

Chapter 50.

The Second Revolution: A Neue Klasse for the 21st Century.

by Jackie Jouret

Since January, each installment of this series has looked at pivotal moments in BMW's past. With this final chapter, we look toward BMW's future.

When BMW board chairman Oliver Zipse unveiled the all-new iX3 on September 5, 2025, his words carried the significance of the moment. "When else do you get to re-imagine a brand like BMW from the ground up? The chance to create an entirely new generation of vehicles? The chance to break completely new ground?"

Speaking at the Munich auto show, Zipse was positioning the iX3 as BMW's most important vehicle of the last half-century, and indeed it is. The iX3 is the first series-production automobile of what Zipse identified in 2021 as the Neue Klasse—a series of vehicles that would lead BMW into the next decade and beyond. The Neue Klasse ("New Class") is at once the essence of what BMW has always represented as well as a quantum leap forward where technology, design, and driving dynamics are concerned.

Zipse's decision to use that term carried historical resonance. In the 1960s, the term Neue Klasse was used to signify another quantum leap for BMW, one that signaled the company's rebirth after its existential crisis of the postwar era.

Throughout the 1950s, BMW had offered automobiles at two extremes: expensive, small-volume luxury vehicles and motorcycle-engine powered microcars. Its automobiles were massively outdated, not to mention so unprofitable that the company was facing bankruptcy by the end of 1959. In 1960, after a significant investment from Herbert Quandt saved BMW from absorption into Daimler-Benz, the company embarked in earnest on the development of what would become the first Neue Klasse automobiles.

In September 1961, BMW premiered its new 1500 sedan at the Frankfurt auto show. This midsize BMW drew huge crowds eager to examine the modern four-door styling by Giovanni Michelotti, which featured double-kidney grille, round headlights, and an interesting angle in the rear window: the so-called "Hofmeister kink," named for BMW's then-head of engineering, Wilhelm Hofmeister. Consumers were further impressed by an all-new four-cylinder engine, state-of-the-art suspension, and unit-body construction.

The 1500 was an immediate success, and in 1963 it was joined by the more powerful 1800. That prompted BMW Board Member for Sales Paul Hahnemann to identify these sedans as part of an entirely "new class" of BMW. With agile handling and inspiring performance, the Neue Klasse would define BMW going forward. So would a new ad slogan, "Aus Freude am Fahren" or "For the pleasure of driving," that underscored the promise of superb dynamics.

The Neue Klasse created a template that brought BMW to profitability, and which would serve the company for more than half a century. Today, BMW is stronger than ever, which prompts the questions of whether it really needs another reinvention. And if it does, why now?

Those who've been following BMW in the 21st century will note that the company attempted a similar reinvention more than a decade ago, when it launched Project i. That initiative became public in 2009, when it premiered the Vision Efficient Dynamics concept at the Frankfurt auto show, followed by the "Born Electric" i3 and i8 that went into production in 2013 and 2014, respectively. These carbon-chassis cars were ahead of their time, not to mention prohibitively expensive to build and short on the battery-electric range that customers demanded.

Since those cars launched, however, battery-electric mobility improved dramatically in nearly every respect. BMW began offering hybrid and battery-electric powertrains in its standard models, and it also experimented with new vehicle concepts for its 2016 centennial.

When business slowed in 2020 due to the COVID pandemic, they were able to take advantage of what Zipse called "a unique opportunity to completely rethink the car. We saw the chance for a massive leap in development across all relevant technologies—from battery technology to digital user experience to computing power. It was a time for pioneers. In other words: the perfect BMW moment."

Just one year later, at the Munich auto show in September 2021, BMW unveiled the first of five Vision vehicles that would preview various technologies underpinning the Neue Klasse concept. The compact i Vision Circular demonstrated the Neue Klasse's emphasis on sustainability and "circularity," using materials that were both recycled and recyclable, and which minimized waste thanks to novel design and production processes. The i Vision Circular also incorporated an entirely new information display concept, which projected information across the base of the windscreen for its entire width.

The following January, Zipse demonstrated the i Vision DEE (for Digital Emotional Experience) at the 2023 Consumer Electronics Show in Las Vegas. A stylish sedan inspired by Marcello Gandini's 1970 Garmisch concept, DEE introduced a user interface that turned the automobile into a personal assistant/companion, one fully integrated with one's digital existence.

