BMW at the 2010 Detroit NAIAS.
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Note: The vehicles described in this media information show the specifications for the US automobile market in terms of their engines, equipment and features. Deviations in other markets are possible.

1. BMW at the 2010 Detroit NAIAS. (Short Version)

A wide range of options pointing into the future for enjoying Sheer Driving Pleasure of the highest standard – precisely this is the highlight of the model range and other innovations presented by BMW, the German premium car maker, at the 2010 North American International Auto Show (NAIAS) in Detroit.

Apart from the world debut of the fascinating, ultra-sporting BMW Z4 sDrive35is, the press and public in Detroit will also experience the starting signal for new drivetrain technology at the Show from 16 – 24 January 2010: At the NAIAS 2010 BMW presents the models BMW ActiveHybrid 7 and BMW ActiveHybrid X6.

The first hybrids from BMW demonstrate impressively how much extra efficiency and driving dynamics a premium manufacturer such as BMW is able to offer through innovative technologies combining the combustion engine and electric drive.

Further proof of the brand's innovative power is the BMW 5 Series Gran Turismo, a unique new model bringing together luxurious motoring comfort, superior variability and an elevated seating position to provide an unprecedented driving experience also benefiting from impressively low fuel consumption and exhaust emissions thanks to the wide range of technologies from BMW EfficientDynamics.

As the epitome of Sheer Driving Pleasure, the new BMW Z4 has made a great name for itself also in the North American automobile market within a very short time. This re-interpretation of the classic roadster with a retractable hardtop, seats moved back almost to the rear axle and a powerful straight-six engine is now entering a new dimension of driving dynamics: At the 2010 NAIAS BMW is proudly presenting the BMW Z4 sDrive35is featuring a Twin Turbo power unit with High Precision Injection for maximum output of 250 kW/340 hp and peak torque of 450 Newton-metres/332 lb-ft.

In conjunction with seven-speed Sport Automatic transmission featuring double clutch operation now available in the Roadster for the first time in the USA, the BMW Z4 sDrive35is accelerates to 100 km/h (62 mph) in just 4.8 seconds.

Thanks to BMW EfficientDynamics, this significant increase in power, performance and driving dynamics comes without the slightest increase in fuel consumption. At 9.0 litres/100 kilometres (equal to 26.1 mpg US) and 210 grams CO_2 per kilometre in the EU test cycle, both fuel consumption and CO_2 emissions are the same as on the BMW Z4 sDrive35i with regular Sport Automatic.

Following the BMW EfficientDynamics development strategy, the German manufacturer of premium cars offers a unique range of options and technologies giving customers from all over the world exactly the right models to enjoy new standards in terms of both driving dynamics and efficiency. Power units and transmissions with a supreme level of efficiency all round, technologies and features on the engine's ancillary units likewise serving to enhance efficiency, optimised aerodynamics and intelligent lightweight technology help to provide a perfect symbiosis in all segments of the Sheer Driving Pleasure so typical of the brand, on the one hand, with surprisingly low fuel consumption and emissions, on the other. And as a further cornerstone of BMW EfficientDynamics, BMW ActiveHybrid technology is now also about to enter the market.

The BMW ActiveHybrid 7 is the first vehicle in the world to combine a V8 gasoline engine, eight-speed automatic transmission and an electric motor as a mild-hybrid concept. This combination of an upgraded eight-cylinder with BMW TwinPower Turbo Technology and High Precision Injection, on the one hand, and an electric motor, on the other, gives BMW ActiveHybrid 7 overall system output of 342 kW/465 hp and maximum torque of 700 Nm/516 lb-ft.

Power is conveyed to the wheels by an eight-speed automatic transmission. The electric motor positioned between the combustion engine and the converter on the automatic transmission, in turn, draws its energy from a lithium-ion battery developed specifically for automotive applications.

Precisely masterminded interaction of both power sources serves to optimise not only the supreme level of efficiency, but also the dynamic performance and motoring comfort offered by the BMW ActiveHybrid 7. Just one example is that the BMW ActiveHybrid 7 accelerates from a standstill to 100 km/h (62 mph) in a mere 4.9 seconds, while making do on average fuel consumption in the EU test cycle of 9.4 litres/100 kilometres (24.9 mpg US) and restricting CO_2 emissions to 219 grams per kilometre.

A further feature of the BMW ActiveHybrid 7 is the car's Auto Start Stop function keeping idle periods when stopping at the traffic lights or in congested traffic to a minimum and thus preventing any superfluous consumption of fuel. For the first time the air conditioning and ventilation may still be operated even

with the engine switched off, just as the energy management concept featured in this Luxury Performance Sedan provides the option to run the air conditioning even when the car is at a standstill.

Parallel to the BMW ActiveHybrid 7, BMW is also presenting BMW the Active Hybrid X6 at the 2010 NAIAS. The world's first Sports Activity Coupe with full-hybrid drive capitalises on the options provided by the combination of the combustion engine and the electric motor to a degree never seen before. The vehicle's drive system is made up of a 300 kW/407 hp V8 with BMW TwinPower Turbo Technology and two synchronous electric motors developing maximum output of 67 kW/91 hp and, respectively, 63 kW/86 hp. The electric motors receive their energy from an NiMH high-performance battery positioned beneath the luggage compartment and also supplying power to the on-board network.

Maximum system output available in this case is 357 kW/485 hp, with torque peaking at 780 Newton-metres/575 lb-ft. Precisely controlled interaction of the three drive units optimises the overall efficiency of the BMW ActiveHybrid X6 at all speeds. Acceleration from a standstill to 100 km/h (62 mph) comes in 5.6 seconds, top speed of BMW ActiveHybrid X6 is limited electronically to 236 km/h or 146 mph (250 km/h or 155 mph in conjunction with the optional Sports Package). Average fuel consumption in the EU5 test cycle, on the other hand, is just 9.9 litres/100 km (equal to 23.7 mpg US), CO_2 emissions are 231 grams per kilometre.

BMW's first full-hybrid is able to run on electric power alone up to a speed of 60 km/h or 37 mph, that is without the slightest emission of CO_2. The combustion engine cuts in automatically whenever required.

The two-mode active transmission serves to enhance the level of efficiency and driving dynamics by providing the ideal combination in each case of the two drive systems. Incorporating the two electric motors, three planetary gearsets and four multiple-plate clutches, the two-mode active transmission conveys the power of the drive system in the same way and with the same qualities as a seven-speed automatic transmission, intelligent xDrive all-wheel-drive technology, in turn, spreading out power variably between the front and rear wheels.

BMW sets a new course with an innovative vehicle concept at the NAIAS 2010. Opening up a new segment never seen before, the BMW 5 Series Gran Turismo combines the essential features of a prestige Sedan, a modern Sports Activity Vehicle, and a classic Gran Turismo with one another. Stylish and elegant in its looks, this unprecedented four-door comes with frameless

windows and a two-piece tailgate. The generous interior offers luxurious comfort, a slightly higher seating position for comfortable access and a superior overview of traffic conditions as well as a truly impressive range of variability.

Powerful but efficient engines, eight-speed automatic transmission featured as standard, Dynamic Driving Control also coming as standard, the most advanced suspension technology and innovative driver assistance systems interact with one another in the BMW 5 Series Gran Turismo to ensure a truly unique driving experience. The 550i Gran Turismo, for example, is powered by a V8 featuring BMW TwinPower Turbo and High Precision Injection for maximum output of 300 kW/407 hp. The BMW 535i Gran Turismo, in turn, comes with a newly developed straight-six for the first time combining a turbocharger, direct gasoline injection, and fully variable VALVETRONIC valve management. Displacing 3.0 litres, the BMW TwinPower Turbo delivers maximum output of 225 kW/306 hp. And thanks to BMW EfficientDynamics, both versions of the BMW 5 Series Gran Turismo offer a level of fuel economy and emission management simply outstanding in this segment and with this kind of performance.

The BMW Advanced Diesel with BluePerformance technology offers yet another opportunity to enjoy Sheer Driving Pleasure at a low level of fuel consumption and exhaust emissions.

Featuring the BMW 335d Sedan and the BMW X5 xDrive35d as special variants of the six-cylinder diesel, BMW is focusing specifically on the challenges of the North American automobile market and is therefore promoting this drive technology in continuing its worldwide entry into the marketplace. Developing maximum output of 265 hp, the power unit featuring Variable Twin Turbo Technology and common-rail direct fuel injection also offers an unprecedented cruising range on the road. And equipped with a diesel particulates filter, an oxidation catalyst, and SCR Selective Catalytic Reduction to reduce the level of nitric oxides (NO_X) to a minimum, the new model meets the emission standards now in force even in the strictest States in the USA.

The Detroit Auto Show, as it is commonly called, was held for the first time in 1907 as a regional event and has been a regular highlight of the international circuit of motor shows since 1987, representing the most significant annual event of its kind on the North American continent. In 2009 the organisers of the NAIAS registered more than 650,000 visitors to the Cobo Center in Detroit.

2. Highlights at a Glance.

- **World debut: BMW Z4 sDrive35is.**

Classic roadster proportions interpreted in modern style and combined with supreme driving dynamics – this is the BMW Z4 sDrive35is. The latest and most powerful rendition of BMW's outstanding two-seater is being presented to the world public for the first time at the 2010 NAIAS. With its 250 kW/340 hp straight-six power unit featuring BMW Twin Turbo Technology and High Precision Injection as well as BMW's optional seven-speed Sport Automatic, the BMW Z4 sDrive35is accelerates to 100 km/h (62 mph) in just 4.8 seconds. And with BMW EfficientDynamics this significant increase in power and performance goes together with average fuel consumption in the EU test cycle of just 9.0 litres/100 kilometres, equal to 26.1 mpg US.

- **Best of hybrid in the luxury segment: the BMW ActiveHybrid 7.**

Less fuel, more driving pleasure: Hybrid technology from BMW meets both of the targets defined from the start under the very name "BMW EfficientDynamics". The BMW ActiveHybrid 7 is the world's first car to combine a V8 gasoline engine, eight-speed automatic transmission and an electric motor as a mild-hybrid concept. This innovative drivetrain technology delivers overall system output of 342 kW/465 hp and maximum torque of 700 Newton-metres/516 lb-ft, giving this Luxury Performance Sedan based on the BMW 7 Series a significant boost in driving dynamics, comfortable motoring and impressive all-round efficiency reflected by average fuel consumption in the EU test cycle of 9.4 litres/100 kilometres (equal to 24.9 mpg US).

