup>[50]</sup>



IT campus in Stuttgart-Feuerbach, Germany



Company headquarters in Latin America located in Brazil

Bosch India has a turnover of over US\$3 billion and over 31,000 employees spread across 10 locations and 7 application development centers. Approximately 84% of Bosch India revenues come from its automotive business, with the remaining 16% split between its non-automotive businesses that include packaging, energy and building, power tools, and consumer retail.<sup>[51]</sup> Bosch also has R&D facilities in Pune, Hyderabad, Coimbatore, and Bangalore, India. This is Bosch's largest R&D operation outside its home market of Germany.<sup>[52]</sup> In September 2014, Bosch announced the launch of a locally developed eye-irrigation fluid in India. The company's new eye screening and detection system offers a combination of hardware and software and provides affordable eye care.

Bosch India is listed on the Indian stock exchanges and has a market capitalization of over US\$12 billion.<sup>[53]</sup>

In 2022, Bosch's engineering and software arm Robert Bosch Engineering and Business Solutions (abbreviated as RBEI), changed its name to Bosch Global Software Technologies.<sup>[54]</sup>

## Joint ventures

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### BSH Hausgeräte

BSH Hausgeräte GmbH, in which Bosch acquired all shares in 2014, is one of the world's top three companies in the household appliances industry. In Germany and Western Europe, BSH is the market leader. It includes the principal brand names *Bosch* and *Siemens*, Gaggenau, Balay, Neff, Thermador, Constructa, Viva and Ufesa brands, and further six regional brands. Bosch household appliances for the North American market are mainly manufactured at its factory near New Bern, North Carolina.

### EM-motive

Daimler AG and Bosch established a 50:50 joint venture (JV) to develop and manufacture electric motors in 2011. The JV, called EM-motive GmbH, manufactures traction motors for electric, fuel cell and extended-range vehicles at a facility in Hildesheim, Germany.<sup>[55]</sup>

In 2019 Bosch acquired the remaining shares and assumed full control of the company.<sup>[56]</sup>

### Purolator filters

Bosch co-owned Purolator Filters in a joint venture with Mann+Hummel until 2013. In 2013 the Mann+Hummel Group acquired Bosch's stake.<sup>[57]</sup>

### SB LiMotive

In June 2008 Bosch formed SB LiMotive, a 50:50 joint company with Samsung SDI.<sup>[58]</sup> The company held a ceremony for a 28.000 m<sup>2</sup> lithium-ion battery cell manufacturing plant in September 2009 and it is scheduled to start production for hybrid vehicles in 2011 and for electric vehicles in 2012. The plant will

generate 1,000 jobs in Ulsan, Korea in addition to the 500 employees in Korea, Germany, and the United States. SB LiMotive was officially ended in September 2012 with both companies focusing on automotive batteries alone.

