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Note: Unless otherwise stated, the vehicles described in this media information feature engines, equipment and specifications as required for the Chinese automotive market. Deviations are possible in other countries.

# 1. BMW at the 2011 Auto Shanghai. (Summary)



As one of the world's leading manufacturers of premium vehicles, the German carmaker BMW is presenting in addition to the latest products in its model range a number of groundbreaking concepts for individual mobility of the future. The most significant car show of the year on the Asian continent is the scene of the world premiere of the BMW Concept M5. The production-oriented concept car embodies a new interpretation of the business sedan vehicle concept that systematically aspires to reach the level of driving dynamics typical of a high-performance sports car featuring racing-inspired drivetrain and suspension technology. Furthermore, at the Auto Shanghai 2011, the new BMW 6 Series Coupe will be presented to the general public for the first time, a luxury-class model that combines fascinating design aesthetics with exceptionally sporty handling and a myriad of technological innovations for comfort, Infotainment and safety. With an unparalleled wealth of innovations for enhanced driving pleasure through intelligent networking, the impressive concept vehicle BMW Vision ConnectedDrive will be celebrating its Asian debut at the Auto Shanghai 2011.

In addition to captivating design, outstanding driving pleasure and innovative technology, exemplary efficiency is an essential part of the premium character of current and future BMW models. A broad spectrum of innovations implemented within the framework of the BMW Efficient Dynamics development strategy contributes towards a reduction in fuel consumption and exhaust emissions. Activities encompass a continuous increase in the level of efficiency of vehicles powered by a combustion engine as well as the further development of BMW ActiveHybrid technology and new advancements on the way to emission-free driving with purely electrically powered automobiles.

The Asian premiere of the BMW ActiveE will give a starting signal for emission-free driving pleasure. The four-seater car, which is powered by a 125 kW/170 bhp electric motor, will amongst other markets also be deployed in China. The extensive world wide field tests will begin in 2011 in Europe and the United States and will be extended to China in 2012. Crucial knowledge

for the further development of this technology will be gained from the use of the first purely electrically powered BMW in everyday road traffic.

Targeted measures for an increase in efficiency also characterise the new BMW 1 Series Coupe and the new BMW 1 Series Convertible being shown in Asia for the first time at the Auto Shanghai 2011. Here, the main focus is on the Air Curtains aerodynamics measure, which optimises air guidance within the area of the wheel arches. Furthermore, both models have become even more attractive thanks to precise design modifications, newly conceived headlamps and taillights as well as a further refined interior. At the Auto Shanghai 2011, the BMW M GmbH will be presenting its extended product range, including the first high-performance sports car in the premium compact segment. The BMW 1 Series M Coupe, which is making its debut in Asia, enthralls with motor-racing oriented driving dynamics resulting from a 250 kW/340 bhp straight six-cylinder engine with M TwinPower Turbo and direct injection as well as a model-specific suspension set-up all combined with typical M bodywork and interior design aesthetics.

With two world and four Asian premieres at the Auto Shanghai 2011, which is being held from 23 to 28 April 2011, BMW will present to the public an exceptionally large number of current highlights with which the company is underscoring the show's high level of importance as well as the growing significance of the Chinese automotive market. In 2010, the BMW Group's sales development in China was yet again characterised by remarkably dynamic growth. The number of vehicles sold rose by 86.7 percent to 168,998. In addition, China is becoming more and more important to the BMW Group as a development and production location. With the extension of production capacities at the Shenyang plant prior to the market launch of the long version of the new BMW 5 Series Sedan produced exclusively for the Chinese automobile market, and the start of construction of an additional production facility at this location, milestones for the BMW Group's intensified involvement in China were set in 2010. At the same time, the integration of local production partners and suppliers was further promoted. Closeness to the market, incorporation of local expertise and strengthening of the value creation process on the spot provide a vital basis for a continuation of the positive development on the Chinese market.

### **Sedan with a high-performance character: the BMW Concept M5.**

26 years ago, BMW presented the first business sedan with the motor racing qualities of a high-performance sports car, laying the foundation stone for a new vehicle category. At the Auto Shanghai 2011, the BMW M GmbH will now offer an outlook on a new interpretation of this concept. The BMW Concept M5 embodies an incomparably fascinating combination - motor-racing inspired drivetrain and suspension technology meets typical M design aesthetics coupled with the functionality and spatial comfort of a premium sedan of the upper midrange segment.

The near-series concept car boasts a design characteristic of BMW M models. Its unmistakable design features authentically express the sedan's outstanding dynamic handling potential - from the large air intakes in the front apron, the powerful appearance when viewed from the side to the aerodynamically optimised rear end. Also, as an integral part of a typically harmonious M overall concept, the design is perfectly adapted to match the drivetrain and suspension technology, these being oriented towards the highest level of vehicle dynamics. The newly conceived, high-revving V8 power unit with M TwinPower Turbo Technology under the bonnet of the BMW Concept M5 develops a power output that is worthy of a high-performance sports car. Power transfer to the rear wheels is effected by a seven-speed M double-clutch transmission with Drivelogic technology. Newly designed and elaborated suspension components, which have been refined down to the last detail, ensure that the driver is able to make full use of the engine's outstanding power development to experience a fascinating journey into a new dimension in driving dynamics.

### **Aesthetic highlight: world premiere of the new BMW 6 Series Coupe.**

Highlights of the Auto Shanghai 2011 include the world premiere of the new BMW 6 Series Coupe. In the prestigious segment of large premium coupes, the entirely newly conceived 2+2-seater sets benchmarks for aesthetics, vehicle dynamics, luxury and innovative technology. The new BMW 6 Series Coupe is the only vehicle in its class to combine supreme sportiness with spatial comfort and an exceptionally spacious luggage compartment. Body length and wheelbase have been increased by 75 millimetres compared with the predecessor model. As a result, seating

comfort has been noticeably improved. The luggage compartment offers stowage space for three 46-inch golf bags. The likewise increased body width and reduced height give the new BMW 6 Series Coupe a particularly sporty appearance.

The design of the sports car is characterised by typical BMW coupe-like proportions and a both powerful and elegant design vocabulary. Contour lines and surface design are inspired by wave movement in flowing waters. Appropriately, the design of the dashboard resembles the styling of a power boot cockpit rising up before the driver and front seat passenger. This is above all due to the innovatively designed control display for the iDrive control system fitted as standard. The 10.2-inch flatscreen-style display in the new BMW 6 Series Coupe is the largest onboard monitor in the segment. Furthermore, consistent driver orientation, a front-seat passenger side surrounded by powerfully shaped surfaces, high-quality materials and a generous spatial concept provide a unique ambience.

The new BMW 650i Coupe's eight-cylinder engine with BMW TwinPower Turbo Technology guarantees superior performance. The 4.4-litre power unit has a power output of 300 kW/407 bhp. The newly developed straight six-cylinder engine with BMW TwinPower Turbo featured in the new BMW 640i Coupe delivers 235 kW/320 bhp. Both engines come as standard with an eight-speed automatic sports transmission. Dynamic Drive Control is also a standard feature with which the suspension setting can be adjusted by pressing a button on the centre console.

In this way, it is possible to strongly amplify both the comfort and sporting characteristics of the new BMW 6 Series Coupe. In addition to Electric Power Steering, optional Integral Active Steering also contributes towards the unequalled driving experience. The AdaptiveDrive system including Dynamic Damper Control and roll stabilisation is also available as an option.

The new BMW 6 Series Coupe features Adaptive LED headlights, an innovation in the field of light technology. Bright white light ensures particularly intensive and even illumination of the road ahead. This light technology, which is unique in the competitive environment, also ensures that the light beam follows the course of a bend. Also unique in the segment are the driver assistance systems and mobility services from

BMW ConnectedDrive. In addition to a rear view camera, Surround View, Parking Assistant, BMW Night Vision with pedestrian recognition, Speed Limit Info, Lane Change Warning and Lane Departure Warning, the latest generation of the BMW Head-Up Display is available, which utilises the entire colour spectrum when projecting information onto the windscreen. The optional Bang & Olufsen High End Surround Sound System guarantees an exceptional in-car sound experience.

### **Innovative concepts for intelligent networking:**

#### **BMW Vision ConnectedDrive.**

BMW continues to set standards for the optimisation of comfort, Infotainment systems and safety through intelligent networking. Years of experience and exceptionally innovative strength create a basis for the globally unique product range from BMW ConnectedDrive in the field of driver assistance systems and mobility services. The BMW Vision ConnectedDrive concept car, which is being presented in Asia for the first time at the Auto Shanghai 2011, demonstrates current and future possibilities of mobile networking in a particularly concise manner. The design and technology featured by the spectacular looking roadster are designed to render the car an integral part of a networked environment.

The exterior and interior design of the concept car, impressive light effects and a novel display and control concept will demonstrate to visitors to the Auto Shanghai 2011 the wide spectrum of possibilities of creating even more driving pleasure through intelligent networking. The design embodies the link between the driver and the vehicle, the dialogue between the driver and front-seat passenger as well as the interaction between passengers and their environment. The layering principle, with which individual components take on several functions, is also utilised for both the interior and exterior of the car. Sensors integrated into the headlights and taillights help the driver monitor both the prevailing traffic situation and the environment. Instead of having exterior mirrors, the car is fitted with antennas that transmit outbound information and receive navigation data.

Innovations inside the BMW Vision ConnectedDrive in the field of the display and operating concept include an enhanced Head-Up Display, which utilises three-dimensional imaging of information and symbols for a visual fusion of

the actual street scene with the virtual contents. For example, this Augmented Reality technology projects routing information to exactly where the possibility to turn off is in relation to the actual field of vision. Depending on each driving situation, different information is displayed either in the foreground or the background according to relevance. The concept car also features a likewise multidimensional and freely programmable instrument cluster, the displays of which supplement the Head-Up Display images.

Thanks to the Passenger Information Display system, the front-seat passenger in the BMW Vision ConnectedDrive is also able to activate intelligent networking functions. As the co-driver, he or she is able, among other things, to evaluate information received online or address data for the navigation system and, if required, transfer it to the driver's instrument cluster. As a result, both the interaction between driver and co-driver as well as the networking with the environment reach a new dimension. The Emotional Browser ensures an even more diverse and individually tailored choice of information. This system gathers and filters en route additional information on the area within the vicinity of the vehicle, specific to people, mood or location.

### **Ready to start: the first purely electrically powered BMW - the BMW ActiveE.**

Zero emissions, four seats and brand-typical sportiness. These are the main characteristics of the BMW ActiveE being shown for the first time in Asia at the Auto Shanghai 2011. The BMW Group is presenting the car as the next milestone on the way to sustainable, CO<sub>2</sub>-free mobility. Following the MINI E, the BMW ActiveE is the BMW Group's second electric test vehicle. With a power output of 125 kW/170 bhp and a maximum torque of 250 Nm, the vehicle accelerates from 0 to 100 km/h in 9 seconds, demonstrating the dynamics and agility of a BMW - and as is typical of electric vehicles - straight from a standstill. Newly conceived lithium-ion energy storage units permit a vehicle range of around 160 kilometres (100 miles) in everyday operational conditions.

Like the MINI E, the BMW ActiveE is also a conversion car based on the shell of a car powered by an internal combustion engine. And yet with the BMW ActiveE, all of the electric drive components such as the energy storage units, the electric motor and the power electronics have been integrated into

a vehicle body for which they were never intended - and this has been achieved without any loss of space or comfort in the interior.

The BMW ActiveE is therefore the first electric vehicle produced by the BMW Group to provide four fully-fledged seats and a 200-litre luggage compartment. The job done by the BMW development engineers is all the more impressive when you consider that this is “just” a test vehicle. The BMW ActiveE integrates pre-series versions of the drive and energy storage unit from the future Megacity Vehicle, some with identical, some with similar geometry, into a vehicle of a completely different concept, in order to test these components on the road for the first time. Apart from a small air scoop on the bonnet and a smaller luggage compartment, there are almost no differences in the exterior or interior between this car and the production version of the BMW 1 Series Coupe.

### **Sharpened profile: the new BMW 1 Series Coupe and the new BMW 1 Series Convertible.**

The BMW 1 Series Coupe and the BMW 1 Series Convertible are characterised by powerful engines, brand-typical rear-wheel drive and breathtaking agility, these being features that are unmatched in the premium compact vehicle segment. The unmistakable profile of the two models has now been enhanced even further. Thanks to targeted modifications, the new BMW 1 Series Coupe and the new BMW 1 Series Convertible underscore even more intensively brand-typical qualities in terms of dynamics, efficiency and premium quality. The new front apron design comprises, inter alia, innovative Air Curtains, which counteract turbulences within the area of the wheel arches, thus reducing the vehicle's air resistance. Newly designed headlamps and taillights, highly sophisticated control elements and innovative exterior body colours, upholstery and interior trims provide further refreshing accents.

The models BMW 120i Coupe and BMW 120i Convertible available on the Chinese automotive market feature a both powerful and efficient four-cylinder engine with aluminium crankcase and VALVETRONIC variable valve control. The 112 kW/152 bhp power unit ensures dynamic performance combined with remarkably favourable fuel economy that is rarely found in this vehicle and performance class. The BMW 1 Series Coupe and the

BMW 1 Series Convertible are equipped as standard with a six-speed automatic transmission.

