

MINI CORPORATE COMMUNICATIONS

Media information

27 July 2023

New MINI family takes digital quantum leap with cutting-edge technology stack, round OLED display and MINI Operating System 9.

+++ Premiere in the automotive industry: MINI Interaction Unit is the first round OLED display with a refreshing user interface design +++ MINI Experience Modes use special designs, light projections and sound to create unique moments +++ Introduction of the MINI Intelligent Personal Assistant +++

Munich. History-rich British brand MINI is taking a quantum leap into the digital age with its new model family. At the heart of the action is the iconic central instrument – the MINI Interaction Unit. The round OLED display, with its 240 mm diameter and rich colours, blends perfectly into the interior of the new MINI family. Its positioning within the cabin allows it to be used comfortably by the driver and front passenger.

“We are taking a massive leap into the digital world with the new MINI family and, in so doing, underscoring the charismatic heritage of the brand. The iconic central display in the new MINI family is round and will be filled with round content for the first time. I am convinced that the digital power of the new models will delight MINI customers around the world,” says **Stefanie Wurst, Head of the MINI brand.**

Frank Weber, Member of the Board of Management of BMW AG,

Development: “We are presenting our all-new MINI family with a unique technology package. It is based on the latest tech stack from BMW and brings a very specific MINI flavour to signature brand-defining functions such as the Experience Modes and the voice assistant. The result is a display of cutting-edge digital fireworks with a sharp eye for detail.”

An overview of the digital highlights of the new MINI family*:

- Premiere for the automotive industry: **MINI Interaction Unit** is the first round OLED display with a refreshing, MINI-typical user interface design.

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- **MINI Operating System 9** stands out with a MINI-specific, emotionally engaging design optimised for touch control. It is an in-house development by the BMW Group and is based for the first time on an Android Open Source Project (AOSP) software stack.
- Up to eight **MINI Experience Modes** provide a particularly immersive driving experience through the orchestrated use of light, user interface designs, drive settings and sound. An optional **light projector** on the back of the MINI Interaction Unit bathes the whole dashboard in colours and patterns to match the Experience Mode selected. The presentation of content in the optional Head-up display is also adapted accordingly.
- Unmistakable **sound design for all-electric models**: The acoustic repertoire comprises completely new driving sounds in the interior, a highly distinctive MINI brand sound to mark out the identity of the car from the outside, jingles for the new MINI Experience Modes and 30 new sound signals with information and warning functions.
- The **MINI Intelligent Personal Assistant** is activated by the spoken command “Hey MINI” and can be used with the “MINI” or “Spike” (optional) visualisations. The Personal Assistant allows customers to control important functions by voice command, enables travel-related requests or wishes and recognises whether it is the driver or front passenger currently speaking.
- The new, cloud-based **MINI Navigation** system provides particularly fast and precise route calculation. The latest map data is always streamed live into the vehicle. And **charging-optimised route planning** means drivers of fully electric MINIs can take on their longer journeys with peace of mind. The option **Augmented View** offers drivers a live video stream in the MINI Interaction Unit, with extra information added for optimum orientation for navigating. Customers can choose from various map designs and also activate an appealing **visualisation option featuring 3D buildings**.
- The **MINI Connected Store** provides optional access to a wide and ever evolving range of practical and entertaining apps, e.g. AirConsole gaming, music and video streaming (available content varies by countries).



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- Digital vehicle access with compatible Apple-, Google- and Samsung devices: The optionally available **MINI Digital Key Plus** offers the driver flexible access to the vehicle, without having to take their smartphone out of their pocket. The key can be passed on to other people digitally using the sharing function.
- **High-Speed connectivity** and optional **5G-capability**.
- **Remote Software Upgrades:** MINI vehicles also now receive regular free quality improvements via over-the-air software updates. Depending on the country, vehicle model, equipment and vehicle condition, you may even receive additional new functions or functional improvements free of charge.

The new MINI Operating System 9 – optimised interaction for touch and voice control.

The new “Charismatic Simplicity” design language is also reflected in the aesthetic of the user interface, which brings together functional and emotional elements. The reduced design uses all-new graphics to create an extremely modern look. Static and dynamic elements blend naturally into the circular form of the OLED display, following a clear structure. Micro-animations enhance the already extremely intuitive interaction between the driver and central instrument and underscore the digital character of the new MINI family.

MINI Operating System 9 is an in-house development by the BMW Group and is based on an Android Open Source Project (AOSP) software stack. Operation is intuitive and follows the standards familiar from consumer electronics.