- **Best of hybrid in a Sports Activity Vehicle: the BMW ActiveHybrid X6.**

The BMW ActiveHybrid X6 boasts a second hybrid concept likewise tailored specifically to this outstanding vehicle. In fact, BMW's first full-hybrid is also the most powerful hybrid in the world: In the BMW ActiveHybrid X6 a V8 gasoline engine and two electric motors work together to develop overall system output of 357 kW/485 hp and peak torque of 780 Newton-metres/575 lb-ft. The two-mode active transmission ensures precise interaction of the three power units plus optimum efficiency at all speeds.

This unique Sports Activity Coupe is able to run under electric power alone up to a speed of 60 km/h or 37 mph, absolutely free of CO_2 emissions. Acceleration from a standstill to 100 km/h (62 mph) comes in just 5.6 seconds, clearly proving the outstanding efficiency of this outstanding vehicle with average fuel consumption in the EU test cycle of 9.9 litres/100 kilometres, equal to 23.7 mpg US.

- **Special attraction: the BMW 5 Series Gran Turismo.**

A new vehicle concept is presented by BMW at the 2010 NAIAS: The BMW 5 Series Gran Turismo combines the benefits of a Prestige Sedan, a modern Sports Activity Vehicle, and a classic Gran Turismo. A coupe-like, stretched and sleek roofline, proportions typical of BMW, four doors with frameless windows and a two-piece tailgate determine the stylish and elegant body design of the BMW 5 Series Gran Turismo. The generous interior offers luxurious comfort, a slightly elevated seating position for comfortable access to the vehicle, clear and superior all-round visibility of road conditions, and truly impressive variability. Powerful and efficient engines with eight and, respectively, six cylinders, as well as the eight-speed automatic transmission featured as standard, guarantee a supreme driving experience both dynamic and comfortable all in one.

- **Innovations: BMW EfficientDynamics in a new range of diversity.**

The BMW Group is and remains the most sustainable car maker in the world. Only recently the Company was acknowledged for the fifth time in a row as the top performer and leader in the Dow Jones Sustainability Index. In 2010 the BMW Group is continuing to increase its leading position worldwide in the reduction of fuel consumption and exhaust emissions – and even today, BMW models offer a particularly good balance of fuel economy and performance in all vehicle segments.

The BMW Advanced Diesel with BluePerformance technology already introduced successfully in the USA and Canada offers a particularly high standard of efficiency. And now two models with BMW ActiveHybrid technology are also available for the first time as further options. In the medium and long term, the BMW Group will maintain its focus on further innovative concepts including electro-mobility in the context of project i and the use of hydrogen as a source of energy.

3. BMW at the 2010 Detroit NAIAS. (Long Version)

3.1 The Top Performer in the Roadster Range: The BMW Z4 sDrive35is.

Combining classic proportions with modern sportiness, the new BMW Z4 has reached the top of its market segment almost overnight. And now this charismatic roadster is entering a new dimension in driving dynamics, the new BMW Z4 sDrive35is offering an even higher standard of performance ensured both by the modified straight-six power unit with BMW Twin Turbo Technology and High Precision Injection, on the one hand, and by BMW's seven-speed Sport Automatic with double clutch operation and the M Sports Package including the adaptive M Suspension likewise featured as standard, on the other.

Appropriate optimisation in engine technology increases maximum output of the 3.0-litre power unit to 250 kW/340 hp. Peak torque is 450 Newton-metres/ 332 lb-ft, increasing briefly with the Overboost function to 500 Newton-metres/ 369 lb-ft.

The outstanding power and performance of the BMW Z4 sDrive35is is expressed in particular by the significant increase in pulling power and muscle to be clearly experienced in all situations. In conjunction with seven-speed Sport Automatic featuring double clutch operation, this new top-of-the-range Roadster accelerates from a standstill to 100 km/h (62 mph) in just 4.8 seconds. At 9.0 litres/100 kilometres (provisional US figure approx. 20 mpg combined) and 210 grams in the EU test cycle, fuel consumption and CO_2 emissions are the same as on the BMW Z4 sDrive35i with Sport Automatic.

The BMW Z4 sDrive35is is making its world debut at the 2010 North American International Auto Show (NAIAS) in Detroit. And parallel to the market launch of this high-performance roadster in spring 2010, the M Sports Package is being introduced for all further versions of the BMW Z4.

More air, more boost, more torque, more driving pleasure.
The twin-turbo straight-six power unit already giving the BMW Z4 sDrive35i truly impressive dynamics and all-round performance is characterised in particular by its spontaneous and direct response to the gas pedal, fascinating free-revving performance, and unusually economical use of fuel for a car in this class.

Now the outstanding potential of this power unit is being put to even greater use in the new version of the BMW Roadster, features such as optimised air supply and increased boost pressure ensuring an even better flow of power with the same high standard of efficiency.

The combination of BMW Twin Turbo Technology and High Precision Injection offers a level of performance a naturally-aspirated power unit would only be able to provide with a larger number of cylinders and extra displacement, meaning far higher weight and significantly greater fuel consumption.

Instead, the BMW Twin Turbo power unit uses two small turbochargers which, through their low inertia, cut in from the start at relatively low engine speeds, each supplying three cylinders with compressed air. As a result, power and performance are built up with a level of spontaneity quite unusual on a turbocharged engine. The turbocharger system developed for the power unit of the new BMW Z4 sDrive35is maintains a high boost pressure throughout the entire load range. Peak torque now increased to 450 Newton-metres or 332 lb-ft comes from a low 1,400 rpm and is maintained consistently all the way to 4,500 rpm. Maximum output of 250 kW/340 hp, in turn, is delivered at 5,800 rpm.

Overboost function for particularly dynamic acceleration.
Modified engine management on the BMW Z4 sDrive35is also allows the use of an Overboost function briefly increasing engine torque under full load by another 50 Newton-metres or 37 lb-ft. The peak thus offered of 500 Newton-metres/369 lb-ft gives the car particularly fast, dynamic and powerful acceleration, the BMW Z4 sDrive35is completing the sprint from a standstill to 100 km/h (62 mph) in just 4.8 seconds.

Through its particular characteristics, the power unit offers a particularly intense experience of this supreme performance. The extra output of the optimised six-cylinder is maintained consistently throughout all load ranges, above all under very dynamic driving conditions.

When accelerating in the BMW Z4 sDrive35is, the driver feels the additional torque and muscle particularly at medium and high engine speeds. Following the policy of the BMW Group, finally, top speed of the BMW Z4 sDrive35is is limited electronically to 250 km/h or 155 mph.

High Precision Injection: the efficient way to supreme performance.
The BMW Z4 sDrive35is offers its outstanding power and performance consistently at all times. But this does not mean an increase in fuel consumption and emissions. On the contrary – averaging fuel consumption of 9.0 litres/

100 kilometres (equal to 26.1 mpg US) and CO_2 emissions of 210 grams per kilometre in the EU test cycle, the new top model offers the same superiority also in this respect as the BMW Z4 sDrive35i with Sport Automatic. The provisional US fuel consumption figure is approx. 20 mpg combined.

This unusually good balance of performance and fuel consumption results from the fundamental design and layout of the six-cylinder combining BMW Twin Turbo Technology with High Precision Injection. So once again, the qualities of direct gasoline injection featured in this engine come out very clearly, piezo-injectors positioned in the cylinder head between the valves and therefore in the immediate vicinity of the spark plugs ensuring 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 fuel in a conical spray pattern throughout the entire combustion chamber. A further advantage of such direct fuel injection is the cooling effect allowing higher compression and making the combustion process even more efficient.

Through their concept alone, the turbochargers likewise help to reduce fuel consumption. Since the turbines are made of special steel particularly resistant to high temperatures and therefore able to cope with temperatures of more than 1,000° C or 1,830° F, there is no need for an increased fuel supply with its cooling effect. Particularly under full load, this ensures a significant advantage in fuel economy.

Further technologies offered as standard by BMW EfficientDynamics such as Brake Energy Regeneration, EPS Electric Power Steering and on-demand control and management of ancillary units likewise help to reduce both fuel consumption and emissions.

Characteristic engine sound accompanying the dynamic surge of power.
The modified six-cylinder also comes with special features on the engine block itself in the interest of even greater strength and stiffness. The exhaust system of the BMW Z4 sDrive35is, in turn, has been developed specifically for this model, appropriate sound engineering giving the car a very characteristic and truly impressive sound pattern.

This particular distinction tailored to the BMW Z4 sDrive35is is ensured by special sound flaps and modifications on the silencers. The driver and passenger therefore experience powerful acoustic feedback to their wish for

performance, without the sound of the engine becoming obtrusive, let alone annoying, at any time. So the sound experience is characterised by a particularly deep rumble with the focus above all on the low frequency range.

Seven-speed Sport Automatic with a special control map and an optimised two-mass flywheel.

The seven-speed Sport Automatic with double clutch operation featured in the BMW Z4 sDrive35is likewise offers the very best in driving dynamics and efficiency. A particular highlight in this case is the two-mass flywheel laid out particularly for an even higher level of power and performance, offering even greater strength and stability and naturally handling high engine torque of up to 500 Newton-metres or 369 lb-ft without the slightest problem.

The seven-speed Sport Automatic with double clutch operation shifts gears without the slightest interruption of torque and engine power, offering the driver the choice of an automatic gearshift or the manual selection of gears. The fast and particularly smooth change of gears ensures unusually harmonious acceleration and serves in addition to reduce both fuel consumption and emissions.

The control map on the seven-speed Sport Automatic transmission with double clutch has naturally been tailored to the particular power and performance of the engine, thus further enhancing the superior sportiness of the BMW Z4 sDrive35is to an even higher level. Particularly when shifting gears manually and in conjunction with the SPORT and SPORT+ modes of Dynamic Driving Control, the transmission offers a most dynamic experience through modified gearshift points, optimised selection of gears and an even greater increase in torque before shifting.

Sport Automatic also comes with a Launch Control function for maximum performance when accelerating from a standstill.

The Sport Automatic transmission is controlled and masterminded by an electronic gear selector on the centre console and comes with gearshift paddles on the steering wheel.

Featured as standard on the BMW Z4 sDrive35is: M Sports Package and adaptive M Suspension.

The BMW Z4 sDrive35is also comes as standard with an M Sports Package including the M Aerodynamics Package and adaptive M Suspension featuring electronically controlled dampers for even greater agility without making any concessions in terms of comfort.

The M Sports Package underlines the dynamic character of the car through its aerodynamically optimised exterior features and customised interior design. Special 18-inch light-alloy rims in five-spoke design combined with tyres of different size front and rear round off the sporting character of the BMW Z4 sDrive35is, with 19-inch light-alloy rims available a an option.