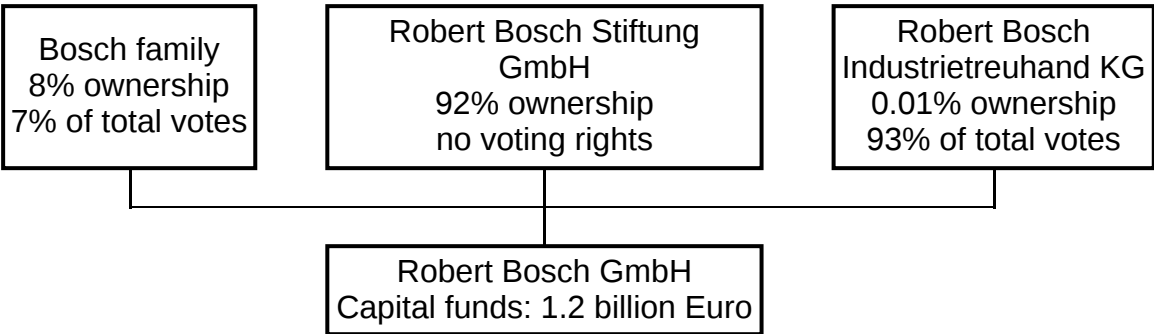
## Static ADAS Calibration

In October 2020, Bosch and Mitchell International paired up to develop the MD-500, a wireless tablet that repair planners can use to link directly to OEM repair procedures from Diagnostic Trouble Codes (DTCs), automatically upload pre-scan and post-scans, and write estimates and calibration reports. Bosch and Mitchell launched the MD-TS21, a target system that permits repair facilities to quickly and accurately calibrate blind-spot monitors, front-facing camera, and radar sensors in automobile models with ADAS, in February 2021.<sup>[59][60][61]</sup>

## Corporate affairs

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Robert Bosch GmbH, including its wholly owned subsidiaries, is unusual in that it is an extremely large, privately owned corporation that is almost entirely (92%) owned by a charitable foundation. Thus, while most of the profits are invested back into the corporation to build for the future and sustain growth, nearly all of the profits distributed to shareholders are devoted to humanitarian causes.



As shown in the diagram above, the Robert Bosch Stiftung (*Robert Bosch Foundation*) holds 92% of the shares of *Robert Bosch GmbH*, but no voting rights. The *Robert Bosch Industrietreuhand KG* (*Robert Bosch Industrial Trust KG*), with old members of the company management, agents of the Bosch family, and other eminent people from the industry (such as Jürgen Hambrecht, CEO of BASF), have 93% of the votes, but no shares (0.01%). The remaining 8% of shares and 7%<sup>[2]</sup> of voting rights are held by the descendants of the company founder Robert Bosch.<sup>[62]</sup>

Bosch invests 9% of its revenue on research and development, nearly double the industry average of 4.7%.<sup>[63]</sup>

## Controversies

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In March 2022, German engineering firm Bosch faced allegations of violating European Union sanctions against Russia after Ukrainian authorities reported finding Bosch components in Russian military vehicles.<sup>[64][65]</sup>

In April 2024, the Russian government placed Bosch's Russian subsidiary under the temporary management of a Gazprom entity, citing responses to Western hostilities.<sup>[66]</sup>

Additionally, reports have surfaced indicating that Bosch, along with other companies, has been selling appliances intended for the Ukrainian market in Russia.<sup>[67]</sup>

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## Accreditations

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Some Bosch locations are ISO 9001 (quality) and ISO 14001 (environmental protection) certified.<sup>[68]</sup> Their management is compliant with OHSAS 18001.

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## Environmental practices and initiatives

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In May 2019, Bosch said it planned to be "fully carbon-neutral" by 2020 by investing in clean electricity and a carbon offset program.<sup>[69]</sup>

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## Partnership with universities

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Bosch has formed a strategic alliance with the Technische Universität Darmstadt.<sup>[70]</sup>

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## See also

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- Continental AG
- Knorr-Bremse
- Siemens

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## References

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1. "Annual Report 2023" ([http://assets.bosch.com/media/global/bosch\\_group/our\\_figures/pdf/bosch-annual-report-2023.pdf](http://assets.bosch.com/media/global/bosch_group/our_figures/pdf/bosch-annual-report-2023.pdf)) (PDF) (Press release). Robert Bosch GmbH. Archived ([https://web.archive.org/web/20240502132216/http://assets.bosch.com/media/global/bosch\\_group/our\\_figures/pdf/bosch-annual-report-2023.pdf](https://web.archive.org/web/20240502132216/http://assets.bosch.com/media/global/bosch_group/our_figures/pdf/bosch-annual-report-2023.pdf)) (PDF) from the original on 2 May 2024. Retrieved 7 May 2024.
2. "Robert Bosch GmbH Company Profile" (<http://biz.yahoo.com/ic/41/41437.html>). Yahoo! Finance.
3. "Annual Report 2020" ([https://web.archive.org/web/20220331131046/https://assets.bosch.com/media/global/bosch\\_group/our\\_figures/pdf/bosch-annual-report-2020.pdf](https://web.archive.org/web/20220331131046/https://assets.bosch.com/media/global/bosch_group/our_figures/pdf/bosch-annual-report-2020.pdf)) (PDF) (Press release). Robert Bosch GmbH. Archived from the original ([https://assets.bosch.com/media/global/bosch\\_group/our\\_figures/pdf/bosch-annual-report-2020.pdf](https://assets.bosch.com/media/global/bosch_group/our_figures/pdf/bosch-annual-report-2020.pdf)) (PDF) on 31 March 2022. Retrieved 12 April 2022.