At the centre of the screen is the start menu, where personalised content can be selected and launched by swiping to the side. In the lower section of the screen is the fixed status bar containing the menu items “Navigation”, “Media”, “Telephony”, “All Apps” and, depending on the situation, “Home”, which can be selected directly. Swiping up from the lower edge of the screen reveals a tool belt, a process customers will be familiar with from many



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consumer electronics devices. Favourite functions can be stored here and called up again rapidly, i. e. navigation destinations and radio stations. The tool belt can also be activated via the star button on the multifunction steering wheel. The upper screen area is reserved for driving-relevant content such as the vehicle speed and important information on the vehicle status. The optional Head-up display shows the most important information for the driver in their field of view.

The temperature for the driver and front passenger is permanently displayed on the left- and right-hand edge of the screen. The climate control settings are integrated into the MINI Interaction Unit and can always be adjusted on the top layer by touch or voice command.

Depending on the Experience Mode selected, a single tap on the speed display transforms the entire MINI Interaction Unit into a MINI-typical speedometer.

MINI Experience Modes for intensely MINI moments.

The emotional connection between the new MINIs and their drivers steps up another degree in intensity with the MINI Experience Modes. Standard specification includes the Core, Green and Go-Kart Modes, each of which has its own specific user interface design. The Experience Modes can optionally be taken to the next level by the additional, coordinated use of light and sound. Drivers can immerse themselves in up to eight different worlds in the interior of the new-generation MINIs thanks to the MINI Experience Modes, with a distinctive jingle for each Mode indicating it has been activated.

The MINI Interaction Unit displays different designs and content according to the mode selected. A standout feature of the interior experience is a fresh interpretation of the signature MINI interior lighting. An optional projector on the back of the OLED display bathes the dashboard in coordinated colour worlds and patterns. The interplay of the projection, ambient lighting and MINI Interaction Unit creates a unique, immersive experience that extends into the door trim.

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A particular highlight is Personal Mode, which breaks new ground in terms of personalisation and adjustability. It allows customers to turn their own pictures from their smartphone gallery into the background for the MINI Interaction Unit using the MINI App. The ambient lighting is set automatically in a colour that matches the picture selected.

The colour design in the optional Head-up display likewise adapts to the MINI Experience Mode selected. This also contributes to an emotionally engaging and consistent digital user experience.

- **Core:** In the foreground when Core Mode is selected is the main menu with the MINI widgets. The user interface is in the MINI colour shade Laguna, an elegant, puristic and modern-looking choice. The projection and ambient lighting automatically adapt to this colour. The dashboard is immersed in the projection design of Core Mode. The “Core” driving sound becomes the new electric MINI brand sound and is the only tone that can be heard not only in the interior, but also from outside the car (as acoustic pedestrian protection). This is an inviting, energising and stimulating MINI brand sound.
- **Go-Kart:** Ultra-dynamic and brimming with motor sport DNA, Go-Kart Mode cloaks the display and the interior as a whole in the colour shades Anthracite and Red. The MINI Interaction Unit adopts a sporty speedometer – if the driver wishes, across its full surface area. The projection and ambient lighting are adjusted automatically to the Go-Kart colours. The dashboard is draped in the projection pattern of Go-Kart Mode, and the throttle response of the accelerator pedal is optimised for dynamic driving. The Go-Kart driving sound – intended to raise the sporty driving experience another notch – is marked out by strongly pronounced pitch and fall, and as such provides a fitting soundscape for agile and dynamic driving.
- **Green:** By concentrating on the essential details, this green-hued mode accentuates the more sustainable side of MINI mobility. The ambient

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lighting is green. The animal animations indicate through both their colouring and their character which efficiency level (high, medium, low) the driver is currently achieving. The throttle response of the accelerator pedal is optimised for efficient driving.

- **Balance:** The colours, animations and layout in this puristic mode are deliberately calming and understated. The Balance driving sound is based on the noises heard in a forest at different times of the day and night – from the rippling of a stream and the chirping of crickets to the rustling of the wind in the treetops. The soundscape this creates will provide a feeling of relaxation and wellbeing on board future MINI models.
- **Timeless:** In this mode, the heritage of classic MINIs is celebrated to full effect with a serif typeface and large speedo, and presented with a modern trim element against a light background. Timeless Mode will also be a very attractive option for night-time driving, with the design and projections adapted accordingly. Tradition and progress merge into one in the MINI “Timeless” driving sound. Here, engine sounds generated by conventionally powered models – from the classic MINI to the MINI John Cooper Works GP – are sampled and blended with a futuristic interpretation of the MINI “Core” driving sound to create an acoustic journey through time.
- **Vivid:** This mode focuses on the presentation of media content. The colours in the user interface design and for the projections and ambient lighting in the car interior are sourced from the cover artwork for the music currently being played using automatic colour selection technology.
- **Personal:** The possibilities are boundless with Personal Picture Upload. Personal Mode breaks new ground in terms of personalisation and adjustability. Here, customers can select their own pictures to be used for the background of the MINI Interaction Unit via the MINI App. As in Vivid Mode, a matching colour is automatically selected from the relevant image for the interior lighting and dashboard projection.



