

BMW at the RETTmobil 2017. Contents.



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1. BMW at the RETTmobil 2017. Mobile solutions for all purposes.



At the RETTmobil trade fair being held in Fulda from 10 to 12 May 2017, the BMW Group will again be presenting a selection of tailor-made emergency and special-purpose vehicles for rescue teams, fire services, emergency physicians and police forces.

The event is taking place for the 17th time now and ranks as Europe's leading trade fair for rescue and mobility services. This year, around 500 exhibitors from 20 nations will attend the fair to present their current developments and technologies from the areas of rescue services, technical aids as well as fire and disaster protection. Following last year's record attendance, the organizer expects more than 25,000 trade visitors from home and abroad, including many representatives from local authorities, communities and associations.

BMW and BMW Motorrad in exhibition hall 2, stand 208.

The BMW Group will showcase a total of six different emergency vehicles at this year's RETTmobil. At the main entrance to the fair, an eye-catching BMW 4 Series Gran Coupe boasting a flashy emergency ambulance trim already awaits visitors. At the BMW stand in hall 2, the new BMW 5 Series Sedan can be seen as an emergency vehicle in disguise. Next to it there are two versions of an emergency ambulance: a BMW X5 and a BMW 2 Series Gran Tourer. As a command vehicle for fire services, the exhibited BMW X1 has to meet entirely different requirements; the same applies to the exhibited first responder emergency motorcycle based on the BMW R Series and featuring a 1,200 cubic centimetre, two-cylinder boxer engine.

Experience and know-how with tradition are in demand worldwide.

BMW looks back on more than 60 years of experience in the development and production of special-purpose vehicles. Today, the manufacturer offers a varied range of innovative and tailor-made solutions designed to meet the highest demands with regard to performance, functionality, safety and reliability, whilst also convincing in terms of efficiency and fuel economy. Therefore, it is not surprising that BMW special-purpose vehicles are in use all over the world.

Further information on BMW emergency vehicles is available on the Internet at www.bmw-behoerden.de

2. BMW emergency vehicles in detail. Equipped for any eventuality.



The exhibits being presented at the RETTmobil 2017 provide an overview of the wide range offered by the BMW and BMW Motorrad brands in the field of emergency and security vehicles. For more than six decades now and with a constantly growing number of models and innovative solutions, the BMW Group has provided customised mobility for a broad range of tasks that have to be dealt with by fire services, rescue teams, technical support services and police forces faced with ever-increasing challenges. In the process, BMW emergency vehicles convince not only with their specific optional equipment, but also represent state-of-the-art technology with regard to efficiency, driver assistance systems and connectivity.

Eye-catcher: BMW 440i xDrive Gran Coupe as a show car.

Visitors will already encounter the first BMW exhibit at the main entrance. With this show car, a vehicle that is somewhat out of the ordinary for rescue teams, BMW Group specialists wish to demonstrate what is possible in the field of emergency vehicles. The emergency ambulance based on a sporty BMW 4 Series Gran Coupe has been provided with dynamically designed signal-coloured foiling, a signalling beacon integrated into a flat roof bar as well as blue front and rear LED flashers. Moreover, the vehicle's sporty flair is underscored by 20-inch light alloys from the BMW accessory range. In addition to its visual qualities the elegant coupe offers tangible, practical advantages: Four doors allow convenient entering and exiting the vehicle, whilst the wide-opening rear lid facilitates access to a 480-litre luggage compartment. When the 40:20:40 split rear seat is folded down, storage space increases to 1,300 litres, providing a flat loading surface that will accommodate numerous rescue devices and equipment.

The BMW 440i xDrive Gran Coupe is powered by a 3-litre straight six-cylinder engine with 240 kW/326 hp and 450 Nm of torque. In a combination of the 8-speed Steptronic transmission with intelligent four-wheel technology BMW xDrive, fuel consumption is 7.4–7.1 litres per 100 km*, whilst CO₂ emissions are correspondingly low at 172–165 g/km*. The sporty four-door car completes the sprint from 0 to 100 km/h in just 5 seconds and has a top speed of 250 km/h.

* Fuel consumption figures determined according to EU test cycle, depending on selected tyre size.

On a secret mission: BMW 520d Sedan for the undercover police.

