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# BMW at the 80th Geneva Motor Show 2010. Contents.



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# 1. BMW at the 80th Geneva Motor Show 2010. (Short Version)



A thoroughly updated and upgraded range of models combining unique driving pleasure with outstanding efficiency – this is what premium car maker BMW is proudly presenting at the 80th Geneva Motor Show 2010. New models in numerous segments, an even wider range of power units combining outstanding performance with enhanced efficiency, plus fascinating concepts for the powertrain of the future clearly prove the unique innovative power of the brand.

One of the absolute highlights at the 2010 Geneva Show is the world debut of the new BMW 5 Series Sedan. At the same time the public will experience the new BMW X5 as well as the new BMW 3 Series Coupé and the new BMW 3 Series Convertible for the first time in Geneva from 4 – 14 March 2010.

The innovations presented in Geneva in the area of drivetrain technology are likewise more versatile and future-oriented than ever before, BMW EfficientDynamics serving both in BMW's current production models and in the medium and long term to offer an even higher standard of all-round efficiency. New engines in the BMW 1 Series and the BMW 3 Series, in the BMW X models and the BMW Z4 ensure a further optimised balanced of driving pleasure and fuel economy.

Directly before the market launch of the BMW ActiveHybrid X6 and the BMW ActiveHybrid 7, BMW is presenting a concept car in Geneva offering a further outlook at this drive concept again in typical BMW style: The BMW Concept 5 Series ActiveHybrid comes with the next generation of BMW ActiveHybrid technology, an even more efficient combination of the combustion engine and the electric motor providing a truly unique driving experience. For the first time a straight-six power unit operating in conjunction with electric drive ensures an even higher standard of efficiency with driving pleasure enhanced to a level never seen before.

The 2010 Geneva Motor Show also provides the appropriate setting for the European debut of the BMW Concept ActiveE. Based on the BMW 1 Series Coupé, this concept car comes with all-electric drive and innovative electric storage technology optimising both the range the car is able to cover as well as its supreme standard of functionality. The BMW Concept ActiveE thus combines emission-free motoring with four

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seats and luggage capacity of approximately 200 litres. With its agility and driving pleasure so typical of the brand, the car offers all the electro-mobility one would expect of a trendsetter like BMW.

#### The new BMW 5 Series Sedan:

## setting the standard for driving pleasure, aesthetic design and all-round efficiency in the upper midrange segment.

Introducing the sixth generation of the BMW 5 Series Sedan, BMW is setting a new benchmark for driving pleasure, aesthetic design and efficiency in the upper midrange segment. In its design the new sedan presented to the world public for the first time at the Geneva Motor Show is characterised by harmoniously balanced proportions, stylishly elegant lines, and powerful, expressive looks.

The new BMW 5 Series Sedan comes with the longest wheelbase in its segment, a truly generous, sophisticated and modern interior, a driver-oriented cockpit and numerous innovative driver assistance systems guaranteeing a fascinating experience on the road, even on the longest journeys.

The new BMW 5 Series Sedan is entering the market with a choice of one eight-cylinder and three six-cylinder gasoline engines as well as two six-cylinder diesels. The power range extends all the way from 150 kW/204 hp to 300 kW/407 hp.

These larger engines are supplemented by a four-cylinder turbodiesel with an aluminium crankcase and common rail direct fuel injection. Output in this case is 135 kW/184 hp, giving the BMW 520d fitted as standard with Auto Start Stop a new level of unparalleled efficiency in its segment.

As an alternative to the six-speed manual gearbox featured as standard, all engine variants may be combined with eight-speed automatic transmission standard on the new BMW 550i.

The new BMW 5 Series Sedan offers an unprecedented symbiosis of the superior sportiness so characteristic of this model with an even higher level of all-round comfort. As an option, the outstanding suspension technology featured as standard on the new BMW 5 Series Sedan may be combined with Adaptive Drive and Integral Active Steering, to mention yet another unique combination. And optional Dynamic Drive Control, finally, allows individual set-up of the suspension according to the driver's wishes.

The driver assistance systems available for the first time in the context of BMW ConnectedDrive include the Parking Assistant, Surround View, a proximity warning system with initiation of the brakes in conjunction with Active Cruise Control incorporating Stop & Go, and a Speed Limit Device. In addition, the BMW 5 Series Sedan is available with further options such as Lane Change Warning, Lane Departure Warning, Speed Limit Info, a Head-Up Display, BMW Night Vision able to detect even individual persons, and a back-up camera.

## Elegance and sportiness optimised to a new level of perfection: the new BMW 3 Series Coupé and the new BMW 3 Series Convertible.

Boasting design enhanced to the last detail, an updated range of engines and new entry-level models, the new BMW 3 Series Coupé and the new BMW 3 Series Convertible are making a powerful stand in their first public appearance at the 2010 Geneva Motor Show. New design features at the front, side and rear precisely integrated into the overall look of the car further enhance the sporting and elegant character of both models.

The new entry-level version for the German market is the BMW 318i Coupé and Convertible supplementing the range at the lower end. Further innovations in the engine portfolio involve an increase in power and torque on the BMW 320d and the BMW 325d as well as the introduction of a new straight-six power unit complete with BMW TwinPower Turbo, direct fuel injection and VALVETRONIC on the top-of-the-range BMW 335i Coupé and BMW 335i Convertible. All engine variants naturally comply with the EU5 emission standard.

#### Even more superior, even more efficient: the new BMW X5.

More dynamic and efficient than ever before, the new BMW X5 is further enhancing its leading position over the competition. A thoroughly updated range of engines in this new version of BMW's Sports Activity Vehicle provides a further optimised balance of driving pleasure and fuel economy. At the same time an even wider range of driver assistance systems confirms the luxurious and innovative character of the new BMW X5.

From outside this extra dynamism and supremacy is borne out clearly by appropriate modifications in design at both the front and rear.

The new BMW X5 is available with no less than four power units. The top model is the BMW X5 xDrive50i featuring a V8 power unit with BMW TwinPower Turbo and High Precision Injection for maximum output of 300 kW/407 hp. The new BMW X5 xDrive35i comes with a 225 kW/306 hp

straight-six again featuring BMW TwinPower Turbo, High Precision Injection and VALVETRONIC.

These two outstanding engines team up with two six-cylinder diesels of the latest generation featuring an all-aluminium crankcase, turbocharging and common-rail direct fuel injection. The new BMW X5 xDrive40d comes with a six-cylinder featuring BMW TwinPower Turbo technology for maximum output of 225 kW/306 hp, the BMW X5 xDrive30d boasts a turbocharger system with variable turbine geometry delivering peak output of 180 kW/245 hp. Averaging fuel consumption in the EU test cycle of just 7.4 litres/100 km, equal to 38.2 mpg imp, this outstanding power unit sets a new benchmark for efficiency in its segment.

Naturally, all versions of the new BMW X5 fulfil the EU5 emission standard.

The sheer diversity of driver assistance systems available in the new BMW X5 is absolutely unique in this segment. As an example, the BMW X5 is the only vehicle in its segment available with both a Head-Up Display and Surround View. At the same time BMW's Sports Activity Vehicle now also comes with options such as Active Cruise Control with Stop & Go, Lane Change Warning, Speed Limit Info and Side View.

## New dimensions in roadster driving dynamics: the BMW Z4 sDrive35is.

The European debut of the BMW Z4 sDrive35is at the Geneva Motor Show opens up a new dimension of driving dynamics also in the roadster segment. The new top version of this charismatic two-seater stands out through truly supreme performance ensured both by the 250 kW/340 hp straight-six power unit with BMW's Twin Turbo technology and High Precision Injection as well as seven-speed Sports Automatic with double-clutch operation and the M Sports Package including Adaptive M Suspension likewise featured as standard.

The BMW Z4 sDrive35is accelerates from a standstill to 100 km/h in just 4.8 seconds. And with its fuel consumption of 9.0 litres/100 kilometres, equal to 31.4 mpg imp, this new and even more powerful model is just as economical as the BMW Z4 sDrive35i with Sports Automatic.

# Optimised performance, lower emissions: the BMW 135i Coupé and BMW 135i Convertible with a new straight-six power unit and optional seven-speed double-clutch gearbox.

A new straight-six power unit and the optional seven-speed double-clutch gearbox with its Sports Automatic function give the BMW 135i Coupé and

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the BMW 135i Convertible a new standard of dynamic performance and efficiency never seen before in a model of this kind. By far the most sporting and dynamic models in the compact segment, both the Coupé and the Convertible offer even more dynamic acceleration on even greater fuel economy and emission management.

The new top engine combines BMW TwinPower Turbo technology with High Precision Injection and fully variable VALVETRONIC valve management. The 3.0-litre six-cylinder delivers maximum output of 225 kW/306 hp, teaming up with the seven-speed double-clutch gearbox featuring Sports Automatic for the first time in the BMW 1 Series to accelerate the BMW 135i Coupé from a standstill to 100 km/h in 5.2 seconds and the BMW 135i Convertible to 100 km/h in 5.5 seconds. Average fuel consumption in the EU test cycle, on the other hand, is a mere 8.5 litres/100 kilometres (equal to 33.2 mpg imp) in the Coupé and 8.6 litres/100 km (equal to 32.8 mpg imp) in the Convertible.

#### New power units and BMW Performance in the BMW X6.

The world's first Sports Activity Coupé, the BMW X6, offers a truly unique rendition of that supreme driving pleasure so characteristic of BMW. And now, at the 2010 Geneva Motor Show, the BMW X6 once again proves its outstanding position within the segment of BMW X models, new gasoline and diesel engines combining the supreme sportiness of the BMW X6 with an equally impressive standard of efficiency. As a further highlight all versions of the BMW X6 now come as standard with eight-speed automatic transmission.

The BMW X6 xDrive35i now boasts a straight-six gasoline engine with BMW TwinPower Turbo, High Precision Injection and VALVETRONIC for maximum output of 225 kW/306 hp and a further enhanced balance of performance and fuel economy. The two diesel models, in turn, come with a new and particularly efficient generation of engines, above all the BMW X6 xDrive30d setting a new standard of fuel efficiency in the EU test cycle with its fuel consumption of just 7.4 litres/100 kilometres, equal to 38.2 mpg imp.

Clearly, all versions of the BMW X6 fulfil the EU5 emission standard.

The sporting profile of the BMW X6 is further enhanced by newly developed components in the wide range of BMW Performance. To be precise, BMW's unique Sports Activity Coupé is available for the first time with retrofittable options on the powertrain, suspension, cockpit and the vehicle's aerodynamics. Among other things, the range includes a

BMW Performance Aerodynamics Kit, a BMW Performance steering wheel and BMW Performance light-alloy rims.

The gasoline models are also available with a BMW Performance Power Kit for even greater engine power and torque, giving BMW's Sports Activity Coupé even faster and more dynamic acceleration.

#### BMW M3: maximum performance with even greater efficiency.

More driving pleasure, lower emissions: this principle proudly borne out by the BMW EfficientDynamics development strategy now also applies on the most supreme level of power and road-going performance. Precisely this is why the High-Performance BMW M3, entering the spring 2010 season, combines its supreme performance on the road with fuel consumption and emissions reduced to an even lower level than before.

The wide range of BMW EfficientDynamics technologies already featured as standard on the BMW M3 is now supplemented, to mention just one example, by Auto Start Stop automatically switching off the engine at road junctions or in congested traffic in order to save fuel. Then, as soon as the driver wishes to continue, the engine starts again without the slightest delay.

Auto Start Stop is featured on both manual-gearbox models and in conjunction with the M Double-Clutch Gearbox with Drivelogic.

Together with the BMW ActiveHybrid X6 and the BMW ActiveHybrid 7, this makes the BMW M3 the first model to use this highly efficient technology in combination with an automated manual gearbox, offering an increase in all-round efficiency by approximately 6 per cent. As a result, the 309 kW/420 hp BMW M3 Coupé with its V8 high-speed power unit and seven-speed M DKG Drivelogic now averages fuel consumption in the EU test cycle of 11.2 litres/100 km, equal to 25.2 mpg imp. At the same time all versions of the BMW M3 naturally fulfil the EU5 emission standard.

The BMW M Competition Package as well as retrofittable options developed specifically for the BMW M3 offer a new range of opportunities to customise both the Coupé and Sedan versions of this outstanding sports car.

Additional BMW Performance features are also available in spring 2010 for the BMW X5 M and the BMW X6 M, the two top athletes in the BMW X range now being available, among other highlights, with BMW Side View and Speed Limit Info to assist the driver whenever required.

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Yet a further highlight being presented at the 2010 Geneva Motor Show is the M Sports Package for the new BMW X5. And last but not least, further new features from BMW Individual round off the list of innovations available from BMW M GmbH.

## BMW EfficientDynamics: greater driving pleasure and reduced CO<sub>2</sub> ratings – six models with optional BMW BluePerformance technology already set for the EU6 standard.

Consistent implementation of the BMW EfficientDynamics development strategy in spring 2010 also ensures enhanced driving pleasure in many other model series as well as a further reduction of both fuel consumption and emissions.

BMW already offers 30 models with CO<sub>2</sub> emissions below 140 grams per kilometre, with five models in the BMW 3 Series and, respectively, in the BMW 1 Series boasting a CO<sub>2</sub> rating of 120 grams per kilometre or less.

A further significant point is that no less than 129 BMW models now comply with the EU5 emission standard.

The range of models featuring optional BMW BluePerformance technology fulfilling the EU6 standard not due to come into force until 2014 is likewise greater than ever before, the BMW 530d Sedan, the BMW 320d Sedan and the BMW 320d Touring now teaming up with the BMW 330d Sedan, the BMW 730d and the BMW 730Ld to provide a fleet of no less than six models already in compliance with EU6.

The top contender as the most efficient car within the BMW range in spring 2010 is the BMW 320d EfficientDynamics Edition offering the lowest level of fuel consumption and emission throughout the entire fleet. Powered by a 120 kW/163 hp four-cylinder diesel, this unique sedan combines the sheer driving pleasure so typical of the brand with truly unique average fuel consumption of just 4.1 litres/100 km, equal to 68.9 mpg imp in the EU test cycle, and a  $CO_2$  rating of 109 grams per kilometre.

The range of models in the BMW 3 Series is also enlarged by the new BMW 316d Touring with its 2.0-litre four-cylinder diesel delivering maximum output of 85 kW/115 hp. And last but certainly not least in this context, the BMW 335i, BMW 325d, BMW 320d and BMW 318d are all entering the market with an even higher standard of efficiency than before.

Greater diversity and optimised economy are also the name of the game in the BMW X1 with its even larger range of engines.

The new BMW X1 sDrive18i is powered by a 110 kW/150 hp 2.0-litre four-cylinder gasoline engine. At the same time this new entry-level model is supplemented by a second six-cylinder version, the BMW X1 xDrive25i combining the supreme smoothness and refinement of a BMW straight-six with the spontaneous agility of this most compact X model from BMW. Maximum output of the 3.0-litre power unit is 160 kW/218 hp and is combined as standard with six-speed automatic transmission.

As an option Automatic Transmission is now also available on all other versions of the BMW X1.

Entering the market in spring 2010, a second, even more powerful version of the new generation of BMW straight-six diesels is to be admired in the BMW 5 Series Gran Turismo, the BMW 530d Gran Turismo now joining forces with the BMW 535d Gran Turismo. Benefiting from BMW TwinPower Turbo technology and common-rail direct fuel injection, the all-aluminium power unit featured in this new model delivers maximum output of 220 kW/300 hp, accelerating the BMW 535d Gran Turismo from a standstill to 100 km/h in 6.1 seconds. Average fuel consumption in the EU test cycle, on the other hand, is a mere 6.7 litres/100 kilometres, equal to 42.2 mpg imp.

#### Perfectly networked: BMW ConnectedDrive with new functions.

Offering a wide range of driver assistance systems and services unique the world over, BMW ConnectedDrive optimises both motoring comfort and driving safety in using the car's infotainment functions.

Now the range of features from BMW ConnectedDrive is being supplemented by further innovative highlights, in particular the optimised integration of the mobile telephone and external entertainment devices into the car's iDrive control system offering qualities never seen before.

As an example, the driver may use the Bluetooth interface to download contact lists and image files from his hand-held mobile phone into the car and to integrate the audio functions of his mobile phone in the car's on-board entertainment system.

At the same time the use of entertainment functions is becoming even more attractive through the first-ever presentation of album cover pictures for the selection of music titles in the Control Display.

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#### 2. Highlights at a Glance.



#### World debut: new BMW 5 Series Sedan.

Raise the curtain for the new BMW 5 Series Sedan! A car offering a new standard of aesthetic design, driving pleasure and efficiency in the upper midrange segment, now making its public debut at the 2010 Geneva Motor Show.

The sixth generation of the BMW 5 Series Sedan stands out in particular through its sporting and elegant design, efficient power units, supreme suspension technology and innovative driver assistance systems, offering a driving experience combining supreme sportiness with an even higher level of all-round comfort.

The new BMW 5 Series Sedan is available with a range of one eight-cylinder and five six-cylinder power units, output extending from 150 kW/204 hp all the way to 300 kW/407 hp. A further highlight is the 135 kW/184 hp four-cylinder diesel once again raising the standard of the new BMW 520d as the most efficient car in its segment superior even to its unparalleled predecessor.

#### World debut: BMW Concept 5 Series ActiveHybrid.

With BMW's first two hybrid models set to enter the market, BMW is at the same time developing the next generation of BMW ActiveHybrid technology: The BMW Concept 5 Series ActiveHybrid offers an outlook at the new rendition of this drivetrain technology, focusing in particular on the demands made of a truly efficient and dynamic sedan in the upper midrange segment.

For the first time a BMW straight-six power unit combined with electric drive ensures enhanced driving pleasure and an even higher standard of efficiency compared with a conventional sedan running on a combustion engine alone. Ongoing development of BMW ActiveHybrid technology gives this drive system all the characteristics typical of the brand and at the same time ensures highly intelligent energy management even looking ahead to consider both the driver's wishes and driving conditions on the road.

#### World debut: the new BMW 3 Series Coupé and the new BMW 3 Series Convertible.

Combining precisely refined design for an even more sporting and elegant look with particularly efficient engines and innovative model features, the new BMW 3 Series Coupé and the new BMW 3 Series Convertible offer a driving experience more exquisite than ever before.

Both models are to be admired for the first time at the Geneva Motor Show. The new entry-level version in Germany is the BMW 318i Coupé and Convertible powered by a 2.0-litre four-cylinder with High Precision Injection and delivering maximum output of 105 kW/143 hp.

#### • World debut: the new BMW X5.

BMW proudly presents the most outstanding rendition of driving pleasure in a Sports Activity Vehicle, the new BMW X5 combining supreme sportiness with optimised efficiency and additional luxury. The brand-new range of engines extends all the way from the 300 kW/407 hp V8 in the top-level BMW X5 xDrive50i to the 180 kW/245 hp straight-six diesel giving the BMW X5 xDrive30d truly outstanding average fuel consumption of just 7.4 litres/100 kilometres, equal to 38.2 mpg imp, in the EU test cycle.

Appropriate modifications in design highlight the enhanced level of dynamic performance in truly authentic style, while an even wider range of driver assistance systems underlines the innovative character of the new BMW X5.

#### • European debut: the new BMW Z4 sDrive35is.

Classic roadster proportions interpreted in modern style and combined with supreme driving dynamics – this is the BMW Z4 sDrive35is. Featuring a 250 kW/340 hp straight-six with Twin Turbo and High Precision Injection as well as optional seven-speed Sports Automatic with double-clutch operation, the latest and most powerful version of BMW's outstanding two-seater accelerates from a standstill to 100 km/h in just 4.8 seconds. At the same time BMW EfficientDynamics combines the significantly enhanced power and performance of the BMW Z4 sDrive35is with average fuel consumption of just 9.0 litres/100 kilometres, equal to 31.4 mpg imp, in the EU test cycle.

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#### European debut: new straight-six power unit with BMW TwinPower Turbo in the BMW 135i Coupé and the BMW 135i Convertible.

The most dynamic models in the compact segment now highlight their supremacy through an even higher level of performance and significantly greater efficiency: Both the BMW 135i Coupé and the BMW 135i Convertible feature a new 225 kW/306 hp straight-six power unit with BMW TwinPower Turbo, High Precision Injection and VALVETRONIC. In conjunction with the seven-speed double-clutch gearbox complete with its Sports Automatic function featured as an option for the first time in the BMW 1 Series, the BMW 135i Coupé now accelerates to 100 km/h in just 5.2 seconds and makes do with average fuel consumption in the EU test cycle of 8.5 litres/100 kilometres (equal to 31.2 mpg imp), a full 8 per cent better than the former model with its six-speed automatic transmission.

