

# BMW at the 79<sup>th</sup> International Geneva Motor Show 2009.

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# 1. BMW at the 79<sup>th</sup> International Geneva Motor Show 2009. (Short Version)



Introducing progressive new models offering that Sheer Driving Pleasure so typical of the brand and at the same time allowing conscientious use of natural resources, BMW is making a significant statement at the 79<sup>th</sup> International Geneva Motor Show 2009.

The range of technologies upgraded to production standard as part of the BMW EfficientDynamics development strategy is indeed greater than ever before, helping to reduce both fuel consumption and emissions and enhance the driving experience to an even higher level. At the same time the public in Geneva will have the opportunity to experience a wide range of technical innovations and new features in BMW's current model portfolio at the Motor Show from 5–15 March 2009.

The 2009 Geneva Motor Show marks the European debut of the new BMW Z4. As a modern interpretation of the classic roadster, this unique car combines its dynamic driving potential not only with sporting and elegant lines as well as supreme driving comfort, but also with the impressive economy of its six-cylinder power units.

The new BMW 730Ld also making its public debut in Geneva sets a new standard for efficiency in the luxury class. Yet a further highlight is the BMW Concept 7 Series ActiveHybrid offering an outlook at the first hybrid model based on the BMW 7 Series, which will reach production level in the course of 2009.

A further outstanding achievement in the context of BMW EfficientDynamics is the development of particularly fuel-efficient diesel engines reducing emissions to a minimum. The most fuel-efficient and lowest-emission model within BMW's portfolio presented in Geneva is the new BMW 116d powered by a 85 kW/115 hp four-cylinder diesel engine and consuming an average of just 4.4 litres/100 kilometres, equal to 64.2 mpg imp, in the EU test cycle. The CO<sub>2</sub> emission rating of the new BMW 116d is equally impressive at 118 grams per kilometre.

Offering optional BMW BluePerformance technology, the BMW 330d is the only car in the premium segment to already fulfil the EU6 emission standard today.

A further outstanding achievement is that entering spring 2009 BMW offers no less than 49 models fulfilling the EU5 emission standard, ranging all the way from the BMW 1 Series to the BMW 7 Series.

**European debut of the new BMW Z4: even more dynamic, extra-comfortable and for the first time with a retractable hardtop.**

The new BMW Z4 offers a particularly modern rendition of the traditional open two-seater concept so rich in tradition, combining the classic proportions of a genuine roadster and the seats moved far to the back with a high standard of elegance and all-round comfort.

This is the first BMW Roadster to boast a retractable hardtop, the two-piece lightweight aluminium shell roof structure opening and, respectively, closing fully automatically within just 20 seconds. The ambience within the passenger compartment is characterised by the driver-oriented design of the cockpit and top-quality materials, with optimum all-round visibility ensured even with the roof closed by the extra-large windows.

The new BMW Z4 is entering the market from the start with a choice of no less than three straight-six power units ranging in output from 150 kW/204 hp in the BMW Z4 sDrive23i through 190 kW/258 hp in the BMW Z4 sDrive30i all the way to 225 kW/306 hp in the BMW Z4 sDrive35i.

Depending on the model variant, the engines come with fully variable VALVETRONIC valve management or Twin Turbo Technology and High Precision Injection.

As an alternative to the six-gear manual gearbox, the top model is available with sports automatic featuring seven gears and double-clutch technology. A standard feature on the new BMW Z4 is Dynamic Drive Control enabling the driver at the touch of a button to adjust the car's set-up in three stages according to his individual preferences. And as an option the customer also has the choice of an Adaptive M Suspension complete with electronic damper adjustment.

**Fleet consumption down by more than 25 per cent: BMW Group over-fulfils the self-imposed ACEA standard.**

BMW EfficientDynamics has become the epitome of up-to-date automotive technology the world over. Thanks to EfficientDynamics featured as standard, BMW sells more cars with fuel-saving and CO<sub>2</sub>-reducing technologies each month than other car makers in an entire year. And through the consistent

use of such efficiency-promoting technologies, BMW's current models offer an unparalleled, extra-favourable balance of fuel economy and performance throughout all model series and performance classes.

Such progress in efficiency achieved with each and every new model naturally has an exceptionally positive effect on the overall balance of fuel economy and emission management offered by BMW Group cars. Precisely this is why the fleet economy of the BMW and MINI brands has improved from 1995 to the end of 2008 by more than 25 per cent in the member states of the European Union alone. Hence, the BMW Group has over-fulfilled the pledge made by the Association of European Car Manufacturers through BMW EfficientDynamics and the technologies offered with this philosophy. And in the 2009 model year the number of particularly economical, low emission models from BMW will be increasing even further.

**BMW EfficientDynamics: more driving pleasure, lower emissions also in the luxury class.**

The new BMW 7 Series now establishes trendsetting momentum for the effective reduction of both fuel consumption and exhaust emissions also in the luxury performance class, consistent use of numerous BMW EfficientDynamics guaranteeing an outstanding driving experience combined with all-round economy quite unique in this segment. So in a nutshell BMW is using its innovative power to overcome the conventional contradiction of luxury and efficiency.

Perhaps the best example of this unique symbiosis is the BMW 730d powered by a 180 kW/245 hp straight-six diesel. This outstanding luxury performance automobile accelerates from a standstill to 100 km/h in just 7.2 seconds, averages fuel consumption of 7.2 litres on 100 kilometres (equal to 39.2 mpg imp) and restricts CO<sub>2</sub> emissions to just 192 grams per kilometre.

Now the benefits of BMW's newly developed diesel drive may be combined perfectly with the exclusive grand touring comfort of the long-wheelbase BMW 7 Series with an extra 14 centimetres/5.5" legroom at the rear: The new BMW 730Ld accelerating to 100 km/h in 7.3 seconds and offering average fuel economy of 7.3 litres/100 kilometres or 38.7 mpg imp, with a CO<sub>2</sub> rating of 194 grams/kilometre, again setting a new standard in the process, is making its debut at the International Geneva Motor Show in 2009.

**BMW 116d and BMW 116i: lower fuel consumption and more driving pleasure with the new entry-level models in the BMW 1 Series.**

The new BMW 116d is entering the market in spring 2009 as BMW's entry-level diesel available with both five and three doors. The drive unit – a further variant of BMW's four-cylinder diesel with turbocharging and common-rail direct fuel injection lauded everywhere for outstanding efficiency – develops 85 kW/115 hp and offers peak torque of 260 Newton-metres/192 lb-ft.

With average fuel consumption in the EU test cycle of 4.4 litres/100 kilometres (equal to 64.2 mpg imp) and a CO<sub>2</sub> emission rating of 118 grams per kilometre, the BMW 116d comes right at the top on the list of BMW's particularly fuel-efficient, low-emission models.

The entry-level petrol model, the BMW 116i likewise available with both five and three doors, also offers an even better balance of sporting performance and efficient fuel economy. The 90 kW/122 hp four-cylinder power unit with direct gasoline injection (High Precision Injection) featured in the BMW 116i now displaces 2.0 litres and offers an increase in torque by 25 Newton-metres to 185 Newton-metres/136 lb-ft.

Optimisation of this kind clearly enhances the performance of the BMW 116i, the five-door model accelerating to 100 km/h in 9.9 seconds (three-door: 9.8 seconds) and reaching a top speed of 204 km/h or 126 mph. Fuel consumption nevertheless remains remarkably low at 6.2 litres/100 kilometres or 45.6 mpg imp in the EU test cycle, as does the car's CO<sub>2</sub> emission rating of 143 grams per kilometre. As a result, the BMW 116i now also complies with the EU5 emission standard.

Three other engine variants of the BMW 1 Series – the BMW 123d, the BMW 120i, and the BMW 118i – now also meet the EU5 emission standard, the 150 kW/204 hp four-cylinder diesel with Variable Twin Turbo Technology available in the five-door, three-door, coupé and convertible versions of the BMW 1 Series again proving its outstanding strengths versus the competition. Offering the most powerful diesel engine and three four-cylinder petrol engines, BMW has no less than 19 models with EU5 in the 1 Series alone.

**Pointing into the future: BMW ActiveHybrid and BMW BluePerformance.**

Yet another version of BMW EfficientDynamics, featured this time in the BMW 7 Series, will be reaching production standard this year: At the Geneva Motor Show BMW is proudly presenting the BMW Concept 7 Series

ActiveHybrid shown to the public for the first time a few months ago – a breakthrough in technology combining an eight-cylinder petrol engine with a 15 kW/20 hp electric motor and a lithium-ion battery.

Integrating hybrid components, this unique vehicle with its ultra-modern drivetrain technology offers yet a further improvement of driving dynamics in that typical BMW style, combined with a reduction of fuel consumption and emissions by approximately 15 per cent in the EU test cycle versus the “basic” model with its conventional combustion engine.

Entering the year 2009, BMW is also increasing its worldwide leadership in the development of particularly clean, low-emission diesel engines. The new BMW 330d with optional BMW Blue Performance technology was already launched in autumn 2008 as the first car in its class to fulfil the EU6 emission standard even today thanks to a significant reduction of nitric oxides (NOX).

#### **Innovations for more driving pleasure, comfort, and safety.**

At the 2009 Geneva Motor Show BMW is also informing the public on a wide range of innovations further expanding the diversity of BMW's model range and enhancing the appeal of BMW models throughout all series. One outstanding example is the innovative services offered by BMW ConnectedDrive in the interest of extra safety and comfort, also to be admired at the Geneva Motor Show.

BMW ConnectedDrive offers features truly unique the world over in networking the car with its surroundings. And now the range of functions available from BMW ConnectedDrive is even greater than before, efficient exchange of information making the process of driving a BMW not only more pleasant, but also safer.

A particular highlight in this context is the BMW Enhanced Emergency Call Function which, in the event of a collision, not only sends an alarm to the rescue services, but also gives them data in advance allowing them to appreciate the type and intensity of the collision.

The other new services offered by BMW ConnectedDrive help to promote the carefree and comfortable joy of motoring, innovative networking of the car with its environment giving the customer a significant increase in comfort, infotainment, and safety.

As an example, BMW is the world's first car maker to offer unrestricted use of the internet in the car. Innovative route planning likewise offered by BMW ConnectedDrive provides attractive options in using the navigation

system, allowing the driver and passengers to configure particularly attractive tours right from the start on their PC and download the route chosen directly through the BMW Online Portal into the car. And last but not least, the new remote control functions provided by BMW ConnectedDrive offer the possibility, as just one further example, to lock and unlock the car from a BMW Call Center.

The wide range of optional extras and Original BMW Accessories available throughout virtually all model series is likewise being enlarged in spring 2009. The new BMW 7 Series, for example, is available with additional, particularly exclusive paintwork options, light-alloy rims as well as upholstery and trim options from BMW Individual. The BMW 3 Series and 1 Series as well as the BMW X3, in turn, may be retrofitted with two new portable navigation systems, BMW Navigation Portable Plus and BMW Navigation Portable Pro reflecting the high standards of the BMW Group in their design and technology. Using these sophisticated systems, the driver is able to reach his destination safely and reliably also in cars not equipped with a built-in navigation system fitted from the start.

As yet another highlight, the BMW Performance Range presented last year in the BMW 1 Series has been updated and supplemented by further features and highlights in the new BMW 3 Series. Retrofittable options for the drivetrain, suspension, aerodynamics and the cockpit available specifically for the new BMW 3 Series Saloon and the new BMW 3 Series Touring, for example, convey know-how gained in motorsport directly to the road.

Yet a further feature available for the first time in spring 2009 is a BMW Performance Power Kit for the top models in the BMW 1 and 3 Series. This unique kit offers an increase in power and torque on the 3.0-litre straight-six with Twin Turbo Technology and High Precision Injection effective under all driving conditions. The kit is therefore a perfect match for the respective models, the BMW 135i Coupé, the BMW 135i Convertible, the BMW 335i Saloon, the BMW 335i Touring, the BMW 335i Coupé, and the BMW 335i Convertible.

## 2. Highlights at a Glance.



- **BMW EfficientDynamics: new concepts for even lower emissions and enhanced driving pleasure.**

The BMW Group steadfastly maintains its leading position in several areas. As the world's most successful manufacturer of premium cars, BMW also has the most effective strategy for reducing both fuel consumption and exhaust emissions: BMW EfficientDynamics.

Each month, BMW sells more cars with such efficiency-boosting technology than other manufacturers in the course of a whole year. Reducing fleet consumption by more than 25 per cent between 1995 and the end of 2008, the BMW Group has indeed over-fulfilled the self-commitment made by ACEA, the Association of European Automobile Manufacturers, for all BMW Group brands.

At the 2009 Geneva Motor Show BMW is presenting new concepts for even greater efficiency combined with enhanced driving pleasure. Two of these concepts are BMW ActiveHybrid technology presented in Geneva in a concept car based on the BMW 7 Series and BMW BluePerformance technology for diesel engines available as an option in the BMW 330d.

- **European debut: the new BMW Z4.**

A roadster like never before: The 2009 Geneva Motor Show provides the appropriate setting for the European debut of the new BMW Z4, the first BMW roadster with a fully retractable hardtop. Both open and closed, the new BMW Z4 offers the authentic proportions of a genuine roadster, a seating position moved far to the rear in typical sporting style and, as a result, the driving experience so characteristic of the brand's sporting two-seaters.

Three straight-six power units ranging from 150 kW/204 hp all the way to 225 kW/306 hp ensure impressive driving dynamics at all times. And with Dynamic Drive Control featured as standard as well as optional Adaptive M Suspension, the discerning purchaser is able to adjust the set-up of the roadster perfectly to his or her individual preferences.

Within the interior not only supreme quality of finish and the special roadster design of the dashboard set a new standard, but also, available as an option, the new generation of BMW iDrive ensuring an exclusive driving experience at all times.

- **World debut: the new BMW 730Ld.**

Luxury and efficiency – two features perfectly combined in the new BMW 7 Series. Indeed, this unparalleled luxury performance saloon offers a truly unique driving experience together with exemplary fuel economy and emission management, qualities borne out most impressively by the new BMW 730Ld being presented to the public for the first time at the Geneva Motor Show, the newly developed 180 kW/245 hp straight-six diesel now making its appearance for the first time in the long-wheelbase version of the BMW 7 Series.

The result is a perfect synthesis of maximum grand touring comfort on the rear seats with supreme efficiency in the engine compartment. At the same time the new BMW 730Ld offers maximum supremacy also through its superior suspension technology featuring Dynamic Damper Control and, available as an option, Integral Active Steering, a wide range of innovative driver assistance systems, and the modern cockpit including Dynamic Drive Control as well as the latest generation of BMW iDrive.

- **World debuts: the new BMW 116d and the new BMW 116i.**

The BMW 1 Series now offers an even more attractive combination of all-round driving pleasure and economy, the new BMW 116d ranking as the most fuel-efficient, lowest-emission car throughout the BMW brand's model range: In the EU test cycle, this four-cylinder diesel developing maximum output of 85 kW/115 hp consumes an average of 4.4 litres/100 kilometres (equal to 64.2 mpg imp) and offers a CO<sub>2</sub> rating of just 118 grams per kilometre. At the same time the three-door BMW 116d gives the driver impressive acceleration in just 10.2 seconds to 100 km/h in typical BMW style.

Yet a further example of BMW EfficientDynamics is the new entry-level petrol engine in the BMW 1 Series, the new four-cylinder power unit in the BMW 116i now offering an increase in torque by 25 to 185 Newton-metres (136 lb-ft) and, as a result, even better performance combined with exemplary fuel economy and optimised emissions qualifying the car for the EU5 emission standard.

- **Anniversary: ten years of BMW X models.**

The year 2009 marks the tenth anniversary of the BMW X5. Right from the start the world's first Sports Activity Vehicle thrilled the motoring world through its combination of dynamic driving characteristics on the road and superior traction off the beaten track – a concept of success other manufacturers have tried to copy ever since, while BMW in the meantime has gone even further, conveying this concept to other segments.

Global sales of BMW X models now amount to more than 1.3 million units. The BMW X5 remains a worldwide success also in its second generation, and the BMW X3 launched five years ago already accounts for more than 500,000 units sold. The BMW X6, in turn, is the world's first Sports Activity Coupé, and the BMW Concept X1 already offers an outlook at the first BMW X model in the compact class.

- **Innovation: new services from BMW ConnectedDrive.**

The network connecting the driver and his vehicle with the environment is now reaching a new dimension. Through the new services offered by BMW ConnectedDrive, the driver enjoys enhanced motoring comfort, innovative infotainment, and extra safety.

BMW ConnectedDrive offers a unique range of individual online, assistance and service systems unparalleled the world over. And by providing unrestricted use of the internet, practical remote control functions and further innovations, BMW ConnectedDrive is establishing new connections all the time between the driver, the car, and the environment. Comfortable access to the BMW iDrive control system, finally, makes it easy to efficiently use all the new options and features of BMW ConnectedDrive.

- **Fascinating: the BMW Performance Power Kit and further Original BMW Accessories for even greater driving pleasure.**

Entering the 2009 model year, BMW's new Performance Product Line is being expanded through the addition of retrofittable options for the new BMW 3 Series. The drivetrain, suspension, aerodynamics and cockpit components developed specifically for the Saloon and the Touring underline the character of the BMW 3 Series oriented towards even greater driving dynamics.

As a further feature, all variants of the BMW 135i and the BMW 335i are available for the first time with a BMW Performance Power Kit increasing the output of the 3.0-litre straight-six with Twin Turbo Technology and High Precision Injection by 15 kW/20 hp to kW/326 hp. And last but not least, two new portable navigation systems are available for retrofitting in the BMW 3 Series, the BMW 1 Series, and the BMW X3.



### **3. BMW at the 79<sup>th</sup> International Geneva Motor Show 2009.**

**(Long Version)**

#### **3.1 BMW EfficientDynamics with BluePerformance and ActiveHybrid: New Concepts for Lower Emissions, Greater Economy and More Driving Pleasure.**

Offering an even wider range of technologies for reducing both fuel consumption and emissions, and through the consistent use of all features currently available in all vehicle segments, the BMW EfficientDynamics development strategy is being further upgraded in 2009.

At the 2009 International Motor Show in Geneva BMW is presenting a whole range of new models featuring the latest BMW EfficientDynamics technologies and setting new standards in their class for perfect interaction of economy and driving pleasure. BMW's innovative BluePerformance technology serves furthermore to optimise the emission management of BMW's powerful and fuel-efficient diesel engines, improving emission control all the way to the EU6 emission standard not scheduled to come into force until 2014 but already achieved today in the BMW 330d with BMW BluePerformance.

