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MAGAZINE

## NEW BENTAYGA SPEED

THE ULTIMATE BENTAYGA



## 2021 Dodge Durango

Cat Out of Hell

## Nissan Ariya

world premiere electric crossover

## All-New 2021 BRONCO

Two-Door and First-Ever Four-Door Models





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*Simon Baker*  
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# NEW BENTAYGA SPEED

## THE ULTIMATE BENTAYGA



Bentley Motors is announcing today full details of the new Bentayga Speed – the pinnacle of the Bentayga family – effortless performance, yet no compromise on luxury. Hand-built at Crewe, the Bentayga Speed combines the W12 powertrain and many of the models luxurious features as standard, including the Mulliner Driving Specification.

The new Bentayga Speed builds on the completely refreshed design of the new Bentayga, adopting the same Bentley design DNA now prevalent across the entire model range. Introducing the very latest onboard technology and an even more cossetting cabin, the new

model is significantly revised both inside and out.

Bentley's Chairman and Chief Executive, Adrian Hallmark, comments:

"The new Bentayga Speed remains the fastest SUV in the world, but more than that, it's also the most luxurious version of the new Bentayga – the best of both worlds, the pinnacle."

### Power, Performance and Agility

The new Bentayga Speed takes the Bentayga's extraordinary abilities to new levels, utilising the 6.0-litre W12 twin-turbocharged engine that delivers peak power of 635 PS (626 bhp). Effortless acceleration is always

guaranteed thanks to 900 Nm (664 lb.ft) of torque, available as a plateau from 1,500 rpm to 5,000 rpm.

The assembly of the W12 powertrain takes the skilled engine builders approximately ten per cent of the total hours required for the manufacture of the Bentayga Speed.

With exceptional performance, comfort and handling, maximum speed is also increased to 190 mph (306 km/h), while the 0-62 mph (0-100 km/h) sprint is delivered in 3.9 seconds.

To use this power appropriately the Bentayga Speed is equipped with four on-road Drive Dynamics modes:



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Comfort at one extreme, Sport at the other and with Bentley mode – the balanced recommendation of Bentley's chassis team in Crewe – alongside a Custom mode for customers who opt to create their own driving set-up.

Uniquely in the Speed, the Sport mode has been recalibrated to enhance response from the W12 engine and the eight-speed automatic transmission, together with the air suspension system and Bentley Dynamic Ride. The effect is a more dynamic and engaging drive.

Bentley Dynamic Ride is the world's first electric active roll control technology that utilises an unrivalled 48V system. This system instantly counteracts lateral rolling

forces when cornering and ensures maximum tyre contact to deliver class-leading cabin stability, ride comfort and exceptional handling.

### Styling to Reflect Performance Credentials

To match the elevated levels of performance, the Bentayga Speed sports a purposeful exterior look. Dark-tint headlights, body-coloured side skirts, unique front and rear bumpers and a striking, elongated tailgate spoiler characterise the Speed's performance credentials. Dark-tint radiator and bumper grilles, a unique 22-inch wheel design available in two finishes (painted and dark tint) and Speed signature badging

add to the sporting design cues. At the rear, the exhaust finishers are now the oval design that signifies a W12 powertrain. Dark-tint tail lamps complete the Speed exterior signature.

Inside, the Bentayga Speed introduces a dramatic design theme that balances luxury and performance in an unrivalled way. The unique Speed colour split is achieved through the use of dark colours enhanced by primary hide accents running throughout the seats and interior trim. Elegantly crafted 'swooshes' of contrast leather swipe around the doors, along the edges of the seat cushions and backrest bolsters, and on the lower console.





The Speed colour split also introduces Alcantara® to the cabin of the Bentayga, across the seat cushions and back rest centre panels, gear lever, steering wheel, lower knee trim areas, upper pillar trim and headliner.

#### Cutting-Edge Infotainment

Setting new standards in the sector for customer technology interfaces, the new Bentayga introduces a new, cutting-edge infotainment system. A bigger and brighter, high-resolution 10.9-inch touchscreen, with an anti-reflection and anti-glare coating and much improved touch functionality, now spans the entire width of the centre fascia for a more contemporary look. The advanced navigation system features free-text, context-specific search entry, including an address or point of interest. Navigation is improved with a three-dimensional building display, satellite maps, content in the driver's next generation Head-Up Display and several other useful features. The Head-Up Display can now

project traffic information, street names and distance to destination too.

As well as the usual array of media sources, wireless Apple CarPlay is now standard (in addition to the previous standard wired system), along with Android Auto. With a corresponding phone plugged into one of the car's USB-C sockets, the central infotainment screen mirrors the smartphone display.

The new Bentayga Speed now has a fully digital driver's information panel similar to the Continental GT and new Flying Spur. The display brings a contemporary look to the cockpit, can be customised to the driver's requirements and features real-time lighting effects with elegant animations.

#### Black Specification

Customers wishing to amplify the sporting look of their Bentayga Speed even further can select the Black Specification. This striking pack replaces all exterior

chrome work, bright detailing and some elements of the body with gloss black or carbon fibre versions, for an impactful visual statement. The front bumper splitter and the side sills are recreated by hand in carbon fibre, while the rear bumper diffuser becomes gloss black.

Bentayga Speed – The Pinnacle of the Bentayga range. The multi-award-winning Bentayga set the luxury SUV benchmark when it was launched in 2015, offering customers the ultimate Grand Touring experience unrestricted by landscape or conditions.

The Bentayga Speed is the most powerful and performance orientated Bentayga to date, defining its position as the pinnacle of the range. Bentayga Speed will be offered for sale in those regions where demand for 12-cylinder SUVs remains strong – the USA, Middle East and Asia Pacific regions.



# All-New 2021 Bronco

## Two-Door and First-Ever Four-Door Models



The all-4x4 Bronco brand is Built Wild™ and ready to deliver thrilling experiences with its heritage-inspired style, engineering and smart off-road technology, plus innovative features to help outdoor enthusiasts create adventures in the most remote corners of the world. “We created the Bronco family to elevate every aspect of off-road adventure and equipped them with class-leading chassis hardware and exclusive technologies to raise the bar in the rugged 4x4 segment and take people further into the wild,” said Jim Farley, Ford chief operating officer. “They’re built with the toughness of an F-Series truck and performance spirit of Mustang – and come wrapped in one of the most stunning and functional off-road designs that’s true to the original Bronco design DNA.”

The all-new Bronco re-enters the scene with an all-4x4 lineup with production beginning in early 2021 and first models arriving in Ford dealerships in the second half of next year. Bronco owners can choose from an extensive lineup of more than 200 factory-backed accessories for maximum personalization, enabling dealers to provide outfitting-on-demand for each customer’s individual adventure needs.

### Built Wild 4x4 confidence

Just like the first-generation Bronco, nicknamed G.O.A.T., the mission of the all-new 2021 Bronco is to deliver maximum 4x4 go-anywhere, anytime capability and confidence. Bronco incorporates off-road mapping and drive technologies to give novice adventurers as much fun as hard-core off-road experts, while its Built

Wild durability makes for lasting performance in the harshest of conditions for generations to come. “Bronco’s advanced four-wheel-drive technology is at the core of its off-road capabilities, and at the heart of it all is Bronco’s exclusive Terrain Management System™ with G.O.A.T. Modes™ that is designed to help drivers better navigate any type of terrain,” said Mark Grueber, Bronco consumer marketing manager. Up to seven driver-selectable modes are offered including Normal, Eco, Sport, Slippery and Sand, with Baja, Mud/Ruts and Rock Crawl for off-road driving. Two 4x4 systems are offered on all Bronco models, a base setup and advanced 4x4. The base system utilizes a two-speed electronic shift-on-the-fly transfer case, while the optional advanced system features a







two-speed electromechanical transfer case that adds an auto mode for on-demand engagement to select between 2H and 4H. Power is distributed to a Dana™ 44 AdvanTEK® solid rear axle and Dana AdvanTEK independent front differential unit – both with available Spicer® Performa-TraK™ electronic locking differentials for improved traction over rough terrain. Available segment-first Trail Toolbox gives Bronco owners a suite of exclusive technologies to elevate their off-road experience. This includes Trail Control™ – cruise control for low-speed trail driving, while Trail Turn Assist tightens off-road turning radiuses through torque vectoring, and the innovative Trail One-Pedal Drive acceleration/braking control makes for more precise and confident slow-mode rock crawling. Segment-leading levels of off-road capability are

possible thanks to Bronco's available best-in-class 11.6-inch ground clearance, maximum 29-degree breakover angle and 37.2-degree departure angle, plus best-in-class water fording capability of up to 33.5 inches. Off-road capability is further reinforced by exposed tow hooks in the front and rear and available heavy-duty modular steel bumpers with integrated Ford Performance accessory winch mount. Bronco's strategically placed steel shields protect critical hardware. Higher-capability models get an available front bash plate, plus shields for the engine, transmission, transfer case and fuel tank. For those taking on the roughest rocky terrain, Bronco's available side rock rails are strong enough to support the weight of each side of the vehicle. "Bronco two- and four-door models leverage

the company's Built Ford Tough durability and performance testing and take it even further off-road with Built Wild Extreme Durability Testing in the harshest possible environments, including the brutal trails of the King of the Hammers off-road competition," said Dave Pericak, director, Ford enterprise product line management, Icons.

#### Thrilling performance borne of Bronco DNA

Thanks to Bronco's legendary Baja racing DNA, each model brings forth a thrilling off-road experience and delivers it with modern, heritage-inspired style. It all began in a Ford design studio with a life-size digital scan of a first-generation model that served to influence the proportions and design of the all-new Bronco for maximum off-road capability and performance.

# Eyes of Envy. The new AZERA.



“Similar to the first-generation model, Bronco’s square proportions, short overhangs and wide stance are optimized for off-road adventure,” said Paul Wraith, Bronco chief designer. “The side profile features a flat, no-nonsense surface with clear-cut edges and robustly flared fenders. Large, open wheel wells are a modular design with a quick-release attachment for simple customization.”

All-new Bronco architecture for two- and four-door models is based on a fully boxed, high-strength steel chassis that delivers available best-in-class suspension travel – 17 percent more both front and rear over the closest competitor to thrive in rugged environments. To deliver thrilling high-speed off-roading and overall

driving performance, every Bronco comes with an independent front suspension for improved control, confidence and comfort. At the rear, a rugged solid axle design featuring coil springs with five locating links delivers both strength and off-road control. Long-travel position-sensitive Bilstein dampers with end-stop control valves at every corner are available for added off-road durability and reduced harshness.

An available segment-exclusive semi-active hydraulic stabilizer bar disconnect design provides maximum articulation and increased ramp angle index for off-camber terrain. This innovative system bests competitors by disconnecting during articulation; it can reconnect under all conditions to improve steering

and stability at higher speeds.

Segment-first 35-inch off-road tires direct from the factory are available on every trim level of two- and four-door Bronco, while available segment-first beadlock-capable wheels allow customers to elevate off-road capability, regardless of price point.

“Race-bred EcoBoost® engines and our segment-first 7-speed manual and available 10-speed automatic transmissions give the all-new Bronco the optimal combination of power, torque and gear ranges to perform in a wide variety of terrains and uses,” said Pericak.

Best-in-class projected gasoline-powered horsepower and torque is available with the 2.7-liter EcoBoost V6



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engine, which is projected to produce 310 horsepower and 400 lb.-ft. of torque, while the 2.3-liter EcoBoost is targeted to deliver best-in-class four-cylinder torque of 310 lb.-ft. with an expected 270 horsepower. For maximum low-speed rock-climbing capability, a segment-first 7-speed (6+1) manual transmission paired with the available advanced 4x4 system with automatic on-demand engagement generates a class-leading available crawler-gear ratio of 94.75:1. An available segment-first SelectShift® 10-speed automatic transmission makes for easier driving on- and off-road, while offering a maximum 67.8:1 crawl ratio with the available advanced 4x4 transfer case.

### Ready to head effortlessly into the wild

Both Bronco two- and four-door models make the open-air experience quick, easy and fun. Two-door models come with a standard three-section roof system – left and right front sections and a rear section – molded-in color and an available premium painted modular top with four sections that adds a removable panel over the rear seats and cargo area. Four-door models have four removable roof sections – left and right front panels, a full-width center panel and a rear section. Roof panels on all models can be removed by one person by unlocking the latches from the interior.

First-row panels stow away onboard on two-door models.

All modular hardtops have rear quarter windows that are removable in three easy steps – snap, push and lift away in a fraction of the time it takes for competitors – without removing the roof panels. By locating the sportbar behind the second row, both Bronco two- and four-door models offer the largest overall open-top view in its class to take in the sunshine or to gaze at the stars at night.

A cloth soft top, standard on four-door models, provides easy access to the open air and a unique tilt-up function for quick access to the rear cargo area. For customers who don't want to choose between a soft or hardtop, the four-door model can be optioned with both.

Every Bronco comes with class-exclusive frameless doors that make them easier to remove than what competitors offer. On four-door Bronco models, all four doors can be stored onboard with protective door bags. Exclusive cowl-mounted mirrors maintain sideview visibility when the doors are removed. Trail sights on the front fenders also serve as tie-downs, reminiscent of the first-generation Bronco, have a 150-pound capacity for securing longer items like canoes.

### High-tech interior designed for the outdoors

Inside, all Bronco models are purpose-built and ready for action. The instrument panel is inspired by the first-generation model, with gauges and controls clearly visible and intuitive. Colors and materials are inspired by natural palettes and outdoor gear. With off-road functionality paramount, materials are tough and rugged.

A multifunction color LCD instrument panel is front and center with the transmission shifter/selector and G.O.A.T. Modes controller in the center console. Available grab handles are integrated into the modular instrument panel and center console, while available MOLLE hooks are mounted in the seatbacks. Attachment points are built into the instrument panel to mount a bring-your-own-device rack, with 12-volt power connections to easily mount cameras, navigation units, phones or other devices.

Further setting Bronco ahead of the off-road competition is an available segment-exclusive 12-inch SYNC® 4 system with over-the-air updates and seamless integration to the FordPass Performance app with off-road navigation – a Bronco class-exclusive feature that allows owners to easily plan, navigate and share their off-road adventures. The SYNC system



also displays the available 360-degree camera system with class-exclusive off-road spotter views to provide additional visibility in technical pursuits such as rock crawling.

Bronco's advanced topographic trail maps and more than 1,000 curated trail maps are powered by class-exclusive trail content from NeoTrek's AccuTerra® Maps, Trails Offroad trail guides and FunTrek's trail guides.

"The trail mapping system available on Bronco is truly a game-changer in the off-road community," said Grueber. "It works online or off on either of the navigation-capable 8- or 12-inch SYNC systems, allowing users to select one of hundreds of available curated trail maps to map out and then track, capture and share their adventures with others."

To make post-adventure cleanups simple, fast and painless, select Bronco models come with washable rubberized floors with integrated drains and marine-grade vinyl seating surfaces that resist mildew.