#### European debut: the BMW Concept ActiveE.

The BMW Group is proudly presenting yet a further milestone on its way to CO<sub>2</sub>-free mobility at the 2010 Geneva Motor Show, the European debut of the BMW Concept ActiveE confirming the consistent development carried out by BMW as a premium car maker in the area of electro-mobility in general and project i in particular: The BMW Concept ActiveE based on the BMW 1 Series Coupé and powered by a 125 kW/170 hp electric motor ensures all the superior performance so typical of the brand without any emissions. With its newly developed powertrain and energy-saving systems as well as the intelligent arrangement of these components within the car, the BMW Concept ActiveE provides ideal conditions for supreme driving dynamics and enhanced functionality.

The characteristic features of the BMW Concept ActiveE include four full-sized seats, 200 litres of luggage space, rear-wheel drive, sporting acceleration and a cruising range of approximately 160 kilometres or 100 miles under everyday driving conditions.

#### Innovation: BMW EfficientDynamics with new concepts for Sheer Driving Pleasure also in future.

BMW EfficientDynamics remains the world's most effective strategy for the ongoing reduction of fuel consumption and emissions and enhanced driving pleasure also in 2010. The innovations introduced as standard in each new model give BMW brand cars the best balance of performance and fuel economy in each segment, and BMW ActiveHybrid

technology now introduced for the first time in production cars acts as yet another cornerstone of BMW EfficientDynamics.

Seeking to provide zero-emission motoring in the long term, BMW is focusing, among other highlights, on various concepts for electro-mobility introduced in the context of project i. Precisely this is why BMW is presenting the latest results of ongoing developments in all areas of technology at the 2010 Geneva Motor Show.

#### • Innovation: BMW ConnectedDrive with new functions.

Intelligently networking the driver with his car and the surroundings, BMW ConnectedDrive offers fascinating opportunities to enhance both motoring comfort and driving safety as well as the broad use of infotainment functions.

This wide range of features is now being extended by innovative services ensuring, among other things, the efficient integration of external mobile phones into the car as an attractive option for the driver. Exclusive to BMW models, the functions introduced in this way highlight the outstanding significance of BMW ConnectedDrive as a trendsetting philosophy unique the world over.

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## 3. BMW at the 80th Geneva Motor Show 2010.



(Long Version)

3.1 Dynamic Performance Tailored to Your Requirements, Driving Pleasure in Perfection: The New BMW 5 Series Sedan.

Standing out as the epitome of aesthetic design and driving pleasure in the upper midrange segment, the new BMW 5 Series Sedan is making its first public debut at the 2010 Geneva Motor Show.

Through its sporting and elegant design, driving dynamics so characteristic of the brand, supreme efficiency and innovative comfort and safety features, the sixth generation of BMW's Executive Express reflects the supreme development skills of the world's most successful premium car maker in every respect.

The aesthetic overall look of the car is determined first and foremost by dynamically balanced proportions, while the most advanced powertrain and suspension technologies ensure outstanding sportiness and an even higher standard of motoring comfort.

The new BMW 5 Series Sedan is entering the market with one eight-cylinder and three six-cylinder gasoline engines as well as two six-cylinder diesels. These larger power units are rounded off by a four-cylinder turbodiesel delivering maximum output of 135 kW/184 hp, thus making the BMW 520d a new benchmark in efficiency in its segment in conjunction with the Auto Start Stop function featured as standard.

All engines are naturally available with BMW's new eight-speed automatic transmission, the driver assistance systems offered for the first time in the context of BMW ConnectedDrive including a Parking Assistant, Surround View, proximity warning with initiation of the brakes in conjunction with Active Cruise Control featuring Stop & Go, and a Speed Limit Device.

As further highlights the new BMW 5 Series Sedan is also available with Lane Change Warning, Lane Departure Warning, Speed Limit Info, Head-Up Display, BMW Night Vision even able to detect individual persons, and a back-up camera.

Design: elegance tailored to the driver, sporting looks throughout.

In its design, the new BMW 5 Series Sedan reflects all the characteristics which make such an upper midrange model so attractive and an upper

midrange BMW truly unique. Charismatic presence and stylish elegance in design clearly bring out the uncompromising premium quality and the supreme driving comfort of the new sedan, just as the dynamic lines of the car and the athletic overall impression authentically confirm the sporting qualities of the new BMW 5 Series Sedan.

The dynamic proportions of the new BMW 5 Series Sedan are emphasised in typical BMW style by the long engine compartment lid, short overhangs front and rear, the long wheelbase, and the coupé-like roofline. The wedge-like shape of the body likewise highlights the sporting, forward-pushing character of this unique sedan, with the perfectly balanced silhouette bearing reference on all models to the ideal front-to-rear weight distribution.

With its wheelbase of 2,968 millimetres or 116.9", the new BMW 5 Series sets the standard in its segment also in this respect.

## Charismatic appearance: concentrated look and forward-pushing dynamism.

Through its highly expressive front end alone, the upright BMW kidney grille even angled slightly forwards from various perspectives clearly emphasises the forward-pushing dynamism of the 5 Series Sedan.

The engine compartment lid is subdivided by four contour lines sweeping from the rear all the way to the kidney grille at the front, while the wide air intake with round foglamps positioned far to the outside gives the trinity of design elements a particularly sporting note.

The dual round headlights intersect with a trim panel at the top to provide that concentrated look again so typical of BMW. In conjunction with xenon headlights available as an option, LED light rings provide a daytime light function and the direction indicators moved far to the outside are made up of ten LED units each. A further outstanding feature is the LED character light on the upper end of the headlights.

#### Side view:

#### beautiful balance of elegance and sportiness so typical of BMW.

In its driving behaviour, the new BMW 5 Series combines superior agility with outstanding motoring comfort. So it is only appropriate that the design of the new sedan also ensures the same balance of sportiness and elegance particularly clear from the side.

Above the striking character line extending along the car at the level of the door openers, the slightly flared shoulder surfaces give the glazed passenger cell a light and sleek look, despite its size and dimensions.

Lower down on the body concave surfaces create a dynamic light and shade effect emphasising the superior sportiness of the car. And last but not least in this context, greater curvature around the rear wheel arches alludes to the benefits of rear-wheel drive.

The dynamic lines of the car are further enhanced by the conspicuously tight counter-swing at the bottom of the C-pillar. This new interpretation of the "Hofmeister Kink" so typical of the brand and now with a tighter radius than ever before on a BMW sedan, again underlines the stretched silhouette of the car and makes the passenger cell look even lower and sleeker.

## Powerful look of the rear end emphasising the car's sporting character.

The character line extending along the side stretches all the way from the front wheel arch to the rear lights, again emphasising the elegant and dynamic wedge look of the car from the side.

At the same time the sculptural design again so characteristic of BMW brings together the side sections and the rear end to form one complete unit, the flow from the character line to the wheel arches coming out clearly from behind as a distinctive waistline around the body.

The flared wheel arches and the horizontal design of the rear end, in turn, give the new BMW 5 Series Sedan an even more powerful look and muscular stance on the wheels, creating an impression further enhanced by the wide track and the wheels themselves flush with the flared wheel arches.

The L-shaped rear light clusters again reflect the typical look of the brand also in its unmistakable night design. Three LED-fed rows of lights characterise these homogeneous light bodies in their all-round consistency, with LED units also featured in the direction indicators and brake lights.

#### Interior: superior, modern style, classic orientation to the driver.

The interior design again emphasises the active character of the car as well as the particular comfort and style of the BMW 5 Series Sedan. Technically demanding functions combined with elegant looks ensure a convincing impression of superior, modern style within the interior.

The cockpit is swept towards the driver at an angle of approximately 7° and the asymmetrically arranged centre console likewise emphasises the particular role and position of the driver.

All controls and the displays in the Black Panel instrument cluster are very clear and straightforward in their arrangement, with the Control Display featured in the iDrive control system obviously fitted as standard integrated harmoniously into the dashboard.

The horizontal arrangement of the dashboard highlighting the generous space available continues through the door panels all the way to the rear of the car, enabling the passengers to enjoy a grand touring experience in truly harmonious style. At the bottom, the interior trim on the dashboard available in various colours and materials, as well as the door linings, border on a trim bar in Pearl Gloss Chrome. The transition between the dashboard and the door panels, in turn, is highlighted by trim bars flowing smoothly towards one another as yet another eye- catcher full of beauty and tension.

## Wide range of storage options, high-class materials, attractive colour schemes.

Grand touring comfort within the new BMW 5 Series Sedan is further enhanced by a wide range of ergonomically positioned storage options, boxes, compartments and cupholders. The centre console alone comes in two design and configuration options for cars with a manual gearbox and automatic transmission, providing optimum space in each case for storage boxes, a tray for the car's keys and appropriate cupholders. In either case the armrest on the centre console opens up by means of a vertically split butterfly catch.

High-quality materials and supreme craftsmanship in ultimate precision underline the premium ambience of the new BMW 5 Series Sedan, while a wide range of exterior paintwork options, colour and trim variants gives the customer absolute freedom in customising the car to his or her personal wishes.

#### Driving experience: uniquely dynamic, absolutely superior.

The new BMW 5 Series Sedan is further enhancing its leading position as the most sporting car in its segment – and at the same time the new model offers an even higher standard of motoring comfort than its predecessor.

This dual progress is made possible by a combination of the most advanced drivetrain and suspension technology, the double-wishbone aluminium front axle allowing appropriate separation of wheel guidance and damping functions

in the interest of supreme motoring comfort. At the same time the front axle kinematics ensure optimum road contact under all conditions, with the car mastering the most dynamic driving situation involving a high level of lateral acceleration in superior and comfortable style.

The integral-V rear axle likewise brand-new and made of aluminium also offers ideal conditions for enhanced driving dynamics and motoring comfort all in one. As a further essential point, the double-wishbone front axle and the integral rear axle form a roll axis running almost parallel to the road on the new BMW 5 Series Sedan, a feature ensuring superior harmony and tracking stability in bends.

#### **Adaptive Drive:**

#### even more dynamic and with unique motoring comfort.

As an option the new BMW 5 Series Sedan is available with BMW Adaptive Drive comprising Dynamic Damper Control and Dynamic Drive active anti-roll stability. The electronically controlled dampers adjust smoothly and consistently to both road conditions and the driver's style of motoring in order to prevent any unwanted movement of the car.

BMW is the world's first car maker to use a damper system with infinite and independent adjustment of the inbound and rebound stroke.

Dynamic Drive anti-roll reduces body sway of the car in fast bends and with a sudden change of direction.

Dynamic Damper Control is available as an individual option on the BMW 520d, the BMW 525d, the BMW 523i, and the BMW 528i.

#### **Precise and efficient:**

#### debut of EPS Electric Power Steering in the new BMW 5 Series.

The new BMW 5 Series Sedan is the first car in its segment to feature EPS Electric Power Steering, an innovative system for supreme precision and comfort in the steering process.

A further essential point is that EPS Electric Power Steering provides the handling typical of a BMW with maximum efficiency, the system's electric motor working only when power assistance is really required or desired by the driver.

A further function featured as standard is BMW's Servotronic for steering assistance related to road speed.

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#### **Integral Active Steering:**

#### greater agility in town, extra comfort in a fast lane change.

Yet another innovation in the upper midrange segment is Integral Active Steering available as an option on the new BMW 5 Series Sedan. IAS combines active steering on the front wheels already available on the former model with a steering function on the rear wheels: The system varies the steering angle both front and rear by means of an electric motor featuring a control unit for data obtained on the speed of the wheels, movement of the steering wheel, the yaw rate and lateral acceleration, thus providing optimum steering behaviour under all conditions and in every situation.

Active steering on the front wheels allows the driver to manoeuvre the car smoothly and easily at low speeds with only minor movements of the steering wheel, without having to place one hand over the other. At higher speeds, on the other hand, the same movement of the steering wheel moves the wheels to a smaller angle for extra precision when steering into a bend.

The additional steering effect on the rear wheels of up to 2.5° provided by Integral Active Steering makes the car even more nimble and easy to manoeuvre. In this case the rear wheels are turned against the steering angle of the front wheels at speeds of up to 60 km/h, making the car's turning circle approximately 0.5 metres smaller. At higher speeds, on the other hand, the rear wheels turn in the same direction as the front wheels, Integral Active Steering thus giving the car a smooth, comfortable and superior response when changing lanes and in bends.

#### Dynamic Drive Control: the ideal set-up for all requirements.

Depending on driving conditions and the driver's personal preferences, the new BMW 5 Series Sedan may be set to either a more sporting or a more comfortable configuration. This wide range of adjustment is provided by Dynamic Drive Control featured together with the Sports Automatic Transmission, Integral Active Steering and Dynamic Damper Control and, respectively, Adaptive Drive as an option.

Dynamic Drive Control acts on the progressive curve of the gas pedal, the response of the engine, the steering assistance control map and the activation thresholds of DSC Dynamic Stability Control and, on cars fitted with automatic transmission, on the gearshift dynamics as well as the Dynamic Damper Control operating map.

Pressing a button on the centre console, the driver is able to choose his favourite set-up, using the modes NORMAL, SPORT and SPORT+.

In conjunction with Dynamic Damper Control and, respectively, Adaptive Drive, the driver also has the choice of the COMFORT mode allowing him to activate one pre-configured and one all-round set-up. The differences between the individual modes come out very clearly on the road in the actual driving experience.

A further button serves to select the appropriate DSC settings, allowing the driver to activate DTC Dynamic Traction Control in order to set off and drive more smoothly and easily on loose sand or in deep snow. Pressing this additional button somewhat longer, in turn, the driver is able to fully deactivate the car's stability control systems.

The DSC-off mode, finally activates an electronic locking function on the rear axle differential for an even more sporting and ambitious style of motoring, for example when accelerating out of a bend or hairpin.

#### Lightweight brake system: free of fading and precise in control.

Powerful brakes with very comfortable operation and extremely precise application also help to make the new BMW 5 Series Sedan a very dynamic car.

The new BMW 5 Series comes with lightweight brakes in swing-calliper construction and with inner-vented discs with the friction ring riveted on to the aluminium brake cover. The final point is that all versions of the new sedan come with light-alloy wheels measuring 18 inches on the BMW 550i and 17 inches on all further models.

The brake system is supported by DSC Dynamic Stability Control with its wide range of functions. So over and above its stability functions, DSC features additional control functions for safe and dynamic motoring, among them ABS anti-lock brakes, ASC Automatic Stability Control, Trailer Stability Control, CBC Cornering Brake Control, as well as DBC Dynamic Brake Control. Further functions are Fading Compensation at extremely high temperatures, regular Dry Braking in the wet, the Brake Standby function and a Start-Off Assistant.

#### **Electromechanical parking brake and Auto-Hold.**

The driver activates the electromechanical parking brake in the new BMW 5 Series Sedan by pulling the appropriate button on the centre console. This is combined with an Auto-Hold function as a unique combination of features in this segment enhancing motoring comfort above all in stop-and-go traffic. So whenever the car comes to a standstill it is automatically held

in position by consistent pressure on the brakes, even on a gradient, until the driver presses down the gas pedal again.

## Top engine in the range: V8 gasoline engine with BMW TwinPower Turbo.

The top engine available in the new BMW 5 Series Sedan is a V8 gasoline power unit. Displacing 4.4 litres, this eight-cylinder with BMW TwinPower technology and High Precision Injection delivers maximum output of 300 kW/407 hp in the speed range between 5,500 and 6,400 rpm. Peak torque, in turn, is 600 Newton-metres or 442 lb-ft all the way from 1,750 – 4,500 rpm.

This all-aluminium power unit combines superior thrust and performance coming in at an early point and continuing throughout a wide range with exceptional motoring refinement and supreme efficiency. As a result, the BMW 550i accelerates from a standstill to 100 km/h in just 5.0 seconds, continuing dynamically to its electronically controlled top speed of 250 km/h or 155 mph. Despite this outstanding performance, average fuel consumption of the BMW 550i in the EU test cycle is just 10.4 litres/100 kilometres (equal to 27.2 mpg imp), with a CO<sub>2</sub> emission rating of 243 grams per kilometre.

#### Six-cylinder gasoline engines: setting the standard for smooth, high-speed revving, exemplary refinement, supreme efficiency and innovation.

The new BMW 5 Series once again comes with modern straight-six gasoline engines as a guarantee for superior driving pleasure of the right style for today's world. Delivering maximum output of 225 kW/306 hp and boasting a unique technological concept, the most powerful six-cylinder in the range impressively confirms both the sporting character of the sedan and the innovative power of BMW's drivetrain development specialists. The 3.0-litre straight-six featured in the BMW 535i is the first engine to combine BMW TwinPower Turbo technology, High Precision Injection and variable VALVETRONIC valve management. The engine delivers its maximum torque of 400 Newton-metres or 295 lb-ft all the way from 1,200 – 5,000 rpm and reaches its peak output at 5,800 rpm.

The new BMW 535i accelerates from a standstill to 100 km/h in just 6.0 seconds and reaches an electronically limited top speed of 250 km/h or 155 mph. Average fuel consumption in the EU test cycle is 8.5 litres/100 km (equal to 33.2 mpg imp), the CO<sub>2</sub> rating is 199 grams per kilometre.

The six-cylinder power units featured ion the BMW 528i and the BMW 523i offer an even higher level of efficiency through High Precision Injection.

Both displacing 3.0 litres, these naturally-aspirated power units are supplied with fuel in the lean burn mode through direct injection, thus combining the fast-revving driving characteristics and dynamic power so typical of a BMW six-cylinder with particularly good fuel economy and emission management.

Featuring these technologies, the new BMW 528i delivers maximum output of 190 kW/258 hp at an engine speed of 6,600 rpm and peak torque of 310 Newton-metres or 228 lb-ft all the way from 2,600 – 5,000 rpm. Acceleration to 100 km/h comes in 6.6 seconds and the top speed of the new BMW 528i is limited electronically to 250 km/h or 155 mph. This sporting performance in the sedan comes together with average fuel consumption in the EU test cycle of just 7.8 litres/100 kilometres (equal to 36.2 mpg imp) and a  $CO_2$  rating of 182 grams per kilometre.

The power unit featured in the new BMW 523i delivers maximum output of 150 kW/204 hp at 6,100 rpm and peak torque of 270 Nm/199 lb-ft from 1,500-4,250 rpm. Given this kind of power, the BMW 523i accelerates to 100 km/h in 7.9 seconds and reaches a top speed of 238 km/h or 148 mph. Average fuel consumption of the new BMW 523i in the EU test cycle, finally, is 7.6 litres/100 kilometres (equal to 37.2 mpg imp), with  $CO_2$  emissions of 177 grams per kilometre.

## Six-cylinder diesel engine: superior torque and with optional BluePerformance technology for the EU6 emission standard.

Representing a new generation of straight-six turbodiesels, the 3.0-litre power unit in the BMW 530d offers even greater traction, running smoothness and economy all in one. These qualities so typical of a BMW diesel are ensured by an all-aluminium crankcase, an upgraded turbocharger system with variable turbine geometry, and the latest generation of common-rail fuel injection complete with piezo-injectors.

Given this superior technology, the six-cylinder diesel delivers maximum output of 180 kW/245 hp at an engine speed of 4,000 rpm and reaches its peak torque of 540 Newton-metres or 398 lb-ft between 1,750 and 3,000 rpm.

From a standstill the new BMW 530d accelerates to 100 km/h in 6.3 seconds and reaches a top speed of 250 km/h or 155 mph. Average fuel consumption in the EU test cycle, finally, is 6.3 litres/100 kilometres (equal to 44.8 mpg imp), with  $CO_2$  emissions of 166 grams per kilometre.

Like all other versions of the new BMW 5 Series, the new BMW 520d naturally complies even in standard trim with the EU5 emission standard.

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At the same time optional BMW BluePerformance technology available also on this model in conjunction with automatic transmission further optimises the car's emission management, just as an  $NO_X$  storage catalyst fitted in addition to the diesel particle filter and oxidation catalyst in the same housing serves to further reduce any nitric oxide still remaining in the emissions. As a result, exhaust gas management in the new BMW 530d already complies with the requirements not coming into force until the introduction of the EU6 standard in 2014.

The new BMW 525d is also powered by the latest 3.0-litre straight-six, in this case developing 150 kW/204 hp maximum output at 4,000 rpm. The maximum torque delivered by this all-aluminium diesel is now 450 Newton-metres or 332 lb-ft maintained all the way from 1,750 – 2,500 rpm.