At the same time the number of BMW models already fulfilling the EU5 emission standard in spring 2009 is increasing to 49, the range of particularly clean cars with emissions reduced to a minimum extending from compact models in the BMW 1 Series all the way to luxury performance saloons in the BMW 7 Series.

Particularly the brand's new flagship benefits from a particularly efficient version of BMW ActiveHybrid technology presented at the Geneva Motor Show in the BMW Concept 7 Series ActiveHybrid scheduled to achieve production standard – together with the BMW X6 ActiveHybrid – in the course of 2009.

More effectively than all comparable concepts from other car makers, BMW EfficientDynamics serves to consistently reduce both fuel consumption and emissions in road traffic. This applies both to the progress in efficiency achieved on each new model and to the overall balance of fuel economy and emission management in BMW Group cars. From 1995 to the end of 2008, for example, the fleet consumption of BMW and MINI cars decreased in the member states of the European Union alone by more than 25 per cent. And reducing both fuel consumption and emissions through BMW EfficientDynamics, the BMW Group has over-fulfilled the self-commitment made by ACEA, the European Association of Car Manufacturers, for all its

brands. In 2008 alone, the increase in efficiency achieved by BMW models helped to save some 150 million litres of fuel throughout Europe and reduce CO<sub>2</sub> emissions by approximately 373,000 tonnes in comparison with 2006. Converted into electric power, the fuel saved by BMW EfficientDynamics would be sufficient to supply some 780,000 people with electrical energy for a whole year.

**A global strategy: lower emissions, more driving pleasure – all featured as standard.**

The technologies behind this success in Europe are being introduced step-by-step in all other markets, BMW EfficientDynamics thus standing out as the world's most successful strategy for consistently reducing both fuel consumption and emissions in road traffic.

The choice of technologies actually used may of course differ from one region to another. So wherever, say, inadequate fuel quality makes it impossible for the time being to use petrol engines with High Precision Injection in the lean-burn mode or diesel drive systems, other technologies are available also based on BMW EfficientDynamics and tailored to the individual requirements of the respective market. All over the world, therefore, BMW EfficientDynamics comes not just in a few special models, but is rather part of the cars' regular equipment.

As a result, the uniquely positive combination of fuel economy and driving pleasure is a particularly up-to-date quality feature of BMW's current models. Together with the innovative technologies available from BMW, the fascinating design of BMW cars and their uncompromising premium quality, this outstanding balance of superior economy and driving pleasure makes a significant contribution to the supreme appeal of all products built by the world's most successful manufacturer of premium cars.

Thanks to the widespread use of EfficientDynamics as a standard feature, BMW now sells more cars with fuel consumption and CO<sub>2</sub> emission reduction technologies each month than other car makers in the course of a whole year.

In Europe alone, therefore, BMW has sold more than one million cars with the latest BMW EfficientDynamics technologies up to August 2008. At the same time this unique interplay of efficiency and driving pleasure is gaining greater popularity also in other automobile markets, as is clearly proven, for example, by the successful market launch of the BMW 335d and the BMW X5 xDrive35d with BMW BluePerformance Technology as new and unique diesel models in both the USA and Canada.

**Supreme efficiency in all segments: BMW Group further enhancing is leading position.**

With the current model portfolio, the BMW Group is further increasing its worldwide leadership in 2009 in the reduction of fuel consumption and exhaust emissions while nevertheless enjoying all the benefits of individual mobility. The latest BMW EfficientDynamics technologies are entering further segments, the number of models offering a unique balance of fuel economy and performance unparalleled by the competition is increasing.

At the 2009 Geneva Motor Show BMW is presenting the latest leader in the ranking of the most fuel-efficient and lowest-emission models available from the brand: Powered by a 85 kW/115 hp all-aluminium four-cylinder diesel with the latest common-rail direct fuel injection, the BMW 116d makes do in the EU test cycle with a mere 4.4 litres/100 kilometres (equal to 64.2 mpg imp) on average and offers a CO<sub>2</sub> emission rating of just 118 grams per kilometre.

Unparalleled efficiency in the luxury performance class is offered by the BMW 730d being presented in Geneva for the first time in long-wheelbase guise: The BMW 730Ld combines excellent grand touring comfort and acceleration from a standstill to 100 km/h in 7.3 seconds with average fuel consumption in the EU test cycle of just 7.3 litres/100 kilometres (38.7 mpg imp) and a CO<sub>2</sub> rating of 192 grams per kilometre. This places the BMW 730Ld right at the top far and wide in terms of efficiency not only versus its direct competitors.

Powered by a 180 kW/245 hp straight-six diesel, this outstanding luxury performance saloon offers a standard of fuel economy other manufacturers are unable to outperform even with their lower midrange cars not offering even half the power of the BMW 730Ld.

The European debut of the new BMW Z4 at the 2009 Geneva Motor Show also marks the starting point for BMW EfficientDynamics in the roadster segment. Once again, BMW's open two-seater sets a new benchmark in terms of economy combined with supreme driving pleasure. The new BMW Z4 sDrive30i and the new BMW Z4 sDrive23i are indeed the only six-cylinder roadsters in the world to offer a CO<sub>2</sub> rating of less than 200 grams per kilometre.

**Unique: lower emissions without foregoing driving pleasure, comfort, and safety.**

Thanks to BMW EfficientDynamics, outstanding efficiency without foregoing driving pleasure, comfort or safety is also available in all other segments. A very good example in this context is the BMW 520d powered

by a 130 kW/177 hp four-cylinder diesel. Offering average fuel consumption of 5.1 litres/100 kilometres, equal to 55.4 mpg imp, and a CO<sub>2</sub> rating of 136 grams per kilometre (BMW 520d Touring: 5.3 litres/100 kilometres (53.3 mpg imp), 140 grams CO<sub>2</sub>/kilometre), the 520d Saloon is the most fuel-efficient and lowest-emission model in the upper midrange market – and this with more than 40 hp extra power over the second-best car in this ranking.

More driving pleasure, lower emissions – numerous BMW coupés and convertibles likewise fulfil this demand. The 118d Convertible powered by a 105 kW/143 hp four-cylinder diesel, for example, accelerates from a standstill to 100 km/h in 9.5 seconds and, with average fuel consumption of 4.9 litres/100 kilometres (57.6 mpg imp) in the EU test cycle and a CO<sub>2</sub> rating of 129 grams per kilometre, sets new standards in terms of efficiency in the open four-seater market.

In the BMW 123d Convertible a four-cylinder diesel with variable Twin Turbo Technology offers a substantial 150 kW/204 hp maximum output for acceleration to 100 km/h in just 7.5 seconds. Average fuel consumption in the EU test cycle, in turn, is 5.4 litres/100 kilometres, equal to 52.3 mpg imp, and the CO<sub>2</sub> rating is 144 grams per kilometre.

In the BMW 320d Coupé and the BMW 320d Convertible a 2.0-litre four-cylinder diesel with an all-aluminium crankcase and common-rail fuel injection featuring piezo-injectors combines sporting performance with truly excellent fuel economy and emission management. With its 130 kW/177 hp power unit, the BMW 320d Coupé, for example, accelerates to 100 km/h in 7.9 seconds, returning average fuel consumption of 4.8 litres/100 kilometres (58.8 mpg imp) and a CO<sub>2</sub> rating of 128 grams per kilometre.

The BMW 320d Convertible accelerates from a standstill to 100 km/h in 8.6 seconds, consumes 5.3 litres/100 kilometres (equal to 53.3 mpg imp) in the EU test cycle, and offers a CO<sub>2</sub> rating of 140 grams per kilometre.

Modern diesel technology combined with BMW EfficientDynamics also enables the BMW X models to set the global benchmark in terms of efficiency: Average fuel consumption in the EU test cycle of 8.2 litres (34.4 mpg imp) is a figure other car makers only achieve with their midrange models, while BMW offers this outstanding fuel economy with a Sports Activity Vehicle featuring intelligent all-wheel drive, an exclusive interior ambience, and space for up to seven occupants.

The BMW X6 xDrive30d offers this unique efficiency through its 3.0-litre straight-six diesel delivering 173 kW/235 hp for acceleration to 100 km/h in 8.1 seconds.

The most fuel efficient SAV with the lowest level of emissions also in 2009 is the 130 kW/177 hp BMW X3 xDrive20d with average fuel consumption in the EU test cycle of 6.5 litres (equal to 43.5 mpg imp) and a CO<sub>2</sub> rating of 172 grams per kilometre. Again, this high standard of fuel efficiency and emission management is outperformed only by a handful of significantly less powerful vehicles in this competition segment.

**No less than 49 BMW models with EU5 in spring 2009.**

Parallel to the development of particularly fuel-efficient models with a very low level of CO<sub>2</sub>, BMW is continuing to reduce the overall level of emissions also with a view to the latest European emission standards. In spring 2009 the number of BMW models already fulfilling the EU5 emission standard not coming into force until September 2009 is increasing to no less than 49, with the range of particularly clean models with minimum emissions extending from the BMW 1 Series all the way to the BMW 7 Series and also comprising the segment of BMW X models.

In the BMW 1 Series 19 models already fulfil the EU5 standard, in the BMW 3 Series it is 16 models. In addition, all variants of the BMW 7 Series as well as the BMW X6 xDrive50i, the BMW X6 xDrive35i and the BMW X3 xDrive20d all meet the strict standards of this new emission class. And entering the market in May 2009, the new BMW Z4 also fulfils the EU5 standard with all its engine variants.

In addition to these outstanding achievements, the BMW 330d with optional BMW BluePerformance Technology even meets the requirements of EU6. On the new BMW 330d with optional BMW BluePerformance Technology the diesel particulates filter and the oxidation catalyst likewise featured as standard are supplemented by an NOX storage catalyst. Exhaust treatment in this new 180 kW/245 hp six-cylinder diesel therefore already fulfils the strictest standards planned for the future in the reduction of nitric oxides, not coming into force until EU6 is ultimately introduced in the year 2014.

**BMW EfficientDynamics: technologies tailored to all automobile markets the world over.**

Standing out clearly from other car makers, BMW offers the most advanced and sophisticated fuel-saving and emission-reducing technologies such as Brake Energy Regeneration, Auto Start Stop, a gearshift point indicator, on-demand operation of ancillary units, intelligent lightweight technology and active aerodynamics not only in individual model series or special models.

Each new BMW therefore comes with the best and most appropriate technology combining more driving pleasure with greater fuel economy and enhanced emission management tailored to each model and market, naturally with all these technologies coming as standard. Through the unique innovative skills of the responsible engine developers and the wide range of innovations made possible in this way, the BMW Group is able to offer the ideal technology worldwide in all automobile markets tailored to regional requirements and conditions.

Incorporating fully variable VALVETRONIC valve management, many BMW models come with a proven, global technology giving gasoline engines optimised power on supreme efficiency. High Precision Injection in combination with Twin Turbo Technology serves to provide optimum results in particularly powerful gasoline engines, with eight-cylinder power units incorporating direct gasoline injection featured in both the new BMW 7 Series and the BMW X6.

A straight-six power unit with High Precision Injection, in turn, offers sporting performance and supreme efficiency in the BMW X6, the BMW 3 Series, the BMW 1 Series and now also in the new BMW Z4, to mention just a few examples.

Diesel engine technology very popular in Europe is restricted in many other countries particularly by legal standards and requirements. In large parts of China and Japan, for example, BMW's latest diesel engines, despite their supreme efficiency, are currently not able to provide their benefits due to the standards and restrictions imposed by law. In the USA and Canada, on the other hand, BMW expects an increase in the market share of diesel cars, which is why BMW already offers appropriate models in the North American market in the guise of the BMW AdvancedDiesel with BMW BluePerformance.

The 3.0-litre, 265-hp straight-six power unit with Variable Twin Turbo Technology featured in the BMW X5 xDrive35d and the BMW 335d Saloon comes with SCR Selective Catalytic Reduction incorporating the injection of urea to

reduce the emission of nitric oxides (NOX). This ensures full observance of the emission standards particularly demanding in California and other states of the USA, allowing nationwide introduction of the BMW AdvancedDiesel with BMW BluePerformance as a 50-state model.

**BMW 118d “World Green Car of the Year 2008”, BMW Group lauded as the “Most Sustainable Car Maker in the World” for the fourth time in a row.**

Offering a wide range of particularly economical models throughout all model series, the BMW Group makes a particularly effective contribution to the reduction of CO<sub>2</sub> emissions. Precisely this judgment is also presented in the latest edition of the Environmental Defense Report in the USA, a non-partisan study of the fuel consumption of new cars sold in the USA between 1990 and 2005 coming to the conclusion that the BMW Group has done significantly more than all other manufacturers in reducing fuel consumption and CO<sub>2</sub> emissions.

According to the report, the German premium car maker has reduced the CO<sub>2</sub> emissions of its vehicle fleet within this period by 12.3 per cent, while sales in the USA increased four-fold at the same time. By comparison, the second-best car maker in this ranking shows a reduction in CO<sub>2</sub> emissions by just 3 per cent.

Benefiting from this success, BMW EfficientDynamics has become the benchmark for future-oriented automotive development of the highest standard. Thanks to the acknowledged efficiency of these technologies, the BMW Group has indeed received a number of awards for BMW EfficientDynamics and BMW Group models featuring these up-to-date technologies. A good example in this context is the international “World Green Car of the Year Award 2008” presented to the BMW 118d.

Another example is the “2008 Paul-Pietsch Award” presented by the German motoring journal “Auto, Motor und Sport” to BMW EfficientDynamics for particularly innovative developments in the automotive sector. And yet another example going back to the end of 2007 is the “Golden Steering Wheel” awarded by the German weekly “Bild am Sonntag” as a special honour to BMW EfficientDynamics, with the “Green Steering Wheel” being presented as a special prize to the BMW Group for the most outstanding environmental technologies.

In Great Britain the British motor journal “CAR” has given BMW EfficientDynamics a “Green Award” for the clear and very effective benefits of these technologies available throughout all model series.

A similar opinion is expressed by the experts of another British car magazine "What Car?" which, looking for "Green Heroes" in the automobile market, chose no less than six BMW Group models as the "Best Choice" in their respective segments in terms of fuel efficiency and the reduction of emissions.

Following the philosophy of BMW EfficientDynamics in all development processes, reducing the use of resources in production and maintaining high social standards for employees at all locations, the BMW Group has also secured its outstanding position in the latest Dow Jones Sustainability Index. Compiled jointly by the Dow Jones Index, Stoxx Limited and SAM, a leading Asset Management Company in Zurich, this ranking is acknowledged as the most significant benchmark worldwide for entrepreneurial responsibility. Understandably, therefore, the BMW Group is proud of being lauded in this ranking for the fourth time in a row as the "World's Most Sustainable Car Maker".

#### **Intelligent energy management with a thermo-electric generator.**

At the 2009 International Geneva Motor Show, the BMW Group is also presenting the medium-term continuation of the BMW EfficientDynamics development strategy. One of these development projects is the integration of a thermo-electric generator (TEG) in the vehicle for direct conversion of exhaust heat into electrical energy.

All BMW model series already offer this superior technology through Brake Energy Regeneration featured as standard, the generator supplying electric power for the on-board network derived from the vehicle's kinetic energy in overrun and during application of the brakes.

Now, the thermo-electric generator also uses the heat contained in the car's exhaust emissions to generate electric power.

In this process the BMW Group's engineers follow a technology NASA, the US Space Agency, has been applying for about four decades for the generation of electric power in space probes. The underlying effect is that thermo-electric semi-conductor elements generate electric voltage under a temperature gradient. In the automobile exhaust heat so far remaining unused may be applied in order to generate electric power by means of a thermo-electric generator. Indeed, the efficiency of such systems has been significantly increased in recent times, meaning that in future the use of a thermo-electric generator may improve fuel economy in practice by up to 5 per cent.

**Best of Hybrid: individual solutions for even greater efficiency and enhanced driving pleasure.**

Using hybrid technology, the BMW Group will be able to offer a further improvement of efficiency in the near future. Precisely this is why the BMW Group is already developing a comprehensive system of hybrid features with the best solution (Best of Hybrid) in each model.

Good examples in this context are the BMW Concept 7 Series ActiveHybrid with its eight-cylinder petrol engine and an electric motor integrated in the transmission housing to provide additional drive power and the BMW Concept X6 ActiveHybrid combining an eight-cylinder power unit and an electric motor by means of an innovative two-mode active transmission.

Both of these concepts enhance the vehicle's dynamic driving qualities and significantly reduce fuel consumption. And unlike the hybrid models already available today, these technologies offer an increase in efficiency both in city traffic and when driving overland.

BMW ActiveHybrid technology will be reaching production standard for the first time in 2009.

**Innovative concepts for the mobility of tomorrow.**

In the context of EfficientDynamics the BMW Group is pursuing a number of research and test projects for further drive concepts pointing into the future. One example is a pilot project in California, New York, and New Jersey, with some 500 all-electric MINIs being driven by selected private and corporate customers in everyday traffic.

The MINI E comes with a 150 kW/204 hp electric motor supplied with energy by a high-performance lithium-ion battery and offering a cruising range of more than 250 kilometres or 150 miles.

This pilot project provides important knowledge on how individual mobility may be provided in all-electric vehicles with maximum efficiency. One of the objectives is to offer Sheer Driving Pleasure with a high-performance electrified drivetrain, at the same time reducing emissions for all practical purposes to zero.

A joint project conducted by the BMW Group and Vattenfall, the energy supplier, in Berlin as of spring 2009 serves the same purpose, with 50 units of the MINI E being used by private customers in everyday traffic.

Over and above these significant projects, the BMW Group is working on innovative vehicle concepts for use in large cities throughout the world, that is in various global markets. In each case these projects consider the specific requirements and challenges made of mobility in such an urban environment of the future.

**An option for the future already available today:  
hydrogen conquers the road.**

To ensure sustained mobility also in future, the BMW Group is also looking at hydrogen recovered in a regenerative process, thus pursuing the vision of CO<sub>2</sub>-free motoring.

BMW Hydrogen 7 already uses hydrogen today as source of energy for individual mobility, turning this most progressive philosophy into reality. This unique vehicle is powered by a twelve-cylinder delivering maximum output of 191 kW/260 hp and running on either hydrogen or gasoline in the same cylinders. To change between these two types of fuel at any time, all the driver has to do is press a button.

The world's first hydrogen-powered luxury performance saloon for everyday use was built in a small series of 100 cars and made available to selected representatives of the political world, business and society for use in everyday traffic. Within a short time, these pioneers have already covered more than 3.5 million kilometres or almost 2.2 million miles in BMW Hydrogen 7 in Europe, the USA and other parts of the world.