## 2. An overview of the highlights.



- **World premiere: the BMW Concept M5.**

A premium class business sedan with the dynamic qualities of a high-performance sports car: This highly traditional concept is being reinterpreted with the world premiere of the BMW Concept M5. The fascinating concept car demonstrates how athletic design and the racing-inspired character of a BMW M automobile can be combined with the aesthetic and functional features of a sedan of the upper midrange segment. The BMW Concept M5 possesses expressive and unmistakable design features that hint at the awesomely dynamic potential of the sedan. Under the bonnet, a high-revving V8 engine with M TwinPower Turbo Technology generates the power output required for outstanding performance.

- **World premiere: the BMW 6 Series Coupe.**

The Auto Shanghai 2011 is the scene of the world premiere of a new dream car. The new BMW 6 Series Coupe fascinates with a unique combination of aesthetics, luxury and innovative technology. The body design, which was inspired by flowing waves, and an exclusive interior give the 2+2-seater an impressive appearance. Powerful engines and state-of-the-art suspension technology set benchmarks for sportiness and motoring comfort. Thanks to Adaptive LED headlights, the latest generation of the BMW Head-Up Display and the Bang & Olufsen High End Surround Sound System, the BMW 6 Series Coupe provides additional accents for innovation and unsurpassed driving pleasure.

- **Asian premiere: the BMW Vision ConnectedDrive.**

With the BMW Vision ConnectedDrive concept car being presented at the Auto Shanghai 2011, BMW is offering a glance into the future of intelligent networking between driver, vehicle and environment. Expressive design and innovative technology reflect the vision of BMW ConnectedDrive and the potential that can be unleashed through a targeted exchange of information for optimising comfort, safety and Infotainment inside an automobile. Using typical BMW design vocabulary,

the two-seater roadster prototype epitomises the focus on driving pleasure. Captivating light effects symbolise the flow of information permitting the use of innovative BMW ConnectedDrive functions. With groundbreaking driver assistance systems, a novel display and operating concept as well as innovative technical solutions for connecting with the world of Infotainment, the BMW Vision ConnectedDrive offers a glance into a future driving experience that has been further intensified thanks to intelligent networking.

- **Asian premiere: the BMW ActiveE.**

BMW has taken the next step on the way to emission-free mobility. With the BMW ActiveE the premium carmaker is underlining its consistent development work in the field of electric mobility within the framework of project i. The knowledge gained from field tests with the BMW ActiveE will be fed into the further development of the BMW Group's future Megacity Vehicle, which will be ready for series production in the year 2013. The BMW ActiveE is powered by a 125 kW/170 bhp electric motor. The intelligent arrangement of drive components and energy storage systems inside the vehicle create the ideal preconditions for typical BMW driving dynamics and enhanced functionality. The vehicle, which is based on the BMW 1 Series Coupe, offers four fully-fledged seats, a 200-litre luggage compartment, rear-wheel drive and a range of around 200 kilometres in everyday driving conditions.

- **Asian premiere: the new BMW 1 Series Coupe, the new BMW 1 Series Convertible.**

Unsurpassed driving pleasure in the compact segment is now even more attractive. With targeted design modifications optimising not only the sporty and elegant appearance but also the aerodynamic characteristics, the new BMW 1 Series Coupe and the new BMW 1 Series Convertible are being presented to the Asian public for the first time at the Auto Shanghai. Both models are being sold on the Chinese automotive market with a powerful and efficient four-cylinder engine featuring VALVETRONIC. Exemplary fuel consumption and emission levels, rear-wheel drive, high-end suspension technology, innovative equipment features and premium quality have helped these cars establish an exceptional position within the competitive environment.

## **3. BMW at the 2011 Auto Shanghai. (Full version)**

### **3.1 Following the perfect line: The BMW Concept M5.**



For 25 years now, the fascinating combination of supreme driving comfort experienced in a premium upper midrange sedan and the handling characteristics of a high-performance sports car has been described by one single unmistakable model designation - BMW M5. In 1984, with the first generation of this model, the BMW M GmbH laid the foundation stone for a completely new vehicle category. The BMW M5 was the first car of its kind to offer racing-oriented high performance in a sedan that could be driven without restrictions in everyday road traffic. This unique concept developed into a remarkable success story spanning four model generations.

The BMW M GmbH is now drawing the attention of racing car enthusiasts to a four-seater yet again. The BMW Concept M5, which is making its public debut at the Auto Shanghai 2011, presents itself as the latest reinterpretation of this unmistakable vehicle character.

Superior sportiness and typical M aesthetics in a BMW 5 Series Sedan format provide the basis for the exclusive BMW M5 driving experience. With each model generation, the advancements made in the development of premium sedans in terms of comfort, safety and premium ambience were accompanied by new possibilities to intensify that unsurpassed 'M feeling'. The world premiere of the BMW Concept M5 at the Auto Shanghai 2011 gives clear signals for the continuation of this tradition. Based on the design vocabulary developed for the BMW 5 Series Sedan, the near-series concept car reflects the characteristic styling features of a BMW M automobile, with which the car's further enhanced dynamic potential is authentically visualised.

A new high-revving V8 engine with M TwinPower Turbo Technology guarantees typical M power output. The eight-cylinder power unit delivers a spontaneous and even acceleration, which remains constant up to the highest load and is characteristic of the M feeling, in a previously unequalled dimension. At the same time, both performance and efficiency have been significantly increased in comparison to the previous engine. Numerous drivetrain innovations and other enhancements have led to a reduction in fuel consumption and emission levels by more than 25 percent. The new engine and a seven-speed M double-clutch transmission with Drivelogic and

M-specific suspension and steering create the ideal prerequisites for an unrivalled driving experience.

**Typical M aesthetics: performance defines design, aerodynamics optimise performance.**

The athletic appearance of the BMW Concept M5 authentically expresses the engine's superior power. The sporty and elegant look of the BMW M5 Sedan has been specifically modified using typical M design vocabulary. All specific design features are directly related to the four-seater's outstanding performance characteristics. They were developed exclusively for the BMW Concept M5 and enhance the vehicle's character, which is marked by high performance and supreme handling even under extreme conditions. Prominent examples of this are the large air intakes, which allow for the engine's higher cooling requirements, as well as optimised aerodynamics thanks to a discreet spoiler located on the boot lid and a diffuser integrated into the rear apron.

The BMW Concept M5 owes its intense emotional impact to the direct relation of each detail with the technical requirements. At the same time, the concise styling of the high-performance car's specific features creates the character of understatement that is typical of a BMW M automobile. The car's superior appearance is underlined by the body colour Chrome Shadow. The discreet appearance of this body colour distinctively enhances the surface contours of the vehicle's three-dimensionally modelled bodywork.

**Front apron: precise airflow optimises cooling and aerodynamics.**

Dynamic lines and large air intakes on the front end of the BMW Concept M5 are a clear implication of the vehicle's exceptionally sport-oriented characteristics and its engine's outstanding power. Like on the BMW 5 Series Sedan, the contour lines on the bonnet of the BMW Concept M5 flow towards the BMW kidney grille. The upright position of the widely stretched kidney grille also signals dynamic forward movement. The dual round bi-xenon headlights, which are complemented at the top by an accentuating light, create the road-focused look that is also characteristic of BMW M automobiles.

The front apron, which was designed exclusively for the BMW Concept M5, contributes significantly towards both the car's athletic appearance as well as

its dynamic potential. It features three large air intakes, the dimensions of which are precisely oriented towards the high cooling requirement of the engine and its ancillary components. The centre opening corresponds to the width of the BMW kidney grille, the side contour lines move away from each other as they continue downwards. This echoes the V shape between the grille and the headlights, thus emphasising the width of the air intake.

The centre air intake protrudes further out than the two outer intakes and its contours are slightly curved. This three-dimensional design and the deeply embedded, black grille sporting a honeycomb design additionally underscore the vehicle's powerful character. With concisely designed so-called flaps on the lower edges of the outer air intakes, the BMW Concept M5 boasts a racing-inspired feature for optimising airflow. These also emphasise a front apron design that is oriented towards the technical demands.

**Side view: dynamically flowing lines, large M light alloy wheels.**

With powerfully modelled wheel arches and dynamically flowing lines, the BMW Concept M5 also signals uncompromising sportiness when viewed from the side. The long wheelbase, the set back passenger cabin and the black side window surrounds distinctively underscore the sedan's stretched silhouette. This appearance is even more strongly emphasised through M-specific lowering of the vehicle.

The athletically flared wheel arches are complemented by M-specific light alloy wheels sporting a double-spoke design. Due to the vehicle's wide track, they are flush with the car body. The 20-inch forged rims are fitted with tyre size 265/35 ZR20 at the front and 265/35 ZR20 at the back.

The M-typical gill element on the front side panel has been reinterpreted on the BMW Concept M5. The gill features a high-quality chrome surround and is horizontally divided by a chrome bar, which in addition to the side indicator also bears the M logo. The gill element is the starting point of the swage line, which during its further course across the door handles stretches back as far as the taillights.

### **The rear end: athletic styling, targeted airflow.**

Superior sportiness and supreme road holding are effectively symbolised by the BMW Concept M5's rear end design. The emphasis on vehicle width through dominating horizontal lines also featured on the BMW 5 Series Sedan is combined with an athletically shaped rear apron. The vehicle-specific rear apron, which forms a smooth transition to the wide wheel arches, ensures a particularly intensive accentuation of the motive force that is transferred to the rear wheels.

An integrated diffuser at the lower edge of the rear apron effectuates targeted airflow at the end of the undercarriage. As a typical M identifying feature, the BMW Concept M5 is fitted with a double-flow exhaust system, the double tailpipes of which are located far apart at each side of the diffuser and surrounded by aerodynamically shaped trims. Likewise, the discreet rear spoiler located on the boot lid serves to optimise the car's aerodynamic characteristics. It ensures additional downforce above all at high speeds, thus contributing towards supreme handling at all times.

### **Awe-inspiring power, impressive efficiency:**

#### **V8 engine with M TwinPower Turbo.**

The BMW Concept M5 gives a starting signal for the venture into a new dimension of motor racing-oriented driving dynamics. The high-performance characteristics reflected in its design are realised through the M-specific drivetrain and suspension technology. Under the concept car's bonnet is a new, high-revving V8 power unit featuring M TwinPower Turbo Technology. The new engine ensures a new dimension of the linear power development so characteristic of BMW M automobiles. Moreover, it impressively embodies the principle of technological advancement within the framework of the BMW Group's Efficient Dynamics strategy. Compared to the fourth generation of the BMW M5's power unit, the newly developed engine has a significantly increased output level, whilst at the same time lowering previous fuel consumption and emission levels by at least 25 percent. With the new eight-cylinder engine, big steps have been taken in the optimisation of drivetrain technology. A clear increase in power is accompanied by a likewise very remarkable increase in efficiency. This demonstrates the unparalleled effectiveness of this development strategy, which originates from motor

racing, where in addition to the engine's performance capabilities and reliability, as few fuel stops as possible result in a decisive advantage.

The BMW Concept M5's engine power is transferred to the rear wheels by a seven-speed M double-clutch transmission with Drivelogic. This double-clutch gearbox, which was specifically tuned to the new V8 engine's performance characteristics, fascinates with extremely fast gear shifting, precise gear selection and a high degree of effectiveness that additionally optimises the vehicle's efficiency. The combination of the new engine with M Drivelogic is supplemented by an Auto Start Stop function. When halting at road junctions or in a tailback, the high-performance engine is temporarily switched off, thus avoiding unnecessary fuel consumption during idling. To continue the journey it is sufficient to release the footbrake and the V8 engine restarts without delay.

**Model-specific suspension technology, typical M innovation:  
active M M Differential.**

The suspension technology especially developed for each model is an equally crucial constituent part of the well-balanced overall concept of any M automobile. It is constructed using comprehensive know-how obtained from motor racing and then tuned within the framework of extensive tests carried out on the Northern Loop of the Nürburgring. Exclusive M suspension components include, inter alia, the wheel suspension systems, specific axle kinematics as well as exceptionally effective and weight-optimised brakes, which also remain stable even under high levels of strain. In addition, the BMW Concept M5 features innovative rear differential technology also developed by the BMW M GmbH.

The Active M Differential optimises vehicle stability using targeted variation of locking torque between the right and left drive wheels.

Active control of the multi-plate lock inside the rear differential is highly accurate and fast. This ensures that wheel spin is prevented even on slippery road surfaces and in the event of differing friction coefficients between the right and left wheels, in narrow bends or during sudden lane changes. The thereby optimised traction facilitates the highest level of vehicle stability and dynamics during acceleration out of bends even under the most demanding conditions.

## **BMW Concept M5 - the future of the high-performance sports car with four doors and five seats.**

The BMW Concept M5 embodies the vision of a premium upper midrange sedan offering the highest degree of comfort for up to five occupants and allowing the driver to follow the ideal racing line both on the racetrack and in everyday road traffic. The BMW Concept M5 combines outstanding performance resulting from racing-inspired drive and suspension technology with typical M aesthetics that authentically express the vehicle's dynamic potential. The concept car visualises the unmistakable characteristics of a BMW M model, which mature from a harmonious overall concept in which engine, suspension and design complement each other perfectly.