DEE's design language was further refined in the Vision Neue Klasse, which premiered at the 2023 Munich auto show in September. This time, BMW previewed not only an attractive exterior with classic sports sedan proportions but a thoroughly reimaged interior. Minimalist, elegant, and nearly free of buttons and knobs, the cockpit featured a large, driver-focused central touchscreen used to engage most functions. A tall greenhouse filled the cabin with light, while the underfloor battery compartment and absence of a transmission tunnel made the interior exceptionally spacious.

Those themes were carried forward into the Vision Neue Klasse X, an SAV introduced at the Petersen Automotive Museum in Los Angeles in May 2024. The Neue Klasse X distilled BMW SAV design language to its essence, and it received high praise from those who saw it.

Finally, BMW executed the coup de grâce, putting journalists in the passenger seats of a high-performance sedan called the Vision Driving Experience (VDX) built to demonstrate an unprecedented level of in-car computing power. The VDX demonstrated the capabilities of its four control computers ("Superbrains") developed entirely in-house by BMW, including one dubbed the "Heart of Joy" that controls driving dynamics. The Heart of Joy integrates motor functions with those of the chassis on an entirely new level, and it's perhaps the most revolutionary aspect of the entire Neue Klasse project.

Today, the elements previewed in that series of five concepts have been incorporated into the iX3, the first Neue Klasse vehicle to reach series production. Introduced at the Munich auto show on September 5, 2025, the iX3 realizes what Zipse called "a massive leap that will shape the entire brand for years to come."

Like the 1500 that premiered in 1961, and unlike its i3 and i8 predecessors, the iX3 is a mainstream vehicle, one that will be accessibly priced and produced in significant numbers. "We made a conscious decision to start out in the high-volume segments, because the Neue Klasse was never designed for a niche," Zipse said. "We want all our customers to benefit from the innovations as quickly as possible."

Those innovations begin with a new design language that incorporates sleek surfaces, pure forms, and unprecedented aerodynamic efficiency. Though it's an all-new design, the iX3's exterior nonetheless references classic BMW design hallmarks: including the original Neue Klasse's small kidney grille and Hofmeister kink. It also pays homage to the four-eyed "face" and L-shaped taillights of subsequent BMWs, here with distinctive LED illumination.

The iX3's interior, too, has been pared to its essence. That minimalism was made possible by the revolutionary Panoramic iDrive user interface designed by the team led by Stefan Durach, the former head of the BMW Technology Office in California.

In explaining the concept, Durach noted that BMW has been integrating its automobiles with our device-focused lives for years. The iX3 does so in a new way,

and with a different goal.

"Cars are getting better access to your personal ecosystem than they had in the past, and you see a trend of putting a lot of screens in the car," Durach said. "But our perspective is that your car is your last private space, and it's more than just sitting in front of a big television. At the same time, you want to have access to your digital life, and you still have a driving task. So our philosophy is more like 'hands on the wheel, eyes on the road,' so that you don't have too much distraction. With the Panoramic Vision, we cleaned up the interior of the car, and the information is right in your line of sight, at the right point in time and at the right location. We have control elements on the steering wheel, and we have a pretty capable voice interface as the dominant interaction, as well as more touch control. It's our iDrive system taken to the next step, with completely new possibilities."

The Panoramic iDrive system consists of four elements: the Panoramic Vision across the lower edge of the windshield, the central display, a multi-function steering wheel, and the optional 3D head-up display. The system was designed to be supportive and informative rather than flashy and distracting, and its development was guided by individual customer feedback, data from over 10 million connected vehicles, and usability studies with more than 3,000 customers. "We put a lot of effort into consumer testing, but the truth is when the customer is driving the car," Durach said.

In addition to an all-new design language and user interface, the Neue Klasse's NCAR architecture has been engineered specifically for the new Gen6 battery-electric powertrains.

The sixth-generation electrical architecture consists of highly efficient motors, new high-voltage batteries with compact cylindrical cells, and 800-volt technology. Together, they allow 30 percent faster charging speeds, 30 percent more range, and 40 percent greater overall efficiency than BMW's fifth-generation battery-electric vehicles. In real-world use, the iX3 is expected to have an EPA-rated range of up to 400 miles on a single charge, and drivers will be able to add about 175 miles of range in just 10 minutes at a 400-volt DC charging station.