The BMW 5 Series only just introduced in February will be celebrating its premiere at this year's RETTmobil as a disguised emergency vehicle for plain-clothes police officers. From the outside the dynamic business sedan is no different to a production model and the interior gives hardly any indication of the car's special intended use. Specific equipment features comprises a control centre that includes a radio master switch and a control unit for radio devices, a more powerful generator and an additional battery in the luggage compartment. The disguised emergency signalling system features front LED flashers of the type Hella BST mounted behind the kidney grille, a removable magnetic flashlight of the type Movia SL LED that also adheres to the aluminium roof of the basic vehicle, as well as an electronic tone sequence signalling system with two pressure chamber loudspeakers fitted behind the front apron. In order to provide the crew with optimal assistance during undercover activities or escort operations, the sedan is provided with an extensive range of optional features and numerous assistance systems, including Dynamic Damper Control, Integral Active Steering, auxiliary heating with remote control and automatic rear lid operation. Furthermore, the driver benefits from Driving Assistant Plus, Parking Assistant Plus including remote controlled parking function, the real-time traffic information system RTTI, a TV function, BMW Night Vision with person recognition, BMW gesture control inside the cockpit and BMW Head-Up Display, which projects relevant information directly into the driver's field of vision.

The BMW 520d being presented at the fair is powered by a 2-litre four-cylinder diesel engine with 140 kW/190 hp, delivering a maximum torque of 400 Nm from as early as 1,750 rpm. Average fuel consumption is just 4.5–4.1 l/100 km* with CO₂ emissions of 118–108 g/km*. The gears of the 8-speed Sport Steptronic transmission can be shifted either automatically or manually via shift paddles on the steering wheel. The sedan sprints from 0 to 100 km/h in 7.5 seconds, accelerating to a top speed of 235 km/h.

Functional and spacious: BMW X5 xDrive30d for the doctor on call.

As an emergency ambulance the BMW X5 demonstrates impressively how functionality, comfort and safety can be combined in a tailor-made rescue vehicle. After all, the BMW X5 is the most spacious model in the range of BMW emergency vehicles and offers, in addition to a generous amount of space for occupants, a luggage compartment capacity of 650 litres (can be increased to 1,870 litres), providing sufficient storage space for special or additional equipment. The automatically operated rear lid with integrated LED luggage compartment light ensures fast access to rescue equipment even in the dark; a steel divider grid separates the luggage compartment from occupants. The part-foiling "Aerodynamic", the emergency signalling system DBS 4000 including alley lights, power flash and roof flashers, blue LED front flashers by Hella fitted behind the radiator grille as well as blue and yellow LED flashers of the type Ghost (Standby company) integrated into the rear lid attract maximum attention. In terms of communication technology, the exhibited BMW X5 is equipped with a preparation option for Sepura digital radio as well as a combined antenna (2 m/4 m) with a beam length of 600 mm for GPS, GSM and TETRA digital trunked radio. Lastly, the vehicle has an additional AGM battery, a DEFA interior heating unit, a 230 volt electricity supply with DEFA mains supply socket for external current consumption and a distributor box with two power outlets, via which external devices and appliances can be supplied with energy.

On the way to the deployment location the crew of the BMW X5 xDrive30d can rely on a powerful 3-litre, six-cylinder diesel engine featuring BMW TwinPower Turbo technology and delivering a 190 kW/258 hp power output. However, with a combined fuel consumption of 6.0–5.9 litres per 100 km*, the vehicle is still extremely economical, corresponding to a CO₂ emission of 158–156 g/km*. Thanks to intelligent four-wheel drive technology BMW xDrive, the driver has full control of the vehicle at all times, even in critical situations both on and off-road. To allow the driver to concentrate fully on the traffic at all times, the vehicle features, inter alia, an 8-speed Steptronic transmission, the navigation system Professional, Real Time Traffic Information (RTTI), the BMW Driving Assistant Plus and BMW Head-Up Display. A rear view camera assists the rescue team when manoeuvring in confined spaces.

Wide range of applications: BMW 220d xDrive Gran Tourer for the emergency physician.

