BMW at the 2009 Detroit NAIAS.
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Note: The vehicles described in this media information feature the specifications in the US automobile market in terms of their engines and equipment. Deviations in other markets are possible.

1. BMW at the 2009 Detroit NAIAS. (Short Version)

Fascination and innovation – precisely these features clearly describe the stance and look of the BMW Group at the 2009 North American International Auto Show (NAIAS) in Detroit.

Highlighting the world debut of the new BMW Z4 and the presentation of future-oriented drive concepts, the world's most successful manufacturer of premium cars offers the public a truly attractive outlook at the new year and beyond from 17–25 January 2009. More than ever before, customers in the North American automobile market may also benefit in 2009 from the results of BMW's EfficientDynamics development strategy. For all BMW models presented at the 2009 NAIAS come with power units combining the dynamic performance typical of the brand with truly exemplary fuel economy and emission control.

The new BMW Z4 represents the future in roadster motoring and the joy of driving in the open air with its retractable hardtop, dynamic straight-six power units, and Dynamic Drive Control all featured as standard. The first BMW diesels available in the US automobile market, in turn, set out a new path to fuel-efficient and low-emission mobility combined with that sheer driving pleasure so typical of BMW. The BMW 335d Sedan and the BMW X5 xDrive35d are powered by BMW Advanced Diesel with Blue Performance Technology featuring Selective Catalytic Reduction (SCR) and the injection of urea to reduce nitric oxides (NO_X) to an absolute minimum, both vehicles thus meeting the standards for nationwide introduction in all 50 states of the USA.

A further highlight BMW is presenting in Detroit is ActiveHybrid technology using an intelligent combination of the combustion engine and electric drive to substantially reduce fuel consumption. This trendsetting technology will be ready for standard production in the course of 2009.

Further attractions at the 2009 NAIAS are the new BMW 7 Series and the new BMW 3 Series. And as yet another highlight, Detroit this year marks the anniversary of a truly fascinating vehicle concept, with the first BMW X5 presented at the NAIAS exactly ten years ago. This marked the birth of the world's first Sports Activity Vehicle and at the same time was the starting point for a truly exceptional story of success.

World debut of the new BMW Z4: even more sporting, more comfortable and for the first time with a retractable hardtop.

The new BMW Z4 offers a particularly modern interpretation of the traditional open two-seater – it is the first BMW roadster to feature a retractable hardtop. The two-piece roof made of lightweight aluminum panels opens and closes in each case fully automatically within just 20 seconds.

The ambience within the interior of this unique roadster is characterized by the cockpit oriented to the driver, high-quality materials and optimized all-round visibility even with the roof closed thanks to the extra-large windows.

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

Depending on the model involved, the engines come either with fully variable VALVETRONIC valve management or Twin Turbo Technology and High Precision Injection. The top model is available not just with a six-speed manual gearbox, but also with BMW's Sport Automatic featuring seven gears and double-clutch operation.

Dynamic Drive Control comes as standard in the new BMW Z4, enabling the driver at the touch of a button to adjust the set-up of the car in three stages to his personal preferences. And as an option the truly discerning driver has the choice of BMW's Adaptive M Suspension complete with electronic damper adjustment.

Innovative technology, stylish design: the new BMW 7 Series.

Yet a further highlight at the 2009 NAIAS is the new BMW 7 Series. This fifth generation of BMW's Luxury Performance Sedan truly confirms the outstanding, truly innovative power Germany's premium car maker has to offer.

The new BMW 7 Series is a combination of stylish design and top-class engineering on the powertrain, chassis and suspension in terms of safety, on the driver assistance systems, and in motoring comfort. Boasting new engines, Dynamic Drive Control featured as standard, and the world's only Integral Active Steering, the new BMW 7 Series offers a dynamic but at the same time comfortable driving experience unparalleled in its segment.

With the longest wheelbase in its class, top-quality materials and quality of finish characterized by perfect craftsmanship, this outstanding new sedan

available right from the start also in an extended wheelbase version guarantees unique exclusivity and grand touring comfort of the highest caliber. The innovative character of BMW's new flagship is further enhanced by the new generation of BMW iDrive control, unlimited use of the internet in the car, as well as the availability of numerous, in some cases quite unique driver assistance system including BMW Night Vision even able to detect individual persons on or near the road ahead, BMW's newly developed Lane Change Warning, and camera-based recognition of road signs.

The new flagship proudly presented by Germany's premium car manufacturer is being launched in the USA as the BMW 750i and the BMW 740i, as well as the long-wheelbase BMW 750Li and BMW 740Li. The power units are a V8 delivering 300 kW/407 hp and a straight-six with maximum output of 240 kW/326 hp. Both engines come with Twin Turbo Technology and High Precision Injection, combining their supreme power with a level of efficiency quite unique in their respective performance class.

The new BMW 3 Series – now available for the time as the BMW Advanced Diesel with Blue Performance.

Just a few weeks after its US debut, the new edition of the BMW 3 Series is already being presented at the 2009 NAIAS in Detroit. Leading the market as the world's best-selling premium car, the new BMW 3 Series now seeks to further increase its lead over the competition. Carefully modified body design, appropriate refinements within the interior, the new generation of BMW iDrive, as well as new BMW ConnectedDrive services including the option to use the internet all serve to enhance the outstanding status of this unique car, just like the wide range of engines now featuring the first BMW diesel in the market proudly presented in the new BMW 335d Sedan.

The 265-hp power unit in the BMW 335d is based on the 3.0-liter straight-six with Variable Twin Turbo and common-rail direct fuel injection already highly successful in Europe. Indeed, this engine is acknowledged as the most sporting diesel in the world and has already won two prizes in the International Engine of the Year Award.

As a BMW Advanced Diesel with BluePerformance, this unique power unit is now also available to customers in the USA and Canada, enabling them to enjoy and experience all the benefits of BMW diesel technology. The particular highlight of the new engine is its supreme combination of power and traction, on the one hand, and efficiency and smoothness, on the other. The BMW 335d Sedan accelerates to 60 mph in just 6.0 seconds and fuel consumption is just 23/36 mpg (City/Highway/anticipated EPA figures).

The particulates filter is enhanced by an SCR system injecting urea into the fuel and enabling the new BMW 33d Sedan to fulfill the particularly strict emission standards in California and other states of the USA.

BMW ActiveHybrid: ready for production in 2009.

Introducing the BMW Advanced Diesel with BluePerformance powering the BMW X5 xDrive35d likewise launched as a 50-state model, BMW is once again setting the standard for future-oriented drivetrain technology in the North American automobile market. Worldwide, BMW's current models stand not only for fascinating design, premium quality and driving pleasure typical of the brand, but also for supreme efficiency.

To maintain this leading position in future, BMW is working all-out in the context of BMW EfficientDynamics on the series development of hybrid drive systems offering power and performance typical of the brand in combination with fuel economy clearly measurable under all driving conditions. Precisely this is why BMW is developing a comprehensive hybrid system in order to offer the best solution (Best of Hybrid) tailored to each individual model.

Two examples of this trendsetting philosophy are to be admired at the 2009 NAIAS in Detroit: the BMW Concept 7 Series ActiveHybrid with its eight-cylinder gasoline engine and an electric motor integrated in the transmission housing to provide additional drive power and the BMW Concept X6 ActiveHybrid combining an eight-cylinder power unit and electric drive by means of an innovative two-mode active transmission.

Both versions of BMW's hybrid technology are significant highlights in the BMW EfficientDynamics development strategy enabling the customer to enjoy driving pleasure in typical BMW style and at the same time benefit from greater fuel economy and lower emissions so important today.

The first models with BMW ActiveHybrid will be ready for production in the course of 2009.

Through the new models and drive concepts presented at the 2009 North American International Auto Show, BMW once again proves its competence in the development of truly thrilling and future-oriented vehicles. Hence, the first leading auto show of the year of truly international significance is setting new trends once again in 2009.

Auto shows have been held in Detroit for more than 100 years, the 2009 NAIAS marking the 21st international car show in the US motor city. The

organizers and almost 100 exhibitors from all over the world once again expect more than 700,000 visitors this year at the Cobo Center in Detroit.

2. Highlights at a Glance.

- **World debut: the new BMW Z4.**
  The new BMW Z4 is making its world debut in the limelight of the 2009 NAIAS in Detroit. This is indeed the first BMW roadster with a fully automatic retractable hardtop, the new BMW Z4 offering authentic roadster proportions both open and closed, a seating position moved far to the rear in typical roadster style and, as a result, the driving experience so characteristic of BMW's sporting two-seaters.

  Powerful and by all means efficient straight-six engines ranging in output from 150 kW/204 hp all the way to 225 kW/306 hp, in combination with rear-wheel drive so typical of BMW, offer truly impressive driving dynamics.

  In conjunction with Dynamic Drive Control featured as standard and BMW's optional Adaptive M Suspension, the new BMW Z4 may be perfectly tailored to the individual wishes and preferences of the driver.

  Within the car, not only supreme quality of finish and the typical roadster design of the dashboard set a new standard, but also the new generation of BMW iDrive control serving to ensure an exclusive and very practical driving experience.

- **The new benchmark in the luxury class: the new BMW 7 Series.**
  Presenting the new BMW 7 Series, Germany's premium car maker offers yet another outstanding highlight at the NAIAS in Detroit. This fifth generation of BMW's Luxury Performance Sedan combines sporting elegance, convincing presence and exclusive generosity of the most innovative standard all in one.

  The car's superior suspension technology with Dynamic Damper Control and, as an option, Integral Active Steering, as well as innovative driver assistance systems such as the cockpit in its modern design, Dynamic Drive Control and the new generation of BMW iDrive all help to ensure maximum supremacy on the road.

  The new BMW 7 Series comes with a choice of two engines: a V8 in the BMW 750i (300 kW/407 hp) and a straight-six in the BMW 740i (240 kW/326 hp), both with Twin Turbo Technology and High Precision Injection.

- **Highly attractive: the new BMW 3 Series – for the first time also as the BMW Advanced Diesel with BluePerformance Technology.**
  Through its athletic design, sophisticated interior, innovative equipment and the most efficient engines in the segment, the new BMW 3 Series is further increasing its lead over the competition. Appropriate, discreet and highly attractive modifications in design now give even greater emphasis to the sporting character of the Sedan and Touring.

  As a result of the BMW EfficientDynamics development strategy, BMW is proudly presenting the BMW Advanced Diesel with BluePerformance Technology specially conceived for the USA and Canada in the new BMW 335d Sedan. The 3.0-liter straight-six diesel with Variable Twin Turbo develops 265 hp maximum output and peak torque of 425 lb-ft, with exhaust treatment using not only a particulates filter, but also an SCR catalyst with injection of urea to substantially reduce NO_X emissions to the BIN5 standard.

- **Anniversary: ten years of BMW X models.**
  What started ten years ago at the 1999 NAIAS has developed in the - meantime into a unique story of success – the introduction of the BMW X5 in Detroit. The world's first Sports Activity Vehicle thrilled customers everywhere right from the start through its combination of dynamic driving qualities on the road and supreme traction off the beaten track.

  In the meantime other manufacturers have struggled to copy this unique concept transferred by BMW to other segments in the market.

  Worldwide sales of BMW X models now amount to more than 1.3 million units, the second generation of the BMW X5 continuing the global success of this unique model and the BMW X3 introduced five years ago already accounting for a sales volume of more than 500,000 models.

  The BMW X6 is the world's first Sports Activity Coupe and the BMW Concept X1 already offers an outlook at the first BMW X model in the compact class.

- **BMW EfficientDynamics: significant innovations for greater fuel economy, lower emissions, and even more driving pleasure.**
  More consistently and effectively than any other concept, BMW - EfficientDynamics serves to reduce both fuel consumption and emissions on the road in a lasting, sustainable process. At the 2009 NAIAS in Detroit BMW is proudly presenting the wide range of technologies created through this global development strategy and either already available in BMW's latest

models or soon to achieve production standard. These include the most advanced gasoline engines with VALVETRONIC and High Precision Injection featured among others in the new BMW Z4, the new BMW 7 Series and the new BMW 3 Series, the first BMW Advanced Diesel with BluePerformance developed for the US market to be admired in the BMW 335d Sedan and the BMW X5 xDrive35d, as well as BMW ActiveHybrid Technology reaching production standard in 2009 in no less than two different versions: Reflecting the high standard and versatility of BMW EfficientDynamics, both the mild hybrid in the BMW Concept 7 Series ActiveHybrid and full hybrid technology in the BMW Concept X6 ActiveHybrid ensure a significant reduction in fuel consumption and emissions, plus of course a lot more driving pleasure.

3. BMW at the 2009 Detroit NAIAS. (Long Version)

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

The classic roadster is back – more powerful and more stylish than ever before as the modern interpretation of this very special kind of car. Its name is the BMW Z4, the only car in its segment combining classic roadster proportions with a seating position moved close to the rear axle, rear-wheel drive and an automatically retractable hardtop.

