

The first ever BMW i4. Contents.



This Media Information describes the technical specifications and equipment level of vehicles for the German market. These may vary for other markets. All numbers are preliminary. Homologation figures are not yet available.

Vehicle concept.

Electric driving pleasure comes to the heart of the BMW brand. 2

Driving dynamics.

Signature BMW sporting prowess and unique design coherence. 9

Drive system technology and model variants.

Fifth-generation BMW eDrive technology, now also
in a BMW M model. 19

Design.

The perfect blend of dynamism and sustainability. 28

Interior and wide-ranging equipment.

Premium ambience with individual style. 33

Digital services and connectivity.

The all-new BMW iDrive – Creating a natural dialogue between user
and car. 39

Driver assistance systems.

Intelligent technology for driving pleasure, comfort and safety. 47

Production.

Flexible manufacturing at BMW Group Plant Munich. 53

Vehicle concept.

Electric driving pleasure comes to the heart of the BMW brand.



The BMW Group is presenting the first all-electric premium car aimed at the traditional core of the midsize segment. The BMW i4 packages the agility and dynamic authority underpinning the brand's fabled sense of driving pleasure, plus sedan comfort and modern functionality in a fresh new format with zero tailpipe emissions. It thereby signals the arrival of electric mobility at the very heart of the BMW brand. The i4 blends its sporty yet sustainable profile with the graceful design, spaciousness and practicality of a four-door gran coupé.

The newcomer sets class-leading standards not only for driving dynamics, for long-distance comfort and with its elegant and striking looks, but also through its uncompromising standards when it comes to the selection of premium-quality materials and in terms of workmanship. The latest generation of the iDrive system, cutting-edge innovations in the areas of automated driving and parking assistance, plus a wealth of options for customising the car's design and equipment produce an emotionally rich driving experience.

Fifth-generation BMW eDrive technology – comprising the power electronics, charging technology and high-voltage battery as well as the highly integrated electric motors – endows the BMW i4 with the sporting prowess for which the brand is renowned, combined with compelling everyday usability and long-distance capabilities. This all-new take on BMW's signature driving pleasure will hit the road later this year. This marks the first time that fifth-generation BMW eDrive technology will be deployed in an electric all-wheel-drive configuration.

The BMW i4 will be available in two different model variants from launch, including the first ever BMW M car with all-electric drive. The BMW i4 M50 (electric power consumption combined: 24 –

All figures relating to output, charging capacity, performance, energy consumption, emissions and range are provisional.

The electric power consumption and operating range figures are determined according to the European Regulation (EC) 715/2007 in the version applicable and as per the WLTP procedure. They refer to vehicles in the German market. Where a range is shown, WLTP figures take into account the impact of any optional extras.

All values were calculated based on the new WLTP test cycle. WLTP values are taken as the basis for determining vehicle-related taxes or other duties based (at least inter alia) on CO₂ emissions as well as eligibility for any applicable vehicle-specific subsidies. Further information on the WLTP and NEDC measurement procedures can also be found at www.bmw.de/wltp.

Further information on official fuel consumption figures and specific CO₂ emission values of new passenger cars is included in the following guideline: 'Leitfaden über den Kraftstoffverbrauch, die CO₂-Emissionen und den Stromverbrauch neuer Personenkraftwagen' (Guide to the fuel economy, CO₂ emissions and electric power consumption of new passenger cars), which can be obtained free of charge from all dealerships, from Deutsche Automobil Treuhand GmbH (DAT), Hellmuth-Hirth-Str. 1, 73760 Ostfildern-Scharnhausen and at <https://www.dat.de/co2/>.

19 kWh/100 km [62 miles] in the WLTP cycle, CO₂ emissions: 0 g/km) is a performance model from BMW M GmbH delivering high-intensity driving pleasure. Equipped with electric motors at both the front and rear axle with a combined maximum output of 400 kW/544 hp and M-specific chassis technology, it promises captivating performance while achieving a range of up to 510 kilometres in the WLTP test cycle (up to 235 miles with 19-inch tyres according to EPA label). In the BMW i4 eDrive40 (electric power consumption combined: 20 – 16 kWh/100 km [62 miles] in the WLTP cycle, CO₂ emissions: 0 g/km) a 250 kW/340 hp electric motor teams up with classical rear-wheel drive to enable locally emission-free driving with an impressive dose of sporting flair. It has a WLTP-calculated range of up to 590 kilometres (305 miles with 18-inch tyres and 275 miles with 19-inch tyres according to EPA label).

Flexible vehicle architecture, superior coherence in design.

In line with the BMW Group's current second phase of transformation towards electric mobility, development of the BMW i4 is based on a flexible vehicle architecture that has been devised for an all-electric drive system from the outset and is also perfectly equipped to produce the sportiness expected of a BMW. Measuring 110 millimetres in height, the exceptionally slim high-voltage battery cells located low down in the vehicle floor brings about a significant drop in the car's centre of gravity with the resulting beneficial effect on handling agility. The battery's positioning and the drive system technology's compact design produce the balanced weight distribution that is also a characteristic trait of the brand's cars. Thanks to its sophisticated, high-quality chassis technology that has been precisely tailored to both the vehicle concept and the drive system's performance characteristics, the BMW i4 boasts a degree of design coherence its rivals cannot match. The BMW Group also called on its many decades of experience in the development of exceptionally sporty premium cars when carrying out the integrated application of all powertrain and chassis components.

The flexible vehicle architecture goes hand in hand with high-quality design rooted in the BMW brand's new styling language, whose pin-sharp clarity is carried over neatly into the distinctive lines of a four-door coupé. In this way, purely electric drive is combined with the sporting elegance and wide-ranging functionality of a gran coupé offering supreme everyday usability and long-distance capabilities thanks to its five full-size seats, exterior length of 4.785 metres, large, wide-opening tailgate and versatile luggage compartment offering 470 – 1,290 litres of load space. The signature BMW look, balanced and – even at the limits of performance – effortlessly controllable driving characteristics and

a powerful electric drive system that is also eminently suited to long journeys are therefore brought together as a perfect whole that ushers in a new era of driving pleasure, BMW style.

Sustainability-enhancing advances: fifth-generation BMW eDrive technology.

Fifth-generation BMW eDrive technology – comprising the electric motors, power electronics, charging technology and high-voltage battery – forms the basis for driving pleasure with zero tailpipe emissions in the BMW i4. Developed by the BMW Group, the standalone design principle for the electric motors, and their compact arrangement within a housing shared with the transmission and power electronics, are key factors in the drive system's outstanding power delivery and efficiency. This highly integrated drive technology results in an improvement in power density over the electric drive system in the 2020 BMW i3 of around 30 per cent.

The high operating range of the BMW i4 can also be attributed to the gravimetric energy density of its high-voltage battery, which has been upped by 20 per cent, again in comparison to the BMW i3. At the same time, maximum charging capacity for the latest-generation batteries has now been increased to 210 kW. The latest advances made in the field of battery technology are the result of many years of relentless research and development work. The BMW Group has been producing battery modules and high-voltage batteries for vehicles with electrified drive systems since 2013. The company can call on immense reserves of in-house expertise and experience when it comes to both battery cell technology and the manufacture of model-specific high-voltage batteries.

The advances achieved since the market launch of the BMW i3 – combined with a helping hand from fifth-generation BMW eDrive technology – enable improvements in operating range through intelligently enhanced efficiency. This means disproportionately large batteries, which would have such a negative effect on vehicle weight, driving dynamics and electric power consumption, can be avoided. This typically BMW concept not only reduces energy costs, it also optimises the car's sporty driving characteristics and enables long-distance journeys to be completed at high average speeds.

The battery cells for the high-voltage batteries are manufactured in accordance with the BMW Group's precise specifications and in a form perfectly tailored to the specific model. Battery modules are produced from these prismatic cells at BMW Group Plant Dingolfing. The high-

voltage batteries for the BMW i4 are then assembled by fitting these modules together in a model-specific arrangement.

Sustainability throughout the value chain.

The all-encompassing sustainability concept at the essence of the BMW i4 on both a product and a manufacturing level also includes closely monitored raw materials production and a remarkably high proportion of recycled materials. Making responsible use of resources throughout the entire value chain and minimising the carbon footprint at all stages of the product life cycle underpin the trailblazing conception of premium mobility that has been evolving at the BMW Group for many years now and plays such a prominent role in shaping the BMW i brand character.

The sustainability targets defined for the BMW i4 also include the upstream production chains. Appropriate environmental sustainability measures were established in consultation with suppliers. The BMW Group has secured commitments from all makers of battery cells for fifth-generation BMW eDrive technology to only use electricity from renewable sources. The aluminium casings for the electric drive system in the BMW i4 are likewise manufactured using purely green power. Only hydroelectric power generated locally is used in the vehicle's production at BMW Group Plant Munich.

The resulting carbon footprint is stated in a validation document endorsed by independent auditors. The corresponding certificate for the BMW i4 eDrive40, for instance, shows its global warming potential is around xx per cent lower than that of a gran coupé with a comparable diesel engine over a total mileage of 200,000 kilometres (approx. 125,000 miles). Just by utilising green energy for production of both the battery cells and the vehicle and making increased use of secondary materials, CO₂ emissions are cut by xx per cent compared to vehicle production without deployment of these measures.

Monitored raw materials production, transparent supply chains.

The high-voltage battery in the BMW i4 is based on the latest evolution featuring NMC-811 technology in BMW's customary prismatic design. During development of the current generation of battery cells, the proportion of cobalt contained in the cathode material was reduced to less than ten per cent. In addition, the BMW Group procures the cobalt required for this battery cell generation itself and then makes it available to the battery cell suppliers. The lithium required for battery cell production is likewise obtained under transparent conditions that are

monitored by the BMW Group. The BMW Group sources the lithium used in the high-voltage battery pack on board the BMW i4 from hard-rock deposits in Australia and passes it on to the battery cell makers. The company can therefore ensure that environmental and sustainability standards are observed during the extraction and processing of cobalt and lithium and that there are no violations of human rights.

Added to which, the electric motors for the BMW i4 are marked out by a design principle which enables the use of rare earths to be avoided. The BMW Group is therefore not reliant on the availability of these critical raw materials. The ongoing increase in the proportion of secondary aluminium used is also helping to make manufacturing more sustainable. Targeted use of recycling methods for this high-grade lightweight metal can lead to a substantial reduction in the energy-intensive use of primary aluminium, which also generates high levels of CO₂ emissions when conventional manufacturing techniques are employed. Besides this, high-quality recycled plastics are also used for a large number of components in the BMW i4.

Total customer experience of premium calibre.

The many years of experience, well-developed structures and all-round commitment to quality of the world's most successful supplier of premium cars and premium mobility services set the tone for the customer experience in the areas of branding, sales and service – just as they do for the development, manufacturing and product substance of the BMW i4. The BMW i4 will be delivered to customers all over the world via an extensive international sales network covering more than 140 countries.

The sophisticated production system in use at BMW Group Plant Munich that has been perfected and continuously refined over many years allows every BMW i4 to be manufactured in accordance with the customer's exact wishes. There is virtually limitless scope for customising models, from exterior and interior design to performance, comfort and safety features to the infotainment systems. The wide variety of optional extras on offer allows each customer to enjoy driving pleasure in a personalised, tailor-made car.

The extensive network of dealers makes it easy for customers to obtain first-hand information on new models and view the actual car in the showroom or experience it on a test drive while benefiting from expert sales advice. This also keeps distances short for any vehicle servicing requirements. Over the years, a network of skilled and experienced

service partners – numbering xx in Germany, for example, and xxx in Europe – has grown to ensure rigorous compliance with premium standards in this regard too.

