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The New 2022 BMW iX xDrive50

- New generation of all-electric SAV from BMW.
- Combined 516 hp and electric all-wheel drive. 0-60 mph in 4.4 sec.
- EPA range up to 324 miles.
- Available 5G and Personal eSIM
- MSRP of $83,200 plus $995 Destination.
- U.S. market launch expected in Q1 of 2022.

Woodcliff Lake, NJ – June 1, 2021…BMW is proud to announce the BMW iX xDrive50. Conceived from the outset as purely electric mobility, the iX sees BMW redefining its successful Sports Activity Vehicle (SAV) concept. The BMW iX has been created to provide something beyond just mobility – an exhilarating driving experience combined with a sense of well-being for both drivers and passengers all the while enjoying the journey with safety, security and in luxury.

The iX xDrive50 brings together the company's latest developments in the fields of design, sustainability, connectivity, electrification and digital services. The expertise accumulated by the BMW Group over many years in the area of sustainability has been channeled into the manufacturing of the BMW iX xDrive50. The most exacting environmental requirements have been put in place throughout the value chain and for the full life cycle of the car. Key components include closely monitored raw materials extraction, the exclusive use of electricity

from renewable sources in the production process and an extraordinarily high proportion of recycled materials.

Some of the advanced technology features making their BMW debut in the 516 hp iX include DC fast charging at up to 195 kW, available 5G and Personal eSIM support, a single-piece panoramic glass roof with electrochromic shading, the BMW Curved Display and iDrive 8, BMW Digital Key Plus with ultra-wideband radio technology, available Bowers and Wilkins Diamond Surround Sound with 4D audio and the iconic BMW kidney grille serving as an intelligent sensor panel with self-healing capabilities.

A more powerful iX M60 model, with over 600 hp and the first all-electric Sports Activity Vehicle from BMW M GmbH, is planned for the future.

Body and Chassis Design

The BMW iX body structure's aluminum spaceframe construction features an intelligent material mix that increases rigidity and minimizes weight. This also has a beneficial effect on passive safety, driving dynamics and electric power consumption. The mix of materials for the bodyshell includes CFRP and high-performance thermoplastics, along with high-strength steels and aluminum.

Light, yet extremely torsion resistant CFRP components for the side frame, rain channels, roof frame, cowl panel and rear window frame together form a 'Carbon Cage' in the BMW iX body. The BMW Group has employed its many years of experience in working with this high-tech lightweight material – amassed during production of the BMW i models and the current BMW 7 Series – to use CFRP intelligently to reinforce the body while saving weight. The Carbon Cage has evolved from the Carbon Core used in the 7 Series and allows the best qualities of this high-tech material to also be appreciated visually.

Fitting a lightweight CFRP side frame reduces the vehicle's weight while helping to keep its center of gravity low. The cowl panel and rear window frame components are manufactured from continuous fiber-reinforced thermoplastics (CFRTP) using an all-new production method. The innovative blend of materials forms the basis for an exceptionally slim profile that adds to the sense of spaciousness in the cabin. Brackets for control units, washer fluid lines and wiring harnesses can also be incorporated into these components. The CFRTP construction

increases stiffness while achieving a weight saving of some 10 pounds compared to similar elements made of steel.

The CFRP used in the side frame and at the rear lends an added visual appeal to the BMW iX: the carbon components' fiber structures clearly stand out in the entrance area and when the tailgate is open, providing a reminder of the car's high-tech character.

The front double-wishbone suspension gives the iX precise steering characteristics and excellent ride comfort. This design principle separates the wheel guidance and shock absorber functions, ensuring optimum road contact over the suspension's full range of travel. As a result, high levels of lateral acceleration can be achieved without compromising ride comfort. The rigid connection of the aluminum front axle subframe to the body factors into the steering's direct response feel. An aluminum shear panel combines with the high-voltage battery module to further increase front end rigidity. Aluminum is also used for the suspension strut forks, swivel bearings and control arms, resulting in further weight savings. The elastic bearing in the front axle subframe for the front electric motor ensures optimum acoustic isolation from the body.

The rear suspension is of a five-link design. The rear control arms and rear axle subframe are made from aluminum. The rear motor has an elastic mounting inside the axle subframe that offers effective acoustic isolation. By bolting the spring struts to the bottom of the camber arms, the axle's overall height is reduced, thereby improving both the through-loading width and the luggage capacity of the BMW iX.

Lift-Related Shock Absorbers

BMW iX includes front and rear anti-roll bars as well as a lift-related damping system that plays a major part in achieving the balance between sport and comfort. Extra hydraulic damping is incorporated into the shock, which adjusts the firmness progressively according to the changing suspension travel. This prevents excessive body dive when driving over large bumps, while low damping forces around the middle damping position ensure a high level of comfort when travelling over minor road imperfections.

The first line of defence against body vibrations is the conventional piston and base valve. Only with greater degree of suspension lift will a second piston drop down into the inner sleeve of the shock to generate an additional damping effect. The lift-related extra damping is provided on rebound at the front suspension and during compression at the rear.

The spring struts feature a triple-path strut mount, where the suspension spring and auxiliary spring are connected directly to the body, while the rubber mount only must absorb the damping forces, allowing the elastokinematics to be tuned independently of vehicle load.

Optional Two-Axle Air Suspension

The BMW iX is available with an optional adaptive suspension including electronically controlled shocks and two-axle air suspension with automatic self-levelling. A range of shock settings and ride heights can be selected to shift the emphasis of the driving experience further towards either comfort or sport.

The front and rear shocks are controlled individually for each wheel. This increases agility and body stability when cornering at speed, while also enhancing ride comfort. Damping force is adapted by means of continuously adjustable valves, which are controlled to adjust force as 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. There is a choice of two shock control settings - for sporty driving or a more comfortable ride respectively.

The adaptive two-axle air suspension keeps the BMW iX at the optimum ride height at all speeds, regardless of the load. The suspension's air supply is controlled individually for each wheel, making it possible to balance out an unevenly loaded car. The height of the body can be adjusted manually using a button on the center console. In the default setting, the car's body automatically drops by 0.4-inches when the vehicle speed exceeds 87 mph, improving not just high-speed directional stability, but aerodynamic properties and therefore range. The body can also be raised by 0.8-inches for extra ground clearance. Selecting SPORT mode lowers the body by 0.4-inches throughout the entire speed range.

Servotronic and Integral Active Steering

The BMW iX comes standard with Servotronic speed-sensitive power assistance with a variable rack ratio. Making its debut in the BMW iX, the new steering gear ensures exceptional directional stability for straight-line driving at high speeds together with excellent precision and feedback when cornering. Steering comfort when parking and maneuvering at low speeds is also improved.

The optional Integral Active Steering adds rear-wheel steering and gives the BMW iX excellent straight-line stability and agility, while also enhancing lane change maneuvers. Turning the rear wheels in either the same or the opposite direction to the front wheels, depending on vehicle speed, makes the car nimbler when driving in urban traffic or cornering, while also allowing lane changes to be performed more comfortably at moderate to high speeds. It also gives the BMW iX noticeably superior low-speed maneuverability when entering and exiting parking spaces.

Electric All-Wheel Drive, DSC and Near-Actuator Wheel Slip Limitation

The intelligent electric all-wheel-drive system in the BMW iX is fully variable and can split torque as needed from highly efficient pure rear-wheel drive to an all-wheel-drive set-up for maximum traction.

The BMW iX comes equipped with near-actuator wheel slip limitation technology developed specifically for electric models. This enables the vehicle to maximize straight line accelerate even on slippery surfaces, thanks to extremely quick and precise control responses. Specially designed 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 at both the front and rear wheels are applied much faster and more precisely, with coordination between front and rear wheels.

While the motor management's integrated near-actuator wheel slip limitation function mainly reduces the loss of traction accelerating, the DSC system is responsible for optimizing directional stability 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. SPORT mode can be configured to allow a higher degree of wheel slip, helping the driver to explore the BMW iX's performance limits.

Further DSC functions that enhance handling stability and agility in the iX include Performance Control, Brake Standby, Brake Assist, fading compensation and Dry Braking.

Integrated Braking System

The BMW iX's integrated braking system delivers outstanding stopping power and linear pedal feel. Thanks to this cutting-edge technology, the brake activation, brake booster and braking

control functions are brought together within one compact module. The required brake pressure is triggered using an electric actuator, an operating principle that generates pressure more dynamically and ensures significantly faster and more precise interventions from the driving stability control system. The integrated braking system generates stopping power adjusted precisely to the driver's inputs, while producing consistent pedal feel unimpaired by any annoying pulsing as a result of wet road surfaces, significant lateral acceleration or high brake temperatures.

Unwanted pedal feedback is eliminated when energy recuperation is being used to slow the car. Balancing the effects of recuperation and friction braking to suit the situation enables drivers to determine how Brake Energy Regeneration is applied. They have a choice of recuperation when the accelerator is released (one-pedal feeling in driving position B) or using the coasting function with purely adaptive recuperation of brake energy or a combination of the two (in driving position D). Each of these settings exploits the full efficiency potential of Brake Energy Regeneration.

Aerodynamically Optimized Light-Alloy Wheels and Noise-Reducing Tires

The BMW iX is equipped with standard 20-inch aerodynamically optimized light-alloy wheels. 21-inch and 22-inch Air Performance wheels are optional. These unique optional wheels include an aluminum base wheel with customized inserts between the spokes that give them a flat design resulting in smoother airflow and a weight reduction of approximately 15 percent over conventional light-alloy wheels.