The new BMW Z4 offers all the driving pleasure of a BMW Roadster with particularly refined and stylish flair. Driving with the roof down, this supreme two-seater offers a refreshingly intense experience of the sun shining down and the wind rushing by – and driving with the hardtop closed it provides all the comfort of a sporting coupe in the premium segment. So through this diversity and wide range of qualities, the new BMW Z4 is the re-birth of the roadster.

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

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

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

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

Design: the modern look of a classic roadster.

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

On the low-slung front section with its large, upright BMW kidney grille, the wide air intake and the dual round headlights so typical of the BMW brand with bi-xenon headlights featured as standard, all surfaces and lines strive towards a joint imaginary target point on the road ahead of the car, as if the new BMW Z4 were pushing ahead all-out with all its power.

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

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

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

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

The decorative trim on the front passenger's side stretching out in a narrow band beneath the light and climate control units also on the driver's side is finished either in Satin Silver matt or dark leatherette. The combinations of these two trim finishes available in the car's range of trim options naturally allow highly attractive contrasts and unique highlights.

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

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

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

The Extended Leather Package is also part of the car's Pure White design scheme.

In combination with Pure White design the customer also has the choice of the paintwork in Havana Brown. The further range of paintwork colors available on the new BMW Z4 is made up of no less than eight color tones including Orion Silver metallic exclusive to the new roadster.

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

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

emphasizes and, indeed, further accentuates the elegant look of the new BMW Z4.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The second generation of direct gasoline injection developed by BMW ensures significant benefits in fuel efficiency without in any way restricting the dynamic qualities of the power unit. Hence, the BMW Z4 sDrive35i achieves average fuel consumption in the EU test cycle of 9.4 liters/100 kilometers (equal to 25.0 mpg US), enhanced to an even better 9.0 liters (26.1 mpg US) with the car's seven-speed double-clutch sport automatic transmission.

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

Offering spontaneous power and performance, excellent motoring refinement and outstanding efficiency, the two six-cylinder naturally-aspirated power units in the BMW Z4 sDrive30i and the BMW Z4 sDrive23i again offer the very best in their segments. Weighing just 161 kg/355 lb and, respectively, 158.5 kg/349.5 lb, both power units, thanks to their composite magnesium/aluminum crankcase, cylinder head covers made of a special synthetic material and lightweight camshafts with aluminum VANOS control units, are exceptionally light.

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

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

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

Offering average fuel consumption of 8.5 liters (equal to 27.6 mpg US) in the EU test cycle (8.3 liters/28.3 mpg US with sports automatic) and a CO_2 rating of 199 g/km (with sports automatic: 195 g/km), the new BMW Z4 sDrive30i provides an impressively good balance of acceleration and fuel economy.

Displacing 2.5 liters with the same technology as on the 3.0-liter power unit, the engine featured in the BMW Z4 sDrive23i again stands out through unique qualities. Particularly this model offers an unusually good balance of sportiness and efficiency, the six-cylinder developing its maximum output of

150 kW/204 hp at 6,200 rpm and peak torque of 250 Newton-meters/184 lb-ft at a low 2,950 rpm.

Accelerating from a standstill to 100 km/h in 6.6 seconds (with sports automatic in 7.3 seconds), the BMW Z4 sDrive23i sets a new record in its performance class. Top speed of 242 km/h (150 mph) (with sports automatic: 239 km/h or 148 mph), average fuel consumption of 8.5 liters (27.6 mpg US) (with sports automatic: 8.2 liters/28.6 mpg imp) per 100 kilometers in the EU test cycle, and a CO_2 emission rating of 199 g/km (with sports automatic: 192 g/km) makes the new BMW Z4 sDrive23i a highly efficient entry-level model leading into the unique world of the BMW Roadster.

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

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

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

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

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

The BMW Z4 sDrive35i with its seven-speed sports automatic accelerates to 100 km/h in just 5.1 seconds, fuel consumption in the EU test cycle of 9.0 liters/100 kilometers (equal to 26.1 mpg imp) outperforming the fuel economy on the same model with its manual gearbox by a significant 0.5 liters.

Sports automatic gives the driver the choice of either an automatic gearshift or manual selection of gears. A newly designed electronic gearshift lever on the center console serves to control the sports automatic whenever required. As

an alternative the driver is able to shift gears manually by means of paddles on the steering wheel.

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

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

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

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

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

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

Sophisticated suspension technology, high-performance - lightweight brakes.

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

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

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

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

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

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

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

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

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

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

Adaptive M Suspension with electronically adjustable dampers.

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

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

Comfort and sportiness in one: Dynamic Drive Control.

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

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

The differences between these individual modes are clearly distinguishable on the road, the SPORT mode, for example, offering far more direct steering behavior and a more direct response to the gas pedal. The SPORT+ mode, in turn, serves additionally to activate the DTC Dynamic Traction Control

function on the DSC control pattern, intentionally allowing slight slip on the drive wheels and thus enabling the driver to take a bend in a controlled drift.

Body: extra space, greater safety.

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

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

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

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

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

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

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

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

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

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

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

Roadster-specific climate comfort and leather in SunReflective Technology.

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

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

Top-end audio and communication systems.

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

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

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

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

New production plant: BMW Roadster coming from Regensburg.

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

The first BMW Roadster with a hardtop marks the end – for the time being – of a long and unusually fascinating series of outstanding open-air models. Indeed, the history of BMW Roadsters goes all the way back to the '30s, the first model in this segment being the BMW 3/15 PS DA 3 Type Wartburg built in 1930 and 1931. In 1934 BMW for the first time combined the classic proportions of a roadster with a powerful straight-six engine in the BMW 315/1.

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

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

3.2. The Most Innovative Rendition of Luxury and Dynamic Performance: The new BMW 7 Series.

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

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

The high-performance and unusually efficient power units as well as the suspension technology of the new BMW 7 Series are absolutely unique in the luxury sedan segment. Two gasoline engines with Twin Turbo Technology and High Precision Injection – a V8 delivering 300 kW/407 hp in the top-of-the-range BMW 750i and a straight-six offering 240 kW/326 hp in the new BMW 740i – are available from the start upon the launch of the new model in the USA. Both power units offer the highest level of efficiency in their respective segment and fulfill the EU5 emission standard in Europe as well as the ULEV II standard in the USA.

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

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

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

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

Both the "regular" and the long-wheelbase versions of BMW's new Luxury Sedan – with the latter available right from the start in the guise of the BMW 750Li and the BMW 740Li – come with the longest wheelbase in their segment. In practice, this means particularly generous space and roominess within the car. A wide range of lightweight features – including the doors, roof, engine compartment lid, side panels and the engine crankcase made of aluminum – enhance both the efficiency and the agility of the new BMW 7 Series. And through its comprehensive safety concept alone, BMW's new Luxury Sedan guarantees maximum occupant safety in all conceivable types of collision.

Design: sporting character BMW style in its most elegant form.

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

Seen from the front, the new BMW 7 Series emanates a sense of clear and calm superiority through its large and smooth engine compartment. The BMW kidney grille stands out far to the front and is fully integrated in the front end without any visible joints or seams, emphasizing the powerful presence of the car. The bottom air intake stretches across the entire front air dam, thus highlighting, together with the foglamps and the chrome band above the air intake, the significant width of the car and its powerful stance on the road.

Dual round headlights in generous size and design ensure that concentrated focus so typical of BMW – first through their corona rings providing a daytime headlight function and second through the bright light bar bordering on the headlights at the top. A further new design feature is the direction indicators made up in each case of eight LED light units. The new BMW 7 Series interprets the classic style and design of a thoroughbred Sedan in a unique manner typical of the brand. The interplay of concave and convex

surfaces so characteristic of BMW generates highly effective light and shadow lines, tense surfaces around the wheel arches and the doors as well as the narrow shoulder surface above the contour line extending from the headlights to the rear lights emphasizing the elegant character of this unique Luxury Sedan.

The high-rising doorsill line, in turn, reinforces the impression of a particularly slender and dynamic stature. An additional effect is provided by the chrome-plated gill unit complete with the integrated direction indicator at the transition point between the front side panel and the driver's and, respectively, front passenger's door. As a special feature characteristic of a truly sporting car, this gill unit again highlights the long distance between the front axle and the instrument panel.

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

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

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

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

The sculptural design of the car's surfaces ensures a smooth and flowing transition of the side panels into the rear end of the car, the roofline flowing down via the car's flanks all the way to the bumper. The entire rear section is therefore surrounded by dynamic lines creating an even more sporting and muscular look.

Horizontal lines and light edges give the entire rear end a powerful and superior impression accentuated in particular by the chrome bar above the numberplate support. The rear light clusters of the new BMW 7 Series come in an L-shaped look, again typical of the brand. Inside, the rear lights are dominated by wide,

horizontally arranged light bars with a special three-dimensional look rising to the outside and therefore following the contour of the light units.

Fed by LED lights, the light bars provide a warm and homogeneous light effect. The direction indicators also use LED technology likewise featured on the third brake light at the upper end of the rear window and on the numberplate illumination.

Modern, luxurious, inviting: the interior.

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

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

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

Black panel technology: familiar flair, new options.

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

When not in use, the display forms a black homogeneous surface. The numbers in the circular instruments are generated electronically when required, thus not becoming visible – like all other symbols on the display – until the system is activated. On cars fitted with a navigation system the instrument clusters supports the High Guiding function, true-to-life arrow symbols giving the driver information on, say, criteria to be observed when changing his lane or when taking a bend at an unclear road junction.

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

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

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

Instead of a conventional handbrake, the new BMW 7 Series comes with an electrohydraulic parking brake operated merely by pressing a button, that is without requiring any strength or particular effort. The Auto-Hold function likewise operated by a button, automatically holds the car when at a standstill, providing extra comfort in stop-and-go traffic.

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

Enhanced consistently, used intuitively: BMW iDrive.

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

Newly designed Controller with direct selection buttons.

Fitted in the perfect ergonomic position, the newly developed Controller enables the user to conveniently and intuitively choose and activate specific

functions through standardized tilt, rotating and pushing movements. A picture of the Controller shown in the Control Display ensures even greater clarity and orientation in choosing the next control function or operating step, as does the clear graphic arrangement of the menus arranged as tables on top of one another. And with all menus structured according to the same standard scheme, the user will become fully acquainted with operating requirements almost immediately, not having to make himself accustomed with the control process.

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

Extra-large display with variable layout, pre-view maps and full-screen presentation.

BMW iDrive in the new 7 Series comes with a 10.2 inch Control Display exceeding all graphic surfaces so far used in the world of motoring not only through its dimensions. For offering image resolution of 1,280 x 480 pixels, the Control Display is able to present detailed graphics or complete websites from the internet much better and more clearly than ever before, visual control aids ensuring additional clarity and ease of use and operation.

To spell out the names of places or streets, for example, and to enter telephone numbers, the driver simply has to use a very convenient circular “Speller” for rapid and easy entry of names and numbers. Optimized BMW iDrive with its upgraded technical features also facilitates use of the optional navigation system, full-screen presentation of maps providing an incomparably detailed overview of the region the driver is currently traveling through. Both travel maps and individual symbols may be shown as three-dimensional graphics, a pre-view screen presenting the appropriate map section when entering a specific destination.

The engines: superior, dynamic and extremely efficient.

The world’s most efficient V8 gasoline engine and the most powerful straight-six within BMW’s engine range: the choice of power units offered upon the introduction of the new BMW 7 Series is full of superlatives. Both engines

excel through their dynamic power and performance, superior refinement and exemplary efficiency. In their respective performance class they offer an unmatched balance of power and economy, based on the BMW EfficientDynamics development strategy as well as a wide range of other innovations in the new BMW 7 Series.

Apart from the modern power units, the combination, depending on the model involved, of Brake Energy Regeneration, on-demand management of the engine's ancillaries, consistent lightweight engineering and optimized aerodynamics including electronically masterminded air flap control helps to further reduce both fuel consumption and emissions.

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

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

Displacing 4.4 liters, the eight-cylinder power unit featured in the new BMW 750i is the first gasoline engine of its kind worldwide to feature the turbochargers in the V-section between the two rows of cylinders. In addition to the optimization of weight provided by the aluminum crankcase, this configuration also makes the engine extremely compact in its dimensions.

The V8 develops maximum output of 300 kW/407 hp in the speed range from 5,500 to 6,400 rpm, with maximum torque of 600 Newton-meters or 442 lb-ft all the way from 1,750 to 4,500 rpm.

On the road this means truly impressive power and performance from low engine speeds and with substantial thrust maintained throughout the entire range. Hence, the BMW 750i accelerates to 100 km/h (62 mph) in 5.2 seconds and is limited electronically to a top speed of 250 km/h or 155 mph. Average fuel consumption of the BMW 750i in the EU test cycle, already applying the EU 5 standard, is just 11.4 liters/100 kilometers or 20.6 mpg US, with CO_2 emissions of 266 grams per kilometer. Compared with the previous model homologated under the less strict and less demanding EU4 standard, this is an improvement by approximately 3 percent with an increase in engine power by 30 kW or 41 hp.

As a result, the new model complies both with the ULEV II emission standard in the USA and the EU 5 standard in Europe.