The BMW M GmbH's know-how gained from decades of experience and constantly further developed under racing conditions manifests itself in this combination. Innovative technology derived directly from motor racing provides each new BMW model with unmatched high-performing characteristics.

The BMW Concept M5 reflects a highly advanced stage in the development of a high-performance vehicle based on the new BMW 5 Series Sedan. The specific design features are directly aligned to the technical requirements, the suspension technology is precisely harmonised with the engine's performance characteristics. With this precisely defined development strategy, the latest embodiment of the incomparable M feeling strives steadily towards series maturity.

## 3.2 Out of passion for aesthetics and dynamics: The new BMW 6 Series Coupe.



The new BMW 6 Series Coupe presents itself as a sports car for aesthetes who find enjoyment in luxury and innovative technology. With the third generation of the luxury-class coupe, the premium automobile manufacturer BMW is adding yet another chapter to the longstanding tradition of exclusive dream cars. The new BMW Coupe impresses with irresistible design and enthralls with driving dynamics that surpass those of the predecessor model and offers at the same time noticeably optimised comfort features and an increase in interior space. It is the only vehicle in its competitive environment to combine superior sportiness with exclusive travel comfort and a 460-litre luggage compartment.

The engines available at the time of launch feature BMW TwinPower Turbo Technology with direct petrol injection, ensuring athletic power performance and exemplary efficiency. The BMW 650i Coupe is powered by a V8 engine delivering a maximum output of 300 kW/407 bhp. Additional variable valve control technology VALVETRONIC is an exclusive feature of the BMW 640i Coupe's 235 kW/320 bhp straight-six cylinder power unit. Both engines come as standard with an eight-speed automatic sports transmission. The extensive BMW EfficientDynamics package, including Auto Start Stop function and ECO PRO mode, is also standard on the BMW 640i Coupe.

Thanks to a newly conceived suspension, the new BMW 6 Series Coupe achieves an ideal balance between dynamics and motoring comfort. Electric Power Steering, which is fitted as standard, and optional Integral Active Steering are both unique in the segment. Dynamic Damper Control and Adaptive Drive including Dynamic Stability Control are both available as optional extras. Driving Dynamics Control for individual vehicle setting also comes as standard.

Adaptive LED headlights are optionally available for the new BMW 6 Series Coupe. Bright white light ensures particularly intensive and even illumination of the road ahead. LED fog lamps can also be had as an

option. The driver assistance systems and mobility services from BMW ConnectedDrive are also unique in the segment. The latest generation of the BMW Head-Up Display utilises the entire colour spectrum when depicting the information projected onto the windscreen. The control display of the BMW iDrive control system, which comes as standard, is designed as a freestanding, firmly installed flat screen monitor. The optional Bang & Olufsen High End Surround Sound System guarantees an extraordinary sound experience.

### **The design: supreme performance and athletic elegance.**

With its unmistakable design, the new BMW 6 Series Coupe exudes an air of athletic elegance. A long bonnet, a short front overhang and an aft-set passenger compartment, a 74-mm longer body (4.894 metres) and a 75-mm longer wheelbase (2.855 metres) than on the predecessor model give the car typical BMW Coupe proportions. Thanks to an increase of 39 mm in width and a reduction of 5 mm in height, the car has a powerful appearance stressing stable road holding. The vehicle's urge to move forward and its supreme handling characteristics are evident at first glance. The authentic transfer of the vehicle's character into the design gains a special appeal thanks to lines flowing along the entire length of the car and meticulously sculpted surfaces. The contour lines on the bonnet projecting outwards from the BMW emblem to both sides of the body take their cue from the movement of waves sent out by a body standing in flowing water.

The large, slightly forward-slanting BMW kidney grille dominates the expressive front end. The grille bars, which are slightly slanted within the upper section, additionally emphasise the shark nose look. Contour lines on the bonnet flow down to the kidney grille, creating a V shape that is continued by the contours of the headlights, the kidney grille and the wide air intakes, this again resulting in a road-focused appearance.

### **Innovation for a keener eye: Adaptive LED headlights.**

The new BMW 6 Series Coupe is equipped as standard with bi-xenon headlights. The upper section of the brand-typical dual round headlights boasts an accent strip. This creates a characteristic concentrated look, which - coupled with the optional Adaptive LED headlights - is reflected in a new way. The Adaptive LED headlights for the low and high beams feature LED

corona rings as parking lights and daytime running lights. These are flattened at the bottom and overlapped at the top edge by an accentuating light also featuring LED technology. The low and main beams both feature corona ring technology. LED bars horizontally positioned in the centre of the corona rings serve as light sources.

The Adaptive LED headlights not only ensure a keener eye in a figurative sense. Their bright white light ensures an exceptionally intensive and harmonious illumination of the road ahead. Also on the Adaptive LED headlights, the cornering light is controlled as a function of speed, steering angle and yaw rate. The cornering light comes from a special separate light source inside the headlight housing, which, at low speeds, ensures that the road is illuminated in the direction in which the car is being steered. The direction indicators also feature LED technology.

### **Side view: elegant roofline, powerfully modelled surfaces.**

Taut, convex surfaces and just a few characterising lines flowing along the entire car body dominate the side view of the new BMW 6 Series Coupe. The forward-slanting BMW kidney grille can be seen particularly well from this perspective. The contour lines on the bonnet open up to the side and continue right back to the rear end. Thus, in interplay with typical coupe proportions, a particularly elegant stretched silhouette is created.

The hallmark BMW character line at door level is spawned behind the front wheel arch, incorporates the sportive side gill element and dynamically extends all the way back towards the rear. The door handles are located precisely at swage line level. The curvature of the front wheel arch creates a further characterising line, which after flowing downwards between the side gill element and the door, finally continues horizontally back to the rear. The course of the line mimics a wave sweeping up towards the front. The roofline, which sweeps back gently towards the rear, is remarkably narrow when viewed from the side, thus creating a contrast between the powerful-looking car body and the seemingly light greenhouse so typical of BMW coupes.

### **Rear end: distinctive signs of sporty and stable road holding.**

Viewed from the rear, the new BMW 6 Series Coupe emanates a strong touch of power, sportiness and solidity. Powerfully flared wheel arches emphasise the wide track. Moreover, horizontal lines and a body shape that

gets wider at the bottom provide clear signs of sporting performance. The slightly concave lower section of the boot lid creates light and shadow effects, giving the rear end an appearance of lightness. The side edges of the boot lid and the number plate surround form a V shape, which echoes the approach at the front end and underlines the car's focus on the road.

The taillights have a brand-typical L shape boasting a particularly wide design reaching far into the boot lid. With the swage line flowing into the taillights, a harmonious balance between the flanks and the rear end of the car is created. Inside the lights, two LED light banks each create the familiar BMW night-time look. The indicator and brake lights are also LED units.

**Interior: clear driver orientation, exclusive ambience.**

The interior design is characterised by typical BMW driver orientation and dynamic forward movement. The centre area of the dashboard including the control display, the air vents and control panels for the audio system and automatic air conditioning is angled slightly towards the driver. The gear selector lever is located on a surface that opens up towards the driver and is positioned lower than the front-seat passenger area.

The horizontal dashboard orientation is emphasised within the driver's area by a galvanised trim. The dynamic forward movement is stressed through the door trim panels, which have a powerful taut look that is continued into the dashboard. The decorative surface, which continues with a slight twist into the centre console, gives the front-seat passenger area a touch of exclusiveness. The flowing connection between centre console and dashboard can be emphasised by a contrasting seam on leather surfaces.

Furthermore, thanks to their single-seat design and increased shoulder and elbow room compared to the predecessor model, the rear seats guarantee passengers a high degree of travel comfort. Luggage compartment capacity is 460 litres, meaning that it is possible to stow three 46-inch golf bags or two medium-size hard shell cases and a flight case respectively in the boot of the new BMW 6 Series Coupe.

### **Optimised display, exclusive look: instruments featuring black panel technology, control display with flat screen design.**

The instrument cluster featuring black panel technology combines state-of-the-art display technology with traditional sports car circular instruments. A high-resolution 9.2-inch info display installed below the four round instruments shows, inter alia, mileage, fuel consumption and EfficientDynamics information as well as check-back details pertaining to the driver assistance systems and check control information.

The iDrive control system, which is fitted as standard, comprises along with the controller and direct selection buttons located on the centre console a newly conceived onboard monitor with flat screen design. The freestanding control display is prominently and ideally positioned within the dashboard area. Combined with the navigation system Professional, the new BMW 6 Series Coupe is equipped with a 10.2-inch version of the display, which features a high-quality galvanised chrome surround, making it the largest onboard monitor in the segment.

### **Excellent seating comfort, comprehensive safety features, extremely torsion-resistant car body.**

The lightweight seats with integrated seatbelt system were developed exclusively for the new BMW 6 Series and are available in three different versions. Even the standard version features both for the driver's and the front-seat passenger's side electrically operated adjustment of seat height and longitudinal direction, backrest inclination as well as headrest height including memory function, heated seats and Easy Entry function, permitting easier access to the rear compartment. Sports seats and comfort seats can be fitted as an option. As an alternative to the standard leather trim Dakota, the enhanced version Exclusive Nappa Leather is available. Active seat ventilation is also optional both for the sports seats and the comfort seats. In addition, the comfort seats are available in an active anti-fatigue version.

All seat variants comprise crash-active headrests. Standard safety features also include front airbags, side airbags integrated into the seat frame, side curtain head airbags for both seat rows, three-point automatic seatbelts on all seats, belt-force limiters and seat belt tensioners at the front as well as ISOFIX child seat fasteners at the rear.

The new BMW 6 Series Coupe features highly resilient supporting structures, precisely defined deformation zones and an extremely stiff safety passenger compartment. Thanks to targeted further development of materials used, both stability and weight of the car body have been optimised. Like the front-axle spring mounts, the doors and the bonnet are made of aluminium, the front side panels of plastic and the luggage compartment lid of fibreglass composite.

### **Top performance with eight and six cylinders:**

#### **BMW TwinPower Turbo in the new BMW 6 Series Coupe.**

At market launch the new BMW 6 Series Coupe offers a choice of a V8 and a straight six-cylinder engine both with unique constructional features. Both power units are equipped with BMW TwinPower Turbo Technology including direct petrol injection. The 4.4-litre eight-cylinder engine under the bonnet of the new BMW 650i Coupe delivers a maximum power output of 300 kW/407 bhp, which is reached between 5,500 and 6,400 rpm. The unique engine, the supercharger of which is located in the V space between the cylinder banks, produces an instantaneous and sustained wave of power. Maximum torque of 600 Nm is available between 1,750 and 4,500 rpm. The V8 engine's athletic performance characteristics allow the new BMW 650i Coupe to complete the sprint from 0 to 100 km/h in just 4.9 seconds. Top speed is electronically limited to 250 km/h. The top-of-the-range model's remarkable efficiency, which is unmatched in this performance class, manifests itself in an average fuel consumption of 10.5 to 10.6 litres/100 km in the EU test cycle and a CO<sub>2</sub> level of 245 to 246 grams per kilometre (values according to EU test cycle, depending on the selected tyre format).

The new BMW 640i Coupe is powered by a straight six-cylinder engine featuring BMW TwinPower Turbo technology, comprising in addition to direct fuel injection VALVETRONIC fully variable valve control. This combination optimises both the response and the efficiency of the 3-litre engine, which delivers its maximum power output of 235 kW/320 bhp at 5,800 rpm and maximum torque of 450 Nm between 1,300 and 4,500 rpm.

The BMW 640i Coupe sprints from 0 to 100 km/h in a mere 5.4 seconds, top speed being electronically limited to 250 km/h. Average fuel consumption in the EU test cycle is 7.6 to 7.8 litres/100 km and the CO<sub>2</sub> emission level is

177 to 181 grams per kilometre (values according to EU test cycle, depending on the selected tyre format).

**Fitted as standard: eight-speed automatic sports transmission with shift paddles on the steering wheel. BMW 640i Coupe with Auto Start Stop function.**

Power is transferred to the rear wheels on both the BMW 650i Coupe and the BMW 640i Coupe by an eight-speed automatic sports transmission. It enhances sporty driving behaviour through exceptionally rapid gear changes and ensures excellent gearshift comfort, thus optimising the efficiency of both model variants. The driver can choose to select gears manually via shift paddles on the steering wheel.

Moreover, an extensive range of BMW EfficientDynamics technologies contribute significantly towards reducing fuel consumption and exhaust emissions. Standard features also include Brake Energy Regeneration, Electric Power Steering, on-demand control of ancillary components, intelligent lightweight construction and tyres with reduced rolling resistance. In addition, the new BMW 640i Coupe is equipped with automatic air flap control and an Auto Start Stop function. The engine switches off automatically when stopping at road junctions or in a traffic jam in order to avoid unnecessary fuel consumption during idling phases.