The BMW Group's quality pledge includes a 12-year anti-perforation warranty. Plus, the wear parts used for the chassis technology on the BMW i4 have an extremely robust design. Another key factor for running costs is the relatively small amount of work involved in repairing minor damage. The awards for design, sportiness, reliability, value retention, service, innovation and other aspects of quality that are regularly received from independent institutions provide confirmation of the exceptionally high standards met by premium cars from BMW.

Energy and running costs for the BMW i4 up to 30 per cent lower than for comparable combustion-engined models.

A new standardised tariff structure from BMW Charging for public charging stations (see chapter on Drive system technology and model variants) further increases the savings in running costs already offered by the BMW i4 over conventionally powered cars. Customers in 19 European countries will be able to choose from the Flex and Active basic tariffs. An IONITY Plus package is also available that is already included in the standard BMW Charging service for the BMW i4. This ensures that energy costs in Germany are still up to 25 per cent lower than the fuel costs for a comparable diesel model for customers who do not have the option of charging at home or at work and therefore depend on the public charging infrastructure.

The Active tariff lets customers in Germany, for example, pay a basic monthly fee of €4.99 and charge anywhere in the BMW Charging network at fixed prices of 33 cents per kWh for AC charging and 39 cents per kWh for DC charging. The basic fee is waived for the Active tariff for the first 12 months following registration of a new BMW i4. Electricity can be topped up from the IONITY network's fast-charging stations at a price of 35 cents per kWh.

When comparing total cost of ownership the difference is even greater, with the BMW i4 emerging around 30 per cent cheaper than a comparable model with a combustion engine. This cost comparison analyses not just energy costs, but also expenditure on motor vehicle tax, insurance, maintenance and wear parts. There are no oil changes for a BMW i4 and no exhaust system to service either. The BMW i4 brakes are also subject to less strain than on conventionally powered cars due to the deceleration achieved through energy recuperation.

In Germany, the BMW i4 is exempt from motor vehicle tax for the first ten years after initial registration, as are all electric vehicles. If the BMW i4 is used as a company car, further tax benefits are available, depending on model specification. These mean that the user only has to pay tax on one quarter of the benefit of kind that would normally be declared. Last but not least, the BMW i4 can be bought at a subsidised price in Germany thanks to the environmental bonus that is currently on offer, half of which comes from the BMW Group and half from the state.

Driving dynamics. Signature BMW sporting prowess and unique design coherence.



The first electric vehicle in its class, the BMW i4 is built to live up to the expectations of discerning customers who appreciate uncompromising premium quality combined with the brand's familiar dynamic driving abilities, encompassing the full performance repertoire and not just acceleration in a straight line. The all-electric gran coupé is certainly able to turn its motor's instantaneous power delivery into breathtaking bursts of speed, which are performed in almost total silence, adding to the excitement. BMW's definition of dynamic performance extends far beyond this, though. The formative elements of the signature driving experience on board a BMW also include the drive unit's specific performance characteristics, supreme traction and directional stability, neutral steering behaviour, precisely controllable handling even under maximum lateral acceleration, superb stopping power and a winning balance between sportiness and ride comfort in everyday driving and on long trips alike.

The BMW i4 is the brand's first fully electric model to have been expressly designed to deliver dynamic performance from the outset. It therefore comes with all the hallmark qualities of a BMW gran coupé and combines them with zero local emissions for the first time. The vehicle's weight and aerodynamics have both been optimised with a view to enhancing its dynamic prowess and sustainability. Other factors also contribute to the peerless sense of driving pleasure generated by the i4: the very rigid body structure, including its large tailgate, the sophisticated chassis technology, the low centre of gravity and the skilled application of all drive and chassis components, whose development and tuning were underpinned by solid expertise. The addition of a BMW M model to the range underlines the focus on a sporty driving experience. The first purely electric performance model from BMW M GmbH, the BMW i4 M50 brings the classic M formula of agility, dynamism and precision to the world of electric mobility.

Precisely coordinated premium drive and chassis technology.

The superb dynamic performance offered by both model variants stems from the unrivalled design coherence of the BMW i4 that clearly distinguishes it from other electric vehicles in its segment. Underpinning this are drive and chassis components that were all developed with the

benefit of a premium carmaker's technological expertise. The standard chassis technology's extremely sophisticated features – some of which are exclusive to BMW – include the lift-related dampers, rear air suspension, electromechanical steering with Servotronic function, integrated braking system, DSC (Dynamic Stability Control) system and near-actuator wheel slip limitation. The BMW i4 M50 boasts a bespoke adaptive M suspension with individually configured springs and dampers, specially designed anti-roll bars and an additional spring strut tower brace in the front end, along with variable sport steering, M Sport brakes and M light-alloy wheels up to 20 inches in diameter with mixed-size tyres. Meanwhile, the fully electric all-wheel-drive system making its debut in a BMW Group model helps it achieve outstanding levels of traction, directional stability and agility.

The development teams at the BMW Group and BMW M GmbH also harnessed the immense expertise acquired over many decades for fine-tuning all the individual components. An intensive programme of testing was carried out at venues including the BMW Group's test sites in Miramas in southern France and Arjeplog in the north of Sweden to make sure that the blend of motor output, power transmission, chassis set-up and body attributes creates a compelling overall package delivering familiar BMW driving pleasure in any driving situation.

The result is highly impressive driveability in all scenarios – from full-blooded acceleration through high-speed cornering to relaxed cruising. Even in adverse road conditions, the car is capable of picking up speed with apparently effortless élan. Precisely controllable response to sudden movements of the accelerator and steering wheel reinforce the driver's trust in the handling agility of the BMW i4. BMW's renowned linear build-up of lateral forces that results in such easy handling, even when being pushed to the limit, allows the driver to enjoy the car's stunning dynamic cornering abilities to the full. The BMW i4 shows itself to be a cut above the rest when it comes to driving comfort as well, its advanced chassis technology melding all its dynamic potential with a sublimely balanced overall set-up. Outstanding straight-line running and harmonious steering characteristics together with high levels of ride, vibration and acoustic comfort translate into easy, fatigue-free driving on long journeys.

Electric all-wheel drive, innovative damper technology and new near-actuator wheel slip limitation including Launch Control for majestic, explosive getaways.

The ability of top-class powertrain and chassis systems to interact with great precision and produce a driving experience that no competitor can offer becomes very apparent when accelerating sharply from stationary, for example. The BMW i4 catapults off the line with matchless poise and directional stability. The electric all-wheel-drive system in the BMW i4 M50 plays a particularly effective role here, with the presence of an electric motor at both the front and rear axle allowing drive power to be channelled to the road to optimum effect and in precise accordance with the driver's wishes, whatever the road and weather conditions. The electric all-wheel drive reacts with exceptional sensitivity to the speed of the wheels at each axle. If necessary, it can optimise traction and handling stability by adjusting the drive torque accordingly, without the traction control even having to intervene.

The fully variable system is able to choose exactly the right form of power transmission for the full range of requirements, from highly efficient pure rear-wheel drive through to an all-wheel-drive set-up that maximises traction. Normally, drive power is relayed solely to the rear wheels of the BMW i4 M50 to increase its efficiency and range. At higher levels of lateral acceleration or in response to wheel slip, the motor acting on the front wheels assumes just the right share of the drive power to optimise driving dynamics and directional stability. In the process, the drive torque control for both motors reacts notably faster and with far greater accuracy than would be possible with a transfer case positioned between the axles. This precise method of control even enables the potential of different tyres to be fully exploited. And in very demanding situations, there are also none of the efficiency losses that the thermal load on a mechanical connection would cause. Using one motor at each axle to control drive power also creates the basis for generating a very high level of recuperation.

The BMW i4 dampers with their bespoke tuning keep body dive to a minimum. The BMW-developed near-actuator wheel slip limitation, which is combined here with electric all-wheel drive for the first time, enables the car to maintain optimum traction and continue in a perfectly straight line at all times thanks to extremely quick and precise control responses. Specially configured for the instantaneous power delivery of electric motors, this traction control system is integrated into the motor management. This eliminates the long signal paths to the control unit for the DSC (Dynamic Stability Control), meaning that the corrective inputs

are applied up to ten times faster than in conventional systems and with exceptional precision.

Near-actuator wheel slip limitation is fitted on both the rear-wheel-drive BMW i4 eDrive40 and the all-wheel-drive BMW i4 M50, whose intelligent distribution of power between the front and rear wheels also keeps the vehicle glued to the road under rapid acceleration long before the traction limit is reached. Sprinting off the line therefore becomes a trouble-free affair in both models, without any wheel slip or line adjustments to detract from the exhilarating experience. The near-actuator wheel slip limitation is designed to bring the advantages of rear-wheel drive to the world of electric mobility in the BMW i4 eDrive40, whereas in the BMW i4 M50 it is set up for optimum, rear-biased distribution of drive torque between the two axles. The end result is nimble dynamism and abundant driving pleasure in both models.

There is also a Launch Control function for powering off the line with unbeatable dynamic flair. Activating it allows the driver to accelerate with optimum traction with the accelerator pressed to the floor. An oscillating torque when stationary indicates that the drive system is ready for 'launch', at which point the full combined output is instantly put on tap.

Extremely rigid body structure and chassis mountings.

With its long wheelbase of 2,856 millimetres and wide tracks that exceed the values for the BMW 3 Series Sedan by 26 millimetres at the front and 13 millimetres at the rear, the vehicle concept underpinning the BMW i4 offers the perfect recipe for neatly balancing excellent cornering dynamics with superb long-distance comfort. Integrating the high-voltage battery into the body structure further increases torsional rigidity at the bottom of the vehicle. The high-voltage battery pack is joined to the floor assembly by means of 22 bolts, while its casing is also directly connected to the front axle subframe.

The BMW i4 comes with a model-specific bracing package for enhancing body rigidity at the rear and integral tower-to-front end struts at the front, where an aluminium shear panel combines with the high-voltage battery's casing to form a load-bearing structural element offering even greater rigidity. In order to deliver the extra-sharp driving dynamics expected of the BMW i4 M50, an additional strut is fitted between the two spring strut towers that helps first and foremost to give the BMW M model its formidable steering precision.

Weight-optimised bespoke chassis technology.

Featuring a construction that has been optimised for both weight and rigidity, the newly engineered chassis technology for the BMW i4 provides an outstanding basis for combining precisely controllable handling – even when the car is being driven very hard – with impressive long-distance comfort. The double-joint spring strut front axle has swivel bearings and control arms made from aluminium, with the resulting reduction in weight improving damper response to uneven road surfaces. Axle kinematics, track width and camber have all been specially configured to increase steering precision and the absorption of lateral forces when powering through corners. The model-specific elastokinematics help to ensure precise wheel guidance and increase primary ride comfort. This includes using a hydraulically damped torque strut bearing to reduce oscillation and vibration. The BMW i4 M50 also features an elastic bearing for the front drive unit in the front axle subframe that helps increase acoustic isolation from the body.

The design principle behind the five-link rear axle likewise lends itself to a harmonious blend of dynamism and comfort. Control arms in an innovative sheet-steel construction together with aluminium wheel carriers and upper wishbones serve to reduce unsprung masses. At the rear axle, torsion-resistant control arms and model-specific elastokinematics make a further contribution to precise wheel guidance. The electric motor's dual elastic bearing is completely integrated into the rear axle subframe, combining with the subframe's large supporting base to provide effective acoustic isolation.

Wonderfully accurate steering, sensational cornering dynamics.

The structural rigidity of the body and chassis mountings provides exactly what is needed for sharp turn-in response and great cornering dynamics. The electromechanical steering system stands out for its excellent directional accuracy and low sensitivity to the disruptive forces triggered by uneven road surfaces. It offers the driver accurate feedback at all times and is free of torque steer, even during phases of sharp acceleration or deceleration. The standard Servotronic speed-sensitive power assistance offers two settings – one very direct and one more comfortable – that form part of the overall vehicle set-up activated by the driver using the Driving Experience Control switch.