The iX3 sends power to all four wheels via two electric motors: an electrically excited synchronous motor at the rear, and a compact asynchronous motor at the front. The use of two different electric motor designs is novel, and it reinforces BMW's commitment to technology openness even within the realm of purely electric mobility.

All of that represents a significant advance from BMW's previous electric vehicles, but the real breakthrough lies in the Neue Klasse's electronic control systems. Rather than dozens of control modules and highly complex network of connections, as would be typical, the Neue Klasse utilizes just four control computers. Each module controls a specific aspect of the vehicle: driving dynamics, automated driving, infotainment, or basic control and comfort functions such as locks and lighting. This groundbreaking design eliminates nearly 2,000 feet of wiring, reduces weight by 30 percent over previous systems, and reduces reaction times (latency) within each area of operation.

Reducing latency is critical when it comes to driving dynamics, which fall under the responsibility of the computer known as the Heart of Joy. The Heart of Joy controls all aspects of driving dynamics—motors, power distribution, steering, suspension, ABS, DSC, regenerative braking, etc.—and it does so up to 10 times faster than conventional digital motor electronics and with an unprecedented degree of precision and control. In short, it allows the Neue Klasse automobiles to realize an electric powertrain's benefits—instantaneous power delivery, smooth power transfer, agility, stability, and efficiency—to a greater degree than ever.

Oliver Zipse agreed. "Whether you're pushing the limits or driving in everyday situations, this is Sheer Driving Pleasure taken to a whole new level," he said.

The Heart of Joy is augmented by BMW's highly evolved Advanced Driver Assistance Systems (ADAS). The ADAS is controlled by its own water-cooled, high-performance computer with 20 times the processing power of conventional units. It's more than just fast: Since no driver assistance system can function if it's so intrusive that the driver simply disables it, the new ADAS has been designed as a true complement to the human behind the wheel rather than an authoritarian who'll intervene based on incomplete information. In that, it adheres to the philosophy of "smart, symbiotic, and safe."

Take, for example, the optional Highway Assistant, which allows attentive hands-free driving at up to 85 mph. When active, it allows the iX3 to steer around obstacles in the road if traffic conditions make it safe to do so. It can also suggest a lane change to pass slower traffic, which the driver can confirm simply by glancing at the appropriate rear view mirror. If the driver forgets to activate the turn signal before manually executing a lane change, the system will do so automatically. And unlike conventional cruise control, it won't automatically deactivate if the driver taps the brake pedal or turns the steering wheel.

It's all very forward-thinking, but production of the iX3 50 xDrive is already underway at a brand-new plant in Debrecen, Hungary. European customers will take their first deliveries in spring 2026, while US customers will have to wait until summer. The first iX3 model to arrive will be the 2027 iX3 50 xDrive, which will be offered for around \$60,000.

The iX3 will be followed by a sports sedan, the i3 that will premiere in later in 2026 and arrive in the US in 2027. The i3 will provide the basis for the first fully electric M3, which will demonstrate the Heart of Joy's full capabilities as tuned by the engineers at BMW M. In light of the preview offered by the VDX, we can expect the electric M3 to be breathtaking.

The design, innovations, and lessons learned in the development of these Neue Klasse (NCAR) vehicles will soon spread to the entire BMW product lineup. The iX3 and i3 are only the first of some 40 new or significantly updated models—battery electric vehicles, plug-in hybrids, and internal combustion vehicles—that will launch by the end of 2027. In this sense, the Neue Klasse isn't merely a new vehicle or even a stand-alone architecture but a fundamentally new way of engineering an automobile.

The original Neue Klasse ensured BMW's survival in the 1960s, and its underlying concept served BMW well for more than 50 years. The next Neue Klasse is being launched by a company in a much stronger position, but it too has a crucial role to play in ensuring BMW's survival through a rapidly changing automotive environment. From

all indications, including the first reports by journalists who tested the car on the road and on the track in Spain, it should do so every bit as effectively as the original.

"Celebrating fifty years in the U.S. in the same year that we unveil the Neue Klasse is a true privilege," said BMW of North America CEO Sebastian Mackensen. "It's a perfect opportunity to connect our legacy with the innovation that defines our future. The iX3 isn't just any new BMW; it truly is the Next Ultimate Driving Machine. Together, these milestones honor where we've come from and define the bold new era we're shaping next."

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