Such intense, practical use of the BMW Group Hydrogen Saloon clearly proves that this drive concept meets all the requirements of everyday traffic and therefore offers a realistic option for the future.

## 3.2 Re-Birth of the Roadster: The new BMW Z4.

It was to be admired live for the first time at the 2009 North American International Auto Show in Detroit, and now it is making its European debut at the 2009 Geneva Motor Show: the new BMW Z4. Six years after the launch of the former model presented to the world public in Paris in autumn 2002, the new BMW Z4 is now continuing the great tradition of the classic roadster.

The new BMW Z4 is the only car in its segment combining classic roadster proportions with a seating position moved close to the rear axle, rear-wheel drive and an automatically retractable hardtop.

At the same time the new BMW Z4 offers all the driving pleasure of a BMW Roadster with particularly refined and stylish flair. Driving with the roof down, this supreme two-seater guarantees a refreshingly intense experience of the sun shining down and the wind rushing by – and driving with the hardtop closed it provides all the comfort of a sporting coupé in the premium segment.

Apart from the authentic proportions and the flowing design language of the car, the design of the new BMW Z4 comes out in particular through classic details interpreted in new, up-to-date style typical of the new BMW Z4. This outstanding two-seater thus offers a unique combination of exciting elegance, superior agility and supreme motoring comfort. The aluminum shells of the two-piece lightweight hardtop come to rest in the roof compartment, saving maximum space in the process. And even with the roof closed, the new BMW Z4 retains all the proportions so typical of a genuine roadster.

To ensure passionate driving pleasure at all times, the new BMW Z4 comes with a range of no less than three straight-six power units displacing either 3.0 or 2.5 liters: 225 kW/306 hp in the BMW Z4 sDrive35i, 190 kW/258 hp in the BMW Z4 sDrive30i, and 150 kW/204 hp in the BMW Z4 sDrive23i ensure truly outstanding performance and dynamic acceleration at all times.

Comprehensive use of BMW EfficientDynamics technologies serves furthermore to provide an unparalleled balance of driving pleasure and fuel economy. And last but certainly not least, the top model is available not just with its “regular” manual six-speed gearbox, but also with sports automatic featuring seven gears and double-clutch transmission.

Boasting Dynamic Drive Control as standard, the BMW Z4 enables the driver to vary the set-up of the drivetrain and suspension at the touch of a button in three modes. BMW iDrive, in turn, is now available for the first time as an option on the BMW Roadster, the new generation of iDrive coming together with the optional Professional navigation system.

**Design: the modern look of a classic roadster.**

The new BMW Z4 takes up the classic look of the roadster in modern, flowing lines. The car's proportions are borne out in particular by the long and low-slung engine compartment lid, short overhangs, the long wheelbase and large wheels as well as the low seating position near the rear axle.

On the low-slung front section with its large, upright BMW kidney grille, the wide air intake and the dual round headlights so typical of the BMW brand with bi-xenon headlights featured as standard, all surfaces and lines strive towards a joint imaginary target point on the road ahead of the car.

The side view is dominated by the dynamic flow of the car's shoulder line connecting the front and rear wheel arches and accentuating the stretched, athletic look of the Roadster. The horizontal orientation of the car's lines and surfaces at the rear, in turn, emphasises the sheer width of the new BMW Z4. Further characteristic design features are the extra-large engine compartment lid extending far over the wheel arches, the black A-pillars, the gill intakes at the side with their integrated LED direction indicators, as well as the slender rear lights with their three-dimensional LED-fed rows of light units.

**Stylish, sophisticated and typical of a genuine roadster: the interior.**

To create the particularly significant unison of the exterior and interior so important in an open-air car, the shoulder line is reflected by the door panels with their unique configuration and flow from front to rear. The stylish ambience within the interior so typical of a roadster also comprises the driver-oriented design of the dashboard and the centre console.

The U-shaped, contoured decorative surface on the driver's side comprises the controls for the lights and air conditioning to the left and right of the steering wheel. These elements are available in Satin Silver matt, Fine Aluminum long-grain and Brown Ash grain, the respective color and trim variant also being used on the centre console and door opener.

The decorative trim on the front passenger's side stretching out in a narrow band beneath the light and climate control units also on the driver's side is finished either in Satin Silver matt or dark leatherette.

The seats with their integrated headrests so typical of a roadster come as standard on the BMW Z4 sDrive35i and BMW Z4 sDrive30i in high-quality leather, with a choice of three different colours. The colour chosen is then also used on the lower section of the instrument panel and on the armrest of the door lining as well as the armrest on the centre console.

The optional Extended Leather Package also offers leather on the upper section of the instrument panel, the doorsills, the sun visors in Black leather as well as the leather-finish door closing handles in upholstery colour on the passenger's side.

A special Design Package offering particularly elegant and sophisticated highlights is also available from the start upon the launch of the new BMW Z4. The exclusive Pure White design comprises the sports seats with their nappa leather/alcantara trim in Ivory White, nappa leather decorative trim in the same colour on the passenger's side, door panels in alcantara and decorative trim on the driver's side as well as Finesse anthracite wood trim on the centre console and the doors.

The Extended Leather Package is also part of the car's Pure White design scheme. In combination with Pure White design the customer also has the choice of the paintwork in Havana Brown. The further range of paintwork colours available on the new BMW Z4 is made up of no less than eight colour tones including Orion Silver metallic exclusive to the new roadster.

**Complete conversion in only 20 seconds: the fully automatic, retractable hardtop.**

The new BMW Z4 is the first roadster in the history of the German premium manufacturer protecting the occupants from wind and weather by a fully retractable hardtop. This two-piece roof structure in lightweight aluminum shell technology opens and closes electrohydraulically at the touch of a button within just 20 seconds, the two roof elements coming to rest in snug and compact arrangement in the roof compartment. This retains the characteristic, slender rear-end design of the Roadster, while when closed the hardtop again emphasises and, indeed, further accentuates the elegant look of the new BMW Z4.

Offering truly outstanding acoustic and aerodynamic qualities, this innovative roof system sets new standards in the market segment of the new BMW Z4. Large windows and the light, high-quality roof lining give the hardtop a light and even filigree look. Both the driver and passenger enjoy a bright and exclusive ambience, generous space and optimum visibility.

Compared with the former model, the side windows are 40, the see-through area in the rear window 52, and all-round visibility 14 per cent larger than before.

Made of glass, the rear window in the hardtop comes with electrical heating and the four side windows of the new BMW Z4 may be lowered individually.

A further important point is that the flow of fresh air may be dosed by a wind deflector fastened between the roll bars behind the headrests. The higher roofline and the larger door openings increased in size by 26 millimetres or 1.02", finally, allow even easier and more convenient access with the roof closed.

The retractable roof opens and closes most conveniently by means of a switch in the centre console or by remote control on the central locking. Enhanced remote control with Comfort Access is available as an option, allowing the user to close the roof also from a distance.

Comfort Access also allows convenient loading and unloading of the luggage compartment with the roof open. To provide access to the luggage compartment in this case, the open hardtop is moved to an interim position facilitating the removal of large objects.

**Unique variability ensured by flexible storage with optional through-loading and a wide range of storage features.**

The roof compartment and the luggage compartment are separated from one another by a variable cover in between folding down as required with the roof closed. This increases luggage space from 180 litres or 6.3 cubic feet with the roof open all the way to 310 litres (10.9 cubic feet) with the roof closed. The maximum load has been increased by 30 kg or 66 lb over the former model to 330 kg or 728 lb.

The flexible luggage concept of the new BMW Z4 sets the standard in the premium manufacturer segment, offering enough space in the luggage compartment even with the hardtop open for a medium-sized hard-shell suitcase.

Using the optional through-loading to the passenger compartment, the driver and passenger are also able to accommodate a 46-inch full-size golf bag. And when the roof is closed the luggage compartment easily accommodates up to four crates of large bottles or – when using the through-loading – two 46-inch golf bags without the slightest problem.

Apart from the special roof with its outstanding features, the superior functionality of the new BMW Z4 is ensured above all by the wide range of storage and luggage options: In addition to the glove compartment with a capacity of no less than ten litres as well as the folding compartments in the door linings, BMW's new Roadster offers a storage tray in the centre console as well as additional storage space behind the gearshift or selector lever, a 1.6-litre compartment beneath the armrest and yet another storage box in the instrument panel.

Yet a further feature is the crosswise storage compartment extending across the full interior width of the new BMW Z4 behind the rear seats as a feature absolutely unique in this segment offering all kinds of storage options.

The optional Storage Package provides an even wider range of storage and loading functions, with fastening nets on the rear panels of the seats and in the passenger's footwell, lashing belts in the luggage compartment, two cupholders beneath the armrest on the centre console, an additional storage compartment in the dashboard on the driver's side, as well as a storage box in the bulkhead leading to the luggage compartment.

Optional through-loading together with a transport bag ensures even greater variability, allowing the user to load slender items such as golf bags or two pairs of skis measuring up to 170 centimetres or 66.9" in length.

**A success concept with a great tradition: straight-six power units in the BMW Roadster.**

Elegantly flowing roadster lines, the BMW kidney grille as the air intake at the front, and a straight-six power unit within the engine compartment – again truly outstanding features on the new BMW Z4.

As early as in 1934 this combination made the BMW 315/1 an unprecedented success both on the road and in motorsport – and has been retained to this very day.

The new BMW Z4 is therefore being launched exclusively with straight-six power units, a choice of three different engines covering a wide range of power and performance. These unique engines develop their refinement and fast-revving response typical of a BMW six-cylinder in truly unique style, offering an unparalleled balance of performance and fuel economy in the premium roadster segment thanks to the BMW EfficientDynamics development strategy.

In an appropriate combination on each model, the individual versions of the new BMW Z4 come inter alia with Brake Energy Regeneration, a gearshift point indicator, on-demand management and control of the car's ancillary units, a map-controlled oil pump, intelligent lightweight technology, optimized aerodynamics and tyres with reduced roll resistance.

**BMW Z4 sDrive35i: maximum performance with maximum efficiency thanks to Twin Turbo Technology and High Precision Injection.**

The most sporting and dynamic version of the new BMW Z4 comes with the world's first straight-six power unit to feature Twin Turbo Technology, High Precision Injection with direct injection of fuel, and an all-aluminum crankcase.

The use of two turbochargers each supplying three cylinders with compressed air ensures a standard of spontaneity never seen before on a turbocharged engine. The power unit builds up peak torque of 400 Newton-metres or 295 lb-ft without the slightest delay, then maintaining this high level of torque throughout a broad speed range from 1,300–5,000 rpm.

Maximum output of 225 kW/306 hp comes at 5,800 rpm, and the BMW Z4 sDrive35i accelerates to 100 km/h (62 mph) in just 5.2 seconds (seven-speed sports automatic with double clutch in 5.1 seconds).

This supreme performance then continues all the way to 250 km/h or 155 mph, where the speed of the car is limited by electronic control.

High Precision Injection is a key function in the philosophy to save fuel to the greatest possible extent. Injecting fuel directly into the combustion chambers, High Precision Injection offers a cooling effect allowing a higher compression ratio and optimising the efficiency of the combustion process.

The second generation of direct gasoline injection developed by BMW ensures significant benefits in fuel efficiency without in any way restricting the dynamic qualities of the power unit. Hence, the BMW Z4 sDrive35i achieves average fuel consumption in the EU test cycle of 9.4 litres/100 kilometers (equal to 30.0 mpg imp), enhanced to an even better 9.0 litres (31.4 mpg imp) with the car's seven-speed double-clutch sports automatic transmission.

**Six-cylinder normal aspiration power units: powerful and light thanks to their magnesium structure.**

Offering spontaneous power and performance, excellent motoring refinement and outstanding efficiency, the two six-cylinder naturally-aspirated power units in the BMW Z4 sDrive30i and the BMW Z4 sDrive23i again provide the

very best in their segments. Weighing just 161 kg/355 lb and, respectively, 158.5 kg/349.5 lb, both power units, thanks to their composite magnesium/aluminium crankcase, cylinder head covers made of a special synthetic material and lightweight camshafts with aluminium VANOS control units, are exceptionally light.

While BMW VALVETRONIC engine management controls valve stroke on the intake valves, double-VANOS varies the angle of the intake and outlet valves in an infinite process. This reduces cycle change phases to a minimum and allows particularly efficient use of fuel, providing a “beefy” torque curve and giving the engine optimum response.

The power unit in the BMW Z4 sDrive30i develops maximum output of 190 kW/258 hp from 3.0 litres capacity at an engine speed of 6,600 rpm. Maximum torque of 310 Newton-metres or 228 lb-ft, in turn, comes at just 2,750 rpm.

With this kind of power, the BMW Z4 sDrive30i accelerates from a standstill to 100 km/h (62 mph) in 5.8 seconds (with sports automatic in 6.1 seconds). Top speed is limited electronically to 250 km/h or 155 mph.

Offering average fuel consumption of 8.5 litres (equal to 33.2 mpg imp) in the EU test cycle (8.3 litres/34.0 mpg imp with sports automatic) and a CO<sub>2</sub> rating of 199 g/km (with sports automatic: 195 g/km), the new BMW Z4 sDrive30i provides an impressively good balance of acceleration and fuel economy.

Displacing 2.5 litres with the same technology as on the 3.0-litre power unit, the engine featured in the BMW Z4 sDrive23i again stands out through unique qualities. Particularly this model offers an unusually good balance of sportiness and efficiency, the six-cylinder developing its maximum output of 150 kW/204 hp at 6,200 rpm and peak torque of 250 Newton-metres/184 lb-ft at a low 2,950 rpm.

Accelerating from a standstill to 100 km/h in 6.6 seconds (with sports automatic in 7.3 seconds), the BMW Z4 sDrive23i sets a new record in its performance class. Top speed of 242 km/h (150 mph) (with sports automatic: 239 km/h or 148 mph), average fuel consumption of 8.5 litres (33.2 mpg imp) (with sports automatic: 8.2 litres/34.4 mpg imp) per 100 kilometres in the EU test cycle, and a CO<sub>2</sub> emission rating of 199 g/km (with sports automatic: 193 g/km) makes the new BMW Z4 sDrive23i a highly efficient entry-level model leading into the unique world of the BMW Roadster.

**Six-speed transmission with extremely short gearshift travel featured as standard.**

All variants of the new BMW Z4 come as standard with a six-speed manual gearbox. Developed specifically for BMW's new Roadster, the various transmission options are particularly sporting in their character. Indeed, this is borne out in particular by extremely short gearshift travel much shorter than on all other current BMW models with a manual gearshift.

**Optional: seven-speed sports automatic with double clutch and six-speed sports automatic with Steptronic.**

As an option the top version of the new Roadster, the BMW Z4 sDrive35i, is available with BMW's newly developed sports automatic complete with a double-clutch gearbox. This ensures even faster acceleration, combining this extra performance and dynamism even in comparison with the regular six-speed manual gearbox with all the comfort features of BMW automatic transmission.

The new seven-speed sports automatic with its double-clutch gearbox shifts gears without the slightest interruption of traction, the fast and smooth gear change allowing unusually harmonious acceleration and helping to reduce both fuel consumption and emissions.

The BMW Z4 sDrive35i with its seven-speed sports automatic accelerates to 100 km/h in just 5.1 seconds, fuel consumption in the EU test cycle of 9.0 litres/100 kilometres (equal to 31.4 mpg imp) outperforming the fuel economy on the same model with its manual gearbox by a significant 0.5 litres.

Sports automatic gives the driver the choice of either an automatic gearshift or manual selection of gears. A newly designed electronic gearshift lever on the centre console serves to control the sports automatic whenever required. As an alternative the driver is able to shift gears manually by means of paddles on the steering wheel.

In Program D the driver is therefore able, by pressing one of the paddles, to directly change over to the manual gearshift mode. Featured as standard, Dynamic Drive Control acts on various other parameters and influences the overall set-up of the car as well as the gearshift characteristics in sports automatic.

In the SPORT and SPORT+ modes, this ensures significantly more powerful acceleration with an even faster gearshift, gears being shifted by closing the clutch even faster than before, with sporting feedback going straight to the driver.

The six-speed sports automatic transmission available as an option also on the BMW Z4 sDrive30i and the BMW Z4 sDrive23i promotes not only driving comfort, but also the sporting performance of BMW's Roadster. Indeed, the sporting characteristics of the car are attributable above all to the direct connection linking the transmission to the engine, based on modern torque converter technology with an integrated torsion damper avoiding unnecessary slip and therefore helping to eliminate any unwanted loss of power and performance. Even the slightest movement of the gas pedal, therefore, is converted spontaneously into a quick response with gearshift times reduced to a minimum.

The Steptronic function on the automatic transmission offers the driver the opportunity to shift gears manually as desired. Apart from shifting gears through the selector lever on the centre console, the driver also has the option with the six-speed sports automatic to use the gearshift paddles on the steering wheel.

Moving the selector lever into the appropriate shift position, the driver is able to shift gears manually or, in driving program D, to shift gears as desired by means of the paddles.

Dynamic Drive Control also influences the gearshift characteristics of the six-speed sports automatic, with an even more spontaneous gearshift and clear feedback in the SPORT and SPORT+ modes.

### **Sophisticated suspension technology, high-performance lightweight brakes.**

Rear-wheel drive typical of BMW, virtually perfect distribution of axle load, the long wheelbase and the low centre of gravity on the roadster create ideal conditions for supreme agility at all times.

Featuring a double-joint tiebar front axle made largely of aluminium and further enhanced by spring struts and a centrally guided rear axle, the new BMW Z4 comes with proven axle concepts in a configuration perfectly tailored to the specific characteristics of BMW's unique Roadster.

A particularly outstanding feature is consistent lightweight technology in the area of the front axle, the double-joint construction offering ideal conditions for supreme dynamics thanks to the kinematic arrangement of the various components.

The rear axle of the BMW Z4 Roadster, in turn, stands out through its compact configuration and precise wheel guidance, clear distribution of functions between the longitudinal arms connected to the body and the track control arms pivoting on the rear axle subframe facilitating the set-up of the suspension. As a result, directional stability, steering behaviour and lane change stability may all be optimised independently of one another.

EPS Electric Power Steering plays a leading role also in the BMW Z4 segment, enhancing the precision and comfort of steering manoeuvres and at the same time reducing fuel consumption, since the electric motor for steering power assistance is activated only when required or desired by the driver.

The new BMW Z4 comes with new high-performance brakes standing out through their powerful deceleration, fading-free characteristics, low weight, and low brake pad wear. At the same time the BMW Z4 is the first car in its segment to feature an electrical parking brake activated and released by a button on the centre console.