The adaptive M Suspension lowers the entire car by 10 millimetres or almost 0.4", ensuring a quick reaction to sudden steering manoeuvres and superior precision when entering a bend thanks to four continuously adjustable twin-sleeve gas-pressure dampers with interacting adjustment of the inbound and rebound strokes. The central control unit processing data delivered by three accelerometers and adjusting the four dampers independently of one another enables the suspension to respond very quickly to even the slightest change in driving and road conditions. Damper harshness, in turn, is adjusted by externally fitted valves controlling the flow of damper fluid, giving the dampers either a harder or softer set-up in accordance with current conditions and driving requirements. Reaction time of the system is extremely short, with the rear dampers being adjusted immediately as soon as the front wheels run over a hole or bump in the road.

Electric Power Steering on the BMW Z4 sDrive35is features a particularly sporting and dynamic control map, with the focus on intense and clear feedback to the driver through the dosage of power assistance provided by the electric motor. Again, this enables the driver to enter bends with extreme precision at all engine speeds in the interest of enhanced performance.

M Sports Package offering a most direct experience of the car's dynamic potential – and available as an option also on the other models in the range.

The exterior and interior features of the M Sports Package coming as standard on the BMW Z4 sDrive35is raises the dynamic driving potential of the car to an even higher level and clearly presents the particular qualities of this model through its looks alone.

Upon introduction of the new top model in the range, the M Sports Package is also becoming available as an option on the other versions of BMW's unique Roadster. The only difference is that instead of the wheels exclusive to the BMW Z4 sDrive35is, the other models come with 18-inch M light-alloy wheels on the M Sports Package.

The particular exterior features on the BMW Z4 sDrive35is include a striking front bumper with a horizontal trim bar in the outer air intakes finished in matt aluminium, like the bars in the BMW kidney grille. The slightly twisted contours of these trim bars take up the spoke design of the light-alloy rims as a further sign of distinction.

The rear bumper comes with specially accentuated surrounds on the exhaust tailpipes as well as a two-piece diffuser again created specifically for the BMW Z4 sDrive35is, finished at the top in body colour and featuring a black grained surface at the bottom. The M Aerodynamics Package included in the optional M Sports Package also on the other versions of the Z4 Roadster furthermore comes with a rear bumper insert in Anthracite metallic.

Inside the BMW Z4 sDrive35is, the driving experience is enhanced to an even higher standard by features such as the M leather steering wheel with its gearshift paddles, an M footrest and sports seats. The instrument cluster comes with grey faces on the dials and the “sDrive35is” model designation in the instrument cluster.

Further features inside the BMW Z4 sDrive35is are the Anthracite-coloured BMW Individual roof lining, M entry strips, footmats with coloured piping and the “sDrive35is” model designation, as well as M interior trim in Aluminium carbon.

The M Sports Package on the other versions of the Z4 Roadster includes an M gearshift lever knob in leather on the manual gearbox models. At the same time the range of leather upholstery is being further enhanced by an additional colour variant marking the launch of the BMW Z4 sDrive35is: Both the top model and all other versions of the Z4 Roadster are now also available in Kansas Walnut leather as yet a further option.

The BMW Z4 sDrive35is comes with a choice of six paintwork colours. In addition to Alpine White and the metallic colours Titanium Silver, Sapphire Black, Space Grey and Deep Sea Blue, the Z4 Roadster is now available for the first time in Melbourne Red metallic.

Regardless of the colour chosen, the exterior mirror caps on the BMW Z4 sDrive35is always come in Oxide Silver. Another optical feature on the top model, finally, is the “sDrive35is” model designation on the front side panels.

3.2 Greater Efficiency, Greater Supremacy, Greater Luxury: The BMW ActiveHybrid 7.

BMW is proud to present the most supreme and luxurious rendition of hybrid technology ever seen so far in the automobile: the BMW – ActiveHybrid 7.

Based on the BMW 7 Series, this unique sedan sets new standards for efficiency in the luxury class. BMW – the ActiveHybrid 7 is the first car in the world to combine a V8 gasoline engine, eight-speed automatic transmission and an electric motor in a mild hybrid concept.

This symbiosis of an upgraded eight-cylinder with BMW TwinPower Turbo Technology and High Precision Injection with a three-phase synchronous electric motor gives the BMW – ActiveHybrid 7 overall system output of 342 kW/465 hp and maximum torque of 700 Newton-metres/516 lb-ft. Power is transmitted via an eight-speed automatic transmission, with the electric motor receiving its supply of energy from a lithium-ion battery developed especially for use in the automobile.

Precisely controlled interaction of both power sources serves to optimise not only the efficiency but also the dynamic performance and superior comfort of a BMW in the ActiveHybrid 7. The result is a truly thrilling driving experience and, at the same time, a unique demonstration of hybrid technology with its outstanding potential. The BMW ActiveHybrid 7 accelerates to 100 km/h in a mere 4.9 seconds, while keeping average fuel consumption in the EU test cycle to a low 9.4 litres/100 kilometres (equivalent to 24.9 mpg US) and restricting CO_2 emissions to just 219 grams per kilometre.

The BMW ActiveHybrid 7 is the first BMW with automatic transmission to feature an Auto Start Stop function. A further significant advantage is that the air conditioning and ventilation system remains fully operational also with the engine switched off, power being supplied directly through the 120-volt on-board network running on the lithium-ion battery.

This unique concept of engine management also allows truly effective climate control while the car is at a standstill.

Special displays in the instrument cluster and the Control Display inform the occupants of the degree of efficiency and the current operating status of the hybrid components. Nineteen-inch light-alloy rims in aerodynamically optimised

ten-spoke turbine wheel design created exclusively for the BMW ActiveHybrid 7 as well as model designations on the luggage compartment lid, the C-pillars behind the side windows and on the door cutouts clearly set the hybrid models aside from their “regular” counterparts.

Like the existing models within the BMW 7 Series, BMW’s first luxury saloon with hybrid drive is entering the market in two body variants. The extended version of BMW ActiveHybrid 7 comes with wheelbase increased by 14 centimetres or 5.5“, benefiting exclusively the rear-seat passengers.

The intelligent hybrid concept comprises both the generation and use of electrical energy, with loss-free storage of electric power ensured by the high-performance lithium-ion battery. Both the process of charging the battery and the supply of power to the electric motor as well as all other power-consuming items are ensured and masterminded by power electronics developed specifically for the BMW ActiveHybrid 7.

Electric power generated on no extra fuel as an additional energy reserve.
BMW ActiveHybrid technology uses energy converted into heat and therefore wasted in conventional cars through the operation and use of the brakes. In terms of power generation, this unique technology is an ongoing development proceeding from the Brake Energy Regeneration featured by BMW on all model series in the brand’s current gasoline and diesel models with BMW EfficientDynamics.

The electric motor positioned between the combustion engine and the transmission in the BMW ActiveHybrid 7 serves as the generator within the hybrid system. As soon as the driver takes his foot off the gas pedal, kinetic energy is converted into electric power. Then, when he presses down the brake pedal, the generator delivers a brake function through the electric motor, feeding in even more electric power.

In all, the recuperation potential of the BMW ActiveHybrid 7 is about ten times greater than in a BMW with Brake Energy Regeneration driven exclusively by a combustion engine.

Cutting-edge energy storage technology: lithium-ion battery with superior capacity and multi-cycle operating strength.
Introducing the lithium-ion battery, BMW is taking yet a further step into the future with particularly efficient and, at the same time, flexible use of electric power in the car.

The system developed for the BMW ActiveHybrid 7 is based on the most advanced lithium-ion technology meeting the greatest demands in terms of power loads and lasting operation.

Despite its high level of performance, the lithium-ion battery measures just 37 x 22 x 23 centimetres (14.6 x 8.7 x 9.1 inches) and weighs a mere 25 kg or 55 lb.

The space required for the battery is about the same as the space taken up by the additional compressor for the rear-seat air conditioning in the conventional BMW 7 Series, which is not fitted and not required in the BMW ActiveHybrid 7. The luggage compartment with its capacity of 460 litres/16.1 cu ft therefore offers adequate space for four 46-inch golf bags also in the BMW ActiveHybrid 7 luxury performance sedan.

Consistent optimisation: V8 power unit with BMW TwinPower Turbo and High Precision Injection.
The V8 combustion engine featured in BMW's first hybrid luxury saloon is not only particularly powerful, but also the most efficient engine of its kind. And at the same time the 4.4-litre all-aluminium power unit offers the qualities typical of an eight-cylinder in an incomparably sporting and comfortable rendition.

Given these features, the V8 is indeed the ideal foundation for a hybrid concept in the luxury class serving to ensure outstanding efficiency, fascinating driving dynamics and supreme motoring comfort all in one.

The eight-cylinder power unit featured in the BMW ActiveHybrid 7 develops maximum output of 330 kW/449 hp between 5,500 and 6,000 rpm. Perhaps an even more significant point is that this supreme V8 maintains huge torque of 650 Newton-metres/479 lb-ft consistently all the way from 2,000 to 4,500 rpm.

The result is supreme power and muscle starting just above idle speed, the dynamic response of the engine being further enhanced by the electric motor with its additional momentum.

The spontaneous and direct response of the BMW ActiveHybrid 7 to the gas pedal is boosted to an even higher level by the drive power added by the electric motor. Indeed, acceleration to 100 km/h in 4.9 seconds ranks this unique sedan close to the performance of the fastest and most thoroughbred sports cars.

Another incomparable quality is the subjective feeling of outstanding supremacy the hybrid drive system gives the driver through its direct response free of delay. Top speed of the BMW ActiveHybrid 7, finally, is limited to 250 km/h or 155 mph.

Electric motor starting and supporting the V8 power unit.
The electric motor supports the V8 power unit in developing even greater power and torque for superior performance. Under less dynamic driving conditions the drive power provided by the electric motor enables the combustion engine to run under more favourable load conditions for maximum efficiency, thus optimising its operating qualities. When driving at a steady speed on the road, on the other hand, the reduction in engine speed improves not only the standard of efficiency, but also the running smoothness of the combustion engine.

The three-phase synchronous electric motor featured in the BMW ActiveHybrid 7 is positioned between the combustion engine and the automatic transmission converter, and is connected firmly to the crankshaft. Shaped like a disc, the electric motor weighs just 23 kg or not quite 51 lb, its compact design ensuring full integration in the transmission housing.

The electric motor generates additional drive power of 15 kW/20 hp, with maximum power increasing to an even more substantial 20 kW/27 hp in the generator mode charging the lithium-ion battery. Peak torque, in turn, is 210 Newton-metres or 155 lb-ft.