With the BMW 2 Series Gran Tourer, BMW offers a series characterised by flexibility, spaciousness and practical details. With the high seat position, large doors, durable loading floor and the longitudinally adjustable rear bench, this BMW is ideally suited for being converted into an emergency ambulance. In addition to the corresponding foiling, the model being presented at the exhibition stand features a emergency signalling system of the type DBS 5000 including yellow flashlight, additional blue flashlight and alley lights. Blue LED flashers at the front and rear as well as additional yellow flashers integrated into the rear lid complete the range of visual features. A radio antenna for GSM, GPS and TETRA trunked radio is connected to the radio preparation option for Segura digital radio of the type MRT SRG 3900. Furthermore, a 230 volt electricity supply with DEFA mains supply socket and distributor box, an interior heating unit DEFA Termini 1400, a Votronic charger for both vehicle batteries and an emergency starting function are on board. BMW has developed an extractable loading floor (815 mm × 780 mm) with a rear end-integrated transportation tray, designed exclusively for this series and permitting exceptionally fast access to important rescue equipment and technical aids. A steel dividing grid has been additionally installed to protect occupants from any items of equipment that may fly around. Cutting edge assistance systems such as Driving Assistant Plus, Navigation Plus or the reversing camera assist the driver on assignments.

In terms of driving dynamics as well the BMW 220d xDrive Gran Tourer featuring an M Sport suspension has a lot to offer. It is driven by a powerful four-cylinder turbo diesel engine with 140 kW/190 hp and a maximum torque of 400 Nm. Equipped with the 8-speed Steptronic transmission, fuel consumption is only 5.1–4.9 litres of diesel per 100 km*, with CO₂ emissions of 134–128 g/km*. The emergency vehicle sprints from 0 to 100 km/h in just 7.6 seconds, reaching a top speed of 218 km/h. Four-wheel drive technology BMW xDrive ensures that power is transferred reliably to the tarmac and that the vehicle is also dependable on off-road terrain.

Quickly on the spot: BMW X1 xDrive18d for operations management.

Reliability, versatility, efficiency and dynamics are typical qualities with which the latest BMW X1 is able to convince. Therefore, the all-round talent is suitable for a wide spectrum of applications in which a good overview, speed and agility are also required. The BMW X1 xDrive18d is being presented at the RETTmobil 2017 as a fire service command vehicle. Widely visible characteristics include the set of “First Responder” stickers and the emergency signalling system RTK-7 KL-LM2 with bezel, backlight, pressure chamber loudspeakers and handset HA115. Moreover, two blue Hella LED flashers both at the front and rear complement the range of emergency signals needed when on deployment. An ABB Blankenburg antenna for receiving GPS and TETRA radio signals is mounted in front of the roof fin and connected to the preparation kit for the Segura digital radio MRT SRG 3900. A 230 volt electricity supply with DEFA mains supply socket and distributor box is on board, as are a mounting plate in the luggage compartment floor, an additional battery, a steel divider grid for occupant protection and a 2-kg fire extinguisher in the rear compartment

A powerful four-cylinder turbo diesel engine with 110 kW/150 hp guarantees supreme performance both on and off-road. An average fuel consumption of only 4.9–4.7 litres of diesel per 100 km* demonstrates that the BMW X1 xDrive18d with 8-speed Steptronic transmission is still remarkably economical in spite of its high performance level. Corresponding CO₂ emissions are 129–124 g/km*. Thanks to BMW xDrive, drive power is transferred on demand to all four wheels, depending on road surface condition and wheel grip. Power is distributed to each individual wheel within fractions of a second.

Always a second faster: BMW R 1200 RT as first responder.

Motorcycles are ideally suited for deployment in urban areas as they are exceptionally agile and usually reach a destination faster than two-track vehicles, even in dense traffic. With the corresponding equipment and engines, they do in actual fact also offer genuine long-distance qualities. The BMW R 1200 RT First Responder boasting a new RAL colour being presented at this year's RETTmobil is the ultimate emergency vehicle: It can be flexibly adapted to specific requirements and offers a high level of driving dynamics and safety under all conditions. The extensive range of equipment options featured on the exhibited machine include a heated single seat with radio box, additional battery, antenna (380 MHz), an acoustic signal and public address system as well as visual features such as LED flashing beacons and a stop signaller. Radio preparation includes wiring for the system SEPURA Tetra BOS.

Thanks to the driving modes "Rain" and "Road", the motorcycle can be specifically adapted to varying road conditions, whilst the optional Shift Assistant Pro additionally relieves the rider. ABS and Automatic Stability Control ASC come as standard; tilt-optimised ABS Pro and dynamic braking light are available from the range of optional Pro driving modes. A large TFT colour display mounted on the dash provides important information, and the rider benefits from excellent wind and weather protection as well as outstanding ergonomics. The powerful two-cylinder, liquid-cooled boxer engine delivers 92 kW/125 hp, allowing the BMW R 1200 RT to reach a top speed of over 200 km/h. Fuel consumption according to WMTC is 4.96 litres per 100 km. The current model fulfils emission standard EU 4 and is fitted with an OBD control lamp.