4. "Bosch Today 2018" ([https://web.archive.org/web/20180523095844/https://assets.bosch.com/media/global/bosch\\_group/our\\_figures/pdf/bosch-today-2018.pdf](https://web.archive.org/web/20180523095844/https://assets.bosch.com/media/global/bosch_group/our_figures/pdf/bosch-today-2018.pdf)) (PDF). *Bosch Global*. 22 May 2018. Archived from the original ([https://assets.bosch.com/media/global/bosch\\_group/our\\_figures/pdf/bosch-today-2018.pdf](https://assets.bosch.com/media/global/bosch_group/our_figures/pdf/bosch-today-2018.pdf)) (PDF) on 23 May 2018. Retrieved 22 May 2018.
5. Theiner, Peter (15 October 2019). *Robert Bosch: An Entrepreneur in an Age of Extremes* (<https://books.google.com/books?id=d0i9DwAAQBAJ>). C.H. Beck. ISBN 978-3-406-74146-3.
6. "The beginnings 1886–1905" (<https://www.bosch.com/stories/1886-1905-from-first-workshop-to-factory/>). Bosch Global. Robert Bosch. Retrieved 12 May 2019.
7. Bähr, Johannes; Erker, Paul (2015). *Bosch* (<https://dx.doi.org/10.17104/9783406683602>). C.H. Beck. doi:10.17104/9783406683602 (<https://doi.org/10.17104%2F9783406683602>). ISBN 978-3-406-68360-2.
8. Heller, Michael (12 January 2014). "Companies in the Third Reich: Robert Bosch and the double balancing act" (<https://web.archive.org/web/20200131171817/https://www.translatetheweb.com/?from=&to=en&dl=en&ref=trb&a=https%253A%252F%252Fwww.stuttgarter-zeitung.de%252Finhalt.unternehmen-im-dritten-reich-robert-bosch-und-der-doppelte-spagat.dd553a40-57df-4ae8-a88d-3a46b7106081.html>). *stuttgarter-zeitung.de*. Stuttgarter-Zeitung. Archived from the original (<https://www.translatetheweb.com/?from=&to=en&dl=en&ref=trb&a=https%253A%252F%252Fwww.stuttgarter-zeitung.de%252Finhalt.unternehmen-im-dritten-reich-robert-bosch-und-der-doppelte-spagat.dd553a40-57df-4ae8-a88d-3a46b7106081.html>) on 31 January 2020. Retrieved 31 January 2020. "Many forced laborers worked at the Bosch plants. Bähr and Erker estimate the total number at 20,000 forced laborers, including 1,200 concentration camp inmates. At the end of 1944, the share of forced labourers in the workforce was around 33 percent; in the whole of German industry it was about 25 percent in August 1944. It cannot be said that the forced laborers at Bosch fared better than elsewhere. Especially in the factories far from Stuttgart, such as in Kleinmachnow near Berlin or in Langenbielau (Bielawa) in Silesia, there were attacks. 'The Russian workers and prisoners of war were subjected to arbitrary acts and denunciations contrary to all the principles of the company, and concentration camp prisoners were brutally abused at the Langenbielau plant,' the historians write."
9. "The Virtual Museum of the Holocaust and the Resistance – Irena Matusiak: Cookbooks and diaries" (<https://library.mcmaster.ca/archives/virtualmuseum/mod1-3.html>). *library.mcmaster.ca*.
10. Bergerson, Andrew Stuart (14 October 2004). *Ordinary Germans in Extraordinary Times: The Nazi Revolution in Hildesheim* (<https://books.google.com/books?id=rGTL30QmPhsC&pg=PA218>). Indiana University Press. p. 218. ISBN 978-0-253-11123-4.
11. *Air Science: Introduction to aviation* (<https://books.google.com/books?id=jJmlcqjKdNkC&pg=PA48>). Montgomery: U.S. Air University, Air Force Reserve Officer Training Corps. 1953. p. 48. "Even more poorly dispersed was aircraft magneto production, as the Bosch plant located at Stuttgart produced all the magnetos for the German military machine."
12. Philips CSI sold to Bosch (<https://www.building.co.uk/philips-csi-sold-to-bosch/1020783.article>), 12 August 2002
13. "100 years of innovation in the packaging industry" (<https://process-technology-online.com/top-news/news/100-years-of-innovation-in-the-packaging-industry/>). *Process technology online - Konradin-Verlag Robert Kohlhammer*. 7 September 2006. Retrieved 31 October 2023.
14. Bosch. "Bosch completes acquisition of SPX Corporation's Service Solutions business" (<https://www.prnewswire.com/news-releases/bosch-completes-acquisition-of-spx-corporations-service-solutions-business-181982761.html>) (Press release). PR Newswire. Retrieved 4 February 2020.
15. "FTC approves Bosch buy of SPX Service Solutions, with conditions" (<https://www.reuters.com/article/spxservice-robertbosch-antitrust-idUSL1E8MQ1FJ20121126>). *Reuters*. 26 November 2012. Retrieved 4 February 2020.