Using the Dynamic Drive Control button, the driver of a BMW 640i Coupe can activate the ECO PRO mode in order to enhance efficiency even further. The ECO PRO mode affects engine management and the characteristic curve of the accelerator pedal and automatic transmission, thereby facilitating a decidedly more relaxed and economical driving style at low revs. At the same time, targeted power control for electrically operated functions such as air conditioning and seat and exterior mirror heating ensures particularly efficient energy management. Specific display functions inform, inter alia, by how many kilometres the vehicle's range has been increased as a result.

**For the ideal balance between sportiness and comfort: cutting-edge suspension technology, Adaptive Drive as an option.**

The typical driving experience offered by the new BMW 6 Series Coupe is marked by sporty handling characteristics. At the same time, state-of-the-art suspension technology provides a high level of motoring comfort. Both the

double-wishbone front axle and the integral rear axle are made predominantly of aluminium.

Dynamic Damper Control and the Adaptive Drive system, also comprising active roll stabilisation Dynamic Drive, are optionally available.

The electronically controlled dampers perfectly adapt to road surface conditions and driving style in order to prevent undesired body motions. Furthermore, one of the attributes of roll stabilisation is that it reduces body roll in high-speed bends and in sudden changes of direction.

**Unique in the segment: Electric Power Steering as standard, optional Integral Active Steering.**

Electromechanical steering with Servotronic function for speed-dependent power steering, a system unparalleled in the BMW 6 Series Coupe's segment, combines the precision, comfort and efficiency that are so typical of a BMW. Moreover, the BMW 6 Series Coupe is the first vehicle in its class to feature Integral Active Steering as an extra option. It combines the active steering system for the front axle (available on the predecessor model) with a steerable rear axle. The precisely harmonised wheel angles ensure an exceptionally high degree of agility in dynamic driving situations as well as extremely comfortable and superior vehicle response during lane changes and cornering.

**Dynamic Drive Control for the desired vehicle setting.**

With the Dynamic Drive Control function the driver can vary the degree of sportiness and comfort as situations demand. Using a button on the centre console, the driver can choose between the "NORMAL", "SPORT" and "SPORT+" settings. The new BMW 640i Coupe features in addition the ECO PRO mode. The "COMFORT" mode is available in conjunction with the options Dynamic Damper Control and Adaptive Drive respectively.

The lightweight floating calliper brake system with vented discs ensures effective and precisely measured braking pressure. Efficiency is further enhanced by Dynamic Stability Control (DSC). Standard features comprise 18-inch light alloys (BMW 650i) and 17-inch light alloys (BMW 640i), tyres with emergency running properties and flat tyre indicator.

**Exclusive from BMW ConnectedDrive: BMW Head-Up Display with full-colour capability.**

The choice of BMW ConnectedDrive driver assistance systems and mobility services available for the new BMW 6 Series Coupe is now even more varied than those offered for the predecessor model. Through intelligent networking of driver and environment, they enhance both comfort and safety as well as the use of the Infotainment system. The options, most of which are unique in this vehicle class, include the systems Lane Change Warning, Lane Departure Warning, Speed Limit Info, BMW Night Vision with pedestrian recognition, rear view camera, Surround View and BMW Parking Assistant. Innovative technologies optimise the integration of the Apple iPhone and other smartphones as well as music players.

Also still unparalleled in the segment is the optional BMW Head-Up Display, which projects driving-related information onto the windscreen directly within the driver's field of vision. The latest generation of this BMW innovation is now available for the BMW 6 Series Coupe. For the first time, the entire colour spectrum is utilised for the display of graphics and symbols, for particularly realistic depiction of traffic signs for instance.

**High-quality comfort features: Bang & Olufsen High End Surround Sound System for a unique sound experience.**

The BMW 6 Series Coupe's comfort features include, inter alia, 2-zone automatic air conditioning, a multifunction steering wheel, electrically operated steering column adjustment, electrically adjustable and heated exterior mirrors, cruise control with braking function, rain sensor with automatic driving light control as well as a hi-fi audio system. Individual entertainment features include a DVD changer, a TV module and a USB audio interface.

The Bang & Olufsen High End Surround Sound System, which was exclusively conceived for the new BMW 6 Series Coupe, guarantees music enjoyment at the highest level. As a fully active system utilising digital signal processing, it comprises individual amplifiers for both subwoofers as well as for each of the seven midrange speakers and tweeters. The system effects targeted modification of sonic reflection inside the car. For this purpose the Bang & Olufsen High End Surround Sound System utilises so-called Dirac

Dimensions™ technology. As a result, all vehicle occupants perceive the identical sound quality, irrespective of where they are sitting.

Shape and colour of the high-grade all-aluminium loudspeaker covers match the interior design of the new BMW 6 Series Coupe perfectly. A light scenario that effectively stresses the contours of each sound source enhances the exclusive look. The design of the centre speaker in the dashboard, guaranteeing a remarkably well-balanced sound characteristic by means of Acoustic Lens Technology developed by Bang & Olufsen, is a significant innovation both visually and acoustically. As soon as the audio system is activated, the centre element with the integrated midrange speaker rises, thereby uncovering the lens of the tweeter.

Further equipment highlights include Adaptive Headlights, heated steering wheel, comfort access and electrically-operated panoramic sunroof, the glass panel of which stretches across almost the entire width of the vehicle. Utilising high-resolution graphics on the control display, the optional navigation system Professional with hard disk storage for maps and the personal music collection provides an exceptionally detailed overview of the region being travelled.

**The BMW 6 Series Coupe: premium sports car with outstanding dynamics and a fascinating tradition.**

Yet again the large BMW coupe reflects the embodiment of dynamics and exclusive driving pleasure in a stylish two-seater car. The new BMW 6 Series Coupe is the latest chapter in a more than 70-year-old history that is enriched by legendary racing successes and numerous automotive design icons.

The new BMW 6 Series Coupe is jointly produced with the new BMW 6 Series Convertible at the BMW Dingolfing plant. Models of the BMW 7 and BMW 5 Series are also built at the BMW Group's largest production facility. The flexible and efficient manufacturing process combines state-of-the-art production technology incorporating quality standards that encompass the highest level of craftsmanship in the manufacture of premium vehicles.

### 3.3 The future of intelligent networking: The BMW Vision ConnectedDrive.



As a pioneer in the area of networking between the vehicle and the environment BMW started early to develop innovative options for a targeted increase in driving pleasure. The consistent further development of technologies laid the foundation stone for the current selection of BMW ConnectedDrive options, which has meanwhile grown to comprise a variety of driver assistance systems and mobility services that is unique the world over. The BMW Group has set standards with many of these functions. Moreover, the features offered in the context of BMW ConnectedDrive are never restricted to one particular segment. Instead, they are available across the entire model range.

The BMW Vision ConnectedDrive concept car implements the principle of intelligent networking in a particularly intensive manner. The vehicle presents itself as a fully integrated part of a networked world. In this way, BMW demonstrates the impressive potential of BMW ConnectedDrive for optimising comfort, the use of infotainment functions as well as safety. Please visit [www.visionconnecteddrive.de](http://www.visionconnecteddrive.de) or [www.visionconnecteddrive.mobi](http://www.visionconnecteddrive.mobi) (mobile website) for media information on the BMW Vision ConnectedDrive.

At the beginning of the 1970s BMW began work on networking the vehicle with the outside world and networking the vehicle's own systems with each other in order to realise innovative information, communication and assistance systems. Since those early days, enormous progress in networking has been made - progress that was primarily driven forward by the creative, innovative strength of the BMW development engineers. Many of these innovations have set standards for the entire automotive industry. After the introduction of the first onboard computer with an external temperature sensor (1980) and the first parking distance control system in the world (1991), BMW presented the first integrated navigation system in Europe in 1994.

Today, BMW ConnectedDrive is the epitome of intelligent networking of driver, vehicle and the environment. In the meantime, the BMW ConnectedDrive product portfolio includes more than 50 innovative

features, which considerably raise the level of comfort during the journey, allow Infotainment to be experienced in a whole new dimension and which significantly increase the level of safety for people both inside BMW automobiles and for those in the vicinity. With its ever-increasing product portfolio, BMW repeatedly sets new standards when it comes to the introduction of new Infotainment systems of the highest standard. In 1995, BMW became the first automobile manufacturer to offer onboard television reception. In 2001, BMW Online became the first Internet-based vehicle portal on the Web and in 2004 BMW introduced the world's first fully integrated iPod interface in a vehicle. Since 2008, as the first automobile manufacturer to do so, BMW has provided freely available, fully integrated Internet access in the vehicle.

The BMW Vision ConnectedDrive concept car is taking the principle of intelligent networking of driver, vehicle and the outside world into the future. The vehicle sets new standards in comfort, Infotainment and safety features. The BMW Vision ConnectedDrive gives the innovative technologies and forward-looking ideas physical form and demonstrates the possibilities of mobile networking.

The overall theme of the emphatic design of the BMW Vision ConnectedDrive vehicle is "connect and network" and is divided into the three areas of safety, Infotainment and comfort. The fundamental concept of BMW ConnectedDrive - the intelligent networking of driver, vehicle and the outside world - is expressed on four levels: the display and operating concept, an unparalleled light installation, the design itself and the integration of the whole concept into a multimedia setting.

### **From the inside to the outside - the vehicle concept.**

The human being stands firmly in the focus of BMW Vision ConnectedDrive, more so than with any other vehicle. The vehicle and its functions have been designed to cater to the needs of the driver and the passenger - they are the starting point and the end of each and every interaction. This orientation towards the passengers is most obvious in the interior. Clear, enclosing symbolism divides the interior into three levels that could also be described as layers or shells. Each level expresses one of the three themes of

BMW ConnectedDrive - comfort, Infotainment and safety - and integrates the appropriate functionality, operating panels and displays. By creating the three layers in the BMW Vision ConnectedDrive's interior, the layering principle, something also well known from BMW Vision EfficientDynamics, has been consistently further developed. The term "layering" describes a new approach to the BMW Group's concept of design and its language of form, redefining the way surfaces, interfaces and materials have been treated in the past. By working with different layers, organic radii and surfaces, the layering concept breaks up large volumes like the instrument panel, thus creating free space for features such as ventilation, operating elements or trays. The result is a modern, organically aesthetic, light and emotional design.

Fibre optics in various colours define the three levels and formally underscore the differentiation between each distinct area. All three areas have a dedicated, individual light installation, each discerned by colour, but also by rhythm, motion and texture. When a feature is activated, the path taken by the information through the vehicle is illustrated by means of transparent surfaces and fibre optic lighting, quite literally highlighting the interaction between the environment, the vehicle and the driver in the context of BMW ConnectedDrive.

### **Safety - focussing on the vehicle's primary task.**

The central area of safety symbolises the interaction between the driver and the environment with active safety measures such as driver assistance systems. These are features that enable the vehicle to pass information relevant to safety on to the driver. Very clearly outlined, the first level encompasses the driver in the interior of the vehicle like a ribbon, thus defining his area of responsibility. To further aid clarification, red-orange fibre optic strands run from the sensors at the front of the vehicle, are routed very closely around the driver's zone and continue to the rear brake lights. All of the lines of the first shell come together in the cockpit that is extended into the "cone of vision", a transparent cone-shaped surface open to the driver on the bonnet. The cone of vision symbolises the driver's focus on the road ahead and on the concentration of information that is flowing in the opposite direction, towards him.

The safety layer bundles all of the information and operating elements relevant to driving the vehicle as is characteristic and typical of BMW's driver

orientation. This is where the two instruments that provide the driver with access to the entire spectrum of relevant information are located. The windscreen is an integral part of the Head-Up Display and provides important current information about the journey - including speed, navigation instructions and fuel consumption - to the driver without him ever having to take his eyes off the road. In addition, if required, the freely programmable, three-dimensional instrument cluster located in the scoop will provide extra in-depth information to supplement the Head-Up Display.

The fibre optic strands in deep orange running below and alongside the cone of vision represent the safety-specific information flow in the direction of the driver and are the link between the sensors in the front and rear of the vehicle and the driver. Numerous sensors monitor the environment in front, behind and on both sides of the vehicle. These are capable of recognising people and other vehicles and pass relevant information to the driver. The entire front sensing system is integrated into the headlights, the “eyes” of the vehicle, scanning the space ahead. The rear sensor technology including cameras for detecting the area behind the vehicle is integrated into the rear lights.

### **Infotainment - connection instead of isolation.**

The second level, the Infotainment level, encompasses the safety level and extends the sphere of action to the passenger. With an embracing gesture encompassing both seats, the Infotainment zone defines a communication level between the driver and the passenger and also spatially promotes active social exchange and the encounter between the two. In the Infotainment layer too, fibre optic strands outline the space. The receiving antenna featuring a Perspex cover is located between the two seats and is the source of this blue-themed light installation. From the point of origin, the information symbolised here by light flows to the information displays in the driver’s and passenger’s individual information zones via a yoke enclosing both seats.

The Passenger Information Display is mounted in the instrument panel in front of the passenger and is the gateway to the passenger’s world of entertainment. When it is inactive, it is invisibly integrated into the instrument panel. However touching the area below, which is covered with a transparent, conductive fabric, will bring it to life. Using the touch-sensitive area, the Infotainment features on the display can be manipulated and controlled at just

the touch of a finger. Light sources in the fabric glow when touched and provide the passengers with feedback on their actions. The vehicle interacts with the passenger.

