

Media Information
05 January 2023

BMW i VISION DEE.

FACT SHEET.

The future of the BMW Group is electric, circular and digital.

- BMW i Vision Dee is dedicated to the “digital” aspect of these three and provides a glimpse of the BMW Group's digital future.
- As vehicles become increasingly intelligent and more human, digital innovations (such as the full-surface windscreen display) are used to merge physical and virtual reality.
- “Dee” stands for Digital Emotional Experience. It is also the name for our vision and underlines the growing importance of the emotional bond between human and machine in the future.
- BMW i Vision Dee engages all five senses and combines digital and analogue to create a whole.

BMW Mixed Reality Slider: into the virtual world in five steps.

- The BMW Mixed Reality Slider, in combination with the advanced BMW Head-up-Display, is the digital highlight and central operating control for BMW i Vision Dee.
- Using shy-tech sensors (touch) on the instrument panel, drivers decide for themselves in five steps how much digital content they want to see on the advanced Head-Up-Display.
- The five-step selection ranges from analogue, to driving-related information, to the contents of the communications system, to augmented-reality projection, right up to entry into virtual worlds.
- The driver uses the BMW Mixed Reality Slider on the cockpit panel to determine which content is shown on the display.
- If needed, dimmable windows can be used to gradually fade out reality, until it transitions all the way to a purely virtual experience.
- This mixed reality can be experienced in the vehicle in an immersive way that engages different senses without any additional tools, creating a new dimension of driving pleasure for the user.

Advanced BMW Head-Up-Display: in NEUE KLASSE from 2025

- “Eyes on the road, hands on the wheel.”
The BMW Group is known in the automotive sector as a trailblazer for the Head-Up-Display and has systematically refined this technology over the past two decades.
- Projection across the entire width of the windscreen allows information to be displayed on the largest possible surface – which only becomes recognisable as a display once it is activated.
- In this way, the BMW Group demonstrates the huge potential of projection technology, as well as a possible application in next-generation vehicles.
- BMW i Vision Dee visualises how a advanced BMW Head-Up-Display can also be used in the future for the display and operating concept.
- The standard-production version of the BMW Head-up-Display extending across the full width of the windscreen will be used in the models of the NEUE KLASSE from 2025 onwards.

Welcome scenario with voice and phygital icons.

- Personalised welcome scenario: graphical elements, light and sound effects, communication using natural language and facial expressions.
- Perfect understanding with the vehicle. Language as the simplest form of interaction.
- Headlights and the closed BMW kidney grille form a common phygital icon (fusion of physical and digital) on a uniform surface, which can change its status (using E Ink technology).
- This allows various facial expressions to be shown – which means BMW i Vision Dee can talk to people and, at the same time, express moods such as joy, astonishment or approval visually.
- The vehicle uses its numerous sensors to register the identity and position of the person and reacts when they approach. The driver is greeted with automatically opening doors on their way to the cockpit.
- BMW i Vision Dee can also project an image of the driver's avatar onto the side window to further personalise the welcome scenario.

World premiere for full-colour E Ink technology.

- The BMW Group is now unveiling a full-colour version of the E Ink technology in the BMW i Vision Dee that will be used as the outer skin of the vehicle for the first time worldwide.
- BMW i Vision Dee showcases a multi-coloured, fully variable and individually configurable exterior. Up to 32 colours can be displayed.
- The body surface of the BMW i Vision Dee is divided into 240 E Ink segments, each of which is controlled individually. This allows an almost infinite variety of patterns to be generated and varied within seconds.
- The laser cutting process used to trim the films and the electronic control design were developed in partnership with E Ink. The adaptation of this technology for curved surfaces and the programming of the animations, were developed by BMW Group's in-house engineers – enabling a form enabling a form of customisation that is unique throughout the automotive sector worldwide.