With this kind of torque and pulling power, the new BMW 525d accelerates from a standstill to 100 km/h in 7.2 seconds and reaches a top speed of 236 km/h or 146 mph. The supreme efficiency of this six-cylinder diesel is borne out by average fuel consumption in the EU test cycle of 6.2 litres/100 kilometres, equal to 45.6 mpg imp, and a  $CO_2$  rating of 162 grams per kilometre.

#### Four-cylinder diesel:

#### power up, leadership in efficiency even greater than before.

The wide range of engines available in the new BMW 5 Series is further enhanced by an upgraded turbodiesel setting new benchmarks for efficiency in this segment: the 2.0-litre four-cylinder diesel featured in the new BMW 520d combines a composite aluminium crankcase, the latest generation of common-rail direct fuel injection, and a turbocharger with variable turbine geometry.

The maximum output developed by this four-cylinder is up by 5 kW/8 hp to 135 kW/184 hp and comes at an engine speed of 4,000 rpm. Peak torque up by 30 to 380 Nm or 280 lb-ft is maintained consistently all the way from 1,900 - 2,750 rpm. This allows the new BMW 520d to reach the 100 km/h-mark in just 8.1 seconds, with a top speed of 227 km/h or 141 mph (provisional figures).

Average fuel consumption in the EU test cycle of just 5.0 litres/100 kilometres (equal to 56.5 mpg imp) and a  $\rm CO_2$  rating of 132 grams per kilometre (provisional figures) again help to enhance the leadership of the BMW 520d as the most efficient car in its segment.

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## Optimised six-speed manual gearbox, innovative eight-speed automatic transmission.

The transmission of power to the rear wheels also uses innovative technology for enhanced driving pleasure and yet a further increase in efficiency. All six-cylinder versions of the new BMW 520d come as standard with a six-speed manual gearbox optimised for maximum efficiency, while the BMW 550i features the new eight-speed automatic transmission available as an option on all the other models.

This innovative automatic transmission excels through its new configuration of gears and minimum converter slip, providing an unprecedented combination of gearshift comfort, sportiness and efficiency making the new transmission far superior in all areas to other automatic and double-clutch transmissions offered by the competition.

As a further option the new BMW 5 Series Sedan is also available with a Sports Automatic version of the eight-speed transmission enabling the driver to shift gears manually via shift paddles on the steering wheel.

## BMW EfficientDynamics featured as standard for even greater efficiency in the upper midrange segment.

All drive technologies featured in the new BMW 5 Series Sedan come from the BMW EfficientDynamics development strategy. Apart from the gasoline and diesel engines optimised for maximum fuel economy, the transmission offering a particularly high standard of efficiency, comprehensive lightweight construction, aerodynamics refined to the last detail and numerous other technologies give every version of the new BMW 5 Series in its respective class incomparably favourable fuel consumption and emission figures. Depending on the model involved, this means a combination of Brake Energy Regeneration including a recuperation display, a gearshift point display, on-demand management of ancillary units, active cooling air flap control, and EPS Electric Power Steering.

As an additional feature the new BMW 520d comes as standard with Auto Start Stop reducing the duration of idle speed in short stops. As soon as the driver shifts to neutral and takes his foot off the clutch pedal, the engine is cut off automatically. Then, once the driver is able to continue, all he has to do is press the clutch to start the engine again without the slightest delay.

#### **BMW Connected Drive:**

#### innovative driver assistance systems, perfect networking.

Offering a broad range of driver assistance systems and mobility services providing traffic information, an emergency call function, vehicle, enquiry and

office services, a travel and leisure time planner, as well as internet services in the context of BMW ConnectedDrive quite unique the world over, the new BMW 5 Series Sedan sets new standards in its segment for superior, comfortable and safe motoring. The range of features provided includes a number of innovations now seen for the first time in the upper midrange segment as well as further highlights making their world debut in the new BMW 5 Series Sedan.

## Innovation No 1 – the BMW Parking Assistant: extra comfort thanks to fully automatic steering and optimum driver guidance.

The new BMW 5 Series Sedan is the first car available as an option with the BMW Parking Assistant supporting the driver for safe and comfortable manoeuvring into parking space parallel to his direction of travel. Ultrasound sensors in the side indicator surrounds permanently measure the length and width of potential parking spaces next to the road or on the shoulder up to a drive-by speed of 35 km/h or 22 mph. Then all the driver has to do is press the iDrive Controller to use the Parking Assistant and manoeuvre conveniently into an appropriate parking space.

From now on the driver is only required to press the gas and brake pedals and to monitor the parking manoeuvre, with the Parking Assistant moving the steering wheel as required for a precise process of backing up into the parking space available. Receiving acoustic and visual directions, the driver is guided through the entire parking procedure as such.

## Innovation No 2 – Surround View: perfect overview when manoeuvring.

The new BMW 5 Series Sedan is also available with a back-up camera transmitting colour pictures in exactly the right perspective to the Control Display.

An even better and more comprehensive overview is provided by BMW Surround View using not only the back-up camera and the PDC Park Distance Control sensors, but also two cameras in the side mirrors.

Data on the car and its surroundings collected in this way is processed by a central computer generating an overall image presented in the Control Display and showing both the car itself and its surroundings from a bird's eye perspective.

As a sub-system of the optional Surround View function, the driver is also able to use Sideview using two cameras integrated in the front wing of the car to observe cross traffic coming from either side.

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## Collision warning with initiation of the brakes in combination with Active Cruise Control and Stop & Go.

The BMW 5 Series Sedan comes as standard with cruise control incorporating an active brake function. This system acts on both engine management and the brakes as well as the selection of gears on cars with automatic transmission in order to consistently maintain the desired speed set by the driver.

Optional Active Cruise Control with Stop & Go gives the driver even better and more comprehensive support by means of automatic distance control allowing the driver to cruise along smoothly in flowing traffic on the autobahn or a country road and maintaining the distance selected from the vehicle ahead when driving stop-and-go at very low speeds. Wherever necessary, the brakes are applied and the car is kept safely in position.

The new BMW 5 Series Sedan comes for the first time with collision warning and initiation of the brakes in combination with Active Cruise Control. While both systems may be activated independently of one another, they are tailored to each other in their functions.

Collision warning with brake initiation features a two-stage alarm scenario: The pre-warning function is limited to an optical warning presented whenever cruise control is not active. Whenever, on the other hand, the driver is required to intervene particularly quickly, the system generates an acute warning made up not only of an optical, but also an acoustic warning function.

This also initiates a deceleration function with the brakes being applied for a maximum of 1.2 seconds at a deceleration rate of 3 metres/sec<sup>2</sup>. In combination with a signal flashing on-and-off in the instrument cluster and a warning buzzer, the driver is prompted in this way to react immediately.

Thanks to the brake system pre-conditioned with these two warning stages, the driver receives all the information and technical support he needs to avoid a collision or at least keep its consequences to a minimum.

#### Keeping right on course:

#### Lane Change Warning and Lane Departure Warning.

Lane Change Warning available as an option in the new BMW 5 Series warns the driver of potentially critical situations when overtaking. Using two radar sensors at the back of the car, the system monitors traffic conditions on the adjacent lanes covering a range stretching back from the driver's blind angle on the next lane over a distance of approximately 60 metres or 200 feet. A yellow-lit triangular symbol integrated in the housing of the left exterior

mirror informs the driver whenever appropriate that another vehicle is critically close and therefore instructs him not to overtake.

Likewise available as an option, Lane Departure Warning recognises any undesired deviation from the right course at a speed of at least 70 km/h or 50 mph. The system is made up of a camera fitted near the interior mirror on the windscreen, a control unit for comparing data, and a signal sensor which, like with the Lane Change Warning function, makes the steering wheel vibrate as a signal clearly perceived by the driver.

Lane Departure Warning also works in bends, on narrow lanes and in the dark once the driver has switched on the headlights.

#### **Speed Limit Info and Speed Limit Device.**

The camera fitted in the car also allows the use of a further driver assistance system for extra comfort: Interacting with BMW's navigation system Professional, Speed Limit Info offers the driver information on current speed limits on the route he is taking.

To provide this function the camera permanently monitors road signs next to the road as well as variable signs above the autobahn or similar expressways. The speed limit read by the camera is then presented in the instrument cluster or in the optional Head-Up Display.

Supplementing the Speed Limit Info function, the new BMW 5 Series is also available with a Speed Limit Device actively limiting the speed of the car.

## Greater safety at night: xenon headlights, High-Beam Assistant and BMW Night Vision with detection of individual persons.

In conjunction with bi-xenon headlights available as an option, the new BMW 5 Series Sedan is also available with the latest generation of Adaptive Headlights including Bending Lights, variable light distribution and adaptive headlight range control.

The optional High-Beam Assistant ensures additional safety when driving at night. Taking driving conditions into account, this sophisticated system switches the high-beam headlights on and off automatically as required.

BMW is the world's first car maker to offer Night Vision even able to recognise individual persons. Hence, the second generation of BMW Night Vision available as special equipment in the new BMW 5 Series sets standards in the avoidance of accidents when driving at night.

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#### Head-Up Display: important information whenever required.

The optional Head-Up Display projects information relevant to the driver such as the current speed of the car, warning instructions from the driver assistance systems or navigation data on to the windscreen right in the driver's line of vision. Even the brightness of the display and the range of information presented may be varied individually according to current requirements.

Given the diversity of driver assistance systems available in the new BMW 5 Series Sedan, the range of information provided by the Head-Up Display reaches a level never seen before.

## Automatic air conditioning featured as standard, four-zone climate control available as an option.

The engine of the new BMW 5 Series Sedan comes as standard with a Start/Stop button ready for use once the wireless key is in the car. In other words, the driver is not even required any more to insert the key the usual way.

A separate control display beneath the audio system on the centre console serves to activate and control the automatic air conditioning, heating and ventilation. Featured as standard, the automatic air conditioning provides separate temperature control on the driver's and front passenger's side, auxiliary ventilation at a standstill, an anti-mist function on the windows, as well as efficient use of residual heat. Automatic air conditioning with an enhanced range of functions and four-zone automatic air conditioning are both available as an option

#### Navigation system Professional with hard disc memory.

The optional navigation systems are masterminded by iDrive control. Both on the Business and the Professional navigation system, maps are presented in high-resolution graphics together with arrows showing the correct route. Full-screen map presentation on the navigation system Professional also offers an exceptionally detailed overview of the region through which the driver is currently travelling, presenting travel maps and symbols as three-dimensional graphics.

A pre-view map makes it even easier for the driver to select his destination, while the High Guiding function even recommending the right lane presents detailed views directly in the instrument cluster and, as an option, on the Head-Up Display.

The BMW Routes function is available as a further feature of BMW ConnectedDrive, enabling the driver and passengers to compile specific routes in the internet and then download the routes chosen into the car.

On the navigation system Professional all navigation data is saved on an 80 GB hard disc memory. Installed permanently within the car, this hard disc is also able to take up an individually compiled music archive of a capacity of more than 12 GB specially reserved for this purpose.

Optional preparation for installation of a mobile phone complete with a Bluetooth interface enables the user to control the functions of this telephone by iDrive within the car. Using the enhanced integration of the music player in his mobile phone, the user is also able to integrate the MP3 function of Smartphones such as the Apple iPhone in the car's control system.

#### Bodyshell: perfect combination of strength and low weight.

The new BMW 5 Series Sedan comes with an extremely stiff passenger cell. Intelligent use of high-strength multi-phase steel and hot-moulded, ultra-high-strength steel gives the safety passenger cell maximum strength on relatively low weight. Compared with the former model, the mean stiffness of the body structure is up approximately 55 per cent.

High-load-resistant bearer structures generously designed and exactly defined deformation zones as well as highly efficient restraint systems coordinated by high-performance electronic control set the foundation for a high standard of passive safety in the new BMW 5 Series Sedan.

Apart from frontal and hip/thorax airbags, the safety system comes as standard with side curtain airbags for both rows of seats, three-point inertia-reel belts on all seats, crash-activated headrests at the front, and ISOFIX child seat fastenings at the rear. To optimise passive pedestrian safety, the new BMW 5 Series Sedan comes with an active engine compartment lid wherever approved by law.

Apart from the engine compartment lid, the front side panels and front spring supports on the body, the doors on the new BMW 5 Series Sedan are also made of aluminium. Indeed, the use of aluminium doors alone replacing conventional steel components reduces the overall weight of the car by approximately 23 kg or 51 lb.

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The seating position has been further optimised over the former model both front and rear. Kneeroom on the rear seats in the new BMW 5 Series Sedan, for example, is up by 13 millimetres or more than 0.5". Luggage capacity is 520 litres and the optionally available folding rear-seat backrest offers additional flexibility in enlarging the transport capacity used. Further options are a contoured sliding roof and a towbar with an electrically swivelling ball head.

The launch of the new BMW 5 Series Sedan opens up the latest chapter in a truly impressive story of success. In the course of five generations, BMW has sold more than 5.5 million units of the 5 Series. The new model is based on a newly developed vehicle architecture also used for the BMW 7 Series Luxury Performance Sedan.

Joint production of the BMW 5 Series Sedan and the BMW 7 Series at BMW Plant Dingolfing, including the use of shared parts and components, ensures highly efficient production in combination with a supreme standard of all-round quality.

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# 3.2 Consistent Progress for Greater Efficiency and Driving Dynamics: The BMW Concept 5 Series ActiveHybrid.



Parallel to the world debut of the new BMW 5 Series Sedan at the 2010 Geneva Motor Show, BMW is also presenting the concept of a future-oriented full-hybrid model in the upper midrange segment: The BMW Concept 5 Series ActiveHybrid for the first time offers the combination of a BMW straight-six with electric drive, setting new standards for sporting pleasure at the wheel and superior sustainability in this segment.

The new concept car offers a particularly good rendition of the new BMW 5 Series Sedan in all its dynamic, efficient and innovative qualities, at the same time representing the ongoing development of the BMW ActiveHybrid X6 and the BMW ActiveHybrid 7 with their drivetrain technology already in production.

The drive system featured in the BMW Concept 5 Series ActiveHybrid consists of a straight-six gasoline engine with TwinPower Turbo technology, eight-speed automatic transmission, and electric drive. Integration of BMW ActiveHybrid technology in a sedan already extremely efficient with its "conventional" combustion engine reduces both fuel consumption and emissions once again by more than 10 per cent. At the same time the electric motor offers a boost function, supporting the gasoline engine in generating particularly dynamic drive power for an even more sporting driving experience in the car.

Intelligent energy management likewise serves to enhance the efficiency of the overall system, its unique functions ensuring appropriate control and management of all energy paths within the car and appropriate interaction of the drivetrain components precisely adjusted to driving conditions.

The drivetrain technology featured in the BMW Concept 5 Series ActiveHybrid allows all-electric, zero-emission motoring in city traffic. At the same time a special hybrid-based Auto Start Stop function offers additional efficiency by consistently switching off the combustion engine when stopping at the traffic lights, a road junction, or in congested traffic. Optimised comfort, finally, is provided by the auxiliary climate control function already featured in the BMW ActiveHybrid 7.

## Special development of ActiveHybrid technology as part of BMW EfficientDynamics.

The concept car based on the new BMW 5 Series Sedan for the first time presents the next generation of BMW ActiveHybrid technology, a special solution exclusive to BMW for intelligent interaction of the combustion engine and electric drive focused specifically on the requirements made of a dynamic sedan in the upper midrange segment.

Taking this approach, BMW is consistently continuing the development of hybrid technology according to a modular principle (best of hybrid), thus offering the optimum rendition of BMW ActiveHybrid technology for each concept and vehicle segment.

In accordance with the BMW EfficientDynamics development strategy, this ensures highly effective and practical use of hybrid technology for the reduction of both fuel consumption and emissions.

## Also in the BMW Series Sedan segment: the BMW among hybrids combines supreme dynamics with maximum efficiency.

The combustion engine is supported in the BMW Concept 5 Series ActiveHybrid by an electrical drive system developed specifically for this model and arranged in compact dimensions between the straight-six combustion engine and the automatic transmission. Drawing its energy from a high-voltage battery at the back of the car, the electric motor develops maximum output of 40 kW.

An automatic clutch connects the gasoline engine and the electric motors.

Due to the particularly high level of torque generated from the start through the electric motors, the interaction of the two drive systems ensures extremely spontaneous and dynamic acceleration whenever required.

#### Perfectly integrated, precisely controlled: high-voltage battery supplying power to both the electric motor and the on-board network.

In overrun and when applying the brakes, the electric drive systems acts as a generator developing electric power fed into the high-voltage battery. This converts kinetic energy otherwise wasted as heat in the brake system into electric power saved for subsequent use.

Such energy obtained without any further consumption of fuel may then be used to generate drive power or operate electrical functions in the car.

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This principle is the same as that of Brake Energy Regeneration already applied in BMW's current production models, with the level of electrical energy generated by the electric motor being significantly greater and the increase in efficiency correspondingly higher.

The high-voltage battery likewise developed for this specific concept is fitted within a high-strength special case near the rear axle of the BMW Concept 5 Series ActiveHybrid. This leads to an optimum position in terms of both safety and harmonious weight distribution. An integrated control unit permanently analyses the charge status of the high-voltage battery and controls both the battery charge process by way of Brake Energy Regeneration and the system cooling process. Apart from the electric motor, the high-voltage battery also delivers electric power to the car's on-board network. Among other things, this allows efficient operation of the car's auxiliary climate control activated whenever required by a remote control function to cool down the car's interior significantly even before starting the engine.

Convenient use of the all-electric driving mode and the Auto Start Stop function is likewise guaranteed in this way, with all electrical functions such as the audio system, climate control or navigation remaining fully available even with the combustion engine switched off.

## Unique: intelligent energy management with advance analysis of driving conditions.

BMW ActiveHybrid technology provides its unique potential in terms of both efficiency and driving dynamics under all kinds of conditions and throughout a wide load range.

Unlike conventional hybrid cars whose extra efficiency is largely limited to city traffic, both the BMW ActiveHybrid X6 and the BMW ActiveHybrid 7, by combining the combustion engine and the electric motor, are able to offer significantly lower fuel consumption and emission ratings also at higher speeds. This is made possible by technically sophisticated power electronics masterminding the interaction of the combustion engine and electric motor and thus optimising the overall efficiency of the drive system as a whole.

The BMW Concept 5 Series ActiveHybrid once again raises the range of functions provided by such power electronics to an even higher standard. As an example, the energy contained in the fuel and provided by the high-voltage battery may now be used even more specifically and efficiently to provide that Sheer Driving Pleasure so typical of BMW.

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Taking additional factors into account, the interaction of the two drive units in the BMW Concept 5 Series ActiveHybrid is tailored to the driver's requirements and current driving conditions with maximum precision. At the same time the power electronics also control the operation of the car's ancillary units and comfort functions, again in the interest of maximum efficiency.

The range and diversity of parameters taken into account by the system is indeed quite unique in the automobile, just as the number of functions controlled in this way. A high level of all-round networking allows the power electronics to provide intelligent energy management, thus optimising the operating strategy of the entire vehicle under all conditions.

A further unique feature of energy management in the BMW Concept 5 Series ActiveHybrid is the car's ability to adjust its operating strategy not just to current, but also to upcoming driving conditions. To do this the power electronics from the start evaluate data indicating a possible change in exterior conditions or the driver's wishes and prepare the components in the drivetrain as well as the car's electronic system for a possible change in requirements.

To analyse driving conditions up front, the system uses data provided by engine and chassis management as well as the sensors in the driver assistance systems on board the car. Data saved in the navigation system on the route chosen by the driver likewise goes into the final calculation, enabling the system to forecast driving conditions on the route directly ahead. Then, proceeding from this analysis, the car is coordinated in advance and the optimum use of all systems serves to use the energy available with maximum efficiency.

Should the system determine, for example, that the autobahn ahead is about to lead downhill, the charge level of the higf-voltage battery is intelligently controlled in advance to regain brake energy upfront with maximum efficiency.

Similarly, the high-voltage battery may be fully charged in good time before the driver reaches his destination, enabling the system to switch off the combustion engine at an early point and change to all-electric drive along the final stretch of road. Indeed, this forward-looking function is able to extend the cruising range on electric power by up to 30%.

## The BMW Concept 5 Series ActiveHybrid: the future of driving pleasure and efficiency in the upper midrange segment.

Optimised to an even higher standard in the BMW Concept 5 Series ActiveHybrid, the drivetrain and control systems underline the great

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significance of hybrid technology as a cornerstone of BMW EfficientDynamics. Looking at a new generation of hybrid technology from BMW featured in the BMW Concept 5 Series ActiveHybrid therefore offers particularly attractive perspectives, the ongoing development of BMW ActiveHybrid technology serving to provide substantial progress in all areas leading to a harmonious all-round concept with distinctive features typical of the brand.