All versions of the new BMW Z4 come as standard on 17-inch light-alloy rims and with runflat tyres as well as a Tyre Defect Indicator.

The latest generation of DSC Dynamic Stability Control serves not only to activate the ABS brakes and ensure stability on slippery surfaces by activating the brakes or reducing engine power, but also comprises other functions such as Dry Braking and Brake Standby as well as a Start-Off Assistant on the new BMW Z4.

Acting more or less like a differential lock, DSC furthermore serves to prevent slip on the inner wheel in a bend running under minor load or no load whatsoever under dynamic, one-sided driving conditions.

Activating the traction mode again at the touch of a button, the driver is able to raise the response thresholds for intervention by the brakes, thus enjoying the option, for example, to set off on loose snow with the drive wheels slightly spinning. And whenever desired, the driver is also able to deactivate the DSC control system altogether.

### **Adaptive M Suspension with electronically adjustable dampers.**

As an option the agility of the BMW Roadster may be further enhanced by the Adaptive M Suspension featuring electronically controlled dampers. A further important point is that the Adaptive M Suspension lowers the entire car by 10 millimetres or almost 0.4", ensuring even more precise response to steering manoeuvres.

A central control unit varies the inbound and rebound stages on the four twin-sleeve gas pressure dampers to provide optimum response at all times. Indeed, this response time is so short that a signal coming from a front wheel crossing a hole in the road reaches and re-adjusts the rear dampers even before the rear wheels reach the same uneven road surface.

### **Comfort and sportiness all in one: Dynamic Drive Control.**

Benefiting from Dynamic Drive Control, the driver of the new BMW Z4 is able to vary the control map serving, in turn, to vary damper forces on the Adaptive M Sports Suspension. Dynamic Drive Control also influences the progressive effect of the gas pedal, the response of the engine, the power steering control map and the response thresholds of DSC Dynamic Stability Control. And if the car is fitted with automatic transmission, the dynamic gearshift process is controlled also in this mode.

The driver operates Dynamic Drive Control by means of a button on the centre console directly next to the gearshift or automatic selector lever. By pressing a toggle button, he is furthermore able to choose among the NORMAL, SPORT and SPORT+ modes, thus activating a pre-configured, perfectly balanced set-up.

The differences between these individual modes are clearly distinguishable on the road, the SPORT mode, for example, offering far more direct steering behaviour and a more direct response to the gas pedal. The SPORT+ mode, in turn, serves additionally to activate the DTC Dynamic Traction Control function on the DSC control pattern, intentionally allowing slight slip on the drive wheels and thus enabling the driver to take a bend in a controlled drift.

### **Body: extra space, greater safety.**

The new BMW Z4 is slightly larger outside than its predecessor, at the same time offering significantly more comfort in terms of space and a lot more loading space: BMW's new Roadster is 4,239 millimetres (166.9") long, 1,790 millimetres (70.5") wide, and 1,291 millimetres (50.8") high. Wheelbase measures 2,496 millimetres or 98.3".

Apart from all-round visibility, the interior offers greater headroom (+ 5 millimetres/0.20"), extra shoulder room (+ 20 millimetres/0.79") and more elbow freedom (+ 43 millimetres/1.69"). Yet a further point is that the door opening increased in size by 26 millimetres or 1.02" allows even more convenient access with the roof closed.

The extremely stiff bodyshell, lightweight construction and harmonious axle load distribution enhance both the safety and agility of the new BMW Z4. High load-resistant carrier structures, optimum use of deformation travel, the extremely stiff passenger cell and highly efficient restraint systems ensure absolutely outstanding accident safety. Frontal and head/thorax airbags, belt latch tensioners and belt force limiters are activated by the sensor-controlled electronic safety system as a function of the type and severity of a collision. The head/thorax airbags are integrated on the outside of the seat backrests and inflate over a large surface in the event of a collision from the side.

### **Making its premiere in the BMW Roadster: the latest generation of BMW iDrive.**

The new Z4 is the first BMW Roadster to feature the trendsetting iDrive control system as part of the optional navigation system Professional.

In the new BMW Z4 the iDrive control system enhanced to an even higher level of technology serves to activate and mastermind all entertainment, information, navigation and telecommunication functions.

The system itself is made up of a Controller on the centre console and a folding, high-resolution Control Display on the instrument panel, allowing the driver to intuitively and safely mastermind all available functions through standardised movements of the Controller either tipping it in one direction, turning or pressing the Controller as required.

Pressing the direct selection buttons on the newly configured Controller, the user is able to spontaneously change to the CD, radio, telephone and navigation functions. The range of direct selection buttons has now been rounded off by the three MENU, BACK and OPTION command buttons, and eight favourite buttons in the instrument panel allow the user to save and directly select not only radio stations, telephone numbers and navigation destinations, but also other menu items available directly through iDrive.

Measuring 8.8 inches in size, the high-resolution Control Display with its resolution of 1,280 x 480 pixels offers excellent clarity in presenting graphics or pages from the internet. A picture of the Controller shown in the Control Display gives the driver greater and clearer orientation in choosing the next step in the operating process.

Using the navigation system is now even easier thanks to the optimised technologies of BMW iDrive. Full-screen map presentation, for example, offers an incomparably detailed overview of the region in which the driver is currently travelling. As an alternative the Control Display also offers an assistance window presenting further highlights and maps independent of the main map.

With navigation data saved on an 80 GB hard disc installed in the car, access times are even shorter and faster than before. And at the same time the hard disc may also be used as a 15 GB music archive.

### **Roadster-specific climate comfort and leather in Sun Reflective Technology.**

The new BMW Z4 comes as standard with air conditioning and no less than seven blower stages. Optional automatic air conditioning, in turn, allows separate temperature selection on the driver's and passenger's side, individual, automatic temperature control in five stages of intensity, and manual adjustment of air stratification. With the roof opened, finally, automatic air conditioning also offers an appropriately adapted convertible mode.

Like BMW's Convertibles, the new Roadster is available with a special, highly innovative type of leather on the seats, the interior panels and the steering wheel significantly reducing the heat effect of bright sunshine: Treatment of the leather in SunReflective Technology serves to integrate special colour pigments into the material reflecting infra-red irradiation in the sunlight.

### **Top-end audio and communication systems.**

The audio systems available in the new BMW Z4 set standards in the segment in every respect.

The CD player fitted as regular series equipment also serves to play music files in the MP3 format. The optionally available audio systems then come with up to 14 loudspeakers and two additional central base speakers for an intense and very precise experience in sound, with amplifier output of up to 650 watt.

A USB interface is available as an option supplementing the standard AUX-In port and allowing the integration of various external MP3 players or other data media such as a conventional USB stick in the car's audio system. A CD/DVD changer in the glove compartment is also available, finally, as yet another option.

The mobile phone preparation kit with its Bluetooth interface available in conjunction with the Professional radio and the Professional navigation system offers even greater safety and convenience when making telephone calls while driving. To fully integrate the latest Smartphone communication units in the car, the new BMW Z4 is also available with a new snap-in adapter.

**New production plant: BMW Roadster coming from Regensburg.**

The new BMW Z4 is built at BMW Plant Regensburg alongside the BMW 3 Series and the BMW 1 Series. This is because BMW Plant Spartanburg, where the former model was built, is concentrating from now on entirely on the production of BMW's X models.

The first BMW Roadster with a hardtop marks the end – for the time being – of a long and unusually fascinating series of outstanding open-air models. Indeed, the history of BMW Roadsters goes all the way back to the 1930s, the first model in this segment being the BMW 3/15 PS DA 3 Type Wartburg built in 1930 and 1931. In 1934 BMW for the first time combined the classic proportions of a roadster with a powerful straight-six engine in the BMW 315/1.

The ongoing history of the BMW Roadster was characterised time and again by legendary two-seaters reigning supreme in both motorsport and on the road. These include the BMW 328 – the winner of the 1940 Mille Miglia – as well as the BMW 507 in the 1950s, the futuristic BMW Z1 in 1988, and the BMW Z3 and Z8 arousing new passion for roadster motoring in the 1990s.

Today the new BMW Z4 benefits from all the qualities of modern engineering, interpreting the traditional values of the BMW Roadster in fascinating, new style.

### **3.3 The Most Innovative Rendition of Luxury and Dynamism: The new BMW 7 Series – World Debut of the BMW 730Ld.**

Top standards and demands newly defined: Introducing the fifth generation of the BMW 7 Series Luxury Saloon, the world's most successful manufacturer of premium cars is setting the benchmark once again, proving how sheer driving pleasure and the pleasure of exclusive generosity may be perfectly combined in the ultimate symbiosis.

The new BMW 7 Series is the result of perfection in design and supreme engineering on the drivetrain, on the chassis, in terms of safety systems, driver assistance, and comfort. And at the same time the sophisticated but very modern interior proves that both driving and riding in the new BMW 7 Series is a truly impressive experience the driver and all passengers will enjoy at all times.

The high-performance and outstandingly efficient engines as well as the suspension technology of the new BMW 7 Series are both quite unique in the luxury saloon segment. Two petrol engines with Twin Turbo technology and High Precision Injection – the 300 kW/407 hp V8 in the top-of-the-range BMW 750i and the 240 kW/326 hp straight-six in the new BMW 740i – as well as a newly developed straight-six diesel with common-rail fuel injection, piezo-injectors and an aluminium crankcase with maximum output of 180 kW/245 hp in the new BMW 730d are available right from the start upon the introduction of the car. All power units offer the highest standard of efficiency in their respective class and comply in full with the EU5 emission standard.

The 2009 International Geneva Motor Show is certainly the right place for the world debut of the BMW 730Ld. Introducing this outstanding model most appropriate for today's world, BMW is now offering the long-wheelbase version of this Luxury Performance Saloon so far available as the BMW 750Li and BMW 740Li in conjunction with BMW's extremely efficient straight-six diesel. The long-wheelbase version of the BMW 7 Series comes with its wheelbase extended by 14 centimetres or 5.5" entirely benefiting the rear-seat passengers in terms of extra legroom. The result is truly excellent long-distance touring comfort combined in the new BMW 730Ld with outstandingly low fuel consumption and emissions.

The BMW 730Ld accelerates to 100 km/h from a standstill in 7.3 seconds and its average fuel consumption in the EU test cycle is 7.3 litres/100 kilometres (equal to 38.7 mpg imp), with a CO<sub>2</sub> emission rating of 194 grams per kilometre setting new standards in this segment of the market.

Introducing this new model, BMW has succeeded once again, through the company's unique innovative power, in overcoming apparent contrasts, the BMW 730Ld combining sheer luxury and supreme efficiency more convincingly than any other car in this segment.

All versions of the new BMW 7 Series comes as standard with Dynamic Damper Control including Dynamic Driving Control operated by the touch of a button on the centre console. Important options are the Integral Active Steering together with rear axle steering as a function of driving conditions (a technology absolutely unique the world over), as well as Dynamic Drive anti-roll stability.

The new BMW 7 Series also introduces the new generation of BMW's trendsetting iDrive control system. A newly developed Controller with direct selection buttons and a high-resolution 10.2-inch Control Display facilitate intuitive management, control and activation of numerous functions.

BMW's new iDrive also offers ideal conditions for unrestricted use of the internet in the car offered by BMW as the world's first manufacturer in the context of BMW ConnectedDrive.

The clear structure of the cockpit dominated by the instrument cluster in innovative black panel technology gives the driver absolute supremacy and unrestricted control of his car at all times. The driver assistance systems featured for the first time in the new BMW 7 Series and exclusive the world over include BMW's new Night Vision with detection of individual persons, the camera-based Speed Limit Info, Lane Change Warning and Cruise Control with Stop & Go, an active Brake Assistant and a proximity warning function when approaching another vehicle from behind.

A wide range of lightweight features – including the doors, roof, engine compartment lid, side panels and the engine crankcase made of aluminium – enhance both the efficiency and the agility of the new BMW 7 Series. And through its comprehensive safety concept alone, BMW's new Luxury Saloon guarantees maximum occupant safety in all conceivable types of collision.

**Design: sportiness BMW style in its most elegant form.**

A harmonious combination of elegance and sportiness is the key issue in the body design of the new BMW 7 Series. Over and above the long wheelbase, the long and stretched-out engine compartment lid and the short body overhang at the front, the passenger compartment moved relatively far to the rear and the low and sleek roofline characterise the dynamic proportions of the new BMW 7 Series.

**Longest wheelbase in the luxury performance segment providing lots of space inside the car.**

The sporting and elegant side view of the car is further highlighted by the long wheelbase: The new BMW 7 Series comes with the longest wheelbase in the luxury saloon segment, both in its "regular" guise (3,070 millimetres/120.9") and in the extended-wheelbase version (3,210 millimetres/126.4").

In both cases this means extra space within the interior and a significant enhancement of motoring comfort, particularly since the wheelbase of the BMW 750Li, the BMW 740Li, and the BMW 730 Ld extended by 14 centimetres or 5.5" completely benefits the passengers' legroom at the rear.

Yet a further important point is that both models come with their own distinctive roofline and C-pillar contour creating a side view reminiscent of the "regular" model with its normal wheelbase. And at the same time headroom on the rear seats of the long-wheelbase model is up by 10 millimetres or 0.39".

**Modern, luxurious, inviting: the interior.**

In its interior design, the new BMW 7 Series offers a particularly modern and inviting rendition of sheer luxury. With the centre console slanted slightly towards the driver, the cockpit comes with the driver orientation so typical of BMW. Encountering the new BMW 7 Series for the first time, therefore, the driver immediately has the feeling of being able to handle the most advanced and sophisticated technology in genuine style in a truly exclusive setting.

The dashboard is subdivided into various levels above one another separated by horizontal lines. The instrument cluster and Control Display come on one level, the controls and buttons for all major functions are one level further down, beneath the trim surface likewise covering the entire width of the dashboard. And thanks to innovative presentation and surface technology, finally, the Control Display does not require the usual binnacle to keep out sun glare.

Vertical arrangement of the instruments and control units again serves to facilitate the process of controlling the car, adding extra safety in every respect. Information and control units relevant to the driver are on the side of the cockpit facing towards the driver himself. All controls, buttons and switches serving to operate comfort functions, in turn, are positioned in the middle of the car, with the same logic being applied to the control units integrated directly on the multifunction steering wheel.

**Black panel technology: familiar flair, new options.**

The design and presentation of the instrument cluster offers new options in presenting information with supreme clarity. For the first time the entire instrument cluster is made up of a high-resolution colour display in black panel technology comprising the four circular instruments arranged in traditional sports car style as well as status and function instruments important for motoring, navigation instructions, information from the Check/Control, feedback from the controls, and the Service Interval Indicator.

When not in use, the display forms a black homogeneous surface. The numbers in the circular instruments are generated electronically when required, thus not becoming visible – like all other symbols on the display – until the system is activated.

On cars fitted with a navigation system the instrument clusters supports the High Guiding function, true-to-life arrow symbols giving the driver information on, say, criteria to be observed when changing his lane or when taking a bend at an unclear road junction.

The settings on the automatic air conditioning featured as standard are presented in a second display on the centre console, again in black panel technology. In the new BMW all settings of the automatic air conditioning may indeed be masterminded from a control panel on the centre console.

**Electronic gear selector lever and Dynamic Driving Control button on the centre console.**

The new BMW 7 Series comes with an electronic gear selector lever on the centre console. Right next to the lever are the Dynamic Driving Control operating unit on the side facing the driver and – on the opposite side – the iDrive Controller.

A wide range of paintwork colours, interior colours, trim surfaces and seat upholstery enables the customer to personalise his or her car, catering for each and every individual wish. And at the same time, BMW is the world's first car maker to offer high-tech ceramics as an option on specific control units and elements.

**Enhanced consistently, used intuitively: BMW iDrive.**

The new BMW 7 Series naturally comes with BMW's trendsetting iDrive control system serving to activate and mastermind all entertainment, information, navigation and telecommunication functions featured either as standard or as an option. Indeed, the new generation of iDrive gives BMW an even greater lead over other manufacturers with their comparable systems.

**Newly designed Controller with direct selection buttons.**

Fitted in the perfect ergonomic position, the newly developed Controller enables the user to conveniently and intuitively choose and activate specific functions through standardised tilt, rotating and pushing movements. A picture of the Controller shown in the Control Display ensures even greater clarity and orientation in choosing the next control function or operating step, as does the clear graphic arrangement of the menus arranged as tables on top of one another. And as a further advantage, all menus are structured according to the same standard scheme.

Using the new direct selection buttons on the Controller, the user is able to change spontaneously to the CD, radio, telephone and navigation functions without the slightest effort or waiting time. The range of direct selection buttons is now rounded off by the three command buttons MENU, BACK and OPTION, the eight favourite buttons on the centre console serving for the first time to save and directly retrieve not only radio stations, telephone numbers and navigation destinations, but also menu items directly available through iDrive.

**The engines: superior, dynamic and extremely efficient.**

Featuring the world's most efficient V8 petrol engine, the most powerful straight-six within BMW's line-up of power units, and the first representative of a new generation of straight-six diesels, the range of power units available right from the start upon the introduction of the new BMW 7 Series is full of superlatives. The three engines stand out through dynamic power and performance, supreme motoring culture, and unique efficiency. In their respective power and performance segments they therefore offer an incomparably good balance of power and economy all in one.

The engines thus comply in full with the BMW EfficientDynamics development strategy featuring a wide range of further innovations in the new BMW 7 Series. So over and above the highly modern power units, BMW EfficientDynamics in the new 7 Series stands, among other things, for Brake Energy Regeneration, on-demand control of ancillary units, consistent lightweight technology and optimised aerodynamics, as well as electronically controlled air flap management for a further reduction of fuel consumption and emissions.

**The most efficient car in its segment: the BMW 730d with its newly developed six-cylinder diesel.**

This enhancement of efficiency comes out particularly in the new BMW 730d. Offering average fuel consumption of just 7.2 litres/100 kilometres (equal to 39.2 mpg imp) in the EU test cycle, this is the most economical car in its entire segment, with a standard of all-round fuel efficiency made possible by the first generation of straight-six diesel engines.

The newly developed power unit comes with an aluminium crankcase and the latest generation of common-rail direct fuel injection, piezo-injectors injecting fuel into the combustion chambers under a pressure of up to 1,800 bar.

The significantly upgraded turbocharger system with variable intake geometry provides smooth development of superior power tailored to the respective driving conditions, with maximum power and supreme harmony at all times.

The new diesel engine displacing 3.0 litres develops maximum output of 180 kW/245 hp at an engine speed of 4,000 rpm. Maximum torque of 540 Newton-metres or 398 lb-ft, in turn, comes at just 1,750 rpm. Compared with the former model, the new BMW 730d thus offers an increase in power by 10 kW or 14 hp on 9 per cent less fuel.