Dynamism and comfort are both raised another notch by the variable sport steering that is available as an option for the BMW i4 eDrive40 and fitted as standard in the BMW i4 M50. This combines the Servotronic function with a variable rack ratio that also adjusts the angle the steering

has to be turned to as a function of vehicle speed. This makes the car more nimble when parking, manoeuvring and taking turns, while there is a notable increase in agility at moderate speeds and the steering acquires a very assured feel at higher speeds.

The superb driving qualities of the BMW i4 are partly down to its balanced weight distribution and its low centre of gravity. The high-voltage battery is positioned low down in the vehicle floor, bringing about a drop in the centre of gravity that has a positive impact on the car's agility. The centre of gravity is 34 millimetres (BMW i4 M50) or 53 millimetres (BMW i4 eDrive40) lower than on a 3 Series Sedan.

Lift-related dampers and rear air suspension as standard, adaptive M suspension.

With its superb straight-line poise and exceptional stability in corners, the i4 feels light and agile to drive, but also solid and dependable. Producing these characteristics involved carefully matching not just its steering, but also the springs and dampers to the vehicle concept, the drive unit's performance profile and the chassis design as part of integration into the overall vehicle.

The BMW i4 eDrive40 is equipped as standard with a lift-related damping system that generates linear damper force according to the changing spring travel, resulting in harmonious damping response. Body movement is reduced perceptibly when evening out vibrations caused by bumpy road surfaces. Extra hydraulic damping on rebound at both the front and rear axle prevents excessive body dive when driving over large bumps.

The bespoke configuration of the lift-related damping in the BMW i4 eDrive40 is designed to improve both its sporting abilities and comfort. The adaptive M suspension that is available as an option for the BMW i4 eDrive40 and fitted as standard in the BMW i4 M50 in a model-specific version with specially tuned springs and dampers allows the driver to adjust the damper setting to suit the driving situation and their personal preferences. The dampers at the front and rear axles are controlled electronically and individually for each wheel. This increases agility and body stability when taking corners at speed, while also enhancing ride comfort. Damping force is adapted by means of continuously adjustable valves, which are controlled to adjust force as required in just a few milliseconds after factoring in longitudinal and lateral acceleration, vehicle speed, steering angle, body acceleration and wheel acceleration at the front axle. Damper control settings with clearly

distinguishable characteristics optimised for either sporty driving or a more comfortable ride will be enabled, depending on the overall set-up mode selected.

Standard specification for both model variants also includes rear air suspension, whose automatic self-levelling feature keeps the car at a constant ride height even when carrying a heavy load. The air suspension has been configured to increase ride comfort while also sharpening the dynamic handling abilities of the BMW i4 by greatly reducing body pitch and roll.

Precisely controllable driving dynamics right up to the limits of performance.

While the motor management's integrated near-actuator wheel slip limitation function mainly nips loss of traction in the bud while accelerating, the DSC system is responsible for optimising directional stability and steerability in dynamic situations by selectively applying the brakes at individual wheels. Its primary functions include the Anti-lock Braking System, traction control system and electronic stability control. The easily activated Dynamic Traction Control (DTC) mode allows a higher degree of wheel slip, helping the driver to explore the car's performance limits. Judicious oversteer can be used to execute controlled drifts, for instance. It is also easy to engage the DSC off mode for extremely sporty driving without any brake intervention to stabilise handling.

The DSC system further enhances handling stability, agility and dynamism in the i4 with its Performance Control, Automatic Differential Brake, Brake Standby, Brake Assist, fading compensation, Dry Braking and Trailer Stability Control functions. When braking sharply on road surfaces with varying grip levels, a steering input helps the driver to correct any ensuing vehicle yaw. Meanwhile, comfort is given a further boost by the drive-off assistant and Automatic Hold functions.

Integrated braking system optimises stopping power and pedal feel.

Unwanted pedal feedback is eliminated when recuperation is being used to slow the car at up to 195 kW (BMW i4 M50). The integrated braking system enables the recuperation and brake pressure elements of the overall stopping force to be combined with great precision.

Consequently, the driver enjoys superb pedal feel in all situations, as applying the same pressure to the pedal will always generate the same stopping power.

The BMW i4 is the only model in its segment to be fitted with an integrated braking system that delivers outstanding stopping power and reliable pedal feel. It enables Brake Energy Regeneration at a maximum rate of 195 kW, thereby further boosting efficiency and range. Thanks to the cutting-edge technology, the brake activation, brake booster and braking control functions are brought together within a compact module. The required brake pressure is triggered using an electric actuator, an operating principle that generates pressure more dynamically and also ensures significantly faster and more precise interventions from the driving stability control system. The integrated braking system generates a degree of stopping power adjusted precisely to the driver's inputs, while also producing consistent pedal feel unimpaired by any annoying pulsing as a result of wet road surfaces, significant lateral acceleration or high brake temperatures.

Wide choice of light-alloy wheels and tyres for optimised cornering dynamics.

The BMW i4 eDrive40 is fitted with 17-inch light-alloy wheels as standard, with customers also able to opt for a wide variety of other light-alloy wheels ranging in size from 17 to 20 inches instead. The standard equipment roster for the BMW i4 M50 includes 18-inch M light-alloy wheels that are fitted with mixed-size tyres – as are all the optional wheels in 19-inch and 20-inch formats. The wheels and tyres have been carefully dimensioned with the aim of maximising potential for building up lateral acceleration forces, resulting in excellent cornering dynamics. Also to be found on the list of optional extras for the BMW i4 M50 are high-performance tyres measuring 255/35 R20 at the front and 285/30 R20 at the rear axle. The all-electric BMW M model is additionally available with an M Technic package comprising 20-inch light-alloy wheels, M Sport brakes with larger 374-millimetre discs at the front, as well as additional aerodynamics measures for reducing lift.

Driving pleasure, safety, comfort and efficiency are all further enhanced by the standard Tyre Pressure Monitor, a more advanced version of which is making its debut in the BMW i4. The system's sensors relay data on tyre pressure and temperature for each individual wheel, which is then processed to generate corresponding readouts in the Control Display. The Tyre Pressure Monitor also factors in specific data on the tyres fitted, including manufacturer, dimensions and production date, which can now for the first time be scanned from a QR code at the factory or service partner. Exclusive to BMW, this system also simplifies use of the tyre pressure indicator in the iDrive menu. In the menu item for tyre selection, the driver has only to indicate whether the vehicle is

partially or fully laden to view information on both the ideal and current tyre pressures and decide whether there is any need to adjust them.

The digital tyre diagnosis function featured in the BMW i4 also serves to minimise the risk of punctures. The only one of its kind in this segment, it works by processing the data from the Tyre Pressure Monitor in the BMW backend together with the pressure, temperature and wheel speed readings to forecast the remaining tyre life. This complements the functionality of the Tyre Pressure Monitor by picking up any indications of tyre damage. Customers can be notified via the My BMW App, for example, if action needs to be taken.

Intelligent lightweight design, optimised aerodynamics.

Intelligent lightweight design measures for the body and chassis have allowed both the weight and the functional properties of the relevant components to be optimised for superior rigidity and crash safety. The BMW i4 uses an engine side member made from extruded aluminium profiles and die-cast aluminium spring struts. The bonnet and front side panels are likewise made of aluminium.

Besides the exceptionally rigid passenger cell built from hot-stamped steels and aluminium alloys and the highly resilient load-bearing structures, the overall concept for maximising occupant protection also includes integrated safety electronics which deploy the restraint systems in the right sequence, at the optimum moment and with the required effect for the specific collision type and severity. The BMW i4 is also equipped as standard with an active bonnet system to optimise pedestrian protection.

The excellent aerodynamic attributes of the i4 body have a positive impact on both its performance and range. The electric gran coupé has a drag coefficient (C_d) of just 0.24. All areas of the body have been crafted according to aerodynamic principles, from the front apron to the exterior mirrors to the tailgate's integral spoiler lip. The high-voltage battery's casing, the motor compartment shielding and the cover for the torsion struts form a continuous surface with seamless transitions that streamlines the flow of air along the underbody. Other measures include a front spoiler lip, air guides in front of the wheels, embedded channels that optimise airflow and cover panels for the rear axle and diffuser. The model's specially designed lightweight rear diffuser that is made using textile-based raw materials helps to both reduce weight and direct the airflow efficiently.

Active air flap control at the bottom of the otherwise completely blanked off BMW kidney grille reduces the car's aerodynamic drag yet further. The flaps can be adjusted in ten stages, allowing cooling air to be supplied to the drive system, high-voltage battery, brakes and air conditioning system in precisely metered quantities. Air Curtains at the outer edges of the front apron guide the oncoming air deliberately along the wheels. The standard light-alloy wheels already feature an aerodynamically optimised design. There is also the option of BMW Individual aerodynamic wheels with inserts between the spokes whose flat design ensures a far smoother airflow. The resulting improvement in aerodynamic properties increases range by around 10 kilometres (6 miles) in the WLTP test cycle.

Drive system technology and model variants.

Fifth-generation BMW eDrive technology, now also in a BMW M model.



The characteristics of the electric motors fitted in the BMW i4 are rooted in the same vast technological expertise that the BMW Group has harnessed for the integrated fine-tuning of the drive system and chassis technology. The drive units are – like the high-voltage batteries, power electronics and charging technology – the product of fifth-generation BMW eDrive technology. The electrically excited synchronous motor's specific ESM design principle gives it a distinctive form of power delivery that is instrumental in allowing the i4 to combine locally emission-free mobility with the driving pleasure for which BMW is renowned. The drive system's high efficiency and cutting-edge NMC-811 battery cell technology give the car a long operating range and, by extension, exceptional everyday usability. And extremely powerful charging technology with a maximum charging capacity of 200 kW for high-power DC charging means that only short mid-journey stops are required to replenish the energy content of the high-voltage battery.

The BMW Group's in-house developed powertrain technology on board the first ever fully electric BMW M model serves up a truly scintillating performance experience. The BMW i4 M50 is powered by a 190 kW electric motor at the front axle and its 230 kW counterpart at the rear, which together put a combined maximum output of 400 kW/544 hp on tap. The flagship model's electric all-wheel-drive system allows drive torque to be adjusted with incredible speed and precision, thereby maximising dynamic performance, traction and handling stability at all times in accordance with the driver's inputs, road surface conditions and driving situation (see chapter on Driving dynamics). The drive system technology in the BMW i4 eDrive40 promises sustainable driving pleasure in a more classical format: the power generated instantaneously by its 250 kW/340 hp electric motor is channelled to the road via the rear wheels.

Highly integrated drive system offering optimised power build-up and efficiency.

The fifth generation of BMW eDrive technology is centred around a drive unit which brings together the electric motor, power electronics and transmission as a highly integrated package within a single housing. This design approach enables a power density around 50 per cent

greater than the electric drive system of the current BMW i3 (MY 2020) can offer. The drive power produced by the motors is in each case channelled via the single-speed transmission – installed in the same housing – to the front and rear wheels along the shortest possible path. As a result, the highly integrated electric drive system topology benefits both instantaneous power delivery and efficiency in the BMW i4. Added to which, it also allows a substantial reduction in the installation space required relative to the power the drive system produces. The car's remarkably low level of noise and vibration when compared to its rivals adds to the sense of ride comfort. This class-beating figure can also be attributed to the innovative design approach.