The optional Ait Performance light-alloy wheels are fitted with new innovative tires specially designed for the BMW iX and which feature integral noise reduction. A layer of foam on the tire's inner surface absorbs the noise produced by vibrations within the tire's cavity, which is filled with air causing it to act as a resonator. This leads to a substantial reduction in the level of tire noise transmitted to the BMW iX's cabin.

A more advanced version of BMW's Tire Pressure Monitor can be found in the BMW iX. The system's sensors relay data on tire pressure and temperature from each individual wheel, which is then processed to generate corresponding readouts in the control display. The Tire Pressure Monitor factors in specific data on the equipped tires, including manufacturer, dimensions and production date, which can be scanned from a QR code at the factory or service partner. Exclusive to BMW, this system simplifies use of the tire pressure indicator in

the iDrive menu. In the menu item for tire selection, the driver has only to indicate whether the vehicle is partially or fully loaded to view information on both the ideal and current tire pressures and decide whether there is any need to adjust them.

A digital tire diagnosis function helps advise the owner of tire wear by processing the data from the Tire Pressure Monitor in the BMW backend together with the pressure, temperature and wheel speed readings to forecast the remaining tire life. Customers can be notified via the My BMW App, for example, if action needs to be taken.

5th Generation eDrive Technology

The 5th generation of BMW eDrive technology is built 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 30 per cent greater than earlier electric drive systems could offer.

The latest electric motors developed in-house by the BMW Group have an efficiency factor of 93 percent, compared to less than 40 percent efficiency found in current combustion engines.

The excitation of the rotor in the BMW iX motors is not induced by fixed permanent magnets, but the feed-in of electric energy. This allows the use of rare earths (required for magnetic components) to be avoided altogether.

The drive power produced by the motors is channelled via a single-speed transmission – installed in the same housing – to the front and rear wheels along the shortest possible path. The centrally controlled electric all-wheel drive links up with the chassis control systems to enable extremely rapid and precise metering of drive power according to the driving situation, the road conditions and the driver's wishes.

Adaptive Recuperation of Energy

Adaptive and individually regulated recuperation of braking energy allows for an increase in BMW iX's overall drive system efficiency. Intelligently connected drive management means the intensity of the brake energy recuperation can be adapted to the road situation, provided by data from the navigation system and the sensors used by the driver assistance systems. When approaching a junction, for example, the degree of recuperation can be increased, while at

the same time feeding energy back into the high-voltage battery and increasing the deceleration effect. This targeted control of deceleration through energy recuperation helps to increase range.

A coasting function enhances comfort and efficiency by putting the iX into a “freewheeling” state with no drive power whenever the driver takes their foot off the accelerator. If the car draws a lot closer to a vehicle ahead while coasting, recuperation will be initiated immediately. Adaptive recuperation is one of the standard settings activated when the driving position D is engaged. Alternatively, the driver can choose a high, medium or low Brake Energy Regeneration setting via the iDrive menu. In driving position D, the new BMW iX pulls away at minimal speed as soon as the brake pedal is released, increasing comfort in stop-and-go traffic. Activating driving position B with the selector lever generates the one-pedal feeling characteristic of the BMW Group’s electric vehicles by driving with the maximum degree of recuperation. In this case, recuperation remains active even when the vehicle comes to a stop, which also provides a hill hold assist function.

Graphics showing the driving status and energy flow can be called up in the BMW iDrive system’s Live Vehicle menu. When either the PERSONAL or EFFICIENT settings are selected with the My Modes button, the control display indicates whether the electric motors in the BMW iX are currently providing drive power, recuperating brake energy to feed it back into the high-voltage battery or have been de-energised (front axle) / switched to torque-neutral (rear axle) for coasting.

An Efficiency Trainer function is available in the Live Vehicle menu with EFFICIENT mode activated. Hints for driving in a smoother, more efficient manner – considering the current driving situation – appear in the instrument cluster, where they combine to create a total mobility experience. The graphics visualizing recommended techniques for accelerating or slowing down as efficiently as possible motivate drivers to collect bonus miles. The driver also receives verbal suggestions and tips for reducing electric power consumption and increasing range from the BMW Intelligent Personal Assistant.

The range horizon that can be brought up in the information display visualizes the extent to which the driver can alter the range of the BMW iX should they adopt a very dynamic or extremely economical driving style. This provides a clear illustration of how range changes depending on driving style. If route guidance is activated, the distance to the pre-programmed destination will be accompanied by additional information on the high-voltage battery’s

anticipated charge level upon arrival. This provides the driver with a conclusive guide to the potential range spectrum and helps them plan the remainder of the journey accordingly.

High-Voltage Battery

A high-voltage battery with state-of-the-art battery cell technology is a key component of BMW's 5th generation eDrive. The gravimetric energy density of the lithium-ion battery has been increased by around 20 percent over the previous-generation batteries. And the latest generation of the high-voltage battery displays excellent characteristics in charging and discharging, durability and safety.

The iX's high-voltage batteries are mounted low in the vehicle floor in an aluminum housing which acts as an integral component of the body.

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 modules and batteries for vehicles with electrified drive systems since 2013. The company can call on immense reserves of expertise and experience when it comes to both battery cell technology and the manufacture of model-specific high-voltage batteries. The BMW Group has carried out underlying research in the fields of cell chemistry and cell design, enabling it to give precise specifications – geared to the requirements of electrified vehicles – to external battery cell producers.

The prismatic battery cells supplied by these companies are used to produce battery modules at the assigned BMW Group production plant. An independently developed modular system enables these modules to be arranged flexibly and turned into model-specific high-voltage batteries. The BMW iX xDrive50 is fitted with a battery with a gross energy content of 111.5 kWh and a net energy content of 106.3 kWh

Integrated Heating and Cooling System with Heat Pump Function and Anticipatory Thermal Management for the Battery

The BMW iX's heating and cooling system is made up of three cooling/heating circuits that can be interconnected by means of electric valves with a shared expansion tank. While driving in low outside temperatures, for example, the excess heat generated by the drive units is used to warm up the high-voltage battery. 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.

The latest version of the heat pump achieves a high efficiency factor by making use of ambient heat and heat from dehumidification – as well as the waste heat from the motors – for energy-efficient operation. The integrated heating and cooling system also insures optimal temperature control for the high-voltage battery in highly dynamic driving situations with high power requirements and during fast-charging from a DC charging station. If the navigation system's route guidance function is active and has scheduled a stop 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 several factors into account here, including current battery temperature, remaining range, the predicted charging rate and the amount of charging planned as part of the overall route calculation.

Combined Charging Unit for Charging at up to 195 kW

Alongside the electric motors and high-voltage batteries, new charging technology is also part of the 5th generation BMW eDrive. The Combined Charging Unit (CCU) in the BMW iX enables an extremely high level of flexibility when charging. The CCU 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 of the drive units, into a single package. Hooking up the high-voltage battery to a Level 2 Wallbox allows it to be topped up with AC at a charging rate of up to 11 kW. Using a Level 2 charger, the BMW iX xDrive50 can recharge its battery from 0 to 100 percent in under eleven hours.

The BMW iX xDrive50 can also charge its high-voltage battery at up to 195 kW using a DC fast charger. Plugging the BMW iX xDrive50 into a fast-charging station with 10 percent charge for example, enables its range to be increased by up to 90 miles in just ten minutes at 195 kW. Using the same fast charger, it would take less than 40 minutes to increase the high-voltage battery's state of charge from 10 to 80 percent.

Charging with EVgo

Recognizing the critical importance of public charging infrastructure to EV drivers, BMW has partnered with EVgo, the nation's largest public fast charging network and the first in the US to be powered by 100% renewable energy. BMW Charging Powered by EVgo provides BMW EV and PHEV drivers with access to EVgo and partner charging network stations via an easy to use mobile app, underscoring BMW's commitment to a high performance and zero emissions driving experience. BMW Charging Powered by EVgo enables BMW drivers to see real-time status of chargers, initiate a session, check their account status, and more all within the BMW Charging Powered by EVgo mobile app.

EVgo and BMW previously partnered on the ChargeNow DC Fast Program and are building on their shared history to accelerate the transition to electric vehicles. EVgo's public fast charging network offers the convenience of charging at more than 800 fast charging locations at retail and grocery stores, shopping malls, entertainment centers and other sites ideal for quick, 20-30 minute errands. Plus, for drivers who will be parked for a few hours, EVgo's relationships with partner networks will provide access to more than 38,000 L2 chargers for drivers, expanding the variety of charging options. With the new BMW Charging Powered by EVgo partnership, buyers and lessees of qualifying fully electric BMW models will receive $100 in EVgo charging credit that can be used at EVgo and partner network stations across all 50 states.

Optimized Body Aerodynamics: Drag Coefficient (C_d) of just 0.25.

Optimizing the aerodynamic properties of the BMW iX have had a direct and positive impact on both its performance and range. The low aerodynamic drag can be attributed to the streamlined body, the tapered glasshouse, flush-fitting door handles, extremely slender exterior mirrors and precisely crafted aero edges, all which combine to produce a very low drag coefficient (C_d) of just 0.25.