Instrument panel surfaces are wipeable, with seamless silicone rubber on the dash-mounted hero switches, while rubber touchpoints protect against dirt and water. Six available upfitter switches mounted overhead are silicone-sealed to protect against the elements and to make customization easy, with pre-wired leads to key accessory points.

A modern high-strength steel roll cage with integrated side curtain airbags in the upper structure and seats helps protect passengers from side impacts and complements driver and front passenger airbags. Available Ford Co-Pilot360™ driver-assist technologies plus standard AdvanceTrac® with Roll Stability Control™ and Trailer Sway Control help instill driver confidence.

### Equipment series redefine customization

An all-new experiential-based equipment series provides unique flexibility to align capability with the adventure interests of each customer. Seven unique

Bronco series are offered, with matched color and trim combinations. When combined with four content packages, numerous available options, 11 color choices and more than 200 dealer-installable accessories, personalizing an all-new Bronco SUV has never been easier.

Series range from a base Bronco, a no-frills SUV for those who want to customize their own, to Big Bend™, Black Diamond™ and Outer Banks™ with a variety of options and colors, topping out with Wildtrak™ and Badlands™ for more extreme off-road adventuring. A limited-production First Edition™ will be offered at launch.

As with the five generations before it, the all-new 2021 Bronco two-door and four-door models will be built at Michigan Assembly Plant in Wayne, Michigan. More detailed information, including vehicle specs, accessories and full pricing and options, will be provided closer to launch.

# 2021 Dodge Durango

Cat Out of Hell



A muscle SUV for muscle car people with families, the Dodge Durango joins the Challenger and Charger in SRT Hellcat form as the most powerful SUV ever. Powered by the proven supercharged 6.2-liter HEMI® Hellcat V-8 engine delivering 710 horsepower and 875 Nm of torque, the Durango SRT Hellcat runs 0-100 Km/h in 3.5 seconds, has a National Hot Rod Association (NHRA) certified quarter-mile elapsed time of 11.5, a top speed of 290 km/h and runs 1.5 seconds faster than the current SRT 392 on a 3.4 km road course, equal to 9 car lengths after one lap. “Dodge includes families of all sizes and the Durango delivers Dodge performance as the Charger of the

three-row SUV segment,” said Tim Kuniskis, Global Head of Alfa Romeo and Head of Passenger Cars - Dodge, SRT, Chrysler and FIAT, FCA - North America. “And new for 2021, we have raised the bar even higher. The 710-horsepower Hellcat is the most powerful SUV ever. It’s the last piece of the puzzle and, alongside the Charger and Challenger, completes the Dodge brand’s performance lineup.” Dodge will build the Durango SRT Hellcat for the 2021 model year only. Beyond the SRT Hellcat, the entire Durango lineup for 2021 features new aggressive exterior styling, a new interior with a Challenger-inspired, driver-centric cockpit, five-times-faster Uconnect 5 on the available,

largest-in-class 10.1-inch touchscreen and more performance than ever with six distinct models - GT, Citadel, R/T, SRT 392 and SRT Hellcat. No SUV in the world can tow more or carry more with a faster quarter-mile time than the Durango SRT Hellcat. The Durango continues its ability to out-haul every full-size, three-row SUV on the road with the SRT Hellcat, SRT 392 and R/T Tow N Go delivering best-in-class towing capability of 3,946 kg. **2021 Dodge Durango SRT Hellcat is the most powerful SUV ever** Designed and engineered to push the boundaries of what an SUV can be, the 2021 Dodge Durango SRT Hellcat is powered by the proven supercharged

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6.2-liter HEMI® Hellcat V-8 engine, which delivers a best-in-class 710 horsepower and 875 Nm. of torque, mated to a standard TorqueFlite 8HP95 eight-speed automatic transmission.

The performance improvements begin with the new front fascia design, a new chin splitter, updated engine oil cooler duct, air guide and snorkel for cold air induction. A new, unique rear spoiler creates an improved aerodynamic balance with the new front-end design, resulting in a massive increase in rear downforce of more than 400 percent (64 kg @290 km/h). SRT engineers upgraded the Durango SRT Hellcat to improve handling, including several race-inspired technologies and Brembo brakes, resulting in performance numbers never before seen on a Durango. Compared with the previous top performance Durango, the 2020 Durango SRT 392, the new 2021 Durango SRT Hellcat has an upgraded suspension that

delivers:

- More comfort in Auto mode and better handling in Track mode:
- Thanks to a tuned internal rebound spring coupled with a matched upper top mount, the dynamic tuning range is increased
- Rear damper top mounts are 18 percent stiffer
- More responsiveness with 20 percent increase in total rebound control
- More grip with reduced understeer by 2.5 percent, allowing the driver to go into a corner faster and exit quicker
- More stability turning into corners with an improved roll gradient of 5 percent
- The 2021 Durango SRT 392 adopts the rebound spring shocks and the upper rear top mounts from the SRT Hellcat suspension, which helps to deliver faster lap times and better handling compared to the

outgoing model.

- The Durango SRT Hellcat comes standard with electric power steering (EPS) with selectable steering tuning to better manage increased grip, both improving handling performance and delivering better steering feel and ease of turning efforts at parking lot speeds.
- With EPS and standard SRT drive modes accessed via the new 10.1-inch touchscreen, drivers can tailor their driving experience by controlling transmission shift speeds, steering, paddle shifters, traction, all-wheel drive (AWD) and suspension settings
- SRT Drive modes offer selectable settings for Street (Auto), Sport and Track, while the Custom setting allows the driver to select individual preferences
- Race-inspired technologies that come standard for both 2021 Durango SRT models also bolster performance:
- Launch Control - easily accessed from a toggle switch

in the cockpit, manages tire slip while launching the vehicle to allow the driver to achieve consistent straight-line acceleration

Launch Assist - uses wheel speed sensors to watch for driveline-damaging wheel hop at launch and, in milliseconds, modifies the engine torque to regain full grip

The 2021 Dodge Durango SRT Hellcat delivers excellent braking performance, requiring 35m to come to a full stop from 100km/h. The credit belongs to the massive standard Brembo high-performance six-piston, two-piece (front) and four-piston (rear) calipers, and vented rotors at all four corners measuring 15.75 inches (front) and 13.8 inches (rear).

Durango-specific tuning, weight distribution, wheelbase and reduced understeer equals more grip and improved cornering. SRT engineers took the most

powerful SUV ever to the track to see what it can do. The result: The 2021 Durango SRT Hellcat runs 0-100 km/h in 3.5 seconds, covers the quarter-mile in 11.5 seconds and has a top speed of 290 km/h. It also delivers a road course lap time 1.5 seconds faster than the 2020 Durango SRT 392 on a 3.4 km road course, equal to 9 car lengths after one lap.

### Heart of a Hellcat

The heart of the 2021 Dodge Durango SRT Hellcat is the renown, supercharged 6.2-liter HEMI® V-8, with 710 horsepower at 6,100 rpm and 875 Nm of torque. A hallmark of the Hellcat engine is delivering unmatched, attention-getting performance when ordered up by the driver's right foot, while also providing smooth and refined power flow during daily driving duties or while cruising the open road.

SRT powertrain engineers developed and tested the

Hellcat engine and tailored it to the Durango, ensuring it reliably handles the rigors of spirited driving in track situations for sustained periods of time without needing to de-rate its power output due to high temperatures.

An important part of that strategy, powertrain engineers created a dedicated cooling circuit for the charge air coolers integrated in the supercharger housing. This cooling circuit includes a pump, coolant reservoir and heat exchanger, and is designed to keep the air flowing into the engine cooler than 140 degrees Fahrenheit.

The twin-screw rotors in the supercharger are set close to minimize air leakage and ensure maximum performance. A proprietary coating on the rotors enables the tight fit, minimizes wear and provides corrosion resistance.





An integrated electronic bypass valve regulates boost pressure to a maximum of 11.6 psi (80 kPa). The 2.38-liter supercharger uses a drive ratio of 2.36:1 and has a maximum speed of 14,600 rpm. It is sealed for life with a premium synthetic oil.

Other key components of the Hellcat engine include: Cast-iron engine block with water jackets between the cylinders for optimal cooling

Forged-steel crankshaft with induction-hardened bearing surfaces

Specially tuned crankshaft damper, burst tested to 13,000 rpm

High-strength, forged-alloy pistons

Powder-forged connecting rods with high-load-capacity bushings and diamond-like, carbon-coated piston pins

Piston-cooling oil jets

Heat-treated aluminum-alloy cylinder heads

Sodium-cooled exhaust valves, hollow-stem intake valves and steel-alloy heads that stand up to temperatures as high as 900 degrees Celsius

A cold-air scoop in the lower front fascia helps feed the supercharger and the Hellcat engine's 92-mm throttle body.

Two high-flow variable pressure fuel pumps feed the high-performance demands of the Hellcat engine.

The Dodge Durango SRT Hellcat's exhaust system has been tuned to deliver the throaty, aggressive sound that lets bystanders know this three-row muscle car is something special and distinctly Dodge. The changes include the addition of a 260-millimeter crossover X-pipe, the largest X-pipe in the SRT lineup, to the twin-pipe exhaust.

The Dodge Durango's Hellcat engine is mated to a robust, quick-shifting, high-performance TorqueFlite eight-speed automatic transmission. The transmission includes provisions for manual shifting via steering-wheel-mounted paddles and has seven available Drive modes - Auto, Sport, Track, Snow, Tow, Eco and Valet.

In addition to the head-turning Durango SRT Hellcat, the entire 2021 Dodge Durango lineup offers buyers a wide range of engine options to suit practically any requirement:

The 392-cubic-inch HEMI® V-8 delivers 475 horsepower and 637 Nm. of torque. It posts 0-100 km/h acceleration of 4.4 seconds, NHRA-certified quarter-mile time of 12.9 seconds and best-in-class towing capability of 3,946 kg

The 5.7-liter HEMI® V-8 engine is rated at 360 horsepower and 528 Nm. of torque with a tow rating of 3357 kg. Fuel Saver Technology with cylinder-

deactivation seamlessly alternates between smooth, high-fuel-economy four-cylinder mode and V-8 mode when more power is demanded

The new Tow N Go Package available on the Durango R/T leverages its HEMI® V-8 performance to deliver best-in-class towing of 3,946 kg and an increased top speed of 233 km/h

The 3.6-liter Pentastar V-6 engine generates up to 295 horsepower and 353 Nm of torque. When equipped, the Durango has an available best-in-class V-6 towing capacity of 2,812 kg. Standard engine stop-start (ESS) technology lowers emissions while also saving fuel

### **New, aggressive and modern exterior styling across the entire Durango lineup**

The refreshed exterior on the Durango is distinctly Dodge, maintaining its muscular body and aggressive styling, blending SRT and muscle car DNA throughout the Durango lineup.

Durango's proud, forward-leaning profile captures some design cues from the latest Charger Widebody with the new front fascia, LED low/high headlamps, signature LED daytime running lamps (DRL), sculpted hood, grille, rear spoiler and a variety of wheel options.

A newly designed front end creates a wide cross-car

read with the upper grille, both of which flow into the new slimmer headlamp shape.

The new LED headlamps are slimmer, creating a more modern shape and making Durango look more sinister than ever before. The Durango also features unique Dodge signature LED DRLs. Fog lamps are raised to make the front end feel more alert and aggressive (on non-SRT vehicles); SRT Hellcat deletes the fog lamps to create openings for more airflow to cool the high-performance Hellcat engine.

A new integrated chin splitter for both SRT models was developed in the design studio and in the wind tunnel to create aero balance. The SRT Hellcat is even more aggressive with a new chin splitter, which takes advantage of the two-piece design for added downforce.

Three new unique grille textures are featured across the Durango lineup:

SRT Hellcat - Functional performance texture with larger openings for improved cooling in Low-gloss Black

SRT 392, R/T and GT - Aggressive, performance-inspired texture in Low-gloss Black

Citadel and SXT - Premium painted Low-gloss Granite Crystal

The Durango maintains its world-class precision styling while also sharing the design ethos of the Dodge Charger, with its muscular front and rear flares that accentuate the classic "Coke-bottle" sculpting of the body sides, all of which give Durango an aggressive and powerful stance.

All Durango models feature LED racetrack lighting and new spoilers. A unique performance spoiler is featured on SRT models. Two-piece Satin Chrome SRT Hellcat fender badges flank each side of the Durango SRT Hellcat. When equipped with the SRT Black Package, the Hellcat fender badges turn to a Neutral Grey Metallic finish.

### **Performance-inspired, all-new driver-oriented cockpit**

Along with its ultimate performance capabilities, the new interior on the 2021 Dodge Durango continues

to deliver uncompromised utility, advanced technology and aggressive styling. The new interior feels wider than the outgoing model and features a redesigned driver-centric cockpit, instrument panel, center console and front door uppers with new relocated seat memory switches for ease of access across the full Durango lineup for 2021.

The Challenger-inspired driver-oriented cockpit is refined, upscale and high-tech throughout, featuring an available, largest-in-class 10.1-inch touchscreen angled 7 degrees toward the driver.

The new 10.1-inch touchscreen is equipped with the Uconnect 5 system and is a part of the new, driver-oriented instrument panel. A slimmer redesigned integrated center stack (ICS) switch bank mounted below the screen is equipped with chrome-accented toggles and dedicated buttons for heated and cooled seats, making comfort controls easier to access.

A fully electronic, performance-inspired shifter controls

the standard TorqueFlite eight-speed automatic transmission and gives the driver the look and feel of a traditional linkage shifter.

A new, wrapped and accent-stitched mid-bolster on the instrument panel is featured throughout the entire Durango lineup. On Durango GT, R/T, Citadel, SRT 392 and SRT Hellcat models, each price class has an available wrapped instrument panel.

All price classes feature a newly designed, roomy console that offers more bin storage, soft-wrapped and accent-stitched surround and available, convenient wireless charging.

The new flat-bottom performance steering wheel, with standard paddle shifters from the Charger and Challenger models, and standard on SRT 392 and Hellcat models, is now also available on Durango GT and R/T models. The steering wheel on SRT models features a backlit SRT logo - red backlight on SRT Hellcat models; white backlight on SRT 392.



# RANGE ROVER SPORT ENHANCED

WITH SPECIAL-EDITION MODELS AND POWERFUL NEW STRAIGHT-SIX MILD-HYBRID DIESELS



The Range Rover Sport – Land Rover's most dynamic model ever – has gained a suite of upgrades to enhance its appeal as the ultimate luxury performance SUV. New special-edition models join the existing line-up with the HSE Silver, HSE Dynamic Black and SVR Carbon Edition giving Range Rover Sport buyers more choice than ever. The HST gains another powerful engine option with a new D350 diesel. The D350 is just one of the latest generation of Land Rover's new six-cylinder Ingenium diesel engines. They bring 48V Mild-Hybrid Electric Vehicle (MHEV) diesel technology to the Range Rover Sport for the first time and are RDE2-certified. Developed in-house, the new in-line engine is available in D250, D300 and D350 variants, with power outputs ranging from

249PS (183kW) to 350PS (258kW). They replace the V6 and V8 diesels.