16. "Bosch sells brake unit to KPS Capital Partners" (<https://europe.autonews.com/article/20120111/ANE/301109737/bosch-sells-brake-unit-to-kps-capital-partners>). *Automotive News Europe*. 11 January 2012. Retrieved 4 February 2020.
17. Bosch in talks to buy Israel's Red Bend Software (<https://www.reuters.com/article/us-bosch-redbend-idUSKBN0GJ1B320140819>). *Reuters*, 20 August 2014
18. [1] (<https://www.siemens.com/press/pool/de/pressemitteilungen/2014/corporate/AXX20140968e.pdf>). Siemens and Bosch, 22 September 2014
19. By Press Release, Security Info Watch. "Bosch recognized as a top-performing U.S. technology company by Ingram Micro ([http://www.securityinfowatch.com/press\\_release/12024529/bosch-receives-2014-smart-partner-award-for-physical-security-from-ingram-micro](http://www.securityinfowatch.com/press_release/12024529/bosch-receives-2014-smart-partner-award-for-physical-security-from-ingram-micro))." 4 December 2014. 8 December 2014.
20. "Bosch is buying Silicon Valley battery startup Seeo" (<https://fortune.com/2015/08/27/bosch-buys-battery-startup-seeo/>). *Fortune*. Retrieved 4 February 2020.
21. "Bosch acquires U.S. electric car battery developer Seeo" (<https://www.reuters.com/article/us-seeo-m-a-robert-bosch-idUSKCN0QX1IS20150828>). *Reuters*. 28 August 2015. Retrieved 4 February 2020.
22. "Aston Martin in row over 'sock puppet PR firm' pushing anti-electric vehicle study" (<https://www.theguardian.com/business/2020/dec/02/aston-martin-pr-firm-anti-electric-vehicle-study>). *The Guardian*. 2 December 2020.
23. Michael Nienaber (24 January 2021). "Volkswagen looks to claim damages from suppliers over chip shortages" (<https://www.reuters.com/world/asia-pacific/volkswagen-looks-claim-damages-suppliers-over-chip-shortages-2021-01-24/>). *Reuters*.
24. "VW may seek damages from Bosch and Conti over chip shortages" (<https://europe.autonews.com/automakers/vw-may-seek-damages-bosch-and-conti-over-chip-shortages>). *Automotive News Europe*. 24 January 2021.
25. "Bosch Secures Win in VW Dealers Proposed \$1.2 Billion Class Action" (<https://www.clearygottlieb.com/news-and-insights/news-listing/bosch-secures-win-in-vw-dealers-proposed-1-2-billion-class-action>). *Cleary Gottlieb*. 26 January 2021.
26. Bosch Packaging Technology is now Syntegon | Syntegon (<https://www.syntegon.com/news/press-releases/2020-01-16-bosch-packaging-technology-is-now-syntegon>)
27. "Bosch opens German chip plant, its biggest-ever investment" (<https://www.reuters.com/technology/bosch-opens-german-chip-plant-its-biggest-ever-investment-2021-06-07/>). *Reuters*. 7 June 2021. Retrieved 11 June 2021.
28. "Bosch picks up Five.ai after the self-driving startup pivoted to B2B and then put itself up for sale" (<https://techcrunch.com/2022/04/12/bosch-picks-up-five-ai-after-the-self-driving-startup-that-pivoted-to-b2b-put-itself-up-for-sale/>). *TechCrunch*. 12 April 2022. Retrieved 15 April 2022.
29. "Evertiq - Bosch expands sensor business via acquisition" (<https://evertiq.com/design/51780>). *evertiq.com*. Retrieved 29 April 2022.
30. Wheatley, Mike (14 July 2022). "Germany's Bosch to invest €3 billion in chip manufacturing and research" (<https://siliconangle.com/2022/07/14/germanys-bosch-invest-e3-billion-chip-manufacturing-research/>). *SiliconANGLE*. SiliconANGLE Media. Retrieved 17 July 2022.
31. Flaherty, Nick (4 September 2023). "Bosch completes acquisition of assets of TSI Semiconductors" (<https://www.eenewseurope.com/en/bosch-completes-acquisition-of-assets-of-tsi-semiconductors/>). *eeNews Europe*. Retrieved 4 September 2023.
32. "Bosch to buy Johnson Controls air-conditioning assets in \$8 billion deal" (<https://www.reuters.com/markets/deals/johnson-controls-sell-heating-ventilation-assets-bosch-67-bln-deal-2024-07-23/>). *reuters*.
33. Ewing, Jack (1 February 2017). "Supplier's Role Shows Breadth of VW's Deceit" (<https://www.nytimes.com/2017/02/01/business/bosch-vw-diesel-settlement.html>). *The New York Times*. Retrieved 5 February 2017.