Following BMW's usual commitment, the new BMW 730d comes as standard with a diesel particulates filter and an oxidation catalyst. The exhaust management units are fitted in one joint housing positioned directly downstream of the engine.

Thanks to the innovations in technology featured on the new six-cylinder, this model significantly outperforms the EU5 emission standard, with the new BMW 730d generating just 192 grams of CO<sub>2</sub> per kilometre.

### **Unique: eight-cylinder petrol engine with Twin Turbo and High Precision Injection in the new BMW 750i.**

The most important technical asset shared by both petrol engines is Twin Turbo technology exclusive to BMW in conjunction with High Precision Injection. Featuring these sophisticated systems, both drive units achieve a level of power and torque natural-aspiration engines would only be able to offer on much larger engine displacement and with an inevitable increase in weight.

Average fuel consumption of the BMW 750i in the EU test cycle, already applying the EU5 standard, is just 11.4 litres/100 kilometres or 24.8 mpg imp, with CO<sub>2</sub> emissions of 266 grams per kilometre. Compared with the previous model homologated under the less strict and less demanding EU4 standard, this is an improvement by approximately 3 per cent with an increase in engine power by 30 kW or 41 hp.

As a result, the new model complies both with the ULEV II emission standard in the USA and the EU5 standard in Europe.

### **Even more power: straight-six with Twin Turbo and High Precision Injection in the BMW 740i.**

The second petrol engine version of the new BMW 7 Series is powered by a straight-six with unmistakable performance characteristics again resulting from the combination of Twin Turbo technology and High Precision Injection.

High Precision Injection plays a key role in ensuring the most efficient use of fuel. In this case the second generation of direct gasoline injection incorporates piezo-injectors positioned in the cylinder head directly next to the spark plugs and conveying fuel into the combustion chambers with an absolutely precise dosage under a pressure of 200 bar.

This particular configuration enhances not only fuel economy, but also emissions and engine acoustics. Accordingly, average consumption in the EU test cycle is just 9.9 litres/100 kilometres or 28.5 mpg imp, with a CO<sub>2</sub> rating of 232 grams per kilometre. Compared with its predecessor, the new BMW 740i thus offers 15 kW/20 hp more power on a reduction in fuel consumption by 12 per cent. And again, it almost goes without saying that the new BMW 740i complies in full with the EU5 emission standard.

**Featured as standard: highly efficient and fast-shifting automatic transmission.**

Power is transmitted as standard on the new BMW 7 Series by a further enhanced six-speed automatic transmission with particularly sporting gearshift characteristics. A newly developed control unit offering an even higher level of performance and modified converter technology allow even more precise selection of the right gear at all times. And as a further point the six-speed automatic transmission ensures superior comfort when shifting gears and an enhanced standard of efficiency.

Yet a further contribution to greater efficiency comes from the final drive likewise optimised to an even higher standard, now offering even lower friction and optimised thermal management. Through the first-ever use of an aluminium housing on the final drive, weight is reduced by approximately 15 per cent versus the former model, that is by 3.5 to 6 kilograms.

**Innovative suspension technology for a unique combination of motoring comfort and dynamic performance.**

Newly developed suspension technology guarantees excellent body and roll comfort, while at the same time the new BMW 7 Series comes with a standard of agility quite unique in the luxury segment. A further point is that the driver can decide himself at any time which of these features to give priority, varying the set-up of his car via Dynamic Driving Control.

The combination of a double-arm axle at the front and an integral-V axle at the rear offers not only a wide range of additional benefits in terms of motoring comfort and driving dynamics, but also outstandingly harmonious roll and transient behaviour in bends. In addition, the new BMW 7 Series comes with electronically masterminded Dynamic Damper Control, the newly developed dampers adjusting both to the road surface and the driver's particular style of motoring. And as the first car maker in the world, BMW uses a damper system where the inbound and rebound stages are adjustable in a continuous, independent process on each wheel. This allows a truly unique combination of a firm suspension set-up, on the one hand, and a comfortable response to bumps on the road, on the other.

**Driving Dynamic Control button on the centre console.**

The driver is able to vary the Dynamic Damper Control map through the Dynamic Driving Control button. With Dynamic Driving Control, the set-up of the car may be varied for COMFORT, NORMAL, SPORT and SPORT+ at the simple touch of a button, acting not only on Dynamic Damper Control and

the DSC Dynamic Stability Control threshold points, but also on the gearshift dynamics of the automatic transmission as well as the gas pedal and steering assistance control maps.

Another button directly in front serves to choose the various Dynamic Stability Control set-ups, for example providing a special traction mode for setting off more easily on snow whenever required.

### **Integral Active Steering controlling the steering angle both front and rear.**

As a further development of Active Steering, Integral Active Steering is now making its world debut in the new BMW 7 Series. For the first time this option varies the steering angle via an additional transmission on the front-wheel Active Steering and, for the first time, the steering angle on the rear wheels through a concentrically positioned motor with spindle drive on the rear axle, in a highly sophisticated function provided by Servotronic in accordance with current driving conditions.

The maximum steering angle of the rear wheels is 3 degrees. At low speeds the rear wheels are turned against the steering angle of the front wheels to give the BMW 7 Series significantly greater agility on the road. At higher speeds the Integral Active Steering gives the car an absolutely outstanding level of motoring comfort and supremacy on the road in changing lanes and in bends, with the rear wheels turning in the same direction as the front wheels. Even in abrupt steering manoeuvres, therefore, the BMW 7 Series follows the driver's commands precisely and with absolute superiority, any change in direction under dynamic driving conditions leading to an increase in lateral acceleration hardly having any influence on the car's yaw rate.

This clear separation between changes in direction and yaw or roll motion of the car is perceived as a significant increase in comfort above all on the rear seats.

### **Supreme precision: BMW Night Vision with detection of individual persons.**

BMW is the world's first car maker to offer Night Vision with detection of individual persons and an appropriate warning in the new BMW 7 Series. The fundamental feature used in this system is a thermal imaging camera providing a moving video picture in which the driver is able to detect people, animals and other objects also outside of the headlight beam in a high-resolution presentation on the central Control Display.

Now BMW Night Vision comes for the first time with detection of individual persons giving the driver an additional warning whenever the person(s) detected is/are at risk.

**Precisely on course: Lane Change Warning.**

Lane Change Warning available for the first time in a BMW enables the driver to overtake other vehicles in superior style and with a significantly reduced risk. Radar sensors at the rear end of the car monitor traffic conditions on the adjacent lanes, covering an area extending from the so-called blind angle on the next lane all the way to a distance of 60 metres or almost 200 feet behind the car.

A triangular symbol illuminated permanently on the base of the exterior mirror shows the driver that there is another vehicle in the critical range. Then, once the driver sets the direction indicator in order to change his lane in the process of overtaking, this LED signal will start to flash on and off, providing a clear warning in the process. The driver is also warned by discreet but unmistakable vibration on the steering wheel following the same signal as the Lane Departure Warning.

**World debut in the new BMW 7 Series: recognition of traffic signs.**

In combination with a navigation system and Lane Departure Warning, the new BMW 7 Series offers yet another exclusive function: the Speed Limit Info enables the driver to constantly monitor the speed limit on all routes he is currently taking. For this purpose a camera fitted near the interior mirror permanently registers traffic signs by the road as well as variable signs on bridges above the road (eg on motorways).

The data determined in this way from traffic signs is compared with the data saved in the car's navigation system and the speed limit at the driver's current location is shown in the instrument cluster or, as an option, in the Head-Up Display.

**Maximum agility, efficiency and solidity ensured by intelligent lightweight technology.**

The bodyshell of the BMW 7 Series offers an unusually good balance of low weight and superior strength and solidity. This is made possible by intelligent lightweight technology, appropriate use of high- and ultra-high-strength steel giving the body an extremely stable structure and, together with the use of aluminium on numerous further components, providing a significant improvement of passive safety on lower overall weight.

As a result, overall weight of the new BMW 7 Series is down from that of the previous model by 35 kg (77 lb) and even 55 kg (121 lb), taking the range of equipment into account. At the same time the bodyshell of the new BMW 7 Series offers about 20 per cent greater torsional stiffness than the bodyshell of the former model, thus providing the foundation for the car's excellent driving dynamics.

### **Exemplary protection of the occupants on all seats.**

High-load-resistant carrier structures, extra-large and exactly defined crumple zones as well as highly efficient restraint systems coordinated by high-performance electronic control set the foundation for the high level of passive safety in the new BMW 7 Series. Within the interior, in turn, frontal and hip/thorax airbags as well as side curtain head airbags all come as standard.

BMW's new Luxury Saloon features three-point inertia-reel seat belts on all seats. The restraint systems furthermore come with a belt force limiter and, on the front seats, an additional belt tightener.

To protect the occupants from cervical spine injury in the event of a collision from behind, the front seats come as standard with crash-activated headrests. And last but certainly not least, ISOFIX child seat fastenings are featured as standard on the rear seats.

### **Hard disc memory for audio data and the navigation system.**

To make use of the audio and navigation system particularly convenient and comfortable at all times, the new BMW 7 Series comes as standard with a hard disc memory. Offering capacity of 80 GB, this high-performance memory ensures exceptionally rapid access to the digitally prepared map material used for navigation purposes. In addition, no less than 12 GB is available for a comprehensive list of music files, also enabling the user to transmit music files from a CD, an MP3 player or a USB stick straight to the hard disc.

### **Fully integrated use of the Apple iPhone and other Smartphones.**

The mobile phone preparation kit complete with a Bluetooth interface available on the new BMW 7 Series allows safe and comfortable use of a wide range of the latest mobile phones while driving. In addition, Smartphones with an MP3 function may also be fully integrated into the car using a specially developed snap-in adapter together with a USB port again available as an option.

Using this option, the driver and passengers are able to use both the communication and the entertainment functions of their mobile phone, masterminding the entire process of operation through the iDrive control system. The new interface is suited for fully integration of Apple iPhone, Sony Ericsson K850i and Nokia 6500c mobile phones.

### **BMW ConnectedDrive with Enhanced Emergency Call function and new remote control functions.**

The BMW Assist Telematics Service integrated in BMW ConnectedDrive is likewise available in the new BMW 7 Series, offering a whole range of different functions.

Apart from the user's personal enquiry service and provision of the latest traffic information, BMW Assist now also incorporates an Enhanced Emergency Call function with automatic tracking of the car to its current location.

In the event of a collision exceeding a certain level of severity, the system automatically communicates the car's current location, the car's data, as well as information from the sensors on the type of collision and the risk of injury to the car's occupants, all this information going to a BMW Call Center. From there the data is then transferred immediately to the nearest rescue service.

BMW ConnectedDrive will also offer the customer direct assistance through the BMW Call Center in situations which previously required the help of a breakdown service. Should, for example, the driver leave the key to his car in the locked luggage compartment or if his children have locked the car from inside, all he has to do in future is contact the BMW Call Center. Then, following a clear process of identification, the BMW Call Center is able to unlock the car from a distance. And in the opposite case the BMW Call Center may also lock the car by remote control if necessary.

### **Exquisite highlights from BMW Individual.**

Choosing from the wide range of options offered by BMW Individual, the discerning driver of a BMW 7 Series is able to express his sense of select quality and exclusive style even more convincingly. Among other highlights, the range includes new BMW Individual leather in Merino fine grain standing out not only through the unique quality of the material and exclusive colours, but also through distinctive seam patterns on the seats, the dashboard and the door linings.

Matching the various leather colours, BMW Individual offers an even wider range of colours on the Alcantara roof lining, with fine trim bars in Satin Nut Brown, Reddish Brown plane tree and Black Piano paint ensuring particular class and style.

A new highlight in the wide range of BMW Individual exterior colours is Citrin Black in Xirallic technology.

Yet a further feature offered by BMW Individual is the newly developed, fully integrated cooling box able to accommodate two 0.7-litre bottles and two 0.33-litre cans. New 20-inch BMW Individual light-alloy wheels in V-spoke design round off the car's exclusive appearance on a truly personalised BMW 7 Series.

In a nutshell, therefore, the wide range of features offered by BMW Individual combines the safety and maturity of the regular production car with the unparalleled appeal, style and class of a genuine one-off masterpiece.

## **3.4 Greater Diversity, More Efficiency. Extra Comfort: BMW Model Innovations in Spring 2009.**

In spring 2009 BMW's model portfolio is being enlarged by a number of particularly fuel-efficient cars with minimum emissions. The number of models already fulfilling the EU5 emission standard applicable as of September 2009 is therefore increasing to no less than 49. At the same time the BMW 330d with optional BMW BluePerformance Technology already meets the EU6 emission standard not scheduled to come into force until 2014.

The range of models with a particularly low level of emissions therefore extends from the BMW 1 Series all the way to the BMW 7 Series and also comprises the segment of BMW X models.

The new BMW 116d offers a particularly efficient entry into the BMW 1 Series. Powered by a 2.0-litre four-cylinder diesel delivering maximum output of 85 kW/115 hp, the BMW 116d consumes an average of just 4.4 litres/100 kilometres in the EU test cycle (equal to 64.2 mpg imp) and comes with a CO<sub>2</sub> rating of 118 grams, making this currently the most fuel-efficient and lowest-emission model within the BMW range.

Maximum torque of 260 Newton-metres/192 lb-ft and acceleration to 100 km/h in 10.2 seconds in the three-door model give the new BMW 116d the sporting performance so typical of the brand combined with equally outstanding all-round economy.

A further highlight in this context is the BMW 3 Series Convertible now also available with BMW's new straight-six diesel likewise certified to the EU5 standard.

### **BMW EfficientDynamics – featured as standard in every new BMW.**

The steadily increasing number of particularly economical low-emission models is the result of the BMW EfficientDynamics development strategy being consistently continued and upgraded. The objective is to continue decreasing the fuel consumption and emissions of each new model while enhancing driving pleasure at the same time.

Thanks to the use of EfficientDynamics as a standard feature throughout the model range, BMW now sells more cars with fuel consumption and CO<sub>2</sub>-reducing technologies each month than other car makers in the course of a whole year.

Introducing the new BMW Z4 in May 2009, these efficiency-promoting technologies are also entering the roadster segment. And with the BMW 116d entering the market in March 2009, the number of BMWs with a CO<sub>2</sub> rating of no more than 140 grams per kilometre is increasing to 20.

All variants of the new BMW Z4 entering the market in May 2009 are among the 49 BMW models already fulfilling the EU5 emission standard in regular trim as of spring 2009. The BMW 330d with optional BMW BluePerformance technology goes even further, fulfilling the EU6 standard years ahead of time. On the BMW 330d with optional BMW BluePerformance technology the diesel particulates filter and the oxidation catalyst likewise featured as standard are supplemented by a NOX storage catalyst, the new, 180 kW/245 hp six-cylinder diesel with its cutting-edge exhaust gas treatment thus fulfilling the strictest standards currently planned for the future in the reduction of nitric oxides.

**Greater efficiency, more driving pleasure: new entry-level diesel in the BMW 116d, higher torque on the BMW 116i, BMW 123d, BMW 120i, BMW 118i, and BMW 116i now also fulfilling the EU5 standard.**

Further expansion of the engine range in the BMW 1 Series now makes Sheer Driving Pleasure in the compact class even more attractive. The BMW 116d available with both five and three doors, for example, sets new standards for efficiency in this segment as of spring 2009. The engine featured in this new entry-level diesel is a further version of the 2.0-litre four-cylinder already to be admired, for example, in the BMW 118d lauded as the “World Green Car of the Year 2008”.

Now the BMW 116d improves the fuel economy and emission management of the BMW 118d to an even higher level. And like all models in the BMW 1 Series, this new entry-level diesel comes with the latest BMW EfficientDynamics technology such as Brake Energy Regeneration, Auto Start Stop, and a Gearshift Point Indicator.

The special version of BMW’s all-aluminium turbodiesel with common-rail fuel injection developed for the BMW 116d delivers maximum output of 85 kW/115 hp at a speed of 4,000 rpm and reaches maximum torque of 260 Newton-metres/192 lb-ft all the way from 1,750–2,500 rpm.

With this substantial power from low speeds, the engine guarantees not only exemplary all-round economy, but also the agility typical of the BMW 1 Series. Hence, the new BMW 116d accelerates from a standstill to 100 km/h in 10.3 (five-door) and, respectively, 10.2 (three-door) seconds, both body versions reaching a top speed of 200 km/h or 124 mph.

Offering average fuel consumption in the EU test cycle of 4.4 litres/100 kilometres – equal to 64.2 mpg imp – and a CO<sub>2</sub> rating of 118 grams per kilometre, the new BMW 116d is the new leader within the BMW range in terms of both fuel economy and emission control.

The entry-level petrol model, the BMW 116i likewise available with both five and three doors, is also entering the market in spring 2009 with a further improved balance of sporting performance and outstanding fuel economy. Delivering 90 kW/122 hp, the four-cylinder power unit with direct gasoline injection (High Precision Injection) in the BMW 116i now displaces 2.0 litres and offers an increase in torque by 25 to 185 Newton-metres/136 lb-ft.

Clearly, this improvement means significantly better performance on the road, the five-door BMW 116i now accelerating to 100 km/h in just 9.9 seconds (three-door: 9.8 seconds) and reaching a top speed of 204 km/h or 126 mph. Fuel consumption in the EU test cycle nevertheless remains at the low level of 6.2 litres/100 kilometres or 45.6 mpg imp, with CO<sub>2</sub> emissions of 143 grams per kilometre. As a result, the BMW 116i now also complies with the EU5 emission standard.

Three further variants of the BMW 1 Series likewise comply with the EU5 standard as of spring 2009 – the BMW 123d, the BMW 120i, and the BMW 118i. Particularly the 150 kW/204 hp four-cylinder diesel with Variable Twin Turbo Technology available in the five-door, the three-door, the Coupé and Convertible BMW 1 Series shows its outstanding position in every respect versus the competition. Together with the most powerful diesel and three four-cylinder petrol engines, no less than 19 models within the BMW 1 Series now comply with EU5.

**Driving pleasure with more power and lower emissions:  
new straight-six diesel in the BMW 330d Convertible.**

For a long time the BMW 3 Series has already offered the many benefits of a modern diesel enhanced to a supreme standard. And combining superior power and efficiency with equally superior motoring refinement, these modern diesel engines also enjoy growing popularity in the BMW 3 Series Convertible.

