GEAR & GADGETS

BMW

PLUG AND PLAY Manufacture of the i4 M50 luxury sedan allows the EV to be built on the same body as gas-burning and hybrid models.

DAN NEIL / RUMBLE SEAT

BMW's i4 M50 Exemplifies a New Electrification Strategy

IN SEPTEMBER I traveled to Munich to drive two vehicles that are hugely consequential for BMW: the iX, a battery-electric midsize luxury SUV; and our guest this week, the i4 M50 sedan, an electric—but otherwise nearly indistinguishable—iteration of the well-groomed 4 Series Gran Coupe.

After a couple hundred kilometers soaring across Bavarian fairyland, here's my capsule review: glorious. Not only that. Sweet, swift, swank, swell, fast as hell, hushed as a chapel, cool as marble, minty fresh. With its front and rear e-motors providing a digitally mastered 536 hp to the wheels, the i4 M50 accelerates like Derby Lane's electric rabbit—0-60 mph in 3.7 seconds. But even at Autobahn speeds, just ask; the upwelling torque (max 586 lb-ft) will mush you lovingly into the seat.

It's too bad earlier generations of car reviewers have squandered the phrase "corners like it's on rails," because the i4 M50 really does, thanks to its sport-sedan stance and low center of gravity, to which the 81.5 kWh battery pack under your bum contributes most. All BMW's trick suspension kinematics—including rear-air suspension and logic-controlled dampers—are made better, more supple in action, by the car's low-slung C-of-G. You can just feel it. This is a better BMW.

Along the way I realized I was not getting the message BMW executives were intending. Uh-oh. That could make dinner awkward.

Built at Plant Munich in the heart of the city, on a new, propulsion-agnostic architecture, the i4 M50—the first all-electric with the M performance badge—exemplifies the brand's electrification strategy. Call it foliating the portfolio. The cars built here will be available with a variety of powertrain configurations, including legacy petrol, gas-electric hybrid, plug-in hybrid (PHEV), and battery-electric (BEV). The new layout retains the option of rear- or all-wheel drive and will accommodate an array of power and performance upgrades, all without significant rejiggering on the assembly line.

From 2026 onward, Plant Munich will be able to produce up to 100% BEVs. The mix "will be determined entirely by demand," said Chairman Oliver Zipse in his Q3 2021 statement. "That is how systematic transformation [to electrification] works."

Setting aside the plucky optimism of "entirely"—China, the EU and California's clean-air standards and incentives might have forcing effects—Mr. Zipse's ideal seems reasonable enough. Rather than develop a separate stream of BEV models with dedicated manufacturing, management will integrate battery-electric variants into emerging product lines.

Accordingly, cars like our i4 M50 will be extruded from the same sausage machine at Plant Munich with the other 3 and 4 Series cars. There the majority-steel unit-bodies will be mated with their assigned power units, stuffed with batteries, wired up, upholstered, and sent down the line with as much commonality among parts and processes as can be arranged. All very systematic.

Since the logic seems self-evident, you may wonder why other car makers haven't taken a similar course? Why isn't there such a thing as an all-electric VW Jetta? Or a Honda Civic EV?

I'm not a vehicle engineer, but I play one on TV. Historically, the trade-off has been weight. A vehicle structure that has been designed to accommodate both EV and IC powertrains—batteries and motors, engines and gas tanks—is optimized for neither. The cost of commonality is paid in added mass and, therefore, reduced efficiency.

Consider the Tesla Model 3, which happened to be the bestselling car in Europe in September. The Model 3 Performance has roughly the same dimensions as the BMW. Both cars have dual-motor arrays, big batteries and big inverters. The BMW even has more horsepower. However, because the Tesla weighs about one baby elephant less (953 pounds) than the BMW (5,018 pounds), it is quicker (3.1 seconds to 60 mph), faster (130 mph vs. 162 mph) and delivers more range with a similar size battery pack (74 kWh).

In the i4 M50, when the stage lights go down, you can hear a pin drop.

Other trade offs include interior space. BMW engineers have hidden the batteries and power electronics pretty well in the unit-body formerly known as Gran Coupe; the rear footwell floor is a bit higher.