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

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

Appropriate modifications of the turbocharger system serve to increase output of the 3.0-liter power unit to 240 kW/326 hp. On the straight-six with Twin Turbo two exhaust gas turbochargers each supply three cylinders with compressed air, the low inertia of the relatively small turbochargers ensuring a significantly better response also on this power unit and building up larger pressure without the slightest delay from low engine speeds.

Maximum engine power comes at 5,800 rpm, with maximum torque of 450 Newton-meters or 332 lb-ft from just 1,500 rpm. This helps the new BMW 740i accelerate to 100 km/h in 5.9 seconds, with the car's top speed limited electronically to 250 km/h or 155 mph.

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

This particular configuration enhances not only fuel economy, but also emissions and engine acoustics. Accordingly, average consumption in the EU test cycle is just 9.9 liters/100 kilometers or 23.7 mpg US, with a CO_2 rating of 232 grams per kilometer. Compared with its predecessor, the new BMW 740i thus offers 15 kW/20 hp more power on a reduction in fuel consumption by 12 percent. And again, it almost goes without saying that the new BMW 740i complies in full with the EU5 and ULEV II emission standards.

Featured as standard: automatic transmission with precise and fast gearshift.

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

automatic transmission ensures superior comfort when shifting gears and an enhanced standard of efficiency.

Yet a further contribution to greater efficiency comes from the final drive likewise optimized to an even higher standard, now offering even lower friction and optimized thermal management. Through the first-ever use of an aluminum housing on the final drive, weight is reduced by approximately 15 percent versus the former model.

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

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

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

Dynamic Drive Control button on the centre console.

The driver is able to vary the Dynamic Damper Control map through the Dynamic Drive Control button.

With Dynamic Drive Control, the set-up of the car my be varied for COMFORT, NORMAL, SPORT and SPORT+ at the simple touch of a button, acting not only on Dynamic Damper Control and the DSC Dynamic Stability Control threshold points, but also on the gearshift dynamics of the automatic transmission as well as the gas pedal and steering assistance control maps.

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

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

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

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

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

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

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

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

Precisely on course:
Lane Change Warning and Lane Departure Warning.

Lane Change Warning available for the first time in a BMW enables the driver to overtake other vehicles in superior style and with a significantly reduced risk.

Radar sensors at the rear end of the car monitor traffic conditions on the adjacent lanes, covering an area extending from the so-called blind angle on the next lane all the way to a distance of 60 meters or almost 200 feet behind the car.

A triangular symbol illuminated permanently on the base of the exterior mirror shows the driver that there is another vehicle in the critical range. Then, once the driver sets the direction indicator in order to change his lane in the process of overtaking, this LED signal will start to flash on and off, providing a clear warning in the process. The driver is also warned by discreet but unmistakable vibration on the steering wheel following the same signal as the Lane Departure Warning. This sophisticated system also available as an option on the new BMW 7 Series detects any unintentional departure by the driver from his desired course.

Lane Departure Warning is made up of a camera installed on the windscreen near the interior mirror, a control unit for the comparison of data and a signal generator making the steering wheel vibrate. The camera in the system scans the road markings on at least one side of the car as well as the edge of each lane and the distance from the car. The system is able to look ahead some 50 meters or 165 feet and may also be used at night as soon as the driver switches on the headlights.

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

In combination with a navigation system and Lane Departure Warning, the new BMW 7 Series offers yet another exclusive function: the Speed Limit Indicator enables the driver to constantly monitor the speed limit on all routes he is currently taking.

For this purpose a camera fitted near the interior mirror permanently registers traffic signs by the road as well as variable signs on bridges above the road (eg on the interstate or major highways).

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

Optimum visibility: bi-xenon headlights featured as standard.

The new BMW 7 Series comes as standard with dual bi-xenon headlights. Adaptive Headlights available as an option, in turn, ensure clear and precise illumination of the road ahead following bends and winding roads. The Bending

Lights function, as yet another feature, is integrated in the headlights. And last but not least the Adaptive Headlights allow variable light distribution for optimum illumination of the road ahead particularly when driving in a straight line.

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

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

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

A unique feature in the BMW 7 Series segment is the combination of an aluminum roof and a steel body. The advantage in weight provided by this solution versus a conventional steel roof is approximately 7 kilos or 15.5 lb, the lower center of gravity provided in this way helping to give the car significantly greater agility.

The engine compartment lid, the doors, the front side panels and the front spring supports on the body are also made of aluminum, with the use of aluminum on the doors for the first time in a large-scale production BMW reducing weight once again by another 22 kg or 49 lb.

Exemplary protection of the occupants on all seats.

High-load-resistant carrier structures, extra-large and exactly defined crumple zones as well as highly efficient restraint systems coordinated by high-performance electronic control set the foundation for the high level of passive safety in the new BMW 7 Series.

Within the interior, in turn, frontal and hip/thorax airbags as well as side curtain head airbags all come as standard. BMW's new Luxury Performance Sedan features three-point inertia-reel seat belts on all seats.

The restraint systems furthermore come with a belt force limiter and, on the front seats, an additional belt tightener. To protect the occupants from cervical spine injury in the event of a collision from behind, the front seats come as standard with crash-activated headrests. And last but certainly not least, ISOFIX child seat fastenings are featured as standard on the rear seats.

Highest standard of climate comfort in the luxury class.

Featured as standard, the automatic air conditioning ensures highly effective cooling quality quite unparalleled in the luxury performance segment. The driver and front passenger are able, with this sophisticated system, to individually control air temperature, air volume and distribution on the right and left side of the car.

Available as an option, four-zone automatic air conditioning also allows individual control and regulation on the rear seats. And the long-wheelbase BMW 7 Series even comes as a further enhancement of four-zone automatic air conditioning with roof vents at the rear complete with separate controls, supplied by an additional air conditioner fitted in the luggage compartment.

As an option the new BMW 7 Series is available with adjustable single seats at the rear, and both climate and massage seats are available as an option at the rear of the car.

Hard disc memory for audio data and the navigation system.

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

The audio system in the new BMW 7 Series features a DVD player, an AUX-in and a USB port all as standard. Optional equipment includes a six DVD changer, a TV module and a receiver for DAB Digital Audio Broadcasting. To offer the driver and his passengers an even greater experience in sound quality, the optional Professional HiFi system is able to play back multi-channel audio formats. As an option, furthermore, the new BMW 7 Series may also be fitted with the BMW Individual High-End audio system.

The entertainment systems available on the rear seats of the new BMW likewise set new standards in the world of motoring, with two TV screens integrated in the front seat backrests and allowing individual use on each side, two headsets and two AUX-in ports as well as a DVD player all included in the entertainment package.

World debut: unrestricted use of the internet in the car.

BMW is the world's first car maker to provide unrestricted use of the internet in the car through BMW ConnectedDrive.

Use of the internet is an optional extra in the new BMW 7 Series and comes at an attractive flat rate.

As in the case of the BMW Online internet service, BMW, making this new offer, is once again paving the way in the use and availability of online services in the automobile.

Use of the internet in the car is based on BMW iDrive now enhanced to an even higher standard, the Controller taking over the function of a conventional computer mouse. Internet sites may be presented in high resolution on the Control Display, but for reasons of safety only when the car is at a standstill.

Fully integrated use of the Apple iPhone and other Smartphones.

The mobile phone preparation kit complete with a Bluetooth interface available on the new BMW 7 Series allows safe and comfortable use of a wide range of the latest mobile phones while driving. In addition, Smartphones with an MP3 function may also be fully integrated into the car using a specially developed snap-in adapter together with a USB port again available as an option. Using this option, the driver and passengers are able to use both the communication and the entertainment functions of their mobile phone, masterminding the entire process of operation through the iDrive control system. The new interface is suited for fully integration of Apple iPhone, Sony Ericsson K850i and Nokia 6500c mobile phones.

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

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

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

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

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

World-first achievement: Integrated Owner's Manual.

The wide range of innovative functions offered by the new BMW 7 Series in terms of sophisticated electronics is rounded off by the Owner's Manual fully integrated in the car. In the same way as conventional computer programs, the Integrated Owner's Manual gives the driver information on all features and equipment of his car within seconds at the touch of a button via iDrive. - Instructions for use are presented clearly and easily-to-understand by animations backed up by sound information and even by slide shows. Short and clear texts as well as interactive graphics enable the user to quickly take up and process information received in this way.

Exquisite highlights from BMW Individual.

Choosing from the wide range of options offered by BMW Individual, the discerning driver of a BMW 7 Series is able to express his sense of select quality and exclusive style even more convincingly.

Among other highlights, the range includes new BMW Individual leather in Merino fine grain standing out not only through the unique quality of the material and exclusive colors, but also through distinctive seam patterns on the seats, the dashboard and the door linings. Matching the various leather colors, BMW Individual offers an even wider range of colors on the Alcantara roof lining, with fine trim bars in Satin Nut Brown, Reddish Brown plane tree and Black Piano paint ensuring particular class and style. A new highlight in the

wide range of BMW Individual exterior colors is Citrin Black in Xirallic technology.

Yet a further feature offered by BMW Individual is the newly developed, fully integrated cooling box able to accommodate two 0.7-liter bottles and two 0.33-liter cans.

New 20-inch BMW Individual light-alloy wheels in V-spoke design round off the car's exclusive appearance on a truly personalized BMW 7 Series. In a nutshell, therefore, the wide range of features offered by BMW Individual combines the safety and maturity of the regular production car with the unparalleled appeal, style and class of a genuine one-off masterpiece.

3.3. The Leader in Its Class Extends Its Lead: The new BMW 3 Series.

It is the epitome of sporting flair in its segment and for years it has maintained its leading position as the mostly widely sold premium car in the world. Now the BMW 3 Series is to extend its lead even further, specific design modifications, further refined interior design, the new generation of BMW iDrive (optional), new services offered by BMW ConnectedDrive, a revised range of engines and innovations in the areas of drive technology, safety and comfort making both the new BMW 3 Series Sedan and the new BMW 3 Series Touring more attractive than ever before.

Featuring rear-wheel drive, harmonious axle load distribution, supreme steering precision and the most demanding suspension technology, the BMW 3 Series sets the standard for driving dynamics in its segment.

Now, with the market launch of the new BMW 3 Series in the USA, BMW is also introducing the BMW Advanced Diesel with BluePerformance Technology, the first BMW diesel engine available in the US automobile market featured in the new BMW 335d Sedan.

This unique power unit is based on BMW's highly successful 3.0-liter straight-six with Variable Twin Turbo developed consistently for the particular requirements of BIN5 as the US 50-state model.

This 265-hp six-cylinder is the most sporting and dynamic diesel in the world, at the same time setting new standards in terms of efficiency and reduced emissions. Apart from a particulates filter, exhaust gas management in the BMW Advanced Diesel with BluePerformance also uses SCR (selective catalytic reduction) technology injecting urea to reduce NO_X emissions.

Introducing this powerful and fuel-efficient diesel, BMW offers customers in the North American automobile market yet another up-to-date highlight in BMW's global EfficientDynamics development strategy.

BMW xDrive is another innovation raising the drivetrain technology of the new BMW 3 Series to an even higher standard through electronically masterminded all-wheel-drive control. This intelligent all-wheel drive providing variable distribution of drive power to the front and rear wheels promotes both driving dynamics as well as driving stability and traction and is available

in the BMW 328i xDrive Sedan, the BMW 328i xDrive Touring, and the BMW 335i xDrive Sedan.

New highlights in design for a sporting and elegant look.

With striking design highlights at the front, from the side and at the rear, the dynamic character of the new BMW 3 Series Sedan has received additional emphasis, while the new BMW 3 Series Touring enhances its sporting, elegant profile with new visual features clearly recognizable from all perspectives.

Front end with bold shapes and the emphasis on width.

The front view of the Sedan and Touring models of the new BMW 3 Series is characterized by clear emphasis of the car's width. The characteristic look of the dual round headlights is underscored by chrome tubes, and their corona rings now also serve on the BMW 3 Series Sedan and Touring with optional bi-xenon headlamps as daytime driving lights. The light sources of the direction indicators boast a special ribbed structure and LED direction indicator lights are installed together with the optional bi-xenon headlamps.

Side view with elegantly elongated lines.

Powerful, taut surfaces and striking character lines dominate the side view of the new BMW 3 Series. The contour edges of the side skirts are set higher and are modeled even more distinctively than before. Another new feature is the exterior mirrors with two distinctive character lines, echoing the interplay between the convex and concave surfaces. The mirrors, finally, offer an enlarged field of vision.

The rear: sporting and firm with new lights design.

Greater emphasis of the car's power and sporting character likewise characterizes the rear view of the new BMW 3 Series. To achieve this effect, the rear bumpers, the rear lights and the luggage compartment handle have been completely redesigned. The dual-section rear light clusters are now structured in characteristic BMW L-design. The two LED rear light clusters and the direction indicators in LED technology are designed to create a striking, high-quality appearance.

The widened track of the new BMW 3 Series contributes particularly to the car's powerful appearance. Depending on the model, rear track has been widened by up to 0.94" or 24 millimeters by means of a new wheel mount and other modified details.