Five years after the market launch of the first open-air BMW with diesel power, the new generation of the straight-six diesel is therefore entering the BMW Convertible range, the new BMW 330d Convertible boasting BMW's 3.0-litre diesel delivering maximum output of 180 kW/245 hp at 4,000 rpm and peak torque of 520 Nm/383 lb-ft available all the way from 1,750 to 3,000 rpm in the interest of particularly enjoyable, up-to-date driving pleasure.

This new diesel model offers even greater power and traction, running smoothness further optimised for even greater perfection, and unparalleled fuel economy and emission management. Acceleration to 100 km/h comes in just 6.4 seconds and the top speed of the BMW 330d Convertible is limited electronically to 250 km/h or 155 mph. Average fuel consumption in the EU test cycle, in turn, is 6.1 litres/100 kilometres (equal to 46.3 mpg imp) and the CO<sub>2</sub> rating is 162 grams per kilometre. Together with 15 diesel and petrol engines within the BMW 3 Series, the new BMW 330d Convertible therefore complies in full with the EU5 emission standard.

**BMW 5 Series and BMW 6 Series: broader choice of light-alloy wheels and paintwork options, BMW 5 Series Edition Models now with navigation system.**

The BMW 5 Series and the BMW 6 Series are now available with an even wider range of options for further customisation: Starting in spring 2009, BMW's optional M light-alloy wheels in 172 M double-spoke design are also available for the BMW 5 Series Touring. The through-loading system available as an option on the BMW 5 Series Saloon, in turn, now also comes with a ski-bag.

The BMW 5 Series Lifestyle, Exclusive and Sport Editions are also being upgraded to an even higher level, fitted from now on with BMW's Business navigation system including a Bluetooth mobile phone preparation kit.

BMW is also setting new highlights with new paintwork options on the BMW 6 Series, both the BMW 6 Series Coupé and the BMW 6 Series Convertible available as of spring 2009 in Ontario Gold Metallic.

**Debut of the BMW 730Ld: supreme grand touring comfort, outstanding efficiency.**

Just a few months after its world debut, the new BMW 7 Series is again setting the benchmark in spring 2009: The world's most efficient luxury performance saloon, the BMW 730d, is now also available in a long-wheelbase version, extension of the car's wheelbase by 14 centimetres/5.5" benefiting the rear-seat passengers in full through extra legroom.

The new BMW 730Ld offers a unique combination of supreme grand touring comfort and outstanding economy combined with remarkable performance and driving dynamics. Displacing 3.0 litres, the straight-six diesel engine with its aluminium crankcase, turbocharging and common-rail direct fuel injection through piezo-injectors develops maximum output of 180 kW/245 hp at 4,000 rpm. Peak torque of 540 Newton-metres/398 lb-ft, in turn, comes at a low 1,750 rpm.

This superior straight-six diesel combines its exceptional torque for acceleration to 100 km/h in 7.3 seconds with supreme refinement and running smoothness.

A further asset is the car's unique efficiency, the BMW 730Ld making do with an average of 7.3 litres/100 kilometres (equal to 38.7 mpg imp) in the EU test cycle and restricting CO<sub>2</sub> emissions to 194 grams per kilometre. So BMW is once again setting the standard in the luxury performance segment also when it comes to all-round economy.

The range of optional extras for the BMW 7 Series is likewise being enlarged parallel to the market launch of the new BMW 730 Ld: Apart from further paintwork and upholstery options, all variants of BMW's luxury performance saloon are available as of spring 2009 with a wide range of BMW Individual features. Indeed, the range of these particularly exclusive features extends from full Merino leather through BMW Individual roof lining in alcantara, particularly stylish and sophisticated interior trim, BMW Individual door cutout trim bars and a BMW Individual cooling box at the rear to BMW Individual light-alloy wheels measuring both 19 and 20 inches.

### **BMW X models: broader range of equipment, optimised emission management.**

Even ten years after the market launch of the BMW X5 establishing the Sports Activity Vehicle (SAV) segment, BMW's X models remain unique in the market. Thanks to their superior drivetrain and suspension technology they offer an unparalleled driving experience characterised by dynamic performance typical of the brand and supreme traction.

At the same time the BMW X6, BMW X5 and BMW X3 combine their fascinating driving qualities with a degree of efficiency no other manufacturer is able to offer with a comparable vehicle. Perhaps the best example in this context is the BMW X3 xDrive20d with its four-cylinder diesel developing 130 kW/177 hp, offering the highest standard of economy in its segment in relation to the car's performance. The cutting-edge diesel drivetrain ensures

all the agility typical of a BMW, combined with average fuel consumption in the EU test cycle of just 6.5 litres/100 kilometres (equal to 43.5 mpg imp) and a CO<sub>2</sub> emission rating of 172 grams per kilometre.

**As of spring 2009, finally, the BMW X3 xDrive20d also fulfils the EU5 emission standard.**

Introduction of the Limited Sport Edition of the BMW X3 in spring 2009 offers further options in customising this unique vehicle. Just some of the features boasted by the Edition model are an M Sports Package, 19-inch M light-alloy rims, Carbon Black Metallic paintwork, a combination of alcantara and leather in Black nappa, as well as exterior features in Matt Silver.

Combining the Limited Sport Edition with the Comfort Package or opting for the Comfort Package Plus, the customer will enjoy further price benefits on the BMW X3.

As in the past, the BMW X5 continues to set the standard for all-round economy in its segment, particularly when considering the car's driving dynamics and space available: Offering space for up to seven occupants, BMW's SAV ensures outstanding convenience, the BMW X5 xDrive30d being powered by a 173 kW/235 hp straight-six diesel developing maximum torque of 520 Newton-metres/383 lb-ft at just 2,000 rpm.

With this kind of power, the BMW X5 xDrive30d accelerates to 100 km/h in 8.1 seconds while consuming an average of just 8.2 litres/100 kilometres (equal to 34.4 mpg imp) in the EU test cycle. The CO<sub>2</sub> emission rating, finally, is 217 grams per kilometre.

The range of particularly low-emission BMW X models is rounded off by the two petrol engine variants of the world's first Sports Activity Coupé. As of spring 2009, both the BMW X6 xDrive50i and the BMW X6 xDrive35i comply with the EU5 emission standard. And from now on all variants of the BMW X6 come as standard with automatic operation of their tailgate.

## Overview of BMW models fulfilling the EU5 and EU6 emission standards as of spring 2009:

Model	Output (kW/hp)	Fuel consumption in the EU test cycle (ltr/100km)	CO <sub>2</sub> emissions in the EU test cycle (g/km)	Emission standard
<b>BMW 7 Series Diesel</b>				
BMW 730d	180/245	7.2	192	EU5
BMW 730Ld	180/245	7.3	194	EU5
<b>BMW 7 Series Petrol</b>				
BMW 750i	300/407	11.4	266	EU5
BMW 750Li	300/407	11.4	266	EU5
BMW 740i	240/326	9.9	232	EU5
BMW 740Li	240/326	10.0	235	EU5
<b>BMW 5 Series Diesel</b>				
BMW 520d	130/177	5.1	136	EU5
BMW 520d Touring	130/177	5.3	140	EU5
<b>BMW 3 Series Diesel</b>				
BMW 330d	180/245	5.7	152	EU5
BMW 330d Touring	180/245	5.9	155	EU5
BMW 330d Coupé	180/245	5.7	152	EU5
BMW 330d Conv	180/245	6.1	162	EU5
BMW 330d with BluePerformance	180/245	5.7	152	EU6
BMW 320d	130/177	4.8	128	EU5
BMW 320d Touring	130/177	4.9	130	EU5
BMW 320d Coupé	130/177	4.8	128	EU5
BMW 320d Conv	130/177	5.3	140	EU5
BMW 318d	105/143	4.7	123	EU5
BMW 318d Touring	105/143	4.8	125	EU5
<b>BMW 3 Series Petrol</b>				
BMW 320i	125/170	6.5	150	EU5
BMW 320i Touring	125/170	6.5	150	EU5
BMW 320i Coupé	125/170	6.7	154	EU5
BMW 320i Conv	125/170	6.9	159	EU5
BMW 318i	105/143	6.4	149	EU5
BMW 318i Touring	105/143	6.4	149	EU5
<b>BMW 1 Series Diesel</b>				
BMW 123d (5-door)	150/204	5.2	138	EU5
BMW 123d (3-door)	150/204	5.2	138	EU5
BMW 123d Coupé	150/204	5.2	138	EU5
BMW 123d Conv	150/204	5.4	144	EU5
BMW 120d (5-door)	130/177	4.8	128	EU5
BMW 120d (3-door)	130/177	4.8	128	EU5
BMW 120d Coupé	130/177	4.8	128	EU5
BMW 120d Conv	130/177	5.1	134	EU5
BMW 118d (5-door)	105/143	4.5	119	EU5
BMW 118d (3-door)	105/143	4.5	119	EU5
BMW 118d Conv	105/143	4.9	129	EU5

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**BMW 1 Series Petrol**

BMW 120i (5-door)	125/170	6.7	155	EU5
BMW 120i (3-door)	125/170	6.7	155	EU5
BMW 120i Conv	125/170	6.9	159	EU5
BMW 118i (5-door)	105/143	6.2	143	EU5
BMW 118i (3-door)	105/143	6.2	143	EU5
BMW 118i Conv	105/143	6.6	153	EU5
BMW 116i (5-door)	90/122	6.2	143	EU5
BMW 116i (3-door)	90/122	6.2	143	EU5

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**BMW Z4**

BMW Z4 sDrive35i	225/306	9.4	219	EU5
BMW Z4 sDrive30i	190/258	8.5	199	EU5
BMW Z4 sDrive23i	150/204	8.5	199	EU5

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**BMW X Models Petrol**

BMW X6 xDrive50i	300/407	12.8	299	EU5
BMW X6 xDrive35i	225/306	11.1	262	EU5

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**BMW X Models Diesel**

BMW X3 xDrive20d	130/177	6.5	172	EU5
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## 3.5 Trendsetters and Spearheads in Innovation: Ten Years of BMW X Models.

A new category of vehicles, a new driving experience and a new concept of sporting performance – all that is clearly expressed by the letter “X”.

Ten years ago BMW proudly launched the BMW X5, establishing the Sports Activity Vehicle (SAV) segment in the process. Right from the start, the BMW X5 offered an innovative vehicle concept far beyond conventional categories and combining various qualities in unique style.

Today BMW offers no less than three X models, each with its own unique character and an equally unique potential as a spearhead in technology and a driving force in the large market of all-wheel-drive vehicles. Going beyond every other manufacturer in truly impressive and convincing style, BMW therefore proves both through the BMW X6, the BMW X5, and the BMW X3 production models as well as with various concept vehicles developed on this basis what potentials this segment is able to offer in terms of dynamic performance, safety and efficiency.

In the meantime other manufacturers have also adopted the SAV concept for their own models. But in terms of both market success and diversity, the BMW X models still come right at the top.

Sales of BMW X models to date amount to more than 1.3 million units, these unique models therefore making a significant contribution to BMW's unchallenged status as the world's most successful manufacturer of all-wheel-drive premium vehicles.

The BMW X 3 introduced in 2004 alone accounts for more than 500,000 units sold, remaining unchallenged by the competition in the premium segment for a number of years. The BMW X5, in turn, entered the US market in its second generation in autumn 2006 and the European and other markets the world over in early 2007, consistently expanding the already outstanding success of the former model.

The BMW X6 presented to the public for the first time in early 2008 and built, like the BMW X5, in BMW's US plant in Spartanburg, is the world's first Sports Activity Coupé.

Entering the market without any directly comparable competitors, the BMW X6 from the start received a truly outstanding response in all relevant automobile markets the world over. And last but not least, the BMW Concept X1 presented just a few months ago offers yet another interpretation of this vehicle concept so successful the world over. Once again, therefore, BMW offers a pioneering achievement, this particular model for the first time carrying over the strengths and benefits of a BMW X model into the compact segment.

### **The BMW X5:**

#### **incomparable handling, unmistakable design, unparalleled safety.**

Right from the start the very first BMW X5 convincingly offered the innovative concept of a Sports Activity Vehicle. Indeed, BMW's first vehicle able to handle offroad challenges was superior to all comparable competitors' models particularly through its dynamic driving qualities.

Following this objective so typical of the BMW brand, BMW created an unrivalled vehicle in a dynamically developing segment of the market – in the process setting an ideal foundation for the ongoing success and diverse perspectives of the BMW X models.

Particularly spacious and benefiting from permanent all-wheel-drive, the BMW X5 for the first time combined the dynamic driving qualities of a BMW Sedan with superior mobility also off the beaten track. At the same time the BMW X5 was fascinating right from the start through its design boldly expanding the conventional spectrum of design language. Through its proportions alone, BMW's SAV clearly stood out from all other BMW vehicles, the exterior offering a convincing rendition of both power and mobility. Yet another significant feature was the elevated seating position immediately giving the driver the supremacy offered right from the start by the suspension technology of the BMW X5.

Through its suspension the BMW X5 indeed set brand-new standards in the offroad market, particularly through its excellent driving qualities on the road. Contrary to conventional offroaders, the BMW X5 came from the start with a monocoque safety body and independent suspension. Further features were DSC Dynamic Stability Control including the ADB-X Automatic Differential Brake and HDC Hill Descent Control.

The second generation of the BMW X5 launched in autumn 2006 seeks to outperform the success of its predecessor, moving up to an even higher standard. With its enhanced space and comfort, its luxurious ambience, drive technology raised to an even higher standard as well as innovative suspension

and driver assistance systems, the new BMW X5 again sets the standard against a broad range of competitors seeking to reach the supreme level of BMW's X models. Outstanding design and safety awards, finally, clearly bear testimony to the even greater appeal of BMW's large SAV.

**The new BMW X5 Security: maximum security in every situation.**

Since autumn 2008, BMW has also offered special customers a security vehicle based on the second generation of the BMW X5: The new BMW X5 Security is the only security vehicle in its segment to provide appropriate security and protection for up to five persons and their luggage. The car's safety equipment comprising, inter alia, an armoured passenger cell complete with the luggage compartment and security glazing, was developed specifically for this model and tested in every respect in the process of product development.

All of the vehicle's components are perfectly tailored to this very special SAV. As an example, the armoured passenger cell of the new BMW X5 Security comes with complete protection and coverage of joints and seams around the entire interior.

Full integration of the security components was taken into account from the start in the development of the BMW X5. The BMW X5 Security is built alongside the regular production model at BMW's Spartanburg Plant in South Carolina/USA, with the security equipment fitted according to BMW's processes and requirements at the Toluca Plant in Mexico.

Another advantage of the security concept available straight from the factory is that integration of all the security components does not affect the vehicle's design. Hence, even a trained eye can hardly distinguish a BMW Security Vehicle from its regular production counterpart.

The new BMW X5 Security is powered by a 4.8-litre, 261 kW/355 hp V8. The suspension is perfectly tailored to the higher weight of the vehicle through the use of special springs and dampers, and the software on the suspension management is geared to the specific requirements of the Security Vehicle.

Last but certainly not least, the BMW X5 Security comes with runflat tyres, thus offering a unique combination of the most advanced security technology with a superior drivetrain and the versatility of a sporting all-rounder.

**The BMW X3: sporting, agile, and featuring BMW's intelligent xDrive all-wheel-drive technology for the first time.**

As the world's first Sports Activity Vehicle, the BMW X5 paved the way for a unique strategy of success giving BMW a significant edge over the competition by means of vehicle concepts standing out consistently from conventional solutions in the market. Back then and today, BMW X models have always ranked above conventional offroaders through their innovative, sophisticated design, excellent dynamic driving qualities, supreme safety, premium comfort, and a standard of efficiency quite unique in this category.

Applying precisely this concept, BMW has been offering a premium SAV in the market since 2004 also in the class beneath the BMW X5: The BMW X3 combines the characteristic proportions of a Sports Activity Vehicle with both classical and new BMW design elements. Yet a further point is that BMW's intelligent xDrive all-wheel-drive technology now featured in all BMW X models made its debut together with the introduction of the BMW X3, providing not only optimum traction under difficult conditions, but also ensuring greater driving stability and enhanced driving dynamics through its electronically controlled, variable power distribution front-to-rear.

The "heart" of BMW xDrive is the electronically controlled multiple-plate clutch, a further point being that all-wheel-drive is networked with DSC Dynamic Stability Control. As a result, variable power distribution serves whenever necessary to keep the vehicle stable also when the DSC sensors register even the slightest tendency to over- or understeer.

**The BMW X6: powerful presence and sporting elegance.**

The BMW X6 entered the market in spring 2008 as the third member of the BMW X family. Introducing this very special model, Germany's premium car maker again set the foundation for an entirely new category of vehicles, the world's first Sports Activity Coupé offering the dynamic driving potential of BMW's X models more consistently and convincingly than ever before. Quite simply, the BMW X6 combines the sporting elegance of a large BMW Coupé with the powerful presence of BMW's X models. With its low-slung side windows and the roofline gently tapering out to the rear, this unique four-door boasts all the unmistakable proportions of a genuine coupe.

Again in typical coupe style, the BMW X6 offers lots of space inside for four occupants. Through its higher ground clearance, strikingly contoured wheel arches, four doors, the large tailgate and the high waistline, the BMW X6 bears a clear resemblance in its style and character to the other BMW X models.

This particular design is indeed the authentic expression of the dynamic driving potential offered by the BMW X6 through its drivetrain and suspension technology not only on the road, but also off the beaten track.

The sporting and most dynamic of all X models comes as standard with BMW's newly developed Dynamic Performance Control. In addition to intelligent xDrive all-wheel-drive technology providing variable distribution of drive power between the front and rear axles, Dynamic Performance Control now also allows variable distribution of drive forces between the two rear wheels left and right.

**BMW Concept X1: yet another innovation entering a new segment.**

Presented for the first time in autumn 2008, the BMW Concept X1 once again proves the potential of a BMW X model with all its qualities. Indeed, the BMW Concept X1 offers the fascination of agile and versatile mobility quite superior also beyond the beaten track in a new category of vehicles. So presenting this concept car, BMW provides an outlook at the world's first Sports Activity Vehicle in the premium compact segment.

In its design, this new concept model clearly expresses all the strengths of such a unique vehicle. Measuring 4,457 millimetres or 175.5" in length, the BMW Concept X1 is 108 millimetres or 4.25" shorter than the BMW X3. Wheelbase of the BMW Concept X1, in turn, is 2,760 millimetres or 108.7".

Through its proportions as well as four large doors and the large tailgate, the concept car promises a generous feeling of space. At the same time the clear design of the BMW Concept X1 confirms a high standard of functionality meeting all the demands and requirements of everyday motoring.