The BMW Concept 5 Series ActiveHybrid is therefore more dynamic, efficient and more intelligent than conventional representatives of this drive technology, standing out clearly as the BMW among hybrid cars in this segment.

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# 3.3 Elegance and Sportiness at Their Best: The New BMW 3 Series Coupé. The New BMW 3 Series Convertible.



Both the BMW 3 Series Coupé and the BMW 3 Series Convertible combine the driving pleasure so typical of a BMW 3 Series with individual style and a sporting, elegant look. And now the driving experience so characteristic of each model is being raised to an even higher level of fascination.

Boasting appropriate modifications in design at the front, the side and the rear of both models, as well as a significantly updated range of engines and innovative features, the new two-door models are more dynamic, efficient and modern than ever before. The new BMW 3 Series Coupé is further enhancing its leadership over the competition through its unique aesthetic design and superior sportiness. The new BMW 3 Series Convertible combines the unparalleled qualities of an electrically retractable hardtop and a particularly intense experience of motoring in the open air with elegance refined to an even higher standard, enhanced comfort and optimised efficiency.

Innovations at the front, the side and the rear precisely integrated into the overall look of the car add further emphasis to the superior sportiness of both models. At the same time these modifications make the front and rear overhangs slightly longer, giving the car an even sleeker, more stretched and dynamic silhouette.

In addition to these new features, the BMW 3 Series Coupé and Convertible now come with newly designed headlights in new configuration and with innovative lights technology. At the rear the characteristic, split L-shape of the rear light clusters is now combined with a new and particularly harmonious colour scheme.

As a new entry-level version in Germany, the BMW 318i adds further momentum to the entire range of the BMW 3 Series Coupé and the BMW 3 Series Convertible. Further innovations in the range of engines give extra power and torque to the BMW 320d and the BMW 325d, plus the introduction of a new straight-six power unit with BMW TwinPower Turbo technology, direct gasoline injection and VALVETRONIC on the top-of-the-range BMW 335i Coupé and BMW 335i Convertible. Clearly, all versions of both models comply in full with the EU5 emission standard.

The new BMW 3 Series Coupé and the BMW 3 Series Convertible both come as standard with an optimised sports steering wheel featuring multifunction control buttons. The gearshift paddles on the steering wheel featured in combination with optional Sports Automatic, in turn, now follow a new control logic.

New paintwork colours, a modified range of leather upholstery as well as innovative office and entertainment functions from BMW ConnectedDrive, finally, add further highlights to the looks of the car and the unique driving experience offered by the new BMW 3 Series Coupé and the BMW 3 Series Convertible.

#### Design: precise highlights for a sporting and elegant look.

Through its specific proportions, the BMW 3 Series Coupé authentically renders the sporting and elegant character of this unique two-door. The classic lines of the car are characterised by the long and sleek engine compartment lid, the steeply raked A-pillars, the passenger cell moved far to the back, the long wheelbase and the flowing line of the roof. This creates the stretched and dynamic side view of the car, giving the Coupé its unmistakable aesthetic appeal.

The BMW 3 Series Convertible likewise comes with a strikingly low and sleek sideline particularly attractive with the roof open. The three elements of the electrically retractable hardtop are stowed in compact arrangement above one another at the rear of the car, giving the BMW Convertible its horizontal waistline so characteristic of an open-air BMW and, together with the seating position of the driver and front passenger moved far to the back, offering that typical feeling of maximum openness for particularly close contact with your surroundings.

With the hardtop closed, the Convertible still stands out from the Coupé mainly through the greater accentuation of the roofline at the back of the car. At the same time the integrated aerial further emphasises the smooth flow of lines and the harmonious overall look.

Both on the new BMW 3 Series Coupé and the new BMW 3 Series Convertible, the dynamically stretched silhouette is further accentuated by new, innovative design features at the front, side and rear. These modifications of the car's body involve the engine compartment lid, the front air dam, the BMW kidney grille, the side-sills and the rear air dam. The front overhang, for example, is 29, the rear overhang 3 millimetres longer.

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Beautifully chiselled in design also from the side, the front air dam symbolises a forward-pushing motion, with two light contours extending out of the side-sills adding an even greater touch of dynamism. The entire front end extending further out both on the new BMW 3 Series Coupé and the new BMW 3 Series Convertible also serves as a final important point to optimise the high level of pedestrian safety both models have to offer.

With the BMW kidney grille wider than before and the three-dimensional look of the entire front section, the new BMW 3 Series Coupé and the new BMW 3 Series Convertible have additional stance and presence. The frame surrounding the kidney grille is now formed by a precisely twisted band of chrome. The second highlight in the new front end design is the horizontally oriented air intake stretching from one side to the other to significantly emphasise the width of the respective model. In the side sections the air intake is split horizontally by silver-coloured trim bars extending from the round foglamps positioned far to the outside all the way to the BMW kidney grille.

In the middle the air intake is fully open, bordering at the bottom on a precisely chiselled air bar again split up into three sections, with its centrepiece sticking out slightly to the front and connected harmoniously to the side panels left and right.

### Innovative xenon headlights with LED daytime driving lights and LED character lights.

Both the new BMW 3 Series Coupé and the new BMW 3 Series Convertible come as standard with bi-xenon headlights. The dual round headlights feature modified contour lines and innovative lights technology. At the top they are cut off by a character bar creating that concentrated look so typical of a genuine BMW.

The light sources as such are formed by two cylindrical headlights on each side.

Adaptive Headlights are available as an option, following the steering wheel and, accordingly, the course of the road ahead. A further function integrated in the Adaptive Headlights is Bending Lights using the inner headlight units. Additional features are variable light distribution for appropriate illumination of the road ahead in town and on the autobahn as well as Adaptive Headlight Range Control.

The daytime driving light function so characteristic of a BMW is provided as a standard feature by light rings inside the headlights themselves.

The optional LED Package, in turn, comes with LED light rings operating in two power stages: dimmed to approximately 10 per cent of their full output, they serve as positioning lights, operating at full power they provide the desired daytime light function.

This option also includes direction indicators in LED technology and character lights also using LED units on the upper edge of the headlights themselves.

#### Rear lights: attractive harmony during the day and at night.

The rear lights in their split L-shape so characteristic of both models are further accentuated on the new BMW 3 Series Coupé and the new BMW 3 Series Convertible by a new colour scheme. Featuring two rows of lights with consistent brilliance, they create that night design so typical of a BMW. Glass covers finished consistently in red now give the lights an even more harmonious look, while an additional horizontal light bar in the rear air dam further accentuates the sheer width of the car, giving the entire rear end a flatter and smoother look through the light and shade effects created in this way.

The exterior mirrors are yet another innovation adding to the highly attractive look to the new BMW 3 Series Coupé and the new BMW 3 Series Convertible. In their dimensions they clearly meet all legal requirements in terms of mirror size. And in their new format the exterior mirrors blend harmoniously with the side view of the respective model.

The range of paintwork colours on both models now also includes Deep Sea Blue Metallic and Vermilion Red Metallic, with Mineral White Metallic joining the choice of colours available in June 2010.

The range of optional light-alloy wheels, in turn, now comprise four newly designed wheels measuring 17" and, respectively, 18". In conjunction with the optional M Sports Package, extra-sporting 19-inch wheels are also available.

### Interior: stylish highlights provided by new leather colours and interior trim bars.

A wide range of colours and materials offer numerous options and freedom of choice in personalising the interior of the new BMW 3 Series Coupé and the new BMW 3 Series Convertible. Both models come as standard with new diagonal cloth upholstery, optional Dakota leather upholstery is now also available in soft-grey Oyster. At the same time the range of interior trim bars is supplemented by the particularly modern and sophisticated version Bamboo Grain Anthracite.

The modified leather sports steering wheel featured as standard in both the BMW 3 Series Coupé and the BMW 3 Series Convertible is particularly stylish and sophisticated. The rim on the steering wheel is finished in both cases in smooth leather, the trim on the three-spoke steering wheel comes in imitated leather grain and the galvanised rim bars are finished in Chrome Pearl Grey.

The leather sports steering wheel features multifunction buttons as standard and gearshift paddles for shifting gears automatically are available in conjunction with the optional automatic transmission and, respectively, Sports Automatic with double clutch.

#### **Engine range:**

#### greater efficiency, more power and a new entry-level model.

All models in the BMW 3 Series offer a particularly good balance of performance and fuel economy – and numerous innovations in the range of engines enable the new BMW 3 Series Coupé and the new BMW 3 Series Convertible to further enhance this leading position in their respective segments.

Both the gasoline engines all featuring High Precision Injection and the turbodiesels boasting common-rail direct injection stand out through their particularly high level of efficiency. At the same time all variants of the BMW 3 Series Coupé and the BMW 3 Series Convertible come as standard with a wide range of technologies from BMW EfficientDynamics. In combinations varying from one model to another, these include Brake Energy Regeneration, Auto Start Stop, a gearshift point indicator, on-demand management of ancillary units including EPS Electric Power Steering, a detachable a/c compressor and a map-controlled oil pump as well as optimised aerodynamics, tyres with reduced roll resistance and intelligent lightweight construction. And last but certainly not least, all engines featured in the new BMW 3 Series Coupé and the new BMW 3 Series Convertible fulfil the EU5 emission standard.

Introducing the BMW 318i in Germany, both the Coupé and the Convertible versions of the BMW 3 Series are now available with a new entry-level configuration. Both of these new models are powered by a 2.0-litre four-cylinder gasoline engine with direct fuel injection in the lean burn mode.

Also referred to as stratified charging, lean burn injection offers superior engine power on a small amount of fuel.

In High Precision Injection fuel is sprayed into the combustion chambers by injectors positioned directly next to the spark plug. In the lean burn mode

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various levels of the fuel/air mixture are formed within the combustion chambers, with an ignitable mixture forming only in the direct vicinity of the spark plug. Once this more highly concentrated level of fuel ignites, the process continues through the lean burn layers further away from the plug.

Using this technology, the power unit in the BMW 318i delivers maximum output of 105 kW/143 hp at an engine speed of 6,000 rpm and peak torque of 190 Newton-metres/140 lb-ft at 4,250 rpm. This accelerates the BMW 318i Coupé from a standstill to 100 km/h in 9.1 seconds, while the BMW 318i Convertible completes the same exercise in 10.3 seconds. Top speed in both cases is 210 km/h or 130 mph.

In the EU test cycle the BMW 318i Coupé averages fuel consumption of just 6.3 litres/100 kilometres (equal to 44.8 mpg imp), with a  $\rm CO_2$  rating of 146 grams per kilometre. The corresponding figures for the BMW 318i Convertible are 6.6 litres (42.8 mpg imp) and 154 grams.

#### Innovative engine technology on the top models

The models right at the top also stand out through their supreme efficiency ensured by innovative technology: The new BMW 335i Coupé and the new BMW 335i Convertible are both entering the market with a newly developed straight-six power unit for the first time combining BMW TwinPower Turbo technology, High Precision Injection and fully variable VALVETRONIC valve management. Displacing 3.0 litres, the engine develops maximum output of 225 kW/306 hp at 5,800 rpm and peak torque of 400 Newton-metres/295 lb-ft all the way from 1,200 – 5,000 rpm.

The turbocharger system featured on this new power unit applying the TwinScroll principle both in the exhaust manifold and in the turbocharger itself to separate the ducts of three cylinders at a time from one another, and VALVETRONIC valve management enhanced to an even higher standard, give the engine fascinating, direct response to the gas pedal.

The combination of these features with direct gasoline injection gives the new power unit the output of a naturally-aspirated eight-cylinder on unusually low fuel consumption and emissions. The BMW 335i Coupé accelerates from a standstill to 100 km/h in 5.5 seconds (BMW 335i Convertible: 5.8 seconds), and both models reach an electronically limited top speed of 250 km/h or 155 mph. Average fuel consumption in the EU test cycle is 8.4 litres/100 kilometres, equal to 33.6 mpg imp for the Coupé and 8.8 litres/100 km (equal to 32.1 mpg imp) with the Convertible. The respective CO<sub>2</sub> ratings are 196 and 205 grams per kilometre.

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#### Full of torque and highly efficient: new diesel engines in the BMW 325d and the BMW 320d.

The introduction of the new BMW 3 Series Coupé and the new BMW 3 Series Convertible also marks the launch of two new diesel engines: The BMW 325d Coupé and the BMW 325d Convertible both boast a new representative of the latest generation of BMW's straight-six diesels. With engine capacity of 3.0 litres, the new engine features a turbocharger with variable turbine geometry, an aluminium crankcase and the latest generation of common-rail direct fuel injection. Maximum output is 150 kW/204 hp at 3,750 rpm, peak torque is 430 Newton-metres/317 lb-ft at 1,750 rpm.

The new BMW 325d Coupé accelerates to 100 km/h in 6.9, the new BMW 325d Convertible in 7.5 seconds. Top speed is 244 km/h (151 mph) and, respectively, 238 km/h (148 mph). Average fuel consumption according to the EU standard is 5.7 litres/100 kilometres (equal to 49.6 mpg imp) on the Coupé and 6.1 litres (46.3 mpg imp) on the Convertible, with a  $\rm CO_2$  rating of 151 and, respectively, 160 grams per kilometre highlighting the exceptional efficiency of this new engine variant.

Like the new six-cylinder, the four-cylinder diesel featured in the BMW 320d Coupé and the BMW 320d Convertible offers an increase in power by 5 kW/8 hp. Specific improvements to increase the level of efficiency give this power unit a new standard of all-round efficiency in every respect, the 2.0-litre now delivering maximum output of 135 kW/184 hp at 4,000 rpm, with maximum torque up by 30 Newton-metres over the former model to 380 Newton-metres/280 lb-ft at 1,900 rpm.

The new BMW 320d Coupé accelerates from standstill to 100 km/h in just 7.5, the Convertible in 8.3 seconds. Top speed is 237 km/h (147 mph) and, respectively, 228 km/h (141 mph). Particularly in relation to this kind of performance, fuel consumption in the EU test cycle of just 4.7 litres/ 100 kilometres, equal to 60.1 mpg imp, in the new BMW 320d Coupé and 5.1 litres or 55.4 mpg imp in the BMW 320d Convertible is truly outstanding in every respect, as are the CO<sub>2</sub> emissions of 125 and, respectively, 135 grams per kilometre.

### New diversity in the range of engines, all-wheel drive on five coupé models, Sports Automatic with double clutch.

The new entry-level models increase the range of diversity in the choice of power units for the BMW 3 Series Coupé and Convertible to an even higher standard: Now the new BMW 3 Series Coupé is available with no less than five gasoline and four diesel engines, the new BMW 3 Series Convertible comes with a choice of five gasoline and three diesel power units.

On both models the range of gasoline engines is made up of two fourand three six-cylinder engines, while the diesels include one four-cylinder and three or, respectively, two six-cylinders.

Intelligent BMW xDrive all-wheel drive is available as yet a further option on the powertrain for no less than five versions of the BMW 3 Series Coupé and may be combined with three gasoline and two diesel engines.

The new BMW 3 Series Coupé and the new BMW 3 Series Convertible come as standard with a six-speed manual gearbox. The BMW 335i and the BMW 320d both feature a newly developed gearbox with dry sump lubrication enhancing the efficiency of both models to an even higher standard than before.

The BMW 320i, the BMW 325i, the BMW 330i, the BMW 320d, the BMW 325d and the BMW 330d are all available as an option on both body versions with six-speed automatic transmission featured as standard on the BMW 335d.

The BMW 335i Coupé and the BMW 335i Convertible come as an option with seven-speed Sports Automatic featuring double-clutch operation. This state-of-the-art transmission shifts gears without the slightest interruption of engine power, thus ensuring truly outstanding acceleration and dynamic performance. Indeed, both models even out-accelerate their counterparts with a manual gearbox and at the same time come with the same level of fuel economy. A further advantage is that the double-clutch gearbox offers all the usual comfort features of a BMW automatic transmission, giving the driver the choice of an automated or manual gearshift.

On all models fitted with automatic transmission or, respectively, Sports Automatic, the driver is able to shift gears manually either on the selector lever or, as an option, via gearshift paddles on the steering wheel. The gearshift paddles included in Sports Automatic with double-clutch operation now follow a new control logic, the right paddle serving to switch up, the left paddle to shift down. This control logic carried over from BMW's M Cars gives the driver an even more intense and dynamic experience of the unusually quick gearshift offered by Sports Automatic.

### Innovative office and entertainment functions from BMW ConnectedDrive.

The innovative features offered by the BMW 3 Series naturally also include new services from BMW ConnectedDrive. Carefully networking the car with its surroundings, BMW ConnectedDrive optimises both motoring comfort

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and safety as well as the use of entertainment functions. The services offered by BMW ConnectedDrive include features such as unrestricted use of the internet in the car, a telephone enquiry service transmitting data directly to the navigation system, the option to download individual routes by means of BMW Routes, as well as the Enhanced Emergency Call function precisely pinpointing the location of the car and sending rescuers quickly and directly to the scene of an accident.

Entering the 2010 model year, this wide range of services is being expanded by additional functions in part exclusive to BMW – functions available both in the new BMW 3 Series Coupé and the new BMW 3 Series Convertible. The highlight is the optimised integration of mobile phones and external entertainment devices in the car's iDrive control system. This also means the expansion of voice entry to the control and operation of external devices.

A further highlight now available for the first time is the option to download software packages for the integration of new mobile phones or audio players into the car via a BMW online portal, thus updating the status of the system whenever required.

After downloading software through a USB stick into the car, the new devices may also be fully integrated into the iDrive control system. The only prerequisite for using these new offers from BMW ConnectedDrive is that the car is fitted with the optional navigation system Professional.

These new services from BMW ConnectedDrive allow even safer, more convenient and comprehensive use of telephone and office functions while driving. At the same time BMW is the world's first car maker to offer the technology required to transmit text messages from your mobile phone directly to the iDrive Control Display. And last but not least, the driver can even have text messages received in the car rear out loud by voice presentation.

Yet another unique feature is the option to synchronise calendar entries, tasks and memos between the mobile phone and BMW iDrive, the most important manufacturers of mobile phones supporting the interface provided for this purpose, so that a large number of customers will be able to use this function right from the start. A further benefit is that the new technology also allows the user to present contact lists and images on the screen.

Yet another innovation is the option to download audio files from external devices via Bluetooth. The mobile audio player is remotely controlled in

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this process through wireless communication, as is the transfer of audio files into the car's entertainment system.

The use of entertainment functions is likewise more attractive than ever before through the presentation of album cover pictures enabling the driver or passenger to select the music programme on the Control Display with even greater ease and convenience. And again, BMW is the world's first car maker to offer this function.

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# 3.4 The Original – Better than Ever Before: The New BMW X5.



More dynamic, more efficient and more luxurious than ever before, the new BMW X5 is further increasing its leadership in the segment of all-wheel-drive premium vehicles. A brand-new range of engines, eight-speed automatic transmission featured as standard, and innovative driver assistance systems give BMW's unique Sports Activity Vehicle an even higher level of fascinating driving pleasure characteristic of the brand.

Appropriate modifications in design ensure an authentic rendition of the car's enhanced sportiness, new paintwork and interior colours as well as light-alloy rims underlining the exclusive style and class of the new BMW X5.

A standard of efficiency quite unparalleled in this segment gives the new BMW X5 yet another very special quality supplementing the new design and the unique driving experience. With performance enhanced to a significantly higher level, fuel consumption and emissions are up to 10 per cent lower than on the former model.

The first-generation BMW X5 set the foundation for the segment of Sports Activity Vehicles. Now the new BMW X5 emphasises its leading role through innovative powertrain technology, sophisticated features and equipment, powerful design and premium quality all round.

The top model in the range is now the BMW X5 xDrive50i with its V8 power unit boasting BMW TwinPower Turbo and High Precision Injection for maximum output of 300 kW/407 hp. The new BMW X5 xDrive35i, in turn, is powered by a 225 kW/306 hp straight-six featuring BMW TwinPower Turbo, High Precision Injection and VALVETRONIC.

A new generation of power units also gives the two diesel versions of the new BMW X5 an unprecedented balance of outstanding performance and low fuel consumption. In the new BMW X5 xDrive40d an all-aluminium six-cylinder featuring BMW TwinPower Turbo and common-rail direct fuel injection delivers maximum output of 225 kW/306 hp. With power up over the former model by 15 kW/20 hp, average fuel consumption in the EU test cycle is down by 0.8 litres to a mere 7.5 litres/100 km, equal to 37.7 mpg imp.