High-quality materials and optimized ergonomics in the interior.

The modern, high-quality interior of the BMW 3 Series has been further enhanced by specific modifications in the choice of materials and surface design. Here the modern design concept also comes out most clearly, with its convex-concave surfaces, sporting elegance and technology-oriented aesthetic style.

Debut of the new generation of BMW iDrive.

The BMW iDrive control system is optionally available in the new BMW 3 Series for the activation and control of entertainment, information, navigation, and telecommunications functions, whether standard or optional. The new generation of iDrive comes in conjunction with the optional navigation system Professional. As another important feature BMW's new iDrive enhances multi-mode operation by voice entry.

Introducing the new generation of iDrive, BMW is extending its lead over comparable systems from other manufacturers in terms of display quality and intuitive operation. Using the four direct selection buttons grouped around the Controller, the driver will find it particularly easy to switch spontaneously between CD, radio, telephone, and navigation functions. The function keys, finally, are supplemented by three control buttons.

Control Display with high-resolution graphics and variable layout.

New iDrive in the BMW 3 Series comes with an 8.8 inch Control Display with dimensions exceeding all graphic displays available to date in the automobile. With its high image resolution it offers significantly better display of detailed graphics. The structure of the user menu also makes it easier to locate desired functions. All functions controllable by iDrive are listed in the starter menu.

Hard drive for audio files and the navigation system.

The navigation system Professional comes complete with a hard drive integrated in the vehicle. This memory unit with a capacity of 80 GB provides outstandingly fast access to digital maps for navigation purposes and can also be used for an extensive collection of music files. The system enables the user to transfer music files to the hard drive from a CD, MP3 player, or USB stick.

World debut of unlimited internet acces within the car.

BMW ConnectedDrive makes BMW the first car manufacturer in the world to provide unlimited use of the internet inside the vehicle when stationary. Internet access is available in the new BMW 3 Series as special equipment at

an attractive flat rate. The transfer of data is based on EDGE technology (Enhanced Data Rates for GSM Evolution), which unlike UMTS offers full geographical coverage and is three to four times faster than the GPRS mobile phone standard.

The foundation for using the internet in the car is provided by the further enhanced functions of BMW iDrive. Pushing the Controller in different directions, the user may move the cursor on the website as shown in the Control Display.

BMW ConnectedDrive with an even wider range of features.

As a dynamic concept, BMW ConnectedDrive offers the BMW Assist, BMW Online, BMW TeleServices and BMW Tracking services, all depending on national legislation.

At the same time BMW ConnectedDrive is designed for the ongoing, further development of services to increase both mobility and convenience in obtaining and using information. The Enhanced Emergency Call with automatic positioning and remote control functions are examples of safety-related options already available today, extending the lead of BMW ConnectedDrive over the competition.

Debut of the BMW Advanced Diesel with BluePerformance - Technology: the new BMW 335d Sedan.

The outstanding success of BMW's diesel engines in the European automobile markets is attributable first and foremost to the engines' sporting performance and supreme economy. BMW's current diesel models superior also to hybrid cars from other manufacturers in their balance of performance and fuel consumption are among the leading pillars in BMW's global EfficientDynamics development strategy.

Now BMW also offers customers in the USA and Canada the option to discover and enjoy the benefits of diesel technology, the BMW Advanced Diesel with BluePerformance Technology injecting urea into the exhaust system developed specifically for the North American automobile market combining Sheer Driving Pleasure with the latest standard of fuel economy and emission management.

The 3.0-liter six-cylinder with common-rail direct injection using piezo-injectors and Variable Twin Turbo Technology unique the world over and featured in the new BMW 335d Sedan is the most sporting and dynamic diesel in the world. Featuring an oxidation catalyst, a diesel particulates filter and an SCR

system reducing nitric oxides by the injection of urea, this cutting-edge power unit meets all the requirements for nationwide introduction in the US market.

Superior torque and traction, running smoothness and economy are the characteristic features of this outstanding straight-six already winning the International Engine of the Year Award several times and now setting the foundation for the BMW Advanced Diesel. With its Variable Twin Turbo - Technology, the engine ensures particularly dynamic power and performance starting at low revs.

To achieve this superior effect, a small turbocharger initially cuts in at low engine speeds. Through its low inertia, this small turbocharger develops its power boost spontaneously and without the slightest delay in response to even the smallest movement of the gas pedal. Then, with engine speed increasing, the second, larger turbocharger cuts in to provide additional boost. This ensures maximum torque of 425 lb-ft from 1,750 rpm, interaction of the two turbochargers being masterminded by the particularly efficient, high-performance engine electronics.

Further features of the first BMW Advanced Diesel are an aluminum crankcase and third-generation common-rail direct fuel injection, with fuel delivered straight into the combustion chambers by means of piezo-injectors. This ensures particularly precise fuel injection with pre-injection reduced to a minimum, keeping the combustion process exceptionally clean with optimized fuel economy and emission management as well as a further improvement of running smoothness.

Unique combination: high performance, high efficiency, low emissions.

The 3.0-liter diesel develops maximum output of 265 hp at 4,220 rpm, accelerating the BMW 335d to 60 mph in just 6.0 seconds.

The first BMW 3 Series Sedan with Advanced Diesel nevertheless stands out not only through its sporting performance, but also through supreme all-round economy: Offering fuel consumption of 23/36 mpg (City/Highway/anticipated EPA figures), the BMW 335d Sedan achieves a level of efficiency quite unique in its class.

To optimize exhaust emissions the new BMW 335d Sedan comes as standard with an oxidation catalyst placed near the engine, a diesel particulates filter in the same housing, and an SCR catalyst with injection of urea. Apart from separating even ultra-small particles from the flow of exhaust gas, this combi-

nation of superior technologies also serves to significantly reduce the emission of nitric oxides (NO_X) through a chemical reaction within the exhaust system initiated by a small dose of urea referred to as AdBlue injected into the exhaust gas.

To use AdBlue in the car BMW has developed a two-tank system for convenient and customer-friendly use of this new technology. The amount of AdBlue required in each case is extracted from the approximately six-liter (1.6 US gal) active tank by means of a dosage pump. The active tank is connected to a second fuel reservoir referred to as the passive tank and offering a capacity of approximately 4.5 US gals or 17 liters.

The average range covered by this technology is sufficient to ensure that the tanks may be replenished together with the regular change of engine oil. Benefiting from this convenient process and the large amount of AdBlue stored in the system, the customer is not required to change his usual use of the car. In other words, he benefits from all of the advantages of this environmentally-friendly exhaust gas technology in a virtually "invisible" process and without going to the workshop for any additional visits during the entire service life of the vehicle.

BMW 335i: straight-six power unit with Twin Turbo Technology and High Precision Injection.

The two gasoline versions of the new BMW 3 Series likewise offer all the refinement, running smoothness and efficiency of a BMW straight-six. The most sporting and dynamic model is the BMW 335i Sedan powered by BMW's unique straight-six with Twin Turbo Technology, an aluminum crankcase and High Precision Injection.

Displacing 2,979 cc, this unique engine develops maximum output of 300 hp at a speed of 5,800 rpm and peak torque of 300 lb-ft at just 1,400 rpm.

The driving experience offered by the new BMW 335i is a combination of incomparable spontaneity and inexhaustible power reserves. Acceleration to 60 mph comes in just 5.4 seconds (automatic transmission model: 5.6 seconds).

High Precision Injection plays a key role in this concept for the efficient use of fuel. The second generation of direct gasoline injection uses injectors positioned in the cylinder head directly next to the spark plugs and delivering fuel at a pressure of 200 bar into the combustion chambers.

This process ensures extremely precise dosage in the supply of fuel, the very high standard of fuel efficiency relative to the power and performance of the engine in the BMW 335i Sedan borne out by fuel consumption of 17/26 mpg (City/Highway).

BMW 328i: six-cylinder normal-aspiration power unit with VALVETRONIC technology.

Another straight-six gasoline engine comes in both the BMW 328i Sedan and the BMW 328i Touring. Displacing 2,996 cc, this normal-aspiration engine develops maximum output of 230 hp at 6,500 rpm and peak torque of 200 lb-ft at 2,750 rpm.

Weighing only 161 kg or 355 lb, this superior six-cylinder power unit makes an important contribution to the harmonious axle load distribution of the car and enhances the agile driving behavior of both the BMW 328i Sedan and the BMW 328i Touring.

This unusually low weight results in particular from the engine's crankcase made up of a magnesium outer shell and an aluminum insert. A further point is that both the cylinder head cover and the bedplate are made of extra-light aluminum. And last but certainly not least, lightweight camshafts specially developed for this straight-six again help to reduce the weight of the engine. Fully variable VALVETRONIC valve control and on-demand operation of the electrical coolant pump are further technologies serving to enhance the engine's degree of efficiency.

Like its sister models, the BMW 328i offers an unusually good balance of performance and fuel economy. The Sedan accelerates to 60 mph in 6.3 seconds (automatic transmission model: 6.9 seconds) and offers superior fuel economy of 18/28 mpg (City/Highway).

All models in the new BMW 3 Series come as standard with a six-speed manual gearbox. Available as an option, six-speed automatic transmission combines supreme gearshift comfort with sporting driving characteristics offering extra-short reaction and gearshift times, precise selection of gears and a direct connection to the engine. And as an option, the driver is also able to select gears in the manual mode via shift paddles on the steering wheel.

Optimized BMW xDrive all-wheel-drive system in the new BMW 3 Series.

To ensure a particularly superior driving experience, the six-cylinder gasoline models may be further enhanced by intelligent BMW xDrive all-wheel-drive

technology. Indeed, the BMW 335i xDrive Sedan, the BMW 328i xDrive Sedan and the BMW 328i xDrive Touring all stand out through superior driving dynamics and unusually safe and secure traction.

Electronically masterminded, BMW xDrive permanent all-wheel drive distributes drive power appropriately at all times between the front and rear axles on all kinds of surfaces, offering an incomparable standard of motoring comfort, traction and agility. In the interest of particularly precise control, the DSC Dynamic Stability Control and the xDrive control units are connected to one another through Integrated Chassis Management (ICM).

Benefiting from these qualities, xDrive enhances the car's driving dynamics by recognizing even the slightest tendency to over- or understeer well in advance, then taking appropriate counter-action.

Direct interaction of DSC and xDrive via ICM also allows precise dosage of the brakes and a smooth balance of torque on the new BMW 3 Series, effectively counter-acting even the slightest tendency to understeer right from the start on slippery surfaces and in particularly dynamic bends. As soon as the front wheels start to push out excessively, the inner rear wheel is slowed down appropriately by DSC control, any loss of traction caused in the process being set off by an increase in drive power. As a result, the driver is able to take even fast and tight bends more smoothly and precisely also on a slippery surface.

Superior suspension technology, Active Steering as an option for the BMW 335i Sedan.

The new BMW 3 Series comes with the most demanding suspension technology in its segment. The rear axle is a five-arm configuration specifically tailored to the requirements of a very powerful, high-torque engine. The front axle of the BMW 3 Series, in turn, is also unique in its set-up and configuration, the double-joint spring strut tiebar axle complete with an anti-rollbar being made largely of aluminum.

Another feature offered as standard is electromechanical steering with an integrated Servotronic function for speed-related steering assistance. And as an option the BMW 335i Sedan is also available with Active Steering where the steering transmission is adapted to the current speed of the car.

Optimized occupant protection with crash-activated headrests.

The safety concept of the new BMW 3 Series is based on a solid body structure, selective use of high-strength steel, and special deformation elements serving to divert and absorb impact energy. Further features are six

airbags, three-point inertia-reel seat belts and headrests on all seats to offer the car's occupants optimum protection.

ISOFIX child seat mounts on the rear seats also come as standard.

The front seats of the new BMW 3 Series are fitted as standard with crash-activated headrests significantly reducing the risk of injury to the cervical spine in the event of an impact. Controlled by the vehicle's safety electronics system, this feature ensures that in the event of a rear-end collision the front section of the headrest moves forward by up to 2.4" or 60 millimeters and upward by almost 1.6" or 40 millimeters. This reduces the distance between headrest and the occupant's head, thus increasing the stabilizing and securing function of the headrest.

An important contribution to active safety comes from the new generation of Adaptive Headlights optionally available in conjunction with the bi-xenon headlamps. This ensures clear illumination of the road ahead when taking corners and on winding roads.

The swivel direction of the headlamps is determined in this case as a function of the steering angle, the yaw rate and the road speed of the vehicle. At low speeds the Bending Light function is also activated, a function performed by one of the two inner headlamps, depending on the direction the car is taking. Before each bending maneuver, the light cone is turned specifically in the appropriate direction to illuminate the road ahead.

Best heating and climate comfort in the segment.

The new BMW 3 Series has a wide range of optimized features to offer also in the interest of motoring comfort. Further enhanced heating and air conditioning technology ensures that the interior maintains the desired temperature throughout the year.

