



Bayerische Motoren Werke AG (German pronunciation: [\[ˈbaɪʁɪʃə mɔˈtʰɔʁn̩ ˈvɛʁkə\]](#) ([listen](#)); German for *Bavarian Motor Works*), usually known under its abbreviation **BMW** (German pronunciation: [\[ˈbeːˈʔɛmˈveː\]](#) ([listen](#))), is a German [luxury vehicle](#), [motorcycle](#), and [engine](#) manufacturing company founded in 1916. It is one of the best-selling luxury automakers in the world.^[3] The company is a component of the [Euro Stoxx 50 stock market index](#).^[4] [Headquartered](#) in [Munich](#), [Bavaria](#), BMW owns [Mini](#) cars and is the parent company of [Rolls-Royce Motor Cars](#). BMW produces [motorcars](#) under the [BMW Motorsport](#) division and motorcycles under [BMW Motorrad](#), and [plug-in electric cars](#) under the [BMW i](#) sub-brand and the "iPerformance" model designation within the regular BMW lineup.

Overseas subsidiaries



Brazil

On 9 October 2014, BMW's new South American automobile plant in [Araquari](#), [Santa Catarina](#) produced its first car. BMW intend to increase its production capacity to over 30,000 vehicles a year. The new site is intended to create around 1,300 new jobs, of which 500 have already been filled.

Canada

In October 2008, BMW Group Canada was named one of [Greater Toronto's Top Employers](#) by Mediacorp Canada Inc., which was announced by the [Toronto Star](#) newspaper.

China

Main article: [BMW Brilliance](#)

Signing a deal in 2003 for the production of sedans in China,^[109] May 2004 saw the opening of a factory in the North-eastern city of [Shenyang](#) where [Brilliance Auto](#) produces BMW-branded automobiles^[110] in a joint venture with the German company.

Egypt

[Bavarian Auto Group](#) is a multinational group of companies established in March 2003 when it was appointed as the sole importer of BMW and Mini in Egypt, with monopoly rights for import, assembly, distribution, sales and after-sales support of BMW products in Egypt. Since that date, BAG invested a total amount of US\$100 million distributed on seven companies and 11 premises in addition to three stores.

India

[BMW India](#) was established in 2006 as a sales subsidiary in [Gurgaon](#) (National Capital Region). A state-of-the-art assembly plant for BMW 3 and 5 Series started operation in early 2007 in [Chennai](#). Construction of the plant started in January 2006 with an initial investment of more than one billion Indian Rupees. The plant started operation in the first quarter of 2007 and produces the different variants of [BMW 3 Series](#), [BMW GT](#), [BMW 5 Series](#), [BMW 7 Series](#), [BMW X1](#), [BMW X3](#), [BMW X5](#), [Mini Cooper S](#), [Mini Cooper D](#) and [Mini Countryman](#). Further more, it has expanded its model range to include the [BMW Z4](#), [BMW X6](#), BMW M Cars, and [BMW i8](#). There are a total of 31 variants of BMW cars on offer in the Indian market today.¹

Japan

The vast majority of BMW automobiles in Japan are imported and sold by BMW Japan Corp., a wholly owned subsidiary of BMW AG.

Mexico

In July 2014, BMW announced it was establishing a plant in Mexico, in the city and state of [San Luis Potosi](#) involving an investment of \$1 billion. The plant will employ 1,500 people, and produce 150,000 cars annually, commencing in 2019.

South Africa

BMW's have been assembled in South Africa since 1968,^[114] when Praetor Monteerders' plant was opened in Rosslyn, near Pretoria. BMW initially bought shares in the company, before fully acquiring it in 1975; in so doing, the company became **BMW South Africa**, the first wholly owned subsidiary of BMW to be established outside Germany.

United States

The [BMW Manufacturing Company](#) opened in 1994, in South Carolina, and has been manufacturing all [Z4](#) and [X5](#) models, and more recently the [X6](#) and [X3](#), including those for export to Europe, on the same assembly line in [Greer](#) between [Greenville](#) and [Spartanburg](#).^[116] In an average work day the company builds 600 vehicles: 500 X5s and 100 Z4s. The engines for these vehicles are built in Munich, Germany.

Problems

Theft using OBD, 2012

In 2012, BMW vehicles were stolen by programming a blank key fob to start the car through the [on-board diagnostics](#) (OBD) connection. [\[126\]](#)[\[127\]](#)[\[128\]](#) The primary causes of this vulnerability lie in the lack of appropriate [authentication](#) and [authorization](#) in the OBD specifications, which rely largely on [security through obscurity](#).

ConnectedDrive, 2010–14

Dieter Spaar was asked by [ADAC](#) to analyze ConnectedDrive and its hardware called Combox. He uncovered the following problems which allowed him e.g. to remotely open the car:[\[129\]](#)

BMW uses the same symmetric keys in all cars.

some services do not encrypt transported data while connecting to the BMW backend.

the integrity of the ConnectedDrive configuration is not protected.

the Combox discloses the [vehicle identification number](#) via NGTP (next generation telematics pattern) error messages.

data sent via SMS in NGTP format are encrypted via the nowadays unsecure [DES](#).

the Combox does not protect against replay attacks.

BMW was notified in advance of the publication to provide fixes. The transport is now encrypted and BMW's server certificate is verified. The updates were delivered via ConnectedDrive config change. All BMW, Mini and Rolls Royce cars produced between March 2010 and 8 December 2014 are vulnerable. Cars without battery or parked in places without mobile connection still may be vulnerable, an update can be initiated manually.