Functional aerodynamics elements include third-generation active air-flap control at the front, which directs cooling air to the drive units and brake system when required. In normal driving situations, both the BMW kidney grille and the air intakes at the bottom of the front bumper are completely blocked off. This default setting allows the air to flow around the vehicle unhindered, thereby significantly reducing aerodynamic drag. Opening of the electronically controlled air flaps is done automatically when maximum cooling air is required or during

operation of the heat pump for the automatic climate control. The flaps are adjusted gradually, allowing cooling air to be directed efficiently to the brake air ducts and drive components in carefully metered quantities.

Another drag-reducing feature is the sealing of the underbody. Spanning the largest area between the front and rear axle is the smooth aluminum high-voltage battery housing, located low down in the vehicle floor. At the front, aero elements direct the oncoming air past the wheels to prevent adverse turbulence. And airflow along the rear is smoothed by the large rear axle cover and the rear apron's diffuser. All of these measures lead to the most aerodynamic BMW SAV to date.

BMW iDrive 8

The new BMW iDrive 8 is an instrumental component of the user experience on board the BMW iX xDrive50. The most recent incarnation of the display and operating system takes the interaction between driver and vehicle further into the digital future. The new BMW iDrive 8, a new generation of displays, controls and software, plus extremely powerful connectivity and data processing allow BMW iX to serve as an intelligent and proactive partner for the driver and passengers. The new BMW iDrive 8 was designed with a focus on dialogue-based interaction using natural language and on touch operation. Consequently, new available features include the expanded capabilities of the BMW Intelligent Personal Assistant, which uses new graphics to communicate with the vehicle's occupants, and the BMW Curved Display – the all-new fully digital display grouping in the BMW iX formed by the information display and control display and angled around the driver.

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 than ever before. To accomplish this, 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 an excellent level of accuracy – by both automotive and smartphone standards. The data pool for these calculations 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 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 iDrive 8 in the BMW iX xDrive50, the digital services for navigation, parking and charging are fully integrated into the cloud-based BMW Maps system in a user-friendly way. The calculated traffic situation is now updated at one-minute intervals for example. Entering the destination in the vehicle is easier and faster, too. The one-box search facility allows addresses 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 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 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 anticipating 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 still wish to be alerted to delays or hazards along their route. Information on the current traffic situation for the trip ahead and the estimated driving time are sent to the My BMW App prior to departure. An individually configurable Traffic Widget in the car 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. BMW Maps is additionally able to suggest parking spaces with charging facilities, a real boon for electric vehicles.

Connected Charging: Easy Charging Thanks to Intelligent Connectivity

Digital services from Connected Charging are designed to make sure that charging on the road can be completed easily and conveniently with the BMW iX xDrive50. During the journey, the BMW Maps navigation system shows public charging stations along the route or in the vicinity of the destination. Color 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.

Charging stops can be factored into route planning in the My BMW App thanks to Connected Charging. 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 with included charging. 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 remotely control both the charging process and pre-conditioning of the BMW iX xDrive50. 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 and to define a maximum charge level in order to conserve the battery, for instance.

My Modes for an All-Encompassing Driving Experience

The new My Modes use an interplay of various functions to create special experiences during the journey. Based on a combination of vehicle and interior ambience settings tailored to the moment, they can be selected easily by voice command, by touch from the My Modes menu in the control display or by using a dedicated button on the center console. This button replaces the Driving Experience Control switch in the BMW iX xDrive50 and offers an extended range of functions.

There is a choice of three modes in the BMW iX: PERSONAL, SPORT and EFFICIENT. They each activate specific settings for the drive system and chassis, the display styles, the ambient lighting's color scheme, the drive unit's interior soundtrack and the seat backrest width. EFFICIENT mode is focused on sustainable driving. Here, changes to the accelerator response and tips shown in the information display help the driver to operate the BMW iX xDrive50 using as little electric power as possible. The driver is also supported by the intelligent Efficiency

Trainer, and the interior ambience is made as calm as possible: a blue shade sets the tone for the lighting mood and the drive sound becomes quieter. In SPORT mode, the focus switches to generating a pulse-quickening driving mood. This is aided by the more direct settings for accelerator and steering response and a chassis set-up geared to sporty driving, while the drive unit's soundtrack with its distinct acoustic feedback, snug-fitting backrests with optional multi-contour seats, pared-back displays and interior lighting in Thrilling Orange all add to the effect. PERSONAL mode allows customers to create their own individual My Mode. The vehicle characteristics are set to a balanced configuration. The customer can choose various lighting and color settings and display layouts, and also select other settings to create their personal ideal driving experience.

Great Entrance Moments

"Great Entrance Moments" is the name given to the user experience from the point when the driver first approaches the BMW iX xDrive50 until the journey begins. All steps are orchestrated by the vehicle and blended into one welcoming experience. Ultra-wideband (UWB) radio technology allows precise triangulation between the vehicle and the key or smartphone, meaning that the car knows the direction the driver is approaching from and how far away they are.

Once the distance drops below ten feet, the vehicle prepares and carries out a choreographed sequence. It begins with an orchestrated lighting effect using the exterior and interior lights, then proceeds to activate the light carpet, illuminate the door handles and automatically unlock itself. The car then activates the entry assistance features along with the steering wheel and surface heating, plays a start-up animation on the BMW Curved Display, loads the BMW ID settings and establishes a connection with the smartphone, before finishing with a customized welcome window showing a personal greeting as well as handy suggestions and information.

Remote Software Upgrades

Since the introduction of BMW iDrive 7 in 2018, BMW drivers have been able to keep their vehicle up to date with the latest software by means of the Remote Software Upgrade.
The BMW Group is one of the leading manufacturers in the field of over-the-air upgrades – over 1 million cars upgraded in 2021 for example. The new BMW iDrive 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. Updated software is installed free of charge.

When a new Remote Software Upgrade is available, drivers will receive a notification together with accompanying information in the vehicle, on their smartphone in the My BMW App and, in future, from the BMW Intelligent Personal Assistant too by means of a special widget on the control display. In the BMW iX xDrive50, Remote Software Upgrade will now also offer the possibility of performing extremely complex and large software updates in areas such as driver assistance and partial automation, while additionally enabling drivers to schedule the installation process. For this, 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.

Precision Navigation and Additional Information with Augmented Reality Video

The new Augmented Reality Video function available to supplement the BMW Maps navigation system's map view enables the driver to find their way with greater ease and accuracy. A live video stream from the driver's perspective is shown on the control display and is augmented by additional helpful information. When dealing with confusing turns, for instance, an animated directional arrow is integrated into the video image to help the driver take the best turn-off for the planned route. Depending on the situation at hand, the Augmented Reality Video view is activated prior to the maneuver to be performed and disappears again afterwards.

Using graphics to enhance reality opens new ways of ensuring drivers enjoy a safe and relaxed journey to their destination. As well as superimposing arrows, points of interest (POI) of relevance to the driver can also be highlighted in the live video stream. Tapping the indicated POIs brings up further information about them, such as user ratings, opening times or images. The ability to show both a section of the map and the live video stream augmented with additional information in the control display's split-screen view is unique in this segment. Using Augmented Reality Video to help drivers search for a parking spot is another available feature.

Snapshots: A Glance Inside the Vehicle and Theft Protection with new Interior Camera

Making its debut in this form in the BMW iX xDrive50, the overhead interior camera can be used by the occupants to take snapshots during the journey, allowing them to capture special

moments and share them with friends and family. Pictures can be taken by voice command, gesture or touch control, and there is also the option of a self-timer (three second delay). The camera system can even be set to only take a photo when at least one of the occupants is smiling. The camera operates in HDR mode, while the night mode produces sharp black-and-white images even at night or in low light conditions. Pictures can be shared by simply scanning a QR code in the control display with any smartphone connected to the car via WiFi.

Customers can send pictures from the interior camera to their smartphone using the My BMW App's remote function if they wish to take a glance inside the car to check whether bags or other items have been left there, for example. The interior camera is also activated when the new Remote Theft Recorder – coming in the future for the BMW iX – is triggered. This system relays a message to the customer's smartphone when the vehicle's anti-theft alarm system is set off. The customer is then able to access and save the pictures from both the interior camera and the cameras at the front and rear of the vehicle and on its exterior mirrors.

Careful attention was paid to privacy and security from the outset in the development of all the interior camera functions. Customers always have complete transparency and control over the functions. When the interior camera function is opened for the first time, a data privacy disclaimer containing all the relevant information flashes up in the display prior to activation. This disclaimer must be accepted before pictures can be taken, and these are subsequently only stored locally in the vehicle. Images are only transmitted if they are requested by the customer via the My BMW App. This is done directly using end-to-end encryption; no pictures are stored on BMW servers. Customers have the option of deactivating the camera's picture-taking function again at any time.

5G Connectivity and Personal eSIM

The BMW iX xDrive50 is the first BMW to feature available 5G support. As well as the built-in SIM card, it is the first BMW model to offer the eSIM technology that has been featured mainly on smart devices such as tablets and smartwatches. The Personal eSIM essentially turns the car into another digital and connected device in the customer's ecosystem. Both SIM cards are fully geared to the new 5G mobile technology and have DSDA (Dual SIM Dual Active) capability. Mobile reception is significantly improved by the vehicle's own 5G antenna system.