The antenna, which can be seen under a Perspex cover in the middle of the vehicle behind the headrests, is the link between the BMW Vision ConnectedDrive and the world of Infotainment. This antenna does a very similar job to the well-established fin-shaped antennas mounted on production cars.

### **Comfort - communication between the vehicle and the environment.**

The third level comprises the vehicle itself and focuses on the communications level of the two passengers and the outside world, something central to BMW ConnectedDrive. In the BMW Vision ConnectedDrive, the connection between the vehicle and the environment is expressed primarily in the peripheral zone of the automobile. Instead of two wing mirrors, two fin-shaped antennas provide the link to the world of data. No matter whether navigation and traffic information or mobile Internet, these antennas either pick up information relevant to the comfort of the passengers and channel it to the interior of the vehicle or they transmit information to the outside world.

Since the vehicle itself acts as the link to the outside world, the green fibre optic strands depict the comfort layer around the entire vehicle. The light flows via the antennas into and out of the vehicle; the outside areas of the vehicle are particularly emphasised.

The division of the three levels is also reflected in the conception of the colours and materials. Seat shells, clearly separated from one another, in premium grey leather portray the first level and the individuality of the passengers while a ribbon of anthracite grey nubuck leather unites the two areas via the door and the instrument panel, depicting the second level. Interactive Silver, the colour of the exclusive exterior paintwork, is a light, smoky grey with a silk matt finish, stressing the technical character of the vehicle and accentuating the language of form. The consciously understated, achromatic colours accentuate the red-orange, blue and green light installations, effectively highlighting the three levels.

## **The exterior design - a true BMW.**

As a two-seater roadster charged with emotion, the BMW Vision ConnectedDrive is a particularly dynamic, purist interpretation of the characteristic BMW language of form: the long bonnet, the long wheelbase and the passenger compartment set well back seem to accelerate the vehicle even at a standstill. The bonnet and the windscreen flow into one another to form a homogenous surface and endow the BMW Vision ConnectedDrive with an extraordinarily flat, sporting silhouette. Within these tight roadster proportions, distinctive, concise lines flow over the taut surfaces of the vehicle's bodywork. The resulting play of light and shadow imparts a fascinating and emotional character to this concept car. The expressive 20-inch wheels, fashioned in three dimensions, underscore the sporting, dynamic character of the vehicle.

The front of the BMW Vision ConnectedDrive manifests the typical characteristics of BMW design, with a strong horizontal orientation, stressing width. The double kidney grille and dual, round headlights have been designed in a particularly flat fashion and lend the front a dynamic, modern expression. Below these, two large air vents emphasise the width of the vehicle, giving it a decidedly sporty look.

The door concept is a particularly distinctive feature of the exterior of the BMW Vision ConnectedDrive. With the innovative, electro-mechanical retracting door mechanism of the BMW Z1 in mind, which can be legally driven with its doors open, the idea has been extended and now finds application in the BMW Vision ConnectedDrive. Two sliding door elements - one inside, one outside - disappear into the bodywork of the vehicle when the door is opened, enabling entry. While the outer shell slides forward, the inner shell disappears into the rear area of the vehicle with a movement in the opposite direction. The BMW Vision ConnectedDrive can also be driven with the outer door open, a central aspect of the vehicle.

The expressive, modern surface work evident at the front and on the sides of the vehicle is continued at the rear. Two large air outlets make the formal connection to the front and underline the sportiness of the vehicle at the rear. The rear lights, placed at the extreme outside of the back of the vehicle, feature the distinct BMW L-design and have a strong sculptural character. Just as at the front of the vehicle, the rear sensor technology is also

integrated into the lights. The concept of layering used in the interior, in which a component takes on a number of tasks, is thus carried over to the exterior. The BMW Vision ConnectedDrive concept car was consciously designed as a roadster. Seen from above, the interior design, light concept and exterior design fuse into a very clear, unmistakable statement: BMW ConnectedDrive.

### **Interface design - in touch with your world.**

The new display and operating concept in the BMW Vision ConnectedDrive is both visionary and innovative. As the heart but also as the expression of the highly integrated networking of the vehicle, these interfaces are the points of contact via which driver and passenger interact with the vehicle on the one hand and with the environment and the world of data on the other. Three independent display instruments, fully networked with one another, process and prepare the incoming information and present relevant information in the driver's and passenger's fields of view. Perfectly matched, they expand awareness of the outside world and of the interior of the vehicle.

Ergonomic, needs-based access to information has always been one of BMW's special areas of expertise. With the three-dimensional displays in the BMW Vision ConnectedDrive, the BMW Group development engineers underscore this most impressively. The three-dimensional Head-Up Display and the three-dimensional freely programmable instrument cluster, familiar from BMW Vision EfficientDynamics, hold the entire spectrum of information for the driver. With the Passenger Information Display, the passenger has - for the first time - his own independent display, which cannot be seen by the driver. The displays, along with their functionality and locations, have thus been carefully tailored to these two people and placed in their lines of sight.

### **The three-dimensional Head-Up Display - ensuring that vital information is always in view.**

A large section of the windscreen, directly in front of the driver, acts as a Head-Up Display in the BMW Vision ConnectedDrive. In the BMW Vision ConnectedDrive this area, enhanced by augmented reality functionality, is the main information display interface for the driver, taking over from a conventional instrument cluster. Information pertaining to the journey such as speed, navigational details or warnings is projected onto the windscreen. The information shown on the Head-Up Display appears directly in the driver's field of view and looks as though it is hovering above the bonnet. The major

benefit is that the driver's eyes do not need to refocus to assimilate the information because it is presented exactly where his attention is - on the road ahead.

Innovative display technology enables various pieces of content to be shown positioned three-dimensionally, one on top of the other. This superimposition allows different signals to be displayed either in the foreground or the background, depending upon the driving situation and - more importantly - upon their significance. For example, the speed of the vehicle will remain visible in the background while current information on routing or warnings are being displayed in the foreground. A further feature of the three-dimensional Head-Up Display is its ability to show the driving situation enhanced by augmented reality. The actual driving situation can be overlaid with virtual information, enriching it. The driver sees more. The Head-Up Display places the additional virtual information precisely over the actual driving situation. This, for instance, enables the superimposition of navigational information on the street itself or the highlighting of certain buildings or hazards such as vehicles or pedestrians. Thanks to the highlighting, the driver can assimilate important information much quicker and take appropriate action.

**More information - the freely programmable instrument cluster.**

The perfect piece of equipment to supplement the three-dimensional Head-Up Display is the freely programmable instrument cluster, which also has three-dimensional capability. It acts as the central information display. As an expression of maximum driving orientation, it is positioned directly in the driver's line of sight and takes the place of a conventional instrument cluster. The driver can thus see the information it displays much better, and it keeps the time during which he is obliged to avert his eyes to a minimum. The instrument cluster supplements the projected information in the Head-Up Display with further information: for example, a map showing the current route, entertainment information such as covers or title lists but also short texts like text messages or e-mails. It is therefore far superior to a conventional instrument cluster. Just as with the Head-Up Display, several layers allow content to be displayed in three dimensions and superimposition enables the prioritisation of the individual pieces of information. Since the display interface is freely programmable, the BMW Group developers have succeeded in presenting the information in the instrument cluster in an

optimal manner, displaying and prioritising it in accordance with its warning or informational character.

### **Passenger information display - personalised passenger entertainment.**

Since the conventional central display has migrated to the instrument cluster, the passenger has now been provided with his own interface in the form of the Passenger Information Display. Detached from the driver's two display instruments, the passenger has been given his own arena of interaction. Positioned so that the driver cannot see it in order to avoid distracting him, it enables the passenger to control his information and entertainment programme to suit his own requirements but also to access additional information, which he can then transfer to the driver's instrument cluster with the wave of his hand. This capability makes the Passenger Information Display in the BMW Vision ConnectedDrive an extremely important feature and illustrates the interconnecting BMW ConnectedDrive philosophy in detail. Here, information, music or address details for the navigation system can be researched by the passenger during the journey and then passed on to the driver.

The passenger interface is operated via a touch-sensitive surface located just below it and controlled by gestures. Points of light in the conductive cover of the instrument panel react to each and every touch and provide feedback on the interaction between the passenger and the vehicle. The geometric separation of operating surface and display into two layers ensures optimum operating characteristics. The operating element, located on the lower layer reaching towards the passenger, is optimally accessible. The display is located above it and is further away to optimise viewing. When inactive, the display disappears into the homogenous surface of the instrument panel and is invisible. The integration of operating surface and display into layers and corresponding surfaces gives expression to the special philosophy of functionality of the layering design: form and surfaces are functional and in this case serve as display location and operating surface.

### **Emotional Browser - surfing the reality.**

A special feature of the passenger display is the Emotional Browser: an emotional, virtual gateway to information enabling the occupants of the vehicle to familiarise themselves with the immediate environment by means of information presented in a magazine format. The passenger can simply browse, highlight or exclude topics of interest by means of filters, thus creating a completely new means of access to information - emotional and intuitive. The Emotional Browser therefore meets two criteria. On the one hand, it expands the passenger's awareness with additional information on the environment and on the other hand it functions as a filter, allowing only desired or relevant information through. Various (semantic) filters allow the flood of information flowing through the Emotional Browser to be specifically filtered and allow access to the information available according to the interests of the users. Thanks to information provided by the Emotional Browser, a building you might have driven past unnoticed, you now discover to be a museum with a rich history that is currently hosting an interesting exhibition. Information from the Data Cloud and from the location-based services connected to the Emotional Browser allow this data to be used to a greater degree, for instance for navigation to the newly-discovered restaurant, for buying tickets to the current exhibition or for a digital audio-visual city tour.

### **What about the future of BMW ConnectedDrive?**

In the case of the BMW Vision ConnectedDrive, the future is already here. It is reality today. The engineers of the BMW Group are working incessantly to turn this into reality for series production vehicles, too. However, customers can already benefit today from the sophisticated driver assistance systems in the vehicles of the BMW Group. The camera integrated into the BMW Night Vision system is able to detect not just people and animals at twilight and at night but it also analyses the pictures it captures, recognises people, calculates possible collision corridors and warns the driver of dangers which are barely perceptible with the naked eye or which cannot be seen at all. Safety is also considerably enhanced in the current range of BMW vehicles by the Active Cruise Control with Rear-End Collision Warning and Braking feature or by the Advanced Emergency Call from BMW ConnectedDrive.

The fundamental principle of BMW ConnectedDrive safety features, both today and in the future is as follows: as long as the driver is able to take action,

his actions will always take precedence over any active intervention on the part of the vehicle. Only if the driver does not react appropriately or is unable to react at all, will the vehicle provide support in the form of automated intervention, as a last resort.

As the BMW Vision ConnectedDrive demonstrates, in future, the automobile will become a highly integrated and perfectly natural part of the networked world. The networking functionality will not only simply make the connection of the vehicle to the outside world but will provide the most intelligent networking possible. Ingenious, needs-oriented solutions, which filter and sort, will make the difference. Because in future, you will be able to be online all the time, almost everywhere. Connectivity will not need to be switched on, it will simply be there. The world's data will be accessible at any time, in any place from an omnipresent Data Cloud spanning the planet. Information retrieved from "the outside" will be indistinguishable from data stored locally. The focus is on providing the right information at the right time. To achieve this, data from the most diverse of sources needs to be processed, consolidated and filtered in a targeted, demand-oriented manner. The goal is to provide the driver, the passenger and the vehicle's systems with optimal information.

Sophisticated display and operating concepts assist in finding the required information quicker and more intuitively while displaying only up-to-date and relevant data to the individual. Location-based, mood-based or situation-based services such as the familiar Google Local Search or the Emotional Browser, which is a part of the BMW Vision ConnectedDrive concept vehicle, are just a beginning. They filter information according to the driver's and the passenger's requirements and ensure that suitable information is available - in appropriate, individual doses. Networking with the outside world will in future also contribute towards the prevention of accidents involving other vehicles and road users. The safety systems presented together with the BMW Vision ConnectedDrive such as the ability to recognise vehicles as yet unseen and the highly automated braking and avoidance system are based upon concrete, on-going research projects such as Car-To-Car Communication or the Traffic Congestion and Tailback Assistant.

The rapid pace of development in the world of technology provides more and more opportunities everyday to heighten the experiences of Infotainment and comfort but also to enhance safety to an unprecedented degree. Ten years ago, when BMW ConnectedDrive was in its infancy, people were working on realising fax reception in the vehicle. Today, e-mail and text messages have made the fax a thing of the past. And perhaps in another ten years, everyday life without the functionality featured in the BMW Vision ConnectedDrive today will be unimaginable.



## 3.4 The next step towards emission-free mobility: The BMW ActiveE.

With the launch of the Megacity Vehicle (MCV) in 2013, the BMW Group will put on the road its first electrically-powered production vehicle that will meet the demands of a sustainable mobility solution for congested urban areas. Following the MINI E, the BMW ActiveE is the BMW Group's next systematic step towards the MCV, the emission-free, mass-produced electric vehicle within the framework of project i.