And yet, despite the limitations bequeathed to it by its manufacturing, the i4 M50 is one fabulous automobile, effortlessly and holistically superior to its gas-powered equivalent. I'd walk over the broken remains of an M3 Competition to get to an i4 M50.

And if the i4 program sacrifices some rarefied measure of overall efficiency in the name of get-'er done expediency, what of it? Especially when the results are so satisfying.

Barreling along in this silenced bullet, I thought about the millions of dollars wasted every year on audiophile upsells in IC-powered cars. Burmester, Harman Kardon, Bose. You might as well chuck that money out the window. No matter what Mariah album you listen to, Her Ladyship has to compete with the engine's drumming, roaring and droning, pitching up and down. In the i4 M50, when the stage lights go down, you can hear a pin drop.

One more aspect of Munich's strategy yet to be field-tested: the next-generation exterior design. Going forward, BMW's EVs and ICs will share the same wireframe fractalism and fantastical grilles. For detractors of new styling, it means all BMWs are going to be ugly, not just the electric ones. That might be a tad harsh.

Here's where I get off script. Management offers this car as proof of its orderly, market-driven transition to electrification through the end of the decade. But because the product is so much more compelling than the gas version, it raises the question: Why build them any other way? Who is being served by such gradualism, the shareholder or the customer?

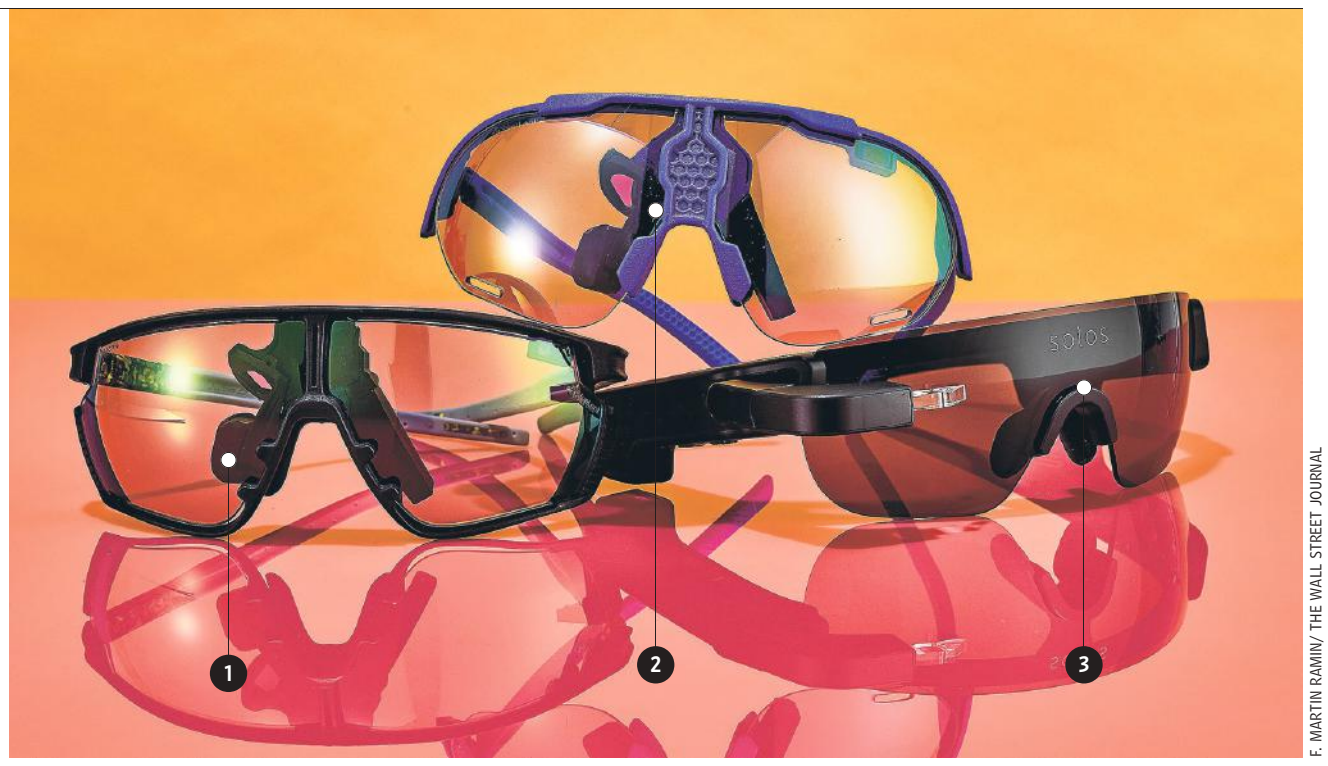
Maybe I'll just eat dinner in my room.