Indeed, the new BMW 3 Series offers the highest level of heating and cooling performance in its segment. Within one minute the entire volume of air within the car can be exchanged completely no less than three times. And despite the outstandingly high rate of air flow, excellent acoustics is ensured by a flow optimization function in the air supply unit and its feed lines with an air outlet positioned right in the middle of the instrument panel.

Two-zone air conditioning is optionally available with individual temperature control for the driver and front passenger.

3.4. Trendsetters and Spearheads in Innovation: The BMW X Models.

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

Ten years ago BMW presented the BMW X5 at the 1999 North American Auto Show in Detroit, establishing the Sports Activity Vehicle (SAV) segment in the process. Right from the start, the BMW X5 offered an innovative vehicle concept far beyond conventional categories and combining various qualities in unique style.

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

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

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

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

The BMW X6 presented to the public for the first time at the 2007 NAIAS and built, like the BMW X5, in BMW’s US plant in Spartanburg, is the world’s first Sports Activity Coupe.

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

The BMW X5:
incomparable handling, unmistakable design, unparalleled safety.

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

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

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

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

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

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

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

Integration of the security components was taken into account from the start in the development of the BMW X5, the BMW X5 Security offering a unique combination of the most advanced safety technology with superior drivetrain technology and the versatility of a sporting all-wheel-drive premium vehicle.

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

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

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

The "heart" of BMW xDrive is the electronically controlled multiple-plate clutch, a further point being that all-wheel-drive is networked with DSC Dynamic Stability Control. As a result, variable power distribution serves whenever

necessary to keep the vehicle stable also when the DSC sensors register even the slightest tendency to over- or understeer.

The BMW X6: powerful presence and sporting elegance.

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

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

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

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

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

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

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

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

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

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

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

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

As an example, no other manufacturer offers a vehicle anything like the 130 kW/177 hp BMW X3 xDrive20d, with its average fuel consumption in the EU test cycle of 36.1 mpg US (6.5 liters/100 kilometers) and a CO_2 rating of 172 grams per kilometer.

Wherever performance, driving pleasure and space available as well as all-round comfort are measured as a function of fuel consumption and emissions, the BMW X5 also ranks unique in the market: The first BMW able to accommodate up to seven occupants is also available with exceptionally fuel-efficient, low-emission diesel engines. As an example, the 173 kW/235 hp BMW X5 xDrive30d consumes just 8.1 liters/100 kilometers in the EU test cycle, equal to 29.0 mpg US. The vehicle's CO_2 rating, in turn, is 214 grams/kilometer.

All-round efficiency is particularly impressive when considering the number of seats available in the vehicle: Even in the small car segment, per capita

consumption of less than 1.2 liters/100 kilometers and CO_2 emissions of just 31 grams per kilometer are truly outstanding figures paralleled only rarely.

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

Pointing into the future: the BMW Concept X3 EfficientDynamics.

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

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

BMW Concept X6 ActiveHybrid: BMW's first hybrid.

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

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

BMW ActiveHybrid technology offers far greater driving dynamics than in a conventional hybrid vehicle and at the same time reduces fuel - consumption by up to 20 per cent versus a comparable vehicle driven exclusively by a combustion engine. The particular strength of the

BMW Concept X6 ActiveHybrid is that the combustion engine and two high-performance electric motors are combined with one another for the first time in such a way that hybrid technology is able to provide its greater efficiency throughout a far larger speed range than a conventional hybrid vehicle would ever be able to do.

Best of Hybrid – optimum drive technology on every BMW.

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

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

Once again, an SAV provided the basis for this particularly innovative drive concept. In this case the intelligent combination of a combustion engine and an electric motor in the BMW X5, together with further efficiency-enhancing improvements, provided the foundation for power and performance typical of BMW on average fuel consumption of just 36.1 mpg US or 6.5 liters/100 kilometers.

3.5. Top Performance in Every Discipline: The BMW M Models in the 2009 Model Year.

The very special high-performance sports cars from BMW M GmbH are to be admired in their ideal line-up and of course in top form at the 2009 NAIAS in Detroit. Appropriate body modifications on the BMW M3 Sedan, the introduction of the new generation of iDrive on all versions of the BMW M3, the BMW M5 and the BMW M6, as well as a Competition Package for the BMW M6 Coupe allow the respective models to further increase their leadership in terms of design, control comfort, and the overall driving experience.

With a range of currently 9 models, BMW M GmbH now has the most diverse and attractive product portfolio in its thirty-year history as a manufacturer of particularly sporting and dynamic production cars.

More than 300,000 BMW M cars have been delivered to customers since 1978. The most successful model was – and still is – the BMW M3 currently available in three body variants.

Following the M3 Coupe, the BMW M3 Sedan and the BMW M3 Convertible were also introduced very successfully in the course of this year. Indeed, in its very first year of production the new BMW M3 has almost doubled its sales over the former model in the same period, making a significant contribution to BMW M GmbH and marking the year 2008 as one of the most successful chapters in the history of BMW M cars.

All versions of the BMW M3 are powered by a fast-revving V8 developed specifically for this model. Displacing 4.0 liters, this unique engine delivers maximum output of 309 kW/420 hp at 8,300 rpm, together with incomparable torque and traction.

As an alternative to the six-speed manual gearbox featured as standard, all variants of the BMW M3 are available as an option with the M double-clutch gearbox complete with Drivelogic. This unique transmission features no less than seven gears, shifts gears without the slightest interruption of power, and thus gives the car even more dynamic acceleration.

M DKG Drivelogic as this double-clutch gearbox is called also has a positive impact on the efficiency of the BMW M3, at the same time offering gearshift

comfort comparable to the excellent standard already set by a “regular” automatic transmission from BMW.

BMW M3 Sedan: new rear light design.

Like the “regular” Sedan in the BMW 3 Series, the four-door M3 in the 2009 model year comes with two-piece rear light clusters boasting L-shaped contours typical of the BMW brand. The rear light units and the direction indicators both featuring LED technology are striking and highly sophisticated in their looks.

The new look of the rear end is rounded off by modifications on the bumper and the rear lid. The refinements in the interior include features such as the newly designed fresh air grille in the middle of the cockpit, a new storage box beneath the center console armrest, and appliqués in Pearl Gloss Chrome on the Lights Center.

The start/stop button likewise finished in Pearl Gloss Chrome and now boasting new design, as well as the rotary knob for the air conditioning also in new design, are to be admired not only in the BMW M3 Sedan, but also in the Coupe and Convertible.

As of autumn 2008, all variants of the BMW M3 come with crash-activated headrests on the front seats reducing the risk of cervical spine injury in the event of an impact from behind.

The range of paintwork colors available for the BMW M3 is being extended in autumn 2008, with the BMW M3 Sedan now also available in Space Grey Metallic. A new color available on all three body variants is metallic paintwork in Le Mans Blue.

Competition Package for the BMW M6 Coupe.

As the top athlete striking out for new records, the BMW M6 Coupe stands out particularly in the 2009 model year. Featuring the new Competition Package, this two-door performer is able to further enhance its profile designed and conceived consistently for performance of the highest standard.

The Competition Package comes with a newly set-up suspension lowering the entire car by 12 millimeters/0.47" at the front and 10 millmeters/0.39" at the rear, modified suspension control systems and forged aluminum wheels in double-spoke design. These modifications come to bear particularly in the car’s driving behavior, with the Competition Package offering striking distinctions also in terms of its looks. The newly contoured engine

compartment lid with two striking precision lines, for example, bears clear testimony to the even higher standard of driving dynamics and sporting qualities.

Available so far mainly in Europe, the Competition Package will also be introduced as an option in Canada from spring 2009.

BMW M5 and BMW M6: new exterior mirrors with an even larger area of vision, greater efficiency.

Both the BMW M5 Sedan and the BMW M5 Touring as well as the BMW M6 Coupe and the BMW M6 Convertible in the 2009 model year come with new features and optimized safety and efficiency, raising their product substance to an even higher level.

All of these high-performance sports cars powered by a 373 kW/507 hp V10 come as standard with BMW Brake Energy Regeneration and a detachable a/c compressor – two features specially developed in the context of BMW EfficientDynamics. At the same time the new smooth-glide bearing on the final drive, through its reduction of friction and enhanced efficiency, provides an even higher standard of environmentally-friendly motoring.

New exterior mirrors with an even larger area of vision add further safety on all four models. And last but not least, Carbon Black Metallic stands out as a new color in the range.

Greater supremacy through intuitive control: the new generation of iDrive enhances the driving experience.

Starting in autumn 2008, the new generation of BMW iDrive serves to simplify the activation and control of the most important entertainment, communication, navigation and other control functions also in the BMW M models.

BMW's new iDrive is featured as standard in the BMW M5 Sedan and the BMW M5 Touring as well as the BMW M6 Coupe and the BMW M6 Convertible, and comes in the BMW M3 in conjunction with the optional navigation system.

This new generation of BMW iDrive features a newly designed Controller including direct selection buttons on the centre console and – in conjunction with the optional Professional navigation system – an 8.8-inch Control Display with four times the former resolution (1,280 x 480 pixels) to present high-resolution graphics, as well as a new menu structure.

Flat menu trees and a control philosophy carried over from the computer with layered menu slots ensure easier orientation in using the system. Visual control aids including a picture of the Controller shown in the Display, ensure additional clarity.

To spell the names of places and streets and to enter telephone numbers, the driver or front passenger simply have to use the circular Speller for optimum convenience.

The range of functions masterminded by the proven favorite buttons beneath the radio controls has been further optimized, enabling the user to save not just radio stations, telephone numbers and navigation destinations, but also other menu items available through iDrive then retrieved at the touch of a button.

On the BMW M3 the new Controller and the surrounding direct selection buttons are housed within a likewise new trim panel on the centre console. The central control element enables the user to mastermind the individual functions through standardized rotary, tipping and pushing movements, with the additional buttons being easy to feel through their individual touch without even looking, thus providing direct access to the most important menu options.

All this makes BMW's new iDrive even easier to control in an intuitive process without taking a lot of time to "learn" the system. Ultimately, therefore, the driver benefits from greater supremacy and is able to concentrate even more on the traffic around him.

The perfect travel companion: navigation system Professional with full-screen presentation, preview maps, 3D symbols and guided tours.

The new Professional navigation system for the BMW M3, the BMW M5 and the BMW M6 allows full-screen presentation of maps, with travel maps, details of the surrounding area and symbols for local sights being presented as three-dimensional graphics. When choosing a destination based on a list of places/towns in the navigation system, the user receives a choice of destinations in the display as well as a map preview for each destination during the selection process. The Travel Planner with its Guided Tours function serves to combine various destinations, putting together an individual travel route.

With access times even shorter than before, the user is able to save navigation data on a 80 GB hard disc installed in the vehicle. He is also able to use the data media as music archives.

New from BMW ConnectedDrive: unrestricted use of the internet in the car and extended remote functions.

Now enhanced to an even higher standard, BMW iDrive also provides the foundation for using the internet in the car. BMW is indeed the first car maker worldwide to offer optional use of the internet whenever required. In this process the Controller in its function resembles a conventional computer mouse.

The Control Display is able to present websites in high resolution.

Internet access is available as special equipment on the BMW M3, the BMW M5 and the BMW M6 at an attractive flat rate. For safety reasons the presentation of websites on the Display – like the TV function also available in BMW's M models – is only possible when the car is at a standstill.

Apart from access to the internet, new remote functions enhance the diversity of telematics and online services offered by BMW ConnectedDrive to an even higher level. As of autumn 2008, the BMW M models are available for the first time with extended remote functions as part of the BMW Assist service. So should, say, the driver leave his key to the car in the locked luggage compartment or if he is not sure whether he has locked the car in a hurry on the way to his final destination, all he has to do in future is call the BMW Call Center. Then, once the driver has clearly identified himself, the Call Center is able to lock or unlock the car, as required.

Integrated use of Smartphones with a USB port for the Apple iPhone and other Smartphones.

Starting in the 2009 model year, a new snap-in adapter is available for the full integration of the latest Smartphones in the car together with a matching USB port as special equipment on the BMW M3, the BMW M5, and the BMW M6. And with the Extended Music Player Connection available as an option in the mobile phone, the driver is able to use both the communication and entertainment functions of his mobile phone and mastermind these functions through the iDrive control system.

3.6. BMW Advanced Diesel with BluePerformance: BMW X5 xDrive35d and BMW 335d Sedan for the USA and Canada.

Offering truly outstanding comfort, supreme torque, unparalleled fuel efficiency and emissions reduced to a minimum, BMW's diesel engines are now also conquering the North American automobile market.

With the launch of the BMW Advanced Diesel featuring BluePerformance in the USA and Canada, BMW is taking a decisive step in the worldwide introduction of this drive technology. Providing impressive power and outstanding economy, BMW's diesel engines have already gained consistently growing market shares in the most significant European automobile markets in recent years. Now, at the 2009 North American International Auto Show (NAIAS) in Detroit, the BMW 335d Sedan and the BMW X5 xDrive35d offer customers in North America the opportunity as of the end of 2008 to experience this exceptional combination of power and efficiency.