The electric motors developed in-house by the BMW Group have an efficiency factor of 93 per cent in their latest version. They therefore not only better the figures achieved by current combustion engines (less than 40 per cent), but also rank among the leading electric drive units in their class. Their exceptional efficiency plays a key role in enabling the BMW i4 M50 to post combined electric power consumption of 24 – 19 kWh per 100 kilometres (62 miles) in the WLTP test cycle, while the BMW i4 eDrive40 records a figure of 20 – 16 kWh per 100 kilometres (62 miles) in similar WLTP conditions.

The electric motors' high efficiency makes it possible to deliver outstanding sporty performance in typical BMW style. The low electric power consumption and the high energy density of the high-voltage battery result in an operating range that is even sufficient to give the i4 impressive long-distance capabilities. Such a high level of everyday usability could otherwise only be achieved by fitting disproportionately large batteries, which would increase vehicle weight and therefore have an adverse effect on driving dynamics and energy consumption. The excellent range of the BMW i4 is underpinned by efficiency rather than ever larger batteries. Fifth-generation BMW eDrive technology therefore resolves the dilemma that has confronted all electric vehicles in the past and helps to create a symbiosis of sporting performance, energy efficiency and practical operating range that clearly sets the BMW i4 apart from its competitors.

Special motor concept: more dynamic appeal, less reliance on critical materials.

The specific qualities of the electric motors are the result of a design which marks a fundamental departure from the technology normally found in competitor units. They work according to the principle of an electrically excited synchronous motor (ESM). The excitation of the rotor

in the BMW i4 motors is not induced by fixed permanent magnets, but the feed-in of electric energy. This allows the use of critical rare earth metals (required for magnetic components) to be avoided altogether in the manufacture of the rotor.

The power development of the drive system also benefits from its purpose-built design. The motor puts all of its peak torque on tap immediately on pulling away and maintains it over an extremely broad rev band. The precisely controlled excitation of the rotor using electricity gives the motor very high power density as well, with a figure of 2.14 kW/kg for the unit in the BMW i4 eDrive40, for example, and 1.96 kW/kg for the second motor propelling the front wheels in the BMW i4 M50. Combined torque peaks at 430 Nm (317 lb-ft) in the BMW i4 eDrive40 and an even higher 795 Nm (586 lb-ft) in the BMW i4 M50.

Enthralling performance with Sport Boost function in the BMW i4 M50.

As a result, the driving experience's defining trait is power development that is not only lightning fast but also remarkably consistent. The centrally controlled electric all-wheel drive in the BMW i4 M50 that links up with the chassis control systems additionally enables extremely rapid and precise metering of drive power according to the driving situation, the road conditions and the driver's wishes. The motor driving the rear wheels generates maximum output of 230 kW/313 hp, while the unit at the front axle produces 190 kW/258 hp. Intelligently controlled interaction between the two electric drive units ensures the car will continue to make effortless progress at all times, even in adverse weather conditions. The fully variable system is matched exactly to current requirements, with the full repertoire available from highly efficient pure rear-wheel drive through to an all-wheel-drive set-up that maximises traction.

A specially designed boost function that can be activated on demand by the driver brings the BMW M model's high-performance character even more to the fore. It is available whenever SPORT mode is engaged and is used to unleash the maximum output of both motors when the driver wants to accelerate extremely quickly. The Sport Boost function increases the system's combined drive power by 50 kW/68 hp to its maximum of 400 kW/544 hp for over ten seconds. At the same time, combined torque is upped by 65 Nm (48 lb-ft) to 795 Nm (586 lb-ft). The electrifying burst of speed is accompanied by a dramatic M-specific soundtrack that further intensifies the performance experience inside the BMW i4 M50 (see chapter on Interior and wide range of equipment).

Activating the Sport Boost function enables the BMW i4 M50 to race to 100 km/h (62 mph) from rest in 3.9 seconds and accelerate from 80 to 120 km/h (50 – 75 mph) in x.y seconds. To allow maximum power to be summoned in situations where the car's performance capabilities are being really put to the test, the Sport Boost effect can also be triggered several times in succession if the high-voltage battery has sufficient charge. Every time the driver accelerates, a fuel gauge-style icon in the instrument cluster shows how much extra power is available and for how long. The Launch Control function is also available for accelerating from a standing start with optimum traction (see chapter on Driving dynamics). The BMW i4 M50 has an electronically governed top speed of 225 km/h (140 mph).

Customary BMW sportiness and efficiency in the BMW i4 eDrive40.

A lively electric motor teams up with classical rear-wheel drive in the BMW i4 eDrive40 to deliver the sporting flair for which the brand is renowned combined with stunning efficiency too. Its drive unit develops maximum output of 250 kW/340 hp between 8,000 and 17,000 rpm, placing it on an equal footing with BMW's most powerful six-cylinder in-line diesel engine at present. The other key factor in the electric motor's performance characteristics is its peak torque of 430 Nm (317 lb-ft) that is available immediately on pulling away.

The BMW i4 eDrive40 sprints from 0 to 100 km/h (62 mph) in 5.7 seconds, with an 80 – 120 km/h (50 – 75 mph) acceleration time of x.y seconds. Its top speed is electronically limited to 190 km/h (118 mph).

Adaptive recuperation of energy during a journey can be adjusted to the situation at hand.

Adaptive and individually regulated recuperation during overrun and braking allows the efficiency of the drive system in the BMW i4 to be further increased in a way that no other model in this segment can. Intelligently connected drive management means the intensity of the brake energy recuperation can be adapted to the road situation, as detected by data from the navigation system and the sensors used by the driver assistance systems. Just before reaching a bend, a traffic light at a junction, a roundabout or a section of road with a lower speed limit, for example, a very high level of recuperation will be activated as soon as the driver releases the accelerator. And when approaching a vehicle ahead, the drive unit will again switch over to the generator function in order to feed energy back into the high-voltage battery while harnessing the deceleration effect at the same time. When combined with an anticipatory style of driving, adaptive recuperation allows more than

90 per cent of all deceleration to be performed using Brake Energy Regeneration alone, without any need to trouble the braking system.

On the open road, meanwhile, the coasting function enhances comfort and efficiency, the car "freewheeling" with no drive power whenever the driver eases off the accelerator. Adaptive adjustments according to the driving situation are also carried out when the navigation system's route guidance function is not activated, precise control of recuperation enabling instantaneous responses to changes in the situation. If the i4 draws a lot closer to a vehicle ahead while coasting, for example, recuperation will be initiated immediately to slow the car down. Brake Energy Regeneration will be cancelled, on the other hand, when approaching a junction where the traffic lights have turned from red to green.

Adaptive recuperation is one of the standard settings activated when the driving position D is engaged using the selector lever on the centre console. Alternatively, the driver can choose a high, medium or low Brake Energy Regeneration setting for all driving situations in the iDrive menu. Maximum recuperation power is 116 kW in the BMW i4 eDrive40 and 195 kW in the BMW i4 M50. In driving position D, the new BMW i4 pulls away at minimal speed as soon as the brake pedal is released, increasing comfort when manoeuvring and in stop-start traffic. And activating driving position B with the selector lever utilises the maximum amount of recuperation available every time the driver eases off the accelerator. This allows the BMW i4 to be driven in urban traffic with virtually no use of the brake pedal. Besides generating the one-pedal feeling characteristic of the BMW Group's electric vehicles, this intense level of recuperation also lends itself to very sporty driving with frequent quick switches between accelerating and decelerating.

Graphics showing the driving status and energy flow can be called up in the BMW iDrive system's Live Vehicle menu. When either the COMFORT or ECO PRO modes have been selected with the Driving Experience Control switch, the control display clearly indicates whether the drive system in the BMW i4 is currently providing propulsive power, recuperating brake energy to feed it back into the high-voltage battery or has been de-energised / switched to torque-neutral during a coasting phase. Additional information is also shown to the driver whenever adaptive recuperation is used to slow down the vehicle. The driving style analysis that also appears in the control display encourages drivers to drive as efficiently as possible with its evaluations of acceleration style and anticipatory use of the accelerator.

High-voltage battery: optimised energy density for extra range.

The fifth-generation BMW eDrive technology also includes a high-voltage battery with state-of-the-art battery cell technology. Making its debut in the BMW i4 will be an extremely slim high-voltage battery with a cell height of just 110 millimetres. Volumetric energy density at cell level is up by 40 per cent compared to the battery in the current BMW i3 (MY 2020). And the latest generation of high-voltage batteries also display superlative qualities when it comes to performance capability, charging and discharging, durability and safety. The mass to storage capacity ratio is exceptionally good, too.

The batteries for the BMW i4 are covered by a warranty valid for eight years or up to 160,000 kilometres (99,400 miles). The fifth-generation BMW eDrive high-voltage batteries are particularly suited to reuse of their raw materials as part of a circular approach. The materials used in them and their design result in a recycling rate of up to 90 per cent.

The high-voltage battery in the i4 is positioned low down in the vehicle floor. Designed specifically for this model, it comprises four modules with 72 cells each and three 12-cell modules. Together they provide a net energy content of 80.7 kWh (gross energy content: 83.9 kWh). This allows the BMW i4 M50 to post a WLTP-calculated range of up to 510 kilometres (up to 255 miles with 19-inch tyres according to EPA label), while the BMW i4 eDrive40 has an even longer range of up to 590 kilometres in the WLTP test cycle (up to 305 miles with 18-inch tyres according to EPA label).

Integrated heating and cooling system with heat pump function, anticipatory thermal management for the battery.

The BMW i4 is equipped as standard with an integrated heating and cooling system for the cabin, together with its high-voltage battery and its drive system that operates using an exceptionally efficient heat pump function. The system comprises three cooling/heating circuits that can be interconnected by means of electric valves with a shared expansion tank. While driving at low outside temperatures, for example, the excess heat generated by the drive units is used to warm up the high-voltage battery. The highly integrated version of the heat pump developed by BMW uses up to 75 per cent less energy again than the system in the current BMW i3 (MY 2020). A two-level cooling module, a refrigerant compressor, two evaporators, a water-cooled condenser and a high-performance control unit together ensure optimum temperature control for both the BMW eDrive components and the vehicle interior in any operating state and in all regular weather conditions. At extremely low

ambient temperatures, the heat pump is assisted by a pair of powerful continuous-flow heaters offering 9 kW of heating power each. This ensures that thermal comfort on a par with conventionally powered BMW models can be provided very efficiently in any situation.

The latest version of the heat pump makes use of ambient heat and heat from dehumidification – as well as the waste heat from the motors – for energy-efficient operation. At very low outside temperatures, this results in a gain in range of some 15 per cent (under WLTP conditions) compared with conventional electric heating and cooling systems. And range can be extended by as much as 31 per cent if a high level of heating is required while driving in urban traffic.

The integrated heating and cooling system also ensures optimal temperature control for the high-voltage battery in highly dynamic driving situations with high power requirements and when rapid-charging from a DC charging station. If the navigation system's route guidance function is active and has scheduled a mid-journey stop for the BMW i4 at a fast-charging station, anticipatory thermal management will automatically pre-condition the battery beforehand. Warming up the high-voltage battery or cooling it down as appropriate means it will be at the optimum temperature for quick and efficient charging at maximum capacity upon arrival at the charging station. Thermal management takes a number of factors into account here, including current battery temperature, remaining range, the predicted charging rate and the amount of electricity due to be fed to the battery according to the overall route calculation.

Sporty driving, high-speed charging: Combined Charging Unit allows power to be taken on board at 200 kW.