In the driving mode the BMW ActiveHybrid 7 benefits from maximum output of 342 kW/465 hp and peak torque of 700 Newton-metres/516 lb-ft. So far only much larger engines were able to provide comparable power and performance, in most cases with a corresponding increase in fuel consumption. The BMW ActiveHybrid 7, by contrast, combines its significantly enhanced power and performance with an equally impressive increase in efficiency. Average fuel consumption in the EU test cycle of 9.4 litres/100 kilometres (equal to 24.9 mpg US) and a CO_2 rating of 219 grams per kilometre proves that BMW ActiveHybrid Technology is most certainly a highly innovative and future-oriented rendition of the BMW EfficientDynamics development strategy.

Eight-speed automatic transmission in combination with Auto Start Stop.
To transmit the drive power developed jointly by the V8 power unit and the electric motor, the BMW ActiveHybrid 7 comes with a newly developed eight-speed automatic transmission specifically tailored to the demands and

potentials of hybrid technology. This high-tech transmission of the latest standard combines gearshift comfort, sportiness and efficiency at a level never seen before.

The combustion engine, electric motor and eight-speed automatic transmission form one complete unit set out for maximum efficiency in the BMW Active Hybrid 7. This is also confirmed by the innovative rendition of the Auto Start Stop function already featured as standard in BMW's four-cylinder models with manual gearshift.

The Auto Start Stop function automatically switches off the combustion engine when idling, reducing fuel consumption at a red traffic light or, say, in traffic congestions to absolutely zero. Then, once the driver takes his foot off the brake pedal, the combustion engine is re-started automatically.

Unrestricted climate comfort in a stopover, auxiliary cooling for pleasant starting conditions.
The climate control system in the BMW ActiveHybrid 7 is supplied with power directly from the high-voltage battery, thus maintaining the driver's and passengers' desired temperature consistently inside the car also when making a stopover with the combustion engine switched off.

Featured as standard in the BMW ActiveHybrid 7, four-zone automatic air conditioning comprises a standstill climate control function activated whenever required by remote control. This serves to cool down the interior in, say, bright sunshine before setting out in the car, the highly efficient air conditioning reducing temperatures inside the car quickly and efficiently by more than 30° C or 86° F.

In its functions and efficiency, the air conditioning in the BMW ActiveHybrid 7 thus offers qualities unique the world only possible thanks to the high-performance lithium-ion battery.

Superior suspension technology for maximum supremacy on the road.
The BMW ActiveHybrid 7 combines superior efficiency with a truly fascinating driving experience. Over and above the drive system as such, the sophisticated suspension technology featured in the BMW 7 Series gives this new saloon its unparalleled supremacy.

Interaction of the double track control arm front axle with the Integral-V rear axle offers not only numerous benefits in terms of comfort and driving dynamics, but also unusually smooth and harmonious anti-roll and transitional behaviour in bends.

The long-wheelbase version of the BMW ActiveHybrid 7 comes additionally with air suspension including self-levelling on the rear axle. Both models, with regular and long wheelbase, are fitted as standard with BMW's speed-related Servotronic power steering as well as Dynamic Damping Control, the dampers adjusting to both road conditions and the driver's individual style of motoring.

Pressing the button on the centre console, the driver is able through Dynamic Damping Control to choose his preferred damper setting, the appropriate operation of DSC Dynamic Stability Control, the degree of gearshift dynamics on the automatic transmission, as well as the control maps on the gas pedal and Servotronic steering.

The compound brake system on the BMW ActiveHybrid 7 ensures truly excellent stopping power in every situation, bringing the car safely to a standstill with minimum stopping distances even from high speeds.

The BMW ActiveHybrid 7 comes as standard with model-specific 19-inch light-alloy rims in aerodynamically optimised ten-spoke turbine wheel design. Likewise featured as standard, runflat safety tyres measuring 245/45 R19 at the front and 275/40 R19 at the rear enable the driver to continue even after a complete loss of pressure in the tyres.

And last but certainly not least, the Tyre Pressure Indicator consistently measures tyre pressure and warns the driver whenever air pressure in the tyres drops more than 20 per cent.

Optimum visibility, all-round protection, maximum safety.
As options supplementing the bi-xenon headlights featured as standard, the High-Beam Assistant and Adaptive Headlights including a bending light function, variable light distribution and adaptive headlight range control, set new standards when motoring at night.

Again available as an option, the Head-Up Display serves to project data relevant to the driver directly to the windscreen of the car.

Apart from frontal and hip/thorax airbags, the Occupant Safety Package featured in the BMW ActiveHybrid 7 also comprises curtain head airbags at the side as well as three-point inertia-reel automatic seat belts with belt force limiters on all seats and a belt latch function at the front.

To protect the driver and passengers from cervical spine injury in the event of a rear-end collision, the front seats come with crash-activated headrests and ISOFIX child seat fastenings are featured as standard on the rear seats.

The safety concept for the car's hybrid components is equally comprehensive, all components in the high-voltage system featuring full insulation as well as special plug connectors. The lithium-ion battery is protected by a high-strength steel housing and is positioned far away from all kinds of accidents in the luggage compartment, as is already confirmed by a wide range of crash tests. And last but not least, the entire high-voltage system is automatically switched off within fractions of a second both in the case of a functional breakdown and in the event of a collision.

Perfectly networked: BMW ConnectedDrive with innovative functions.
As an option, the BMW ActiveHybrid 7 is naturally available with a wide range of mobility services and innovative driver assistance systems provided by BMW ConnectedDrive, including Lane Change Warning, Lane Departure Warning, Speed Limit Info, BMW Night Vision even able to detect individual persons on or near the road, a back-up camera, and BMW Side View.

The wide range of features and equipment available for the BMW 7 Series in general enables the customer to personalise his or her car to the highest standard. The highlights include sophisticated navigation functions, audio and rear seat entertainment systems, the extra-large, contoured sliding roof as well as active seats for the driver and front passenger or, respectively, climate and massage seats at the rear.

3.3 The Thrill of Efficiency: The BMW ActiveHybrid X6.

BMW ActiveHybrid technology combines superior driving dynamics with equally superior efficiency pointing far into the future, bringing together both of these qualities to offer a truly unique driving experience.

The world's first Sports Activity Coupe with full hybrid drive capitalises on the options offered by combining the combustion engine and the electric motor with a standard of perfection never seen before.

The overall drive system featured in the BMW ActiveHybrid X6 consists of a 300 kW/407 hp V8 gasoline engine with BMW TwinPower Turbo Technology and two electric synchronous motors. Maximum system output is 357 kW/485 hp, peak torque is 780 Newton-metres/575 lb-ft.

Precisely controlled interaction of the three power units optimises the overall efficiency of the BMW ActiveHybrid X6 at all speeds, with acceleration from a standstill to 100 km/h in 5.6 seconds. Top speed of the BMW ActiveHybrid X6 is limited electronically to 236 km/h or 146 mph (250 km/h or 155 mph with the optional Sports Package), with average fuel consumption in the EU test cycle of 9.9 litres/100 km (equal to 23.7 mpg US) and a CO_2 emission rating of 231 grams per kilometre.

BMW's first full hybrid is able to run exclusively on electric power – and that is entirely free of CO_2 – up to a speed of 60 km/h or 37 mph, with the combustion engine activated automatically whenever required.

Ideal variation of the two drive modes for enhanced efficiency and dynamism is ensured by the two-mode active transmission providing the ideal combination of the two power modes for enhanced efficiency and dynamic performance at all times. With two electric motors, three planetary gearsets and four multiple-plate clutches, drive power is transmitted through a seven-gear automatic transmission operated by the driver of the BMW ActiveHybrid X6 via an electronic gear selector lever and, respectively, shift paddles on the steering wheel.

Engine power is spread out variably between the front and rear wheels via BMW's intelligent xDrive all-wheel-drive technology.

The electric motors receive their energy from a nickel-metal hydrid (NiMH) high-performance battery with its own liquid cooling system. Battery cooling is provided by a heat exchanger connected to the surrounding air and by an additional cooling circuit in the air conditioning, with the two systems activated as required either individually or both together. The high-voltage battery is positioned beneath the floor of the luggage compartment and feeds electric power also to the car's on-board network.

Luggage compartment capacity is therefore the same as on the "regular" BMW X6 running on a combustion engine alone.

Unique efficiency ensured by two-mode active transmission.
The two-mode active transmission is based on an ECVT (electric continuously variable transmission) operating in two separate modes. One mode is for setting off with particular power and for driving at low speeds, the second is for motoring at high speeds.

When setting off only one of the two electric motors is activated. Then, as soon as the driver requires more power, the second electric motor automatically activates the combustion engine and subsequently serves as a generator providing a permanent supply of electric power.

When driving steadily at a higher speed, most of the power required is delivered by the combustion engine.

Conventional but unique at the same time: V8 gasoline engine with BMW TwinPower Turbo Technology and High Precision Injection.
The combustion engine is a technically unique eight-cylinder with BMW TwinPower Turbo Technology and High Precision Injection. The world's first V8 gasoline engine with two turbochargers in the V-section between the two rows of cylinders excels in particular through its smooth development of power setting in from the start and continuing in an ongoing surge throughout the entire speed range.

Displacing 4.4 litres, this outstanding eight-cylinder delivers maximum output of 300 kW/407 hp consistently maintained between 5,500 and 6,400 rpm. Peak torque of 600 Newton-metres/442 lb-ft is maintained all the way from 1,750 to 4,500 rpm, with the V8 naturally fulfilling both the European EU5 standard as well as the ULEV II limits in the USA.

Electric motors for enhanced performance on no extra fuel.
When accelerating, the two electric motors supply additional torque for enhanced performance. This boost effect significantly increases the overall output of the BMW ¬ActiveHybrid X6, without even the slightest increase in fuel consumption.

While the two electric motors have almost the same output, they have been modified in their performance characteristics to meet individual requirements. The power delivered is 67 kW/91 hp and. respectively, 63 kW/86 hp, with peak torque of 260 Newton-metres/192 lb-ft and 280 Newton-metres/206 lb-ft.

The electric motors support the combustion engine effectively throughout the entire speed range, the additional electrically generated drive power serving to reduce the power output required of the combustion engine. This shift in load is perfectly controlled at all times to give the overall system enhanced efficiency and its maximum effect under practical driving conditions.

Maximum system output is 357 kW/485 hp, with peak torque of 780 Newton-metres/575 lb-ft. This makes the BMW ¬ActiveHybrid X6 the most powerful hybrid in the world, with acceleration from a standstill to 100 km/h in just 5.6 seconds and top speed limited electronically to 236 km/h or 146 mph (or, respectively, 250 km/h or 155 mph with the optional Sports Package).