The Personal eSIM allows the customer - with compatible mobile service provider - to use their mobile contract's SMS, call and data allowances from their car with ease – even in situations

where they don't have their smartphone with them. Users can extend an existing mobile contract by activating the Personal eSIM via one of the available network operators. What's more, the Personal eSIM isn't linked to just one car, but the user's BMW ID – meaning it can be transferred to other BMW vehicles with Personal eSIM functionality. The eSIM is configured automatically when users sign in with their BMW ID, after which it is available immediately.

When connected to the 5G network, customers benefit from the low latency and high bandwidth of up to two SIM cards, depending on the quality of the signal. As a result, data is exchanged between the BMW Cloud and vehicle faster and Remote Software Upgrades can be downloaded to the car in a fraction of the normal time required. An in-car WiFi hotspot directly linked to the Personal eSIM is also enabled, dispensing with the need for an additional contract when setting up a hotspot. As many as ten devices can be connected to the vehicle's WiFi hotspot simultaneously, providing them with high-speed internet access that allows functions such as video streaming in full HD quality.

The ability to activate the Personal eSIM is being gradually expanded in collaboration with mobile providers and network operators and depends on the individual parameters in each country. Customers in the USA should be able to activate the Personal eSIM via participating network providers.

BMW Digital Key Plus with Ultra-Wideband Radio Technology

BMW is a pioneering partner in the use of smartphones as digital vehicle keys and plays a leading role in devising industry-wide standards. It has worked relentlessly on the further development of the BMW Digital Key since it was first introduced and is now offering a new generation of this convenient and secure means of unlocking and starting the vehicle without the user even having to take their Apple iPhone out of their pocket.

The BMW Digital Key Plus, set to make its debut with the BMW iX xDrive50, employs ultra-wideband (UWB) technology already integrated into the vehicle and the iPhone's U1 chip. As customers approach the BMW iX xDrive50, they are welcomed by a staged lighting effect using the exterior lights, and the vehicle unlocks just before they reach the door. Once they have got in, the Apple iPhone can be simply left in the user's pocket or placed in the smartphone tray for wireless charging; nothing else is required to start the vehicle.

UWB is a digital radio technology for short-range high-bandwidth applications that offers exceptionally precise location identification combined with maximum security. It has the additional benefit of ruling out the possibility of relay attacks, where the radio signal is disrupted or intercepted.

Apple and the BMW Group have been working closely together with the Car Connectivity Consortium (CCC) to develop the Digital Key Release 3.0 specification for UWB, which will serve as a global standard for both the automotive industry and smartphone manufacturers. The iPhone's iMessage service can be used to share a Digital Key with up to five other vehicle users. The Digital Key Plus function is expected to be available from the end of 2021.

Personalization Using the BMW ID

When interacting with the new BMW iDrive 8, BMW iX xDrive50 customers benefit from increasing personalization of the user experience based on their BMW ID. This is used for securely storing even more personalized 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 into 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 has 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 iDrive 8 or BMW iDrive 7. Once the BMW ID has been imported, the driver will receive a personal greeting which will include the customized 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 favorites as well as infotainment system settings will be imported automatically. Personalized suggestions from the BMW Intelligent Personal Assistant are 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, thereby allowing them to be imported into other appropriately equipped BMW vehicles once the user has logged in.

If the vehicle is made available to another user, all personal data and settings will be protected by switching to a guest account where this information can be neither viewed nor modified. And if the vehicle is briefly given to a stranger in order to park it, for example, activating Valet Mode temporarily disables access to both personal data – such as vehicle, infotainment and control functions – and the luggage compartment.

Smartphone and Third-Party Integration

Integrating Apple CarPlay® more into the BMW iDrive environment enables customers to use a great number of functions from their car in 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 smartphone functions and content while driving. Wirelessly connecting an Android smartphone (with Android 10 or higher) to the BMW iX xDrive 8 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 iDrive 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.

Advanced Driver Assistance System Sensors

The BMW iX is the BMW Group's first model to feature driver assistance systems from a new technology toolkit. The new technology toolkit gives the vehicle outstanding intelligence when it comes to monitoring its surroundings and transferring and processing data. For example, the tech is designed to be able to process 20 times more data than existing models. This means many times more sensor data can be processed.

The BMW iX xDrive50 is equipped with a wide range of assistance functions which make driving and parking safer and easier. Drivers of vehicles both in standard specification and featuring the optional Driving Assistant Professional and Parking Assistant Plus will be offered extended, optimized and new functions during their ownership of the vehicle that are designed to provide them with the best possible assistance with the task of driving. Noticeable improvements carried out in how the various functions work provide considerable added value for customers.

The new BMW iDrive 8 makes the driver assistance functions more user-friendly. Controls have been reduced to the essentials, ensuring that the driver can activate the optimal degree of assistance quickly. The focus is on overall, intelligent automation, simplification of system status and intuitive operation. This simplification can be seen in the reduced number of buttons on the multifunction steering wheel, for example.

The exceptional intelligence of the BMW iX is the product of an all-new software stack, coupled with the latest generation of sensors and an extremely powerful computing platform for evaluating and processing data collected about the vehicle's surroundings. The reach and quality of the system of sensors are class-leading: high ranges and recognition rates for pedestrians, other vehicles, traffic signs and other nearby objects are achieved with the 8 MPix front camera making its worldwide automotive debut here. Another global first for a vehicle is a front-mounted radar system, which uses its array of aerials to offer maximum ranges of up to 300 yards and achieve a vertical resolution in several levels for the first time. In total, five cameras, five radar sensors and 12 ultrasonic sensors team up to map the vehicle's surroundings, the data they gather providing the basis for the BMW environment model on the computing platform.

If the customer has given their consent, the data collected by sensors in extremely challenging driving situations is evaluated using artificial intelligence via the cloud in the BMW backend and utilized to constantly improve the assistance systems. These improvements are always considered in the context of worldwide system certification (homologation) and do not violate product conformity at any time. They can then be installed across the vehicle fleet over the air.

When creating the systems of sensors for its vehicles, the BMW Group focuses on creating a combination of different technologies, whose specific abilities and strengths complement each other to create a precise picture of the vehicle's surroundings. For example, the data collected by radar sensors on vehicles or other road users ahead of the car is constantly matched against

the images supplied by the front cameras. The helps the road situation at hand to be assessed in as much detail as possible and enables the relevant driver assistance functions to respond as required.

The key new features in terms of design include the camera and radar sensor systems fitted out of sight within the BMW kidney grille. The front-mounted radar is integrated seamlessly into the grille. In order to guarantee the greatest possible precision when using the radar sensor, a nanoscale vacuum-based coating process is employed in its manufacture. Here, the two color finish and visible 3D effect are produced by vaporization using laser technology and by a plasma-fired application technique in a high vacuum. The laser-based method developed specially for production of the kidney grille on the iX xDrive50, together with a precisely defined combination of material and layer thickness, optimize radar performance and ensure an appearance as classy as it is familiar.

An additional polyurethane coating reduces the kidney grille's susceptibility to damage. The self-healing effect of its surface repairs minor scratches, for example – within 24 hours at room temperature or through a five-minute supply of warm air. The BMW kidney grille of the iX is also an essential component of the highly developed automated driving and parking systems. The camera positioned in the center of the grille – like the camera integrated into the BMW badge at the rear – has its own cleaning system. Up to two other cameras are positioned near the rear-view mirror on the windscreen. The exterior mirrors on the driver's side and front passenger side each also have a camera. Like the cameras, the ultrasonic and radar sensors of the BMW iX also provide a complete all-round view. Six ultrasonic sensors are in each of the front and rear bumpers. Radar sensors are positioned on either side of the car at both the front and rear.

Advanced Driver Assistance System Functions

The BMW iX xDrive comes with an extensive suite of assistance systems designed to enhance both comfort and safety. The standard front collision warning system can slow the car to a standstill in order to avoid an impact or mitigate its consequences. It is active in situations such as approaching a vehicle in front and in response to oncoming traffic, and interacts with other vehicles, pedestrians and cyclists.

Cross-traffic alert with braking helps to minimize the danger of a collision with crossing traffic when entering an intersection with restricted visibility. The Evasion Assistant helps to avoid

collisions with vehicles or pedestrians that appear suddenly. As soon as an evasive maneuver corresponding to such a scenario is detected, the system helps the driver direct the vehicle into a clear adjacent lane with steering inputs.

Speed Limit Info including pre-warning allows the driver to set a maximum speed and guards against acceleration beyond that point. When driving with Cruise Control activated and a speed restriction is detected by the front-mounted camera, the Speed Limit Assist function enables the driver to adopt that speed as their desired figure at the touch of a button or automatically.

Lane Departure Warning registers road markings and alerts the driver to the danger of an unintended deviation from their current course using the steering wheel vibrations. The system also prompts the driver to guide their vehicle back into the correct lane by initiating a steering impulse.

The functions grouped together in the standard Driving Assistant also noticeably improve safety in the BMW iX xDrive50. Blind Spot Detection reduces the risk of a collision when pulling out into the adjacent lane with the turn indicator activated. This system initiates a visual signal in the exterior mirror and a steering wheel vibration to alert the driver to the presence of a vehicle to their side in the adjacent lane or approaching from the rear. At speeds of at least 40 mph, the system also prompts the driver to steer the BMW iX back into their original lane by initiating a steering impulse. In the BMW iX xDrive50, Blind Spot Detection includes a new function in turn-off situations. At a speed of up to 12 mph, the system warns the driver of a risk of collision in a turn-off maneuver signalled by activating a turn indicator.