Alongside the standalone design principle of the electric motors and the optimised high-voltage battery, new charging technology is also part of the fifth-generation BMW eDrive toolkit. The Combined Charging Unit (CCU) in the BMW i4 enables an extremely high level of flexibility when it comes to using charging stations of different types. It therefore makes refuelling the car with electric power a quick and easy process across all international car markets. It brings together the functions of the voltage transformer, charging electronics and power distribution, plus the management systems for the drive, high-voltage and charging functions, into a single package. The highly integrated control unit keeps the electric drive system fed with a powerful, precision-controlled supply of energy, while also ensuring the high-voltage battery is charged quickly and efficiently. Its voltage transformer with a maximum output of 4 kW

also supplies consumers connected to the 12V on-board power supply of the BMW i4 – such as the lighting and audio system – with electrical energy.

Hooking up the high-voltage battery to a conventional domestic power socket or a Wallbox allows it to be fed with AC power from both single-phase and three-phase mains connections at a charging rate of up to 11 kW. Using this method, the BMW i4 can recharge its battery from totally empty to 100 per cent in under 8.5 hours.

A significantly higher charging output and the shorter charging times this enables can be accessed by using a DC fast-charging station. The BMW i4 can charge its high-voltage battery there at up to 200 kW. So when hooked up to high-power charging stations of the type mainly found on major transport routes, it can take enough energy on board in just ten minutes to increase range by 164 kilometres (102 miles) in the BMW i4 eDrive40 and 140 kilometres (87 miles) in the case of the BMW i4 M50.

BMW Charging: individual charging solutions for the home and on the go.

The BMW Charging portfolio presents BMW i4 drivers with a selection of bespoke charging products, charging services and digital services that is unrivalled worldwide. BMW i4 models in Europe are supplied complete with a BMW Charging Card, a mode 3 charging cable for public charging stations and the Flexible Fast Charger. As well as the BMW Wallbox for charging at up to 11 kW, other home charging products are also offered in collaboration with expert partners. These include an installation service, special green electricity tariffs and a Smart Wallbox with full connectivity and an extended range of functions for intelligent charging, such as recording and invoicing vehicle charging separately.

The Flexible Fast Charger offering a charging rate of up to 11 kW that comes supplied comprises a charging cable approximately six metres in length that allows the BMW i4 to be hooked up to a domestic socket or – using adapters – high-power industrial sockets. This offers the flexibility and portability for connecting to various home charging points at any time.

The BMW Charging offering provides access to more than 200,000 public charging points run by over 500 charging infrastructure operators in Europe alone with just a single registration. In Germany alone, BMW Charging users are able to access over 33,000 charging points operated

by some 300 power suppliers with just a single card or an app. The high-power charging network run by the BMW Group's joint venture IONITY also forms part of the BMW Charging network. IONITY charging parks comprise four charging points each on average and are located throughout Europe on motorways and major traffic arteries. The number of IONITY fast-charging stations in Europe will exceed 400 by the end of 2021 and there are plans to further extend the network into urban areas as well. BMW Charging therefore offers BMW i4 drivers access to a very attractive, exclusive and easy-to-use network covering the whole of Europe – and with no basic fee to pay during the first 12 months.

The BMW Maps navigation system together with Connected Charging (see “Digital services and connectivity” chapter) allows long-distance journeys in the BMW i4 to be planned easily and precisely. To this end, mid-journey stops for recharging the battery can be automatically factored in when selecting the route. This exact and detailed route planning provides an accurate estimation of the arrival time. During the journey, the remaining range is also indicated in the form of a blue circle superimposed on the map. And when searching for a charging station, the driver is also shown information on its availability, the operator and payment methods.

Design.

The perfect blend of dynamism and sustainability.



The first fully electric model developed for the BMW brand's core segment takes the form of a gran coupé. The BMW i4 combines the hallmark sporting aesthetic of the brand's coupés with the comfort of a four-door car and a practical appeal enhanced by features including a large tailgate. The elegantly stretched proportions and clean aesthetic of its body design bring exclusivity and the sporting prowess for which BMW is renowned to the premium midsize segment. The centres of innovation in the BMW i4 – the blanked-off kidney grille, the battery technology in the floor area of the car and the sporty diffuser elements, which optimise the car's aerodynamics – are highlighted by accents in BMW i Blue. The car's design flawlessly showcases the trailblazing union of dynamism and sustainability embodied by the i4 in purely electric, zero-local-emission form.

Climb inside the BMW i4 and its progressive character is headlined by an innovative, fully digital display grouping for the latest generation of BMW iDrive. The BMW Curved Display merges the instrument cluster and central control display screens into a single-piece, curved glass surface that is angled towards the driver. The new control/operation system enables a significant reduction in the number of switches and buttons in the cockpit. The new 3+ generation Head-Up Display draws even greater attention to the sporty driving experience on offer. The driver's workplace feeds into a premium ambience brimming with elegance and modernity, whose high-quality materials and precision workmanship represent a convincing proposition.

Stretched proportions, flowing lines, clearly designed surfaces.

The elegantly stretched proportions of the new BMW i4 are the result of a vehicle length of 4,785 millimetres, width of 1,852 millimetres, height of 1,448 millimetres and 2,856-millimetre wheelbase. The 1,600-millimetre front track and 1,630-millimetre rear track create the ideal foundations for a chassis set-up tuned to enhance cornering dynamics and are central to the muscular stature of the BMW i4. Short overhangs, slim pillars, doors with frameless windows and a roofline that flows smoothly into the rear underscore a silhouette that very much fits the BMW coupé mould.

At the heart of the front end stands the striking, vertically prominent BMW kidney grille, which is largely blanked off on account of the small amount of cooling air required by the electric drive components. The model-specific, aesthetically pleasing surface structure in its upper section and the mesh design lower down deliver a distinctive appearance. Depending on the specification, the car's front camera is joined by ultrasonic and radar sensors integrated discreetly into the surface of the kidney grille. The front apron of the BMW i4 also has only a small number of apertures. These include the air curtains positioned towards its outer edges, which direct the onrushing air efficiently past the wheels. Clearly designed surfaces painted almost entirely in body colour, precise lines and black inlays underline the modern, function-led character of the front end.

With their reduced and technically sophisticated appearance, the slim headlights of the BMW i4 fit in neatly with the surface design of the BMW kidney grille. The classical twin-headlight layout is enhanced by the addition of modern and minimalist U-shaped light elements for the daytime driving lights. The BMW i4 is equipped as standard with full-LED headlights, while customers can order Adaptive LED Headlights with BMW Laserlight including the BMW Selective Beam anti-dazzle high beam assistant as an option. At speeds above 60 km/h (37 mph), BMW Laserlight increases high-beam range to a maximum 500 metres and follows the course of the road dynamically. The Laserlight headlights can be identified by blue accents within the three-dimensional light units and by hexagonally shaped light sources for the daytime driving lights.

Large and smooth sculpted surfaces, the air breathers integrated into the side sill trim on the front side panels, flush-fitted door openers and the fin-like trailing edge of the passenger compartment mark out the aerodynamically optimised design of the BMW i4 when viewed from the side. The elegant stretched side window graphic flows into the Hofmeister kink counter-swing above the powerful shoulders north of the rear wheels.

The aerodynamic wheels designed exclusively for the i4 have aluminium inserts. They combine lightweight design with optimised lines, helping them to extend the car's electric range. The wheels form a three-dimensional sculpture, in which the light is reflected in an even more multifaceted display while on the move.

As an exhaust system is not required, the lower section of the rear apron is also used to improve aerodynamics; the diffuser elements positioned here have a sporty, visually powerful design and highlight the presence of an electric drive system with a modern flourish.

Below the long and slim, L-shaped rear lights with their highly technical design is an extremely clear surface treatment which also ensured the rear of the BMW Concept i4 turned heads. Sharply cut vertical aero lips frame the rear of the car to the sides. Between them, indented surfaces create striking, athletic movements. The lower areas of the skirts and rear apron have a sophisticated Black finish, giving the car a lower-slung appearance and accentuating its broad stance on the road. The Reversing Assist Camera is integrated into the BMW badge on the tailgate.

BMW i4 M50 with classical performance-led styling cues.

Model-specific design features give the BMW i4 M50 eye-catching looks which clearly reference its overtly sporting character. The front apron has the signature U-shaped graphic of BMW M models. Additional side air intakes optimise brake cooling. The BMW kidney grille surround and the vertical trim around the air curtains come in Cerium Grey, likewise the exterior mirror caps and the inlays in the outer edges of the rear apron, while the air breathers, the side sill trim strips and rear bumper trim are painted in High-gloss Black. An M-specific spoiler on the tailgate rounds off the distinctive, performance-oriented appearance of the BMW i4 M50.

The M Sport trim available as an option for the BMW i4 eDrive40 also sends a clear message about the car's dynamic ability. Among the elements at work here are the powerfully sculpted structure of the front apron and the trim on the lower edge and sides of the rear bumper in Dark Shadow. An M Carbon exterior package can be specified as an option for the BMW i4 M50 and on BMW i4 eDrive40 cars in M Sport trim. This comprises side air intake trim at the front end, exterior mirror caps, the side trim elements for the rear apron and a specially formed rear spoiler in ultra-lightweight, high-tech carbon fibre. The exterior paintwork for the BMW i4 can be ordered in a choice of two non-metallic colours, seven metallic shades and one Frozen Matt option. Particularly high-end BMW Individual paint finishes are also available.

Interior design: innovative form of the driver-focused cockpit design with BMW Curved Display.

The interior of the BMW i4 fuses the clear design language and modern premium ambience with an extremely progressive approach to driver-focused cockpit design. The purely electric gran coupé comes as standard with a very slim and low instrument panel, which provides the perfect stage for the latest version of the fully digital display grouping. The innovative BMW Curved Display brings together the information display behind the steering wheel and the control display of the BMW iDrive control/operation system into a frameless, single-piece glass surface angled towards the driver. The 12.3-inch information display and 14.9-inch control display effectively merge into a single driver-focused unit.

The BMW Curved Display in the BMW i4 is held in place by a supporting structure that is concealed from the occupants' view, so it appears to be standing freely in the cockpit. The high-quality display technology using anti-reflective glass also makes it possible to dispense with the customary binnacle for shielding the readouts from sunlight, giving the cockpit area a remarkably tidy and airy appearance.

Premium ambience exudes clear emphasis on sustainable sportiness.

The rest of the interior design is likewise geared squarely towards providing a richly involving driving experience. The BMW i4 is fitted as standard with sport seats and a sports steering wheel with multifunction buttons. The high centre console and flowing surface structure running from the instrument panel into the door panels generate a cocooning feel in the front seats. In the BMW i4 M50 and M Sport cars, soft, raised knee pads on the centre console further accentuate the car's engaging driving character.

Clearly designed surfaces, high-quality materials and precision workmanship are key ingredients in the interior's premium ambience. The Start/Stop button for the drive system is positioned in a classily designed control panel in the centre console, which also houses the BMW Controller and the buttons for the Driving Experience Control unit and electromechanical parking brake alongside the model-specific gearshift lever. Blue accents on the Start/Stop button, steering wheel and gearshift lever are a nod to the electric drive system.

Interior trim strips in High-gloss Black or Aluminium Rhombicle Anthracite (for the BMW i4 M50 and M Sport cars) come as standard. A selection of other interior trim strips – including fine wood options

and suitably high-end items from BMW Individual – can be specified as an option.

Interior and wide-ranging equipment. Premium ambience with individual style.



The premium character of the BMW i4 is also reflected in the wide variety of individualisation options available for the car's exterior design, interior design and equipment. A large selection of exterior paint finishes, light-alloy wheels in various sizes and styles, the specific design features of M Sport trim, the M Carbon exterior package and the wealth of retrofit options in the M Performance Parts range enable the customer to give the all-electric gran coupé an appearance reflecting their personal style. And there is also an extensive options list which bring specific enhancements to the driving pleasure, practicality and comfort offered by the BMW i4.