The unique positon of the BMW ¬ActiveHybrid X6 within the BMW X segment as a whole follows very clearly and convincingly from a comparison of these performance figures, on the one hand, with the vehicle's fuel consumption and emission ratings, on the other. The BMW ¬ActiveHybrid X6 offers average fuel consumption in the EU test cycle of just 9.9 ltr/100 km (equal to 23.7 mpg US) and a CO_2 rating of 231 grams per kilometre.

All-electric driving mode reducing emissions to zero.
With its combination of a two-mode active transmission and a high-performance battery, the BMW ActiveHybrid X6 is able to run on its electric motors alone. This makes it a zero emission vehicle under such conditions, fulfilling even the strictest requirements foreseen for the future and ensuring the highest conceivable level of mobility.

The BMW ActiveHybrid X6 may run on electric power alone regardless of the ambient temperature, minimum operating temperatures being required only for the engine coolant, transmission fluid and high-voltage battery. A further requirement is that the high-performance battery is adequately charged.

Top speed in the electric mode is 60 km/h or 37 mph, maximum range is 2.5 kilometres (1.6 miles).

While driving electrically, the BMW ActiveHybrid X6 retains all its safety and comfort functions.

Recuperation: electric power generated with no extra fuel.
The BMW ActiveHybrid X6 features an enhanced version of Brake Energy Regeneration already used in BMW's current models running on a combustion engine alone, generating the electric power saved in the high-performance battery. In this case the electric motors act as generators in overrun and when applying the brakes in order to feed electric power into the high-voltage battery unit.

The power delivered by the generator is approximately 50 kW, about 25 times the power provided so far by Brake Energy Regeneration.

Generator delivering electrical brake power.
In the generator mode the two electric motors supply a lot of the energy required to slow down the vehicle whenever necessary. Indeed, the stopping power generated in this way is up to 3 metres/sec2 or, respectively, 0.3 g in a purely recuperative process, significantly reducing the load acting on the mechanical brake system.

Sensotronic Brake Actuation (SBA) in the BMW Active Hybrid X6 splits up the brake power required by the driver into a regenerative and a hydraulic brake component. Whenever the stopping power required exceeds the level of 3 metres/sec2, the control unit builds up additional brake force through the mechanical brake by means of the active brake servo.

An integrated pedal force simulator always maintains the brake feeling the driver is accustomed to and in braking situations critical to driving stability the control unit receives additional signals from the DSC Dynamic Stability Control, intervening in the brakes and engine management to keep the vehicle safely on course.

EPS Electronic Power Steering for even greater driving comfort.
The BMW ActiveHybrid X6 is the first BMW X model to feature EPS Electric Power Steering for active steering assistance both when driving with the combustion engine and in the all-electric mode.

EPS significantly reduces the energy required for steering assistance compared with conventional, hydraulic power steering, since Electric Power Steering only becomes active when steering assistance is actually required or desired by the driver. The integrated Servotronic function, in turn, doses steering assistance as a function of road speed.

Intelligent energy management and integral safety concept.
Power electronics developed especially for BMW ActiveHybrid technology ensure energy management on board the BMW ActiveHybrid X6 both very efficient and highly flexible in use. The electronic control system consistently controls the distribution of energy as a function of ambient conditions, the status of the vehicle, and the demands made by the driver.

The BMW ActiveHybrid X6 naturally complies in full with the integral safety concepts developed for hybrid vehicles by BMW. With central control functions being integrated both in the power electronics and the energy battery, the system has the ideal starting point for fulfilling all kinds of international crash tests as well as the demanding internal standards of the BMW Group, in particular guaranteeing the highest level of operating safety on all components in the high-voltage on-board network.

The high-voltage battery is housed in a high load-resistant steel casing and is fitted firmly inside the car, just above the rear axle at an extremely safe point for the event of a collision, in which case it is switched off automatically within fractions of a second.

Special hybrid drive Auto Start Stop function.
In city traffic – and elsewhere under comparable conditions – the BMW Active Hybrid X6 can be run in the all-electric mode without using the combustion engine. A further advantage is that the vehicle comes with a new generation of Auto Start Stop technology.

Automatic deactivation of the combustion engine at a road junction or at the traffic lights does not in any way impair the driving experience, just as the V8 power unit will start again immediately as soon as the driver presses down the gas pedal.

The BMW ActiveHybrid X6 provides the Auto Start Stop function consistently at all outside temperatures, no matter how cold or how hot.

As long as the engine is switched off, the electric climate compressor automatically maintains the climate and temperature desired within the passenger compartment. All other electrically operated functions are also maintained, with the on-board network being consistently supplied with power from the high-voltage battery.

Operation of the hybrid system and current operating conditions are presented clearly and understandably in the displays. The most important information is shown in the central instrument cluster, clearly separated according to the various operating modes. Further information and technical explanations, in turn, are shown in the Control Display in the centre console.

Specific set-up of the suspension and the lightweight brakes.
The chassis and suspension of the BMW Active Hybrid X6 is largely the same as the technology already featured on the BMW X6 xDrive50i. The front axle is a double track arm configuration, the Integral-IV rear axle has been modified to reflect the specific characteristics of the hybrid model in terms of weight distribution and drive power, guaranteeing absolute supremacy on the road also ensured by self-levelling with air suspension providing consistent ride height also when carrying a heavy load.

Lightweight brakes decelerate the BMW ActiveHybrid X6 by means of swing-calliper brake discs incorporating covers and pistons made of aluminium. The entire brake system ensures a high standard of comfort in applying the brakes and extreme resistance to fading.

Highly attractive 19-inch light-alloy rims in V-spoke design come as standard, and 20-inch light-alloy rims in aerodynamically optimised Streamline design have been developed exclusively for the BMW ActiveHybrid X6 as an option.

Bodyshell and safety: intelligent lightweight construction, optimised occupant safety.
Intelligent lightweight construction and a special structure for maximum solidity also characterise the bodyshell of the BMW ActiveHybrid X6. Apart from frontal and hip thorax airbags, as well as curtain head airbags at the side, ISOFIX child seat fastenings at the rear, belt force limiters, belt latch tensioners, and crash-activated headrests all come as standard.

All restraint systems are masterminded by central safety electronics, rollover sensors serving to activate the curtain airbags and belt latch tensioners in the event of an impending rollover.

Featured as standard, dual bi-xenon headlights not only ensure optimum illumination of the road ahead in the dark, but also provide a daytime light function through their light rings. Additional comfort at night is provided by the High Beam Assistant featured as part of BMW ConnectedDrive.

Another feature available as an option is BMW Adaptive Headlights complete with Bending Lights and variable light distribution. As yet a further option information relevant to the driver may be projected on to the windscreen via the Head-Up Display in a particularly ergonomic position.

Supreme level of standard equipment including the Professional navigation system and comfort seats.
The BMW ActiveHybrid X6 comes as standard with the BMW Professional navigation system.

Other features also offered as standard are electrically adjustable comfort seats with a memory function, cruise control and Park Distance Control, as well as the Side View and Top View systems.

From outside the BMW ActiveHybrid X6 differs through only a few details from the “regular” models with their conventional drivetrain technology. With its elegant and dynamically flowing roofline and features typical of a BMW X model, the Sports Activity Coupe offers a uniquely sporting rendition of this very special vehicle.

Particularly the very impressive Powerdome on the engine compartment lid ensures a clear distinction of this very special vehicle from outside, “ActiveHybrid” model designations on the tailgate trim bar and the front doors as well as body paint in exclusive Bluewater metallic offered for the first time on a BMW X6 likewise alluding to the very special character of the BMW X6 ActiveHybrid.

3.4 The New Dimension: The BMW 5 Series Gran Turismo.

Establishing an unprecedented, absolutely innovative car concept, BMW is setting fascinating new highlights in the upper midrange segment. As the world's first model in a brand-new segment, the BMW 5 Series Gran Turismo combines the essential features of a prestige saloon, a modern Sports Activity Vehicle, and a classic Gran Turismo.

Stylish and elegant in design, this unique four-seater comes with a coupe-like, stretched and sleek roofline and a two-piece tailgate. The extra-large interior offers luxurious comfort, a slightly elevated seating position as well as superior all-round visibility covering all traffic conditions, and truly impressive variability.

As its name alone indicates, the BMW 5 Series Gran Turismo is ideally suited for a truly wonderful travel experience. The luxurious ambience immediately makes the driver and passengers feel at home, legroom at the rear is the same as in the BMW 7 Series, headroom is equal to that of the BMW X5.

Engines both powerful and efficient, Dynamic Drive Control featured as standard, the most advanced suspension technology, and innovative driver assistance systems help to ensure a truly unique driving experience.

Design: versatile sportiness, stylish elegance.
In its exterior design, the BMW 5 Series Gran Turismo offers a unique combination of versatile sportiness and stylish elegance.

The front view is characterised first and foremost by the strong presence of the low-slung BMW kidney grille, the large air intakes and the characteristic dual round headlights.

Apart from the direction indicators, the light rings on the headlights come for the first time with LED light units. In combination with the optional xenon headlights the LED units act as daytime driving lights in a particularly brilliant white again in that typical BMW look.

Boasting a roofline dropping slowly but consistently towards the rear of the car and merging into a spoiler at the back, the BMW 5 Series Gran Turismo successfully and very attractively conveys a feature typical of a coupe to a four-door model. The doors both front and rear come with frameless side windows.

A further feature immediately recognisable from the side is the contour line at the level of the door openers characteristic of BMW, extending from the outer edge of the headlights, rising slightly along the entire length of the car, and continuing all the way to the contours on the rear light clusters.

The two outer rooflines as well as the shoulder lines come together in the airflow spoiler on the tailgate, giving the rear end an almost compact look. Otherwise, horizontal lines dominate the rear view of the car.

The rear light clusters merge far into the side panels, ensuring with their LED light bars that the full width of the BMW 5 Series Gran Turismo also comes out clearly in the car's night design.

The interior: generous space and comfort, individual luxury.
The unique feeling of space within the BMW 5 Series Gran Turismo is enhanced by the shape and design of the interior features, the interior colour scheme, and the choice of materials. The dashboard is subdivided horizontally and comes with a cockpit featuring Black Panel technology and a Control Display for BMW iDrive measuring up to 10.2“ in size.

Apart from the electronic gear selector lever, the switches for Dynamic Drive Control as well as the iDrive Controller with its direct selection keys are arranged conveniently on the centre console.

Both the driver and the front passenger benefit from their slightly elevated seating position, this so-called semi-command position allowing very comfortable and ergonomically ideal entry to the car and providing an optimised overview of traffic conditions.