34. Levin, Doron (23 May 2019). "German Parts Maker Bosch Gets Off With Relatively Light \$100 Million Fine From VW Dieselgate" (<https://www.forbes.com/sites/doronlevin/2019/05/23/german-parts-maker-bosch-gets-off-with-relatively-light-100-million-fine-from-vw-dieselgate/?sh=197a82521f28>). *Forbes*.
35. "Bosch pays 90-million-euro fine over diesel scandal" (<https://www.dw.com/en/bosch-pays-90-million-euro-fine-over-diesel-scandal/a-48843405>). *DW*. 23 May 2019.
36. McGee, Patrick (1 February 2017). "Bosch reaches \$328m settlement in VW emissions scandal" (<https://ghostarchive.org/archive/20221210/https://www.ft.com/content/964a2f72-e898-11e6-967b-c88452263daf>). *Financial Times*. Archived from the original (<https://www.ft.com/content/964a2f72-e898-11e6-967b-c88452263daf>) on 10 December 2022. Retrieved 5 February 2017.
37. Shepardson, David (1 February 2017). "VW, Robert Bosch agree to pay \$1.55 billion to settle U.S. diesel claims" (<https://www.reuters.com/article/us-volkswagen-emissions-idUSKBN15G3NX>). *Reuters*.
38. Shepardson, David (10 January 2019). "Fiat Chrysler agrees to \$800 million U.S. diesel-emissions settlement" (<https://www.reuters.com/article/us-fiatchrysler-emissions/fiat-chrysler-agrees-to-u-s-diesel-emissions-settlement-worth-nearly-800-million-idUSKCN1P41WV>). *Reuters*. Retrieved 11 January 2019.
39. "Bosch Today 2019" ([https://web.archive.org/web/20190512114410/https://assets.bosch.com/media/global/bosch\\_group/our\\_figures/pdf/bosch-today-2019.pdf](https://web.archive.org/web/20190512114410/https://assets.bosch.com/media/global/bosch_group/our_figures/pdf/bosch-today-2019.pdf)) (PDF). Robert Bosch GmbH. Archived from the original ([https://assets.bosch.com/media/global/bosch\\_group/our\\_figures/pdf/bosch-today-2019.pdf](https://assets.bosch.com/media/global/bosch_group/our_figures/pdf/bosch-today-2019.pdf)) (PDF) on 12 May 2019. Retrieved 12 May 2019.
40. "Sigpack Systems -100 years of innovation in the packaging industry" (<https://process-technology-online.com/top-news/news/100-years-of-innovation-in-the-packaging-industry/>). *Process Technology*. 7 September 2006. Retrieved 10 October 2023.
41. "About us" (<https://www.bosch-healthcare.com/en/about-us/>). Robert Bosch. Retrieved 12 May 2019.
42. "Bosch Develops Corona Test Tool to Detect Virus in Under Three Hours" (<https://www.nytimes.com/reuters/2020/03/26/world/europe/26reuters-health-coronavirus-bosch.html>). *The New York Times*. 26 March 2018. Retrieved 30 March 2020.
43. "Company Overview of Robert Bosch Venture Capital GmbH" (<https://www.rbvc.com/>). *RBVC Homepage*. Retrieved 11 February 2023.
44. "Bosch in the UK" (<https://www.bosch.co.uk/our-company/bosch-in-the-united-kingdom/>). *Bosch in the United Kingdom*. Retrieved 12 May 2019.
45. "Bosch UK Factsheet 2018" ([https://web.archive.org/web/20190512123127/https://www.bosch.co.uk/media/our\\_company/2017\\_uk\\_factsheet.pdf](https://web.archive.org/web/20190512123127/https://www.bosch.co.uk/media/our_company/2017_uk_factsheet.pdf)) (PDF). *Bosch UK*. 12 May 2019. Archived from the original ([https://www.bosch.co.uk/media/our\\_company/2017\\_uk\\_factsheet.pdf](https://www.bosch.co.uk/media/our_company/2017_uk_factsheet.pdf)) (PDF) on 12 May 2019. Retrieved 12 May 2019.
46. "Keeping London on the move" (<https://www.bosch.co.uk/news-and-stories/stories/keeping-london-on-the-move/index-2.html>). *Bosch in the United Kingdom*. Retrieved 12 May 2019.
47. "Bosch – Bosch Research and Technology Center" (<https://web.archive.org/web/20141218112718/http://www.bosch.us/content/language1/html/rtc.htm>). Archived from the original (<http://www.bosch.us/content/language1/html/rtc.htm>) on 18 December 2014. Retrieved 18 December 2014.
48. "About Bosch in the USA" (<https://web.archive.org/web/20080319035427/http://www.bosch.us/content/language1/html/867.htm>). Bosch. Archived from the original (<http://www.bosch.us/content/language1/html/867.htm>) on 19 March 2008. Retrieved 11 March 2008.
49. Greer Today. "Bosch celebrates opening Greer distribution center (<http://greertoday.com/greer-sc/bosch-celebrates-opening-greer-distribution-center/2015/05/06/>)." 6 May 2015. 14 May 2015.