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- **Trail:** Trail will be the Experience Mode for the adventurers and explorers on board the MINI Countryman. A virtual compass and vehicle inclination data displayed symbolise the joy of discovering pastures new off the beaten track.

Unmistakable sound for all-electric MINI models.

The brand-typical soundscapes of the new MINI family are also part of the digital user experience. The spread of options includes all-new driving sounds in the interior, an unmistakable MINI brand sound to confirm the car's identity from the outside, jingles for the new MINI Experience Modes and 30 new sound signals with information and warning functions.

The new sounds bring extra emotional appeal to the interior of the MINI and shape its acoustic statement to the world beyond. They provide the cars with a distinctive, MINI-typical identifying feature on an acoustic level. The first customers to experience the new sounds will be drivers of the new MINI Cooper Electric.

The new MINI sound DNA is based on the fundamental values of the brand and embodies a positive, charismatic aura. The MINI Experience Modes provide the stage on which the all-new soundscapes are performed. Familiar MINI sounds conveying information while also sparking emotions are generated using analogue instruments, digital technology and artificial intelligence. These MINI Experience Modes deliver immersive driving experiences.

MINI Intelligent Personal Assistant – visually accompanied by “MINI” or “Spike”.

This is the first time a full-capability voice assistant will be included in models from the MINI brand. The MINI Intelligent Personal Assistant can be activated using the greeting “Hey MINI” or by pressing the push-to-talk button on the steering wheel. The voice-controlled interaction on the round



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OLED display takes place in the form of an animation made up of graphical elements, typography and an avatar. For the visualisation, users can choose between “MINI” – a stylised representation of a MINI – and optionally “Spike”, a familiar figure already to many MINI fans.

Many important functions, such as navigation, telephony, radio and temperature, can be controlled by voice command. The driver can make travel-related requests or wishes, such as “What’s the weather in... /at my destination?” and “Show me charging stations along the route”. If the customer expresses a wish, e.g. “I’m hungry” or “I’d like a coffee”, relevant options in the vicinity are displayed and route guidance to the desired destination can be started directly. Two microphones at the front of the headliner enable the system to automatically detect whether it is the driver or front passenger currently speaking.

The brand-typical character of the MINI Intelligent Personal Assistant can be experienced by customers through chit-chat, which will bring up MINI-specific answers, jokes and stories. Such as the question “Do you like me” or “Tell me a joke”.

In the United Kingdom, the MINI Intelligent Personal Assistant will already be based on the Alexa Custom Assistant’s AI technology stack at market launch, allowing it to engage in natural dialogue with the driver with a brand-defining voice. In many other markets, the new voice and other features also enabled by using the Alexa Custom Assistant will be introduced at a later stage over the air.

MINI Navigation: Fresh map designs and cloud-based navigation with charging-optimised route planning.

The cloud-based navigation system represents a major improvement in performance over the preceding generation and offers exceptionally intuitive destination entry. It enables very fast and dynamic route calculation based on precise real-time traffic data transmitted at short intervals, which is then



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combined with forecasting models. When the navigation app is selected, the map takes up the entirety of the round display. The colour scheme for the map graphics changes to match the selected MINI Experience Mode, while buildings can also be shown in 3D if desired.

In all-electric MINI models, as soon as the destination has been entered, a charging-optimised route will be calculated if the vehicle's current range is not enough to reach the destination. Both the calculation algorithm and the speed of calculation for charging-optimised routes are subject to a process of constant improvement. Important information for the charging stops is displayed in the route overview, such as the estimated state of charge upon arrival, recommended charging time and target state of charge for the onward journey. Live data is processed during the journey, allowing new charging stations to be automatically added to the itinerary if any of the stations originally planned for charging stops no longer have availability. The driver is also offered alternative charging-optimised routes, where available. By default, the system is set to ensure that the vehicle reaches both the final destination and the charging stops with a charge level of at least 10 per cent. Drivers are able to adjust this spare charge setting if required.