The SV Premium Palette paint colour range, which makes lustrous colours and Satin finishes available to all Range Rover Sport customers, has been refreshed with eight new colours including Tourmaline Brown, Amethyst Grey-Purple and Petrolix Blue. Inside, the purposeful cabin design and elegant details provide an undeniable sense of sporting luxury, while the seamlessly integrated Touch Pro Duo infotainment features enhance connectivity.

Key to the Range Rover Sport's appeal is its sophisticated design, all-round capability and luxurious interior. The HSE Silver edition builds on the generous specification of HSE with a suite of sophisticated

Shadow Atlas exterior trim finishes, Privacy Glass and 21-inch Gloss Black and contrast diamond-turned alloy wheels fitted as standard.

Available with seven exterior colour options, including new Lantau Bronze and Hakuba Silver, and two interior choices, the HSE Silver also benefits from a fixed panoramic roof, Privacy Glass, front centre console cooler compartment and Meridian Surround Sound System. The HSE Silver is available with the most popular petrol or diesel engine for each market and a P400e PHEV powertrain in some markets. The new HSE Dynamic Black is based on the HSE Dynamic and features an exterior Black Pack, giving the Range Rover Sport extra road presence with matching 21-inch Gloss Black alloy wheels, Privacy



Glass and an all-black interior.

Finished in Santorini Black or Carpathian Grey with contrast roof, the HSE Dynamic Black edition also benefits from a fixed panoramic roof, Ebony Premium Headlining and Meridian Surround Sound System as standard.

For high-performance customers, the 575PS (423kW) SVR Carbon Edition provides a stealthy take on the flagship of the Range Rover Sport family with extensive Carbon Fibre detailing.

The Carbon Edition features an exposed Carbon Fibre bonnet centre section, front bumper insert surrounds, main grille and vent surrounds, as well as a range of other Carbon Fibre exterior design details, Carbon Fibre interior trim finishers, Exclusive SVR Carbon Edition treadplates, a Carbon Fibre Engine Cover and

22-inch Gloss Black alloy wheels.

### **Power and efficiency**

Alongside the existing range of powerful and refined petrol engines are the latest six-cylinder Ingenium diesel engines that are smoother, more refined and more efficient than the engines they replace.

The new in-line designs meet Real Driving Emissions Step 2 (RDE2) standards and Euro 6d-final real-world driving compliance with 48V Mild-Hybrid Electric Vehicle (MHEV) technology boosting responses and fuel economy. As a result, the new Ingenium unit is one of the world's leading clean diesel engines.

All the engines available play to the Range Rover Sport's high-performance character, with the new D350 diesel powering the luxury performance SUV from 0-60mph in just 6.5 seconds

(0-100km/h 6.9 seconds). With an impressive torque output of 700Nm, strong responses remain at the core of the Range Rover Sport experience and, with CO2 emissions of just 237g/km for the most powerful D350, customers gain traditional V8 diesel performance with six-cylinder efficiency. Strong performance is backed up by an engaging drive that strikes a fine balance between dynamism and comfort. The Range Rover Sport's advanced all-wheel drive and air suspension both constantly adapt and respond to road conditions, providing driver feedback and involvement, while retaining the superior refinement that customers expect. Lightweight aluminium construction is a key factor behind the Range Rover Sport's agile handling and dynamic responses.





# The first-ever BMW iX3

## Sports Activity Vehicle with an all-electric drive system



The concept: The first BMW Sports Activity Vehicle with an all-electric drive system. The drive system: Supreme efficiency leads to top-end range. The design: Proportions of a BMW X model and familiar BMW i accents. Equipment: Comfort, premium ambience and bespoke functionality. BMW Charging: Innovative products and digital services for simple and user-friendly charging.

Fully electric mobility celebrates its premiere in a BMW X model – the new BMW iX3 (fuel consumption combined in the NEDC test cycle: 0.0 l/100 km; electric power consumption combined: 17.8 – 17.5 kWh/100 km; CO2 emissions combined: 0 g/km;

fuel consumption combined in the WLTP test cycle: 0.0 l/100 km; electric power consumption combined: 19.5 – 18.5 kWh/100 km; CO2 emissions combined: 0 g/km). Locally emission-free driving pleasure complements the sporting ability for which BMW is renowned and the comfort, multi-faceted functionality and spaciousness of the successful BMW X3. Latest stage in the ongoing rollout of the BMW Group's electrification strategy; technological expertise amassed in the development of BMW i cars utilised for the first time in a purely electrically powered model from the BMW core brand.

New BMW iX3 will be the brand's first model to also

be produced for export at the Shenyang manufacturing facility in China. Market launch will begin in China later in 2020.

Strategic "Power of Choice" approach covers broad spread of customer requirements and statutory regulations around the world: BMW X3 is the first model to be available with a petrol or diesel engine, plug-in hybrid drive system or all-electric drive system.

New BMW iX3 blazes a trail for fifth-generation BMW eDrive technology. Major progress made in terms of power density, operating range, weight, installation space requirement and flexibility. Power density of the electric drive system increased by 30 per cent





over the BMW Group's existing fully electric vehicles; gravimetric energy density of the high-voltage battery at cell level up by 20 per cent. Latest versions of the electric motor, power electronics, charging technology and high-voltage battery (all developed in-house) will also be deployed in the BMW iNEXT and BMW i4 from 2021.

Efficiency boosted significantly compared with the BMW i3 by highly integrated drive system technology. Electric motor, power electronics and transmission arranged in a central housing for the first time.

Fifth-generation BMW eDrive high-voltage battery with the latest battery cell technology and gross energy content of 80 kWh enables operating range of up to 460 kilometres [285 miles] in the statutory new WLTP test cycle (up to 520 kilometres [323 miles] in the NEDC test cycle). BMW Group monitors compliance with environmental and social standards as part of its procurement process for the lithium and cobalt used in

battery cells.

Newly designed fifth-generation BMW eDrive electric motor produces maximum output of 210 kW/286 hp and peak torque of 400 Nm (295 lb-ft). Acceleration from 0 to 100 km/h [62 mph] in 6.8 seconds (for purposes of comparison – BMW X3 30i: 6.4 seconds), top speed (electronically limited): 180 km/h [112 mph].

The design principle of a current-excited synchronous motor enables optimised power development and allows engineers to avoid the use of rare earths. Scope for varying degrees of recuperation enables choice between pronounced one-pedal feeling with extensive recuperation of braking and coasting energy in driving position B and adaptive recuperation including coasting function in driving position D. Recuperation level can be adjusted through three stages. Adaptive recuperation enhances driving comfort and efficiency by adjusting Brake Energy Regeneration and the coasting function to the driving situation at hand.

Power transfer to the rear wheels delivers a classical BMW driving experience. Unrivalled combination of low electric power consumption and high charging capacity enables long-distance journeys at high average speeds. Adaptive suspension (fitted as standard) optimises sporting responses and comfort. BMW IconicSounds Electric. Newly developed soundscape for electrically powered BMW models makes its debut in the BMW iX3 and adds extra emotional depth to the driving experience. Powerful drive sound available in cars with the equipment line "Impressive". Unmistakable composition when starting and deactivating the electric drive system developed in collaboration with Hans Zimmer.

Bespoke charging products and services: BMW Charging Card provides simple and convenient access to currently more than 450,000 public charging points worldwide; new Flexible Fast Charger (allowing use of different socket types) and high-output Wallboxes

now available as options. Individual packages offer the optimum charging solution for every customer need. New digital services from BMW Connected Charging in the car and via the app promote user-friendly electric mobility and enhance navigation planning, including recommendations for charging stops. Navigation system factors mid-journey breaks to charge the high-voltage battery (includes detailed information on individual charging points) into route planning and calculation of arrival times.

Optimised energy storage concept now enables vehicle charging capacity of up to 150 kW at DC fast-charging stations; Recharging from 0 to 80 per cent of the high-voltage battery's capacity takes 34 minutes, 10-minute charge adds 100 kilometres [62 miles] of range (WLTP). BMW iX3 customers enjoy particularly favourable tariffs at IONITY fast-charging stations

with a consumption dependent component of e.g. €0.29 per kWh for Germany)

Characteristic proportions of a BMW X model combine with model-specific design features. Innovative BMW aerodynamic wheels: 19-inch light-alloy items with new, drag-reducing design fitted as standard. Premium interior ambience with model-specific accents. User-friendly, variable-usage cabin with high level of comfort for five people over everyday journeys and longer distances; load capacity can be expanded from 510 litres to as much as 1,560 litres.

Wide-reaching standard specification ("Inspiring") includes metallic paintwork, LED headlights, three-zone automatic climate control with pre-heating and pre-conditioning, automatic tailgate operation, panoramic glass sunroof, Driving Assistant Professional and ambient lighting. Optional equipment line "Im-

pressive" also brings 20-inch light-alloy wheels, acoustic glazing, sport seats, Vernasca leather trim, BMW Head-Up Display, Parking Assistant Plus and Harman Kardon Surround Sound.

BMW Live Cockpit Professional with BMW Maps cloud-based navigation system and BMW Intelligent Personal Assistant as standard. Smartphone integration with Apple CarPlay and Android Auto preparation, Remote Software Upgrade and digital services from BMW Connected Charging also standard).

Outstanding environmental credentials thanks to commitment to sustainability throughout the value chain. CO<sub>2</sub> impact of the BMW iX3 over its entire lifecycle is significantly less than a BMW X3 xDrive20d; impact reduced by 30 per cent when using electricity from the European energy mix for charging and by around 60 per cent when using exclusively green energy.



# The new Mercedes-AMG GT Black Series

## The absolute pinnacle of the AMG GT family



At Mercedes-AMG, the Black Series has been synonymous with a very special type of car since 2006: uncompromisingly sporty, with an expressive design and the most consistent technology transfer from motorsport to series production. Black Series models are exclusive automotive rarities. They have not been developed to gather dust in collectors' garages, but for high-speed use on racetracks, despite being approved for roads. The AMG GT Black Series represents a new highlight in this tradition: It is the most powerful Mercedes-AMG with a V8 series engine. In order to emphasise the redefinition of the super sports car, the engine specialists in Affalterbach have once again extensively further developed the tried-and-tested 4.0-litre biturbo unit - despite it already being renowned for excellent driveability, power delivery

and torque progression. The specifications were clear: Significantly more power than the previous flagship model of the AMG GT family, an even more agile throttle response, maximum torque - all of which meant that a radical change was needed in the form of a new, 'flat' crankshaft. "The new GT Black Series is our latest automotive highlight and continues a tradition established in 2006. The sixth version of its kind is another AMG milestone and impressive proof of the incredible development expertise in Affalterbach. I am proud of the team who have created a unique super sports car, which now represents the absolute peak of our successful GT family. The performance, looks and driving dynamics of the GT Black Series are second to none. This project was a fantastic end to my work at AMG, for which I

am truly thankful," says Tobias Moers, Chairman of the Board at Mercedes-AMG GmbH.

### Different designs of V8 engines

The design of a V8 engine gives designers plenty of room to play with in one key element: the crank arrangement on the crankshaft. This influences the characteristics of the engine. There are usually two variants in V8 engines: the 'cross plane' where the crankpins of the four pairs of cylinders are at 90-degree angles to each other, which AMG has used in all previous V8 engines, or the 'flat crankshaft', where all crankpins are on the same plane with a 180-degree offset ('flat plane').

If you look at the front of a cross-plane crankshaft, you will be able to identify the cross that gives it its name. The benefits of these crankshafts are superb

smoothness and high torque at low rotational speeds. The characteristic sound is another hallmark feature of the cross-plane V8 engine. In order to make optimal use of the displacement and therefore the performance potential in the case of the 4.0-litre V8 biturbo engine, the AMG engineers have essentially moved the exhaust side into the hot internal V of the two cylinder banks in the V8 engine.

### The most powerful V8 series engine from Mercedes-AMG

The new GT Black Series engine may be based on the AMG 4.0-litre V8 biturbo engine with dry sump lubrication, but it has been given the new internal code M178 LS2 due to the numerous modifications. It achieves 537 kW (730 hp) at 6700-6900 rpm and delivers a maximum torque of 800 Nm at 2000-6000 rpm. New camshafts and exhaust manifolds are adapted to the new firing order and further improve the gas cycle.

Both twin scroll exhaust turbochargers are mounted in anti-friction bearings, as in the top-of-the-range four-

door AMG GT Coupé, which optimises their throttle response even further. However, in the Black Series, the turbochargers have been given a larger compressor wheel, meaning that both can deliver a total of 1100 kg air per hour. By way of comparison: The figure is 900 kg/h for the AMG GT R. 7000 rpm is not critical as a continuous speed, the speed is limited at 7200 rpm. And the larger intercoolers guarantee that they always keep the charge-air temperature within the best possible range. The unique standing of the new engine is also reflected in the engine badge, which is kept in black.

### 0-200 km/h in under nine seconds

What does the engine do for the AMG GT Black Series? It gives it a completely independent character, which is not only reflected in the type of power delivery, but also in its very particular sound pattern. And it enables highly impressive driving performance: The two-door vehicle shoots from 0 to 100 km/h in 3.2 seconds, and to 200 km/h in under nine seconds. The top speed is 325 km/h.

### Modified AMG SPEEDSHIFT DCT 7G transmission

Power is transmitted to the rear wheels via the seven-speed AMG SPEEDSHIFT DCT 7G dual clutch transmission, which is located on the rear axle in a transaxle arrangement for optimal weight distribution, as is the case for all AMG GT models. It has been modified for use in the AMG GT Black Series and adapted to the increased torque of 800 Nm. The previous limits governing shift performance and response time have been extended, making them more suitable for racetracks.

This all adds up to very different handling characteristics, as not only are the accelerator and engine response more agile - the drive programs, start-up characteristics and gear changes are, too. The Race Start function is also now even more impressive, thanks to the increased starting revs, the more sensitive wheel slip control and the sports tyres fit for the racetrack. Furthermore, the transmission cooling has been adapted to the tougher requirements, and the





transmission ratios have also been slightly modified. The ‘torque tube’ creates the connection between the engine and the transmission. It is made of carbon fibre and, at just 13.9 kilograms, is around 40 percent lighter than its already weight-optimised aluminium counterpart in the AMG GT. It permits a very direct connection of the drivetrain that is favourable to driving dynamics and also plays a role in the vehicle’s balanced weight distribution. The drive shaft which rotates inside is also made from light carbon fibre. **Sophisticated aerodynamics for incredibly high driving dynamics**

The sophisticated aerodynamics not only make a significant contribution to high driving dynamics and stability on fast circuits. As with the AMG GT R and AMG GT R PRO, aerodynamics experts and designers have worked in close collaboration, as ‘form follows function’ applies more than ever in the case of the Black Series.