50. Hoffmann, Josefine (2020). "Agreements and Achievements – MICO in the German Bosch Archive" (<https://www.projekt-mida.de/reflexicon/agreements-and-achievements-mico-in-the-german-bosch-archive/>). *MIDA Archival Reflexicon*: 3–4. ISSN 2628-5029 (<https://search.worldcat.org/issn/2628-5029>) – via MIDA 1706–1989).
51. "Bosch enters healthcare space in India" (<http://timesofindia.indiatimes.com/business/india-business/Bosch-enters-healthcare-space-in-India/articleshow/40929482.cms>). *The Times of India*. 26 August 2014. Retrieved 30 July 2016.
52. Mishra, Ashish K. (6 November 2014). "Bosch's long tryst with India" (<http://www.livemint.com/Home-Page/JF92JSrZa9H3o4pXWb44HI/Boschs-long-tryst-with-India.html>). Live Mint. Retrieved 4 August 2017.
53. "Bosch Share Price, Bosch Stock Price, Bosch Ltd. Stock Price, Share Price, Live BSE/NSE, Bosch Ltd. Bids Offers. Buy/Sell Bosch Ltd. news & tips, & F&O Quotes, NSE/BSE Forecast News and Live Quotes" (<https://www.moneycontrol.com/india/stockpricequote/auto-ancillaries/bosch/B05>). *moneycontrol.com*. Retrieved 24 October 2019.
54. "RBEI is now Bosch Global Software Technologies" (<https://www.thehindubusinessline.com/companies/rbei-is-now-bosch-global-software-technologies/article38114213.ece>). *Hindu Business Line*. 4 January 2022. Retrieved 18 January 2022.
55. "Daimler, Bosch finalize EM-motive electric motor joint venture" ([https://www.autoblog.com/2011/09/20/daimler-bosch-finalize-em-motive-electric-motor-joint-venture/?guccounter=1&guce\\_referrer=aHR0cHM6Ly93d3cuZ29vZ2xLMnVrLW&guce\\_referrer\\_sig=AQAAANikm9fGzeM222webGC3Rf5BdBQpKeYx5HFU9\\_wSoHVXK7ZnLico4zE3LgqGXgSbLHLzGIYQS2qbp48ZwG-841cmA1zCMILol5fOZl8q\\_CKCbB20ml1LEFO9iL7YNIVRI-9IpuPRrjFwjewDm5Gp1rQ8EDdR3jfk4diwuZPoJdJ](https://www.autoblog.com/2011/09/20/daimler-bosch-finalize-em-motive-electric-motor-joint-venture/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xLMnVrLW&guce_referrer_sig=AQAAANikm9fGzeM222webGC3Rf5BdBQpKeYx5HFU9_wSoHVXK7ZnLico4zE3LgqGXgSbLHLzGIYQS2qbp48ZwG-841cmA1zCMILol5fOZl8q_CKCbB20ml1LEFO9iL7YNIVRI-9IpuPRrjFwjewDm5Gp1rQ8EDdR3jfk4diwuZPoJdJ)). *Autoblog*. Retrieved 12 May 2019.