The BMW Advanced Diesel with BluePerformance brings out all the proven qualities of this drive technology and in the process gives full consideration to the particular legal requirements and standards in the North American automobile market.

Introduction of the BMW 335d Sedan and the BMW X5 xDrive35d in all 50 states of the USA and in Canada is yet a further highlight in the BMW - EfficientDynamics development strategy seeking to offer customers in all markets the world over maximum driving pleasure together with minimum fuel consumption and emissions within existing legal standards.

The BMW Advanced Diesel with BluePerformance is a 3.0-liter straight-six with Variable Twin Turbo Technology and SCR Selective Catalytic Reduction complete with the injection of urea during the emission process. This cutting-edge power unit sets the standard for sporting performance and serves as a role model in reducing both fuel consumption and emissions. Use of SCR technology to reduce nitric oxides (NO_X) allows full observance of the particularly demanding emission limits in California and other states of the USA, with nationwide introduction of the BMW Advanced Diesel as a 50-state model (BIN5).

Reflecting the signs of the times: BMW diesel competence for the USA and Canada.

In the USA and Canada customers will also benefit in future from the competence and experience gained by BMW as a premium car maker in the development and production of diesel engines.

The history of BMW diesel engines in production vehicles started in 1983, the BMW 524td presented at the time being the fastest diesel in the world upon its introduction.

Ongoing development of diesel technology to the present day shows a consistent increase in engine power and performance as well as a steady reduction of fuel consumption and emissions, thus reflecting BMW's philosophy of efficient dynamics.

A further point is that particularly BMW's diesel engines with their high standard of motoring culture have served over the years to eliminate any reservations regarding the acoustic properties of such power units.

On account of these numerous benefits and the many attractive features offered by BMW's diesel engines, these power units have gained increasing market shares not only in Europe, but also in many other parts of the world. In Europe no less than 71 percent of all new BMWs are now powered by a diesel engine.

With a modern diesel offering impressive qualities right from the start, BMW's diesel engines enhance these qualities and benefits to an even higher standard. The first point is that the diesel offers a degree of traction and pulling force a gasoline engine can only provide on much larger engine capacity. The next point is that fuel consumption by a diesel engine is 25 percent lower on average than with a comparable gasoline engine offering the same power and performance.

Superior performance of this caliber and the efficient use of fuel are also becoming increasingly significant to motorists in the USA and Canada. BMW's cutting-edge diesel technology combines both of these features in incomparable style and therefore offers the right answer to changing demands also in the North American automobile market.

BMW is furthermore promoting the general acceptance of the diesel engine in the USA and Canada through the introduction of a particularly spectacular power unit with diesel technology: BMW diesel technology is making

its North American debut in the 3.0-liter straight-six featuring Variable Twin Turbo Technology – a power unit which already sets the unchallenged standard for sportiness, motoring refinement and efficiency in the diesel segment.

New generation of diesel engines: maximum dynamics, minimum emissions.

Maximum power, supreme efficiency: The first BMW Advanced Diesel with BluePerformance including SCR technology with the injection of urea is ideally suited to combine the outstanding driving dynamics and refinement of a premium automobile with the latest standards in preserving resources and reducing emissions.

This straight-six diesel stands out in particular through its spontaneous performance and superior torque. Maximum output is 265 hp at an engine speed of 4, 220 rpm, peak torque is 425 lb-ft at just 1,750 rpm. At the same time this 3.0-liter is one of the most economical power units in its class.

The outstanding qualities of this outstanding engine become even clearer when comparing engine output and maximum torque with the engine's fuel economy and emission management.

The models presented by BMW at the 2009 NAIAS in Detroit confirm these qualities through their truly impressive performance and economy data. The BMW 335d Sedan accelerates to 60 mph in 6.0 seconds and offers superior fuel economy achieving at least 23/36 mpg (City/Highway/anticipated EPA figures).

The BMW X5 xDrive35d likewise benefits from the BMW Advanced Diesel with BluePerformance in developing its exceptional character and qualities, thus standing out as a high-torque Sports Activity Vehicle with supreme long-distance driving qualities. Acceleration to 62 mph comes in a mere 7.2 seconds, fuel economy is at least 19/25 mpg (City/Highway/anticipated EPA figures).

No other engine offers such dynamic acceleration on so little fuel. And nowhere else does the driver benefit from so much driving pleasure with such low emissions.

Ultra-modern emission management: SCR catalyst with AdBlue injection.

Emission management is optimized on the BMW Advanced Diesel with BluePerformance by an oxidation catalyst positioned close to the engine, a diesel particulates filter fitted in the same housing, and an SCR catalyst with urea injection. Apart from separating even the smallest particles from the flow of emissions, this combination serves to effectively reduce the emission of nitric oxides (NO_X).

This particular effect is ensured within the exhaust system by a chemical reaction initiated by the injection of a small 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 steam (H_2O).

To use AdBlue in the vehicle, BMW has developed a two-tank system ensuring the convenient and customer-friendly application of this new technology. A dosage pump extracts the amount of AdBlue required from the active tank with its capacity of approximately 1.6 US gals or 6 liters. And since the urea solution will freeze at a temperature of –11 °C, the tank itself and the dosage pipes may be heated whenever required.

AdBlue technology from BMW: Optimized emissions without additional maintenance.

The active tank is connected to a second reservoir, the passive tank. With its additional capacity of approximately 4.5 US gals or 17 liters, this second tank provides a substantial supply of the fluids required for AdBlue technology.

Indeed, the average range provided in this way is sufficient for the full interval between changing engine oil, meaning that the tank system only has to be replenished during regular engine oil service.

Thanks to this large tank capacity, the customer is not confronted with any other, additional requirements in the maintenance of his car. Without noticing even the slightest change and without any additional visits to the workshop during the car's complete service life, the customer benefits from all the advantages of this environmentally emission technology.

AdBlue is fed from the active tank to the dosage valve and then atomized in the exhaust emissions. It is spread out equally in the flow of emissions further downstream by the SCR mixer. The ammonia generated in the hot exhaust emissions subsequently serves in the SCR catalyst as a reduction

agent, converting environmentally harmful nitric oxides into nitrogen and steam.

This process is referred to as the selective catalytic reaction, giving the SCR catalyst its name.

The complete SCR system is masterminded by the engine's high-performance management and control system, a nitric oxide sensor providing information on the concentration of NO_X in the exhaust emissions.

Depending on the space available, the AdBlue tank may be fitted at various points within the car. In the BMW 335d, for example, both the active and the passive tank are fitted at the rear. In the BMW X5 xDrive35d the active tank is housed at the front right in the engine compartment, the passive tank on the underfloor next to the transmission.

BMW competence in diesel technology: outstanding success ever since 1983.

The performance and economy offered by BMW AdvancedDiesel with BluePerformance once again prove the exceptional potential of this engine concept. Indeed, BMW has worked more consistently than any other car manufacturer worldwide in recent years on the consistent development of the diesel engine as part of the BMW EfficientDynamics philosophy, enhancing diesel technology to an unprecedented standard never seen before.

The story of success of BMW diesel engines is borne out by numerous milestones in the development of this drive technology extending all the way back to 1983 when BMW launched the first straight-six diesel in the history of the company delivering maximum output of 85 kW/115 hp and peak torque of 155 lb-ft or 210 Newton-meters.

The BMW 524td powered by this engine was acknowledged at its time as the fastest diesel in the world. In the years to come BMW's engine development specialists then upgraded a wide range of innovations to production standard, serving to maximize performance and reduce both fuel consumption and emissions at the same time.

Comparing the first six-cylinder BMW diesel from 1983 with the most powerful diesel engine built by BMW today, the progress achieved is clearly expressed by the most significant data and specifications: Engine output from the six cylinders is up by 135, peak torque by 170 percent. Despite this huge increase in power, however, average fuel consumption of the 3.0-liter with its Variable

Twin Turbo is 20 percent lower than the fuel consumption of the 1983 model. And in the same period exhaust emissions have been reduced even more significantly through the introduction of various technologies.

For all practical purposes, a BMW diesel in the 2008 model year emits only 1 percent of the particulates originally contained in the emissions of the first diesel engine.

Despite these truly impressive figures, progress in developing diesel engines from BMW is continuing – and now the BMW Advanced Diesel with BluePerformance offers the next stage of development, fulfilling the particularly great demands of the US and Canadian markets in terms of performance, motoring refinement, efficiency and emission limits.

There is therefore a good reason why the straight-six power unit with its Variable Twin Turbo plays a key role in the introduction of the BMW diesel in North America. For this outstanding engine is acknowledged as a perfect example of power, torque, smoothness, refinement and economy all in one. And it is also why the 3.0-liter diesel with its Variable Twin Turbo has received the International Engine of the Year Award not just once, but on several occasions.

This engine is featured in a large number of models in Europe and is now continuing its global success as the BMW AdvancedDiesel with - BluePerformance.

3.7. Lower Emissions, Greater Driving Pleasure – Now and in the Future: The BMW EfficientDynamics Global Development Strategy.

Consistently implementing the BMW EfficientDynamics development strategy, the BMW Group is highlighting its worldwide leadership also in the 2009 model year in reducing both fuel consumption and emissions in the area of individual mobility.

More effectively than all comparable concepts from other car makers, BMW EfficientDynamics serves to reduce both fuel consumption and emissions in road traffic on a lasting, sustainable basis. This applies both to the progress in efficiency ensured by each new model and the overall balance of fuel economy and emissions by BMW Group vehicles.

Entering the 2009 model year, BMW is emphasizing the global orientation of the BMW EfficientDynamics development strategy through a wide range of innovations in drive technology presented at the 2009 NAIAS in Detroit.

All models to be admired at the 2009 NAIAS offer an unparalleled balance of performance, on the one hand, and fuel efficiency, on the other. This is achieved by the most advanced engine technology and the use of additional BMW EfficientDynamics technology tailored to each individual model.

The new BMW Z4 being presented to the world public for the first time in Detroit is powered by straight-six engines featuring BMW's unique VALVETRONIC technology proven the world over or – on the top-of-the-range BMW Z4 sDrive35i – boasting High Precision Injection.

High Precision Injection is also featured on the new BMW 7 Series, injecting gasoline directly into the combustion chamber for maximum efficiency at all times.

Introducing the BMW 335d Sedan and the BMW X5 xDrive35d, BMW is launching the BMW Advanced Diesel with BluePerformance developed specifically for the USA and Canada. And last but certainly not least, BMW ActiveHybrid Technology featured at the 2009 NAIAS in the BMW Concept X6 ActiveHybrid is now set and ready for regular production.

Lower CO_2, emissions, greater dynamics – standard in every new BMW.

By summer 2008 the BMW Group sold more than one million vehicles equipped with the latest BMW EfficientDynamics technology in the EU alone – an outstanding success with a unique impact in reducing both fuel consumption and CO_2 in road traffic. This technology offering even more driving pleasure on reduced fuel consumption and emissions is part of every new BMW and naturally comes as standard on all models.

Featuring fully variable VALVETRONIC valve control, BMW's current models already boast a proven technology giving BMW's gasoline engines optimized power and performance together with excellent efficiency. On BMW's particularly powerful gasoline engines and in combination with Twin Turbo Technology, High Precision Injection offers an even higher standard of performance and efficiency.

Both the new BMW 7 Series and the BMW X6 feature eight-cylinder power units with direct gasoline injection. BMW's straight-six power unit with High Precision Injection, in turn, ensures particularly efficient sporting performance inter alia in the BMW X6, the BMW 3 Series, the BMW 1 Series and now also in the new BMW Z4.

Fascinating power, exemplary fuel economy and emission - management: BMW Advanced Diesel with BluePerformance in the USA and Canada.

Since BMW expects the market share of diesel vehicles to increase in future also in the USA and Canada, the BMW Advanced Diesel with BMW - BluePerformance specially developed for the North American automobile market offers the appropriate qualities for all practical purposes.

Displacing 3.0 liters and delivering maximum output of 265 hp, this straight-six power unit with Variable Twin Turbo Technology featured in the BMW X5 xDrive35d and the BMW 335d Sedan comes with SCR technology serving to reduce nitric oxides (NO_X). This allows full observance of the particularly demanding emission standards in California and other states of the USA and, accordingly, nationwide introduction of the BMW Advanced Diesel with BMW BluePerformance as a so-called 50-state model.

Environmental Defense Report confirms outstanding progress of the BMW Group in reducing both fuel consumption and CO_2.

Through this wide range of particularly economical models throughout all model series, the BMW Group makes a particularly effective contribution to the reduction of CO_2 emissions.

This is also confirmed by the latest edition of the Environmental Defense Report in the USA, this non-partisan study of the fuel consumption of new cars sold in the USA between 1990 and 2005 coming to the conclusion that the BMW Group has reduced both fuel consumption and CO_2 emissions significantly more than all other car makers.

To be specific, Germany's premium car manufacturer has reduced the CO_2 emissions of its fleet in the period involved by 12.3 percent, at the same time increasing US sales four-fold. The second car maker in this ranking, by comparison, shows a reduction of CO_2 by only 3 percent.