In contrast to carmakers who produce pre-configured vehicles or only offer their models in a strictly limited number of design variants and with fixed equipment packages, premium manufacturer BMW builds each individual car to the customer's precise specifications. For this reason, the BMW i4 – like all the brand's conventionally powered models – can also roll off the assembly line as an individually designed and equipped one-off. The all-electric gran coupé can also be ordered with items from BMW Individual. Comprising an array of exceptionally stylish options, the BMW Individual range is designed to meet the highest standards and fulfil unique design wishes.

Driving pleasure and comfort in a modern premium ambience.

The generously sized, variable-use space inside the BMW i4 creates the ideal environment in which to enjoy sporty driving pleasure on everyday journeys and over longer trips. Five full-size seats and a flexibly expandable load compartment underline the functional qualities of the four-door coupé, while the driver-focused cockpit design, high centre console with clearly structured control panel and sporty, cocooned seating position for the driver and front passenger fuel the richly engaging driving experience. The high-quality materials, precision workmanship and harmonious lines on the surfaces of the instrument panel and door trim panels all feed into the modern premium ambience, as does the fully digital BMW Curved Display screen grouping.

High-quality options allow customers to express their personal style more prominently through the design of the BMW i4 and to increase

comfort levels over long-distance journeys. The car's dynamic character can be underscored by options including M Sport trim and the M Sport package Pro.

The flush-fitting control unit in the front section of the roof and new arrangement of the displays create an optimised impression of space. Passengers in the three rear seats enjoy generous legroom and knee room. And Isofix attachments situated at the outer edges of the rear seats make it easier to fix child seats in place.

The standard sport seats provide optimal support for the driver and front passenger through dynamically taken corners, while electric adjustment including a memory function (standard in the BMW i4 M50) is available as an option. Heated front and rear seats and active seat ventilation for the driver and front passenger can also be specified. Seat surfaces in Sensatec perforated and Vernasca leather upholstery (available in five colour variants) are offered as alternatives to the cloth/Sensatec combination. Extended BMW Individual Merino leather trim and BMW Individual Merino full leather trim are also available.

Standard specification also includes a Sport leather steering wheel with particularly high-quality multifunction buttons. An M leather steering wheel, a BMW Individual leather steering wheel and steering wheel heating all feature on the options list. The BMW logo in the centre of the steering wheel is ringed in BMW i Blue. The optional Sensatec instrument panel has eye-catching, horizontal decorative stitching, while the leather-covered BMW Individual instrument panel and the BMW Individual interior trim strips offered in three variants add exquisite flourishes.

Model-specific functionality for everyday driving and longer journeys.

The large, wide-opening tailgate plays a major role in the model-specific versatility of the BMW i4. It comes as standard with an automatic opening and closing mechanism and – if the optional Comfort Access is specified – also features hands-free opening and closing. Practicality in everyday use and on longer journeys is boosted by an array of storage areas, two cup holders under the cover in the front section of the centre console, two USB ports and a Bluetooth interface. The optional telephony with wireless charging enables inductive charging of compatible smartphones.

An electrically extendable and retractable trailer tow hitch is also available as an option. The permissible trailer load is up to 1,600 kilograms.

Automatic climate control with new controls and integral nanofibre filter.

The BMW i4 is equipped as standard with three-zone automatic climate control. It allows the driver, the front passenger and the rear-seat passengers to set their desired temperature and ventilation levels individually. The driver and front passenger can adjust the climate control system to their personal preferences via the control display or by voice command. The desired temperature is the key variable for this automatic system. Depending on the settings selected in the climate control menu, changing the temperature also prompts adjustment of the seat heating and seat ventilation control. This means individual functions no longer have to be operated separately by the user. Moreover, those on board can see immediately if the system is currently cooling or heating the interior and if the seat heating or seat ventilation is activated.

As well as the quantity of air emitted and its distribution, the intelligent automatic climate control system also adjusts the seat heating and seat ventilation, ensuring the most comfortable interior climate possible. These additional comfort functions are controlled automatically to suit the specific situation and independently for the driver and front passenger. The system also takes into account the number of passengers on board and where they are sitting. This is the first time all of the vehicle's temperature and comfort-enhancing functions have been controlled from a single source.

Cutting-edge nanofibre filter technology is used to purify the air inside the car more effectively, with nano-fleece and activated carbon layers further improving air quality in the interior. Nanofibre filter technology enables ultrafine dust particles and certain micro-bacterial particles and allergens to be kept out of the cabin. The pre-heating or pre-conditioning function allows the interior air to be purified effectively before the customer climbs aboard.

A pre-heating and pre-conditioning function is included as standard in the BMW i4. This is activated through the iDrive operating system, using the optional BMW Display Key or by smartphone via the My BMW app.

High level of acoustic comfort, glass slide/tilt sunroof with large transparent surface.

The BMW i4 is fitted as standard with acoustic glazing for the windscreen. An automatically dimming rear-view mirror and exterior mirrors that can be electrically adjusted and heated are likewise part of standard specification. An electrically operating folding mechanism for the exterior mirrors can be added as an option.

The optional glass slide/tilt sunroof with a transparent surface measuring 0.33 square metres bathes the interior in light. The 865-millimetre-wide and 585-millimetre-long expanse of glass extends into the rear of the car. The electric drive system allows the moving glass section to either tilt up or slide open. There is also a wind deflector and an electrically powered interior blind, giving the occupants complete control over the amount of sunlight and fresh air entering the cabin.

Personalised light moods and audio experience.

The standard LED lighting for the cabin includes reading and interior lights in both the front and rear, as well as lighting for the glove compartment, the storage compartment under the centre armrest, the footwells, the mirrors in the sun visors and the boot, plus the courtesy lights in the doors. The optional ambient lighting provides atmospherically rich illumination of the interior with precisely positioned LED fibre-optic light guides for the contour lines in the instrument panel and the door panelling. The lighting's distribution, brightness and colour scheme can be configured in the iDrive menu. This option also includes the Welcome Light Carpet for the approach to the doors and the Dynamic interior light function, whose pulsating light signals indicate an incoming phone call or an open door when the engine is running.

The BMW Live Cockpit Professional fitted as standard in the BMW i4 includes an audio system with DAB+ tuner, six speakers and an output of 100 watts. Opting for the hi-fi speaker system increases the number of sound sources to ten and the amplifier's output to 205 watts. And for those looking for the ultimate feast for the ears, there is the Harman Kardon surround sound system, complete with 16 speakers and a digital seven-channel amplifier delivering 464 watts of audio power.

Effectively enhanced dynamics: M Sport, M Sport package Pro and model-specific M Performance Parts.

The M Sport model available as an alternative to standard specification also adorns the interior with distinctive design and equipment features that emphasise its dynamic character. The performance experience in

the BMW i4 M50 is likewise enhanced by a specific cockpit design. The M Sport package Pro is available for the BMW i4 eDrive40 as an extension of the M Sport model. Comprising M Sport brakes, 19-inch M light-alloy wheels, BMW Individual High-gloss Shadow Line with extended features, the BMW Individual lights Shadow Line and a black M rear spoiler, it delivers optimised driving dynamics and particularly striking looks. A sporty engine soundtrack in the interior, the hi-fi speaker system and M seat belts also increase levels of driving pleasure.

The M Performance Parts available for the BMW i4 allow customers to give their car an extra sporting touch, as per their personal tastes. The retrofit items available as part of the Genuine BMW Accessory range include 20-inch M Performance forged light-alloy wheels in Y-spoke design with a Jet Black matt finish, a carbon-fibre front grille, front splitter, side skirt attachments and exhaust tailpipe finishers, as well as aero flicks for the front apron in High-gloss Black. And customers can also bring additional sporting flair to the interior with options such as an M Performance steering wheel and interior trim panels in carbon-fibre design.

Acoustic pedestrian protection and BMW IconicSounds Electric.

The electric drive system powering the BMW i4 produces not only zero local emissions but also almost nothing in the way of sound. In order to alert other road users that the i4 is approaching, it therefore comes as standard with an acoustic pedestrian protection system. Developed specially for electrified BMW vehicles, artificially generated and emitted through exterior speakers, the sound is active up to driving speeds of 21 km/h (13 mph) in European markets and 31 km/h (19 mph) in the USA. It gives the vehicle a brand-typical soundtrack, without impinging on the comfort of those on board.

An unmistakable, model-specific acoustic experience can also be enjoyed in the interior of the BMW i4. Pressing the Start/Stop button sparks an inspiring acoustic accompaniment that builds anticipation for the all-electric driving experience to come. This sound production was created as part of a collaboration between film music composer and Academy Award winner Hans Zimmer and Creative Director Sound at the BMW Group Renzo Vitale. When underway, a drive sound developing a strikingly transparent timbre with spherical components delivers authentic feedback to every movement of the accelerator. The character of the sound alters according to the vehicle setting chosen with the Driving Experience Control switch. This means that in SPORT mode the car's aural spectrum is more dominant and powerful. Drive system

processes are registered within milliseconds and acceleration, load changes or recuperation given a suitable acoustic accompaniment. The drive sound developed for the BMW i4 M50 stands out with its particularly energy-charged tone. Movements of the accelerator are accompanied by a less harmonious but enticingly stirring and technical sound. Added to which, the acoustic differentiation between COMFORT and SPORT mode is extremely clear. Another option available for the BMW i4 is the BMW IconicSounds Electric function, which allows a new drive sound co-developed with Hans Zimmer to be uploaded to the vehicle at a later stage via Remote Software Upgrade.

Digital services and connectivity. The all-new BMW iDrive – Creating a natural dialogue between user and car.



The new BMW iDrive is an instrumental factor in the user experience on board the BMW i4. The most recent incarnation of the display and operating system takes the interaction between driver and vehicle into the digital future. The new BMW Operating System 8, a new generation of displays, controls and software, plus extremely powerful connectivity and data processing give the BMW i4 all the tools needed to serve as an intelligent and proactive partner in any situation. The intuitive, multimodal operation is thereby turned into a natural dialogue between the user and their car that seeks to precisely tailor all the functions controlled via BMW iDrive to the driver's needs and preferences as the situation demands.

The new BMW iDrive was designed with a clear focus on dialogue-based interaction using natural language and on touch operation. Consequently, new features available immediately include the expanded capabilities of the BMW Intelligent Personal Assistant, which uses a new graphic to communicate with the vehicle's occupants, and the BMW Curved Display – the all-new fully digital display grouping in the BMW i4 formed by the information display and control display and angled towards the driver.

Natural dialogue with the BMW Intelligent Personal Assistant.

The new generation of BMW iDrive also sees the BMW Intelligent Personal Assistant gaining additional skills. To strengthen the personal relationship between the digital companion and the car's occupants, the user can still give the BMW Intelligent Personal Assistant their own choice of name to use as a wake word.

In communication between people, a lot of information is conveyed non-verbally. The Assistant's new visualisation approach featuring spheres of light in different sizes and brightness levels gives it more space and forms of expression. This visuality provides it with a clearly visible focal point and recognisable states of activity.

When the user speaks to the Assistant, it appears in a fluid animation and spreads out engagingly over the displays, without concealing relevant information. The BMW Intelligent Personal Assistant can

distinguish who is talking to it and appears on the relevant screen area. A widget designed specially for the BMW Intelligent Personal Assistant enables rapid access to other settings and suggestions.

Advances have also been made in the functionality of the BMW Intelligent Personal Assistant. An expanded pool of underlying data and information has not only made the digital assistant more intelligent, it has also enabled it to act according to context and proactively. The BMW Intelligent Personal Assistant suggests functions the customer has not yet tried out. For example, if the driver regularly opens the window at a certain point, the Assistant recognises the pattern and proactively suggests setting the relevant GPS coordinates – e.g. the entrance to a car park – as an automatic opening point.

A new dimension in driver focus: BMW Curved Display and BMW Head-Up Display.