Average fuel consumption of the new BMW X5 xDrive30d is even better, the six-cylinder diesel delivering 7 kW/10 hp more than before for maximum

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output of 180 kW/245 hp on just 7.4 litres/100 kilometres (equal to 38.2 mpg imp) in the EU test cycle.

It almost goes without saying that all engines comply in full with the EU5 emission standard.

The progress made once again in reducing fuel consumption and emissions is the result of the BMW EfficientDynamics development strategy applied consistently also on BMW's X models. At the same time the innovative power of the world's most successful manufacturer of premium cars is also confirmed by the unique range of driver assistance systems also available on the new BMW X5 thanks to BMW ConnectedDrive.

The BMW X5 is the only vehicle in its segment available with a Head-Up Display and Surround View. Further features also available on this unique Sports Activity Vehicle are Active Cruise Control with Stop & Go, Lane Departure Warning, Speed Limit Info, and Side View.

More than ever before the new BMW X5 offers supreme driving dynamics on the road and, thanks to intelligent BMW xDrive all-wheel-drive technology, superior handling and manoeuvrability on rough terrain. Featured as standard, permanent all-wheel drive ensures variable distribution of drive power between the front and rear axles. With its electronic management and network to DSC Dynamic Stability Control BMW xDrive is furthermore able to respond faster than any other control and management system to changes in driving conditions.

Even the slightest tendency to over- or understeer is registered well in advance, allowing the BMW xDrive to intervene appropriately in the interest of enhanced driving stability before the driver even notices what is happening.

This allows xDrive to optimise both driving dynamics and traction on a slippery surface by looking ahead at what is about to happen.

The entire all-wheel-drive system has been modified in its set-up on the new BMW X5, a more neutral basic configuration enabling xDrive to enhance driving dynamics to an even higher level than before.

The spacious interior of the new BMW X5 comes as standard with five comfortable seats plus a third optional row of seats for two more passengers. Luggage capacity may also be adjusted flexibly to changing requirements, folding down the rear-seat backrest with its 40:60 split increasing luggage capacity from 620 all the way to a maximum of 1,750 litres. And even when

using the full seven seats in the car, luggage capacity is still 200 litres for the driver's and passengers' convenience.

### Design: harmonious proportions and clear signals for enhanced sportiness.

The body design of the new BMW X5 is characterised by harmonious proportions clearly bringing out both the powerful elegance and the superior agility of this unique vehicle. The long wheelbase, short body overhangs front and rear as well as the large wheels create a perfect visual and technical balance of the front and rear end, clearly alluding to the vehicle's permanent all-wheel drive. All pillars on the body are matched to one another in their angles to point up to an imaginary ceiling above the vehicle. This alone enhances the impression of the powerful body resting solidly on the front and rear wheels.

The side view is stretched out elegantly by the dominance of horizontal lines, the engine compartment lid extending into the waistline round the car. The striking, slowly rising character line on the level of the door openers extends from the front wheel arches all the way to the rear, with the impression of stability and presence further underlined by the square shape and powerful flare of the wheel arches.

The BMW X5 is dynamic, robust and elegant in its looks and overall appearance. Through its design alone, it demonstrates superior sportiness on the road, a strong potential for use off the beaten track, and the sophisticated character of a truly outstanding vehicle in the luxury segment.

#### Newly designed front end with clear focus on the road.

With its striking, beautifully contoured engine compartment lid, its extra-large BMW kidney grille and its dual round headlights cut off at the top, the new BMW X5 boasts a conspicuously powerful front end simply oozing superior muscle and presence. The new interpretation of this special look so characteristic of BMW's X models highlights in particular the structure of the front air dam and the position of the foglamps featured as standard.

With a larger number of components and features finished in body colour, the entire front end of the vehicle appears to be even closer to the road for an even more dynamic look. At the same time the larger air scoops both in the middle and at the outside highlight the extra power of the engines, the newly designed front end thus standing out as a strong visual expression of the supreme sportiness of the new BMW X5 enhanced to an even higher standard.

The black plastic trim on the lower end of the body is much more slender than before, an underfloor protection panel finished in matt silver serving as an additional symbol for the robust character of the new BMW X5. Extending across the entire width of the central air intake, the underfloor protection panel again emphasises the strong and powerful stance of BMW's Sports Activity Vehicle.

The foglamps now positioned higher up and closer to the BMW kidney grille form that special triangular graphic together with the dual round headlights so typical of BMW's X models. The visual unison of light sources formed in this way clearly symbolises the particularly intense focus of the car on the road ahead.

The headlight units on the new BMW X5 are particularly sophisticated and classy in their design and appearance, the optional xenon headlights featuring a matt black trim cover to further emphasise the technically oriented structure of the cylindrical light sources.

Both the positioning and the daytime driving lights feature LED light rings, the bright white light generated in this way giving the daytime driving lights in typical BMW look a very powerful and convincing impression.

#### Rear end in powerful and sporting design.

At the rear the new BMW X5 again boasts a larger share of body elements finished in body colour to create a particularly elegant and at the same time sporting look. The newly designed rear air dam takes up the graphic structure of the front end, the surrounds on the exhaust tailpipes positioned far to the outside emphasising the sophisticated character of the vehicle through their elaborately chiselled design and harmonious finish in body colour.

In the middle the underfloor protection panel finished in matt silver adds a further touch of robustness, confirming that this superior Sports Activity Vehicle is by no means restricted to driving on firm roads and hard surfaces alone.

Above the bumper the rear-end design of the BMW X5 is subdivided by horizontal lines running parallel to one another, emphasising the sheer width and the powerful stance of the vehicle.

The rear light clusters in L-shaped design, likewise modified in their interior features, incorporate two homogeneous, LED-fed rows of lights on each side to give the new BMW X5 that very special night design so characteristic

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of BMW. At the same time the width of the vehicle is further emphasised by the slender white bands of light and the back-up lights.

A new range of exterior colours adds further optical highlights, with the new BMW X5 now also available in Deep Sea Blue, Platinum Grey and Sparkling Bronze Metallic.

### Interior: luxurious ambience, commanding seat position, latest generation of iDrive all featured as standard.

The interior of the new BMW X5 is characterised by supreme generosity in space and modern, stylish design. Exceptional variability and a truly luxurious ambience meet the greatest demands in terms of functionality in particularly exclusive style. Through its horizontal structure and harmonious transition leading into the door panels, the dashboard further accentuates the generous spaciousness inside the car.

Comfortable seats, sophisticated materials and carefully matched colour combinations emphasise the premium character of this modern Sports Activity Vehicle to an even higher standard. Optional Nevada leather upholstery is now available also in Cinnamon Brown and Oyster, while the range of interior trim bars is supplemented by a new version in matt Satin Silver.

The elevated, commanding seating position contributes to the characteristic driving experience in the new BMW X5, giving the driver an optimum overview of road and driving conditions and, together with the centre console angled towards the driver, further enhancing the impression of superior control over the car. Ideally positioned controls and switches for superior ergonomics and spacious storage boxes and compartments add yet a further highlight to the modern functionality of the BMW X5.

The new BMW X5 comes as standard with the new generation of the BMW iDrive control system, with its 6.5 or, respectively, 8.8-inch Control Display (the latter in conjunction with the navigation system Professional) integrated at an ideal level and at exactly the right distance from the driver harmoniously in the dashboard.

The driver controls the on-board computer and the audio system as well as the navigation and communication functions through standardised topple, turning and press functions on the Controller positioned in the middle of the centre console. Direct selection buttons on the Controller enable the driver to rapidly switch among the CD, Radio, Telephone and Navigation functions,

with the range of such direct selection buttons now rounded off by the three command buttons MENU, BACK and OPTION.

The eight favourite buttons positioned on the centre console, finally, enable the user to save and directly retrieve specific radio stations, telephone numbers and navigation destinations as well as other items available through iDrive.

Apart from the hard disc memory for digital maps and the driver's personal collection of music, the navigation system Professional also comes with multi-mode operation through voice entry and the Controller. The customer is able to switch without problems from one of these entry modes to the other and may even keep voice entry active for simultaneous use while making entries through the Controller. Apart from direct access to music titles saved in the system, voice entry also enables the user to verbally enter complete addresses into the system whenever he wishes.

#### High standard of interior variability, third row of seats as an option.

The BMW X5 ensures supreme driving pleasure on all kinds of terrain. This versatility in use is then rounded off by a high standard of variability in the use of the interior, the three seats at the rear offering generous legroom and headroom to provide truly excellent comfort also on long distances.

Luggage capacity is an ample 620 litres, quite sufficient even for the biggest and bulkiest cases. And should the driver and passengers need even more space, the rear-seat backrest split 40:60 may be tilted down either in part or completely, providing a fully flat loading surface and up to 1,750 litres of storage space.

The wide, horizontally split tailgate with its two halves opening in opposite directions makes the process of loading and unloading simple and convenient, with the lower half serving when required as a platform able to carry up to 250 kilos or 550 lb.

The new BMW X5 is available as an option with a third row of seats. The two seats in the third row come with headrests and three-point inertia-reel seat belts and may be lowered individually as required into the floor of the car for extra space and versatility. Even when using all 7 seats, the driver and passengers still have luggage capacity of 250 litres in the new BMW X5.

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#### New range of engines: all gasoline and diesel engines with turbocharger and direct fuel injection.

A brand-new range of engines also allows the BMW X5 to enhance its leading role as the most dynamic vehicle in its segment.

The range off gasoline engines now comprises one V8 and one straight-six power unit, both with BMW TwinPower Turbo technology and direct fuel injection. These two gasoline engines are supplemented by two representatives of the new generation of BMW straight-six diesels, both of these all-aluminium power units boasting state-of-the-art turbocharger technology as well as the latest generation of common-rail direct fuel injection.

All power units available in the new BMW X5 set the benchmark in their respective class for sporting performance and efficiency, naturally fulfilling the EU5 emission standard in Europe and ULEV II in the USA. Engine power is transmitted as standard by an eight-speed automatic transmission with supreme efficiency again serving to reduce both fuel consumption and emissions.

All this is further enhanced by an appropriate combination on each model of BMW EfficientDynamics technologies such as Brake Energy Regeneration, on-demand control and operation of ancillary units including the electric coolant pump, the electric steering assistance pump, the map-controlled oil pump and the detachable a/c compressor, as well as intelligent lightweight construction, tyres with reduced roll resistance and optimised aerodynamics including active air flap control.

As a result of these many innovations on the drivetrain and the consistent implementation of BMW EfficientDynamics, all versions of the new BMW X5 offer an unparalleled balance of performance and fuel economy in their respective segments.

#### Gasoline engines:

#### significant increase in power thanks to BMW TwinPower Turbo.

With its V8 featuring BMW TwinPower Turbo technology and High Precision Injection, the new BMW X5 xDrive50i offers an increase in output over its predecessor by no less than 39 kW or 53 hp. Displacing 4.4 litres, this unique power unit with its turbocharger fitted in the V-section between the two rows of cylinders, delivers a substantial 300 kW/407 hp maximum output throughout the speed range from 5,500 to 6,400 rpm. Peak torque of 600 Nm/442 lb-ft, in turn, is maintained consistently between 1,750 and 4,500 rpm.

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Responding directly to the gas pedal and revving up freely with supreme muscle and dynamism, this unique V8 allows exceptional performance and at the same time is the most efficient engine of its kind the world over. As a result, the BMW X5 xDrive50i accelerates from a standstill to 100 km/h in just 5.5 seconds and has a top speed of 250 km/h or 155 mph. Average fuel consumption of 12.5 litres/100 km, equal to 22.6 mpg imp, in the EU test cycle is quite impressive for this kind of power and performance, as is the  $CO_2$  rating of 292 grams per kilometre.

The second gasoline engine in the new BMW X5 likewise offers a significant increase in power and performance on equally impressive efficiency: The BMW X5 xDrive35i features the first straight-six combining BMW TwinPower Turbo technology with High Precision Injection and variable VALVETRONIC valve management. The turbocharger system applying the TwinScroll principle to separate the ducts of three cylinders at a time both in the exhaust manifold and in the turbocharger, together with VALVETRONIC valve management enhanced to an even higher standard, give this 3.0-litre truly fascinating, direct response to the gas pedal. Maximum output of 225 kW/306 hp at 5,800 rpm exceeds that of the former model by no less than 25 kW or 34 hp. Peak torque of 400 Newton-metres/295 lb-ft, in turn, is maintained consistently all the way from 1,200 to 5,000 rpm.

Benefiting from this kind of power, the new BMW X5 xDrive35i accelerates from a standstill to 100 km/h in just 6.8 seconds and reaches a top speed of 235 km/h or 146 mph. This significantly improved performance comes on fuel consumption in the EU test cycle reduced to 10.1 litres/100 kilometres (equal to 28.0 mpg imp) and a CO<sub>2</sub> rating of 236 grams per kilometre.

#### New generation of diesel engines in two performance stages.

The diesel engines featured in the new BMW X5 likewise come from a new generation of power units. With their all-aluminium structure, the latest generation of common-rail direct fuel injection featuring piezo-injectors and turbocharging, the two straight-six power units each displacing 3.0 litres offer truly outstanding muscle and torque, superior smoothness and unparalleled efficiency. A further reduction in weight versus the former engines serves additionally to give the diesel versions of the BMW X5 even greater agility on the road.

Particularly the new BMW X5 xDrive40d offers truly outstanding sportiness and performance. With its power unit first presented in the BMW 740d luxury performance sedan and featuring BMW TwinPower Turbo technology as well as common-rail direct fuel injection, the engine develops maximum output of 225 kW/306 hp at 4,400 rpm plus peak torque

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of 600 Newton-metres/442 lb-ft maintained consistently between 1,500 and 2,500 rpm. A torque level of no less than 450 Newton-metres or 332 lb-ft already comes at an engine speed of just 1,000 rpm, and more than 90 per cent of the engine's maximum power is maintained consistently in the range between 3,500 and 5,000 rpm. The top engine speed of this new diesel power unit, finally, is an impressive 5,600 rpm.

The charge system on this new top-of-the-range diesel follows the Variable TwinTurbo principle, with a small turbocharger cutting in first just above idle speed followed by a large turbocharger coming in later for greater loads and power requirements. With its superior traction and pulling force coming in at an early point and continuing throughout the wide range of engine speed, the BMW X5 xDrive40d accelerates from a standstill to 100 km/h in just 6.6 seconds and reaches a top speed of 236 km/h or 146 mph.

This outstanding power and performance teams up with equally outstanding efficiency ensured in particular by the common-rail fuel supply system operating at a maximum pressure of 2,000 bar and allowing particularly precise dosage of fuel. As a result, the BMW X5 xDrive40d average just 7.5 litres/100 kilometres in the EU test cycle, equal to 37.7 mpg imp. The CO<sub>2</sub> emission rating, in turn, is 198 grams per kilometre.

The second diesel model in the range is the new BMW X5 xDrive30d. This straight-six features a turbocharger system with variable turbine geometry as well as common-rail direct fuel injection delivering fuel into the combustion chambers at maximum pressure of 1,800 bar. Maximum output is 180 kW/245 hp at 4,000 rpm, peak torque of 540 Newton-metres/398 lb-ft is maintained consistently between 1,750 and 3,000 rpm.

Given this kind of muscle, the new BMW X5 xDrive30d accelerates from a standstill to 100 km/h in 7.6 seconds and has a top speed of 222 km/h or 138 mph.

With an increase in power over the former model by 7 kW/10 hp, average fuel consumption in the EU test cycle is down by 10 per cent to an impressive 7.4 litres/100 km, equal to 38.2 mpg imp. The  $CO_2$  emission rating of the BMW X5 xDrive30d, finally, is 195 grams per kilometre.

### Featured as standard: eight-speed automatic transmission with optimised gearshift dynamics and unique efficiency.

All model variants of the BMW X5 come as standard with eight-speed automatic transmission combining gearshift comfort, sportiness and efficiency at a level never seen before. The new transmission serves to reduce both fuel

consumption and emissions to a lower level than ever, significantly better than with the six-speed automatic transmission featured in the BMW X5 so far.

The new eight-speed automatic transmission stands out also through minimum converter slip and its innovative configuration of gears allowing the addition of further gears and providing a greater gear spread without any negative repercussions on the size, weight and internal efficiency of the system.

# Intelligent BMW xDrive all-wheel-drive technology: fast response and superior precision for enhanced driving dynamics and optimised traction.

Permanent all-wheel drive with electronically controlled, variable distribution of drive power front-to-rear ensures not just superior traction off the beaten track in the new BMW X5, but also equally superior driving dynamics on the road.

Presented for the first time in the first generation of the BMW X5 and consistently enhanced over the years, BMW xDrive stands out as an intelligent all-wheel-drive system by distributing drive power through a power divider with an electronically controlled multiple-plate clutch appropriately to the wheels offering the best grip on the surface below. As a result, xDrive also enhances driving stability in fast and dynamic bends by recognising and counteracting even the slightest tendency to over- or understeer at an early point in time.

Under normal driving conditions, BMW xDrive splits up drive power at a 40:60 ratio front-to-rear, sensors constantly measuring the degree of slip on all wheels. The system is therefore able to vary the split of drive power within fractions of a second, BMW xDrive, unlike conventional all-wheel-drive systems, also being able to look and act ahead, without having to wait until a wheel actually spins. This stabilises the vehicle even before the driver recognises any need for action.

Featuring a new set-up with a more neutral basic configuration of xDrive in the new BMW X5 makes an even bigger contribution to the improvement of driving dynamics, the distribution of engine power being shifted more towards the rear wheels even when taking a bend in a steady, stable process. In this way up to 80 per cent of the drive power may be fed to the rear wheels, the system then returning to its basic set-up at the end of the bend in the interest of optimum traction.

#### Precisely controlled interaction of xDrive and DSC.

Quick and precise adjustment of the engine power split is also ensured by networking BMW iDrive with DSC Dynamic Stability Control through ICM

Integrated Chassis Management. Optional Active Steering now re-configured in its set-up is likewise integrated in this system.

With its stabilising effect, the appropriate distribution of drive power reduces the need for DSC to cut in in specific situations, applying the brakes on individual wheels and reducing engine power only under extreme conditions.

The further functions of DSC Dynamic Stability Control include features such as ABS anti-lock brakes, ASC Automatic Stability Control, Trailer Stability Control, HDC Hill Descent Control, the ADB Automatic Differential Brake, DBC Dynamic Brake Control, and CBC Cornering Brake Control. Further features are Dry Braking in the wet, a Start-Off Assistant, Fading Compensation and cruise control complete with its own brake function likewise masterminded by DSC.

DTC Dynamic Traction Control raises the DSC response thresholds for a particularly sporting and active style of motoring and enables the car to set off smoothly in deep snow or on loose sand, allowing the drive wheels to spin slightly in the process.

The new BMW X5 also comes as standard with a parking brake operating both electromechanically and hydraulically. To activate or release the parking brake, all the driver has to do is press a button. And as a further feature the parking brake comes with an Auto-Hold function enhancing motoring comfort above all in stop-and-go traffic.

## Sophisticated suspension technology and steering with Servotronic featured as standard, Active Steering as an option.

The suspension technology on the new BMW X5 offers ideal qualities for superior driving dynamics: BMW's Sports Activity Vehicle comes with a double-wishbone front axle and a lightweight integral rear axle. Rear axle air suspension including self-levelling available as an option maintains consistent ride height at all times regardless of the load the vehicle is carrying and thus ensures the same reliable driving characteristics under all conditions.

The rack-and-pinion power steering on the new BMW X5 comes as standard with Servotronic for consistent steering assistance as a function of road speed. Active Steering available as an option serves additionally to vary the steering transmission ratio as a function of road speed, reducing the steering effort when parking and providing less direct steering at higher speeds in the interest of greater precision and driving comfort by an appropriate reduction in the degree of power assistance.

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#### Adaptive Drive for absolute supremacy wherever you go.

The combination of active stability control and variable damper adjustment through BMW Adaptive Drive offers a level of supremacy in driving behaviour quite unique throughout the entire segment of BMW X models. Using sensors, Adaptive Drive permanently monitors and calculates data on road speed, the steering angle, longitudinal and lateral acceleration, body and wheel acceleration as well as ride height on each wheel. Processing this information, the system controls the swivel motors on the anti-roll bars as well as the electromagnetic valves in the dampers, reducing body roll and controlling damper response appropriately at all times. To ensure fast and reliable coordination of all data, finally, BMW Adaptive Drive uses FlexRay high-speed data transmission.

#### High-performance brakes and runflat tyres.

The high-performance bake system on the new BMW X5 ensures outstanding stopping power at all times. Newly developed lightweight brakes with discs measuring 385 millimetres/15.2" in diameter on the front wheels and aluminium swing callipers on the front and rear axle give the top-of-the-range BMW xDrive50i supreme fading resistance and maximum brake comfort at all times.