For this purpose and within the framework of project i, the BMW Group is conducting field tests on an internationally unparalleled scale for the use of purely electrically driven vehicles in everyday road traffic. In addition to the ongoing field tests in the USA and Europe involving more than 600 MINI E cars, the BMW ActiveE with a test fleet of over 1000 vehicles will provide further valuable insights into the demands on future electrically-powered production vehicles starting in 2011. The feedback from customers testing the MINI E and the BMW ActiveE will be fed directly into series production of the MCV, which the BMW Group will be launching under a new sub-brand.

### **The BMW ActiveE - a genuine BMW.**

On the way to sustainable, CO<sub>2</sub>-free mobility, the BMW Group now presents the next major milestone - the BMW ActiveE. Following the MINI E, the BMW ActiveE is the BMW Group's second prototype. With a power output of 125 kW/170 bhp and maximum torque of 250 Nm, the car accelerates from 0 to 100 km/h in 9 seconds, demonstrating the dynamic and agile characteristics of a BMW, and as is typical of electric vehicles, straight from a standstill. At the same time, newly conceived lithium-ion energy storage units facilitate a vehicle range of around 160 kilometres (100 miles) in everyday operation.

As a conversion car, the BMW ActiveE integrates all of the electric drive components such as the energy storage units, the electric motor and the power electronics into a vehicle body for which these things were never intended - and this has been achieved without any loss of space or comfort in the interior. Thus, the BMW ActiveE is the BMW Group's first electric vehicle

to offer four fully-fledged seats and a 200-litre luggage compartment. The BMW ActiveE is equipped with three large energy storage units. These are positioned in the area where the engine block, power transmission to the rear wheels and the tank are to be found in a vehicle driven by a combustion engine. The drive train of the BMW ActiveE - i.e. the electric motor with gear and power electronics - is located directly on the rear axle in order to save space.

### **Crash structure and energy storage units instead of a combustion engine.**

The BMW ActiveE is the first limited-production electric vehicle in which part of the high voltage-storage units is integrated into the front end of the vehicle at the cowl. There, the storage unit takes up around half of a construction space that normally serves as crash-active element and deformation zone. Extensive measures implemented in this area guarantee optimal passenger safety in the event of a crash and also ensure that the high-voltage storage unit, ancillary components and battery fluid containers remain undamaged. Hence the BMW ActiveE meets the same high safety standards as a BMW 1 Series with combustion engine, fulfilling not only crash safety requirements stipulated by the government, but also the stringent BMW corporate demands on passive safety, some of which are even higher than those required by law.

### **Construction space measures and weight optimisation.**

Many well-thought-out detail solutions provide additional space for an increased battery capacity resulting in an extended range. For example, a modified tunnel housing in the undercarriage facilitates a larger tunnel volume without reducing the amount of space available to passengers. A slightly modified centre console angle provides more construction space resulting in increased battery capacity. In order to keep the vehicle's weight as low as possible and to further increase the vehicle's range, all new components have been constantly optimised throughout the entire development process.

### **Emission-free, powerful and compact: the drive system of the BMW ActiveE.**

The BMW ActiveE represents typical BMW driving pleasure in a new form. The heart of the BMW ActiveE is the electric synchronous motor, which was

designed with the requirements of the MCV in mind. The electric motor and the power electronics of the BMW ActiveE were developed entirely in-house and are characterised in this combination by exceptional efficiency, optimized power development and a compact design. Maximum power output of the electric drive system is 125 kW/170 bhp. Maximum torque of 250 Nm is - as is typical of electric vehicles - available from a standstill and, for the first time, remains utilisable across an exceptionally broad load range. As a result, the BMW ActiveE accelerates from 0 to 100 km/h in exactly 9 seconds, the 60 km mark being reached in less than 4.5 seconds. Top speed is electronically limited at around 145 km/h (90 mph).

### **Driving and slowing down with the accelerator pedal.**

Not only does the spontaneous response enhance the intensive driving experience in the BMW ActiveE, but also the possibility to slow down using the accelerator pedal. When the driver takes his or her foot off the accelerator pedal, the electric motor assumes the function of a generator and feeds the electricity gained from kinetic energy back into the vehicle battery. At the same time, braking torque is created, which effectively slows the vehicle down. In this way, the accelerator pedal becomes a “drive pedal”. In urban traffic around 75 percent of all deceleration processes can be performed without using the brake pedal.

In addition, the BMW ActiveE features a distinctive “intermediate position” of the accelerator pedal, allowing the vehicle to “glide”. When the driver releases the accelerator pedal, the vehicle does not immediately recuperate but “de-clutches” using the electric motor’s zero momentum control, thereby utilising its own kinetic energy to move forward. The BMW ActiveE then “glides” along the road without using energy. If the driver continues to release the accelerator pedal, the vehicle will slow down. In addition, the driving dynamics interface Stability Management for Regeneration has been adapted to ensure vehicle stability when using recuperative or hydraulic brakes or when accelerating, preventing the wheels from locking or spinning.

### **Everything from a single source - BMW Group drive technology competence.**

The performance of the drive system in the BMW ActiveE is typical of a BMW. The exceptional dynamics, agility and efficiency are the result of

intensive development efforts. With the exception of the storage cell, BMW Group engineers develop everything that constitutes an electric vehicle, even the energy storage modules and their wiring, the electric motor, the power electronics and the transmission. The harmonious interaction between drive train and power electronics, road performance and range demonstrate the BMW Group's high degree of competence in this field.

**Well-adjusted: the lithium-ion storage unit with its own liquid cooling system.**

The BMW ActiveE features lithium-ion storage cells, which are being used for the first time and were jointly developed by the BMW Group and its associate partner SB LiMotive exclusively for automotive use. Combined into modules of six, eight or ten storage cells, they fit literally perfectly into the available construction space in the BMW ActiveE. The integrated cooling system constantly maintains the ideal operating temperature of the energy storage units, thereby significantly contributing towards an increase in the service capability and lifespan of the battery cells. Thanks to these measures, the BMW ActiveE achieves a range of around 160 kilometres (100 miles) with a full battery charge and auxiliary consumers switched on. According to the American FTP72 consumption cycle, the vehicle has a range of up to 240 kilometres (150 miles). The energy storage unit can be fully charged within four to five hours using the wallbox. A range of around 40 kilometres is possible after just a one-hour charge at the wallbox. Using a conventional socket in Europe, the energy storage unit is fully charged over night.

**Superior and comfortable - typical BMW, even with regard to handling.**

On the road, the BMW ActiveE offers the typical BMW driving experience. Despite a total weight of approximately 1800 kilograms, the coherent overall concept comprising drive train, handling characteristics and package guarantees the familiar supreme and agile road performance of a BMW 1 Series Coupe. Moreover, a low centre of gravity and a well-balanced axle load distribution further add to the dynamic driving characteristics. The new suspension setting ensures comfortable and superior driving in cities and the urban environment, for which the BMW ActiveE is predominantly designed.

### **BMW ConnectedDrive remote functions for the BMW ActiveE.**

With BMW MyRemote, BMW enables the user to access the extensive range of BMW ConnectedDrive functions via an app for the Apple iPhone and the iPad. The remote functions have been revised, supplemented and made available for the iPhone - especially for use in the BMW ActiveE. In addition to the "standard" remote functions such as locking and unlocking the doors, the activation of the horn or headlamp flasher for locating the vehicle within sighting or hearing range, the CarFinder for locating the car within a radius of up to 1,000 metres and the Google Local Search function, the BMW MyRemote App (available for the iPhone 3G and higher) provides the user with functions that are specific to electric vehicles. This kind of connection between remote controlled services and electric mobility is unique.

### **eCommand: in full control of charge level, range and preconditioning.**

The extended remote functions for the BMW ActiveE comprise both charge control and control of the preconditioning of the energy storage unit and with it the air conditioning of the interior. The charge control function allows the user to start and finish the charging process as well as the setting of the charge starting time via the charge timer. Via charge control the user can view the charge level at any time and see whether the vehicle is currently being charged. Users are informed of the charge level (SoC - State of Charge), the vehicle's current travel range and its range with a full battery charge.

For the first time, intelligent preconditioning offers the possibility to cool or heat both the energy storage units and the car interior, thus bringing them up to the ideal operating temperature before setting off. A preconditioned vehicle offers two advantages: firstly, the ideal operating temperature of the energy storage unit guarantees highest possible power output and hence a longer range. Secondly, the interior is already adjusted to a pleasant temperature prior to starting a journey - both in the summer and the winter.

Preconditioning can be activated directly or the user can determine via the timer when preconditioning should start. However, it is only possible to precondition the car if it is connected to a charging terminal via a battery charging lead. This ensures that the vehicle's range is not shortened due to the comfort function. On the contrary, it actually increases it as the energy

required for this is no longer drawn from the battery during the journey. Charging and preconditioning functions are, of course, also directly accessible and controllable from inside the vehicle. The iPhone serves solely as a remote control and information device.

**The Design: clearly a BMW, clearly a very special concept.**

The BMW ActiveE is based on the BMW compact-class model known for its outstanding agility and efficiency - the BMW 1 Series Coupe. Apart from silver-blue coloured, circuit-inspired graphic elements, the flowing design of the scoop in the bonnet differentiates the exterior design of the BMW ActiveE from a conventional BMW 1 Series Coupe. It provides space for the energy storage unit located beneath it. Further differentiating features are the logo "ActiveE" on the back of the car and the "eDrive" logos on the side panels as well as the high-quality chrome kidney grille. In the interior the features of the BMW 1 Series Coupe are also combined with individual details that emphasise the unique BMW ActiveE concept. Blue contrasting seams accentuate the Dakota Leather seats in exclusive Pearl Grey. Dashboard and door linings are fitted with interior trim in Alpine White and sport a high-quality "ActiveE" appliqué that transfers the exterior graphics into the interior of the car. The shift lever plaque in black and blue complements the overall graphic concept.

**BMW eDrive - the BMW ActiveE's control display concept.**

The instrument cluster and the control system iDrive were adapted to the electric drive concept of the BMW ActiveE and enhanced by specific display functions. Instead of indicating the engine speed, the instrument on the right of the cluster shows the amount of energy being taken from the battery or the current amount being supplied to it through recuperation. The "fuel gauge" below it indicates the battery charge level. The onboard computer provides additional vital information such as the remaining vehicle range, for example.

The eDrive display functions on the Central Information Display depict vehicle energy flows to make electric mobility even more perceptible and comprehensible. Moreover, the driver can see the current charge state of the battery and also check whether the air conditioning or the heating system is working. In addition, a special battery information menu provides information

on the battery energy level as well as the current and remaining vehicle range. During charging it also indicates the remaining charging time.

**Optimum comfort, optimum efficiency - the ECO PRO Mode.**

If the driver wishes to increase the range of the BMW ActiveE even further, it is now possible to do this via the ECO PRO Mode. At the touch of a button, the vehicle's drive configuration and comfort functions are modified to facilitate an even more efficient driving style. In ECO PRO Mode, the accelerator pedal characteristics have been adapted and the heating and cooling characteristics of the heating and air conditioning system have a flatter setting and therefore use less energy. The driver is also provided with tips on how to reduce energy consumption even further for the best possible motoring efficiency.



## **3.5 Fresh accents for efficiency and dynamics: The new BMW 1 Series Coupe. The new BMW 1 Series Convertible.**

As trailblazers pioneering more driving pleasure and projecting sporting elegance in the premium compact segment, the BMW 1 Series Coupe and the BMW 1 Series Convertible are delighting a steadily growing community of admirers. Fresh accents apparent in the design of the bodywork and in the conception of the interior are again sharpening the profiles of both of the two-door BMW 1 Series vehicles, highlighting the quality of their driving dynamics, while underlining their exemplary efficiency. The integration of Air Curtains in the front apron, now even more dynamically formed, is central to the modifications to the exterior. This innovative aerodynamic measure, developed within the framework of BMW EfficientDynamics, reduces the air resistance in the area of the wheel arches and results in a further reduction in consumption and emissions. In addition, both the BMW 1 Series Coupe and the new BMW 1 Series Convertible have become even more attractive through the revised concept in the design of the headlights and the rear lights.

On the occasion of the Asian premiere of the new BMW 1 Series Coupe and the new BMW 1 Series Convertible at the Auto Shanghai 2011, innovations in the areas of exterior paintwork, types of upholstery and interior trims as well as additional alloy rims will be presented, all available for both models. In addition to the high design quality, with a standard of materials and workmanship otherwise found only in the premium segment, numerous equipment characteristics and features unique in the compact segment, including the innovative services available through BMW ConnectedDrive, ensure that the new BMW 1 Series Coupe and the new BMW 1 Series Convertible will build upon their outstanding position in their competitive environment.

On the Chinese automobile market, the BMW 1 Series Coupe and the BMW 1 Series Convertible together with the five-door version of the BMW 1 Series mark the entry into a fascinating world of driving pleasure as premium automobiles belonging to the BMW brand. More than ever, the two models embody the combination of driving dynamics and efficiency, unparalleled in the compact segment worldwide, which are typical of the

brand. The characteristic driving pleasure results from powerful engines with a high degree of efficiency, state-of-the-art chassis technology along with rear wheel drive - still the only rear wheel drive to be found in this class of vehicle.