The similarity to the AMG GT3 and AMG GT4 racing cars is visually and technically stronger than before. It starts already with the new, significantly larger radiator air inlet, which stems directly from the AMG GT3 racing car. The radiator trim has

vertical struts in dark chrome, because now that the wheel arch coolers are also fed with air directly via the central inlet, there is no need for the two additional outer air inlets in the front apron. Sickle-shaped flics optimise the flow of air here, which not only increases downforce at the front axle, but also improves brake cooling. The ‘air curtains’ control and direct the flow towards the wheels. Together with the flics in front of the wheels, this serves to reduce the drag coefficient and increase downforce. The new design language therefore combines maximum cool air efficiency with lower air resistance and an increased level of downforce at the front. The carbon-fibre front splitter has two manually adjustable settings (Street and Race – Race exclusively for use on racetracks. When extended forward (Race position), a front diffuser in the shape of a reversed wing profile is then created under the front section. Depending on the driving speed, this element is lowered even further by the rising negative pressure, which significantly accelerates the air flow on the underbody, creating a ‘Venturi effect’, which also draws the car closer to the road and increases downforce on the front axle. The driver can feel the benefits in the steering: The Black Series can be steered even more

precisely when cornering at high speed and exhibits even better directional stability. If the front diffuser is in the Race position, the downforce at the rear axle can also be increased further by the new rear aerofoil concept.

### **Bonnet with two large exhaust air openings improves aero-performance**

Another direct derivative from motorsport is the new carbon-fibre bonnet, with two large exhaust air outlets made from black finished carbon surfaces. The large outlets guide the warm air, which is fed from the diagonally positioned cooling pack, out of the engine compartment. This technology is also directly derived from motorsport and increases the overall downforce. At the same time, the air resistance is reduced, and the air mass flow for cooling the engine is optimised. The air is also specifically guided around the A-pillars and side windows to the rear, where it increases the efficiency of the new rear aerofoil concept. The seamlessly integrated louvres (air slots), with five fins in the body colour and exhaust air openings behind the wheels in the front carbon-fibre wings, help to increase downforce at the front axle by means of effective wheel

arch ventilation. The air flowing around the vehicle is also optimised by the new, significantly larger and wider side sill panels with black carbon-fibre elements, which merge into vertical blades at the front and rear. Additional cooling air ducts are integrated into the side sill panels for brake cooling at the rear axle.

### **Two-stage rear aerofoil concept**

The rear view is characterised by the new rear apron with a large diffuser, two rounded twin tailpipe trims on the outside left and right, side wheel arch ventilation, and the innovative rear aerofoil concept. Both aerofoil blades are made from carbon fibre, can be mechanically adjusted and therefore adapted to various track conditions. The second, lower positioned blade was made particularly small and narrow because this is ideal for the air arriving from the front of the car. The light yet robust carbon-fibre aerofoil supports, painted matt black and specially designed based on extensive simulations also increase aerodynamic efficiency. They are bolted to the carbon-fibre tailgate, which is also black.

Another fascinating detail: the movable flap in the upper blade. This active aerodynamic element is electronically adjusted by 20 degrees, to suit the driving situation and selected AMG DYNAMICS mode, and improves longitudinal and transverse dynamics. In a flat position, it reduces the air resistance, to help reach the top speed more quickly. In the inclined position, the flap improves braking performance and cornering stability thanks to increased downforce at the rear axle. Four different activation strategies can be run, depending on whether AMG DYNAMICS Basic, Advanced, Pro or Master has been selected. Some of these strategies also involve driving dynamics recognition, for example, Master: The flap is permanently inclined and extended up to 250 km/h. When the speed exceeds 250 km/h, it retracts in order to reduce the air resistance and thus reach the top speed more quickly. However, if the driver brakes suddenly or steers into a corner, the flap immediately returns to its extended position in order to optimise braking and cornering thanks to increased downforce and air resistance. The flap can also be retracted or extended by the driver using a separate button in the centre console.

### **Almost full panelling on the underbody**

The detailed aerodynamic work also includes the now almost fully panelled underbody, which must not only meet aerodynamic requirements, but thermal ones as

well (heat dissipation). The flat underbody is equipped with specially designed longitudinal fins. These air channellers have been meticulously optimised to ensure optimal air flow to the rear diffuser. The entire package accelerates air flow, significantly increasing downforce. All measures are coordinated and interact with the new rear aerofoil concept. The result of all these measures is a downforce level of well over 400 kilograms at 250 km/h.

### **Lightweight and robust carbon fibre, as far as the eye can see**

The lightweight carbon-fibre roof, with a sunken centre, as well as the carbon-fibre tailgate with small spoiler lip and larger rear windscreen made from lightweight thin glass, are all key components of the ‘intelligent material mix’ and ‘lightweight construction’. Moving to the front of the car, the glass used to make the laminated glass windscreen is likewise thin and therefore light in weight. The coiled carbon-fibre transmission mount is another exclusive Black Series component. Additional carbon-fibre shear panels in the front section, underbody and rear stiffen the entire aluminium bodyshell structure, together with the lightweight integral carrier and the carbon tunnel cross, making the bodyshell even more stable. The elements form a connected network and increase the high driving precision of the Black Series in all driving manoeuvres. The carbon-fibre shear panel under the engine is connected to the integral carrier and stiffens the entire front section and steering system, making the steering noticeably more precise and stabilising the front axle. The integral carrier at the front axle is exclusively made for the Black Series using a lightweight aluminium construction. The standard ceramic high-performance compound brake system with black painted brake callipers and white lettering is also characterised by low weight and high performance. Special brake pads and discs together with modified brake cooling guarantee optimal and non-fading deceleration as well as high-precision brake-application options. The standard light-alloy forged wheels also contribute to weight reduction.

### **AMG coil-over suspension with adaptive adjustable damping**

The double wishbone concept locates the wheel with high camber and toe-in stability. This enables high cornering speeds and gives the driver optimum road feel when cornering at the extreme limits. Wishbones, steering knuckles and hub carriers on the front and rear

axle are made entirely from forged aluminium in order to reduce the unsprung masses. The spherical bearings on the upper and lower wishbones of the rear axle come straight from motorsport. Their design means they have no play, which means toe-in and camber do not change even under high loads. The AMG GT Black Series therefore allows for precise steering, gives clear steering feedback and thus delivers better cornering performance, too.

As with the AMG GT R, an AMG coil-over suspension with adjustable spring preload is used in the Black Series, with technology which is adapted to meet the specific requirements for extreme racetrack use with high damping forces. The technology familiar from motorsport is combined with the AMG RIDE CONTROL continuously variable, adaptive damping system. The system is electronically controlled and automatically adapts the damping on each wheel to the current handling situation, the speed and the road conditions. The continuously variable adjustment of the damping to suit the current speed also ensures the best possible road contact and thus enhances safety, even at high speeds.

The driver can also adjust the adaptive damping characteristics at the touch of a button in the AMG DRIVE UNIT or by using the AMG DYNAMIC SELECT drive modes. Three modes are available: “Comfort”, “Sport” and “Sport Plus”. The modified logic means that there is an even better trade-off. “Comfort” and “Sport” are the right choice for public roads. In “Sport”, the damping is firmer, with a sportier body connection and less comfort – and can also be chosen for racetracks if more slippery track conditions prevail as a result of wet conditions. “Sport Plus” is ideal for use on racetracks, as it has a special feature: The system automatically recognises the quality of the track surface, i.e. whether the car is being driven on a flat Grand Prix course like Hockenheim or a bumpy track like the Nürburgring North Loop. It then automatically adapts the level of electronic damping in “Sport Plus”. To develop this logic, the Black Series was tailored to a wide range of different track types and the adaptation perfected.

### **Carbon fibre also reduces the suspension weight**

The front axle is fitted with a dual adjustable torsion bar made of lightweight carbon fibre. The car has this short (i.e. firm) connection as its default setting. Its counterpart at the rear axle is made of steel, is triple adjustable, and saves weight thanks to its hollow tube



design. From the default “central” position, it can be adjusted to one level harder (short connection) or softer (long connection). The carbon-fibre shear panel in the rear underbody supports the high driving precision. This lightweight and rigid element stiffens the rear-end structure and as a result makes the bodysell even more stable. The electronically controlled dynamic engine and transmission mounts were also retuned to further increase the agility and deliver high-precision response and clear feedback.

Other suspension measures include the wide track at the front and rear, and the manually adjustable camber at the front and rear axle. This means that exceptionally high camber values can be set, which are only used for the purpose of increasing performance in motorsport on cordoned-off racetracks.

A Pilot Sport Cup 2 R MO tyre, specially customised for the Black Series, has been developed in collaboration with MICHELIN. As is only the custom in motorsport, this sports tyre is exclusively available for Mercedes-AMG in two compounds: The

standard tyre fitted ex factory is the soft-compound MICHELIN Pilot Sport Cup 2 R MO1A, whose side flank enhances the silhouette of the AMG GT Black Series. A ‘hard compound’ is also available as a retrofitting option for racetrack use at higher temperatures. As well as the MICHELIN Pilot Sport Cup 2 R MO2 designation, it can be identified by the tyre compound available from the AMG Performance Centre, with the hallmark motorsport sticker from the French tyre manufacturer. The sizes are 10 J x 19 wheels with 285/35 ZR 19 tyres (front) and 12 J x 20 wheel with 335/30 ZR 20 tyres (rear).

### **Grip to the power of nine: AMG TRACTION CONTROL**

For use on cordoned-off racetracks in ESP OFF mode, the AMG TRACTION CONTROL enables the driver to get individual support for controlling the immense power of the Black Series – and without any ESP brake intervention whatsoever. The level of support can be fine-tuned, providing the ideal level of assistance for each driver and each track situation. The

AMG TRACTION CONTROL has been extensively tailored to meet the requirements of the new Black Series and allows preselection of one of nine slip settings on the live rear axle.

It is operated via a separate adjuster in the central console. It can also be operated while wearing racing gloves in its central position in the dashboard. Depending on the setting, the system permits more or less slip on the rear wheels – very helpful in varying road conditions. Level 1 is programmed for driving in the wet with high safety reserves. Level 9 allows maximum slip on the rear axle. Each setting is displayed on the adjuster itself and in the instrument cluster’s central display.

### **Orange as an exclusive contrasting colour**

The interior design emphasises the pole position of the AMG GT Black Series: Exclusive nappa leather is combined with sporty DINAMICA microfibre in black with orange contrasting topstitching. The instrument panel and the newly designed lightweight door panels, which are now equipped with loop pull handles instead of conventional handles, are trimmed in black DINAMICA microfibre. Further orange contrasting topstitching, matt black carbon-fibre trim and the Interior Night Package add further striking highlights. The AMG carbon-fibre bucket seats combine low weight with optimum lateral support. The interior is also optionally available with grey contrasting topstitching.

### **Displays with AMG-specific graphics**

The AMG GT Black Series features the fully digital instrument displays from the AMG GT family with an instrument cluster measuring 12.3 inches in front of the driver, and a 10.25-inch multimedia monitor on the centre console. The instrument cluster offers different designs with the three AMG-specific display styles: “Classic”, “Sporty” or “Supersport”. The “Supersport” view with a central rev counter features extensive additional information, such as a prompt to shift up in manual transmission mode, the ‘shift light’. The visualisations on the multimedia display enable further vehicle functions to be experienced, e.g. with animated presentations of the driving assistance, vehicle and communication systems.

### **At your fingertips: display buttons in the centre console**

The innovative, coloured display buttons in the V-shaped central console integrate the display and

control of transmission logic, suspension, ESP, exhaust system, rear aerofoil flap and start/stop function. The TFT display buttons use intuitively comprehensible symbols to show their functions and are easy to operate with just a small tap of the finger. As they still have a mechanical pressure point, they can also be operated whilst wearing racing gloves. The display buttons are supplemented by the two rocker switches for the drive programs and volume control of the audio system.

### **Control in an instant: the AMG Performance steering wheel**

The AMG Performance steering wheel is also adopted from the AMG GT family. It is characterised by its sporty design, a flattened bottom section with a heavily contoured rim and intuitive operation. The steering wheel rim is fully trimmed in DINAMICA microfibre, while the steering wheel badge exclusively features the Black Series lettering, along with the AMG logo. The aluminium steering wheel shift paddles for manual gear changes allow even sportier driving.

As standard, the AMG steering wheel buttons also have a round controller with an integrated display, as well as two vertically positioned coloured display buttons with switches. The AMG drive programs can be activated

using the right controller. The selected setting is shown on the colour LCD display directly integrated in the controller.

The two freely configurable display buttons and the additional switches on the left side enable further AMG functions to be controlled directly on the steering wheel. Each required function can be depicted by a display icon, which the driver can set using the respective switch. The two individually preferred AMG functions can be defined exactly and the settings changed with just a tap of the finger.

The AMG Interior Night Package also comes as standard. In this package, the shift paddles, steering wheel spokes and seat insert in the optional AMG Performance seats are finished in high-gloss black, while the door sill panels are in black brushed stainless steel, further emphasising the car’s sportiness.

### **Even closer to motorsport with optional AMG Track Package**

The AMG Track Package is available as an option in several markets (only in combination with the AMG carbon-fibre bucket seats). It comprises a roll-over protection system, 4-point seatbelts for driver and front passenger, and a 2 kg fire extinguisher (both items

exclusively designed for racetrack use). The lightweight bolted titanium-tube cage of the roll-over protection system consists of a main roll bar, a brace for mounting the seat belts, two rear braces and a diagonal X-brace at the rear. The system further increases the already excellent vehicle rigidity and thus also has a positive influence on the vehicle’s driving dynamics. It also increases passive safety.

### **Highlights in a nutshell**

The most powerful AMG V8 series engine of all time, the most expressive design, the most elaborate aerodynamics, the most intelligent material mix, the most distinctive driving dynamics: For the new Mercedes-AMG GT Black Series, the Affalterbach designers have pulled out all the stops when it comes to the art of vehicle design.

The new super sports car perfectly embodies the brand’s rich tradition in motorsport, as well its many years of expertise in developing complete vehicles which impress in every respect. The result is an output of 537 kW (730 hp) from a V8 engine with a ‘flat’ crankshaft, combined with active aerodynamics and a design which stems directly from the current AMG GT3 racing car.



# Nissan Ariya

## world premiere electric crossover



Nissan today revealed to the world the all-new Nissan Ariya electric crossover, marking a new chapter for Nissan electric vehicles. The EV premiered globally through a virtual event hosted at the soon-to-open Nissan Pavilion in Yokohama.

The Ariya – Nissan’s first all-electric crossover SUV – offers powerful acceleration and smooth, quiet operation, as well as an interior with a welcoming, luxurious lounge-like atmosphere. Its stress-free autonomous driving features, concierge-like assistance and seamless connectivity heighten on-road confidence and provides a welcoming environment for the driver and passengers. And with an estimated range of up to 610 kilometers (based on Japan WLTC cycle; subject to homologation), Ariya is the perfect partner for daily commutes and road trips alike.

The Nissan Ariya is heavily based on the similar-

ly-named concept vehicle displayed at the 2019 Tokyo Motor Show and first hinted at with the IMx at the 2017 Tokyo Motor Show. It’s the first production model to represent Nissan’s new electrified brand identity, forging a path toward a new automotive era where electrification, optimized platform packaging and seamless vehicle AI technology will become standard. Built on an all-new Alliance-developed EV platform, the Ariya is the ultimate expression of Nissan Intelligent Mobility, the company’s strategy to further improve the appeal of its vehicles and achieve the ultimate goal of a future with zero emissions and zero vehicle fatalities. Representing the three main pillars of Nissan Intelligent Mobility (Intelligent Power, Intelligent Drive and Intelligent Integration), the Ariya combines advanced electric-vehicle technology with a new level of seamless human-machine interface connectivity,

offering an entirely new driving experience.