The new BMW X5 comes as standard on light-alloy wheels measuring 19 inches on the BMW X5 xDrive50i and 18 inches on all other models. The range of optional light-alloy wheels is now supplemented on the new BMW X5 by three new variants in striking Y-spoke design, measuring 19 and, respectively, 20 inches.

Likewise featured as standard, runflat safety tyres enable the driver to continue to the nearest workshop even after a complete loss of tyre pressure, covering a distance of 50 - 250 kilometres (30 - 155 miles) depending on vehicle load. And last but not least, the Tyre Defect Indicator enables the driver to permanently monitor tyre pressure.

#### Extra-stiff body structure, all-round occupant safety.

Like all BMW X models, the new BMW X5 comes with an extra-stiff bodyshell in intelligent lightweight construction combining extreme strength and solidity with optimum weight. In the interest of passive safety, forces acting on the vehicle in an accident are diverted via the engine support arms and the suspension along several load paths, thus kept away from the stable passenger cell.

Inside the new BMW X5 not only frontal and hip/thorax airbags, but also curtain head airbags at the side come as standard. Further safety

components are three-point inertia-reel belts on all seats, belt force limiters, belt force tensioners and crash- activated headrests at the front as well as ISOFIX child seat fastenings in the second row of seats.

All restraint systems are masterminded by central safety electronics, rollover sensors making sure in the event of an upcoming rollover that the curtain airbags and belt latch tensioners are released in good time.

#### Unique in this segment:

#### new driver assistance systems from BMW ConnectedDrive.

In the context of BMW ConnectedDrive, the new BMW X5 offers a unique variety of driver assistance systems and services for optimum comfort, safety and infotainment, quite unparalleled throughout the entire segment of BMW X models.

Active Cruise Control with Stop & Go is available as an alternative to the regular cruise control also activating the brakes. An additional feature provided in this case is automatic distance control enabling the driver to cruise along smoothly in autobahn or country road traffic and keeping the desired distance from the vehicle ahead when driving in stop-and-go traffic at very low speeds. Whenever the distance from the vehicle ahead set by the driver in advance is no longer maintained, the system re-sets the distance required by intervening in engine management and building up brake pressure. If necessary, Active Cruise Control may even slow down the car to a standstill and hold it safely in position. Then, after having come to a brief halt, Active Cruise Control automatically lets the car set off again when the road is free. And should the stopover be a bit longer, all the driver has to do to set off again is press a button or the gas pedal.

Lane Departure Warning also available on the new BMW X5 is able to determine any unwanted deviation from the right lane or track at a speed of at least 70 km/h or 50 mph. The system is made up of a camera fitted on the windscreen near the interior mirror, a control unit comparing the data recorded and a signal sensor causing the steering wheel to vibrate in a discreet but unmistakable process.

The camera registers the road markings on at least one side of the car, the control unit calculates the position of the vehicle relative to such markings.

Lane Departure Warning also works in bends, on narrow lanes and in the dark as soon as the headlights are switched on.

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In conjunction with Lane Departure Warning and the Professional navigation system, the driver also has the option to use the Speed Limit Info system enabling him to check out speed limits on the route he is currently taking. In this case the camera used for Lane Departure Warning permanently monitors both the signs at the side of the road and variable displays

above an autobahn or interstate.

Yet another innovation in the context of BMW ConnectedDrive is Side View comprising two cameras integrated in the front mudguards to observe cross traffic ahead of the car. The images recorded by the cameras are transmitted to the Control Display and ensure an early overview of traffic conditions to the left and right of the vehicle above all when driving out of narrow and unclear gates and driveways.

Further features available on the new BMW X5 include the Head-Up Display projecting information relevant to the driver to his line of vision on the windscreen, the High Beam Assistant and Adaptive Headlights complete with Bending Lights, variable light distribution, and adaptive headlight range control.

Park Distance Control and a back-up camera as well as BMW Surround View offer further safety and convenience.

In addition to these important features, BMW ConnectedDrive also comes with BMW Assist, BMW Online, BMW TeleServices and innovative remote control functions offering a truly unique selection of mobility services in the context of traffic information, emergency calls, vehicle enquiry and office services, travel and leisure time planning, as well as the internet. Optimised use of telecommunication and entertainment systems, finally, is ensured by the full integration of external mobile phones and music players.

#### High level of standard equipment, exclusive options.

With its comprehensive range of standard features including automatic air conditioning, an audio system complete with CD player and an AUX-in connection, a multifunction steering wheel, electrical adjustment of seat height and backrest angle at the front, a rain sensor with integrated automatic headlight control and the iDrive control system, the new BMW X5 offers all the driving and grand touring comfort of a premium vehicle in the luxury class.

The wide range of comfort features likewise available also underlines the sophisticated and exclusive character of BMW's Sports Activity Vehicle. Apart from the navigation system Professional, a CD changer and a USB audio interface, there is also a rear-seat entertainment system

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and a TV function for analogue and digital TV reception. Maximum listening quality, finally, is guaranteed by the BMW Individual High End Audio System.

The range of features also includes four-zone automatic air conditioning, active seat ventilation at the front, a heated steering wheel, a panorama glass roof, electrical operation of the tailgate at the back, and Soft Close Automatic on the doors.

The towbar available on the new BMW X5 may be equipped with an electrically swivelling ball head, with the new BMW X5 being able to tow a maximum trailer load of 3,500 kg or 7,718 lb.

The new BMW X5 consistently continues a successful vehicle concept introduced by BMW in 1999 in creating the brand-new segment of Sports Activity Vehicles. As in the past, the new BMW X5 continues to set the standard for driving dynamics in its segment, more than ever before combining the fascinating driving pleasure of a BMW X model with truly outstanding all-round efficiency. Featuring new gasoline and diesel engines, eight-speed automatic transmission coming as standard, and intelligent xDrive all-wheel-drive technology, the new BMW X5 bears out the sporting performance and character so typical of a BMW X model more impressively than ever before. And thanks to BMW EfficientDynamics, the new model also sets new benchmarks in fuel economy and emission management demonstrated above all by unparalleled fuel economy of just 7.4 litres/100 kilometres or 38.2 mpg imp in the new BMW X5 xDrive30d. This combination, the powerful design of the vehicle, innovative features and equipment and a unique premium character make the new BMW X5 the most outstanding representative of its segment in every respect.

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## 3.5 The Roadster at its Best: The BMW Z4 sDrive35is.



With its classic proportions and modern sportiness, the new BMW Z4 has moved to the top of its market segment almost overnight – and now this charismatic roadster is entering a new dimension of driving dynamics.

The new BMW Z4 sDrive35is offers even greater performance ensured by both the modified straight-six power unit with BMW Twin Turbo technology and High Precision Injection as well as seven-speed Sports Automatic with double clutch and the M Sports Package including its Adaptive M Suspension likewise featured as standard.

Appropriate improvements increase the maximum output of the 3.0-litre power unit to 250 kW/340 hp, with peak torque of 450 Newton-metres/ 332 lb-ft being increased briefly by means of Overboost to an even more impressive 500 Newton-metres or 369 lb-ft.

The outstanding power and performance of the BMW Z4 sDrive35is is reflected by a significant increase in torque and traction offering substantial benefits in all kinds of situations on the road. As an example, the new top model accelerates from a standstill to 100 km/h in conjunction with seven-speed Sports Automatic and double-clutch operation in just 4.8 seconds. At 9.0 litres/100 kilometres (equal to 31.4 mpg imp) and 210 grams per kilometre in the EU test cycle, both fuel economy and  $CO_2$  emissions are the same as on the less powerful BMW Z4 sDrive35i with Sports Automatic. And parallel to the start of sales of this high-performance roadster in spring 2010, the M Sports Package for all other variants of the BMW Z4 is likewise being introduced into the market.

#### More air, more charge pressure, more torque, more driving pleasure.

Spontaneous and direct response to the gas pedal, fascinating high-revving drive qualities and unusually efficient use of fuel in this performance class characterise the twin-turbo straight-six power unit already giving the BMW Z4 sDrive35i truly impressive dynamism and performance on the road.

On the new version of BMW's highly successful roadster, the outstanding potential of this drive unit is put to even greater use, optimised air supply and an increase in charge pressure serving to provide even more power and muscle with all-round efficiency remaining unchanged.

The combination of BMW TwinTurbo technology and High Precision Injection allows a standard of performance offered by a naturally-aspirated power unit only through a larger number of cylinders and an increase in engine size, which would also mean far greater weight and a significant increase in fuel consumption.

Instead, the BMW TwinTurbo power unit uses two small turbochargers which, through their smaller inertia, cut in at relatively low engine speed, each supplying three cylinders with compressed air.

This concept builds up power and torque with a degree of spontaneity quite unusual on a turbocharged engine. Indeed, the charge system developed for the power unit of the new BMW Z4 sDrive35is operates with higher charge pressure throughout all ranges of load and power, reaching its maximum torque of 450 Newton-metres or 332 lb-ft at a low 1,400 rpm, then maintained all the way to 4,500 rpm. Maximum output of 250 kW/340 hp, in turn, comes at 5,800 rpm.

#### Overboost function for particularly dynamic acceleration.

Modified engine management on the BMW Z4 sDrive35is also allows an Overboost function briefly increasing torque under full load by another 50 Newton-metres or 37 lb-ft. The maximum torque of 500 Newton-metres/ 369 lb-ft generated in this way enables the driver to accelerate with particular power and traction, the BMW Z4 sDrive35is completing the sprint from a standstill to 100 km/h in 4.8 seconds.

In its specific features and characteristics, the engine offers a particularly intense experience of maximum power and performance. The extra power of the six-cylinder comes out clearly throughout all load ranges, particularly under very dynamic driving conditions. Accelerating in the BMW Z4 sDrive35is, the driver experiences the additional torque particularly at medium and high engine speeds, with top speed of the BMW Z4 sDrive35is limited electronically to 250 km/h or 155 mph.

#### **High Precision Injection:**

#### the efficient way to maximum power and performance.

The BMW Z4 sDrive35is offers outstanding power and performance at all times and under all conditions, without increasing the car's fuel economy and emissions. Averaging fuel consumption of 9.0 litres/ 100 kilometres (31.4 mpg imp) in the EU test cycle and a  $\rm CO_2$  emission rating of 210 grams per kilometre, the new top model is just as economical as the BMW Z4 sDrive35i with Sports Automatic.

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> The unusually good balance of performance and fuel economy results from the particular configuration of the six-cylinder boasting BMW TwinTurbo technology and High Precision Injection, once again proving the qualities of direct gasoline injection featured on this engine.

Piezo-injectors placed in the cylinder head between the valves and therefore in the immediate vicinity of the spark plugs ensure particularly precise dosage of fuel and a clean combustion process. Opening up to the outside, the injectors operate at a pressure of up to 200 bar, distributing the fuel injected conically into the combustion chamber. A further advantage of direct fuel injection is the cooling effect allowing a higher compression ratio and thus optimising the efficiency of the entire combustion process.

The turbocharger concept as such also serves to reduce fuel consumption. With the turbines being made of high-temperature-resistant special steel taking up temperatures of more than 1,000° C or 1,830° F, there is no need for the cooling effect of an increased supply of fuel. Particularly under full load, this ensures significant advantages in fuel economy.

A further contribution to the reduction of fuel consumption and emissions is made by various technologies in the context of BMW EfficientDynamics, such as Brake Energy Regeneration, EPS Electric Power Steering, and on-demand management of the ancillary drive units.

### Characteristic engine sound accompanying the dynamic development of power.

Among other features, the modified six-cylinder comes with various improvements on the engine block in the interest of enhanced stiffness and stability. The exhaust system on the BMW Z4 sDrive35is is likewise tailored to this specific model, configured in its design for extra power and a characteristic sound pattern.

This particular distinction tailored to the BMW Z4 sDrive35is is provided by sound flaps and modifications to the silencers. So while the driver and passenger experience unpretentious but omnipresent acoustic feedback to their power and performance requirements, the sound experience is characterised by a deep rumble particularly at low frequencies.

### Seven-speed Sports Automatic with specific control map and optimised two-mass flywheel.

Seven-speed Sports Automatic with double clutch ensures optimum driving dynamics and efficiency also in the BMW Z4 sDrive35is. The transmission incorporates a two-mass flywheel tailored specifically to the extra power

and performance, optimised in its strength and stiffness and therefore coping efficiently with high engine torque of up to 500 Newton-metres/369 lb-ft.

The seven-speed Sports Automatic with double clutch shifts gears without the slightest interruption of traction and pulling power, giving the driver the choice of an automatic gearshift and manual selection of gears. The fast and smooth gear change ensures unusually harmonious acceleration and at the same time helps to further reduce both fuel consumption and emissions.

The map control function on the seven-speed Sports Automatic with its double clutch is likewise geared to the particular power and performance characteristic of the engine, thus enhancing the superior sportiness of the BMW Z4 sDrive35is. Particularly in manual and in conjunction with the SPORT and SPORT+ modes in Dynamic Drive Control, the transmission offers very dynamic performance characteristics through its modified shift points, the optimised selection of gears, and a greater increase in torque.

A further feature of Sports Automatic is Launch Control enabling the driver to accelerate from a standstill with maximum power and performance.

To shift gears through the Sports Automatic transmission, the driver uses an electronic gearshift lever on the centre console or gearshift paddles on the steering wheel, whatever he wishes.

## Standard on the BMW Z4 sDrive35is: M Sports Package and Adaptive M Suspension.

The BMW Z4 sDrive35is comes as standard with an M Sports Package including the M Aerodynamics Package and Adaptive M Suspension with electronically controlled dampers for even greater agility without forfeiting driving comfort in any way.

The M Sports Package underlines the dynamic character of the car through its aerodynamically optimised exterior and individual interior features. Model-specific, 18-inch light-alloy wheels in five-spoke design including different sized tyres front and rear round off the very sporting character of the BMW Z4 sDrive35is, with 19-inch light-alloy wheels available as an option.

The Adaptive M Suspension lowers the entire car by 10 millimetres or almost 0.4", guaranteeing a fast response to sudden steering manoeuvres and ultimate precision when steering into bends thanks to four continuously adjustable twin-sleeve gas pressure dampers with combined adjustment of the inbound and rebound strokes.

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A central control unit processing data supplied by three accelerometers and controlling the four dampers independently of one another ensures an unparalleled, extra-fast response to changes in driving conditions and on the road surface. Damper harshness is adjusted by valves on the outside controlling the flow of damper fluid, making the dampers harder or softer as a function of driving conditions. With the system responding extremely quickly and efficiently, the rear damper is already adjusted ahead of time whenever the front wheel goes through a pothole.

Electric Power Steering on the BMWZ4 sDrive35is comes with special map control for a particularly sporting style of motoring. When dosing the steering assistance provided by the electric motor, the driver benefits from very clear and intense feedback, allowing him to steer into bends with utmost precision at all speeds.

## M Sports Package making the car's dynamic potential a genuine experience – and available as an option on all other versions of the BMW Roadster.

The exterior and interior features of the M Sports Package fitted as standard enhance the dynamic driving potential of the BMW Z4 sDrive35is and add further signs of visible distinction.

With the introduction of the new top model into the market, this special M Sports Package is also becoming available on the other versions of the Z4 Roadster, which in that case come with 18-inch M light-alloy rims instead of the special wheels designed and created exclusively for the BMW Z4 sDrive35is.

The special exterior features of the BMW Z4 sDrive35is include a striking bumper at the front with outer air intakes split by a horizontal trim bar. Like the rods in the BMW kidney grille, these bars come in matt aluminium. The slightly twisted contours of the trim bars take up the spoke design of the light-alloy rims.

The rear bumper features accentuated surrounds on the exhaust tailpipes as well as a two-piece diffuser element exclusive to the BMW Z4 sDrive35is, painted in body colour at the top and boasting a black grain finish at the bottom.

The M Aerodynamics Package included in the M Sports Package optional on all other versions of the BMW Z4 Roadster comes with a rear bumper insert in Anthracite Metallic.

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Within the BMW Z4 sDrive35is the driving experience is enhanced in particular by the M leather steering wheel including shift paddles, the M footrest and sports seats. The instrument cluster boasts dials finished in grey as well as the "sDrive35is" model designation in the rev counter.

Further special features on the BMW Z4 sDrive35is include the BMW Individual roof lining in Anthracite, M door cutout strips, footmats with coloured piping and the "sDrive35is" model designation, as well as an M interior trim bar in Aluminium Carbon.

The M Sports Package on the other versions of the BMW Roadster comprises an M shift lever knob in leather on all models with manual gearbox.

The range of leather upholstery, finally, is being extended upon the launch of the BMW Z4 sDrive35is by an additional colour variant, the top model and all other versions of the roadster then also becoming available in Kansas Walnut leather.

The BMW Z4 sDrive35is is available with a choice of no less than six exterior colours. Apart from Alpine White and Titanium Silver, Sapphire Black, Space Grey and Deep Sea Blue metallic paintwork, Melbourne Red Metallic is now also available for the first time on the BMW Roadster.

Regardless of the colour chosen, the exterior mirror caps on the BMW Z4 sDrive35is always come in Oxide Silver. And a further sign of distinction on the top model, finally, is the "sDrive35is" model designation on the front side panels.

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### 3.6 Top Athlete in the Compact Class: New Generation of Engines for the BMW 135i Coupé and the BMW 135i Convertible.



The by far most sporting models in the compact segment are increasing their lead in driving dynamics and efficiency to an even higher standard than before: From now on, the BMW 135i Coupé and the BMW 135i Convertible come with a straight-six power unit of the latest generation, for the first time combining BMW TwinPower Turbo technology, High Precision Injection and fully variable VALVETRONIC valve management and thus setting new standards for all-round economy coupled with supreme performance.

In conjunction with the seven-speed double-clutch gearbox (DKG) with Sports Automatic available as an option on the BMW 1 Series as of March 2010, this means a further significant reduction of both fuel consumption and emissions combined with new benchmarks in acceleration on both of these top models.

The new top engine on both versions of the BMW 1 Series develops maximum output of 225 kW/306 hp at 5,800 rpm from engine capacity of 3.0 litres, at the same time offering most spontaneous and direct response as well as unleashed, fast-revving performance.

The maximum torque of this outstanding six-cylinder of 400 Newton-metres/295 lb-ft comes as just 1,200 rpm and is maintained all the way to 5,000 rpm. The seven-speed double-clutch gearbox with Sports Automatic shifting gears without the slightest interruption of torque and pulling power is designed consistently for maximum driving dynamics, offering not only the option to shift gears manually on the electronic shift lever or through gearshift paddles on the steering wheel, but also the usual comfort features of a BMW automatic transmission.

The combination of these two drivetrain innovations in a compact car of this kind ensures driving pleasure in a new dimension. Accelerating from a standstill to 100 km/h in just 5.2 seconds, the BMW 135i Coupé with its double-clutch gearbox performs on the same level as a thoroughbred sports car, at the same time offering fuel economy quite unique in this class averaging just 8.5 litres/100 kilometres, equal to 33.2 mpg imp, in the EU test cycle. This is almost one litre/100 kilometres better than the fuel consumption of the former model with its six-speed automatic transmission.

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Such a significant decrease in fuel consumption together with acceleration 0.2 seconds faster than before clearly demonstrates the progress provided by BMW EfficientDynamics through the new engines and transmission technology.

The BMW 135i Convertible with its double-clutch gearbox accelerates to 100 km/h in 5.5 seconds and averages fuel consumption in the EU test cycle of 8.6 litres/100 kilometres, equal to 32.8 mpg imp. Again, this is 0.8 litres better than the fuel consumption of the former model with automatic transmission. At the same time both models accelerate faster than their counterparts with a six-speed manual gearbox on the same level of fuel consumption.

The manual gearshift BMW 135i Coupé accelerates from a standstill to 100 km/h in 5.3 seconds, the BMW 135i Convertible in 5.6 seconds. Again, the combination of the BMW TwinPower Turbo engine with the likewise new manual gearbox enhances the car's efficiency to a significantly higher standard, average fuel consumption of the BMW 135i Coupé dropping to 8.5 litres/100 km (33.2 mpg imp), the average fuel consumption of the BMW 135i Convertible amounting to 8.6 litres/100 km (32.8 mpg imp).

### Important innovation for optimised efficiency: VALVETRONIC featured on a turbocharged engine for the first time.

The new straight-six power unit featured in the BMW 135i Coupé and BMW 135i Convertible owes its exceptional efficiency to the first-ever combination of BMW TwinPower Turbo technology, direct gasoline injection, and VALVETRONIC. The extremely spontaneous and direct response of the drive system is also the result of the turbocharger using the TwinScroll principle both in the exhaust manifold and in the turbocharger itself, in each case separating the ducts of three cylinders from one another, as well as VALVETRONIC valve management enhanced to an even higher standard.