The two models offered on the Chinese automobile market, the BMW 120i Coupe and BMW 120i Convertible, are powered by state-of-the-art four-cylinder engines that are technologically based on the BMW EfficientDynamics development strategy. The power units, which feature an all-aluminium crankcase, VALVETRONIC variable valve control and double-VANOS variable camshaft timing, deliver a maximum output of 112 kW/152 bhp and offer superior driving pleasure combined with exemplary consumption and emission levels.

**New accents in design: the powerfully modelled front apron underlines the sporting character.**

Due to targeted design modifications, the Coupe and the Convertible have gained even more autonomy within the BMW 1 Series. The BMW 1 Series Coupe is distinguished by the striking combination of a powerful body with a seemingly light greenhouse. In addition, with its long bonnet, its long wheelbase and the passenger compartment set back, it possesses the classic proportions of a BMW Coupe. This authentic transfer of the character of the Coupe to the compact segment is just as unique as the elegantly stretched lines, which also make the BMW 1 Series Convertible an exception in its segment. The horizontal waistline and the flat rear end characterise the sporting, elegant silhouette of the four-seater. What is more, the short A-columns guarantee a particularly intense open-air feeling. The high-quality textile top of the BMW 1 Series Convertible both opens and closes automatically within 22 seconds. The operating mechanism for the top can be activated while driving at speeds of up to 40 km/h. The opening process can be continued at speeds of up to 50 km/h.

The agile, sporting character of both the new BMW 1 Series Coupe and the new BMW 1 Series Convertible is additionally emphasised by the particularly expressive contours of the front apron. The complexly modelled interaction between concave and convex surfaces strengthens even more the individual appearance of both models within the BMW 1 Series. The front apron, with one large central air intake and two side intakes positioned in the lower

section, reaches down towards the roadway, thus underscoring the orientation to the road and the urge of both models to move forwards, with energy and drive.

**The innovation of Air Curtains: optimised aerodynamic characteristics reduce emissions.**

The most functionally significant innovation to the front design of the Coupe and the Convertible is the integration of Air Curtains into the outer air intakes. They have the effect of considerably reducing turbulence in the area of the wheel arches by optimising airflow. At the outside edge of the side air intakes, the inflowing air is guided through closed ducts, which lead along the inside of the front apron to the two wheel arches. In each wheel arch, the air emerges from a narrow, vertically oriented slot so that it is directed just along the sidewalls of the tyre at high speed.

The airflow takes the form of a curtain covering the wheels. In this way, the innovation, which quickly gained the name of Air Curtain, reduces the air resistance in the area of the wheel arches. This optimisation of the aerodynamic characteristics results in a further reduction in emissions and consumption within the framework of BMW EfficientDynamics.

**Expressive and unmistakable: the newly-designed headlights and rear lights.**

The newly-designed headlight units contribute to the particularly expressive appearance of the front of the vehicle. The new design underlines the high quality of the light source technology more clearly than ever. The upper edge of the dual, round headlights sports an accentuating chrome trim, creating the focussed look so typical of BMW vehicles. In combination with the optional Xenon headlights, an LED-powered accent light fulfils this task in a particularly intensive fashion.

The characteristic L-shaped rear lights are also more sharply defined on the new BMW 1 Series Coupe and the new BMW 1 Series Convertible. The unmistakable night design is accomplished by two horizontal banks of lights, which function as reversing lights. These are fed from LED units on vehicles equipped with Xenon lights. The cover glass of the rear lights is coloured red over its entire surface, with only a narrow, horizontal white band for the reversing light breaking the uniform colour scheme.

**New exterior paintwork, alloy rims, upholstery and interior trims for more individuality.**

The new selection of exterior paintwork, rims, upholstery and interior trims offers additional possibilities to define the exterior and interior of the vehicle to satisfy personal preferences. Vermillion Red and Marrakesh Brown, both of them metallic colours, are now available for the Coupe and the Convertible. The range of optional alloy rims available has been extended to include a 17-inch five-spoke set, a further 17-inch set in an aerodynamically optimised turbine spoke design and an 18-inch set of rims with V spokes.

The range of upholstery and interior trims also contains new highlights. The Network fabric is now available in Magma Brown, the Boston Leather option can now also be ordered in Savannah Beige and Oyster. The range of interior trim strips now also includes Alpine White.

**Unique driving pleasure: four-cylinder engine with VALVETRONIC, Steptronic six-speed automatic transmission.**

Typical BMW high-revving enjoyment, spontaneous power development and a degree of efficiency unmatched by the competition - that describes the four-cylinder engine available on the Chinese automobile market for the new BMW 1 Series Coupe and the new BMW 1 Series Convertible. The 2.0-litre power unit for the BMW 120i Coupe and the BMW 120i Convertible incorporates special features, including an aluminium crankcase, VALVETRONIC variable valve control and double-VANOS variable camshaft timing. The power unit delivers a maximum output of 112 kW/152 bhp at 6,400 rpm. Maximum torque of 200 Nm is available at 3,600 rpm. Both models feature as standard a six-speed automatic transmission with Steptronic.

**High-quality features and equipment, innovative services.**

The new BMW 1 Series Coupe and the new BMW 1 Series Convertible emphasise their premium pedigree with a level of standard equipment for both safety and comfort which is both excellent and comprehensive. In addition, numerous options are available, some unobtainable elsewhere, unique to the brand.

The range of driver assistance systems is also unmatched in the compact segment.

Options available for both the new BMW 1 Series Coupe and the new BMW 1 Series Convertible include the rain sensor with automatic headlight control and the Park Distance Control.

## 3.6 Getting ahead with intelligent four-wheel drive: BMW xDrive on the road to success.



The right drive system guarantees driving pleasure in any situation. Intelligent four-wheel drive technology BMW xDrive, which permanently transfers power to where it is needed, provides the ideal preconditions. BMW xDrive ensures supreme traction, maximum safety, best possible handling and optimum delivery of power in all kinds of weather and in all road conditions. Thanks to the conceptual advantages and the ongoing development of the system, the world's most successful premium carmaker has also managed to seize an excellent position on the market for all-terrain vehicles. Today, every fourth BMW sold worldwide is equipped with BMW xDrive.

Above all, it is the sustained success of BMW X models that is significantly responsible for this development. With their distinctive interpretation of typical BMW driving pleasure they have sparked worldwide fascination. The transfer of the vehicle concept to a variety of segments has resulted in an ever-increasing popularity. The diversity of the BMW X models offered on the Chinese automotive market ranges from the BMW X1, the BMW X3 and the BMW X5 to the BMW X6 and the BMW ActiveHybrid X6. In addition, the high-performance sports cars BMW X5 M and BMW X6 M, both fitted with xDrive, offer the possibility to experience outstanding driving dynamics combined with superior four-wheel drive technology. This means that BMW currently offers in China 11 models featuring xDrive technology to ensure variable distribution of torque to the front and rear axles.

### **Over 25 years of BMW four-wheel drive technology for enhanced traction, stability and dynamics.**

Four-wheel drive was first offered for a BMW 3 Series model in 1985 as an addition to the model range and alternative to the characteristic BMW rear-wheel drive technology. At that particular point in time, power transfer to both axles was not solely designed to optimise traction on non-surfaced roads and in adverse weather conditions, but also for better driving dynamics in bends. The current version of the BMW xDrive four-wheel drive system lives up more than ever to this expectation. Through the linking of the four-wheel drive system with Integrated Chassis Management (ICM), each driving situation is

identified and assessed in order to implement prompt and adequate corrective intervention. This can be effected solely via xDrive or in combination with Dynamic Stability Control (DSC) or Performance Control. Spontaneous and precise distribution of drive force is varied in such a way as to ensure typical BMW handling even in fast and dynamic bends.

Unlike other car manufacturers who utilise four-wheel drive technology mainly to compensate for the lack of traction offered by front-wheel driven vehicles, BMW favours typical rear-wheel drive characteristics for the xDrive system's setting. On BMW models featuring a four-wheel drive system, most of the drive torque delivered even in normal driving situations is transferred to the rear wheels. This is where it is optimally transformed into vehicle dynamics as is the case with the brand's one-axle drive automobiles. Thus, typical BMW steering precision also remains virtually free from torque steer on the four-wheel drive models. In fact, driving around bends is optimised even further. For the benefit of exceptionally precise steering and a high degree of tracking stability, new-generation xDrive directs more motive power to the rear axle as soon as the vehicle enters the bend. In this way, the characteristic driving pleasure is enhanced even further.

### **Four-wheel drive technology by BMW: consistent advancement, dynamic growth.**

Since debuting in 1985, four-wheel drive technology by BMW has developed from an option initially restricted to selected models into a driving force for the consistently pursued extension of the model range. Since then, four-wheel drive technology has been under consistent further development. The permanent four-wheel drive concept used on the BMW 325iX launched in 1985 featured viscous locks in the transfer gearbox and rear axle differential, which provided in an almost rigid interconnection an on-demand optimisation of traction and directional stability as a function of the speed differential between front and rear wheels. The arrival of four-wheel drive technology in the BMW 5 Series in 1991 also marked the debut of an electronic control system for distribution of drive force. The newly conceived system featured an automatically controllable and infinitely adjustable multi-disc clutch that ensured on-demand variation of torque distribution between the front and rear wheels. Initially, a hydraulically controlled multi-disc clutch was used on the rear axle, but later replaced by electronically controlled brake intervention.

When analysing the current driving situation, the four-wheel drive system's control unit monitors the wheel speed signals of the ABS, speed and throttle position of the engine as well as brake status.

Right from the very beginning, the four-wheel drive system featured in the BMW 525ix, which was available both for the sedan and the touring version, proved to be one of the most superior concepts in its competitive environment. The electronic control function permitted exceptionally fast and precise response, resulting in neutral and safe handling in adverse conditions such as wet or snow-covered roads.

The introduction of the Sports Activity Vehicle (SAV) segment opened entirely new perspectives for the four-wheel drive concept. In 1999, BMW caused quite a sensation with this innovative vehicle concept. The BMW X5 offered fascinating driving dynamics that were unique in the all-terrain vehicle segment, the characteristics of the BMW four-wheel drive concept also focusing on this principle. In normal driving conditions, drive force was distributed at a ratio of 38:62 percent to the front and rear wheels via a planetary gear. Thanks to the standard equipment features DSC (Dynamic Stability Control), ADB-X (Automatic Differential Brake) and HDC (Hill Descent Control), the BMW X5 was equipped to master both sporty driving as well as the demands of off-road driving.

### **Leading the competition with innovative vehicle concepts and BMW xDrive.**

With the establishment of the SAV concept in a further segment in 2004, BMW underlined yet again its role as a trailblazer. With more compact dimensions in comparison to the BMW X5 and even better agility, the BMW X3 also proved to be an absolutely unique vehicle. And for many years it was to remain the only premium vehicle in its class.

BMW managed to get ahead of the competition in the field of four-wheel drive technology as well. The newly developed four-wheel drive concept xDrive, which was also introduced to the BMW X5 simultaneously with the launch of the BMW X3, featured an exceptionally fast-operating, electronically controlled multi-disc clutch in the transfer gearbox and, in conjunction with the Dynamic Stability Control function (DSC), was also able to offer unbeatably favourable preconditions for variable and consistent on-demand

distribution of drive force. For the very first time, it was possible when analysing the driving situation incorporate not only the wheel speed, but also the data provided by the DSC function pertaining to steering angle, accelerator pedal position and lateral acceleration, including the driving condition calculated from it. This resulted in the laying of the foundation for the status of xDrive as the world's only intelligent four-wheel drive technology, a status that has remained valid until this very day. Unlike conventional four-wheel drive systems, which react to wheelspin only when it happens, xDrive is able to identify a tendency to oversteer or understeer well beforehand and counteract this well in advance by modifying the distribution of drive torque.

More than 600,000 units of the first-generation BMW X3 were sold worldwide. Shortly before that, sales of the BMW X5, the second generation of which has been produced since 2006, had already exceeded the 1 million mark.

**Supreme traction, superior dynamics: BMW xDrive with a revised setting and Dynamic Performance Control.**

Meanwhile, both the outstanding potential of BMW X models and xDrive technology have brought about even further innovations. 2008 saw the arrival of the BMW X6, which was and still remains the world's first and only Sports Activity Coupe. And BMW xDrive is also featured in the BMW ActiveHybrid X6. Since 2009, the BMW X1 has been the only vehicle of its kind in the premium compact segment.

On the BMW X1, xDrive can be combined with the Performance Control function, which enhances the agile handling characteristics even further. Targeted braking of the rear wheel nearest the inside of the bend coupled with a simultaneous increase in engine output ensures particularly spontaneous and precise steering behaviour. The X6, which features Dynamic Performance Control as standard, offers even more variable distribution of drive force. Combined with xDrive, this system guarantees typical BMW driving pleasure when driving around bends. Thanks to the variable distribution of drive force between the inner and outer rear wheels in a bend, Dynamic Performance Control offers unmatched agility and stability even during sudden load changes or deceleration.