### The exterior

The all-new Ariya is Nissan’s ultimate expression of style and technology, with each complimenting the other in aesthetics and function. The model’s 100% electric vehicle platform removed fundamental limitations and allowed designers to take new approaches to existing components.

The styling represents the Ariya’s first Nissan Intelligent Mobility “touchpoint,” signaling a significant redefinition of Nissan’s design philosophy. This new philosophy is based on what Nissan calls Timeless Japanese Futurism – characterized by a distinctive Japanese approach conveyed in a simple-yet-powerfully modern way. Designers embraced this with the keywords sleek, sexy and seamless to communicate how an EV paired with advanced driving capabilities can offer a new

perspective to design, function and the ownership experience.

Embracing the Japanese term *iki*, which characterizes the Ariya’s chic, cutting-edge nature, the front of the vehicle appears seamless, elegant and fresh. It’s highlighted by a shield – a reimagined grille for the EV era. The shield, incorporating a 3-D, traditional Japanese *kumiko* pattern just under the smooth surface, protects sensing equipment used for ProPILOT functions and Intelligent Key detection without the aesthetics interrupting operation.

Nissan’s redesigned brand logo is prominently placed at the center of the aerodynamic shield, beaming with crisp definition from the 20 LEDs that compose it. The new brand logo represents Nissan’s passion and dedication towards innovation by challenging conventional approaches. In keeping both sun and bar design elements, the logo signals a respect for the company’s heritage while moving towards a future of mobility services and electrification.

The lower section of the shield is bordered by subtle lighting that illuminates, along with the logo, when the Ariya is ready for operation. Thin LED headlamps, constructed with four 20-millimeter mini-projectors,

are combined with sequential turn signals to reinvent Nissan’s signature V-motion design.

When viewed from the side, the Ariya seems to be constantly slicing the air thanks to a low, sleek roofline. Sporty, five-spoke, 19-inch aluminum wheels (20-inch wheels also available, depending on the grade) communicate the vehicle’s dynamic stance and sporty nature. A single, uninterrupted horizon line that stretches across the side profile, linking the front fascia and the rear, conveys linear movement, creating architectural beauty in tension and drama from every angle.

The rear of the Ariya is equally striking, characterized by a steeply raked C-pillar that blends flawlessly into the rear deck. The one-piece light blade, representing the rear combination lamps, has been engineered to give a blackout effect when parked, and a consistent red illumination, day or night, when in use. Rear fender flares and a high-mounted rear wing signal the Ariya’s powerful EV capabilities.

“The Ariya’s exterior proportions show what’s possible with Nissan’s 100% electric-vehicle platform,” explained Senior Design Director Giovanni Arroba. “The surprisingly short overhangs, aggressive roofline and large wheels provide an elegant appearance that

flawlessly balances sport and luxury.”

A newly-developed exterior two-tone color package, Akatsuki, expresses the moment just before dawn, as the sun marks the beginning of a new day. The combination of copper with a black roof highlight the body’s flowing nature and movement of an EV while the copper tone itself references conductivity and the dawn of a new automotive era.

Along with Akatsuki, the Ariya is offered with nine two-tone combinations, each sporting a black roof, and five striking full-body color combinations.

### The interior

Defined by the Japanese term *ma* – referring to spatiotemporal openings – the cabin of the Ariya has been designed in the most efficient and comfortable way. The interior is more akin to a sleek cafe lounge on a starship, evoking performance and intrigue, than to a traditional automotive cabin. The advantages provided by the company’s all-new EV platform have enabled the Ariya to offer the most spacious cabin in its class. The compact nature of the powertrain components made it possible for Nissan’s engineers to install the climate control system under the hood (where a traditional gasoline engine would be), allowing the





designers to utilize the whole length of the cabin without obstructions, such as a transmission tunnel or cabin systems tucked under the instrument panel. Also, a flat, open floor – made possible by the location of the battery at the base of the chassis – and the Ariya’s slim profile Zero Gravity seats result in vast amounts of legroom and easy interaction between front- and rear-seat passengers. The quiet EV drivetrain and the generous use of sound-absorbing materials result in an exceptionally quiet cabin, allowing everyone inside to relax and enjoy the stress-free, lounge-like space.

Front-seat occupants are treated to the Ariya’s minimalist dashboard, which blends seamlessly with the shape of the cabin, transitioning into the doors. It’s devoid of buttons and switches found in conventional vehicles. Primary climate control functions are integrated into the wooden center dash in the form of capacitive haptic switches that offer the same feeling as mechanical switches by vibrating when touched. Tucked under the center of the instrument panel is an innovative center storage box and foldout tray. The innovative slide-out table design transforms the cabin space into a mobile office or can be used as an on-the-go picnic table.

The adjustable center console can be moved to suit the driver’s personal preference, and the settings can

be saved as part of the driver’s profile for automatic adjustment during future outings. The surface hosts a new shifter that fits in the palm of the hand to encourage a relaxed driving position with haptic drive mode controls within easy reach.

Rear-seat passengers are treated to an abundance of headroom and legroom, with the flat cabin floor allowing them to easily cross their legs and relax. Accents and ornamentation are carried into the rear space to give all the same sense of sophistication and comfort. The thin front seats are positioned to obscure the B-pillar, offering occupants an outward panoramic view. “The interior of the Ariya is a pleasant ‘living space’ for the driver and occupants to enjoy while experiencing the theater of traveling to familiar and new destinations,” Arroba said. “The materials throughout the interior were carefully selected to avoid the overly traditional feel of some luxury vehicles, while giving an impression of premium futurism in technology and utility.”

#### **Intelligent Power: formidable EV performance for a wide range of needs**

The Nissan Ariya’s all-electric drivetrain is an example of seamless integration of advanced EV technology. It takes the excitement and potential of zero-emission

mobility to the next level by integrating excellent power delivery, charging capabilities and extended range. With four core models offered, including two-wheel-drive and all-wheel-drive versions, the Ariya meets the driving needs of a wide range of customers.

The Ariya two-wheel-drive model with 63 kWh of usable battery capacity<sup>1</sup> is ideal for urban commuters and first time EV owners looking for quality and style in their next-generation EV. The Ariya two-wheel-drive model with 87 kWh of usable battery capacity<sup>1</sup> offers a larger battery, delivering additional range for those looking to venture on longer journeys.

The Ariya e-4ORCE all-wheel-drive model with 63 kWh of usable battery capacity<sup>1</sup> offers an attractive balance in performance and value in its segment. With slightly less emphasis on range, this model offers ample performance and innovative new technologies, including twin electric motors and e-4ORCE control technology that deliver balanced, predictable power to all four wheels, equal to or better than many premium sports cars. The Ariya e-4ORCE all-wheel-drive model with 87 kWh of usable battery capacity<sup>1</sup> features the highest level of Nissan Intelligent Mobility available, including ProPILOT 2.0 which offers hands-off single lane highway driving capability.

Whether the two- or all-wheel-drive model, the power

and performance of the Ariya will bring excitement back to the daily commute and urge drivers to explore further.

#### **e-4ORCE: Ride comfort and handling without compromise**

The twin electric motor, all-wheel-drive Ariya models will feature Nissan’s most advanced all-wheel control technology, e-4ORCE. The “e” in e-4ORCE stands for Nissan’s 100% electric motor drive system. “4ORCE” (pronounced force) refers to the vehicle’s physical power and energy, with “4” representing all-wheel control. Born from the company’s rich history of developing memorable all-terrain vehicles and sports cars, e-4ORCE is the spiritual offspring of the Nissan GT-R’s ATTESA E-TS torque split system and the Nissan Patrol’s intelligent 4X4 system.

By specifically managing power output and braking performance for smoothness and stability, e-4ORCE enhances driver confidence by tracing the intended driving line over almost any road surface, while never needing to change driving style or input. When cornering on snow-covered roads, for example, the vehicle can faithfully trace the driver’s intended line thanks to ultra-high-precision motor and brake control. With the confidence to handle such a variety of road surfaces, driving becomes more enjoyable.

Engineers fine-tuned the e-4ORCE’s precision control technology and twin electric motors to provide unparalleled ride comfort. Vehicle pitch and dive are minimized by adding regenerative rear-motor braking to the usual front-motor regenerative braking employed by typical EV and hybrid systems today.

“By taking advantage of e-4ORCE’s precise motor control response, we’re able to control vehicle motion as soon as the brakes are applied, giving all occupants – especially passengers – a stable, smooth ride,” said Ryozo Hiraku, expert leader of Nissan’s powertrain and EV engineering division.

In addition to optimizing front and rear torque allocation, the system applies independent brake control at each of the four wheels to maximize the cornering force generated by each one. This delivers cornering that faithfully follows driver intentions with minimal steering adjustments.

“The Ariya’s Intelligent Power is one of the pillars that define Nissan’s DNA,” said Makoto Fukuda, development chief product specialist of the Ariya. “There is

often talk about EVs and their 0-to-100-kph time, but actually it’s easy for EVs to achieve good acceleration times. The Ariya is also fast in a straight line, but it provides maximum, usable performance in a wide range of driving conditions such as on a snowy mountain road or on wet city streets.”

#### **A smooth, powerful on-road presence**

Staying true to Nissan’s heritage of producing fun-to-drive, exciting cars, the Ariya’s all-new EV platform has been optimized to deliver exceptional handling. The battery pack sits under the center of the vehicle to ensure a low center of gravity and near-equal weight distribution, front and rear. The battery pack’s flat design and integrated cross-member in the battery case, allow the Ariya to have a flat floor and impressive structural rigidity. Suspension components are optimized to take advantage of this, ensuring stable handling and a comfortable ride while also suppressing vibrations and noise from entering the cabin space.

In the rear, the suspension packaging, including the multi-link system and rear electric motor (if equipped), create an exceptional balance of ride comfort, handling

and performance.

With three drive modes, including Standard, Sport and ECO (e-4ORCE models include an additional Snow mode), drivers have the ability to customize their experience to match their mood and surroundings. The Ariya’s highly rigid body structure and super responsive rack-and-pinion steering system provide the vehicle with crisp turn-in response, while its near 50:50 front/rear weight distribution – made possible by the battery positioned under the floor in the middle of the vehicle – helps the Ariya behave in a predictable manner through all types of corners. The underbody’s flat, aerodynamic nature assists with a stable ride while a tight turning radius adds to the Ariya’s capability not only on the highway, but also narrow streets and parking. In addition to all-new advanced technologies creating a smoother, relaxing ride, the Nissan Ariya also features driver assistance technology that have been enjoyed by hundreds of thousands of drivers around the globe. e-Pedal, first introduced in the Nissan LEAF electric car, allows the driver to launch, accelerate and decelerate using only the accelerator pedal. e-Pedal works by initiating the electric motor to start the deceleration





process of the vehicle when easing off the accelerator pedal. On low-traction surfaces, the brakes are applied simultaneously with the motor, allowing all four wheels to safely slow down the vehicle. On models equipped with e-4ORCE, regenerative torque is distributed not only to the front wheels, but also the rear.

While every Ariya model will feature impressive driving range in its segment, it also boasts remarkable range recovery and quick-charge performance. This is thanks in part to its battery thermal control feature, which constantly optimizes the operating temperature of the liquid-cooled battery. Using peak 130kW charging, the Ariya can recover up to 375 kilometers with a 30-minute quick charge using Japan's CHAdeMO charging system. (Japan specification and charging system capable of 130kW charging, estimation subject to homologation and environmental and battery conditions)

### **Intelligent Driving: a high-tech, low-stress driving experience**

The Ariya ensures high levels of comfort and confidence by providing occupants with the latest Nissan technologies, including ProPILOT 2.0 advanced driver assistance.

The system's seven cameras, five millimeter-wave radars and 12 ultrasonic sonar sensors detect lane markers and objects around the vehicle, allowing hands-off single-lane driving along a predefined route, keeping with the flow of traffic. It also performs safe, effective

lane changes with a simple button-push confirmation by the driver. ProPILOT 2.0 also utilizes a dedicated shark fin antenna to receive accurate GPS positioning, assisting to create a smooth, predictable ride during assistance.

ProPILOT 2.0 uses the navigation system and high-definition 3-D map data to detect the road surface, direction and speed limits, adjusting vehicle speed accordingly for a safe and trouble-free journey. A Driver Monitoring System mounted on the steering column confirms the driver is attentive to the road ahead when using the hands-off feature. In addition to the intuitive meter display and head-up display information, the status of the ProPILOT system is shown in the cabin by an advanced ambient lighting system: white indicates normal manual operation or that Intelligent Cruise Control is engaged; green indicates hands-on assisted driving; and blue indicates when the hands-off driving function with lane-change assist is activated.

When driving in hands-on mode with a pre-defined route, ProPILOT takes advantage of the extensive 3-D map data to keep the vehicle centered in the lane with increased accuracy. The map data also allows for more driver assistance during cornering by using road curvature data to safely navigate around blind corners, further reducing driver stress.

ProPILOT with Navi-link offers an enhanced ex-

perience from the acclaimed ProPILOT system first introduced with the LEAF. With the addition of road data and sensing technology, the system is able to offer a smoother ride during single-lane highway driving. By connecting with the navigation system and utilizing road map data, the hands-on driver assistance system can automatically adjust vehicle speed based on the posted limit. Additionally, the system can adjust vehicle speed based on upcoming road conditions, such as smoothly slowing the vehicle before a sharp corner ahead, giving all occupants a pleasant drive.

When the destination is reached, ProPILOT Park takes the stress out of parking by helping recognize an open parking space and guiding the vehicle into it. Parking is completed in three easy steps making front, reverse and parallel parking a stress-free experience (available in limited markets).

The Nissan Ariya is also equipped with additional innovative 360-degree safety features such as the signature Nissan Safety Shield, which includes Intelligent Around View Monitor, Intelligent Forward Collision Warning, Intelligent Emergency Braking, and Rear Automatic Emergency Braking technology.

### **Intelligent Integration: keeping the Nissan Ariya up-to-date and at maximum potential**

The Ariya embodies Nissan's philosophy of designing vehicles around the driver, making them both intuitive

and exciting. This includes equipping it with the latest in connectivity, including a new human-machine interface and firmware updates over the air. Nissan's intelligent personal assistance technology features a hybrid voice recognition system with advanced natural language understanding technology to handle in-vehicle assistance without the driver taking their eyes off the road. The Ariya also includes Amazon Alexa to help customers simplify and organize their lives. Alexa can play music, place calls, listen to audiobooks, control smart home devices and more, with just your voice. The two systems work hand in hand to provide a seamless, tailored user experience, whether during a daily commute or a weekend trip.