In the BMW i4, the customary BMW driver focus follows the innovative principle “Act, Locate and Inform”. The new BMW iDrive enables the screens in the BMW Curved Display and new 3+ generation BMW Head-Up Display to dovetail with one another more precisely than ever. For example, the driver is always given the relevant information for the situation at hand where they can absorb it as quickly and easily as possible. When using the navigation system, for example, the Control Display provides a large map view (Inform), while on the display behind the steering wheel, current positioning information (Locate) can be shown in the form of a map excerpt. The driver is given specific instructions in the Head-Up Display (Act) in the form of lane recommendations or information on the distance to a junction where they need to turn off.

The innovative BMW Curved Display takes the hallmark driver-focused cockpit design for which BMW is renowned into a new dimension. A single glass surface angled towards the driver merges the 12.3-inch information display and 14.9-inch control display into one unit. The BMW Curved Display is focused clearly on the driver to sound ergonomic effect, making it easier for them to use the intuitive touchscreens. At the same time, the front passenger is also fully able to view the screens and operate the system by touch control. With its optimised graphics and additional design content, the BMW Curved Display does more than ever to assist the intuitive and focused dialogue between the driver and vehicle.

The driver can adapt the type and amount of content shown in the Head-Up Display to their personal preferences or the traffic situation at hand at any time. They can choose from various views focusing on a variety of content areas, e.g. navigation or driver assistance. A knurled wheel on the right-hand spoke of the multifunction steering wheel enables fast and intuitive selection of the desired view.

Expanding functions and updating via Remote Software Upgrade.

The new BMW Operating System 8 further enhances the options for updating the in-car software and expanding its functions. New and improved functions can be imported quickly and easily over the air, either using the car's built-in SIM card or via the My BMW App. Installation is subsequently launched by the customer and seldom takes longer than 20 minutes. Remote Software Upgrades are installed free of charge.

The driver is alerted to the availability of a new upgrade either in the Control Display (if the car is parked) or in the My BMW App on their smartphone. In the BMW i4 the BMW Intelligent Personal Assistant now also issues a reminder that the new software is available by means of a special widget. Also new is the option for the driver to schedule the installation process. Here, the vehicle must first be securely parked in accordance with the instructions. Installation can then be carried out automatically at a pre-set time – meaning it can be done overnight as well.

BMW i4 owners can also purchase vehicle functions that used to be only offered as factory-fitted optional extras at a later stage from the BMW ConnectedDrive Store – and have them installed in their car over the air.

Personalisation using the BMW ID.

When interacting with the new BMW iDrive, BMW i4 customers benefit from increasing personalisation of the user experience based on the BMW ID. This is used for securely storing even more personalised settings and transferring them between vehicles. A PIN code can be created or the BMW ID associated with a particular key to prevent other vehicle users from accessing personal data.

When signing in to a vehicle for the first time, simply scanning a QR code is all it takes to create a new BMW ID on a smartphone. If the user uses the My BMW App and is therefore already in possession of a BMW ID, this will be automatically imported into the car via the app when the QR code is scanned.

The BMW ID can be created and activated effortlessly and securely in vehicles with BMW Operating System 8 or BMW Operating System 7. Once the BMW ID has been imported, the driver will receive a personal greeting which will include the customised profile image the driver can create in the My BMW App. At the same time, personal settings for seat and steering wheel position, exterior mirrors, navigation system, driver assistance functions, display layouts, shortcuts and favourites as well as infotainment system settings will be imported automatically. Personalised suggestions from the BMW Intelligent Personal Assistant are also stored in the BMW ID, together with individually selected wake words and privacy settings. Once the BMW ID has been activated with the associated key or by selecting the BMW ID in the vehicle, the personal settings are instantly adopted. The customer can elect to save these personal settings to the BMW Cloud. Synchronisable settings can therefore be imported into other appropriately equipped BMW vehicles once the user has logged in.

Creating a BMW ID is essential for using the new BMW Operating System 8 and the new, personalised functions that go with it. If a driver wishes to access personalised functions while signed in with a guest account, they will be prompted to log in with a BMW ID so that they can make full use of them.

Connected navigation, parking and charging with BMW Maps.

The cloud-based navigation system BMW Maps enables routes to be calculated significantly faster and more dynamically. To this end, BMW Maps combines real-time information with forecasting models that predict the traffic situation along the rest of the route. This allows arrival times to be calculated with leading levels of accuracy – by both automotive and smartphone standards. The data pool for this is provided by the HERE map, supplemented by knowledge gathered through the swarm intelligence of the BMW Group's connected fleet (more than 14 million vehicles worldwide). The map data in the navigation system is updated over the air at regular intervals. Machine learning algorithms are also employed for data processing in the BMW Cloud.

With the arrival of the new BMW Operating System 8 in the BMW i4, the digital services for navigation, parking and charging are fully integrated into the cloud-based BMW Maps system in a user-friendly way and the intelligent functions are also being further expanded. The calculated traffic situation is now updated at one-minute intervals. Entering the destination in the vehicle is easier and faster, too. The one-

box search facility allows addresses or place names to be entered in a search box, just like with an online search engine. And over 120 million points of interest worldwide can be located in the same way. The stored information is updated several times a week to ensure that BMW Maps is always up to the minute. The My BMW App can be used to transfer navigation destinations from a smartphone straight to the car. The BMW Cloud also contains additional contextual information on points of interest, such as ratings, opening times and images, as well as detailed information on public charging stations.

One of the key new and intelligent functions is "Learning Navigation", where BMW Maps uses the habits associated with the individual BMW ID as the basis for learning and anticipates the destination the driver is likely to head for. This saves drivers the trouble of entering the destination again for regular journeys, especially the daily commute to work, when they nevertheless wish to be alerted to delays or hazards along their route. Information on the current traffic situation for the journey ahead and the estimated driving time are sent to the My BMW App in good time prior to departure. An individually configurable Traffic Widget in the car likewise shows the predicted destination with the accompanying traffic information. Once the suggested destination has been selected, route guidance can be activated with a quick tap of the finger if, for instance, the system proposes an alternative route due to high traffic levels.

Improvements have also been made in terms of the help provided by BMW Maps when searching for a parking space. For roadside parking, a parking search route is calculated based on a probability analysis. This guides the driver to their destination along a route offering a very good chance of finding a free space. This approach is extended to vehicle charging: BMW Maps suggests parking spaces with additional charging facilities in the direct vicinity.

Connected Charging: easy charging thanks to intelligent connectivity.

Digital services from Connected Charging are designed to make sure that even long journeys can be completed easily and conveniently with the BMW i4. During the journey, the BMW Maps navigation system shows public charging stations along the route being travelled or in the vicinity of the destination. Colour coding is used to indicate charging station availability directly in the listing, together with further details such as the charging capacity offered and information on the operator and possible payment methods. When searching for charging stations, a filter can be added to show fast-charging stations only. Connected Charging

also enables access to the charging station and invoicing of the energy costs by scanning a QR code on the charging point.

Mid-journey stops for recharging the battery can already be factored into route planning in the My BMW App thanks to Connected Charging. Here again, additional information is provided on the refuelling stop and the charging stations. The system calculates the optimum charging strategy and suggests the quickest overall route. This exact and detailed route planning provides an accurate estimation of the arrival time. When the driver selects a public charging station, the navigation system will also show them suggestions for restaurants, cafés, attractions or cultural venues in the area to allow them to make the most of the time while their car is charging.

The Remote Services in the My BMW App can be used to control both the charging process and pre-conditioning of the BMW i4 remotely. In this way, the driver can program when vehicle charging and pre-conditioning of the interior and battery should start, taking into account the amount of energy required and the planned departure time. The driver will receive a push notification once the target charge level has been reached or if there are any irregularities during charging. Similarly, information on charging status, range and other details can be viewed in the My BMW App on a smartphone as well as in the vehicle. The My BMW App also contains a transparent evaluation of all charging cycles performed either at home or on the go. In addition to this, the app can be used to start or stop charging remotely.

Extensive integration of smartphones third-party services.

Integrating Apple CarPlay® more deeply into BMW iDrive enables customers to use a great number of functions from their car in just the same way they do on their smartphone. One notable new feature when using Apple CarPlay is that the Apple Maps navigation map is shown not just on the control display but also on the information display in the BMW Curved Display. The corresponding navigation instructions also appear in the BMW Head-Up Display when route guidance is active. A special function for all-electric vehicles will be added to Apple Maps in 2022: if the distance to the destination is greater than the current range, Apple Maps will automatically plan a charging stop and modify the route accordingly.

Google Android Auto™ offers customers access to a wealth of Android smartphone functions and content while driving. Wirelessly connecting an Android smartphone (with Android 10 or higher) to the BMW i4 will

be quicker and easier than ever. Assuming Bluetooth is activated on the device, a prompt to connect to the car will be displayed automatically when the user gets in. Following confirmation, the device will be connected in just one step so that it is instantly ready for Bluetooth phone calls or Android Auto. Deep integration into BMW Operating System 8 will allow Android Auto content to be shown in multiple display areas, too. If Google Maps navigation is active, the map will appear in the information display as well as the control display, while navigation instructions can also be viewed in the Head-Up Display.

Driver assistance systems. Intelligent technology for driving pleasure, comfort and safety.



The BMW i4 is the new standard-bearer for driving pleasure in the world of fully electric mobility. Its vehicle concept, drivetrain and chassis technology have all been designed to deliver an involving and emotionally rich experience behind the wheel. At the same time, it offers an extensive range of driver assistance systems which are among the best on the market. The automated driving and parking systems at work in the BMW i4 stand out with their wide-range functionality and high degree of availability. The around 40 assistance functions offered for the i4 either as standard or optionally enhance safety and comfort when driving and parking – in adverse weather conditions and unclear road situations alike.

The primary mission of the chassis technology and now also automated driving technology in BMW Group models is to open up a positive and emotionally engaging experience for the customer. The focus is on the pleasure of driving, and here the assistance systems play a key role alongside the model-specific driving characteristics. The BMW i4 offers customers the best of both worlds – they can enjoy dynamic driving pleasure by taking the controls themselves or use the assistance functions to make certain driving situations and parking safer and less stressful.

A network of extremely advanced sensors take centre stage here. The driver assistance systems process camera images and the data collected by ultrasonic and radar sensors to monitor the area around the vehicle, warn the driver of possible dangers and minimise the risk of accident using brake or steering inputs. Existing functions can be improved or expanded by means of Remote Software Upgrade.

The right speed for every situation – automatically.

The driver assistance systems available in the BMW i4 contribute to safe and relaxed driving in a host of situations. Highlights for Level 2 automated driving in accordance with SAE International Standard (SAE J3016) include automatic Speed Limit Assist and route guidance when using Active Cruise Control with Stop&Go function. Both functions offer the driver particularly user-friendly assistance when choosing the right speed for the situation at hand-

With automatic Speed Limit Assist, the system controls the car's speed by both maintaining the desired safety distance to vehicles travelling in front and observing speed restrictions along the route. It takes into account speed limit signs detected by Speed Limit Assist or by looking ahead along the route using data from the navigation system. If the relevant setting is selected in the BMW iDrive, the maximum permitted speed registered in this way is automatically adopted as the new desired speed.

The route monitoring function also helps to make long-distance journeys more comfortable. As well as distance control and the speed limits in force, it takes into account the nature of the route in automatically selecting the ideal speed to travel at. This function uses the navigation system's map to look ahead and reduce the car's speed when approaching a corner, a roundabout, a junction or an exit. If the intention to turn off is signalled by activation of a turn indicator, the system also ensures that the manoeuvre is carried out at an appropriate speed by slowing the car in good time. The system also adjusts the car's speed before reaching a built-up area, instead of only braking once the car has passed the place name sign. Once the car has passed through the relevant section of the route at an appropriate speed, the system accelerates the BMW i4 back to the desired speed set by the driver or the permitted maximum speed.