As an alternative to the rear-seat bench for three passengers featured as standard, the BMW 5 Series Gran Turismo is available as an option with two single seats at the rear, in which case fore-and-aft adjustment of the seat position as well as the backrest angle, the upper section of the backrest and the height of the headrest is all-electric.

Even greater comfort when loading: two-piece tailgate and partition between the passenger and the luggage compartments.
The two-piece tailgate featured for the first time on a BMW ensures maximum comfort and variability when loading. The two sections offer the choice of a small opening beneath the rear window and a large lid like on BMW's X models, both sections opening individually whenever required.

The unique partition between the passenger compartment and the luggage compartment ensures unrestricted comfort also while loading. Whenever, with the partition closed, the driver and passengers open only the lower section of the tailgate, the passenger compartment will not be affected in any way while loading by draughts or noise.

As long as the rear seats and the partition are in their standard position, luggage compartment capacity is 440 litres or 15.4 cu ft. Moving the seats forward and unfastening the partition increases luggage capacity to 590 litres or 20.7 cu ft. And when folding down the rear-seat backrests as well as the partition, the driver and passengers benefit from no less than 1,700 litres or 59.5 cu ft.

New straight-six power unit: first-ever combination of turbocharging and VALVETRONIC.
The BMW 5 Series Gran Turismo is entering the market with a choice of two gasoline engines. A particular highlight is the newly developed straight-six gasoline engine now making its debut and for the first time, combining turbocharger technology, High Precision Injection, and variable VALVETRONIC valve management all in one. This unique combination gives the new BMW TwinPower Turbo an extremely spontaneous and direct response to the gas pedal.

This truly impressive response is the result of VALVETRONIC technology optimised once again, just like the turbocharger system applying the twin scroll principle to separate the ducts of three cylinders at a time both in the exhaust manifold and the turbocharger.

Displacing 3.0 litres, the new six-cylinder develops maximum output of 225 kW/306 hp at 5,800 rpm, with peak torque of 400 Newton-metres/295 lb-ft available all the way from 1,200–5,000 rpm.

Benefiting from this kind of power, the BMW 535i Gran Turismo accelerates from a standstill to 100 km/h in just 6.3 seconds. The car's top speed, in turn, is limited electronically to 250 km/h or 155 mph.

The exceptionally good balance of performance and fuel economy is clearly confirmed by average fuel consumption in the EU test cycle of just 8.9 litres/100 kilometres, equal to 26.3 mpg US. And at the same time the CO2 rating of the BMW 535i Gran Turismo is just 209 grams per kilometre.

Eight-cylinder with BMW TwinPower Turbo and High Precision Injection.
The top engine in the BMW 5 Series Gran Turismo is a unique V8 combining TwinPower Turbo technology with High Precision Injection. Displacing 4.4 litres, this outstanding power unit develops maximum output of 300 kW/407 hp in a speed range from 5,500–6,400 rpm. Peak torque, in turn, is 600 Newton-metres/442 lb-ft generated all the way from 1,750 to 4,500 rpm.

The BMW 550i Gran Turismo accelerates from a standstill to 100 km/h in just 5.5 seconds, with top speed limited electronically to 250 km/h or 155 mph. Average fuel consumption of the BMW 550i Gran Turismo in the EU test cycle, in turn, is 11.2 litres/100 kilometres, equal to 20.9 mpg US, while CO_2 emissions are 263 grams per kilometre.

Innovative, dynamic, efficient: eight-speed automatic transmission featured as standard.
Power is transmitted as standard by an eight-speed automatic transmission combining supreme gearshift comfort, sportiness and efficiency of a standard never seen before.

The new eight-speed automatic transmission excels through its innovative gearset configuration providing additional gears and an even wider range of gear increments without any negative effects on the size, weight, and inner efficiency of the system.

All variants of the BMW 5 Series Gran Turismo come as standard with BMW EfficientDynamics, the specific technologies offered varying from one model to the other according to its particular character. Among other features, Brake Energy Regeneration, on-demand control of the car's ancillary units such as the electrical coolant pump and the detachable a/c compressor, as well as consistent lightweight technology and optimised aerodynamics ensure optimum fuel economy and emission management.

Cutting-edge suspension technology for even greater comfort, dynamism, and precision.

The modern suspension technology of the BMW 5 Series Gran Turismo serves to ensure a wonderful motoring experience, driving supremacy and outstanding safety at all times and under all conditions. One of the features that makes this possible is the combination of the double track control arm front axle and the Integral-V rear axle. In addition, the BMW 5 Series Gran Turismo comes as standard with air suspension on the rear axle, 18- and, respectively, 19-inch light-alloy wheels (the latter on the BMW 550i Gran Turismo), and a high-performance brake system.

DSC Dynamic Stability Control, finally, also comprises an electromechanical parking brake with its own Auto-Hold function.

The BMW 5 Series Gran Turismo is available as an option with Integral Active Steering featured for the first time on the new BMW 7 Series. As a function of road speed, this unique steering influences steering forces by way of Servotronic and the steering angle by means of the Active Steering Transmission on the front axle.

Integral Active Steering also controls the steering angle of the rear wheels, thus giving the BMW 5 Series Gran Turismo even greater agility in city traffic and ensuring extremely smooth and superior lane change and handling in bends also at high speeds.

The BMW 5 Series Gran Turismo is available as yet a further option with Adaptive Drive combining electronically controlled dampers and active anti-roll stabilisation.

BMW is indeed the world's first car maker to use a damper system with adjustment of the inbound and rebound strokes in a continuous, independent process. At the same time active anti-roll bars on the front and rear axle reduce body sway in bends to an absolute minimum, thus providing an even higher standard of comfort and agility.

Featured as standard: Dynamic Drive Control for individual set-up of the car according to current requirements.

The new BMW 5 Series Gran Turismo comes with Dynamic Drive Control acting on the suspension with its brake control system, on the Servotronic steering, the Integral Active Steering, Dynamic Drive, Dynamic Damper Control, and, on the drivetrain, the progressive curve on the gas pedal and the gearshift

dynamics on the eight-speed automatic transmission. This adjusts the specific character of the car to the driver's personal wishes as well as to current driving and road conditions.

Dynamic Drive Control is activated by a button on the centre console directly next to the gear selector lever. Using this toggle function, the driver is able to choose among the NORMAL, SPORT, and SPORT+ modes. In combination with Adaptive Drive, the system also serves to control the damper curves by way of Dynamic Drive Control, in this case providing the additional COMFORT mode as a further option.

Innovative in design and construction:
aluminium doors and panorama glass roof.
Apart from the engine compartment lid and the front spring struts on the body, the doors on the BMW 5 Series Gran Turismo are also made of aluminium. Serving as an outstanding design and construction feature, they reduce the overall weight of the car by 28 kg or 62 lb.

The panorama glass roof available as an option on the BMW 5 Series Gran Turismo provides an even brighter and, at the same time, more spacious ambience throughout the interior. Measuring 116 centimetres or 45.6“ in length and 94.2 centimetres or 37.1“ in width, the panorama glass roof provides an opening of up to 44 centimetres or 17.3“.

Outstanding occupant safety on all seats.
Extra-strong load-bearing structures, generously dimensioned and exactly defined deformation zones, as well as highly efficient restraint systems masterminded by high-performance control electronics set the standard for the high level of passive safety the BMW 5 Series Gran Turismo has to offer. To optimise passive pedestrian safety, both the engine compartment lid and the side panels give way individually in the event of a collision.

Over and above frontal and hip/thorax airbags, the car's standard safety features include curtain head airbags at the side, three-point inertia-reel airbags with belt force limiters, ISOFIX child seat fastenings at the rear and, on the front seats, belt latch tensioners as well as crash-activated headrests.

The BMW 5 Series Gran Turismo is available as an option with bi-xenon headlights. The Adaptive Headlights likewise available as an option ensure appropriate illumination of the road ahead and come with both Bending Lights and variable light distribution.

BMW ConnectedDrive and the most advanced driver assistance systems.

The driver assistance systems provided by BMW ConnectedDrive ensure maximum supremacy and safety on the road. These include the High-Beam Assistant, Lane Change Warning, Lane Departure Warning, Speed Limit Info, and BMW Night Vision even able to detect individual persons on or near the road.

The wide range of features offered as standard also include cruise control complete with a brake function, while Active Cruise Control with Stop & Go comes as an option, maintaining a consistent distance from the vehicle ahead by intervening in drive management and building up brake pressure whenever required.

The new BMW 5 Series Gran Turismo comes as standard with PDC Park Distance Control (PDC) at the rear and available at the front as an optional extra. This is supplemented by a Back-Up Camera, Side View and Top View also available as an option.

Automatic air conditioning and personal entertainment for your individual well-being.

Featured as standard, automatic air conditioning in the BMW 5 Series Gran Turismo is controlled in all its settings by an array of buttons on the centre console. This allows the driver and front passenger to set the temperature, the amount and distribution of air via the control unit on the climate control panel, individually for the right- and left-hand side of the car.

Four-zone automatic air conditioning comes as standard in the BMW 550i Gran Turismo, with an individual control unit also at the rear.

Likewise featured as standard on the BMW 5 Series Gran Turismo, the audio system boasts both a CD player and an AUX-In port. A hard disc memory, in turn, makes the optional navigation system Professional particularly easy and convenient to use. With its capacity of 80 GB, the memory allows particularly fast access to the digital navigation maps and offers no less than 12 GB additional capacity for a large collection of music files.

Further options are a six-DVD changer, a TV module and a receiver for DAB Digital Audio Broadcasting. And last but not least, the Rear Seat Entertainment Systems available in the BMW 5 Series Gran Turismo with a screen measuring 8 or, respectively, 9.2 inches ensure a particularly comfortable and entertaining motoring experience.

3.5 Lower Emissions, Higher Power – the BMW Advanced Diesel on the Way to Success: The BMW 335d with BMW BluePerformance.

Offering supreme refinement, impressive power and performance as well as truly outstanding fuel economy and emission management, the BMW Advanced Diesel with BluePerformance featured in the BMW 335d Sedan has made a great name for itself in the North American automobile market almost overnight.

The 3.0-litre, 265 hp straight-six featuring BMW's Variable Twin Turbo Technology comes with SCR Selective Catalytic Reduction serving to reduce nitric oxides (NOX) in line with the particularly stringent statutory emission requirements in the USA and Canada. Hence, the BMW 335d Sedan is a most attractive and up-to-date contender in the segment of particularly sporting and dynamic sedans, offering a particularly convincing combination of the BMW EfficientDynamics development strategy seeking to give customers in all markets the world over maximum driving pleasure on minimum fuel and emissions.