As an example of how the Ariya promotes a seamless experience and comfort, drivers can check the status of the Ariya's battery from the comfort of the breakfast table while enjoying a morning coffee. With a scheduled destination, the Intelligent Route Planner will send a reminder when it's time to depart, keeping the day on-track. While driving, the system monitors road conditions and suggests alternative routes to keep travel times short. By using the NissanConnect smartphone app, calibration of the Ariya's climate controls can be set just the way the driver likes, even before entering the vehicle.

When you approach the Nissan Ariya while carrying the Intelligent Key, the doors unlock. The exterior front and rear lights, as well as the Nissan emblem, switch on automatically, signaling that the vehicle detects the driver's presence. The interior lights softly fade on when the door is opened, allowing the driver and passengers to see the entire cabin. The seat, steering wheel position and auto-sliding center console are all adjusted based on the saved driver profile linked with the Intelligent Key. The Ariya's andon lighting treatment echoes a Japanese artisan character. After all occupants are seated and doors shut, the interior lighting fades away, prompting the driver to push the Start switch which produces a "pulsing" effect, inviting the driver to take hold of the steering wheel.

The display interface features both a 12.3-inch instrument monitor and 12.3-inch center display along a single horizon. By displaying multiple facets of information on one horizontal plane, information can be quickly digested without the driver being distracted from the road. The two displays are oriented in a wave-

like shape to ensure important vehicle information, such as battery information, range and navigation, can be easily reached and scrolled through with a simple swipe. Further information can be swiped between the displays to customize and prioritize the information displayed just behind the steering wheel for an unparalleled bespoke experience.

And, the Ariya's heads-up display boasts one of the largest full-color displays in the segment. The projected display shows similar information found in the meter display, providing crisp, driving information within the driver's field of vision without being distracting. By saying "Hello Nissan" or "Hey Nissan," occupants can ask for vehicle information and manage the travel route, including searching for points of interest, verbally. In-vehicle functions such as selecting a playlist or adjusting the cabin temperature are effortlessly done without the driver needing to look away from the road. The Nissan Ariya's in-vehicle commands are executed by a hybrid voice recognition system based on natural-language understanding, allowing for normal, conversational sentences. With a Wi-Fi connection, the system can access cloud data to better understand unique requests.

On the drive home, Alexa can be invoked to perform vehicle-to-home functions, including turning on interior home lighting or opening the garage door.

"Nissan's intelligent personal assistance technology is an expression of omotenashi – the Japanese custom of respecting the customer to the highest degree," Fukuda said. "It provides a seamless experience, both off- and

on-board. The Ariya supports your lifestyle whether from home or on the go."

The Ariya is also the first Nissan model with firmware updates over the air, called Remote Software Upgrade. The technology automatically updates various software inside the vehicle – specifically, software that controls the multimedia system, electric and electronic architecture, chassis, climate system and EV settings – without having to take the vehicle to a service center. With periodic real-time updates, the Ariya is always operating at its full potential. A dual-bank memory system even allows for updates while on the go. Updates are downloaded and stored in a separate memory bank. When the system has confirmed the download, it switches to the updated memory bank. Updates are applied quickly and easily, making updates and new feature integration a seamless experience.

### **The future of the electric vehicle is now**

The Nissan Ariya crossover marks a new era for electric vehicles, promising an incredibly powerful and smooth ride thanks to the full strength of Nissan Intelligent Mobility delivered by the latest assistance technologies designed to support, respond and respect the driver's intentions. A sleek, sexy, seamless design inspired by Timeless Japanese Futurism gives all occupants a welcome, personal impression that aims to surpass expectations.

The Nissan Ariya will begin delivery in Japan from mid-2021 with an estimated starting price of around 5 million yen.





# The Audi Q4

## Sportback e-tron concept



The Audi Q4 e-tron concept gave visitors to the 2019 Geneva Motor Show a taste of the first compact electric SUV from Audi. With the Q4 Sportback e-tron, the brand is now presenting the second model of the product line that will go into production in 2021 as an SUV Coupé.

\*The collective consumption values of all models named and available on the German market can be found in the list provided at the end of this MediaInfo. This gives potential Q4 customers the opportunity to start thinking about which version they prefer roughly a year before the first vehicles will be delivered: the versatility and robustness of the classic SUV or the dynamic elegance of the Coupé variant. The dimensions of the two Q4 models are almost identical: With an exterior length of

4.60 meters (15.1 ft) and a height of 1.60 m (5.2 ft), the Sportback is one centimeter (0.4 in) longer and flatter. The Q4 variants are identical in terms of their width of 1.90 m (6.2 ft) and their wheelbase of 2.77 meters (9.1 ft).

The two concept cars, which are already offering a clear look ahead at the top-of-the-range engine line-up of the coming series production model, also have the same drive technology. Two electric motors mobilize 225 kW of system output in the Q4 and Q4 Sportback e-tron concept. As is typical for Audi, the driving power is brought to the road with quattro all-wheel drive. Thanks to excellent traction, both versions of the Q4 accelerate from zero to 100 km/h (62.1 mph) in just 6.3 seconds. Top speed is restricted to 180 km/h (111.8 mph).

A large battery with a capacity of 82 kilowatt hours takes up almost the entire space in the underbody area between the axles. The range of over 450 kilometers (279.6 mi) – in line with the WLTP standard – sets the benchmark in its class. Versions with rear-wheel drive will offer a range of over 500 kilometers (310.7 mi) in accordance with WLTP. The technology of the Q4 e-tron concept is provided by the modular electrification platform (MEB), which will be integrated in numerous electric vehicles produced by the Volkswagen Group in the future, from the compact class to the superior medium-size class. The Audi Q4 Sportback e-tron concept offers an advance look at what will already be the seventh series production electric vehicle that the manufacturer will introduce by 2021.

### Sexy back: the exterior

The silhouette of the Sportback slopes downward to the back in a subtle and dynamic curve. The roof line transitions into the significantly inclined D-pillars and ends in a horizontal spoiler at the level of the lower window edge. As a result, the future Audi Q4 Sportback appears much longer than its sister model, the Q4 e-tron concept.

The striking broad light band that connects the two lamp units on the rear end of the Audi Q4 Sportback e-tron concept was incorporated to reflect an element of the Audi Q4 e-tron concept. It is clearly visible even here that these two models belong to the same e-tron family, as the close relation to the e-tron Sportback\* is obvious. This also applies to the inside of the lights, where the significant sweep of the LED segments is also reminiscent of an element of the older brother. The striking design of the bumper diffuser unit with its horizontal slats and the

illuminated e-tron logo in the middle is an element that the two Q4 versions share.

When looking at it from the front, the Singleframe with the four rings brand logo identifies the Q4 Sportback e-tron concept as an Audi vehicle. And it will take no more than two glances to see that this is an electric Audi: Like the first production Audi with electric drive, the new concept vehicle also features a structured closed surface within a broad, almost upright octagonal frame in place of a traditional radiator grille.

The prominently modeled fenders of all four wheels are a further classic Audi design feature that has distinguished the brand since the legendary original quattro 1980. The widened features of the Q4 e-tron concept and Q4 Sportback concept are designed to be highly organic and flowing, and they add a characteristic touch to the side view. The accentuation of the rocker panel area between the axles,

where the battery and thus the powerhouse of this SUV is located, is a typical feature of the e-tron. Large 22-inch wheels leave no doubt as to the potential of the newest member of the Audi family.

The Q4 Sportback e-tron concept is painted in the new kinetic grey color, a light metallic and pearl effect color that takes on a distinct greenish tinge depending on the angle of the light. In contrast, the lower sections of the body are painted in a dark grey color. This segmentation emphasizes the width and horizontal orientation of the vehicle's architecture.

### Sense of spaciousness – the interior

With its dimensions, the Audi Q4 Sportback e-tron concept also takes its position in the upper third of the compact class. Its road space requirements qualify the electric SUV as an agile all-rounder. In terms of the interior, by contrast, its wheelbase of 2.77 meters (9.1 ft) puts it at least one class higher. As there is no transmission tunnel





restricting the space, the Q4 Sportback e-tron concept offers unsuspected spaciousness and comfort, especially in terms of legroom at the front and even more in the rear.

The color scheme emphasizes the sense of spaciousness. While light, warm colors dominate the upper section of the cabin, the dark carpet in the floor section provides a contrast. The headlining, the window pillars and the upper section of the door rail and dash panel are fitted with white and beige microfiber textiles. Sustainability is the top priority not only in terms of the electric drive in the Audi Q4 and Q4 Sportback: The floor covering is made of recycled materials. Instead of chrome-plated metal decor frames, the surfaces are covered with a high-quality multi-layer paint finish. The painted frosted Plexiglas on the applications creates an intensive depth effect. Four seats with integrated head restraints are upholstered with comfortable Alcantara material manufactured with exquisite workmanship. Double seams stitched with thick yarn adorn the upholstery.

The display of the Audi virtual cockpit with the most important display elements for speed, charge level, and navigation is located behind the steering wheel. The large-format head-up display with an augmented reality function is a new feature. It can display important graphical information, such as directional

arrows for turning, directly on the course of the road. Control panels designed as touch elements on the steering wheel spokes can be used to select frequently used functions. In the middle above the center console, there is a 12.3-inch touchscreen via which the infotainment and vehicle functions are displayed and operated. It is tilted toward the driver for greater ease of operation. A strip of buttons for controlling the air conditioning is located below it.

As the center console does not need to hold functional elements such as a gear lever or hand brake actuation elements, it is designed as a spacious stowage compartment that includes a cell phone charging cradle. There is a horizontal area in high-quality design into which the selector button for the transmission mode is integrated and that also serves as a cover for the front section of the console. In addition to the conventional lower storage compartment, the doors now provide the possibility to store bottles in the specially molded upper section, where they are easy to reach.

#### **Efficient performer: drive system and suspension**

The modular electrification platform (MEB) offers a broad range of drive variants and power levels. The performance version of the electric drive is installed in the Audi Q4 Sportback e-tron concept. The

front and rear axles are each powered by an electric motor – this Q4 Sportback is a quattro. There is no mechanical connection between the axles. Instead, an electronic control ensures that the torque distribution is coordinated optimally, and it does so in fractions of a second. That enables the SUV Coupé to achieve optimum traction in all weather conditions and on any type of surface.

In most cases, the Q4 Sportback e-tron concept mainly uses its rear electric motor, a permanently excited synchronous motor, in order to achieve the highest efficiency. For reasons of efficiency, the drive torque is generally distributed with a rear-axle bias.

If the driver demands more power than the rear electric motor can supply, the electric all-wheel drive uses the front asynchronous motor to redistribute the torque as required to the front axle. This also happens predictively even before slip occurs in icy conditions or when cornering fast, or if the car understeers or oversteers.

The electric motor in the rear end has an output of 150 kW and mobilizes a torque of 310 newton meters (228.6 lb-ft); the front motor supplies the front wheels with up to 75 kW and 150 newton meters (110.6 lb-ft). The system output is 225 kW. The battery in the vehicle floor stores 82 kilowatt hours, which allows for a range of more than

450 kilometers (279.6 mi) according to the WLTP standard. The battery is charged with a maximum of 125 kilowatts. It therefore takes little more than 30 minutes to reach 80 percent of the total capacity. However, the recipe for this excellent range involves far more than just an energy storage unit with a large capacity. Just like the first member of the family, the Audi Q4 e-tron concept, the Audi Q4 Sportback also presents itself as an efficiency virtuoso, starting with the low aerodynamic drag of the body, whose drag coefficient is 0.26 and therefore 0.01 below that of the Q4 e-tron SUV. The compact electric product line also features a sophisticated recuperation strategy, leaving out no possibility for optimizing its range. The complex thermal management of the drive and battery, which involves a CO2 heat pump, also contributes to this.

#### **Sporty, precise handling**

A key factor for the sporty character and outstanding transverse dynamics is the low and central position at

which the drive components are installed. The high-voltage battery system is optimally matched to the dimensions of the Audi Q4 Sportback and is located between the axles in the form of a flat, broad block beneath the passenger compartment. The battery system weighs 510 kilograms (1,124.4 lb). The center of gravity of the Audi Q4 Sportback e-tron concept is therefore at a similar level to that of a sedan with a conventional drive system.

Axle load distribution is perfectly balanced at almost 50:50. The front wheels of the Q4 Sportback e-tron concept are guided on a MacPherson axle with adaptive dampers. In the rear, there is a multi-link axle with separate springs and adaptive dampers.

#### **The modular electrification platform MEB: the base**

MLB, MQB – modular longitudinal platform and modular lateral platform: These component systems for vehicle development represent a great success story in all segments of Audi and the Volkswagen Group.

Previous platforms were designed primarily for the use of combustion engines. What is new and different about the modular electrification platform: It was designed specifically and exclusively for automobiles with electric drive systems. Axles, drives, wheelbases and the interaction between all components are selected and adapted specifically for e-mobility.

The placement of the large-volume battery units and their geometry can therefore be optimized without having to make concessions to other drive concepts that must always be taken into account in the MLB and MQB.

At the same time, the MEB opens up a huge synergy potential. This platform serves as the basis primarily for electric cars in the high-volume A segment. It allows the best technology available to be developed jointly across brands and used in many different electric cars. The MEB thus also helps electric mobility to break through even in the particularly price-sensitive compact segment.



# NEW PEUGEOT 308 RANGE

A reference remains a reference



The PEUGEOT 308 was named 'Car of the Year' at launch and since then over one and a half million vehicles have been sold. Now, the multi-award winning PEUGEOT 308 is being updated for the 2020 collection. A new "Vertigo Blue" colour and two new alloy wheels will be available, whilst inside, the dashboard is equipped with a 100% digital PEUGEOT i-Cockpit® as well as a capacitive central screen with a "gloss" finish. In addition, the

PEUGEOT 308 offers the latest-generation internal combustion engines and a range of driving aids worthy of the upper segments. Three main trim levels are available, with an additional set of equipment on offer via the 'Premium' derivatives.

## PURE DESIGN.

The PEUGEOT 308 offers balanced proportions in both the hatchback and SW. Its sleek lines give it a strong and dynamic look. In 2020, the exterior has

been updated with the addition of a new colour - Vertigo Blue. In the Allure finish, 16" Zircon alloy with a diamond finish are available as an option. The top-of-the-range versions provide access to the Black 'pack' option. This gives you the chance to change the majority of chrome trim to gloss black, including: front grille which incorporates the PEUGEOT Lion, the indicator and fog light surround and side window covers. Also available are 18"





diamond cut alloys in Sapphire Black with Black Mist varnish available.

### PURE DRIVING EXPERIENCE

A key element to the driving experience that is part of the brand's DNA, is the PEUGEOT i-Cockpit®. The PEUGEOT 308 will be equipped with a 10-inch high-definition digital panel. This instrument cluster incorporates the latest developments in terms of graphic design of the all-new PEUGEOT 208 and 2008 SUV. The central capacitive touch screen includes a "gloss" finish, following the example of the latest generation of smartphones.

Connecting your smartphone in your vehicle is

a priority for many customers. The PEUGEOT 308 benefits from the Mirror Screen function, compatible with Mirrorlink®, Android Auto® and Apple Carplay™. The 3D navigation features voice recognition and is reactive and connected to TomTom® Traffic, it allows you to optimise your journeys with real-time traffic monitoring. Warning of danger zones is now included free of charge as standard.