56. "Bosch buys out Daimler's stake in electric motor JV" (<https://europe.autonews.com/supplier/s/bosch-buys-out-daimlers-stake-electric-motor-jv>). *Automotive News Europe*. 24 January 2019. Retrieved 12 May 2019.
57. "Mann+Hummel Takes Over Purolator Filters Joint Venture from Bosch" (<https://www.businesswire.com/news/home/20130327006132/en/MANNHUMMEL-Takes-Purolator-Filters-Joint-Venture-Bosch>). *Business Wire*. 27 March 2013. Retrieved 21 June 2019.
58. Sam Abuelsamid, Auto Blog. "Bosch and Samsung to team up on battery development (<http://www.autoblog.com/2008/06/17/bosch-and-samsung-to-team-up-on-battery-development/>)." 27 June 2008. Retrieved 1 February 2017.
59. "Bosch and Mitchell Introduce New Target Systems for Static ADAS Calibration" (<https://www.prnewswire.com/news-releases/bosch-and-mitchell-introduce-new-target-system-for-static-adas-calibration-301221018.html>). *Cision*. 3 February 2021.
60. "Bosch and Mitchell Collaborate On New Tool" (<https://www.tomorrowstechnician.com/bosch-and-mitchell-collaborate-on-new-tool/>). *Tomorrow's Tech*. 22 October 2020.
61. "Bosch, Mitchell Introduce New Target System for Static ADAS Calibration" (<https://www.bodyshopbusiness.com/bosch-mitchell-introduce-new-target-system-for-static-adas-calibration/>). *Body Shop Business*. 3 February 2021.
62. Robert Bosch Stiftung: Über uns (<http://www.bosch-stiftung.de/content/language1/html/389.asp>). Retrieved 11 August 2008
63. Muller, Joann (28 November 2005). "Parts for the Sensitive Car" ([https://web.archive.org/web/20060905084934/http://www.forbes.com/forbes/2005/1128/204\\_print.html](https://web.archive.org/web/20060905084934/http://www.forbes.com/forbes/2005/1128/204_print.html)). *Forbes*. Archived from the original ([https://www.forbes.com/forbes/2005/1128/204\\_print.html](https://www.forbes.com/forbes/2005/1128/204_print.html)) on 5 September 2006.
64. "Bosch probed over Russia sanctions violations — report — DW — 03/18/2022" (<https://www.dw.com/en/bosch-faces-probe-over-possible-russia-sanctions-violations-report/a-61173586>). *dw.com*. Retrieved 5 December 2024.
65. "Germany probes possible exports of dual-use goods by Bosch – Spiegel" (<https://www.reuters.com/business/germany-probes-possible-exports-dual-use-goods-by-bosch-spiegel-2022-03-18/>). Reuters. 18 March 2022. Retrieved 5 December 2024.