**The BMW X models: outstanding fuel economy and emission management thanks to BMW EfficientDynamics.**

Unparalleled innovations give the BMW X models features truly unique even beyond their direct segment. This applies not only to the vehicles' driving dynamics and occupant safety, but also to the high degree of efficiency.

All this is made possible by the consistent implementation of BMW EfficientDynamics also in this particular segment of the market. The BMW X models come not only with the most advanced, fuel-efficient engine technology, but also – in each case individually tailored to the respective model – with various BMW EfficientDynamics technologies such as Brake Energy Regeneration, on-demand management of ancillary drive units, active aerodynamics, intelligent lightweight construction, and tyres with reduced roll resistance.

This ensures that the BMW X models, like all other BMWs, offer the best possible balance of performance and fuel consumption in their respective segment. Hence, BMW's two Sports Activity Vehicles and BMW's new Sports Activity Coupé are by far the most efficient vehicles in their respective performance class.

As an example, no other manufacturer offers a vehicle anything like the 130 kW/177 hp BMW X3 xDrive20d, with its average fuel consumption in the EU test cycle of 6.5 litres/100 kilometres or 43.5 mpg imp and a CO<sub>2</sub> rating of 172 grams per kilometre.

Wherever performance, driving pleasure and space available as well as all-round comfort are measured as a function of fuel consumption and emissions, the BMW X5 also ranks unique in the market: The first BMW able to accommodate up to seven occupants is also available with exceptionally fuel-efficient, low-emission diesel engines. As an example, the 173 kW/235 hp BMW X5 xDrive30d consumes just 8.2 litres/100 kilometres in the EU test cycle, equal to 34.4 mpg imp. The vehicle's CO<sub>2</sub> rating, in turn, is 214 grams/kilometre.

All-round efficiency is particularly impressive when considering the number of seats available in the vehicle: Even in the small car segment, per capita consumption of less than 1.2 litres/100 kilometres and CO<sub>2</sub> emissions of just 31 grams per kilometre are truly outstanding figures paralleled only rarely.

Yet another example of the supreme fuel economy and emission management quite unique in the segment of BMW's X models is the BMW X5 xDrive35d available in the North American market and powered by a BMW Advanced-Diesel with BMW BluePerformance technology. The 3.0-litre, 265 hp straight-six power unit with Variable Twin Turbo technology featured in this outstanding SAV is equipped with an SCR (Selective Catalytic Reduction) system including the injection of urea to reduce the emission of nitric oxides (NO<sub>x</sub>). This ensures full maintenance of the particularly strict emission standards in California and other states of the USA and, as a result, allows nationwide introduction of the BMW X5 xDrive35d as a 50-state model.

Presenting a number of concept cars based on a Sports Activity Vehicle, BMW has clearly proven that the BMW X models are fit for the future. Particularly because these concept vehicles serve not only to visualise innovative design solutions, but also as spearheads in technology for alternative drive concepts.

### **Pointing into the future: the BMW Concept X3 EfficientDynamics.**

Implementing the EfficientDynamics development strategy, BMW has been making significant progress for a number of years also in the offroad vehicle segment. Hence, innovative drive concepts have been presented time and again also in BMW's SAV models. In 2005, for example, the BMW Concept X3 EfficientDynamics highlighted intelligent technology solutions for all-wheel-drive vehicles based on a wide range of drivetrain, transmission and energy storage components. As an example, this unique concept car came with an additional electric motor plus power electronics in the active transmission integrated as a neutral package.

An essential feature of the BMW Concept X3 EfficientDynamics was the optimised use of compact high-performance capacitors – so called Super Caps – as energy storage elements in the side-sills. And to illustrate this innovative energy concept, transparent panels at the side offered a clear view of the electrical energy reservoirs in their typical copper color.

### **BMW Concept X6 ActiveHybrid: BMW's first hybrid.**

In 2007 BMW presented further potentials for the integration of future-oriented drivetrain technology in an all-wheel-drive vehicle in the guise of the BMW Concept X6 ActiveHybrid. In this unique vehicle the power of an eight-cylinder gasoline engine and electric power are combined with one another by an innovative two-mode transmission.

The BMW X6 with ActiveHybrid technology will reach production standard in the course of 2009. The result of this combination is the first BMW in the hybrid market to feature drive technology ideally reflecting the character of the BMW X6.

BMW ActiveHybrid technology offers far greater driving dynamics than in a conventional hybrid vehicle and at the same time reduces fuel consumption by up to 20 per cent versus a comparable vehicle driven exclusively by a combustion engine. The particular strength of the BMW Concept X6 ActiveHybrid is that the combustion engine and two high-performance electric motors are combined with one another for the first time in such a way that hybrid technology is able to provide its greater efficiency throughout a far larger speed range than a conventional hybrid vehicle would ever be able to do.

### **Best of Hybrid – optimum drive technology on every BMW.**

BMW ActiveHybrid is based on a modular principle following the Best of Hybrid strategy in each case integrating the optimum components in various vehicle concepts.

At the 2008 Geneva Motor Show BMW presented a further achievement in BMW ActiveHybrid Technology, the BMW Vision EfficientDynamics for the first time combining a four-cylinder diesel engine with mild-hybrid technology.

Once again, an SAV provided the basis for this particularly innovative drive concept. In this case the intelligent combination of a combustion engine and an electric motor in the BMW X5, together with further efficiency-enhancing improvements, provided the foundation for power and performance typical of BMW on average fuel consumption of just 6.5 litres/100 kilometres or 43.5 mpg imp.

## **3.6 Perfect Networking for Greater Comfort, Infotainment and Safety: New Services from BMW ConnectedDrive.**

Three-quarters of a century lie between the presentation of the first car radio at the 1932 Berlin Broadcasting Exhibition and the services now available from BMW ConnectedDrive.

Progress has been very rapid in networking the car with its surroundings and traffic conditions above all in the second half of this period – progress attributable largely to the innovative power of BMW's engineers. The world's first on-board computer complete with an outside thermometer presented in the BMW 7 Series in 1980 and the firmly installed navigation system introduced by BMW as the first European car maker in 1994, again in the brand's flagship, are only two milestones in this process.

Today BMW ConnectedDrive offers a unique range of mobility services in the areas of traffic information, emergency call functions, vehicle, enquiry and office services, travel and leisure time planning, and the internet unparalleled the world over. All of these functions focus consistently on three objectives: to enhance individual comfort, to optimise the safety of all the car's occupants, and to meet the most advanced standards and demands in automotive infotainment.

To meet all these requirements, the exchange of information between the driver, the car and the environment is coordinated by BMW ConnectedDrive in a particularly intelligent, target-oriented manner. Whether it is the latest traffic information, e-mails, emergency calls, websites or telephone enquiry services – the comfort, infotainment and safety systems on board a BMW give the driver as much information and services as he needs and requires at all times.

To ensure this efficiency BMW ConnectedDrive pools all services in an appropriate manner, making Sheer Driving Pleasure even more convenient, safer, and intense. At the same time the driver always remains in charge, choosing the services he requires and acting accordingly as the centrepiece of all activities.

Through BMW ConnectedDrive and its innovative driver assistance systems, the driver gains additional competence, supremacy and safety in all kinds of situations on the road.

Introducing the latest innovations in comfort, infotainment and safety presented at the International Geneva Motor Show in 2009, BMW ConnectedDrive once again offers the widest range of progressively networked services in the automobile, enabling the driver of a BMW to benefit from the latest state of the art in individual mobility.

### **Extra comfort and convenience: innovation through Speed Limit Info.**

Sheer Driving Pleasure in typical BMW style provides not only special moments, but also ongoing convenience in the use of the car. Particularly when travelling long distances, BMW ConnectedDrive with its innovative technical features makes life much easier for the driver, promotes his supremacy in dealing with all kinds of challenges, and at the same time adds extra comfort.

In combination with a navigation system and Lane Departure Warning, the driver is able in the new BMW 7 Series for the first time to use yet another innovative function for genuine safety, superiority and convenience: The Speed Limit Info informs the driver at all times whenever required of the top speed allowed on the route he is currently taking, without requiring him to constantly look out for speed limit signs.

Instead, a camera fitted near the interior mirror permanently monitors the signs at the side of the road as well as variable, changing overhead signs on the Autobahn or motorway. Then the system compares the data obtained with the data saved in the navigation unit, giving priority, say, to a speed limit temporarily changed – for example on account of a construction site or variable signs – and the data observed by the camera. Indeed, the system even considers further restrictions on speed limit signs, where applicable.

The speed limit currently applicable is then presented in the instrument cluster or, as an option, in the Head-Up Display. Relieving the driver of the need to constantly check speed limits, this function enhances motoring comfortable above all on long distances. The driver is always properly informed and the risk of inadvertently exceeding an existing speed limit is reduced significantly.

### **Extra infotainment: the big advantages of the BMW Route Service.**

One of the particular advantages of BMW ConnectedDrive is its ability to provide the driver whenever required with up-to-date, situation-based information offering him and his passengers an even more intense driving experience.

Precisely this is ensured by the services offered in the context of BMW ConnectedDrive in combination with a BMW navigation system. Whether taking a mountain pass, driving along the coast or round a lake – starting immediately, BMW ConnectedDrive is able to put together individual routes by means of a route planner in the internet with up to 50 stopovers on the way.

The driver is then able to retrieve routes saved in this way directly in his car through BMW Online, the navigation system guiding him to his destination according to the specific preferences determined by the driver in advance.

Over and above this convenience, the BMW Route Service offers some 25 specially prepared routes for the connoisseur – including restaurants, sights and hotel options recommended to the driver and his passengers.

Preference is always given to the special appeal of the route taken with all its sights and highlights. Hence, the BMW Route Service largely avoids the Autobahn and very congested roads, giving preference instead to beautiful scenic routes with a good and hard surface and sufficiently wide tarmac. The stopovers on the way highlight scenic, culinary or regional specialities of a premium standard as well as “secret tips” for the discerning motorist.

Using this service provided by BMW ConnectedDrive, the driver is also able to retrieve routes from the regular column “Most Beautiful Routes” published in the BMW Magazine as well as Mediterranean encounter tours referred to as Fine Driving Routes. Useful and interesting information on the routes proposed as well as the stopovers on the way is offered through this new service by means of pictures and copy in the Control Display.

For the first time all BMW drivers have the option to use one of these innovative services simply by importing routes they have planned themselves directly from the Route Planner in the internet on a USB stick subsequently connected to the car through the USB interface, thus feeding the information required into the navigation system.

With its wide range of options, the BMW Route Service is a particularly attractive example of innovative infotainment where the network established between the car and the surrounding world enhances the driving experience to an even higher level.

### **Extra safety: BMW Night Vision with detection of individual persons for significantly greater safety.**

Giving the driver appropriate support may also help to promote active safety on the road, advanced systems enabling the driver to appreciate challenging situations and avoid possible hazards.

Precisely this benefit is offered by BMW as the world's first car maker in the new BMW 7 Series featuring Night Vision with a special function able to even detect individual persons on the road and warn the driver accordingly. Indeed, this new generation of BMW Night Vision sets a completely new standard in avoiding accidents while driving at night.

The central feature within the system is a thermal imaging camera providing a moving video image enabling the driver to recognise people, animals and other heat-radiating objects also outside of the headlight beam through high-resolution presentation in the car's Control Display.

BMW Night Vision is now being supplemented for the first time by the ability to detect individual persons. To provide this function the video data recorded by the system is analysed by a control unit using intelligent algorithms to search for pedestrians and cyclists possibly crossing the route the car is taking. As soon as the system detects such a conceivable risk, the driver is warned by the Control Display and the optional Head-Up Display. This warning is limited to pedestrians within a certain warning corridor determined as a function of speed, the steering angle, and yaw rate.

### **Service without frontiers: the BMW Cross Border Service.**

Language-based services with national travel information and, above all, an emergency call function are available to BMW ConnectedDrive customers in their native language in Germany, Austria, Italy, France, Spain, Great Britain, Belgium, the Netherlands, Luxembourg, Liechtenstein, Andorra, and Switzerland. Internet-based services such as Google directory search, hotel and restaurant information, weather reports, travel guides or the address of the nearest BMW dealer are available to the BMW driver in Germany, Belgium, France, Great Britain, Italy, the Netherlands, Austria, Switzerland, and Spain, with all the usual functions and naturally in the driver's own language.

This Cross Border Service does not cost the customer an extra fee like roaming and is being consistently expanded throughout further countries in Europe.

### **BMW ConnectedDrive in an historical context.**

BMW ConnectedDrive is a truly dynamic innovation process going all the way back to the year 1972, when the BMW Turbo was the first test car to communicate with the surrounding world and offer the driver important additional information, for example through a radar-based distance warner.

Today the customer driving a BMW is able to surf the net and, through appropriate networks, to use an almost infinite choice of information options. Hence, the ongoing development of comfort, safety and infotainment services by BMW ConnectedDrive consistently ensures the highest standard of mobility and information.

As a pioneer in the area of automotive electronics, BMW started way back in the early 1970s to network information, communication and assistance systems within and outside of the automobile. In addition, BMW was the first European car maker to introduce the navigation system back in 1994, thus providing the driver with data from outside the car.

Together with sensor-controlled driver assistance systems such as anti-lock brakes (1979) or Dynamic Stability Control (1999), the new level of communication established in this way serves to this day as the basic technology for BMW ConnectedDrive.

### **Milestones in technological innovation.**

The driver and his car have been interacting with one another for more than 100 years through the classic speedometer or the oil gauge on the dashboard. But BMW very quickly took a further, decisive step in offering the driver additional information by networking the car with the surrounding world.

An overview of the milestones in the history of BMW ConnectedDrive:

1980: Introduction of the world's first on-board computer with an outside thermometer in the BMW 745i. The driver is warned of the risk of black ice as soon as the temperature drops to a critical level.

1992: The first Park Distance Control (PDC) in a European car is introduced in the BMW 7 Series. The system uses ultrasound to monitor the distance between the car and another object and is acknowledged as a trendsetting example of the network connecting the driver and the world around him.

1994: As a further step in networking the driver with the surrounding world, BMW becomes the first car maker in Europe to offer a navigation system firmly installed in the BMW 7 Series.

1997: Quick and appropriate rescue services – that is what counts in a traffic accident. BMW becomes the world's first car maker, first in the USA and then, in 1999, in Europe, to offer an emergency call function with the car automatically sending an alarm in the event of an accident to the BMW Call Center and at the same time transmitting the car's exact GPS position data.

Today the data transmitted to the BMW Call Center includes not only the exact location of the car, but also further information compiled by sensors, for example in the airbag systems. All this information is evaluated within less than one second, informing the rescue services of the type of collision and the risk of injury. The rescue services receiving the alarm from the BMW Call Center therefore have not only the car's data, but also exact information from the start on where the accident happened and, thanks to this sophisticated emergency call function, whether there is a significant risk of severe injuries suffered by the occupants.

1999: Introducing BMW Assist, BMW becomes the first European car maker to offer far-reaching safety and convenience services within an integrated system. Among other features, these new telematics services comprise a breakdown standby service, real-time traffic information (V-Info Plus, as it is called today), as well as mobility-related enquiry services.

Today the telephone enquiry service comprises more than 35 million numbers compiled from the Yellow Pages and telephone directories. Additional information such as restaurant ratings, pharmacies currently open for emergencies, the latest flight information and the opportunity to book a hotel room is also available through the BMW Enquiry Service.

A particularly convenient feature is that the addresses and information obtained may be transmitted directly to the car, enabling the driver to download the data he receives directly into the navigation system at the touch of a button.

2001: The year that marks the birth of BMW ConnectedDrive as an overall concept comprising all former developments and offering a new dimension in networking the car. In 2001 BMW for the first time also integrates internet-based services in the car, consistently enhancing this service and all related technologies ever since.

Today BMW ConnectedDrive is able not only to inform the driver of free parking space, but may also receive and transmit e-mails and check the stock exchange, the news, sports and business reports. Indeed, the driver may even call up the latest weather report together with special forecasts for

driving with the roof down in his convertible and, in winter, snow level reports presented by live images directly in the car. And using the Google Directory Service, finally, the driver is able to check out local companies he might possibly need (like in the Yellow Pages) and save their data in the navigation system.

2008: Through BMW ConnectedDrive, BMW becomes the world's first car maker to allow unrestricted use of the internet in the car. Access to the internet is available in combination with the Professional navigation system as special equipment at a particularly attractive flat rate. As with the internet-based services provided by BMW Online, BMW therefore once again takes on the leading role in providing online services within the car.

## 3.7 Thrilling, Stylish, Unmistakable: The BMW Individual Range in 2009.

Choosing a BMW, the customer is obviously deciding in favour of premium quality and a truly unique driving experience.

BMW Individual offers a particularly exclusive opportunity to enjoy all these qualities, sophisticated materials and colour variants within the interior, fascinating paintwork options and light-alloy rims as well as the most sophisticated entertainment components all offering perfect combinations on the various models within the BMW range.

Harmonious design and quality of finish of the highest standard underline BMW's commitment to give each model unique character of supreme style and the most sophisticated standard. And now, entering the year 2009, BMW Individual also offers numerous options of the highest and most appealing standard for the new BMW 7 Series.

The current range of features from BMW Individual comprises a large number of options enabling the driver to give his or her BMW a very personal touch. In addition, all models in the BMW 3 Series, the BMW 5 Series, the BMW 6 Series and the BMW 7 Series, as well as the BMW X5 and the BMW X6, are available with an appropriate combination of BMW Individual features harmonising the upholstery, steering wheel, interior trim and roof lining to the highest standard.

A special feature exclusive to the BMW X5 is the BMW Individual roof railing in Satin Aluminium. And as a further highlight both the BMW X5 and the BMW X6 may be upgraded by BMW Individual Exterior Line Aluminium providing an even more sophisticated touch.

The range of options provided by BMW Individual is both unique and incomparable. All materials and technologies used on the current options have been developed especially for BMW Individual, ensuring not only supreme exclusivity, but also the highest standard of all-round quality.

### **Appealing, exclusive, brilliant: BMW Individual paintwork.**

Choosing BMW Individual paintwork, the driver of a BMW demonstrates his or her sense of particular style right from the start. For BMW Individual paintwork options offer unique brilliance and highly attractive colour-changing effects

bringing out different shades of colour depending on the perspective and the angle of incoming light. And at the same time particularly fine pigmentation gives the surfaces of the car incomparable depth.

The addition of Xillaric pigments to Ruby Black Metallic, Azurite Black Metallic, Citrin Black Metallic, and Brilliant White Metallic adds a particularly glossy effect and outstanding brilliance to the colour of the car. Another pigment, titanium dioxide, provides a particularly high degree of light refraction in Moonstone Metallic and Aventurin Silver Metallic paintwork, giving the surface a fascinating shimmering effect.