The PEUGEOT 308 offers a complete range of driving assistance equipment worthy of the upper segments with:

Adaptive cruise control with Stop & Go function\*

Visiopark with 180° rear view camera and Park Assist

function.

Latest-generation automatic emergency braking and collision risk warning

Active lane departure warning (or roadside warning) with lane correction from 40mph (65 km/h) onwards

Driver Attention Alert

Automatic Smart Beam Assist

Speed sign recognition and recommendation

Active blind spot monitoring system

### PURE EFFICIENCY

The PEUGEOT 308 has efficient petrol and diesel engines with CO2 emissions from 95 g/km. These powertrains are approved according to the WLTP

protocol.

Available petrol engines:

1.2 PureTech 110 S&S 6 speed manual

1.2 PureTech 130 S&S 6 speed manual or 8 speed automatic

Available diesel engine:

1.5 BlueHDi 100 S&S 6 speed manual

1.5 BlueHDi 130 S&S 6 speed manual or 8 speed automatic

The PEUGEOT 308 GTi sports version completes the catalogue with its four cylinder 1.6L engine producing 263 horsepower and 340 Nm of torque. Thanks to a CO2 emission rate (169 g/km WLTP) and an excellent power-to-weight ratio for its category, this hot hatch is one of the best offers in its segment.

### NEW LINE-UP

This new range structure is based on three main trim levels. Each of them can be completed by an

intermediate trim level named Premium (except on GTi) in order to meet the demands of customers looking for greater comfort, aesthetics or assistance.

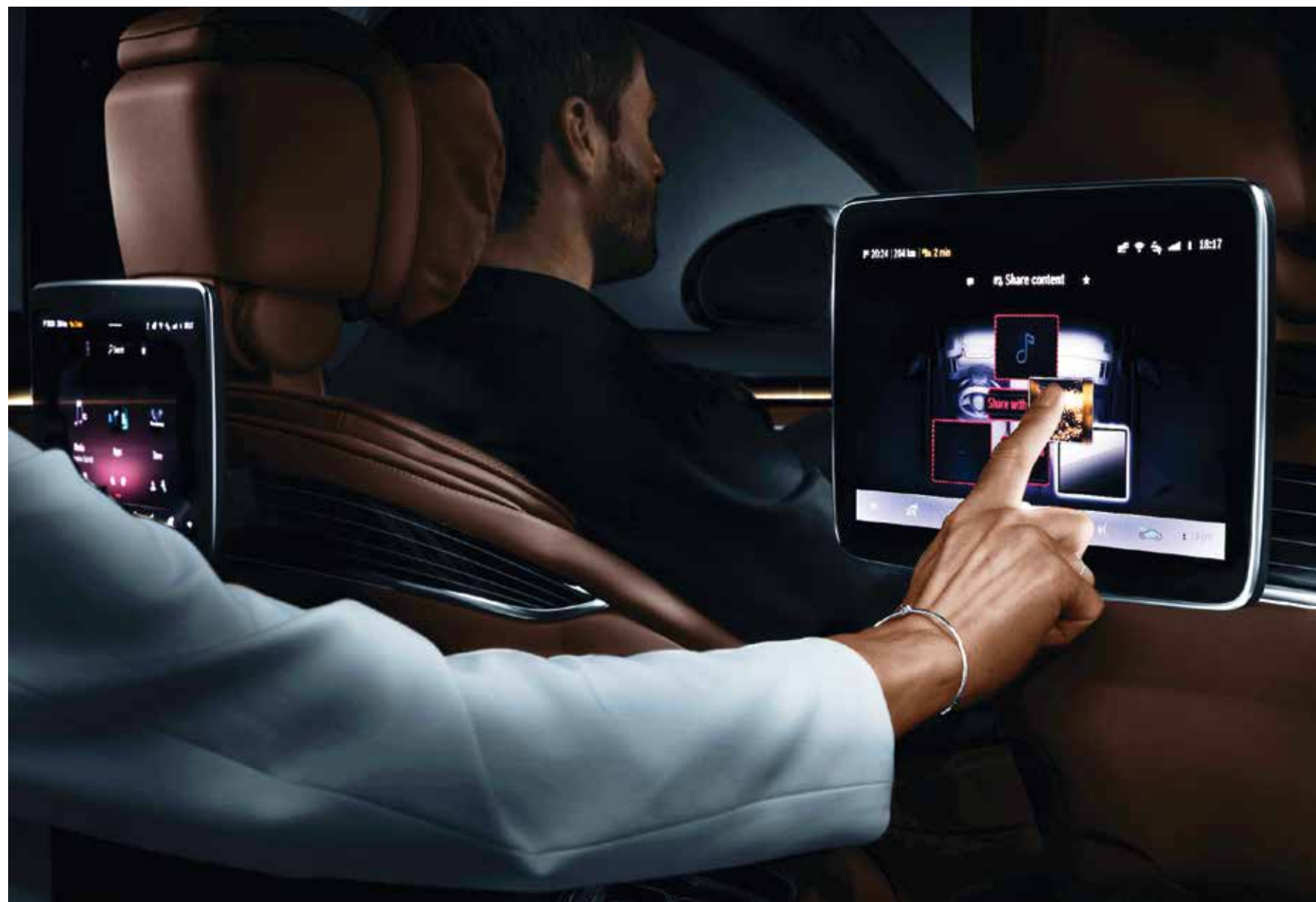
The new line-up will be available both in Showrooms and on Peugeot Buy Online, where customers can configure their vehicle, receive a part exchange valuation, personalise their finance and complete their

order, all from the comfort of their own home.



# Meet the S-Class DIGITAL

## “My MBUX” (Mercedes-Benz User Experience)



### At home on the road – luxurious and digital

Dubai. Have a quick look at the presentation on the way to the office, and discuss minor changes with your assistant by telephone conference? Or while away a long journey with the latest online films, while your brother next to you listens to his favourite audiobook? Whether managers or children – in an S-Class, the boss often sits in the rear. Accordingly Mercedes-Benz has systematically designed the new edition of its flagship model with the rear in mind. One example: passengers in the rear have the same extensive Infotainment and

comfort features as the driver and front passenger. They have access to up to three touchscreens and a variety of different control options such as MBUX Interior Assist or the voice control assistant «Hey Mercedes». No other innovation in recent years has so radically changed the operation of a Mercedes-Benz as MBUX (Mercedes-Benz User Experience). The second generation of this learn-capable system debuts in the new S-Class. The vehicle interior is even more digital and intelligent, as both the hardware and software have made great strides: brilliant displays on up to five large screens, in part with OLED technology, make control

of vehicle and comfort functions even easier. The human factor is always the central consideration. The possibilities for personalisation and intuitive operation have become far more extensive. This certainly applies in the rear, but also for the driver: for example, the new 3D driver display allows a spatial view at the touch of a button for the first time. A real three-dimensional effect is achieved without having to wear 3D glasses. The voice assistant “Hey Mercedes” is capable of even more dialogue. Certain actions can be performed even without the activation keyword “Hey Mercedes”, for example. These include accepting a telephone call or





displaying the navigation map. “Hey Mercedes” can now also explain where the first-aid kit is located, or how to connect a smartphone via Bluetooth. Alongside the classic entry of a PIN, a new authentication method ensures a high level of security. Fingerprint, face and voice recognition are combined. This allows access to individual settings or verification of digital payment processes from the vehicle. However, the unique feature of MBUX is its networking with a wide range of vehicle systems and sensor data. For example, the exit warning function in the S-Class now uses cameras to recognise that an occupant wants to leave the vehicle. If another road user is approaching in the blind spot, the active ambient lighting becomes part of the exit warning system and flashes red. MBUX Interior Assist checks whether the child seat is correctly attached to the front passenger seat. The driver’s attention level is also monitored. The driver is warned by ATTENTION ASSIST if there are signs of microsleep. The new S-Class can be experienced with almost all the senses – seeing, feeling and hearing – while offering numerous innovations in the areas of driver assistance, protection and interaction.

### The major innovations in detail

**Augmented reality head-up display (AR-HUD):** Two different head-up displays (HUDs) are available on request, one of them an innovative variant with a particularly large image. The aperture angle of the display is 10° horizontal and 5° vertical, and the image appears virtually at a distance of 10 metres. This display area corresponds to a monitor with a 77-inch diagonal. The AR-HUD provides a great deal of augmented reality content for driving assistance systems and navigation information. For the driver this blends into the surroundings ahead of the vehicle and can therefore contribute to further reduced distraction. The image-forming unit (DMD, digital mirror device by Texas Instruments) consists of a high-resolution matrix of 1.3 mill. individual mirrors and a highly efficient light source. The technology is also used by beamers in cinemas. In the S-Class it is used by Mercedes-Benz for the first time to generate images in the head-up display. **3D driver display:** An impression of spatial depth is created when the eyes of a viewer perceive different perspective views of an object in the display. In this innovative auto-stereoscopic display, this is achieved by the sophisticated combination of a conventional LCD

display with a special pixel structure and a controllable LCD aperture grille. What is known as a barrier mask is positioned a few millimetres in front of the LCD. It is so precisely adjusted to the head position of the viewer that the left and right eye see different pixels of the LCD. This creates the desired impression of depth. A stereo camera system is integrated into the display. This is used to precisely determine the eye position of the viewer. Thanks to methods developed by Mercedes-Benz to adapt distances and a very low-latency system configuration, the driver enjoys a wide range of free movement. The image in the driver display is continuously adjusted. MBUX Interior Assist: Using cameras in the overhead control panel and learning algorithms, MBUX Interior Assist recognises and anticipates the wishes and intentions of the occupants. It does this by interpreting head direction, hand movements and body language, and responds with corresponding vehicle functions. For example, if the driver looks over his/her shoulder towards the rear window, Interior Assist automatically opens the sunblind. If the driver is looking for something on the front passenger seat in the dark, it automatically switches the light on. Merely looking at one of the outside mirrors is enough to allow adjustment, without

having to select it first. Natural hand movements are also recognised, and the driver or passengers can open the sliding sunroof touch-free. Preferred functions can be accessed with the help of the favourites gesture (hand with the index and middle finger spread in a V-shape). The driver and passengers can link personal favourites with the system. As well as enhancing operating convenience, MBUX Interior Assist improves safety. It checks whether a child seat on the front passenger seat is correctly attached, for example. **OLED technology:** The abbreviation stands for Organic Light Emitting Diode. In contrast to LCD technology, an OLED display consists of several organic layers applied to a plastic substrate. In the S-Class the OLED display is located behind a glass facing, and in combination with the actuators and pressure sensors behind it, it provides a comprehensive control and display

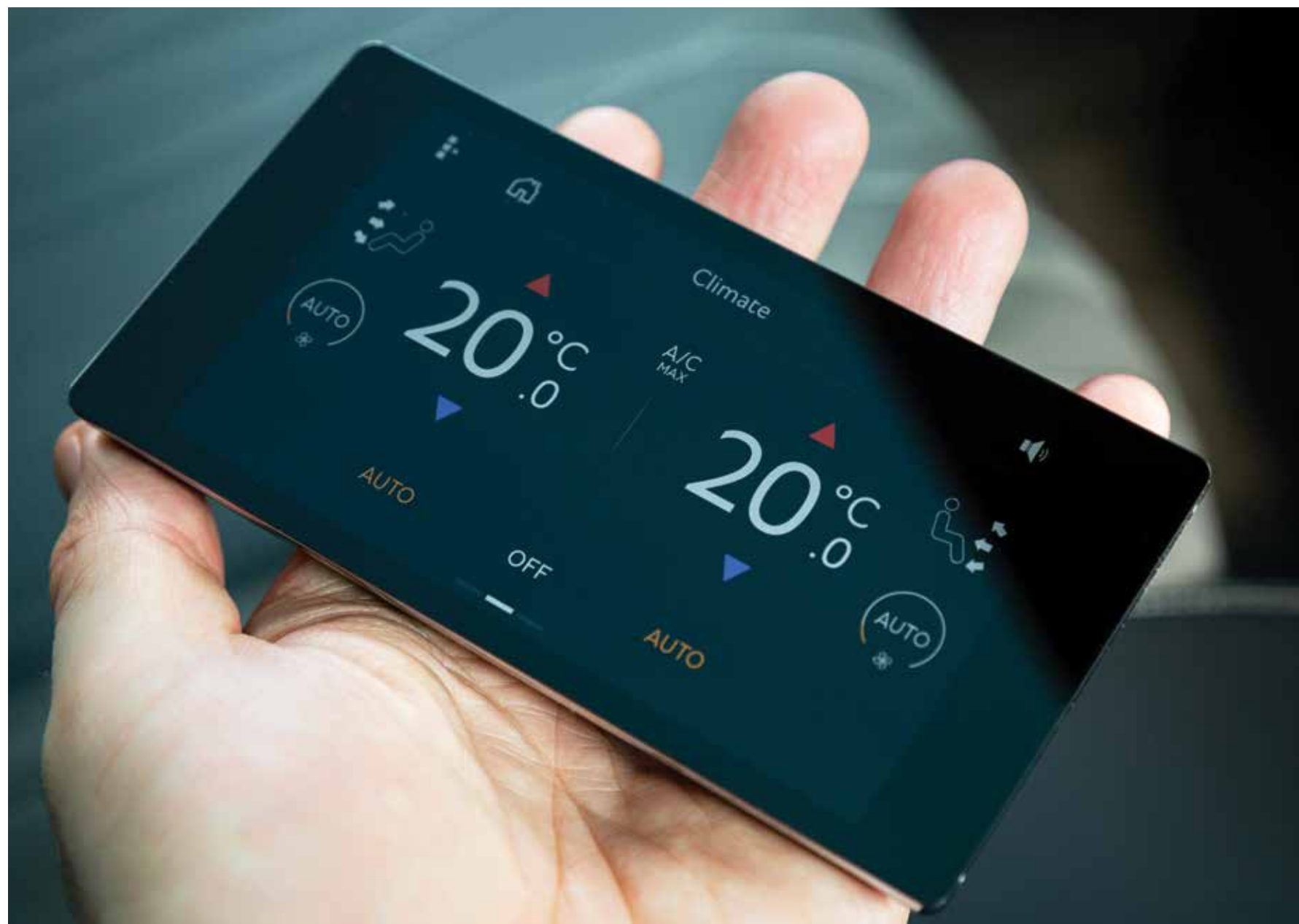
experience. Evaluation of the pressure exerted and haptic confirmation of touch commands makes extended functionalities possible. OLED panels emit light when subjected to an electric current, and unlike an LCD they do not require external background lighting. Power is only consumed where pixels light up. Among other benefits, this ensures a better black level and even stronger contrasts. When showing typical video sequences, OLED technology has an up to 30 percent lower energy consumption than LCD technology. **Voice assistant “Hey Mercedes”:** Conventional voice control systems in cars call for certain fixed commands from their users. Because it understands natural language, “Hey Mercedes” listens to almost every word and understands practically any sentence relating to infotainment sector and vehicle operation in 27 languages. Indirect speech is also recognised, for

instance if the user says “I am cold” instead of the clear command “Temperature in footwell 24 degrees” in order to operate the climate control for the footwell. The voice control is also capable of learning. On the one hand it tunes into the user and their voice and also understands non-native speakers better; on the other hand the software models on the server learn new buzzwords or changing use of language with time. The system also no longer answers stereotypically, but varies in the dialogue output too. The fundamental way the language assistant operates: the voice input is freed from background noises, compressed and transmitted. Both the head unit in the vehicle and the server evaluate the data and send a reply. The system decides which reply is the most likely, then within a few seconds the reply/reaction follows. This means that the voice assistant also answers if there is no connectivity.