Reductive design – inside and out

- The design of BMW i Vision Dee has been deliberately pared down, with the digital experience in the foreground.
- The focus is on the BMW brand DNA and interpretation of BMW design icons (twin circular headlights/kidney grille/Hofmeister kink, etc.).
- The classic sporty sedan with the three-box design is at the core of the BMW brand.
- Digital features replace analogue elements (see E Ink and phygital icons).
- The idea of giving the vehicle its own digital, but human, character is reflected in the design of the vehicle.
- Along the same lines as the exterior, the interior of BMW i Vision Dee features a very reductive design.
- Inside, the digital experience is meant to be in the foreground, without the distraction of other features or design elements ("white canvas" principle).

- This extremely reductive approach (leaving out materials, displays, buttons, etc.) and the digitalisation of the interior also has a positive impact from a sustainability viewpoint.
- The unconventional, central positioning of the vertical spoke enables new functionalities. Surfaces at thumb height to the left and right of the centre of the steering wheel come to life when touched or approached and are operated by moving the thumb (similar to a modern multifunction steering wheel). These surfaces are “phygital touchpoints” that support the principle of “hands on the wheel, eyes on the road” and control the content of the information space in the windscreen.

Another milestone on the road to the NEUE KLASSE.

- The NEUE KLASSE represents a bold new beginning for the new BMW model generation, with sustainable, positive effects for the entire company – back in the 1960s and now, again, from 2025. The NEUE KLASSE and its integrated toolkits will set new standards for digitalisation, electrification and sustainability.

Oliver Zipse, Chairman of the Board of Management of BMW AG: “With the BMW i Vision Dee, we are showcasing what is possible when hardware and software merge. In this way, we are able to exploit the full potential of digitalisation to transform the car into an intelligent companion. That is the future for automotive manufacturers – and, also, for BMW: the fusion of the virtual experience with genuine driving pleasure,” said Oliver Zipse, Chairman of the Board of Management of BMW AG. “At the same time, BMW i Vision Dee is another step on the road to NEUE KLASSE. With this vision, we are looking far into the future – while at the same time underlining the tremendous importance of digitalisation for our upcoming product generations.”

Frank Weber, member of the Board of Management of BMW AG responsible for Development: “A BMW lives by its unparalleled digital performance. BMW i Vision Dee is about perfect integration of virtual and physical experiences. Whoever excels at integrating the customer’s everyday digital worlds into the vehicle at all levels will succeed in mastering the future of car-building.”

Adrian van Hooydonk, head of BMW Group Design: “With BMW i Vision Dee, we are showing how the car can be seamlessly integrated into your digital life and become a trusty companion. The vehicle itself becomes your portal to the



digital world – with the driver always in control. Implemented the right way, technology will create worthwhile experiences, make you a better driver and simply bring humans and machines closer together.”

Freedom between worlds.

- BMW i Vision Dee offers occupants a unique experience of autonomy: In addition to the digital world (smart devices) and the virtual world (fictional universe), the driver can also use their car to explore the real physical world and combine all three to create a new sense of freedom. These efforts to enable new freedoms for our customers and a willingness to pursue entirely new and technically sophisticated solutions has defined product development at the BMW Group for more than a hundred years.

Corporate Communications**Media Information**

Date 05 January 2023

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With its four brands BMW, MINI, Rolls-Royce and BMW Motorrad, the BMW Group is the world's leading premium manufacturer of automobiles and motorcycles and also provides premium financial and mobility services. The BMW Group production network comprises over 30 production sites around the world; the company has a global sales network in more than 140 countries.

In 2021, the BMW Group sold over 2.5 million passenger vehicles and more than 194,000 motorcycles worldwide. The profit before tax in the financial year 2021 was € 16.1 billion on revenues amounting to € 111.2 billion. As of 31 December 2021, the BMW Group had a workforce of 118,909 employees.

The success of the BMW Group has always been based on long-term thinking and responsible action. The company set its course for the future early on and is making sustainability and resource efficiency the focus of the company's strategic direction – from the supply chain, through production, to the end of the use phase, for all its products.

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