The Driving Assistant also contains both rear collision warnings and rear crossing-traffic warnings, which works using side-mounted radar sensors and employs warning alerts and braking inputs to reduce the danger of a collision when reversing towards roads which are difficult to see into.

Another new feature is the exit warning function, which activates visible and acoustic signals when a vehicle or cyclist is approaching the BMW iX xDrive50 at speed and there is a risk of collision with the side of the vehicle. The driver or front passenger is warned about the danger by flashing LEDs in the mirror or the ambient lighting along the door. An acoustic warning is emitted and opening of the doors on the relevant side of the BMW iX delayed. This delay mechanism can be activated on all four doors – i.e. also the rear doors.

Optional Driving Assistant Professional

Active Cruise Control with Stop & Go and Lane Keeping Assistant – which focus on energy efficiency when EFFICIENT mode is selected – are combined in the optional Driving Assistant Professional. Distance to the vehicle in front can be selected by steering wheel-mounted control.

The latest version of Lane Keeping Assistant – making its debut on the BMW iX – can be used in more traffic situations than before. To provide its far-reaching functionality, the system factors in the data supplied by the front- and side-mounted cameras, the front-facing radar sensor and the four radar sensors facing out to the sides. Lane Keeping Assistant operates at speeds of up to 124 mph. It takes its cues from lane markings and vehicles driving ahead in order to help the driver keep the vehicle in the recognized lane with steering corrections. This also proves to be an effective aid in situations where the lane narrows.

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 with Stop & Go and Lane Keeping Assistant. Assisted View in the instrument cluster gives the driver an overview of the activated systems and their functionality. The central area of the cockpit display is reserved for a three-dimensional mock-up of the vehicle and its surroundings. Here, 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.

Parking Assistant, Rear View Camera and Parking Assistant Plus

BMW iX xDrive50 drivers benefit from helpful assistance when parking and maneuvering. The standard Park Distance Control (PDC) with sensors at the front and rear provides visual and acoustic alerts and automatic brake inputs to avoid collisions with obstacles to the sides and rear of the vehicle. Standard equipment also includes the Parking Assistant, which 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. A new feature is the system's ability to 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 maneuver.

Standard equipment for the BMW iX xDrive50 also features a Rear View Camera with Panorama View and the Back-Up Assistant. The Back-Up Assistant 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-story garages or tight driveways. To do this, it stores the steering movements for any section the car has just driven forward along at no more than 22 mph. The system is then able to reverse the vehicle for distances of up to 50 yards by steering it along the same line it took when moving forward. All the driver must do is operate the accelerator and brake pedals and monitor the vehicle's surroundings. The Back-Up Assistant can back the car up automatically at a maximum 5.5 mph.

Parking Assistant Plus with Remote 3D View and Remote Theft Recorder.

The functions contained in the optional Parking Assistant Plus provide an excellent overview of your surroundings in many different situations. Assistance, parking and panorama view including 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.

At a future date, the Remote Theft Recorder will be made available for the BMW iX xDrive50. When activated, it will use use the new interior camera. If the vehicle is stolen, this system can send a message to the customer's smartphone. The customer can then access and store the images from the interior camera and videos recorded by the cameras at the front and rear of the BMW iX and on its exterior mirrors.

Exterior Design

The exterior dimensions of the BMW iX xDrive50 – length: 195 inches, width: 77.4-inches, height: 66.7 inches – allow it to combine the functionality of the BMW X5 with agility of the BMW X6 and the expressive appearance of the BMW X7. The result is a distinctive re-imagining of the powerful proportions of a large BMW SAV. The BMW iX is comparable with the BMW X5 in length and width and is almost the same height as the BMW X6 due to

its flowing roofline. The larger diameter of its wheel and tire profiles, meanwhile, bring to mind the BMW X7. A wheelbase measuring exactly 118.1 inches and wide front and rear tracks provide the ideal platform for chassis tuning which balances luxurious long-distance comfort and sporty cornering characteristics.

Front Design: Expressive, BMW Kidney Grille Serves as Intelligence Panel

The front-end design of the BMW iX xDrive50 features a distinctive prominent BMW kidney grille and equally familiar twin headlights – which have been newly interpreted with a dash of futuristic style. Since the eDrive system of the BMW iX xDrive50 requires only a small amount of cooling air, the kidney grille is completely blocked off. Its role has thus turned digital and now it functions as an intelligence panel. Camera technology, radar functions and other sensors are integrated seamlessly into the grille behind a transparent surface along with their heating elements and cleaning system.

Slim LED Headlights and Functional Front Roundel

The slimmest headlight units ever to feature on a series-produced BMW model provide a minimalist take on BMW's familiar four-eyed front-end appearance. The daytime driving lights have a new design - as two-dimensional strips along the upper edge of the headlight units. This gives the headlights a totally new appearance in daylight. The daytime driving light strips include the turn indicator function. The BMW iX xDrive50 is fitted with standard full-LED headlights. The darkened light fixtures are set well back into the inner sections of the headlights and therefore only become visible when switched on. The fixtures in each headlight unit team up to generate both low and high beam.

The hood of the BMW iX xDrive50, with its pronounced three-dimensional sculpting, extends all the way up to the headlights and BMW kidney grille. All hood lines converge on the kidney grille and the BMW logo above it. The roundel is itself a functional component, serving as the washer fluid filler neck. It opens and closes again – once the fluid has been topped up – with a gentle push. The hood does not have an opening mechanism for use by the customer; the drive system technology and power electronics below the surface can only be accessed by workshop technicians.

Side View: Clear Surface Structuring, Precise Lines

When the BMW iX xDrive50 is viewed from the side, its reduced design language accentuates the modern and very distinctive styling of the all-electric SAV. The minimalist surface sculpting creates an athletic body whose uncomplicated appearance is highlighted by small number of precise lines. The almost rectangular contours of the front and rear wheel arches are a head-turning element of the exterior design.

A hallmark exterior side window design elements of BMW i cars appears in an updated form. The tapering of the window graphic towards the rear and the forward-slanting C-pillar underline the dynamic lines of the car's silhouette. The "stream flow" of converging lines mimics the airflow along the sides of the car. On the BMW iX xDrive50, this distinctive graphic takes the form of a black surface connecting the rear side windows and rear window and carries the inscribed model badge.

Integrated Flush Door Handles and Frameless Windows

The flush electric door handles, which are operated by the press of a button, are embedded into the door surfaces and are finished in a contrasting color. Indirect lighting illuminates the handle recesses. With the latest generation of the optional Comfort Access system, the doors lock or unlock automatically as the owner approaches or walks away from the car. The required signal is sent to the car using the radio remote control or the BMW Digital Key (via the customer's smartphone).

Doors with frameless windows make their debut in a large BMW SAV. Previously only seen on BMW coupés, this design brings a flowing, sporting appearance to the side window design. High-gloss black trim for the B-pillars provides an attractive contrast against the body color while three layers of sealing around the doors provide excellent acoustic comfort.

Aerodynamically Optimized Exterior Mirrors, Black Body Edging

The innovative design of the exterior mirrors on the BMW iX xDrive50 helps reduce wind noise, optimize aerodynamics and improve all-round visibility. The super-slim mirror bases attach to the lower edge of the side window surround, removing the need for the classical mirror triangle at the front of each side window. The mirror caps are painted in body color while the mirror base is finished in high-gloss black. The slim geometry of the mirrors and carefully positioned

aero foils help reduce wind noise. The turn indicators, which measure only around two millimeters in width are integrated into the exterior mirrors behind glass covers.

Among the design features familiar from classic BMW X models is the black surround at the lower edge of the body. On the BMW iX xDrive50 this forms a band around the whole car. The charging socket is located in the same place as the fuel filler neck on conventionally powered BMW models – i.e. behind a flap on the right-rear wheel arch.

Rear Design: Modern and Minimalist

The modern and minimalist design of the rear surfaces accentuates the width of the BMW iX. The minimalist design language with a small number of joints and character lines exudes an aura of simplicity and sophistication. The aerodynamics of the BMW iX are further enhanced by the flow of air over the roof all the way to its trailing edge, and by a diffuser in the rear bumper.
The tailgate has no separation joints and extends across the whole of the rear. The rear-view camera is integrated into the black ring of the large BMW roundel positioned in the center of the tailgate. The camera lens is cleaned automatically by a water spray system which extends from behind the roundel.

Like the headlights, the single-piece rear LED lights have a slimmer design than on any previous series-produced BMW Group vehicle. The light fixtures are integrated directly into the three-dimensional lens cover mouldings, creating an extremely bold appearance. The L-shape, familiar from other BMW models, is used in modern interpretation within the single light strip housing of the rear lights and brake lights, and the horizontal turn indicators, which only become visible when active.

The reversing light and rear fog lights are located along with the reflector in an extremely slim strip in the rear diffuser. Secondary light units positioned at the outer edges of the car beyond the tailgate opening include turn indicators, rear lights and brake lights, ensuring that the relevant light signals are still visible when the tailgate is open.