Charging is also made easier by the integration of the authorisation and start/stop functions for the charging process into the MINI App.

The optional Augmented View function enables exceptionally accurate navigational guidance. It provides a perfect complement to the navigation system's instructions in crucial situations. For this, a live video stream from the driver's perspective is shown on the MINI Interaction Unit and augmented by supplementary information that matches the context. At confusing junctions, 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. In addition to this, information on applicable local parking regulations also appears in the live video stream in augmented reality form.



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Further innovative navigation functions such as precise visualizations of lane guidance are part of the optional MINI Connected Package.

MINI Connected Store: AirConsole gaming, video streaming, Spotify and a constantly evolving range of apps.

The new MINI Connected Store combines with the optionally available MINI Connected package to provide access to a constantly evolving variety of practical and entertaining apps, including apps for gaming and music or video streaming. The availability of the apps varies from region to region in order to be able to offer customers the most tailored offer possible.

Following its introduction in current BMW models, a form of in-car gaming unique in the automotive sector now also awaits customers of the new MINI family. For example, the driver and passengers can play casual games in the AirConsole App when the vehicle is stationary as a way of passing time while waiting for the high-voltage battery to recharge.

Setting up the gaming experience with AirConsole is perfectly straightforward. All that players need is their smartphone, which acts as the controller, and the MINI Interaction Unit. Once the AirConsole App has been launched in the vehicle, the smartphone and car can be connected by scanning a QR code on the OLED display. Players can then get straight down to the action.

The AirConsole technology enables games to be made instantly available over the air and controlled using smartphones. This unique set-up means that multiple players – including passengers in the rear – can get involved in the in-car gaming fun during breaks in the journey. Generally speaking, it is possible to play alone or with all the other vehicle occupants, either as a team or in competition mode.

The games offered are casual games, so called because they are easy to pick up with intuitive control of gameplay. A range of racing, sport, general-



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knowledge quiz and music quiz games are available, along with simulation, strategy, jump-and-run and puzzle games, with titles including Go-Kart Go, Golazo, Music Guess and Overcooked. The portfolio of available games is constantly evolving.

Music streaming apps such as Spotify have been adapted for MINI Operating System 9 so that they integrate perfectly into the round MINI Interaction Unit. This allows MINI customers to enjoy an intuitive and very visually appealing music streaming experience. The user's Spotify account can be connected by simply scanning a QR code.

The MINI Connected services will be rolled out afresh in over 40 countries when the new MINI family is launched.

Apple CarPlay and Android Auto are likewise included as part of MINI Operating System 9 for connecting smartphones wirelessly.

Greater flexibility and digital vehicle access with the MINI Digital Key Plus.

The new MINI family of models will offer customers another highlight feature in the form of the MINI Digital Key Plus. Once this has been set up on a compatible Apple, Google or Samsung device, drivers will be given a friendly welcome as soon as they approach the new MINIs thanks to their ultra-wideband technology. The welcome sequence is continued inside the car after the door has been opened and concludes with a personalised greeting courtesy of the MINI ID functionality. And this all happens without the driver even having to take their smartphone out of their pocket or bag. Keys can be passed on to friends or family easily and securely from the Apple or Google wallet using the native "share" function familiar from many apps.

Remote Software Upgrades now standard for MINI too.

As a member of the BMW Group family, the MINI brand is benefiting from over five years of experience in over-the-air upgrades with BMW. The



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software architecture of the new MINI family employs the same software for Remote Software Upgrades that has benefited from ongoing development in BMW models since 2018 and ensures updates are carried out smoothly and securely. In this way, the new MINIs will receive free Remote Software Upgrades several times a year for quality improvements. Depending on the country, vehicle model, specification and vehicle status, the upgrades may also add new features or improvements to functions free of charge.

*The availability of digital services varies by country, vehicle model and equipment. Selected functions can be rolled out via remote software upgrade after market launch.

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The BMW Group

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 worldwide; the company has a global sales network in more than 140 countries.

In 2022, the BMW Group sold nearly 2.4 million passenger vehicles and more than 202,000 motorcycles worldwide. The profit before tax in the financial year 2022 was € 23.5 billion on revenues amounting to € 142.6 billion. As of 31 December 2022, the BMW Group had a workforce of 149,475 employees.

The success of the BMW Group has always been based on long-term thinking and responsible action. The company set the course for the future at an early stage and consistently makes sustainability and efficient resource management central to its strategic direction, from the supply chain through production to the end of the use phase of all products.

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