The BMW Advanced Diesel with BluePerformance offers all the qualities so typical of a BMW power unit re-combined in a fascinating new symbiosis. Once again, therefore, it clearly proves the unique competence offered by the world's most successful manufacturer of premium cars also in the area of diesel engines. Compared with the competition, these power units also come right at the top in their respective class through unparalleled fuel economy and emission management.

Precisely these features have given BMW's diesel engines a consistently growing market share in recent years in the most important European markets. And the BMW Advanced Diesel likewise gives customers in North America the opportunity to enjoy the unique combination of supreme torque and equally outstanding efficiency.

Apart from the BMW 335d Sedan, the BMW X5 xDrive35d also comes with a BMW Advanced Diesel, both models fulfilling the strictest emission regulations in all States of the USA. Accordingly, they are available throughout all 50 US States and in Canada with their full range of qualities.

BMW Advanced Diesel with Variable Twin Turbo and BluePerformance: maximum dynamics, minimum emissions.

With a modern diesel engine already offering impressive qualities and features, these fortes come out even more convincingly on the diesels developed by BMW. From the start the diesel engine offers a standard of traction and pulling force a gasoline engine, on account of its technical features and operating principle alone, can only provide in most cases with a significant increase in engine capacity. A further most significant advantage is that the diesel engine on average requires 25 per cent less fuel than an equally powerful gasoline unit.

Such superior power and performance combined with the efficient use of fuel are now becoming increasingly important also to motorists in the USA and Canada. And through their supreme refinement, particularly BMW's diesel engines have already helped to overcome any possible reservations regarding the sound and acoustics of a diesel engine.

The first BMW Advanced Diesel with BluePerformance including SCR technology and the injection of urea is simply ideal in combining the driving dynamics and refinement of a premium car with the latest demands in the preservation of resources and the reduction of emissions. The BMW six-cylinder offers exceptionally spontaneous power and performance combined with most superior torque and pulling force, delivering maximum output of 265 hp at 4,220 rpm and peak torque of 425 lb-ft at a low 1,750 rpm. And at the same time this is one of the most economical power units in its class.

The exceptional standard offered by the first BMW Advanced Diesel comes out even more clearly when comparing the car's performance with its fuel economy and emissions: The BMW 335d Sedan accelerates to 62 mph in 6.0 seconds and offers superior fuel economy of 23/36 mpg (City/Highway).

Cutting-edge emission management:
SCR catalyst with AdBlue injection.

Exhaust emissions on the BMW Advanced Diesel with BluePerformance are optimised by an oxidation catalyst positioned close to the engine, a diesel particulates filter housed in the same unit, and an SCR catalyst complete with the injection of urea.

Apart from the separation of even the smallest particles from the flow of gas, this combination of technologies also offers highly effective reduction of nitric oxides (NOX). This is ensured by a chemical reaction within the exhaust system triggered by the injection of a low dose of urea referred to as AdBlue.

In this process the ammonia (NH_3) generated within the SCR catalyst converts the nitric oxides (NO and, respectively, NO_2) in the exhaust gas into environmentally compatible nitrogen (N_2) and hydrogen (H_2O). This process is referred to as the Selective Catalytic Reaction and gives the catalyst its special name: the SCR catalyst.

To introduce AdBlue in the automobile, BMW has developed an additional tank system allowing convenient and customer-friendly use of this new technology. A dosing pump extracts the specific amount of AdBlue required at any given point in time from the active tank approximately 6 litres or 12.7 US pints in capacity. The active tank is connected to a second tank, the passive tank which, like the active tank, is positioned at the rear of the BMW 335d Sedan. Offering a capacity of approximately 17 litres or 35.9 US pints, the passive tank serves to ensure that the tank system only has to be replenished in long intervals when changing the engine oil.

This means that the customer is not required to change his habits in the use of his car, but rather enjoys the benefits of this environmentally-friendly exhaust gas technology during the entire service life of his vehicle literally without noticing any change and without having to make any additional visits to the workshop.

BMW competence in diesel technology:
an outstanding story of success since 1983.

The power and fuel economy offered by the BMW Advanced Diesel with BluePerformance once again prove the potential of this engine concept consistently enhanced by BMW over the years, particularly through the ongoing development of BMW EfficientDynamics.

The story of success of BMW diesel engines goes back to the year 1983, when BMW launched the first straight-six diesel in the history of the Company developing maximum output of 85 kW/115 PS and peak torque of 210 Newton-metres/155 lb-ft. Featuring this power unit, the BMW 524td was acknowledged as the fastest diesel of its time.

Comparing BMW's first six-cylinder diesel with the power unit now featured in the BMW 335d, one clearly sees the tremendous progress made in the meantime borne out by the most important specifications alone: engine output is up 135, peak torque 170 per cent. And despite this enormous increase in power, the average fuel consumption of the 3.0-litre with Variable Twin Turbo is

20 per cent lower than the average fuel consumption of its ancestor back in 1983. In the same period exhaust emissions have been reduced even more dramatically through a wide range of different technologies.

Notwithstanding this impressive development, BMW diesel engines are continuing their ongoing progress into the future, with the BMW Advanced Diesel featuring BluePerformance offering the latest step in the development process. This new model fulfils the particularly stringent demands of the North American automobile markets in terms of power and performance, smoothness and motoring refinement, efficiency and emission management through a truly exceptional power unit. No surprise, therefore, that the BMW 3.0-litre diesel featuring Variable Twin Turbo Technology has received the International Engine of the Year Award several times. And it is just as understandable, for these reasons alone, that this engine is already featured in a wide range of models in Europe, now continuing its global success as the BMW AdvancedDiesel with BluePerformance.

3.6 Efficient power from six cylinders: premiere for the BMW 740i and the BMW 740Li in North America.

With a consistent expansion of the engine range for the BMW 7 Series, BMW is now providing new opportunities in the North American markets for customers to combine driving pleasure with maximum efficiency in the luxury segment, too. As of spring 2010 the range will be extended to include the models BMW 740i and BMW 740Li. The two sedans are powered by an in-line 6-cylinder engine with BMW TwinPower Turbo Technology and petrol direct injection (High Precision Injection). This permits the level of driving performance of an 8-cylinder engine while retaining the low fuel consumption and emission levels typical of BMW 6-cylinder models. This engine is therefore yet another fascinating example of the effectiveness of the development strategy BMW EfficientDynamics.

The market launch of the BMW 740i and the BMW 740Li in North America is the continuation of a tradition which began over three decades ago. The BMW 7 Series of the first generation launched in 1977 had a range of engines made up exclusively of in-line 6-cylinder power units. In 1978 the BMW 733i was launched in the USA, its 3.2 litre in-line 6-cylinder engine delivering 197 bhp. The successor model was the BMW 735i which came to North America in 1985. It was powered by a new in-line 6-cylinder engine with a capacity of 3.4 litres and an output of 218 bhp. In 1988 the range was extended with the addition of the BMW 735iL with long wheelbase.

Outstandingly efficient and the winner of several awards: the in-line 6-cylinder engine for the BMW 7 Series.
The in-line 6-cylinder engine used in the models BMW 740i and BMW 740Li from spring 2010 is characterised by a spontaneous response, fascinating revving ability and an economic level of fuel consumption which is unusual in this output category. As a result of these qualities, the dual charged 6-cylinder won the “International Engine of the Year Award“ three times in succession. During the same period it was listed by the renowned automobile journal “Ward’s Auto World” as one of the “10 Best Engines”.

From a capacity of 3.0 litres, the engine – specially evolved for the BMW 740i – and the BMW 740Li - delivers a maximum output of 315 hp at 5800 rpm, its maximum torque of 330 lb-ft being available between 1600 and 4500 rpm. The combination of BMW TwinPower Turbo and High Precision Injection is highly efficient, yet permits performance figures which would only be achieved by a

naturally aspirated engine with a significantly larger capacity and more cylinders – in other words with increased weight and therefore higher levels of fuel consumption. This principle is already applied in comparable form in the BMW 750i, whose V8 engine with BMW TwinPowerTurbo and High Precision Injection achieves a performance level previously familiar from 12-cylinder engines, thereby setting a worldwide efficiency benchmark in 8-cylinder engines.

In the BMW in-line 6-cylinder engine, too, BMW TwinPower Turbo Technology permits top level dynamic performance in an especially efficient manner. Two comparatively small turbochargers, which go into action at low engine speeds due to their low moment of inertia, make for an unusually spontaneous and lasting power delivery. At the same time, High Precision Injection ensures a very precisely controlled fuel supply. Further increase in efficiency is achieved by such features as the weight-optimised aluminium crankshaft, the variable camshaft control system Double VANOS, brake energy regeneration and other BMW EfficientDynamics measures.

An ideal combination of luxury and efficiency.
The BMW 740i accelerates in 5.8 seconds from zero to 60 mph, the BMW 740Li in 5.9 seconds. This means that both models set the benchmark in terms of sporty flair within the segment of luxury 6-cylinder sedans. In both models, power transmission to the rear wheels is taken care of by 6-speed automatic transmission whose shift characteristics individually adapt to the acceleration style of the driver. It combines a high level of shift dynamics with comfortable gearshifts and an especially high degree of efficiency, also contributing to the fuel-efficiency of the vehicles.

The extensive range of fittings and accessories of the BMW 7 Series is available for both the BMW 740i and the BMW 740Li, whose extended wheelbase is dedicated entirely to extended leg space at the rear. The range available includes the M Sports Package, the BMW Individual composition and market-specific offers such as the driver assistance package, the luxury seat package and the rear entertainment package.

3.7 The Top Performers in the Compact Class: New Generation of Engines in the BMW 135i Coupe and the BMW 135i Convertible.

The by far most sporting and dynamic models in the compact segment are now increasing their leadership in terms of driving dynamics and efficiency. Starting immediately the BMW 135i Coupe 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, all interacting with one another to set new standards for economy with the highest level of performance.

In conjunction with the seven-speed double-clutch gearbox (DKG) featuring Sport Automatic available as an option for the first time in the BMW 1 Series as of March 2010, these superior technologies offer a further significant reduction of fuel consumption and emissions on these top-flight performers, setting up new records in acceleration and dynamic performance.

The top engine featured in both versions of the BMW 1 Series develops maximum output of 225 kW/306 hp at 5,800 rpm from a capacity of three litres, combining spontaneous and direct response with unleashed free-revving driving qualities. Peak torque of the six-cylinder is 400 Newton-metres/295 lb-ft delivered from just 1,200 rpm all the way to 5,000 rpm.

The seven-speed double-clutch gearbox with Sport Automatic shifting gears without the slightest interruption in power and torque, is likewise designed and built for dynamic performance of the highest standard.

Sport Automatic offers not just the option to shift gears manually on the electronic gear selector lever or via the shift paddles on the steering wheel, but also the usual comfort and convenience of a BMW automatic transmission.