In Europe the enhanced efficiency of BMW models introduced in the year 2008 alone has helped to save close to 40 million gallons (approximately 150 million liters) of fuel and reduce CO_2 emissions by approximately 373,000 tonnes in comparison with the year 2006. Converting this saving alone into electricity, the fuel saved through BMW EfficientDynamics would be sufficient to supply some 780,000 people with electrical energy for a whole year.

BMW 118d acknowledged as the World Green Car of the Year, BMW Group lauded as the Most Sustainable Car Maker in the World.

Benefiting from this success, BMW EfficientDynamics has become a symbol of up-to-date, future-oriented automobile development. The great efficiency of this technology acknowledged by all parties involved has been lauded by a number of awards for BMW EfficientDynamics and the BMW cars featuring this technology. One example is the International Green Car of the Year 2008 awarded to the BMW 118d.

The German car journal "auto, motor und sport", in turn, has awarded BMW EfficientDynamics the 2008 Paul Pietsch Prize for particularly innovative development in the automotive sector. The British motoring journal "CAR", to mention another example, has acknowledged BMW EfficientDynamics with their Green Award for the clear and highly effective technologies introduced by BMW over a whole range of model series.

The experts of yet another British motoring magazine “What Car?” arrive at a similar opinion, lauding no less than six BMW Group models with technologies serving to reduce fuel consumption and emissions as the “best choice” in their respective segment in their search for “Green Heroes” in the automotive market.

With BMW EfficientDynamics serving as the decisive factor in development, efficient production and high social standards for employees at all BMW Group locations, the BMW Group has also strengthened its outstanding position in the current Dow Jones Sustainability Index. This ranking jointly compiled by the Dow Jones Index, Stoxx Limited, and SAM Asset Management in Zurich is acknowledged as the world’s most significant yardstick for entrepreneurial responsibility. No surprise, therefore, that the BMW Group was recently lauded as the “world’s most sustainable car maker” in the Dow Jones Sustainability Index for the fourth time in a row.

Best of Hybrid: tailor-made solutions for efficiency and driving pleasure.

The BMW Group is also presenting the medium-term continuation of the BMW EfficientDynamics development strategy at the 2009 NAIAS: Using hybrid technology, BMW is able to secure further potentials in the enhancement of efficiency. Hence, the BMW Group is developing a comprehensive modular hybrid system in order to offer the best solution in each case for each model (Best of Hybrid). Examples in this context are the BMW Concept 7 Series ActiveHybrid with its eight-cylinder gasoline engine and an electric motor integrated in the transmission housing as an additional source of drive power as well as the BMW Concept X6 ActiveHybrid combining an eight-cylinder power unit and electric drive by means of an innovative two-mode active transmission.

In both cases this technology enhances the vehicle’s driving dynamics and significantly reduces fuel consumption. And in contrast to hybrid models already available today, this enhancement of efficiency is achieved both in city and overland traffic.

BMW ActiveHybrid Technology will be achieving production standard for the first time in the year 2009.
Innovative concepts for the mobility of tomorrow.

In the context of BMW EfficientDynamics, the BMW Group is promoting further research and test projects for new, future-oriented drive concepts. One highlight is the introduction of some 500 all-electric MINIs in a pilot project in California, New York and New Jersey, selected private and corporate

customers using the car in everyday traffic. The MINI E comes with a 150 kW/204 hp electric motor supplied with energy by a high-performance lithium-ion battery and is able to cover a range of more than 150 miles or 240 kilometers.

This pilot project shows how individual mobility can be combined with maximum efficiency in an all-electric car. The objective, clearly, is to offer a combination of sheer driving pleasure and high-power electric drive, thus achieving virtually emission-free mobility on the road.

The BMW Group is also working on innovative vehicle concepts for use in large cities all over the world. These concepts naturally take the specific requirements and challenges of mobility in the urban environment of the future into account, again in the interest of maximum efficiency.

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

Seeking to ensure automotive mobility also in future, the BMW Group is also focusing on the generation of hydrogen in a regenerating process, again pursuing the vision of CO_2-free motoring. Hence, BMW Hydrogen 7 already allows the future-oriented use of hydrogen as a source of energy for individual mobility.

This unique car is driven by a twelve-cylinder power unit developing maximum output of 191 kW/260 hp and able to run on either hydrogen or gasoline in the same cylinders. A further most convenient point is that the driver is able to switch over from one type of fuel to the other at any time, merely at the touch of a button.

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

Such intensive, practical use of the hydrogen sedan clearly proves that this drive concept is able to meet the needs of everyday transport and therefore offers a realistic option for the future.

3.8. Unique and Available only from BMW – Hybrid Technology with Sheer Driving Pleasure: The BMW Concept X6 ActiveHybrid and the BMW Concept 7 Series ActiveHybrid.

The future of hybrid drive in the automobile is just around the corner. Before the end of 2009, the first two models with BMW ActiveHybrid Technology will reach production standard.

An outlook in this direction is already provided today by the BMW Concept 7 Series ActiveHybrid and the BMW Concept X6 ActiveHybrid both to be admired at the 2009 North American International Auto Show in Detroit. These two concept cars represent two different versions of BMW ActiveHybrid Technology, both offering sheer driving pleasure and efficiency in a new dimension.

To reduce both fuel consumption and emissions, hybrid vehicles combine the qualities of the combustion engine with the particular features of electric drive. BMW ActiveHybrid, in turn, for the first time combines the Sheer Driving Pleasure so typical of BMW with the enhanced efficiency of hybrid technology. The result is cars developing much greater driving dynamics than the hybrid models available so far and at the same time reducing both fuel consumption and emissions to a much lower level than similar models powered by a combustion engine alone.

BMW ActiveHybrid: two concepts, one target.

BMW ActiveHybrid Technology consistently continues the BMW - EfficientDynamics development strategy. In recent years BMW has integrated effective technologies for the reduction of fuel consumption and emissions in a wide range of new models extending beyond all segments in the market.

BMW ActiveHybrid Technology now ready for introduction offers greater efficiency particularly in upmarket vehicles with high power and performance. Combined with a V8 power unit, for example, hybrid technology develops a far greater effect than it does in combination with a six- or four-cylinder engine. This applies both to the mild hybrid concept developed for the BMW Concept 7 Series ActiveHybrid and to the full hybrid technology of the BMW Concept X6 ActiveHybrid.

The BMW Concept 7 Series ActiveHybrid combines an eight-cylinder gasoline engine with a 15 kW/20 hp electric motor developing maximum torque of 155 lb-ft or 210 Newton-meters in a mild hybrid concept. The electrical energy saved in a lithium-ion battery is used to supply the car's on-board power network and to support the combustion engine under clearly defined conditions.

The result is significantly better response and behavior from the engine, with even more dynamic acceleration and performance. And a further point is the reduction of fuel consumption and emissions by no less than 15 percent in the EU test cycle versus a similar car running on a combustion engine alone.

The BMW Concept X6 ActiveHybrid is based on a full hybrid concept combining an eight-cylinder gasoline engine and two high-performance electric motors via a two-mode transmission with one another for the first time to provide the greater efficiency of hybrid technology throughout a significantly broader speed range than in a conventional hybrid car.

The driving experience in the first BMW with full hybrid technology is therefore characterized by exceptionally spontaneous power and performance when setting off and substantial driving dynamics in the ongoing acceleration process. A further significant advantage is the reduction of fuel consumption by up to 20 percent in the EU test cycle versus a comparable vehicle running on a combustion engine alone.

Starting from the ideal basis: the world's most efficient V8 gasoline engine.

Both concept cars come with a BMW eight-cylinder gasoline engine for superior drive power. The power and performance characteristics of this new V8 are characterized first and foremost by BMW's innovative Twin Turbo Technology featured in conjunction with High Precision Injection.

The unique construction principle featured for the first time on an eight-cylinder gasoline engine with two turbochargers positioned not at the outside, but rather directly within the V-section of the engine, each supplying four cylinders with compressed air, ensures unparalleled spontaneity in response to the gas pedal.

Highly efficient use of fuel is guaranteed by High Precision Injection, the second generation of direct gasoline injection incorporating piezo-injectors positioned directly next to the spark plugs in the cylinder head and delivering fuel into the combustion chambers at a pressure of 200 bar.

This construction principle again serves to dose the supply of fuel with extreme precision, the V8 power unit with Twin Turbo Technology and High Precision Injection offering the highest standard of efficiency worldwide in the eight-cylinder segment.

Both concepts of BMW's ActiveHybrid Technology are precisely tailored to the character of the respective vehicle. The BMW Concept 7 Series ActiveHybrid, for example, offers the highest level of efficiency in the luxury class plus maximum performance dynamics in the hybrid segment, with motoring comfort, everyday driving qualities and safety equaling the same outstanding level as that of a "regular" BMW 7 Series.

The BMW Concept X6 ActiveHybrid, in turn, combines innovative drivetrain technology with a truly unconventional vehicle concept. The world's first Sports Activity Coupe is indeed the epitome of supreme dynamics in a brand-new vehicle segment ideally bearing out the full potential offered by this configuration of ActiveHybrid Technology.

BMW Concept 7 Series ActiveHybrid: a perfect combination of luxury and efficiency all in one.

The BMW Concept 7 Series ActiveHybrid is based on the new BMW 7 Series already reigning supreme in "regular" trim in its class in terms of efficiency. The Luxury Performance Sedan from the world's most successful manufacturer of premium cars offers all the demanding standards of the BMW EfficientDynamics development strategy in particularly convincing style also in this segment. As a result, the new BMW 7 Series has all the essential ingredients to set the standard worldwide also in the hybrid segment through the combination of the most advanced BMW ActiveHybrid Technology and a conventional combustion engine.

A further essential feature of the BMW Concept 7 Series ActiveHybrid is the option to achieve an even higher standard of efficiency over the regular model without foregoing any of the usual qualities of a luxury sedan. Quite simply, this is because BMW ActiveHybrid Technology enhances the vehicle quite invisibly, at the same time offering the option to enjoy such superior technology without the slightest concession in terms of driving comfort, the car's luxurious ambience, and the superior safety of a top-class sedan.

The generation of electric power required with the mild hybrid concept is ensured by a particularly powerful variant of Brake Energy Regeneration already featured in the BMW Group's regular production models. In the BMW Concept 7 Series ActiveHybrid the principle of Brake Energy

Regeneration is implemented to a degree of consistency never seen before in a production car, giving the ActiveHybrid model an exceptionally high standard of efficiency. To achieve this perfection, the conventional alternator is replaced by an electric motor fully integrated in the transmission housing. Whenever the car is in overrun or when applying the brakes, the electric motor delivers the power generated via the likewise fully integrated power electronics to the lithium-ion battery.

This electric motor integrated in the transmission housing ensures far more efficient generation of electric power than a regular generator drawing energy directly from the combustion engine and, as a result, reducing the level of efficiency. And at the same time BMW ActiveHybrid Technology is superior to a conventional generator also in its own internal efficiency, the energy yield provided by the electric motor with the help of Brake Energy Regeneration exceeding the energy provided by a conventional generator roughly ten times.

This technology also enhances the use of electrical energy for additional functions – ranging all the way to the additional power boost for the drivetrain provided by the electric motor in the mild hybrid concept which, thanks to its position in the transmission housing, may serve directly to increase drive power.

To provide this wider range of power and practical performance, the BMW Concept 7 Series ActiveHybrid comes with a 120-volt on-board network running parallel to the conventional 12-volt network. Over and above to the output provided by a conventional system, this also provides the possibility to supply electric power directly, say, to the car's a/c compressors.

The range of electrical functions already featured in BMW's production models today extends from ventilation and air conditioning through illumination, entertainment, navigation and communication systems all the way to the coolant pump and servo motors for dynamic driving systems such as Dynamic Damper Control featured as standard in the BMW 7 Series.

Developing maximum output of 15 kW, the electric motor also supports the combustion engine in generating dynamic drive power. And since the energy used in this process is generated without any additional consumption of fuel thanks to Brake Energy Regeneration the mild hybrid vehicle offers even greater driving dynamics together with a significantly higher standard of all-round efficiency.

The lithium-ion battery featured in the BMW Concept 7 Series ActiveHybrid is able to supply a particularly large number of electrical power-consuming items with electricity via the 120-volt on-board network. At the same time the high-voltage network enables the manufacturer to use and connect particularly powerful electric drive systems.

Stable and reliable coverage of the energy requirements for all electrically operated vehicle functions in the BMW Concept 7 Series ActiveHybrid is guaranteed at all times, regardless of driving conditions. As a result, the Auto Start Stop function may be used even more frequently in conjunction with BMW ActiveHybrid Technology than in a current production car, again without the slightest loss of comfort.

When stopping at a road junction, at the traffic lights or in congested traffic, the combustion engine is automatically switched off in order to avoid inefficient idling.

Functions no longer connected to the alternator on the BMW Concept 7 Series ActiveHybrid – for example the ventilation and air conditioning systems – may naturally still be used during an interim stop, the energy required for this purpose being provided by the high-capacity lithium-ion battery on a lasting basis.