The interaction between xDrive and Dynamic Performance Control can be best experienced in the models BMW X5 M and BMW X6 M. The first four-wheel drive high-performance sports cars from the BMW M GmbH are powered by an eight-cylinder power unit with M TwinPower technology, delivering 408 kW/555 bhp.

## 3.7 First-class protection in any situation: BMW security vehicles.



With the current offer of security and high-security vehicles BMW is setting new standards in the protection of persons at risk while travelling in their vehicles. The selection of models guarantees tailored protection against criminal assaults and/or attacks. The BMW security and high-security vehicles excel through exceptionally effective and technologically advanced security components. At the same time, they offer brand-typical driving dynamics, outstanding travel comfort and functionality suitable for everyday use. The BMW 760Li High Security and the BMW 750Li High Security are the first models in the world to be certified according to BRV 2009 and both vehicles meet the requirements of the new bullet resistance class 7. Due to their highly effective protective armour, the non-transparent body areas of both models even meet the requirements of bullet resistance class 9. The BMW X5 has set standards in the VR4 ballistic protection category. The car is certified according to the international European standards DIN EN 1063 and DIN EN 1522/23-1 and can accommodate up to five persons. Thanks to its superior drive and suspension technology, drivers have optimal vehicle control at all times, also in demanding driving situations and on off-road terrain.

The permanent advancement in the protection of persons at risk is the result of a determined development and long-standing experience. BMW is one of the few automobile manufacturers in the world who are building on a long-standing tradition of producing security vehicles. BMW's reliable and refined solutions for vehicle security and passenger protection are based more than thirty years of experience in security vehicle engineering. The integration of modern security components is an integral part of the development process of the corresponding production car. The finely-tuned adaptation of the suspension technology provides the BMW security vehicles with an extremely coherent overall setup. The protective components have been integrated into the vehicle in such a way as to achieve an extremely high security standard and to virtually retain the driving dynamics and the comfort that are typical of BMW.

The integrated concept of the security and high-security vehicles, which feature state-of-the-art technology, is tailored to the exacting security requirements of private persons at risk, state representatives, business leaders and VIPs the world over. In order to meet the various demands of these target groups, security vehicles of different categories are developed. If required, the security vehicles can be enhanced with additional equipment options. BMW also offers special options for authorities, governments and embassies.

**A new definition of maximum security:**

**The BMW 7 Series High Security.**

The BMW 760Li High Security and BMW 750Li High Security luxury sedans provide optimum safety in the individual mobility segment in combination with unparalleled comfort of travel, superior drive technology and an abundance of innovative equipment features that make a significant contribution to confident motoring in all situations. The high-security vehicles, which meet the bullet resistance class 7, are based on the BMW 7 Series with long wheelbase. For many model generations, the BMW 7 Series High Security has fulfilled the exacting security requirements of state representatives, heads of government and private persons with high security demands. This formidable reputation is based on an exceptionally high level of confidence in the concept of BMW high-security vehicles.

Thanks to innovative production methods, the security components can be tailored even more precisely to the conditions of the corresponding basic vehicle. The passenger compartment is protected by armour plating of the doors, the roof, the pillars, the front footwell and the separation wall between passenger and luggage compartment. The steel panels, which were manufactured exclusively for the high-security models of the BMW 7 Series by means of a special technique, fit the body contours perfectly. The model-specific gap sealing ensures that critical areas such as door cut and body joint lines are safely sealed. The undercarriage of both high-security sedans is also armoured by special plating which was developed and tested with a particular focus on maximum explosion protection.

A new development is the high-security sedan's six-centimetre safety glazing. Due to its innovative structure, the multi-layer laminated glass cover provides

a unique level of resistance. The window panes are covered with a polycarbonate laminate on the inside in order to prevent shattered glass particles from penetrating.

The 7 Series high-security sedans' high protection level, which is second to none, is combined with a prestigious and stylish appearance, outstanding comfort of travel and an extraordinarily powerful drive system. Both models benefit from leading-edge engine technology. Both the BMW 760Li High Security's twelve-cylinder engine and the BMW 750Li High Security's V8 engine offer a combination of all-aluminium design, BMW TwinPower Turbo Technology and High Precision Injection with direct fuel injection. Despite the increased weight of the vehicles, the engine performance characteristics of the new BMW 7 Series high-security sedans ensure that they can achieve a dynamic acceleration from standing and a powerful engine torque at all speeds. Both models have an electronically limited top speed of 210 km/h.

**Prepared for any situation: the BMW X5 Security.**

BMW's current offer of vehicles meeting the VR4 ballistic protection category comprises the BMW X5 Security, which combines brand-typical versatility, quality and driving pleasure with emergency/security features developed exclusively for this model. The BMW X5 Security is the only security vehicle of its class to offer protected interior space for up to five persons and their luggage. First-class protection is also guaranteed through moulded components and panels made of a special high-grade fibre composite. They are used for the sidewalls, the roof, in the front footwell and at the rear of the car. This protection is complemented on several parts of the vehicle by ballistic-resistant steel. 22 mm thick security glass all round is bullet-resistant according to protection category VR4 and also resists attacks using clubs, crowbars etc. Furthermore, the windows feature a polycarbonate coating that protects the interior from glass shatter. On the BMW X5 Security, the area behind the back seats is also fully protected, so that the luggage compartment can be used as a safe storage area. The split tailgate is entirely steel-plated.

In addition to outstanding security standards, the BMW X5 Security convinces with a high level of comfort, superior handling characteristics and outstanding

sporting performance. The BMW X5 Security is powered by a 261 kW/355 bhp V8 engine. It accelerates from 0 to 100 km/h in a mere 7.5 seconds and top speed is electronically limited to 210 km/h. Thanks to its intelligent four-wheel drive system xDrive, the five-seater is not restricted to driving on tarmac alone, but can also cope confidently with problematic off-road terrain. The high-quality drive and chassis technology, which comprises all elements of the production BMW X5, is ideally prepared to confidently master even extremely challenging driving situations and to avoid hazards if necessary.

### **Security advantage: development and production by BMW specialists.**

The high security standard of the BMW X5 results from its integrated security concept. Assembly of the BMW X5 Security is effected parallel to the production vehicle at the BMW Spartanburg plant in South Carolina/USA. The installation of protective features is carried out at the Toluca plant (Mexico) in accordance with BMW processes. As opposed to the subsequent fitting of armour plating, which often leads to security flaws and excessive weight on certain vehicle elements, the integration of security features during production eliminates weak points in the vehicle's structure such as door cut lines, body joints and transitions between metal and glass.

Also on the BMW high-security sedans, armour plating and security components are not simply retrofitted. Instead, BMW carries out all steps from development to production in-house, at the BMW Dingolfing plant. This approach ensures that the security components are perfectly tailored to the corresponding vehicle concept. The armour plating is integrated in perfect craftsmanship at an early production stage by BMW specialists. At the same time, specific chassis components and the brakes of the BMW 760Li High Security and the BMW 750Li High Security are perfectly adapted to the additional weight of the sedans' armour plating.

### **Model-specific certification ensures the highest protection standards.**

During development and production, all BMW security and high-security vehicles are subjected to complex test scenarios, which include ballistic tests and driving tests. The tests and certification are carried out by the Staatliche

Beschussamt München, an official Bavarian ballistics authority. While retrofitting companies can only subject the material chosen for the armour plating to a ballistic test, the certification selected by BMW puts the entire vehicle to test. This is the only way to prove the comprehensive protective capability of the overall concept under realistic conditions.

BMW provides discreet consultancy all over the world through highly qualified experts and individual service support through an international BMW service network. The world-spanning logistics network guarantees a quick supply of spare parts. As part of its special customer service, BMW offers special driver training programs for security vehicles on a worldwide basis.



## **3.8 Unrivalled performance and exclusivity: Current innovations from the BMW M GmbH product range.**

An extended model range and newly developed products for additional series ensure attractive diversity within the current BMW M GmbH product range. In addition to the portfolio of models, which has now been complemented by the BMW 1 Series M Coupe, the M Sport Package for the new BMW X3 will also be presented at the Auto Shanghai 2011. With products spanning all major vehicle segments, the BMW M GmbH is oriented more than ever towards the needs of drivers who wish to experience supreme performance in everyday road traffic and express their own personal style through first-class individualisation.

The continuing enthusiasm for high-performance vehicles and exclusive optional equipment was also responsible in 2010 for the successful business development of the BMW M GmbH on the international automotive market. The number of BMW M automobiles delivered worldwide increased by 14.2 percent to 16,967 units. By far the most powerful dynamics were observed in the Chinese automobile market; here sales increased 355 percent to a total of 1,088 vehicles. These figures advance China to fourth place in the worldwide ranking of BMW M automobile sales. Above-average sales growth was also achieved for M Sport Packages and products from the BMW Individual range in China in 2010.

The launch of the BMW X5 M and BMW X6 M models, with which the BMW M GmbH is now for the first time also represented in the all-terrain segment, made a decisive contribution towards achieving this result. The advancement into a further vehicle class will provide the basis for additional growth in 2011. As the compact segment's first high-performance coupe, the BMW 1 Series Coupe impressively enters into the world of high-performance sports cars boasting the M logo.

Moreover, in the spring of 2011, the BMW M GmbH business division will be complemented by the development, production and sale of security and emergency vehicles based on current BMW models. With these additional fields of expertise, the BMW M GmbH will be able to utilise and increase further its more than 30 years of experience in areas ranging from customer-

oriented vehicle individualisation to the production of one-offs. Like the high-performance sports cars from the BMW M GmbH, the security and emergency vehicles are being produced within the framework of an integrated development process oriented towards specific customer needs to maximise their suitability for everyday use and bring them into line with the outstanding quality and safety standards of the premium carmaker BMW.

### **Asian premiere: the BMW 1 Series M Coupe.**

The BMW 1 Series M Coupe embodies concentrated driving pleasure, transferring for the first time the fascinating characteristics of a high-performance sports car to the premium compact segment. The two-door vehicle, which will make its debut in Asia at the 2011 Auto Shanghai, impresses with its drive and suspension technology, both a direct result of experience gained on the race track, its superior power-to-weight ratio, the athletic, aerodynamically-optimised M design and a model-specific interior. The harmony of concepts, which sets M automobiles apart, is evident in the BMW 1 Series M Coupe, confidently meeting the exacting demands of the race track, while mastering the diverse challenges of every day driving. The spectrum of models in the BMW M GmbH range has been expanded, reaching additional and in particular young target groups, introducing them to the passion for superior performance and an outstanding sporting style.

The BMW 1 Series M Coupe is powered by a 3.0-litre, six-cylinder in-line engine equipped with M TwinPower Turbo and direct fuel injection. This power unit, which develops 250 kW/340 bhp, gives the compact four-seater a driving performance that even leaves the previous model of the current BMW M3 way behind on the race track. The BMW 1 Series M Coupe accelerates from zero to 100 km/h in just 4.9 seconds and reaches the 200 km/h mark in just 17.3 seconds.

### **Premiere: the M Sport Package for the new BMW X3.**

The M Sport Package, presented at the Auto Shanghai 2011, ensures an unforgettably intense driving experience in the new BMW X3. This package, specifically designed for the new Sports Activity Vehicle range, comprises high-quality components for the chassis, the vehicle's aerodynamics, exterior and interior. These include the M Aerodynamics Package, alloy wheels tailor-

made for the M and an interior design totally focused on concentrated driving pleasure.

The M Sport Package sharpens the dynamic handling characteristics of the new BMW X3 decisively and expresses these most strikingly in the vehicle's appearance. The equipment includes the M Aerodynamics Package, exhaust pipes with chrome trim and the BMW Individual High Gloss Shadow Line for the side window frames and also for the roof rails. The body components of the M Aerodynamics Package for the front, side and rear are finished in body colour, the insert in the rear apron comes in Dark Shadow Metallic.

The driving dynamics potential of this Sports Activity Vehicle is increased even further by a sports suspension, 18-inch M alloy wheels and Performance Control for the standard xDrive four-wheel drive system. An automatic sports transmission, including steering wheel-mounted shift paddles and variable sports steering including Servotronic round off the vehicle's capabilities. As an option, 19-inch M alloy wheels are also available with mixed size tyres. In addition, 20-inch M alloy wheels with mixed size tyres can be obtained from the range of accessories.

In the interior of the new BMW X3 with the M Sport Package, driving pleasure is heightened by sports seats in the exclusive fabric/leather Pearlpoint, an M steering wheel fitted with multifunctional buttons including cruise control, doorsill trim bearing the M logo and an M footrest for the driver. An anthracite BMW Individual roof liner, brushed aluminium interior trim and a stainless steel sill finisher on the edge of the luggage compartment round off the vehicle's premium sporting ambience.

Carbon Black Metallic, an exclusive paintwork option in combination with the M Sport Package, is now also available in addition to the current range of exterior colours. The M Sport Package can be combined with all engine versions available for the Sport Activity Vehicle. With the above products, the BMW M GmbH is steadily extending its range for the BMW X models. A model-specific M Sport Package is also available for the BMW X5.