Interior Design

The fully digital BMW Curved Display, the latest generation of BMW iDrive, an innovative architecture for cockpit and center console - with a hexagonal steering wheel and around 50

percent fewer buttons and switches, sustainable materials and new design approaches such as shy tech – are the prominent features inside the BMW iX xDrive50. The progressive design of the interior plays a significant role in the iX's driving experience. Equipment such as the BMW Head-Up Display, Bowers & Wilkins Diamond Surround Sound System and standard panoramic glass sunroof with electrochromic shading not only deliver enhancements to comfort and practicality in day-to-day use and on longer trips. Together with a choice two olive leaf tanned leather, a microfiber/wool blend, and three non-leather options, they also offer customers exceptional freedom when it comes to configuring their BMW iX precisely to their personal style.

"We designed the BMW iX from the inside out. "In the process, we took particular care to create a modern, warm and minimalist interior design with a very spacious feel."

Vast amounts of room, a top-quality selection of materials, newly developed seating and the extraordinary expanse of the panoramic glass roof combine to immerse all five seats inside the BMW iX cxDrive50 in a luxurious lounge-style ambience. The brand-new architecture of the BMW iX cabin underpins the straightforward functionality that revolves entirely around the needs of the driver and their fellow occupants. The absence of a center tunnel resulting from the eDrive concept adds to the open, airy feel, while also creating extra legroom in the front and rear as well as sufficient space for storage facilities.

Shy Tech: Where People Take Center Stage and Intelligent Technology Fades into the Background

The technology aboard the BMW iX xDrive50 is used intelligently, only manifesting itself when it is required. This makes it intuitive to use rather than overly complex. The interior design conveys a sense of safety and familiarity and engenders a new type of bond between occupants and vehicle.

All displays and controls have been reduced to the essentials. The shy tech approach for the interior can be seen in a number of features, including speakers that have been integrated out of sight, delicately styled air vents, heated surfaces and the way the BMW Head-Up Display's projector has been recessed into the instrument panel to make it almost invisible. The hexagonally shaped steering wheel, a rocker switch for gear selection and the BMW Curved Display – which forms part of the next-generation BMW iDrive 8 – hint at the futuristic form of driving pleasure.

The newly developed seats for the driver and front passenger have integral head rests for a distinctly sporty appearance. For the first time in a model from the BMW Group, there is the option of integrating speakers into the seat. The sound sources positioned beneath the surface in the head rest and lumbar areas further enrich the acoustic experience inside the BMW iX and are another example of the principle of shy tech being applied. Besides the seats' extensive multi-way electric adjustment, there is also the option of seat heating, seat ventilation and a massage function.

Clearly Structured Surfaces for a Generous Sense of Space

An ambience of modern luxury sets the tone for both the front and rear compartments of the BMW iX xDrive50 interior. The minimalistic design language and clearly structured surfaces give the cabin an exceptionally spacious feel. The door panel layout features a distinctive diagonal split using different colors and materials. The door handles have been sleekly integrated into the diagonal accent strip along with the electric door opening switch. Buttons for adjusting the seat position are located at the top of the front door panels where they are ergonomically arranged in the form of a seat. The passenger-side armrest incorporates a compartment for holding a mobile phone. Meanwhile, the audio system's midrange speakers embedded beneath the door panels' fabric trim are hidden from sight yet make a very audible impact on the enjoyment of the journey.

Three Interior Design Variants and Sustainable Materials

Customers can choose from three design variants to give the interior of their BMW iX xDrive50 additional individuality. These bring specific materials and color schemes to the surfaces of the seats, door panels, armrest, center console and the upper section of the instrument panel, creating unique design and color worlds with their own distinctive characteristics. Standard Atelier specification includes surfaces in Sensatec with a striking seam pattern and perforated areas. It is available in Black, Oyster and Mocha. If the optional Stonegray trim is specified, the surfaces are adorned with a diagonal pattern of materials and colors combining high-quality textile and microfiber fabrics. The asymmetric styling and quilting composed of triangular, square and pentagonal sections give the seats their very modern appeal. Contrast stitching on the seat surfaces adds a further highly distinctive touch. The instrument panel with printed color gradient breaks new ground for car interiors. Also available is Exclusive Natural leather and the color shades Castanea and Amido.

The surface of the leather used for the seats and instrument panel is treated with a natural olive leaf extract, thereby avoiding any production residue that is harmful to the environment, while also giving the leather a particularly high-quality yet natural look. This especially gentle process has proven its worth for many years in the treatment of leather surfaces in the BMW i3 and is now used in the interior of the BMW iX xDrive50. The sustainability-focused approach applied when selecting raw materials and production methods has also resulted in the use of FSC-certified wood and a high proportion of recycled plastics in the surfaces of the door panels, seats, center console and floor coverings, plus floor mats made from recycled nylon waste material.

Lounge Ambiance in Rear Compartment, Surface Heating Generates Inviting Atmosphere

The rear bench seat has been designed for three passengers. The outer seats have integral head rests, which can be equipped with optional built-in speakers. The head rest of the center seat can be folded down to optimize rear view. The omission of the center floor tunnel means that anyone in the second row also enjoys a generous amount of legroom. The open sense of space this creates combines with the broad bench seat extending into the door areas to reinforce the lounge-style feel and increase passenger comfort. A Travel & Comfort system has been integrated into the front seats that can be used by occupants in the rear to attach coat hooks or hold tablet devices. A pair of USB-C ports can also be found in each of the front head restraints.

Heated rear seats are also available as an option. This function is part of the optional Radian Heat package, which also brings heating on vertical surfaces such as the instrument panel, glove compartment, door panels, and contact surfaces like the center armrest and steering wheel. All of this helps to warm the interior particularly efficiently. Spreading the heated areas around the surfaces of the interior in this way allows the occupants of the BMW iX to sense the change in temperature much more quickly than with a conventional distribution of warm air. And direct contact with the warmed surfaces fast-tracks the feel-good factor for those on board.

The rear backrest has a 40:20:40 split, allowing the amply proportioned luggage compartment to be expanded as required by folding down individual sections.

Slim Instrument Panel, Freestanding BMW Curved Display

The BMW iX xDrive50 interior's modern, spacious feel is enhanced by the slim instrument panel, which is covered in Sensatec with the option of either microfiber fabric or Natural leather tanned with olive leaf extracts. In the Stonegray trim, the graduation of color from the light to the dark areas reinforces the impression of an extremely light design.

The BMW Curved Display 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. It has a magnesium housing and a frameless, single-piece glass surface. The anti-reflective glass 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.

"The BMW iX is the first model from the BMW Group to feature the impressive high-resolution Curved Display, which is far larger and sharper than the displays in our current models," remarks Frank Weber. "As a result, the BMW iX interior points the way ahead for cockpit design in future BMW models."

The curved, one-piece display brings together the 12.3-inch information display and the 14.9-inch control display to form a single unit angled towards the driver. The interlinked, driver-focused display ensemble optimizes how information is shown and makes the display's intuitive touch control even simpler to use. At the same time, the control display section can still be clearly seen and easily operated by the front passenger.

The Curved Display in the BMW iX xDrive50 teams up with BMW iDrive 8 to deliver a totally new graphics experience. The instrument cluster offers new, completely customizable display options that provide the driver with precise information tailored to the current situation. Exceptionally intuitive operation using voice or touch control enables the driver to interact with the additional intelligent functions aboard the BMW iX xDrive50 easily and safely. This takes the renowned user friendliness of BMW display and operating systems to the next level.

Newly Designed Center Console Control Panel

The Curved Display's position and technology have been optimized to facilitate very intensive and intuitive use of the touchscreen functionality. All elements of the iDrive 8 menu can still be selected and activated with the familiar center console Controller. The Controller is enclosed

by a sharply styled control panel with a high-gloss black frame, a glass-effect surface and white backlit buttons. The rest of the control panel design is an example of the shy tech principle. Instead of conventional buttons, a control surface with active haptic input subdivided by feeler bars is used to select the iDrive menus, My Modes and other functions. The Touch Controller, designed in an extremely smart glass-effect finish for the BMW iX xDrive50, is encircled by a bezel painted in Gold Bronze. A roller control allows for convenient adjustment of the audio system volume. The Start/Stop button is illuminated in the signature BMW i blue color, signifying the presence of an all-electric drive system. Nestled between the Start/Stop button and the button for the electromechanical parking brake is a newly devised rocker switch that takes the place of the customary gear selector lever.

The Controller, the rocker switch for gear selection, the audio roller control and the seat adjustment buttons can also be specified in a polished crystal finish as an option. This specification additionally includes a control panel surface made from FSC-certified wood. The open-pore walnut finish again incorporates backlit buttons.

The space gained from the absence of a center tunnel is also used to create additional stowage facilities in the center console area. As a result, the center console's lower level houses two cupholders, a smartphone tray with inductive charging, a 12V power connection and two USB-C ports.

The center console armrest – which is available in an optional heated version – doubles as a butterfly lid that opens to reveal a roomy, illuminated storage compartment. The rear console terminates in air vents for the rear passenger compartment with a high-gloss black trim surround.

The iX Hexagonal Steering Wheel

The BMW iX xDrive50 is the first model from the BMW Group to be fitted with a hexagonal steering wheel. The rim's unique, track-inspired contour has the effect of improving ease of access and seating comfort. The hexagonal shape also affords the driver a better view of the section of the Curved Display positioned directly behind the steering wheel.

The new-look multifunction buttons on control pads in a glass-effect finish optimize intuitive operation of both audio and communications functions and the driver assistance systems.

Steering wheel heating with a new three-stage control system is, for the first time available for the BMW iX xDrive50 as an option.