Ultra-modern energy storage technology: lithium-ion battery with superior capacity and stable cycle resistance.

Introducing a lithium-ion battery, BMW is taking yet another step towards the particularly intensive and, at the same time, flexible use of electric power in the car. On regular production cars equipped with Brake Energy Regeneration, BMW uses AGM (absorbent glass matt) batteries able to complete frequent and irregular charging and discharging cycles without any loss of power.

The requirement with a mild hybrid concept, on the other hand, is a high-voltage storage unit with a level of performance several times higher than usual. Hence, the system developed for the BMW Concept 7 Series ActiveHybrid is based on the most advanced lithium-ion technology offering the very best in storage capacity and ongoing performance.

In their arrangement, the hybrid components again serve to raise the degree of efficiency and promote the driving experience. With the electric motor accommodated in compact dimensions safe and sound in the transmission housing, both the generation of electric power and the enhancement of drive power are optimized to the highest standard. Accommodation of the

lithium-ion battery in the rear of the car is indeed the ideal solution not only from the perspective of everyday motoring qualities but also in terms of the vehicle's overall balance and all-round safety.

Weighing approximately 66 lb or 30 kg, the energy storage unit is housed in the concept car in a recess beneath the floor of the luggage compartment. Since the BMW 7 Series, like many BMWs, comes as standard on runflat tires no longer requiring the driver to take along a spare wheel, there is enough space for this purpose beneath the luggage compartment.

This particular position offers benefits also in terms of safety, with the battery protected from impact energy in all relevant crash situations. And unlike the arrangement of the battery in the engine compartment, the arrangement of the lithium-ion battery at the rear of the car helps to give the car even better axle load distribution.

Clear highlights in design as a symbol of efficiency and trendsetting technology.

The BMW Concept 7 Series ActiveHybrid is a hybrid vehicle offering a dynamic potential quite unique the world over – and at the same time an outstanding Luxury Performance Sedan offering an extremely good balance of driving performance and fuel economy.

This particular position and the nature of the car is also expressed through its design, with the BMW Concept 7 Series ActiveHybrid based both in its concept and design on the new BMW 7 Series, BMW's Luxury Sedan combining sporting elegance and natural presence in a truly fascinating synthesis. The car's dynamic proportions are also borne out by the long wheelbase, the long and sleek engine compartment lid, the short overhang at the front, the passenger compartment moved far to the rear, and the low-slung roofline.

This characteristic look is further accentuated on the BMW Concept 7 Series ActiveHybrid by specific design features at the front and rear of the car. Standing out from the production model, the BMW Concept 7 Series ActiveHybrid features an aluminum bar slightly tilted to the rear instead of the usual chrome bar above the lower air intake. This aluminum bar positioned somewhat lower down extends over the entire width of the car, tapering out to each side.

In this position, in its specific design and with its precise contours and inclination, the aluminum bar resembles an air guide blade otherwise featured on modern aircraft.

A similar air guide blade made of aluminum is also featured at the rear, extending across the entire width of the car beneath the rear air dam and reaching its full height only in the middle. The slimmer ends to the right and left form the upper frame around the twin-chamber exhaust system with its tailpipes likewise in new design.

The tailpipes themselves come in a matt chrome surround and, instead of the conventional round or oval shape, boast an unusually wide and flat contour.

The close resemblance of the production model and the concept car symbolizes the BMW Group's commitment to introduce the potential of BMW ActiveHybrid Technology in an existing vehicle segment. A further highlight is the paintwork in Bluewater Metallic emphasizing the particular efficiency of this sedan and taking up the color scheme already featured on particularly efficient concept cars in the past.

BMW Concept X6 ActiveHybrid: innovative drive technology in a new vehicle segment.

The BMW Concept X6 ActiveHybrid combines the world's first Sports Activity Coupe manufactured by Germany's premium car maker with a hybrid drive concept never seen before: While the design of the production model clearly bears out the DNA of BMW X, it interprets the character of this special kind of vehicle in unique, sporting style. And to match this particular character, BMW ActiveHybrid Technology has been specifically conceived in this case for a particularly dynamic vehicle in this segment and for use far beyond city traffic.

The BMW Concept X6 ActiveHybrid also comes with a V8 gasoline engine boasting Twin Turbo Technology and High Precision Injection. The combination of this combustion engine with two high-performance electric motors for the first time offers the greater efficiency of hybrid technology over a far larger speed range than with a conventional hybrid vehicle.

An equally unique asset is the driving experience offered by the BMW Concept X6 ActiveHybrid reflecting the specific qualities of electric drive and the proven character of a BMW combustion engine. Responding immediately to the gas pedal when setting off, electric drive from the start offers all its special fortes. Then, in the ongoing process of acceleration, perfect harmony of power and

performance, on the one hand, and acoustic and sensory feedback to the driver, on the other, never seen before on a conventional hybrid, continue to dominate the driving experience. Throughout the entire speed range, the driver therefore enjoys the impression of a particularly precise and fast-shifting automatic transmission in conjunction with dynamic power and performance typical of a BMW power unit.

Optimized use of energy and superior power in every situation.

The innovative power transmission system featured in the BMW Concept X6 ActiveHybrid combines two compact, high-performance electric motors and a transmission with predetermined, firm gear ratios. The two motors and the transmission are connected with one another by means of three planetary gearsets able to branch the drive power of the combustion engine and the electric motors in two transmission ratios and therefore providing a degree of variability in combining the two drive sources never achieved by conventional hybrid drive systems, allowing the driver to use all the power of the drive units with maximum efficiency under all load and driving conditions.

The further drive components in this system referred to on account of its two operating modes as the Two-Mode Active Transmission include a nickel metal-hydrid high-performance battery, power electronics with an integrated inverter module, and the cables connecting the individual units with one another.

The Two-Mode Active Transmission is based on an ECVT electrical continuously variable transmission. The two operating modes, one for low and one for high speeds, are supplemented by fixed, predetermined gear ratios.

The two power-branched ECVT ranges allow infinitely variable engine speeds and maintain the full, highly efficient function of the hybrid drive system throughout the complete operating range of the vehicle.

As a result, the innovative system in the BMW Concept X6 ActiveHybrid reduces fuel consumption by up to 20 percent versus a comparable BMW running entirely on a combustion engine.

A further important point is that the electric motors are particularly compact thanks to the two-mode system, keeping the additional weight of the BMW Concept X6 ActiveHybrid lower than on a conventional hybrid vehicle with the same kind of power thanks to their efficient integration into the vehicle as a whole.

The BMW Concept X6 ActiveHybrid may be driven in the all-electric mode, on the power of the combustion engine alone, or in a combination of both drive sources. Depending on motoring requirements, the driver may also use the electric motors for accelerating and regenerative braking, the brake power generated by the electric motors being used when driving in overrun and when applying the brakes to generate electricity for the high-voltage energy reservoir.

In this case energy used at a later point need not be developed by the combustion engine and is available virtually free of charge.

This principle BMW already applies in a similar way to regenerate brake energy in production cars allows efficient energy management and helps to keep the battery at a high charge level. When driving under power the additional effect of the electric motors referred to as “boosting” allows incomparably spontaneous behavior and at the same time significantly reduces the amount of fuel consumed.

BMW ActiveHybrid comes in where conventional hybrid drive reaches its limits.

Conventional hybrid drive systems allow efficient motoring only in small to medium-sized vehicles at low speeds. This is because most of the power developed by the combustion engine throughout a wide operating range has to be conveyed through the electrical path of the transmission and through a high level of electrical current. The superior performance and higher speeds potentially offered by a larger combustion engine would therefore require larger and heavier electric motors.

On a power-branched drive system one of the two electric motors acts as the generator converting some of the engine power into electrical current and feeding this current to the battery or the second electric motor.

The second electric motor then converts the electric current from the first electric motor or from the battery back into mechanical power for the output shaft downstream of the transmission.

Two-mode technology varies the power split or ratio between the electrical and mechanical path, optimizing the flow of power in its efficiency.

A further point is that conventional hybrid systems currently do not offer fixed mechanical gear ratios optimized for superior fuel economy. The continuously variable transmissions used instead suffer from the fact that the power

required and the feedback provided by the vehicle are separated from one another and therefore do not provide a dynamic driving impression.

The Two-Mode Active Transmission eliminates the disadvantages of conventional hybrid drive. The transmission reduces the share of power required to flow through the electrical branch of the transmission throughout a wide range of transmission ratios. By means of the power branch concept in two transmission ranges, the Two-Mode Active Transmission shares out the energy of both electric motors in an optimized balance under all driving conditions.

Designed with clear signals for efficient motoring.

The unique qualities of the BMW Concept X6 ActiveHybrid are authentically reflected by the unmistakable design of the vehicle. Hence, through its looks alone the concept car arouses the greatest expectations in the driving experience to be provided by a Sports Activity Coupe, clearly communicating the robustness and superior traction of a BMW X model in combination with dynamic driving qualities never seen before in this segment.

The unique character of the drive concept also comes out clearly in the design of the BMW Concept X6 ActiveHybrid. Not only the door entry trim with the blue BMW ActiveHybrid logo clearly illuminated and the strongly contrasting colors of the paintwork and the dark window graphics highlight the particular status of this vehicle – various features at the rear of the car both unique and innovative are equally impressive.

Whenever the vehicle is driven entirely by the electric motors, for example, the design features at the rear provide a clear signal highlighting the vehicle's optimum fuel economy and emission management.

The underfloor protection made of brushed aluminum just like the front and rear end is conceived as a moving element on the BMW Concept X6 ActiveHybrid, moving up if required once the vehicle starts to run on electric power alone and covering the two tailpipes at the rear as long as they are not in use.

The innovative features of the BMW Concept X6 ActiveHybrid clearly prove that even large and dynamic vehicles may be combined today with all the requirements of environmentally-friendly motoring, at the same time opening up new horizons in driving pleasure and aesthetic design. Hence, the BMW Concept X6 ActiveHybrid offers not only a particularly high standard

of efficiency, but also an improved level of driving dynamics, thus living up in full to the BMW EfficientDynamics development strategy.

Hybrid Technology: joint development of components, specific BMW implementation with all the character of the BMW brand.

The objective to give BMW's first full hybrid all the Sheer Driving Pleasure so typical of the brand together with a significant reduction of fuel consumption and emissions required the development of innovative technology combining the combustion engine and electric drive with one another. To make this process of development as efficient as possible, the BMW Group has joined forces with General Motors and DaimlerChrysler in the Global Hybrid Cooperation seeking to develop the next generation of hybrid drive systems. Ranking as equals, the partners in the project pool their know-how and resources in the GM, Daimler and BMW Hybrid Development Center in Troy, Michigan, concentrating on a flexible system concept which allows the companies involved, taking their specific interests and brand features into account, to individualize the specific concept and construction of their vehicles.

Parallel to the Global Hybrid Cooperation, a further venture with Daimler serves to develop components for hybrid drive in the luxury performance sedan. Indeed, the drive technology featured in the BMW Concept 7 Series ActiveHybrid is based on the results of this joint venture, the manufacturers involved again integrating hybrid components in their vehicles individually and in accordance with the specific characteristics of each brand and model.

Best of Hybrid: flexible development strategy for ideal, model-specific solutions.

As with numerous other particularly sophisticated technologies, BMW's approach in implementing hybrid components is to introduce these features initially in higher vehicle segments. This clearly emphasizes the premium standard of each new development.

A further point is that BMW, in developing hybrid components, focuses in particular on model- and concept-specific applications. BMW ActiveHybrid is therefore based on a modular principle which, following the Best of Hybrid strategy, integrates the best components in each case in various vehicle concepts.

Mild hybrid and the combustion engine supplement each other in the BMW Concept 7 Series ActiveHybrid just as ideally as the combination of a full hybrid concept with an eight-cylinder gasoline engine featured in the BMW Concept X6 ActiveHybrid. Taking these different approaches, BMW is

indeed demonstrating the broad range of possible hybrid applications.
This clearly shows that model- and concept-specific solutions pave the way to maximum efficiency in all performance classes and vehicle segments also in the area of hybrid technology.

Technical Data
(specific to hybrid)

	BMW Concept 7 Series Active Hybrid	BMW Concept X6 Active Hybrid
Base vehicle	BMW 750i	BMW X6 xDrive 50i
Hybrid category (in public terms)	Mild Hybrid	Full Hybrid
Electric driving capability	No	Yes
Fuel saving in comparison to base vehicle in EU test cycle	15%	20%
Performa	Comparable	Comparable

nce in comparison to base vehicle	to base vehicle	to base vehicle
Combustion engine	V8 gasoline	V8 gasoline
Transmission	8 gear automatic	Two Mode
Electric engine	1 x (15 kW/210 Nm)	2 x (~60 kW/~250 Nm)
Hybrid functions	Engine start, Brake Energy Regeneration, engine support	Engine start, Brake Energy Regeneration, engine support, electric driving
Battery	Lithium-Ion	Nickel-Metal Hydride
Hybrid cooperation partners	Daimler	Daimler, Chrysler, GM