# THE NEW FLYING SPUR IN DETAIL

## TOUCH SCREEN REMOTE BRINGS LUXURY TO YOUR FINGERTIPS



The new Flying Spur's multi-functional Touch Screen Remote affords rear seat occupants unprecedented control over the car's extensive range of luxury features, redefining precision control over passenger comfort. Encapsulating the remarkable attention to detail and use of latest generation technology that defines the user experience of the Flying Spur's handcrafted cabin, the Touch Screen Remote (TSR) is as intuitive as it is beautiful, finished in polished metal embellished with diamond knurling.

At the touch of a button, the Remote deploys itself

from atop the rear centre console, held in place by integrated magnets, ready to be utilised by the rear seat passengers.

The handheld Remote is a powerful computing device in its own right, with performance driven by a four-core processor and 1GB of onboard RAM. A pin-sharp 1280 x 720 pixel display forms the interface, and an integrated array of cutting-edge sensors including a three-axis accelerometer and a proximity sensor combine with haptic feedback to make the TSR easy and intuitive to use. A 3200mAh Lithium-Polymer battery

guarantees continual operation for even the longest journeys without regular requirement for recharging. From the class-leading comfort of their seat, passengers are able to configure their 14-way adjustable backrest and cushion, control six-setting seat heating and ventilation, five massage functions and armrest heating from a single screen, ensuring an exceptional level of personalised comfort.

The TSR grants passengers full control of air conditioning functions individually for both sides of the rear passenger compartment, including fan speed, temper-

ature, air distribution and ionisers to enhance cabin air purity and passenger wellbeing.

Cabin lighting can be controlled either by day or by night. The TSR controls the Flying Spur's glass-to-glass panoramic sunroof and windows to allow natural light to flood into the environment if passengers so wish. Alternatively, for a more subdued setting and for greater privacy, the Panoramic Sunshade and Rear Window Blinds are just a touch away. With optional Mood

Lighting, rear seat occupants can tailor the ambient colour and intensity to their personal choice, whilst storing preferred setting as favourites.

The 2,200W and 18 speakers of the optional Naim for Bentley audio system are also at the fingertip control of the rear occupants via the TSR, alongside the Flying Spur's full multimedia arsenal, all of which is conveyed to the user by a contemporary and intuitive graphical interface. Rear seat passengers can access a variety

of driver information via the TSR, traditionally only accessible to those in the driver's seat. Current speed, journey information, outside temperature alongside a complete navigation interface allows the passenger to stay connected with their journey in the palm of their hand. As a final feature, the Flying Spur's Flying B mascot that adorns the bonnet can be retracted or deployed via the Touch Screen Remote, allowing the user to modify the front face of their car on demand.



# From the app to the digital ecosystem

## the new generation of Mercedes me Apps launches



Mercedes-Benz is presenting the new generation of Mercedes me Apps and its own, standardised developer platform. This sees the Mercedes me App, unveiled in 2015, which links the vehicle with the smartphone turn into a digital ecosystem. On this joint basis, new services can be developed flexibly and individually in future. The offer initially encompasses two apps: Mercedes me and Mercedes me Service. The two apps are available to download with immediate effect in the App Store and the Google Play Store and will be available in the United Arab Emirates and over 40 Mercedes me markets worldwide by the end of the year. They were developed in close, international cooperation with partners and customers. The perspective of the users was decisive during development: the new Mercedes-Benz Apps combine improved base

functionalities with an even more attractive customer experience. They facilitate, for example, shorter update cycles. Operation is even easier and more intuitive at the same time. Britta Seeger, Member of the Board of Management of Daimler AG and Mercedes-Benz AG, responsible for Sales: "The new generation of Mercedes me Apps makes it even easier for our customers to contact Mercedes-Benz around the clock. They can book a service appointment at their preferred dealership or send their next travel destination directly to their car by app, for example. We are always focussed on making life easier for our customers. We are continually broadening our range of digital services to this end. The new Mercedes me App generation provides even simpler and intuitive access to our products and new services,

such as a function for conveniently opening or closing windows or the panoramic roof by app."

### Intelligently networked: the new Mercedes me Apps

All Mercedes me Apps will be closely linked with one another in future. This means that only a single log-in using the Mercedes me ID is now necessary, enabling users to switch intuitively and quickly between the apps. Specific functions are allocated to every single app. They are adapted to customer requirements visually and in terms of content. The Mercedes me App links the smartphone with the owner's vehicle. This enables key status information – such as mileage, range or tyre pressure – to be displayed very conveniently. Digital command functions on the app additionally allow remote engine starting to

pre-condition the vehicle, operate the soft top or the side windows, and a brand new feature serves to flash up the headlamps so that the vehicle can be located in a dark car park, for example.

The Mercedes me Service App provides a reminder in good time of service appointments such as service or maintenance work. It displays active warning lamps and recommends appropriate measures, such as checking the tyre pressure at the next filling station. The app allows appointments with the workshop to be booked directly via smartphone. The app also offers practical how-to videos with interesting information on ideal use of the vehicle.

The new generation of Mercedes me Apps was developed in an international internal Daimler community, above all together with the USA and China and trialled in close cooperation with customers. Following initial internal tests, at the beginning of 2020 Mercedes-Benz first began a pilot project in France, Spain and the UK and as of the beginning of July in the United Arab Emirates. The new apps are now available in the Apple and Google App Stores in 35 markets, which now also include Germany; additional Mercedes-Benz markets, incl. China and the USA are to be phased in in due

course. In the UAE, the remote engine start function has become popular with Mercedes-Benz owners, allowing them to pre-condition and cool the interior of their vehicle before getting inside.

### A common basis: the Mercedes-Benz Mobile SDK

The actual ground-breaking innovation runs in the background with the new Mercedes me Apps, as these are based for the first time on a common, standardised development platform. In 2019 Mercedes-Benz was the first vehicle manufacturer to grant software developers from all over the world access to the Software Development Kit (for short: SDK). The SDK functions as a type of programming construction kit: it makes available interfaces to the vehicle on which the new apps can build. As part of this the security of the data is guaranteed at every point in time. Here Mercedes-Benz has clear guidelines on which data are made available to programmers. The fundamental principle is this: all Mercedes-Benz vehicles have extensive safety and anti-theft systems. Secure access to systems, data security, data privacy and anti-theft protection are key elements of our research and development activities.

### Best Customer Experience 4.0: customer requirements in the digital age

The Mercedes me Apps are a key component of the sales initiative "Best Customer Experience 4.0" in the Mercedes-Benz Cars business division. "Best Customer Experience 4.0" is the brand's way of focusing its sales on the changing requirements of customers in the digital age. The aim is to offer customers a seamless and convenient experience whenever they want to contact Mercedes-Benz – irrespective of the time and place or the channel they are using. That is why Mercedes-Benz is seamlessly blending physical retail with the digital channels and is redesigning it with innovative store and location concepts. At the same time the company is expecting to achieve a quarter of the global passenger car sales via online channels by the year 2025 together with its sales partners. The foundation stone for further sales development according to current customer requirements was laid back in 2013 with "Best Customer Experience", in order to make it even easier for new and existing customers to access the products and services of Mercedes-Benz.





# Roger Dubuis

## Hitting the (very fast) track



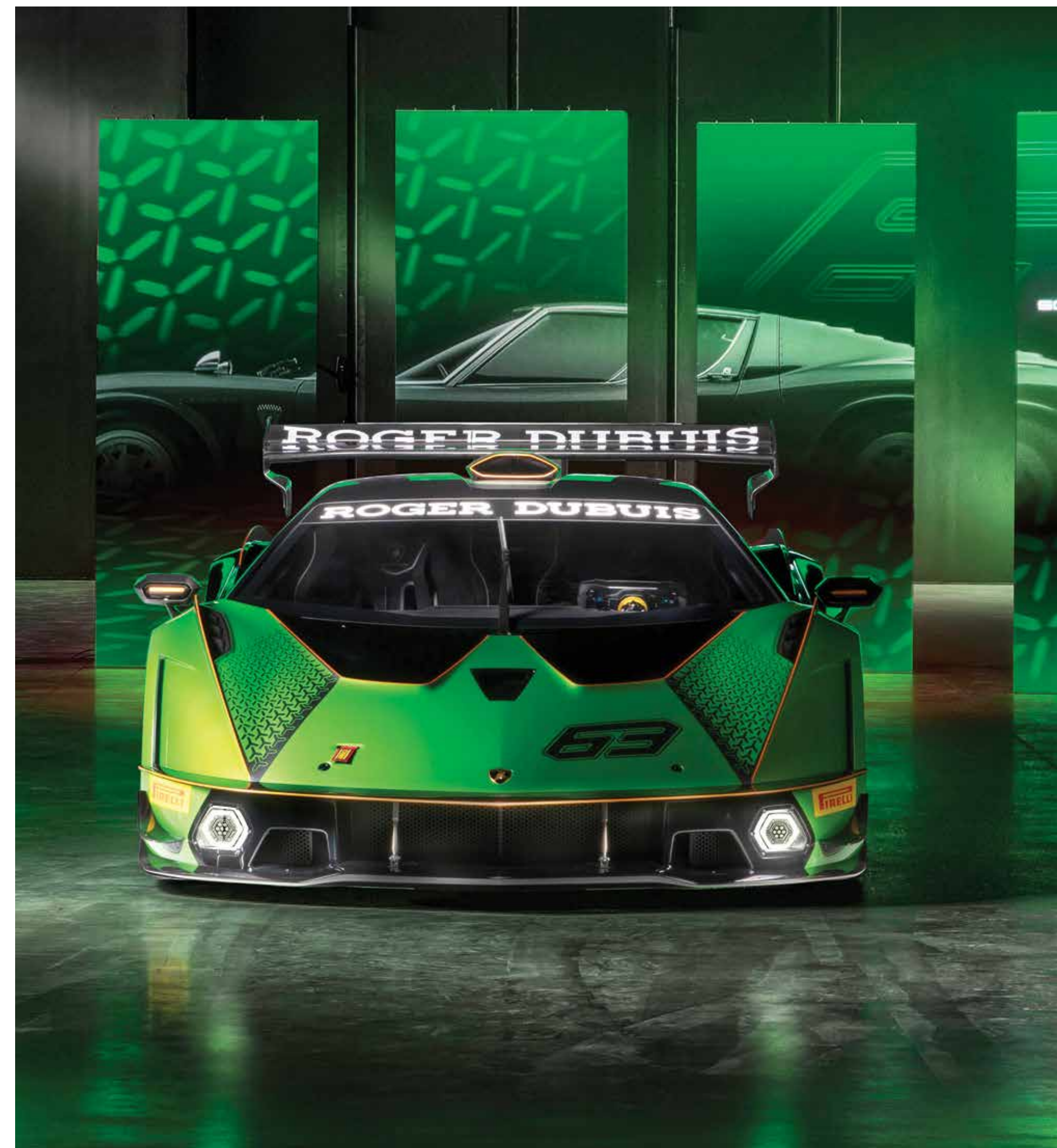
Excess is the norm at Roger Dubuis, firmly focused on a vision of the world that is based on a philosophy of living larger than life. Stirred although in no way submissive to the past, the brand that dares to be different nonetheless maintains a resolute eye on the future. In addition to these drivers, thanks to the support of an integrated Manufacture from its very beginnings, Roger Dubuis' unparalleled technical expertise is seamlessly blended with its unleashed creativity. Thus inspired by visionary engineers, and crafted by incredible watchmakers, the timepieces resulting from this sometimes diabolical duality are unquestionable proof that Roger

Dubuis is without a doubt the most exciting way to experience Hyper Horology.

### Why break the rules when you can reinvent the game?

Roger Dubuis also draws on cutting-edge industries that share the same values. In recent years, this has given birth to an iconic alliance with Italian legend Lamborghini Squadra Corse. Channelling unreasonable sensations and exceptional power, the Excalibur Aventador S was the first horological expression of this high-speed partnership to hit the track and the Manufacture is gearing up to introduce a new black-

and-red version. Living up to the "Powered by Raging Mechanics" signature, and fuelled by a shared flair for technological complexity, the Excalibur Aventador S is impelled by an 'engine' in the shape of the specially developed Duotor calibre. Duly protected by five patents, the Lamborghini-exclusive Roger Dubuis movement embodies an ongoing evolution of the Maison's expertise, entirely reinterpreted in light of this automobile alliance. The Excalibur Aventador S features a range of easily identifiable design elements drawn directly from its motorised alter ego, complete with two sprung balances inclined at 45 degrees, strut bars, a power reserve





with racing codes and an Alcantara strap.  
**Hypercar meets hyperwatch**

On July 29th, Lamborghini Squadra Corse and Roger Dubuis will showcase their resolutely future-driven approach by simultaneously unveiling an amazing hypercar and the hyperwatch inspired by their adrenaline-fuelled partnership. Lamborghini's freshly evolved SCV12 is the first limited-edition V12 engine-based hypercar for track only, specially boosted for Super Trofeo races and the most powerful ever made by Lamborghini. It has the capacity to exceed 830 hp thanks to aerodynamic supercharging at high speed, along with higher downforce levels than a GT3 car and unprecedented aerodynamic efficiency. In creating the

new Excalibur Essenza SCV12, Roger Dubuis has likewise evolved its Duotor, stripping it down to essentials to enhance performance, while harmonising the design codes shared by the timepiece and the fearsome speed machine. Freed from its upper bridge and reworked in skeleton flying mode shaped like the wheel-rim of the Lamborghini Essenza SCV12, the barrel can be viewed from the top as if one were peering through a transparent supercar hood. The strut bars on the top of the calibre remain a signature feature of Excalibur Lamborghini-inspired models. Like Lamborghini, which is renowned for customised supercars based on its famous "Ad personam" programme, Roger Dubuis aficionados can enjoy the

same level of service through the exclusive "Rarities" programme offered by the Geneva-based Manufacture. The ultimate expression of individual creativity, this concept takes the term "bespoke" into a whole new dimension of hyper personalisation. It will enable each lucky owner to enjoy the thrill of co-creating and owning a truly one-of-a-kind version of the Excalibur Essenza SCV12.

#### Living the gearhead fantasy

Every bit as personalised as the spectacular bolide that inspired it, this peak example of hyper horology is an invitation extended by Roger Dubuis to its Hyper Tribe to experience yet another incredible auto-horological adventure staged by the Manufacture.



# EXCLUSIVE BREAKING NEWS

NEW LOTUS 2021 EVORA GT  
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