3. Competence with tradition. BMW emergency and special-purpose vehicles in demand worldwide.

The history of BMW emergency vehicles goes back as far as the 1950s. At that time, the Munich police took into service new patrol cars based on the models BMW 501 and BMW 502. These sedans, which were affectionately known as “baroque angels” and featured large six-cylinder and eight-cylinder engines, were seen as the benchmark in terms of reliability and operational suitability. Since then, BMW has systematically pressed ahead with development. Today, the company’s experience in the construction of emergency vehicles for the police, fire services, rescue teams and government organisations forms the basis of outstanding expertise, innovative strength and quality.

The range of available vehicles currently comprises nine series (BMW 2 Series Gran Tourer and 2 Series Active Tourer, BMW 3 Series, 5 Series and 7 Series, BMW X1, X3, X5, BMW i3) as well as four motorcycle models (BMW F 700 GS, F 800 GS, F 800 GT, R 1200 RT). The highest degree of reliability, maximum functionality and exemplary safety are brand-typical qualities of BMW emergency vehicles. Moreover, these automobiles benefit from being equipped as standard with BMW EfficientDynamics technology and from the networking of driver assistant systems and mobility services under the umbrella of BMW ConnectedDrive. Furthermore, with the electrically powered models BMW i3 and the plug-in hybrid sports car BMW i8, the BMW Group is setting its focus on a new generation of emergency vehicles. These electric models, all equipped with future-oriented drive technology, are currently demonstrating their outstanding suitability for deployment in urban areas in particular with the Bavarian police and, for instance, with traffic services in Milan, Los Angeles, London and Dubai.

Tailor-made development in coordination with the customer.

During the development stage, BMW engineers already collaborate closely with future users. In this way, practical experience gained by fire services, rescue teams and the police flows into the design of the new emergency vehicle. Furthermore, BMW takes into consideration the latest technical developments of reputable and experienced special equipment suppliers. Installation of measuring, radio and signal control technology, for example, is incorporated into the normal production process, even being partly implemented on the assembly lines of production models. In this way, BMW guarantees the highest level of functionality, safety and durability – quality

standards that cannot be achieved simply through retrofitting. Finally, every BMW emergency vehicle, including all installed and attached components are subjected to stringent tests that exceed by far the requirements stipulated by existing testing standards. Ultimately, BMW delivers a tailor-made product, the components of which are perfectly harmonised, functioning as integral parts of an overall system in precisely the way the customer expects them to.

In demand worldwide, in use on all continents.

The outstanding qualities of BMW emergency vehicles have stood the test in extreme situations time and time again and are in demand beyond national borders all over the world. Therefore, it is not surprising that automobiles and motorcycles of the BMW brand are today being used on all continents. As the demands on emergency personnel sometimes differ considerably from country to country, conceptualisation is closely coordinated with specialists of each institution in each market. As a result of the many years of cooperation with international authorities, BMW is able to fulfil ever-increasing demands with regard to very specific customer requirements in a professional manner, because this is the only way to ensure that task forces in Europe, Asia and overseas are given precisely the vehicle needed to assist them with their on-site activities – both during their everyday duties as well as under extreme operational conditions.

The UK, Italy, Norway and Switzerland are among the most important public-sector markets in Europe, whilst outside the old continent countries such as Azerbaijan, Bahrain, Dubai, Hong Kong, Qatar, Zambia, Taiwan and the USA rely on emergency vehicles bearing the white and blue emblem. Besides the BMW 3 Series, 5 Series and 7 Series, orders are placed for the X1, X3 and the X5, 2 Series Gran Tourer and the BMW i3. Even more impressive is the track record of BMW motorcycles used by public authorities. These always leave the BMW plant as complete tailor-made solutions: Since 1970, more than 130,000 of them have been sold in over 150 countries. Many of the police motorcycles are able look back on a service life of up to 16 years and 120,000 kilometres. If desired, BMW specialists can at the same time supply driver and safety apparel adapted to the requirements of each country – likewise designed to suit each specific use.