Outstanding: Active Cruise Control reacts to traffic lights automatically.

An additional, highly sophisticated function makes Active Cruise Control with Stop&Go function more comfortable to use in urban areas, in particular. If the optional Head-Up Display has been specified, the system is able (in Germany) to incorporate traffic signals into Cruise Control. In the event of a clearly detected red light, this is displayed in the instrument cluster and the car is automatically braked to a standstill – even when it is not getting closer to a vehicle in front. At a straightforward green light, the BMW i4 automatically continues on its way. This feature is a unique feature in the segment. At a more complex intersection – for example, where different traffic light signals apply to different lanes – the display of information has to be confirmed by the driver with the press of a button on the multifunction steering wheel before the car is automatically braked. When the lights switch to green, a signal is shown in the instrument cluster to continue driving. This additional function developed specifically for areas where roads intersect reduces the number of situations in which the driver has to deactivate Cruise Control by pressing the brakes.

Front-collision warning, Speed Limit Info and Lane Departure Warning as standard.

Front-collision warning comes as standard on the BMW i4. This system includes Collision Warning with braking function and Pedestrian Warning with braking function. The latest version of the system reacts to both moving and stationary vehicles and can detect both pedestrians and cyclists. Also part of standard equipment is Speed Limit Info with no-overtaking indicator. The Speed Limit Device, meanwhile, allows a maximum speed to be chosen by the driver to guard against unintended acceleration beyond that point.

Lane Departure Warning with lane return, also fitted as standard, registers the road markings picked up by the front camera and helps the driver to avoid deviating unintentionally from their current lane. The system can be used at speeds of at least 70 km/h (43 mph) and warns the driver by means of a steering wheel vibration. If a correction in the car's course is necessary, it also offers steering assistance. The system now analyses the road conditions at hand even more precisely. On extremely narrow roads, the course correction assistance is suppressed so that if a vehicle is approaching from the opposite direction, the driver can easily move onto the side of the road.

Specific increase in comfort and safety: Driving Assistant and Active Cruise Control with Stop&Go function.

The functions included in the optional Driving Assistant include Rear Collision Prevention and rear crossing traffic warning, which reduces the danger of a collision when reversing towards roads which are difficult to see into. Here, crossing traffic warning uses the side-mounted radar sensors. Lane Change Warning increases safety in overtaking manoeuvres on multi-lane roads. It alerts the driver to vehicles which are within a critical distance on the adjacent lane or approaching quickly from the rear. The warning takes the form of an illuminating signal in the exterior mirror.

The standard-fitted Cruise Control with brake function helps make driving over longer distances more relaxing. The optional Active Cruise Control with Stop&Go function offers even more extensive assistance by using sensor data from cameras and radar to not only maintain the preferred speed but also automatically keep a safe distance from vehicles travelling ahead – with a choice of four proximity settings. The distance information can be shown in the optional Head-Up Display. Active Cruise Control with Stop&Go function brakes the car to a standstill

if necessary. In tailbacks or slow-moving traffic, the vehicle pulls away again automatically once the situation allows.

Providing assistance according to the situation at hand: Driving Assistant Professional.

Active Cruise Control is available as an individual option, where it can be used at speeds of up to 160 km/h (99 mph). As part of the optional Driving Assistant Professional, it is even available at up to 180 km/h (112 mph). The systems brought together in the Driving Assistant Professional evaluate the data supplied by a total of three front cameras, one front-facing radar sensor and four radar sensors facing out to the sides to build a detailed picture of the car's surroundings. This also brings the Steering and Lane Control Assistant into play, helping the BMW i4 driver to continue along their current course – likewise at speeds of up to 180 km/h (112 mph) – with the assistance of smooth correcting steering inputs. Active Navigation is also one of its functions and helps the driver to keep to the route calculated by the navigation system on multi-lane roads. When approaching a motorway intersection or exit, a display in the instrument cluster indicates the need to change lane. In preparation, the system adjusts the car's speed to make it easier to steer into a suitable gap in the adjacent lane.

Further components of Driving Assistant Professional are the Emergency Lane Assistant (can be used in selected European countries), Lane Keeping Assistant with active side collision protection, Emergency Stop Assistant and the Evasion Assistant, which also reacts to pedestrians. Meanwhile, Road Priority Warning, Wrong-way Warning and front crossing traffic warning help to provide active protection from collisions.

A dedicated button on the steering wheel's left-hand spoke ensures the systems are easy to operate. Pushing it once activates both the Active Cruise Control and the Steering and Lane Control Assistant. Assisted View in the instrument cluster gives the driver an overview of the activated systems and their functionality. To this end, the central area of the cockpit display is reserved for a three-dimensional mock-up of the vehicle and its surroundings. This is where the driver can see an image of the cars, trucks and motorcycles detected by the camera and radar sensors in the driver's current lane, along with those in any adjacent lanes. Vehicles within a critical distance are highlighted. Icons indicate situation-specific manoeuvres that can be carried out with the help of assistance systems. In this way, Assisted View offers the driver a convenient way of checking the status of the driver assistance systems and the relevant courses of action with a single glance at any time.

Help, as desired, with parking and manoeuvring: Reversing Assist Camera, Reversing Assistant, Parking Assistant Plus.

BMW i4 drivers also benefit from effective assistance when parking and manoeuvring, e.g. thanks to Park Distance Control (PDC) with sensors at the front and rear. In addition, the Reversing Assist Camera is fitted as standard. The optional Parking Assistant includes Active Park Distance Control (PDC), which uses visual and acoustic alerts and automatic brake inputs to help avoid collisions with obstacles to the sides and rear of the vehicle.

Added to which, the latest version of the Parking Assistant offers an even wide range of uses. It helps the driver to select and use parking spaces either parallel or perpendicular to the road. Suitable spaces are detected using ultrasonic sensors as the vehicle drives past. When selecting a parking space and aligning the car during the parking process, the system can now take its bearings from kerbs as well as other vehicles. The system can also drive into perpendicular spaces forwards or in reverse. The latest version of the Parking Assistant can be used both to enter and exit spaces. As well as the necessary steering inputs, it now also carries out the acceleration, braking and gear changes required for the manoeuvre.

Another component of the optional Parking Assistant is the Reversing Assistant. It offers the highly convenient option of automated reversing in confined spaces or situations where the driver does not have a clear view, such as multi-storey car parks or entrances to courtyards. To do this, it stores the steering movements for any section the car has just driven forward along at no more than 36 km/h (22 mph). The system is then able to reverse the vehicle for distances of up to 50 metres by steering it along the same line it took when moving forward. All the driver has to do is operate the accelerator and brake pedals and monitor the vehicle's surroundings. The Reversing Assistant can back the car up automatically at a maximum 9 km/h (5.5 mph).

The functions contained in the optional Parking Assistant Plus provide an excellent overview in many different situations. Surround View including Top View, Panorama View und 3D View help to create a 360-degree image of the vehicle and its surroundings, which is shown from various angles in the Control Display. Meanwhile, the Remote 3D View function gives drivers the ability to call up a three-dimensional live image of their vehicle and its immediate vicinity on their smartphone.

The BMW Drive Recorder available on cars with Parking Assistant Plus uses the driver assistance systems' cameras to record video images all around the vehicle, so these can be stored and later either played back on the Control Display when the vehicle is stationary or exported via the USB interface. It therefore allows the driver to record videos up to 40 seconds in length while driving through spectacular countryside or performing eye-catching driving manoeuvres, for example, and then store them afterwards onto a connected USB device. In the event of a collision, up to 20 seconds of video taken both before and after the impact (i.e. 40 seconds in total) are stored.

Production.

Flexible manufacturing at BMW Group Plant Munich.



Following the implementation of intensive structural and remodelling measures, the BMW Group Plant Munich is now equipped to build the all-electric BMW i4 alongside models with combustion engines and plug-in hybrid drive systems. From the variants of the BMW M3 high-performance sports car through the BMW 3 Series Sedan and 3 Series Touring to the BMW i4, this production facility works on a highly diverse range of models.

Manufacture of the BMW i4 in Munich represents a case study in flexible, efficient and intelligently integrated production processes. These processes characterise the latest (second) phase in the company's transformation towards digitally networked, sustainable and electrically powered mobility. It is underpinned by the intelligent vehicle architectures designed from the outset for the integration of BMW eDrive technology, and by highly flexible production. This unique combination of factors ensures maximum flexibility and exchangeability between the different drive forms, which will allow the plant to respond to changes in customer demand at any time

Investment of 200 million euros, planning with digital tools and virtual reality.

The production of the BMW i4, which is produced alongside petrol, diesel and plug-in-hybrid models on the same line, marks the dawn of a new era for BMW Group Plant Munich. The BMW Group invested around 200 million euros in the company's home plant to cover the necessary disassembly and conversion work for the production machinery.

Digital tools were employed as early as the planning phase to simulate future line sections, system concepts and manufacturing processes ahead of the conversion using virtual reality. The expertise of the plant's employees also played a role here. Using VR glasses they were able to gain a clear picture of their future working steps and deliver valuable feedback on the ergonomics involved and on how to optimise the process flow.

The bodyshop at Plant Munich is a shining example of smart, efficient integration, as the majority of production processes for the BMW i4 can

be carried out on existing bodyshop systems. Additional systems were required only for the floor assembly and rear section of the i4, as the electric drive and high-voltage battery mean these are quite different from conventional architectures. The battery pack will be fitted to the body by a new, fully automated battery assembly system, which uses camera systems to check automatically if the battery pack is positioned correctly on the line. The battery pack is also transported to the line and bolted to the body fully automatically.

A new electric overhead conveyor has also been installed for BMW i4 production, along with stronger conveyors in the vehicle finish area. As the number of driver assistance systems, items of safety equipment and connectivity features steadily increases, function-testing of the various in-car innovations and technologies during production is becoming more and more complex. To meet the ever tougher quality requirements, Plant Munich is making greater use of digitally connected production and testing systems.

CO₂-neutral production at the BMW Group's home plant.

Since 2020 all the locations in the BMW Group's international production network have been supplied exclusively with electricity generated from renewable sources. The company had already reduced the CO₂ emissions per vehicle in production by more than 70 per cent between 2006 and 2019. A key factor here alongside the use of green energy was a steady increase in the energy efficiency of the manufacturing processes – a development that will be continued unwaveringly. In 2030, CO₂ emissions in production will be less than 10 per cent of the 2006 figure.

The power required for car production in Munich comes from renewable sources. To this end, the BMW Group also has direct supply contracts with regional providers, which cover the supply of electric energy from hydroelectric power stations. The green electricity needed for production of the BMW i4 at BMW Group Plant Munich and the BMW iX at BMW Group Plant Dingolfing will come from the Uppenborn-Isar hydroelectric power stations between Moosburg and Landshut and the Lech power plants in Gersthofen and Rain. Also factored into the energy calculations is the power required for the manufacture of numerous components for the electric models at the BMW Group's plants in Landshut, Dingolfing and Berlin. Sourcing energy directly from the local region delivers another boost to the eco-credentials of the green electricity we use in production due to the short supply distances involved.

Innovative manufacturing technologies have helped to consistently reduce the amount of water consumed by vehicle production at BMW Group Plant Munich. For example, the paint shop at the home plant is one of the most modern and resource-efficient installations of its kind worldwide. It includes an innovative dry separation process which runs without any water, chemicals or other additives whatsoever. Between 2006 and 2020 the water requirement per vehicle at BMW Group Plant Munich dropped by 40 per cent. In 2020 it stood at 1.85 cubic metres of water per unit.