This system ensures infinite adjustment of valve stroke and timing on the intake valves, reducing throttle losses in the charge cycle to a minimum and thus making particularly efficient use of the energy in the fuel. In conjunction with High Precision Injection once again optimised to an even higher standard, this offers an unparalleled balance of performance and fuel economy reaching a standard never seen before.

Both the BMW 135i Coupé and the BMW 135i Convertible come as standard with a wide range of BMW EfficientDynamics features combined with one another in accordance with individual market requirements. These include Brake Energy Regeneration, a gearshift point indicator on all models

with a manual gearshift, a map-controlled oil pump, final drive with optimised warming up behaviour as well as on-demand control of ancillary units such as the pressure-controlled fuel pump.

### Even more dynamic, even more efficient: new six-speed manual gearbox and optional seven-speed double-clutch gearbox.

The BMW 135i Coupé and the BMW 135i Convertible both come as standard with a newly developed six-speed manual gearbox. Optimised for maximum efficiency, this gearbox features dry sump lubrication significantly reducing drag losses and completely avoiding splash losses and therefore making a further contribution to the enhanced efficiency of both models.

The seven-speed double-clutch gearbox with Sports Automatic now featured for the first time in the BMW 1 Series makes an even bigger contribution in optimising the car's qualities in the spirit of BMW EfficientDynamics. The double-clutch gearbox gives both of these compact performers even faster acceleration and efficiency, combining this double progress with all the comfort of BMW automatic transmission. The seven-speed double-clutch gearbox shifts gears without the slightest interruption of traction and pulling power, offering the driver the choice of an automatic gearshift and manual selection of gears.

The quick and smooth gearshift ensures an exceptionally harmonious process of acceleration and at the same time helps to further reduce fuel consumption and emissions. With the seven gears coming close to one another in small, sporting increments, the driver benefits from the optimum gear ratio under all conditions.

To further improve the degree of efficiency, oil is supplied through a combination of dry sump and injection lubrication. The double-clutch gearbox itself is controlled either through the newly designed gearshift lever or through shift paddles on the steering wheel.

### The BMW 135i Coupé and the BMW 135i Convertible: exceptional performers in the compact segment and beyond.

The new six-cylinder with BMW TwinPower Turbo technology and a seven-speed double-clutch gearbox brings out the unique character of both of these top performers in the compact segment even more convincingly than before. Through their supreme performance, the BMW 135i Coupé and the BMW 135i Convertible reach the standard of a thoroughbred sports car, while the driving experience offered by both models comes with all the agility so typical of a BMW 1 Series.

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Superior drivetrain technology and a vehicle concept with rear-wheel drive, the passenger cell moved far to the back and perfectly balanced axle load quite unique in this class thus provide the ideal symbiosis for unique driving pleasure.

Both models come as standard with a modified M Aerodynamics Package and M Sports Suspension. Other features fitted as standard include DSC Dynamic Stability Control specially tailored to these models, an electronically controlled differential as well as model-specific control maps for the Servotronic steering assistance and the gas pedal further underlining the sporting character of both models.

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### 3.7 Unique and Efficient: The BMW X6 with New Engines and Eight-Speed Automatic.



Starting in spring 2010, the BMW X6 stands out more than ever before not only through its thrilling design and unmistakable rendition of driving pleasure so typical of the brand, but also through a level of efficiency quite unique in its segment. A new generation of straight-six diesel engines on the BMW X6 xDrive40d and BMW X6 xDrive30d as well as the first straight-six gasoline engine with BMW TwinPower Turbo, High Precision Injection and VALVETRONIC in the BMW X6 xDrive35i, again following the BMW EfficientDynamics development strategy, again offers an even better balance of performance and fuel economy also on these outstanding models.

The newly developed 3.0-litre diesel engines now featuring an all-aluminium crankcase provide 7 kW/10 hp more engine power up to 180 kW/245 hp on the BMW X6 xDrive30d and, respectively, 15 kW/20 hp more power up to 225 kW/306 hp on the BMW X6 xDrive40d, all this combined with average fuel consumption down by approximately 10 per cent versus the former models.

Both power units come furthermore with common-rail direct injection with piezo-injectors operating in the new top diesel version of BMW's Sports Activity Coupé at a maximum pressure of 2,000 bar and in the second diesel at a pressure of up to 1,800 bar.

### Diesel engine with BMW TwinPower Turbo: even more torque, unique efficiency.

The power unit featured in the BMW X6 xDrive40d comes with BMW TwinPower Turbo technology following the Variable TwinTurbo principle where first a smaller turbocharger cuts in just above idle speed followed by a larger turbocharger under higher loads. As a result of this superior concept, the engine delivers maximum torque of 600 Newtonmetres/442 lb-ft all the way from 1,500 – 2,500 rpm, reaching its maximum output at 4,400 rpm.

This increase in power accelerates the BMW X6 xDrive40d from a standstill to 100 km/h in 6.5 seconds, while the higher level of efficiency is clearly reflected by average fuel consumption in the EU test cycle of 7.5 litres/ 100 kilometres, equal to 37.7 mpg imp.

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The BMW X6 xDrive30d also offers impressive traction and pulling force, its engine featuring a turbocharger with variable turbine geometry. Maximum output comes at 4,000 rpm, with peak torque of 540 Newton-metres/398 lb-ft maintained consistently between 1,750 and 3,000 rpm. With this kind of power and pulling force, the BMW X6 xDrive30d accelerates from a standstill to 100 km/h in 7.5 seconds and returns average fuel consumption in the EU test cycle of 7.4 litres/100 kilometres, equal to 38.2 mpg imp.

### Straight-six gasoline engine with BMW TwinPower Turbo, High Precision Injection and VALVETRONIC.

With average consumption down from the former model by 7 per cent despite the same engine output of 225 kW/306 hp, the new straight-six gasoline engine in the BMW X6 xDrive35i clearly demonstrates the unique efficiency of BMW EfficientDynamics. Maximum torque of 400 Newton-metres/295 lb-ft is maintained all the way from 1,200 – 5,000 rpm, enabling the new BMW X6 xDrive35i to accelerate from a standstill to 100 km/h in just 6.7 seconds. Average fuel consumption in the EU test cycle, finally, is 10.1 litres/100 kilometres, equal to 28.0 mpg imp.

As of spring 2010, all versions of the BMW X6 come as standard with eight-speed automatic transmission highlighting the sporting character of BMW's Sports Activity Coupé through its dynamic gearshift and making an additional contribution to the car's superior economy through its optimised efficiency. As a further important feature, speed-related Servotronic steering assistance now comes as standard.

The range of BMW ConnectedDrive driver assistance systems available as an option on the BMW X6 is now supplemented by Active Cruise Control with Stop & Go, Lane Departure Warning as well as the Side View and Speed Limit Info systems.

## 3.8 Supreme Performance – Maximum Driving Pleasure: The Latest Innovations from BMW M GmbH.



More driving pleasure, lower emissions. Precisely this principle of the BMW EfficientDynamics development strategy also applies on the highest level of performance. Which is why the high-performance BMW M3 in spring 2010 combines its outstanding driving dynamics with yet a further reduction of fuel consumption and emissions.

The range of BMW EfficientDynamics technologies already featured as standard in the BMW M3 Coupé, the BMW M3 Convertible and the BMW M3 Sedan is now being further enhanced by the addition of the Auto Start Stop function, reducing the average fuel consumption and the CO<sub>2</sub> rating of the BMW M3 by up to 8 per cent or 24 grams per kilometre.

To give this outstanding car an even more sporting profile, a further feature now available in spring 2010 is the BMW Competition Package. And as a further highlight, retrofit options from the BMW Performance Range specially developed for the BMW M3 are now also available.

The range of driver assistance systems available as an option on the BMW X5 M and the BMW X6 M is also being enlarged in spring 2010. As an example, both models may now be equipped with Side View and Speed Limit Info.

The overall product portfolio offered by BMW M GmbH is likewise being supplemented by additional features and products. Immediately prior to the introduction of the BMW X5, for example, BMW's outstanding Sports Activity Vehicle is now available with a re-configured M Sports Package. Similarly, the new BMW 3 Series Coupé and the new BMW 3 Series Convertible may be upgraded from the start by the M Sports Package, and a similar M Sports Package tailored to the respective models is also available on the BMW 3 Series Sedan and the BMW 3 Series Touring in the Sports Edition.

The M Sports Package for the BMW Z4 is now also available, accompanying the launch of the BMW Z4 sDrive35is, on all other versions of BMW's Roadster.

Last but certainly not least, the range of offers from BMW Individual is likewise being further refined, and the new BMW 5 Series Sedan is available from the start with a number of particularly exclusive optional features.

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## Auto Start Stop in the BMW M3 – for the first time in combination with a double-clutch gearbox.

The BMW M3 combines its outstanding performance with truly impressive efficiency. Its 4.0-litre high-speed V8 power unit develops maximum output of 309 kW/420 hp, with supreme acceleration ensured by truly outstanding torque and pulling power. Apart from its outstanding power and performance characteristics, the eight-cylinder power unit developed exclusively for the BMW M3 also stands out through its exceptional efficiency. And now the Auto Start Stop function provides further potentials in terms of all-round efficiency and motoring comfort, enabling the driver to avoid the slightest consumption of fuel with the engine idling at a traffic junction or when stopping in congested traffic: To avoid unnecessary fuel consumption under such circumstances, the engine is simply switched off as long as the car is at a standstill. Then, once the driver wishes to continue, the engine is started again without the slightest delay.

Auto Start Stop is featured on both models with the standard six-speed manual gearbox and on models with BMW's M Double-Clutch Gearbox with Drivelogic. Together with the BMW ActiveHybrid X6 and the BMW ActiveHybrid 7, this makes the BMW M3 the first model to use this efficiency feature in combination with an automated manual gearbox.

Introduction of Auto Start Stop increases efficiency, depending on the model and the transmission involved, by up to 8 per cent or, respectively, 24 grams per kilometre. As an example, the BMW M3 Coupé powered by its high-speed V8 delivering maximum output of 309 kW/420 hp now averages fuel consumption in the EU test cycle with seven-speed M DKG Drivelogic of just 11.2 litres/100 kilometres, equal to 25.2 mpg imp (six-speed manual gearbox: 12.4 litres/ 22.8 mpg imp). The BMW M3 Sedan, to quote another example, shows the same consumption figures.

On the BMW M3 Convertible average fuel consumption is down to 11.5 ltr/100 km, equal to 24.6 mpg imp (M DKG Drivelogic), and, respectively, 12.7 ltr/100 km, equal to 22.2 mpg imp (six-speed manual gearbox). And last but of course not least, all versions of the BMW M3 now comply in full with the EU5 emission standard.

Modified rear light clusters with cover glasses all finished in red add an further visual highlight to the BMW M3 Coupé and the BMW M3 Convertible. Each featuring two rows of lights fed by LED light units and glowing harmoniously, the rear light clusters give the car its characteristic night design.

## New on the BMW M3: Competition Package and retrofit options from the BMW Performance Range.

The BMW Competition Package available also on the Coupé and Sedan as well as retrofittable options from the wide range of Original BMW Accessories developed especially for the BMW M3 offer new highlights in customising this outstanding sports car.

Lowering the entire car by approximately 10 mm or approx 0.4" and featuring 9 x 19-inch light-alloy rims at the front plus 10 x 19-inch light-alloy rims in Y-spoke design at the rear, the Competition Package optimises the car's straight-ahead and lateral dynamics to an even higher standard.

A further point is that EDC Electronic Damper Adjustment is adapted precisely to the Sports Mode developed especially for the Competition Package, just like DSC Dynamic Stability Control, thus each taking the chassis and suspension modifications into account.

The new range of offers from Original BMW Accessories ensures an even more intense driving experience for the first time in the BMW M3. These retrofittable options tailored to each model serve to enhance driving dynamics and motoring pleasure to an even higher standard.

In spring 2010, therefore, the BMW M3 is available with a customised rear spoiler as well as front apron flaps made of carbon and BMW Performance exterior mirror caps in carbon design.

Providing an optimum match for the Competition Package, these aerodynamically optimised components further reduce lift forces and add to the dynamic driving potential of the BMW M3.

## Innovative driver assistance systems for the BMW X5 M and the BMW X6 M.

Entering spring 2010, the BMW X5 M and the BMW X6 M are also available with additional features and options. The two top performers in the segment of BMW X models therefore now come as an option with the Side View and Speed Limit Info driver assistance systems. Side View incorporates two cameras integrated at the side in the front wing, observing crosswise traffic and transmitting their images to the iDrive Control Display, thus offering the driver when leaving a narrow and unclear driveway or driving out of a car park an early insight into traffic conditions to the left and right of the car.

Speed Limit Info, in turn, gives the driver the opportunity to check out the current speed limit on the route he is taking. To do this a camera fitted on

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the windscreen near the interior mirror permanently registers road signs at the side of the road and variable signs on overhead signals on the autobahn and similar expressways, comparing this information with data in the navigation system The speed limit thus established is then presented together with an appropriate symbol in the instrument cluster and, as an option, in the Head-Up Display.

Newly designed rear light clusters with particularly slender rows of lights for the backing-up function further accentuate the wide and muscular look of the BMW X5 M. The rows of lights glowing homogeneously and fed by LED units also give the car that unique night design so typical of BMW. And last but certainly not least, the rear lights now come with dynamic LED brake light units flashing on and off whenever the driver applies the brakes particularly hard and thus sending out a warning signal to other drivers following from behind.

### M Sports Package for the new BMW X5.

Yet a further highlight being presented at the 2010 Geneva Motor Show is the M Sports Package for the new BMW X5. Following BMW's usual philosophy, this Sports Package offers ideal opportunities to experience the enhanced performance of this Sports Activity Vehicle in even greater style and bring out this superiority through appropriate design.

The M Sports Package is made up of exterior, interior and chassis components underlining the dynamic potential of the BMW X5. Larger air intakes in the front air dam, for example, give the vehicle a particularly powerful and muscular look. A high-speed set-up and the sporting suspension, in turn, emphasise the dynamic character of the BMW X5 in the same way as the 19-inch M light-alloy rims in V-spoke design. As an alternative, the BMW X5 may even be fitted as an option with 20-inch M light-alloy rims in twin tone or, on request, in high-gloss milled finish.

In both cases the BMW X5 comes with a combination of different-sized tyres front and rear. The tailpipes on the exhaust on the six-cylinder models, finally, now also boast the special contours so characteristic of a V8.

Apart from the M Aerodynamics Package and M cutout trim, the BMW Individual Exterior Line in satinated aluminium design gives the BMW X5 a unique look on the side window surrounds, just as the BMW Individual roof railing in high-gloss Satin Chrome ensures equally unmistakable flair.

Inside the passenger compartment, sports seats for the driver and passenger, the M leather steering wheel, the M driver's footrest, interior trim in

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Longitudinal Grain Aluminium Design and the BMW Individual roof lining in Anthracite round off the unique driving experience in the BMW X5

### Stylish and exclusive: new options from BMW Individual.

The list of new features offered by BMW M GmbH adds the final touch to the road product portfolio already available from BMW Individual.

Right from the start upon its entry into the market, the new BMW 5 Series Sedan, for example, may be upgraded by stylish and exclusive options from BMW Individual adding a unique touch in every respect. The range of features developed specifically for the Sedan includes BMW Individual High-Gloss Satin Chrome, BMW Individual Exterior Line in satinated aluminium design, a BMW Individual roof lining in Anthracite, and BMW Individual reading lights at the rear.

BMW's new Individual Frozen Grey Metallic paintwork is now available for all models in the BMW 6 Series. The monitor surrounds on the optional rear-seat entertainment system in the BMW 7 Series, to mention yet another example, are now available in a special paintwork finish matched to the colour of BMW Individual all-leather upholstery.

The side trim on the rear monitors may furthermore be finished on the customer's request in BMW Individual Merino fine grain leather.

The folding picnic tables available in the long-wheelbase version of the BMW 7 Series may be finished on request in soft nappa leather or, as yet a further option, in BMW Individual leather, offering even greater comfort and convenience in using external entertainment or communication devices. And, together with the grand touring experience, this also enhances the all-round functionality of this Luxury Performance Sedan as a mobile office of the highest calibre.

### Driving Pleasure and Efficiency – the Ideal Combination: The BMW Model Range in Spring 2010.



Updating and upgrading the range of engines and introducing new models in numerous model series, the world's leading premium car maker BMW is further enhancing its position as a manufacturer of particularly efficient models in spring 2010. Drivetrain technology optimised in the context of BMW EfficientDynamics ensures an unparalleled balance of driving pleasure and fuel economy in all segments.

At the same time the number of BMW models fulfilling the EU5 emission standard is increasing to no less than 129 in spring 2010. The range of models already featuring optional BMW BluePerformance technology for the EU6 emission standard not coming into force until 2014 is likewise increasing to a new level: With the introduction of the new BMW 530d Sedan, the BMW 320d Sedan and the BMW 320d Touring, BMW now offers no less than six EU6 models together with the BMW 330d Sedan, the BMW 730d and the BMW 730Ld already in the market.

Consistent continuation of the BMW EfficientDynamics development strategy gives BMW by far the lowest fleet consumption of all premium car makers in the German automobile market. Despite a large share of large and high-power models, the average  $CO_2$  emission rating of the entire BMW range is lower than ever before, the number of models with  $CO_2$  emissions in the EU test cycle of no more than 140 grams per kilometre increasing in spring 2010 to no less than 30. Ten of BMW's current models even come with a  $CO_2$  emission rating of not more than 120 grams. These are five models each in the BMW 3 Series and the BMW 1 Series exempted from road tax in Germany thanks to their low level of emissions.

## BMW 3 Series: BMW 320d EfficientDynamics Edition and BMW 316d Touring both making their debut.

The BMW 320d EfficientDynamics Edition is the most fuel-efficient and lowest-emission model throughout the BMW portfolio in spring 2010. Powered by a 120 kW/163 hp four-cylinder diesel engine, this unique sedan combines the Sheer Driving Pleasure so typical of the brand with outstandingly low fuel consumption of just 4.1 litres/100 kilometres (equal to 68.9 mpg imp) in the EU test cycle and offers a CO<sub>2</sub> emission rating of just 109 grams per kilometre.

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With its engine optimised for maximum efficiency, optimised aerodynamics, a longer final drive ratio and innovative technology in the two-mass flywheel, the centrifugal force pendulum, the BMW 320d EfficientDynamics Edition is by far the most efficient car in the midrange segment.

The range of models in the BMW 3 Series is also being extended by the BMW 316d Touring developing 85 kW/115 hp from its 2.0-litre four-cylinder diesel engine.

The top-of-the-range BMW 335i available with all body variants of the BMW 3 Series is now powered by a 3.0-litre straight-six featuring BMW TwinPower Turbo technology, High Precision Injection and VALVETRONIC, combining superior output of 225 kW/306 hp with a further significant reduction of fuel consumption and CO<sub>2</sub> emissions.

The new engines featured in the BMW 325d (150 kW/204 hp) and the BMW 320d (135 kW/184 hp) also available in all body variants likewise offer a further increase in power and torque combined with an even higher standard of efficiency. And last but not least, the BMW 318d Sedan and the BMW 318d Touring provide a further increase in torque on reduced fuel consumption and emissions.

New Special Editions of the Sedan and Touring are also available in spring 2010, highlighting the characteristic qualities of the BMW 3 Series in terms of driving dynamics, motoring comfort and innovation even more than before: The Sport, Lifestyle and Exclusive Editions come with sophisticated and carefully matched options in their exterior and interior design, adding specific features to their unique look and driving experience.

### BMW X1 with an even wider range of engines.

Just a few months after its successful introduction into the market, the BMW X1 is now available with two additional gasoline engines in spring 2010. A second straight-six and a four-cylinder provide even greater diversity in the range of engines available for BMW's most compact X model now comprising three gasoline and three diesel power units.

The new entry-level model is the BMW X1 sDrive18i with its 2.0-litre four-cylinder featuring fully variable VALVETRONIC valve management, variable double-Vanos camshaft control and an adjustable intake manifold for maximum output of 110 kW/150 hp.

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Apart from the sporting response and fast-revving engine behaviour typical of a BMW power unit, this combination also ensures efficient use of the energy contained in the fuel consumed.