BMW Head-Up Display with Frameless Projector Integration

The latest generation of the BMW Head-Up Display features a projector which has been flush fitted into the surface of the instrument panel without a frame, meaning that it is hidden from sight. It projects driving-related information onto the windscreen in the form of graphics that appear directly in the driver's field of vision. This allows the driver to take in all the key data without having to divert their attention from the road. The information projected by the BMW Head-Up Display includes the car's speed, speed limits, Check Control messages, status indicators and warnings from the driver assistance systems, detailed route guidance and turn instructions, as well as telephone and entertainment lists. The display's imaging angle, height and brightness can be adjusted individually.

Automatic Climate Control and Integral Nanofiber Filter

The standard four-zone automatic climate control in the BMW iX xDrive50 allows the driver, the front passenger and the rear-seat passengers to set their individually desired temperature and ventilation levels. The driver and front passenger can adjust the climate control system 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 adjustments the seat heating, seat ventilation and steering wheel heat. This means individual functions no longer need to be operated separately. 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. The system also considers the number of passengers on board and where they are sitting. This is the first time that all the vehicle's temperature and comfort-enhancing functions have been controlled from a single source.

Innovative nanofiber filter technology provides a particularly effective means of helping to keep the air in the BMW iX xDrive50 cabin clean as it prevents ultra-fine particles, certain microbial particles and allergens from entering the vehicle's interior. Nanofiber filter technology is more rigorous than normal filter systems in removing virtually all particles from the air in the interior in a matter of a few minutes when air recirculation mode is switched on. Drivers are also able to use the My BMW app to activate the air conditioning system's ventilation function before the journey starts in order to purify the air in the cabin quickly and thoroughly.

Panoramic Glass Roof with Electrochromic Shading

The BMW iX xDrive50 is equipped with a standard panoramic glass roof. Its single-piece transparent surface spans the entire interior without any cross struts to break it up, making it the largest glass roof ever fitted in a model from the BMW Group. The panoramic glass roof plays a major role in giving the interior the BMW iX its generous feeling of space and lounge-like ambience and offers passengers exceptional levels of headroom thanks to the lack of a roller blind. The glass roof features electrochromic shading instead, which can be activated at the press of a button to shield the interior from direct sunlight.

The panoramic roof is composed of a steel frame, two glass panels and three layers of film sandwiched between them. The laminated glass construction offers both optimum protection against ultraviolet rays and an excellent standard of acoustic comfort. The upper glass panel's triple silver coating is designed to maintain a comfortable climate in the cabin.

Instead of having an interior liner, the roof is the only one of its kind in the automotive industry to employ PDLC (Polymer Dispersed Liquid Crystal) technology for shading the interior. The panoramic glass roof's transparency is altered by applying a voltage to the middle layer of film. The liquid crystals dispersed as droplets in a polymer matrix are aligned so evenly by the electrical energy that they allow rays of light to pass through into the interior unimpeded. When de-energized, it takes less than a second for the crystals to distribute themselves in a disorderly pattern that creates the effect of shade. This electrochromic shading can be activated and deactivated using a button in the roof function center. The shading mode is activated automatically once the BMW iX xDrive50 has been parked.

Pioneering Bowers & Wilkins Diamond Surround Sound System with 4D Audio

The standard Harman Kardon Surround Sound audio system in the BMW iX xDrive50 includes 18 speakers and 655 watts of audio power. The five midrange and five tweeter speakers are complemented by four built-in speakers in the rear head rests. Automatic sound adjustment based on the car's dynamic performance level and Logic7® Surround Sound technology provide superb listening pleasure for all occupants. The combination of two central bass speakers and two additional subwoofers located under the rear seat unit has never been seen before in a BMW model and ensures powerful sound performance. The timeless, functional design of the Harman Kardon tweeter grills fits seamlessly into the design of the BMW iX

xDrive50 interior, while the midrange speakers are integrated out of sight underneath the fabric door panel trim.

Available as an option for the first time, the latest version of the Bowers & Wilkins Diamond Surround Sound System takes the audio experience into a new dimension, turning the BMW iX xDrive50 into a concert hall on wheels. This fully active sound system boasts a seven-band equalizer for authentic 3D sound, microphone-assisted sound control based on dynamic performance and four sound modes, allowing the user to adjust the mood of music playback in just a small number of steps. With 30 speakers and an impressive amplifier output of 1,615 watts, this highly advanced system produces an exceptionally clear and wonderfully nuanced sound.

Highlights include eight speakers integrated into the head restraints of the first and second rows of seats, two Diamond tweeters in the A-pillars and a quartet of 3D speakers in the headlining, plus two central bass speakers and two subwoofers under the rear seats. In addition to this, the Bowers & Wilkins Diamond Surround Sound System also incorporates a 4D Audio function. Bass shakers in the front seats generate precise vibrations using software patented by BMW. These result in intense perception of bass frequencies, even at low volumes. The midrange units are concealed underneath the fabric door panel trim, while the tweeters feature brushed stainless-steel grilles and a discreet lighting effect to provide an elegant and classy showcase for the Bowers & Wilkins Diamond Surround Sound System.

Acoustic Pedestrian Protection and BMW IconicSounds Electric

The electric drive system powering the BMW iX xDrive50 produces not only zero emissions but also almost nothing in the way of sound. In order to alert other road users that the iX is approaching, it comes 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 19 mph. It gives the vehicle a brand-typical soundtrack, without impinging on the comfort of those on board.

The acoustic experience can also be enjoyed in the interior of the BMW iX xDrive. Pressing the Start/Stop button sparks an inspiring acoustic accompaniment that builds anticipation for the all-electric driving experience. 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 delivers authentic

feedback to every movement of the accelerator. The character of the sound alters according to the vehicle setting chosen with the My Modes button. This means that in SPORT mode the car's sound spectrum is more dominant and powerful.

Sustainability Throughout the Entire Value Chain

Sustainability has played a very important role in the development of the BMW i brand character from the very beginning. Making responsible use of resources throughout the value chain and minimizing a product's carbon footprint at all stages of its life cycle means that careful attention has been paid to the development and production of the new BMW iX – from the monitored selection and extraction of raw materials, through the sourcing of electricity generated from renewable sources for manufacturing processes, to the use of recycled materials.

The powerful impetus provided by the BMW i brand in leading the way in this field has helped the BMW Group to stake a claim as the world's most successful and sustainable premium mobility company. To achieve this, advances have been made across a wide variety of areas that affect the creation and use of vehicles from all the BMW Group's brands. Measures for optimizing sustainability are defined for every model and cover all phases – from the production of raw materials through manufacturing and use to subsequent recycling.

"Rather than simply passing responsibility on to the supplier network, we take responsibility together with our direct suppliers," explains Dr Andreas Wendt, Member of the Board of Management of BMW AG, responsible for Purchasing and Supplier Network. "In so doing, we tap into our many years of experience and create processes for attaining greater transparency and traceability."

Raw Materials Sourcing: Monitored, Transparent, Certified

The sustainability targets for the BMW iX were set at a very early stage of vehicle development. Defining the appropriate measures requires detailed knowledge of the materials used, where they originate from or how they were obtained. This includes the upstream production chains. The focal points on the purchasing side are compliance with environmental and social standards, respect for human rights, conservation of natural resources and reduction of CO_2 emissions. Measures for optimizing sustainability were therefore established in consultation with suppliers, such as using recycled materials and harnessing renewable energy.

Besides an eco-friendly manufacturing process, consideration is also given here to the recyclability of the component in question and to health-related aspects. The material properties of all components are meticulously documented and verified at the BMW Group's materials laboratory. The checks also include ensuring that potentially allergenic materials, such as nickel, are not used in areas where they could be touched by customers.

This holistic approach to improving sustainability also embraces those technological developments that make it possible to reduce the use of critical materials, or even avoid them altogether. For instance, the design principle for the electric motors in 5th generation BMW eDrive technology dispenses with the need for rare-earth metals in the rotor. Instead of the customary magnets for which these raw materials are needed, an electrically excited rotor is used to ensure both instantaneous and precisely controllable actuation of the electric drive. The BMW Group has thereby capitalized on its industry-leading development expertise in the field of drive systems to enable it to produce electric motors irrespective of rare earth availability.

During development of the latest generation of battery cells, the proportion of cobalt contained in the cathode material was reduced to less than ten percent. 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 company can therefore ensure that environmental and sustainability standards are observed during the extraction and processing of cobalt and that there are no violations of human rights.

Although no cobalt from the Democratic Republic of the Congo (DRC) is being used in the battery cells for 5th generation BMW eDrive technology, the BMW Group is involved in a pilot project there focusing on ecologically and socially sustainable mining of this raw material. The company, together with its supply chain partners, has commissioned the German Agency for International Cooperation (GIZ) to develop measures aimed at improving working and living conditions for both artisanal mine workers and the inhabitants of nearby communities. If the project is successful, having cobalt supplied directly from the DRC could become an option for the BMW Group once more.

Lithium is another raw material that is vital for the production of high-voltage batteries but classified as critical. The BMW Group again sources this raw material directly before supplying it to battery cell manufacturers. This ensures complete transparency regarding the origin of the

raw materials required for lithium-ion batteries. The lithium used in the high-voltage battery pack on board the BMW iX is mined from hard-rock deposits in Australia in accordance with the company's environmental and sustainability standards. The BMW Group has also commissioned two prestigious American universities to carry out a study into sustainable lithium extraction in Latin America. The aim of the study is to investigate the impact of lithium extraction on local water supplies.