**Simply perfect and finished in natural style:**

**BMW Individual Merino leather.**

Most careful choice of the raw material and the most supreme standard of processing bring out unique quality the customer will immediately see and feel in BMW Individual Merino leather within the interior of the car. All the leather used is absolutely free of even the slightest blemish and irregularity, just as there is no artificial treatment of the surfaces in finishing the leather.

Instead, the material used is dyed completely in a very diligent process through so-called barrel or vat pigmentation. This preserves the soft and subtle surface and gives the leather its active breathing effect with its open-pore structure.

Sun Reflective Technology has been developed specifically for BMW's convertible models, special pigments integrated in the leather during processing reducing any increase in temperature on the seats and other surfaces by largely reflecting the appropriate waves coming from the sun. This reduces the temperature of the surface versus conventional leather by up to 25° C, ensuring that the seats and armrests of a BMW Convertible remain at a pleasantly mild temperature even when parked directly in the sunshine for a lengthy period.

BMW Individual interior trim, to take the next example, provides superior highlights reflecting the personal style and preference of the owner. Here the customer has the choice of a wide range of different types of wood which, through their specific colours, surface grain and structure, may be perfectly tailored to the upholstery version chosen. And it almost goes without saying that BMW Individual trim within the interior always uses the best and most refined wood grown in a sustainable, regenerating forestry system.

**Top performance for a perfect experience in sound:  
the BMW Individual High End Audio System.**

The BMW Individual High End Audio System ensures sound quality of the highest standard in the BMW 3 Series, the BMW 5 Series and the BMW 6 Series as well as the BMW M3, the BMW M5, and the BMW M6, naturally tailored exclusively to each individual model.

Up to 16 high-performance loudspeakers with neodym magnetic drive and extremely stiff hexacone diaphragms, a digital nine-channel amplifier with 825 W maximum power and extra-precise frequency switches guarantee incomparable quality of sound.

Yet a further feature quite unique in the automobile market is Dirac Live technology for processing sound signals. This sophisticated technology corrects the pulse response by the loudspeakers, ensuring linear playback of sounds within the car with exactly the right time pattern. The absolutely perfect sound pulse in the playback mode ensured in this way offers not only the driver, but rather all occupants of the car an extremely versatile and dynamic experience in sound.

An optimum experience in sound is likewise ensured under all conditions by speed-related volume control and equalising.

The BMW Individual High End Audio System is operated and masterminded via the iDrive Controller, the basic functions being controlled as on all entertainment systems via the audio controls on the centre console.

**Combining a perfect driving experience with perfect sound:  
BMW Individual 6 Series Virtuoso.**

A truly exclusive combination of sound features and technology offers supreme pleasure for the driver's and passengers' ears and eyes in both the BMW 6 Series Coupé and the BMW 6 Series Convertible.

Bearing the proud name BMW Individual 6 Series Virtuoso, this special offer allows the genuine connoisseur of music to enjoy even greater Sheer Driving Pleasure, combining the BMW Individual High End Audio System with very special exterior and interior design to give the car all the qualities of a genuine concert hall. The Italian term "Virtuoso" signifies that BMW's designers have opted for all virtues in combining the various features of the car. Exclusive colour variants with a perfect contrast of light and dark make the vehicle the ideal companion for the most aesthetically-minded connoisseur, interior

features such as trim bars in black Piano paint bearing artistic instrument chord inlays providing a truly stylish and sophisticated ambience of the highest standard.

The exterior colours combined with BMW Individual Virtuoso are Moonstone Metallic as a lighter colour and Ruby Black Metallic with its dark, shimmering effect. Nineteen-inch BMW Individual light-alloy wheels in V-spoke design round off the exclusive look of the car further enhanced by BMW Individual High-Gloss Shadow Line on the side window surrounds.

Inside the car, the customer has the choice of BMW Individual Merino leather in either Light Platinum with dark contrasting inlay piping in Criollo Brown or, as the opposite version, sensual Criollo Brown with Platinum piping.

The steering wheel is naturally also finished in warm leather, its sophisticated look being further enhanced by wooden ring inlays in Black Piano paint.

The subject of "music" is also rendered, finally, by the footmats, an embroidered musical chord making discreet reference to the very special finish of the car.

### **Exclusivity of the highest standard: BMW Individual in the new BMW 7 Series.**

Enjoying a wide range of options and features offered by BMW Individual, the driver of a new BMW 7 Series is also able as of spring 2009 to express his penchant for supreme quality and exclusive style even more intensely.

Newly developed BMW Individual Fine-Grain Leather, for example, combines supreme know-how in production with beautiful design of the most luxurious standard. With its fine grain and soft surface, this special leather is exceptionally elegant and at the same time offers a very pleasant surface touch.

Merino Fine-Grain Leather being introduced with the new BMW 7 Series comes as full leather in Graphite, Silk Grey, Champagne, Amaro Brown, Cohiba Brown, and Platinum. Compared with the other leather upholstery options, BMW Individual design quality comes out particularly clearly and convincingly not only through the material and colour, but also through highly distinctive seam patterns and contours on the seats, the instrument panel and door linings.

Now available in Anthracite, Silk Grey, Champagne, Amaro Brown and Platinum, the BMW Individual alcantara roof lining offers a perfect match for the various leather colours available. The style and flair of the roofline

is enhanced by leather finish on the A, B, and C-pillars, the interior finished throughout in Champagne on the upholstery, roof lining, floor and footmats exuding a particular touch of generosity and style.

Fine-grain honey-coloured trim bars in Satin Walnut Brown and Reddish Brown Plain Wood offer a particular touch of exclusive cosiness, while the version in Black Piano paint complete with inlays adds further elegance to the BMW 7 Series Saloon. And in both cases the BMW Individual leather steering wheel with its matching wooden ring inlays provides the final touch in style and class.

A new highlight in the range of BMW Individual paintwork colours is Citrin Black in Xillarc technology. Applying a sophisticated crystallisation process, special-effect pigments are produced in this case for the sophisticated paintwork, shimmering like gold in the sun.

This option forms an ideal match with the interior in Champagne, no less than five further metallic exterior colours meeting the greatest demands in terms of aesthetic looks, among them Azurite Black, Ruby Black and Moonstone as well as Ontario Gold and Brilliant White available on special request.

Yet a further highlight in the wide range of BMW Individual features is the newly developed, fully integrated cooling box optimised in terms of both capacity and easy handling. Now the cooling box offers sufficient space for two 0.7-litre bottles and two 0.33-litre cans. The new, extendable drawer allows even easier and more convenient access to bottles and cans and keeps the contents firmly in position to avoid any noise while driving.

New 20-inch BMW Individual light-alloy wheels in V-spoke design and the rear model designation in BMW Individual letters available for the first time on the new BMW Individual 7 Series and positioned discreetly in the chrome bar at the rear round off the supreme look and style of every customised BMW 7 Series.

In a nutshell, therefore, the wide range of BMW Individual features ensures customer orientation of the highest standard, combining the safety and maturity of the regular production car with the incomparable appeal of a one-off, truly unique show-piece.

## **3.8 Dynamism, Comfort and Individual Style in Perfection: Original BMW Accessories in 2009.**

The BMW Performance product line offers a wide range of new options for enjoying the driving experience in a BMW even more intensely and demonstrating all of one's passion for dynamism in convincing style.

In spring 2009 the range of retrofittable BMW Performance options on the BMW 3 Series and the BMW 1 Series is being enlarged once again, with BMW Performance accessories now also comprising a wide choice of retrofittable components developed specifically for the new BMW 3 Series.

Yet another innovation is the BMW Performance Power Kit available on specific models in the BMW 1 and the BMW 3 Series and again being presented to the public for the first time at the 2009 International Motor Show in Geneva. This special kit increases the output of the 3.0-litre straight-six power unit with Twin Turbo Technology and High Precision Injection from 225 kW/306 hp to 240 kW/326 hp.

The BMW Performance product line is part of the overall range of Original BMW Accessories, all components naturally fulfilling BMW's most demanding standards in terms of their technical features and design and therefore living up to the particular commitment of the BMW brand.

The even wider range of Original BMW Accessories also includes new, attractive highlights in spring 2009, with BMW presenting two new mobile navigation systems at the Geneva Motor Show for perfect integration into the cockpit of the BMW 3 Series, the BMW 1 Series, and the BMW X3.

### **BMW Performance products for the new BMW 3 Series.**

New BMW Performance products now enable the genuine enthusiast to express his or her penchant for supreme technical performance in all other models in the new BMW 3 Series. Retrofittable options on the drivetrain, suspension, aerodynamics and the cockpit designed specifically for the new BMW 3 Series Saloon and the new BMW 3 Series Touring convey know-how from motorsport to the road for even greater and more enjoyable driving pleasure.

The BMW Performance Aerodynamics Kit featuring a striking front apron with an integrated surround on the BMW kidney grille in black high-gloss look and dynamically contoured side-sills serves to optimise the dynamic driving qualities of the car and ensure a truly powerful look in everyday traffic.

Further accessories made of carbon-fibre and tailored to each model include a BMW Performance carbon rear spoiler for the Saloon as well as carbon exterior mirror caps and a BMW Performance carbon diffuser on both body versions.

To enhance the suspension to an even higher standard, the discerning customer has the choice of BMW Performance sports brakes, the BMW Performance suspension, a BMW Performance spring strut dome bar made of carbon-fibre, and two attractive light-alloy wheels.

The BMW Performance sports brakes come with extra-large vented brake discs cross-drilled at the front and upgraded by slots in the discs for optimised cooling. The six-piston fixed-calliper brakes on the front axle, in turn, come in brilliant BMW Performance Yellow and bear the words "BMW Performance". The same proud designation is to be admired on the spring strut dome bar fitted within the engine compartment for further enhancement of body stiffness.

With its particularly sporting set-up, the BMW Performance suspension ensures enhanced handling and optimised performance when driving in very sporting style. But at the same time this special suspension maintains an equally high standard of comfort in everyday traffic.

The BMW Performance suspension lowers the entire car by up to 25 millimetres or almost 1". Coil springs in sporting BMW Performance Yellow also set an optical highlight through their particular style and colour.

New BMW Performance double-spoke wheels 313 highlight the sporting character of the car and promote the high standard of agility through their particularly low weight. These special wheels are available in 18 inches for the BMW 1 Series and 19 inches for the BMW 3 Series.

#### **Optimised air flow and highly attractive tailpipes.**

The new BMW Performance air intake system enhances the supply of air to the six-cylinder petrol engines in the new BMW 3 Series. Proceeding from the standard air intakes, both the filter and the internal flow of air have been modified to improve air flow and reduce the extent of a possible loss in pressure.

At the same time the system provides a particularly sporting sound experience within the car, the BMW Performance air intake system thus optimising both the development of power and the efficiency of the engine.

The BMW Performance silencer system provides exactly the right sound accentuating the greater power and traction of the engine. So without in any way impairing the car's long-distance comfort, the silencers provide a discreet but distinctively dynamic and sporting sound effect, twin tailpipes made of chrome-plated stainless steel emphasising the high-tech status of the car also in terms of its looks.

BMW Performance products also serve to give the interior the touch of a genuine sports car. BMW Performance sports seats in bucket motorsport design and finished in black alcantara offer perfect support and superior seating comfort, with the side airbags also integrated in the seats.

These special BMW Performance sports seats are available for the driver and front passenger on the five-door, three-door and Coupé versions of the BMW 1 Series as well as the BMW 3 Series Saloon, the BMW 3 Series Touring, and the BMW 3 Series Coupé.

Supplementing these features, the new range of BMW Performance options also includes an innovative multi-function sports steering wheel. Finished in alcantara and leather, this special steering wheel is particularly pleasant and safe to hold, an LED display in the upper section of the steering wheel rim presenting a wide range of technical information such as the oil and coolant temperature, lateral and longitudinal acceleration, as well as the gearshift points and the time of day. To retrieve this information, all the driver has to do is press the appropriate buttons in the steering wheel rim.

Over and above these highlights in terms of the car's looks, the BMW Performance gearshift lever helps to ensure a very dynamic gearshift at all times. In its optimum ergonomic design, the gearshift knob made of chrome and black alcantara ensures a very precise shift process while the gearshift lever shortens shift travel by approximately 25 per cent versus the standard version.

The new BMW Performance range likewise comprises an appropriately designed automatic transmission selector lever as well as a handbrake lever in the same design.

The current range of BMW Performance products is rounded off, finally, by dark stainless-steel door cutout bars incorporating the designation “BMW Performance” in yellow illumination, trim strips in carbon design on the centre console, the dashboard as well as the front and rear door covers and the side area at the rear, and pedals and footrests made of aluminium.

All BMW Performance components are available individually, enabling the driver of a new BMW 3 Series to highlight those features and qualities of his or her car which he regards as particularly significant in terms of sportiness and dynamic performance. At the same time all BMW Performance products may also be grouped within a harmoniously tailored overall package.

BMW Performance products are sold and fitted by BMW Dealers and Service Partners as well as BMW Retail Outlets.

**BMW Performance Power Kit: entering a new level of performance.**

Going beyond the maximum limit, re-defining the conventional – precisely these are the challenges successfully mastered by the engineers responsible for developing the BMW Performance Power Kit. The result is an increase in output on the straight-six power unit featured in the BMW 135i Coupé, the BMW 135i Convertible, the BMW 335i Saloon, the BMW 335i Touring, the BMW 335i Coupé, and the BMW 335i Convertible.

On all of these models the BMW Performance Power Kit increases engine output by 15 kW/20 hp to 240 kW/326 hp, boosting maximum torque to 450 Newton-metres/332 lb-ft. On the road the most important result of this enhancement of engine power is significantly faster acceleration and flexibility the driver will clearly notice and enjoy on all models.

The power unit further upgraded by the BMW Performance Power Kit is already the most powerful six-cylinder within the wide range of BMW engines. Featured in the top versions of both the BMW 3 Series and the BMW 1 Series, this outstanding power unit comes with Twin Turbo Technology and High Precision Injection, offering maximum output in standard trim in the BMW 3 and BMW 1 Series of 225 kW/306 hp and maximum torque of 400 Newton-metres/295 lb-ft.

In the BMW Performance Power Kit this top-of-the-range engine now enters a new dimension of engine power, the BMW Performance Power Kit being made up of software and hardware components perfectly matched to one another in their functions and specially developed for the 3.0-litre straight-six.

Appropriate modifications in engine management have a positive effect on the development of power, an additional radiator outside of the engine itself as well as appropriate air flow ducts and a high-performance fan on the main radiator serving to adjust the engine to the change in thermal conditions.

Apart from the increase in maximum power to 240 kW/326 hp, the BMW Performance Power Kit boosts peak torque to 430 Newton-metres/ 317 lb-ft on manual-gearbox models and an even more significant 450 Newton-metres/332 lb-ft on models with automatic transmission.

On the BMW 335i Coupé and the BMW 335i Convertible, the BMW Performance Power Kit may also be combined with BMW's seven-speed automatic sports transmission complete with double-clutch operation.

Whatever combination he chooses, the driver will always enjoy a significant increase in power and performance clearly confirmed by actual measurements. As an example, the BMW 335i Saloon with the BMW Performance Power Kit accelerates from a standstill to 100 km/h in 5.4 seconds, thus completing this standard sprint 0.2 seconds faster than its regular production counterpart. And acceleration from 80–120 km/h (50–75 mph) even comes 0.5 seconds faster than in the regular model.

### **Reaching your destination with optimum convenience: the new portable navigation systems.**

Yet a further new feature in the wide range of Original BMW Accessories offers significant enhancement of both comfort and safety: Both the BMW 3 Series and the BMW 1 Series as well as the BMW X3 are now available with two new portable navigation systems for subsequent fitting.

This ensures reliable and quick target guidance also in cars not fitted from the start with a navigation system.

The BMW Navigation Portable Plus and the BMW Navigation Portable Pro may both be fitted in the cockpit in an ideal position, offering particularly good looks and a clean finish thanks to the concealed installation of cables and a special fastening tailored to each model for extra safety. In their design and technical features, therefore, both systems fulfil the high standards of the BMW brand in every respect.

A further advantage is that BMW Navigation Portable Plus and BMW Navigation Portable Pro combine the option to take along the navigation unit when leaving the car not only with perfect integration within the vehicle, but also with the most sophisticated and attractive design including a BMW model designation on the housing.

Both BMW Navigation Portable Plus and BMW Navigation Portable Pro come with the most advanced navigation technology in terms of their hardware and software, both systems offering the choice of two- or three-dimensional map presentation and voice communication.

The two systems are controlled through a 4.3-inch high-resolution touchscreen and allow the user to follow the latest data provided by the TMC Traffic Message Channel for precise route guidance.

The symbol showing the current position of the car is a graphic rendition of a BMW.

In addition to the features mentioned, BMW Navigation Portable Pro enables the user to enter his destination by voice control activated by a remote control unit fastened to the steering wheel. Both navigation units also comprise Bluetooth hands-free operation of a mobile phone via an integrated loudspeaker and a microphone, an MP3- and an audio book player, an image viewer, a pocket calculator and, as an option, a digital travel guide.

Using an SD map insert and a USB port, the user is able to feed data into both systems. In addition, BMW Navigation Portable Pro comes with pre-installed maps covering no less than 33 European countries. BMW Navigation Portable Plus, on the other hand, enables the customer to individually choose the maps he requires when downloaded into the navigation unit via an SD memory card. And last but not least, both systems offer the option to save the routes taken for subsequent presentation on the user's PC by means of Google Earth.

In the BMW 3 Series and the BMW 1 Series the mobile navigation unit is fitted directly above the ventilation grid on the centre console. In the BMW X3, in turn, it is fitted in the storage box in the upper section of the dashboard, that is in the same position as the Control Display of a navigation system fitted permanently in the car.

The navigation units are connected directly to the on-board network with their batteries being charged while driving for operation outside of the car for a period of up to six hours.

Both BMW Navigation Portable Plus and BMW Navigation Portable Pro provide destination guidance messages through the car's loudspeakers in the BMW 3 Series and the BMW 1 Series.

Introducing these two new mobile navigation systems, BMW offers the customer a particularly attractive option to enjoy the advantages of digital route guidance with the help of a retrofittable system. Safe and secure installation without a suction cap and cables lying around in the cockpit is a significant advantage over similar units offered by other suppliers, both systems, in terms of their function, technical features and design, thus meeting the great demands made by BMW customers of their cars as well as the high standard of special equipment and accessories from BMW.