66. "Putin transferred Ariston and Bosch assets in Russia to Gazprom | YHH" (<https://unn.ua/en/news/putin-transferred-ariston-and-bosch-assets-in-russia-to-gazprom>). *unn.ua*. 4 December 2024. Retrieved 5 December 2024.
67. "Bosch, Delonghi and Philips sell appliances made for Ukraine in Russia - Kommersant" (<https://mind.ua/en/news/20274263-bosch-delonghi-and-philips-sell-appliances-made-for-ukraine-in-russia-kommersant>). *Mind.ua*. Retrieved 5 December 2024.
68. "Corporate Social Responsibility Report 2010" ([https://web.archive.org/web/20121202101359/http://www.bosch.com/media/en/com/sustainability/current/news/2011/bsh\\_sustainability\\_report\\_2010.pdf](https://web.archive.org/web/20121202101359/http://www.bosch.com/media/en/com/sustainability/current/news/2011/bsh_sustainability_report_2010.pdf)) (PDF). *Bosch*. Archived from the original ([http://www.bosch.com/media/en/com/sustainability/current/news/2011/bsh\\_sustainability\\_report\\_2010.pdf](http://www.bosch.com/media/en/com/sustainability/current/news/2011/bsh_sustainability_report_2010.pdf)) (PDF) on 2 December 2012. Retrieved 28 January 2012.
69. McGee, Patrick (9 May 2019). "Bosch says it will be carbon-neutral in 2020" (<https://ghostarchive.org/archive/20221210/https://www.ft.com/content/da91dabe-723d-11e9-bbfb-5c68069fbd15>). *Financial Times*. Archived from the original (<https://www.ft.com/content/da91dabe-723d-11e9-bbfb-5c68069fbd15>) on 10 December 2022. Retrieved 12 May 2019.
70. Darmstadt, Technische Universität. "Strategische Partnerschaften" ([https://www.tu-darmstadt.de/wissenstransfer/kooperation\\_mit\\_unternehmen/formen\\_der\\_zusammenarbeit/strategische\\_partnerschaften\\_2/index.de.jsp](https://www.tu-darmstadt.de/wissenstransfer/kooperation_mit_unternehmen/formen_der_zusammenarbeit/strategische_partnerschaften_2/index.de.jsp)). *Technische Universität Darmstadt* (in German). Retrieved 29 July 2019.

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## External links

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- [Official website \(<https://www.bosch.com/>\)](https://www.bosch.com/) 
  - Documents and clippings about Bosch (<http://purl.org/pressemappe20/folder/co/003322>) in the [20th Century Press Archives](#) of the [ZBW](#)
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