The BMW Group is making a further commitment to wide-reaching sustainability through its involvement in an initiative to protect deep-sea habitats. The move sees the company supporting the activities of the World Wide Fund for Nature (WWF) Germany. In a joint declaration, the BMW Group and companies in other industries have undertaken, as a precautionary measure, not to use deep-ocean minerals or finance deep-sea mining until comprehensive scientific research into the impact of deep-sea mining can be conducted and sufficient protection for deep-sea environments can be ensured.

Deep-sea deposits of mineral raw materials have recently received greater public attention due to growing demand for raw materials in general. In particular, manganese nodules (polymetallic nodules), cobalt-rich iron and manganese crusts, as well as massive sulphides and ore sludge, could attract the interest of mining companies. Some experts believe this could offer an attractive alternative to minerals from terrestrial mining. However, the majority remain sceptical overall, due to the lack of scientific analysis. Currently, there are not sufficient scientific findings to be able to assess the environmental risks of deep-sea mining, and we are aware that the procurement of raw materials requires particular care. For this reason, the decision has been taken that raw materials from deep-sea mining are not an option for the company at present. Among other sustainability goals set out by the BMW Group is the increased use of secondary raw materials in vehicle production. Indeed, the company is aiming to significantly increase the proportion of recycled materials it uses by 2030 and to use raw materials multiple times as part of a circular economy approach.

Electricity from Renewable Resources for Component and Vehicle Manufacture

Between 2006 and 2019, the BMW Group was able to lower CO_2 emissions from vehicle production by over 70 per cent. Compared with 2019 levels, the amount of CO_2 per vehicle is set to be reduced by a further 40 per cent by 2025 and 80 per cent by 2030. Since 2020, electricity generated entirely from renewable sources has been purchased externally for vehicle manufacture at all plants in the BMW Group's global production network. Only green

hydroelectric power produced locally at the Isar and Lech rivers is used in the production of the BMW iX at BMW Group Plant Dingolfing and in the upstream component plants.

The manufacture of battery cells is an energy-intensive process. With a view to also minimizing the carbon footprint in this area, the BMW Group has secured commitments from all makers of battery cells for 5th generation BMW eDrive technology to only use electricity from renewable sources.

In order to further reduce the CO_2 emissions arising from the production of aluminium components, the BMW Group is exploring new ways of sourcing this lightweight material. Since February 2021, the company has procured aluminum manufactured in the United Arab Emirates with the help of solar power. Electricity generated in a vast solar park located in the desert outside Dubai is used for producing the lightweight metal. The BMW Group plans to continue sourcing aluminium manufactured with green energy over the long term, enabling it to reduce carbon emissions by 2.5 million tonnes by 2030. The quantities of aluminium acquired using solar power cover nearly half the annual requirements of the light metal foundry at BMW Group Plant Landshut, whose output includes the casings for the latest-generation electric motors fitted in the BMW iX xDrive50.

Careful Material Selection, High Proportion of Recycled Materials

Besides the switch to green power, the other factor helping to make the manufacture of light-alloy components more sustainable in the BMW Group's production network is the ongoing increase in the proportion of secondary aluminum used. Targeted use of recycling methods for this high-grade lightweight metal can lead to a substantial reduction in the energy-intensive use of primary aluminum, which also generates high levels of CO_2 emissions when conventional manufacturing techniques are employed. The proportion of secondary aluminum used in manufacturing the castings for the BMW iX xDrive50 is up to 50 percent.

The cabin of the BMW iX xDeive50 features carefully selected materials which are of high quality and maximize the sustainability factor. The key elements here are conservation of resources, energy efficiency in manufacture and suitability for recycling. The use of chrome in the exterior and interior of the BMW iX xDrive50 has been reduced by up to 90 percent compared with vehicles where similar sustainability-enhancing measures have not been applied. For example, in the interior of the BMW iX xDrive50, chrome is now only used for

selected bolted connections, on the head restraint guides and for the seat belt buckles and guide loops.

The optional glass and wood controls includes a control panel on the center console made from sustainably grown wood with the corresponding FSC certification. The Twist cloth forming part of the Stonegray interior appointments incorporates natural wool fibers. The seat coverings are made from Dinamica, a microfiber material consisting of 50 percent recycled polyester. And the backs of the textile materials are made of 85 percent recycled material – a production method utilized by the BMW Group for some 15 years in a range of vehicles which now includes the BMW iX xDrive50. The leather upholstery is also notable for the extremely eco-friendly and material-efficient production method employed. An olive leaf extract is used to treat the leather instead of conventional tanning agents. This is obtained from the leaves gathered following the annual pruning of the trees in European olive groves.

The floor coverings and mats in the BMW iX are made from a synthetic yarn that is produced from recycled nylon waste material in a specially developed process. The source material for this includes fishing nets recovered from the sea along with worn flooring and residual waste from plastics manufacturing. These waste products are fed back into the reusable material cycle at a special facility in the Slovenian capital Ljubljana. For this, the material is first broken down into its chemical constituents and then processed to produce nylon granules. The resulting Econyl material forms the basis for making the floor coverings and mats in the BMW iX. As well as helping to preserve resources, the use of Econyl also serves to reduce climate-damaging emissions. The process for manufacturing the recycled plastic emits around 80 percent less CO_2 than conventional production of petroleum-based nylon.

High-quality recycled material is also featured in a multitude of other components in the BMW iX. Recycled material accounts for over 20 percent of the thermoplastic content in the vehicle. The substructure of the door panelling, the cowl panel cover, the bumper guides and the surround for the front apron, for example, are all made entirely from reused plastic. The cable ducts on the BMW iX are manufactured using between 60 and 100 percent recycled plastic, while the tailgate panelling and the outer surfaces of the door panelling are both made up of around 30 percent recycled material. Each BMW iX xDrive50 contains some 130 pounds of recycled plastic in total.

Specifications

		iX xDrive50
Seats	--	5
Number of Doors	--	4
Drive type	--	AWD
Length	inches	195.0
Width	inches	77.4
Width with mirrors	Inches	87.8
Height	inches	66.8
Wheelbase	inches	118.1
Curb weight	lbs.	5,659
GVWR	lbs.	6,867
Payload	lbs.	1,054
Weight distribution, front / rear	percent	48.2 / 51.8
Ground clearance	inches	8.8
Turning diameter	feet	21.4
Head room, front / rear	inches	42.0 / 39.5
Shoulder room, front / rear	inches	61.5 / 58.3
Legroom, front / rear	inches	40.2 / 38.9
Luggage capacity	cu. ft.	35.5 – 77.9
Engine type	--	5th generation electric synchronous
Front motor output		268 hp / 260 lb-ft
Rear motor output		335 hp / 295 lb-ft
Combined output		516 hp / 564 lb-ft
Transmission		Single-speed automatic
Gear ratio, front	:1	8.77
Gear ratio, rear	:1	11.12
High-voltage battery		Lithium-Ion

Voltage	V	369
Capacity	Ah	303
Energy capacity, gross	kWh	111.5
Energy capacity, net	kWh	105.2
Charging time, 0-100%	hours	10.25 @ 11 kW
Charging time, 0-100%	hours	16 @ 7.4 kW
Charging time, 10-80%	minutes	>40 with DC @ 195 kW
Maximum charging, single-phase	kW	11
Maximum charging, DC	kW	195
Wheels, standard, 20-inch	inches	8.5 x 20
Tires, standard, 20-inch		235/60R20 108H XL
Wheels, optional, 21-inch	inches	9.0 x 21
Tires, optional, 21-inch		255/50R21 109H XL
Wheels, optional, 22-inch	inches	9.5 x 22 LM
Tires, optional, 22-inch		275/40R22 107Y
Brakes, front		348 x 36 mm vented disk four-piston floating caliper
Brakes, rear		345 x 24 mm vented disk single-piston fixed caliper
Steering type		EPS
Steering ratio	:1	16.0
Track, front	inches	66.0
Track, rear	inches	67.2
Cx	--	0.25
0-60 mph	seconds	4.4
Top speed	mph	124
EPA range	miles	324 with 20-inch wheels
	miles	305 with 21-inch wheels
	miles	315 with 22-inch wheels

BMW Group in America

BMW of North America, LLC has been present in the United States since 1975. Rolls-Royce Motor Cars NA, LLC began distributing vehicles in 2003. The BMW Group in the United States has grown to include marketing, sales, and financial service organizations for the BMW brand of motor vehicles, including motorcycles, the MINI brand, and Rolls-Royce Motor Cars; Designworks, a strategic design consultancy based in California; a technology office in Silicon Valley, and various other operations throughout the country. BMW Manufacturing Co., LLC in South Carolina is the BMW Group global center of competence for BMW X models and manufactures the X3, X4, X5, X6 and X7 Sports Activity Vehicles. The BMW Group sales organization is represented in the U.S. through networks of 349 BMW passenger car and BMW Sports Activity Vehicle centers, 143 BMW motorcycle retailers, 116 MINI passenger car dealers, and 38 Rolls-Royce Motor Car dealers. BMW (US) Holding Corp., the BMW Group's sales headquarters for North America, is located in Woodcliff Lake, New Jersey.

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