2022 BMW i4 M50

Base price $65,900
Price, as tested $72,000 (est.)
Powertrain Battery-electric, with front and rear AC synchronous motors (255/308 hp, f/r); single-speed fixed ratio transmission; 81.5-kWh capacity battery pack (398 V); permanent all-wheel drive
Length/width/height/wheelbase 188.5/81.6/57.0/112.4 inches
Curb weight 5,018 pounds
Power/torque 536 hp/586 lb-ft
0-60 mph 3.7 seconds
Maximum range 270 miles (with 19-inch wheels)
Charging time 0-100% 8.25 hrs (11 kW)/10-80% 31 min (200 kW DC fast charge)
Trunk volume 16.6 cubic feet

View to a Killer Workout

The pros and cons of futuristic fitness glasses that project stats into your sight line



F. MARTIN RAMIN/ THE WALL STREET JOURNAL

IF YOU'VE EVER struggled to glance at a running watch covered by layers of winter activewear or skipped peeking down at your bike's computer to navigate a busy road, you know how hard it can be to take advantage of your body's catalog of metrics during exercise. A new class of workout glasses may help streamline the process by tracking stats—such as speed, distance, elevation and power output—and flashing them before your eyes.

By using what's essentially a built-in mini movie projector to beam data into your field of vision, these glasses can promote efficiency and safety. Every time you flick your wrist to peek at your fitness watch, "you're breaking down your form and disrupting your biomechanics," said Shannon Baird, an ultramarathoner and board member for the Association for Applied Sport Psychology. Here, three models for different needs.

1. For Those Navigating Changing Conditions

The lenses on the **Julbo Evad-1 Smart Sunglasses** get darker or lighter depending on conditions, helping you adapt to changes in lighting whether you're on the road, trail or even in the snow. With their wrap-around shape and lightweight frames, they are akin to traditional sports glasses. For the best fit, choose between two bridge sizes, then bend the arms at the temples and ends until they grip your face snugly. Even so, you may still need to shift your gaze upward and to the center to lock in on your metrics—not ideal for maintaining your stability while in motion. *$565, julbo.com*

2. For Long-Distance Riders & Runners

Engo Eyewear's new smart sunglasses can hold a 17-hour charge—enough to keep even an ultramarathoner informed. The frames' bug-eyed lenses also adjust to weather conditions and hide a projector at the bridge, which casts your metrics into your field of view. Just wave your hand in front of the frames to change which data set you view. Adjustable arms make them one-size-fits-all—if you can get them situated properly, that is. (When the display is off-kilter, you might go cross-eyed trying to pull the stats into focus.) Use the ActiveLook app to track workouts on your phone and sync to external sensors, or connect the frames to your Garmin watch or bike computer. *$397, engoeyewear.com*

3. For Data-Obsessed Cyclists

An adjustable arm in front of the lens of the **Solos Smart Glasses**, designed for bikers, easily projects stats right into your sight line. Buttons on the arm let you easily click through 16 different metrics, from heart rate to cadence. Built-in speakers, meanwhile, pipe performance updates into your ear. The Solos won't pair to your smartwatch however, which means you'll have to bring your phone along for the ride. Other caveats: With a battery life of just five hours, they're best for short rides, and you can't fold them so it's tough to store them anywhere but on your face. *$499, simplifaster.com*

—Ashley Mateo