The BMW X1 sDrive18i accelerates from a standstill to 100 km/h in 9.7 seconds and has a top speed of 202 km/h or 125 mph. Average fuel consumption in the EU test cycle is 8.2 litres/100 kilometres, equal to 34.4 mpg imp, with a CO<sub>2</sub> emission rating of 191 grams per kilometre.

In addition to the top-of-the-range BMW X1 xDrive28i, the BMW X1 xDrive25i now also offers the opportunity to enjoy the spontaneous agility of BMW's most compact X model with the superior power and performance of a BMW straight-six. In this case the 3.0-litre power unit likewise featuring VALVETRONIC and double-Vanos delivers maximum output of 160 kW/218 hp.

Featured as standard with intelligent xDrive all-wheel drive technology and six-speed automatic transmission, the BMW X1 xDrive25i accelerates from a standstill to 100 km/h in 7.9 seconds and reaches a top speed of 223 km/h or 138 mph. Thanks to BMW EfficientDynamics, this sports car-like performance goes together with optimised fuel consumption and emissions, the BMW X1 xDrive25i returning average fuel consumption in the EU test cycle of 9.3 litres/100 kilometres (equal to 30.4 mpg imp) and a CO<sub>2</sub> emission rating of 217 grams per kilometre.

As of spring 2010, BMW also offers a wider choice of transmissions in the BMW X1, with six-speed automatic transmission already standard on the six-cylinder models and the BMW X1 xDrive23d now also available as an option on all other models.

## Premiere of the BMW 535d Gran Turismo: supreme diesel power thanks to BMW TwinPower Turbo and common-rail direct fuel injection at 2,000 bar.

Starting in spring 2010, a second even more powerful representative of the new generation of straight-six BMW diesel engines rounds off the portfolio of power units for the BMW 5 Series Gran Turismo: the BMW 530d Gran Turismo joining forces with the BMW 535d Gran Turismo.

Featuring BMW TwinPower Turbo technology and common-rail direct fuel injection, the all-aluminium power unit in this new model delivers maximum output of 220 kW/300 hp at 4,400 rpm and peak torque of 600 Newtonmetres (442 lb-ft) maintained consistently between 1,500 and 2,500 rpm.

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With its torque and pulling force cutting in at an early point and remaining at a high level throughout the entire speed range, the BMW 535d Gran Turismo accelerates from a standstill to 100 km/h in 6.1 seconds. This exceptionally sporting performance goes together perfectly with impressive efficiency ensured in particular by common-rail fuel injection operating at a peak pressure of 2,000 bar and ensuring particularly precise dosage of fuel. As a result, the BMW 535d Gran Turismo averages fuel consumption in the EU test cycle of just 6.7 litres/100 kilometres or 42.2 mpg imp.

The range of driver assistance systems offered in the context of BMW ConnectedDrive is also greater than ever before, the BMW 5 Series Gran Turismo now available as an option with proximity warning with a brake initiation function in conjunction Active Cruise Control featuring Stop & Go, as well as BMW Surround View. At the same time the range of body colours is being supplemented by Milano Beige Metallic and Damask Red Metallic.

#### **BMW 7 Series:**

### BMW ConnectedDrive with new office and infotainment functions.

Offering driving pleasure typical of the brand, exclusive comfort and innovative features, the new BMW 7 Series meets the greatest demands in the luxury performance sedan segment. As the best-selling car in its class in the German car market in 2009, the new 7 Series is now available with no less than five engine variants and for the first time with intelligent BMW xDrive all-wheel-drive technology.

The innovative character of this luxury performance sedan is further enhanced by the driver assistance systems and services available through BMW ConnectedDrive, some of which are unique the world over and all of which serve to optimise both comfort and safety as well as the use of infotainment functions. In spring 2010 this wide range of features is being further enhanced by even more innovative functions.

The highlight this year is the optimum integration of mobile phones and external entertainment devices into the car's iDrive control system. Depending on the device involved – a mobile telephone, Smartphone or media player – this enables the owner to use new functions through simple and intuitive control. In future, for example, the user will be able to integrate the audio function of an external mobile phone via the Bluetooth interface into the car's entertainment system.

The use of entertainment functions is now even more attractive thanks to the first-ever presentation of album cover pictures in the car, helping the user select his music programme on the Control Display. And last but not least,

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the new office functions serve to present text messages and calendar entries in the Control Display of the iDrive system.

When using the telephone function, the driver is able to download contact lists including image files into the car. Receiving a call, therefore, he can present not only the telephone number and name of the caller, but also a picture of the person he is talking to in the Control Display.

The prerequisite for using all these new features from BMW ConnectedDrive is the optional navigation system Professional fitted in the car, preparation for the use of a mobile phone with a Bluetooth interface, and a USB audio interface.

## 5. Fascinating Design, Supreme Dynamism: BMW Performance for the BMW X6.



The BMW X6 stands out in particular through its unique sporting looks and performance, unmistakable design adding a most exclusive touch. And now the truly discerning driver is able to make the driving experience and looks of the world's first Sports Activity Coupé even more outstanding, tailoring all the car's features to his individual, sporting preferences.

The wide range of products from BMW Performance offers numerous options for this purpose, ensuring an even more intense experience of driving dynamics and the fascinating, aesthetic design of the BMW X6. The range of retrofittable options specially developed for BMW's unique Sports Activity Coupé for the drivetrain, suspension, aerodynamics and cockpit is included in the broad selection of BMW Original Accessories.

BMW Performance components convey know-how from motorsport to the road, expressing a particular passion for supreme performance and characteristic design. All features in the BMW Performance product line are available individually, enabling the driver of a BMW X6, through the choice of selected components, to set clear sporting highlights in all areas he finds particularly relevant. At the same time all BMW Performance products may be combined with one another to provide a harmoniously balanced overall package.

## Aerodynamics and the suspension: precise optimisation, individual style.

The sporting looks of the BMW X6 are accentuated more than ever before by the BMW Performance Aerodynamics Kit with features and elements tailored exactly in both style and function to BMW's Sports Activity Coupé. This even includes the cameras and sensors for the Park Distance Control, Active Cruise Control with Stop & Go, and the Side View driver assistance system.

The BMW Performance Aerodynamics Kit is made up of the front bumper, side-sills and an insert for the rear bumper, all in special design and all finished in body colour.

The BMW Performance Aerodynamics Kit for the BMW X6 may also be supplemented by a rear spoiler, rear fins in matt black and a front grid finished in high-gloss black paint.

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BMW Performance light-alloy wheels in Y-spoke design further optimise the dynamic driving potential and the striking looks of the BMW X6. Reduced in weight, these cast light-alloy 12-inch wheels stand out in particular through their roll-milled rim hump and exclusive twin-tone finish with a glossy outside surface and Ferric Grey paintwork between the rims. A special production method reduces the weight of each wheel by approximately 1,500 grams compared with conventional wheels of the same size.

The reduction in unsprung masses ensured in this way has a positive effect on both the driving dynamics and steering behaviour of the BMW X6.

The BMW Performance light-alloy wheels come on tyres varying in size from front to rear and featuring runflat qualities allowing the driver to continue even after a complete loss of pressure.

Rim dimensions are 10J x 21 at the front on 285/35 R21 tyres and 11.5J x 21 on 325/30 R21 tyres at the rear.

### BMW Performance Power Kit: even more muscle when accelerating.

The BMW Performance Power Kit available as a retrofittbale option on the gasoline versions of the BMW X6 as of June 2010 increases both torque and acceleration to an even higher standard. Developed specifically for the V8 power unit in the BMW X6 xDrive50i and the straight-six in the BMW X6 xDrive35i, the Performance Power Kit significantly improves both acceleration and elasticity through a further increase in maximum output and peak torque precisely matched to the car's power characteristics.

The BMW Performance Power Kit comprises appropriate modifications to engine management with a positive effect on the development of power in both engines. The Kit was developed by BMW's engine specialists and naturally reflects the high quality standards of the BMW Group with the increase in power and torque remaining in full compliance with all warranty rights and claims on the part of the customer.

The BMW Performance Power Kit raises maximum output of the eight-cylinder with BMW TwinPower Turbo and High Precision Injection in the BMW X6 xDrive50i by 30 kW/41 hp to 330 kW/448 hp. Peak torque, in turn, is up by 50 Newton-metres/37 lb-ft to 650 Nm/479 lb-ft.

The six-cylinder power unit of the BMW X6 xDrive35i equipped with Twin Turbo technology and High Precision Injection shows an increase in maximum output by 15 kW/20 hp to 240 kW/326 hp, with peak torque increasing by 50 to 450 Newton-metres/332 lb-ft.

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Benefiting from the BMW Performance Power Kit, both models accelerate 0.2 seconds faster from a standstill to 100 km/h, the BMW X6 xDrive50i with the BMW Performance Power Kit completing this sprint in 5.2 seconds, the BMW X6 xDrive35i in 6.5 seconds. Acceleration in gears from 80 – 120 km/h (50 – 75 mph) is 0.5 seconds faster in each model.

Likewise starting in June 2010, BMW Performance also offers a sports exhaust system. Available also on the BMW X6 xDrive50i and BMW X6 xDrive35i, this option stands out clearly through its chrome-plated tailpipes, at the same time offering even lower weight and a particularly striking sound pattern together with a further reduction of exhaust counter-pressure.

### Cockpit: driver's workplace like in a sports car.

BMW Performance offers attractive accessories also for the car's interior design, again raising the sporting driving experience in the BMW X6 to an even higher standard. As an example, all model variants of BMW's Sports Activity Coupé may be equipped with a BMW Performance sports steering wheel with a flattened rim at the bottom and alcantara coating for optimum grip and a pleasant touch in all temperatures.

The driver's workplace is further optimised in the true style of a genuine sports car by BMW Performance aluminium pedals and the BMW Performance driver's footrest.

In their technical features and design all of the BMW Performance components available in the BMW X6 comply in full with the typical style of the brand and naturally fulfil all of BMW's supreme standards in terms of quality and safety. Accordingly, they are fully in line with all BMW warranty standards and requirements.

BMW Performance accessories and features are sold and fitted by BMW Dealers and Service Partner as well as BMW Retail Outlets.

# 6. Perfect Networking for Even Greater Driving Pleasure: New Services from BMW Connected Drive.



Offering a unique range of driver assistance systems and services unparalleled the world over, BMW ConnectedDrive optimises both motoring comfort and driving safety as well as the innovative use of infotainment functions within the car.

No other car maker offers a similarly wide range of driver assistance systems, features for using mobile terminals within the car, as well as mobility services in the areas of traffic information, emergency call functions, vehicle, enquiry and office services, travel and leisure-timer planners, and the internet.

The portfolio of features and services available to the BMW customer comprises the following highlights, among others:

- **Google Directory Search** in the car including a send-to-car function from the Google website presented by BMW in 2007 as the world's first car maker and introduced step-by-step in all BMW models.
- A telephone-based personal enquiry service as part of BMW Assist introduced in most European countries step-by-step since 1999, still unique in the world of motoring and available in all BMW models.
- Enhanced Emergency Call with automatic determination of the car's location introduced by BMW as the fist car maker in 1997 in the USA and in Europe in 1999.
- **BMW Online** and **Internet**, the world's first internet-based service in the car introduced in 2001 and offering unrestricted use of the internet in the car ever since 2008.
- BMW Routes, a service unique worldwide and offered only by BMW for individually planning your travel routes with direct download into the car's navigation system, available on nearly all models.
- Office functions with unparalleled integration of Smartphone applications including control via iDrive as a new, world-exclusive offer from BMW ConnectedDrive.
- **BMW TeleServices**, BMW's exclusive telematics function for exchanging information with your BMW Service Partner, making an appointment manually or automatically for the next car service, and transmitting both car data and diagnostic findings, available worldwide in 19 countries.
- BMW Parking Assistant, a driver assistance system with a unique range of functions worldwide supporting the driver when backing up into a parking space next to the road by automatically steering the car.

- Head-Up Display further optimised in its quality of presentation, range
  of functions and flexibility a unique system projecting information relevant
  to the driver in his line of vision on to the windscreen.
- **BMW Surround View**, a driver assistance system exclusive to BMW and unique the world over, presenting the position and surroundings of the car from a bird's eye perspective for precise manoeuvring.
- BMW Night Vision with detection of individual persons, an innovative, camera-based night vision system offering very precise recognition of cyclists and pedestrians outside of the headlight beam ahead of the car, again quite unparalleled in the world of motoring.

The background behind this unparalleled range of functions is the philosophy BMW has been pursuing for many years to intelligently connect the driver and his car with the world around them, traffic conditions and the driver's personal world and relationships. The driver assistance systems and mobility services provided by BMW ConnectedDrive give the driver as much information and as many services as he needs and wishes to use at any time, enjoying an even more comfortable, safer and intense experience of Sheer Driving Pleasure.

At the 2010 Geneva Motor Show BMW will be presenting, together with the market launch of the new BMW 5 Series Sedan, the Parking Assistant and Surround View driver assistance systems now available for the first time, as well as the Head-Up Display optimised to an even higher standard and BMW Night Vision even able to detect individual persons.

The range of services provided by BMW ConnectedDrive is furthermore being expanded by other innovative functions, with the focus on the optimised integration of mobile telephones and external entertainment devices in the car's iDrive control system.

## New and exclusive to BMW: office functions and presentation of album cover pictures.

BMW is the first and only car maker in the world to offer innovative office functions for additional infotainment services in the context of BMW ConnectedDrive. To optimise the integration of Smartphones, the capacity of the Bluetooth interface in the car and its ability to transmit data is being raised to an even higher level. Using the new office functions provided by BMW ConnectedDrive, the driver or passenger are now also able to display calendar entries, text messages or e-mails, jobs to do and personal notes in the iDrive Control Display and even have such messages and functions read out loud to them by voice presentation.

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Using the telephone function, the driver or passenger may also download contact lists including image files from an external mobile phone through the Bluetooth interface into the car. So when receiving a call, the user will see not only the number and name of the caller, but also his picture in the Control Display.

Yet another innovation is the transmission of audio files from external devices via Bluetooth. In this case the mobile audio player is remote-controlled in the wireless mode, just like the download of audio files into the car's entertainment system.

The use of entertainment functions becomes even more attractive by presenting album covers as a picture when choosing a range of music on the Control Display. This is also possible when accessing external audio players integrated in the car by a USB interface.

### **Exclusive to BMW ConnectedDrive: Telephone Enquiry Service.**

The BMW Assist service functions introduced by BMW as the first car maker in the world and still unique the world over, exclusive to all BMW models, ensure a significant enhancement of motoring comfort. BMW ConnectedDrive, for example, offers a personal telephone enquiry service. Apart from having direct access to the complete telephone directory and Yellow Pages, the agent at the BMW Call Center is able to provide information on points of interest listed in the Green Michelin Guide or the Merian Guide then downloaded directly into the car.

The user may also check out the latest flight information or, for example, look specifically for pharmacies open at night, ATMs in the area or a golf course, just as he can book hotels through the HRS reservation service and choose specific hotels at particularly low rates compared with a regular online booking.

When the driver or one of the passengers chooses the Enquiry Service he will be connected directly with the BMW Call Center. The special advantage of this service is that addresses found by the Call Center may be downloaded straight into the car. Then BMW Assist will connect the user and transfer the addresses found as a cost-free service the user can choose as often as he likes.

All data received in this way may be downloaded conveniently at the touch of a button into the navigation system, including telephone numbers the driver would like to have. Simply by clicking on to the number downloaded into the

car by the BMW Call Center, the user can then, with his own phone, set up a connection he would like to contact.

### Functions unique the world over: Google Services in combination with BMW ConnectedDrive.

The web-based services provided in the context of BMW ConnectedDrive also offer an even wider range of functions quite unique the world over in the automotive market, again allowing the user to enjoy additional and very helpful infotainment. Ever since 2007, BMW has been the world's only car maker to provide Google Services for selecting specific destinations in all new models fitted with a navigation system. Using the Google Directory Service in the car, the driver or passenger is able to download company addresses from this leading online search machine directly from the internet into his BMW. With this function being integrated in the navigation system, the location and destination of the car are recognised automatically. To simplify the entry of a search term, the system furthermore offers the relevant search terms generally used in the internet. The address, telephone number, distance and additional current information are all shown as the results of the search function, and simply by pressing a button the user is able to activate

Using the option menu in the navigation system, BMW ConnectedDrive customers are also able to choose a special destination and receive additional information through Google Maps. This includes all the current information provided by Google Maps also in the internet, such as pictures, hotel/restaurant ratings and opening times.

the destination guidance function or set up a telephone connection.

The My Info service likewise provided by BMW ConnectedDrive also offers the user the opportunity to download complete address datasets and short messages through the BMW ConnectedDrive portal in the internet from his PC directly into the car. This may be down both by the driver himself and by another person authorised to do so.

My Info is supplemented by Send-to-Car functions and the user may search for addresses on Google Maps in the internet then downloaded directly into the vehicle by the driver or again by a person authorised to do so.

This also applies to the HRS Send-to-Car service allowing the user to download an address dataset on a hotel room booked through the HRS Hotel Reservation Service from his own PC directly into the car. In that case both the address and the telephone number are retrievable directly in the car under the Navigation menu item and may be fed from there directly into the navigation system or the user's mobile phone.

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### BMW Routes: individual route guidance exclusive to BMW.

Offering the BMW Routes service, BMW is the first car maker worldwide to enable the user to put together individual routes in his internet portal at www.bmw.com/routes then downloaded directly into the car. The navigation system will then take the driver to his destination precisely along the route planned and downloaded in advance, BMW Routes thus offering additional infotainment in the car exclusive to BMW and not available from any other car maker.

The BMW ConnectedDrive customer also has the option to choose among some 30 specially researched and hand-picked BMW routes in the internet. Apart from fascinating driving experiences in Europe's most beautiful regions, this option also offers four very special Urban Routes (Amsterdam, Barcelona, Copenhagen, Zurich), with a special hotel also recommended as the starting point and destination on each route.

As yet a further amenity, a golf course is also located along each BMW Route, together with ample opportunities for sightseeing, artistic or culinary experiences along the way.

Ultimately, however, every BMW Route focuses on the driving experience offered along an attractive stretch of road, seeking to avoid motorways or the autobahn as well as heavily frequented road sections and therefore giving preference instead to well-built and really enjoyable country roads and scenic routes.

Offering such a wide range of options and attractions, BMW Routes is a particularly good example of innovative infotainment concepts networking the car to its surroundings in order to provide an even more enjoyable driving experience.

### Unique: Enhanced Emergency Call with automatic determination of the car's location.

The Enhanced Emergency Call function automatically locating the car offers an even higher standard of safety through BMW ConnectedDrive.

Introducing the BMW ConnectedDrive Enhanced Emergency Call function, BMW is the first car maker in the world to ensure that rescuers receive not only detailed information on the type of a collision prior to arriving at the scene of the accident, but also on the risk of injury involved. Using this information, rescue services are able to prepare appropriate medical treatment of the victims in good time, the data transmitted to the BMW Call Center specifying not only the exact location of the car down

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to the last metre, but also its chassis number, the type of car, its colour and even the data collected by the sensors in the vehicle.

Further important features registered by the system are the activation of all restraint systems in the car as well as the occupancy and belt status on the front seats. This enables the rescue service to determine whether the car has been involved in a head-on, rear-end, side or multiple collisions, distinguishing these various types of collisions from one another. Indeed, the rescuers can even see whether the car has rolled over, since this is also reported by the Enhanced Emergency Call.

BMW introduced the Emergency Call function for the first time in the USA in 1997, with Germany following in 1999. To evaluate vehicle data, BMW's accident researchers have developed a special algorithm in close cooperation with the William Lehman Injury Research Center (WLIRC) in the USA. This tells the rescue services alarmed by the BMW Call Center at an early point where the accident occurred, what car was involved and, thanks to the unique technology of the Enhanced Emergency Call, whether the occupants were subject to a heightened risk of injury, allowing the rescuers to initiate the suitable rescue procedure quickly and exactly as required.

The car's exact GPS data as well as the data of the vehicle itself is transmitted automatically by the car, enabling the BMW staff at the BMW Call Center manned round the clock to request help without delay. They are also able to call the car's occupants, contact the nearest rescue service, and offer the occupants advice and support, also thanks to their psychological training.

The BMW Enhanced Emergency Call even offers the opportunity to establish a direct link through the BMW Call Center between the car's occupants and the rescue service. Such direct communication guarantees an absolutely efficient flow of information without the slightest loss of data.

The Enhanced Emergency Call function even works if the occupants do not have an external mobile phone on them or if it is switched off, since data is transmitted for all services through a separate, integrated telephone unit. And it almost goes without saying that the function may be activated manually, for example to call other motorists for help as quickly as possible.