The combination of these two innovations in a compact car naturally guarantees driving pleasure of a new standard never seen before. Accelerating from 0 – 60 mph in just 5.0 and from 0 – 100 km/h in 5.2 seconds, the BMW 135i Coupe with its double-clutch gearbox offers the same supreme standard as a thoroughbred sports car even more than in the past.

A truly unique achievement in this performance class is average fuel consumption in the EU test cycle of 8.5 litres/100 kilometres (equal to provisional combined of approx. 22 mpg US), almost one litre/100 kilometres better than the comparable figure in the former model with its six-speed automatic transmission.

This significant reduction of fuel consumption, together with acceleration to 60 mph improved once again by 0.2 seconds, clearly confirms the progress made through BMW EfficientDynamics with this new engine and transmission technology.

The BMW 135i Convertible with double-clutch gearbox accelerates to 60 mph in 5.3 seconds and reaches 100 km/h in 5.5 seconds. Average fuel consumption in the EU test cycle is 8.6 litres/100 km (provisional combined US figure approx 22 mpg), which is 0.8 litres better than on the former model with automatic transmission.

On the same fuel consumption, this is better even than the acceleration and consumption figures of the respective models with a six-speed manual gearbox: the hand-shifted version of the BMW 135i Coupe accelerates to 60 mph in 5.1, the manual-gearbox version of the BMW 135i Convertible in 5.4 seconds (0 –100 km/h on the Coupe in 5.3, on the Convertible in 5.6 seconds).

At the same time the combination of the BMW TwinPower Turbo engine with the manual gearbox also newly developed likewise enhances all-round efficiency by a significant margin. In practice, this means a reduction of average fuel consumption by the BMW 135i Coupe to 8.5 litres and a reduction on the BMW 135i Convertible to 8.6 litres/100 kilometres (provisional combined US figure for both models approx. 22 mpg).

Outstanding innovation for optimised efficiency:
first-ever VALVETRONIC on a turbocharged engine.
The new straight-six power unit of the BMW 135i Coupe and the BMW 135i Convertible owes its exceptional efficiency to the first-ever combination of BMW TwinPower Turbo Technology, High Precision Injection, and VALVETRONIC valve management.

The turbocharger system following the twin-scroll principle separating the ducts for three cylinders at a time both in the exhaust gas manifold and in the turbocharger, as well as VALVETRONIC developed to an even higher standard of efficiency, contributes accordingly to the extremely spontaneous and direct response of the drivetrain.

This kind of technology allows infinite adjustment of valve stroke and valve timing on the intake valves. Throttle losses in the charge cycle are reduced to a minimum and the energy contained in the fuel is put to maximum use. In conjunction with High Precision Injection likewise optimised to an even higher standard, this offers an unparalleled balance of driving performance and fuel economy never seen before in this class.

The BMW 135i Coupe and the BMW 135i Convertible come as standard with a wide range of BMW EfficientDynamics technologies combined with one another in an appropriate symbiosis for each specific market, including features such as Brake Energy Regeneration, a gearshift point indicator on models with a manual gearbox, a map-controlled oil pump, final drive with optimised warm-up running qualities, as well as on-demand control of the engine's ancillary units such as the pressure-controlled fuel pump.

Enhanced dynamics, greater efficiency: new six-speed manual gearbox and optional seven-speed Double-Clutch Gearbox.
Both the BMW 135i Coupe and the BMW 135i Convertible come as standard with a newly developed six-speed manual gearbox. Optimised for maximum efficiency, this high-tech gearbox features dry sump lubrication significantly reducing drag forces and completely avoiding splash losses in the interest of even greater efficiency all round.

The seven-speed double-clutch gearbox with Sport Automatic featured for the first time in the BMW 1 Series makes an even greater contribution to the optimisation of driving characteristics in the spirit of BMW EfficientDynamics. The double-clutch gearbox improves both acceleration and the efficiency of these compact top-flight performers, at the same time combining this dual progress with the comfort features of a BMW automatic transmission. The seven-speed double-clutch gearbox shifts gears without the slightest interruption of power and torque and offers the driver the choice of either automatic transmission or a manual gearshift.

The fast and smooth shift of gears allows unusually harmonious acceleration and helps to reduce both fuel consumption and emissions. The close, sporting increments of the seven gears ensure that the optimum transmission ratio is always available in all situations.

A combination of dry sump and injection lubrication serves to further optimise the efficiency of the engine through a supreme level of oil supply.

Last but not least, the double-clutch gearbox is controlled with utmost convenience either through the newly designed gear selector lever or by gearshift paddles on the steering wheel.

BMW 135i Coupe and BMW 135i Convertible: outstanding performers in the compact segment and beyond.
The new six-cylinder with BMW TwinPower Turbo Technology and the seven-speed double-clutch gearbox bring out the unique character of these top performers in the compact segment even more and in greater style than ever before. Through their performance alone, the BMW 135i Coupe and the BMW 135i Convertible achieve the supreme standard of a very powerful sports car. And at the same time the driving experience conveyed by both models boasts the agility typical of a BMW 1 Series.

Superior drivetrain technology and a concept unique in this class with rear-wheel drive, the passenger cell moved far to the back, and almost ideal distribution of axle load, offer the optimum combination for unique driving pleasure.

Both models come as standard with a modified M Aerodynamics Package and M Sports Suspension. Other standard features include DSC Dynamic Stability Control with an individualised set-up, an electronically masterminded locking function on the differential, as well as model-specific control maps for Servotronic power steering and the gas pedal, again underlining the sporting character of both models.

3.8 The Future of Driving Pleasure: BMW EfficientDynamics – Global Concept in New Diversity.

The world's most successful manufacturer of premium cars also comes right at the top in reducing fuel consumption and emissions in road traffic. A study published recently by the European Federation for Transport and Environment (T & E) clearly shows that the BMW Group has made the greatest progress in efficiency of all manufacturers in the European car market for the last three years in a row.

The innovations introduced in this process in the context of BMW EfficientDynamics have even served to reduce the average CO_2 emissions of BMW's car fleet below the level of the largest volume manufacturer in the market as well as numerous other car makers focusing mainly on the production of small cars in their range.

The technologies creating this outstanding success in Europe are being introduced step-by-step in all other markets. Indeed, the global approach BMW is taking in the context of BMW EfficientDynamics serves to offer customers the world over the optimum technology for reducing fuel consumption and emissions, naturally taking local conditions and requirements into account.

The philosophy is to feature the technologies required for greater efficiency not just on a few special models or at an extra price, but rather to make these technologies regular, standard features on every BMW. As a result, the range of particularly efficient models from BMW as well as the scope of BMW EfficientDynamics is consistently increasing also in the North American market.

BMW EfficientDynamics: leading technologies tailored to North America.
Thanks to BMW EfficientDynamics, efficiency BMW-style does not mean making concessions in terms of driving pleasure, comfort or safety. On the contrary – the new models offered by BMW in all vehicle and performance segments come consistently with an even higher standard of driving pleasure and, at the same time, even greater fuel economy and even better emission management.

The range of technologies developed in the context of BMW EfficientDynamics is being increased once again in 2010 also in the USA and Canada. In combination with turbocharger technology, for example, High Precision Injection ensures particularly precise dosage of fuel and is therefore featured both on the eight-cylinder models in the new BMW 7 Series, the BMW 5 Series Gran Turismo, and the BMW X6, as well as the six-cylinder versions of these model series and in the BMW 3 Series and the BMW Z4.

For the first time the BMW 535i Gran Turismo also comes with BMW's fully-variable VALVETRONIC valve management already proven the world over, now in combination with BMW TwinPower Turbo Technology and High Precision Injection.

Successfully introduced in the BMW 335d Sedan and the BMW X5 xDrive35d, the BMW Advanced Diesel with Blue Performance offers yet another highly attractive option in the North American markets for combining supreme economy with that Sheer Driving Pleasure so typical of BMW. The six-cylinder diesel with Variable Twin Turbo Technology delivers maximum output of 265 hp and, with its SCR system serving to reduce nitric oxides, fulfils the strictest emission standards in all 50 States of the USA.

Innovative concept for greater efficiency and driving pleasure: BMW ActiveHybrid.

Forming yet another cornerstone of BMW EfficientDynamics, BMW ActiveHybrid technology is now set to enter the market. At the 2010 NAIAS BMW is presenting both the BMW ActiveHybrid 7 and the BMW ActiveHybrid X6, two new models intelligently bringing together the combustion engine and electric drive in an appropriate combination for enhanced driving dynamics and a significant reduction of both fuel consumption and exhaust emissions.

Further highlights in BMW EfficientDynamics featured in different combinations on each model serve to optimise the use of energy in fuel to an even higher standard. These include Brake Energy Regeneration, Auto Start Stop, a gearshift point indicator, on-demand management of ancillary units, intelligent lightweight construction, and optimised aerodynamics.

Options for the future: electric mobility and hydrogen drive.
In the context of EfficientDynamics the BMW Group is promoting additional research and test projects for further drive concepts pointing into the future. One example is the fleet of approximately 600 all-electric MINIs driven in a pilot project by selected private and corporate customers under everyday conditions in California, the State of New York, and New Jersey. The MINI E comes with a 150 kW/204 hp electric motor powered by a high-performance lithium-ion battery offering a range of more than 250 kilometres or 150 miles. This pilot project is already offering important information on how to make individual mobility in an all-electric vehicle truly efficient for the driver.

In the context of project i, the BMW Group is likewise concentrating on innovative vehicle concepts for mega-cities the world over.

Focusing on sustainable motoring freedom and mobility in future, the BMW Group is also working consistently on the use of hydrogen recovered in a regenerative process. Built in a small series of 100 vehicles, BMW Hydrogen 7 has already covered a total mileage of 2,500,000 miles or 4,000,000 kilometres in numerous countries the world over. Indeed, such consistent and intense use of BMW's Hydrogen Sedan under regular driving conditions clearly proves that this drive concept meets the requirements of everyday traffic and offers another realistic option for the future.

Introducing and consistently enhancing the principle of Efficient Dynamics, building cars with a clear focus on resources and their preservation, and maintaining high social standards for employees at all plants and locations, the BMW Group has also strengthened its leading position in the current Dow Jones Sustainability Index. This ranking compiled jointly by the Dow Jones Indices, Stoxx Limited, and the Zurich Asset Management Company SAM, is acknowledged as the world's most important benchmark for entrepreneurial responsibility. Which makes it all the more significant that the BMW Group has now been ranked the "World's Most Sustainable Car Maker" within the Dow Jones Sustainability Index for the fifth time in a row.