



# Mercedes-Benz and NVIDIA to Build Software-Defined Computing Architecture for Automated Driving Across Future Fleet

## Auto and Computer Industry Leaders Intend to Join Forces and Enable Next-Generation Fleet with Software Upgradeability, AI and Autonomous Capabilities

Mercedes-Benz, one of the largest manufacturers of premium passenger cars, and NVIDIA, the global leader in accelerated computing, plan to enter into a cooperation to create a revolutionary in-vehicle computing system and AI computing infrastructure. Starting in 2024, this will be rolled out across the fleet of next-generation Mercedes-Benz vehicles, enabling them with upgradable automated driving functions.

Working together, the companies plan to develop the most sophisticated and advanced computing architecture ever deployed in an automobile.

The new software-defined architecture will be built on the [NVIDIA DRIVE™ platform](#) and will be standard in Mercedes-Benz's next-generation fleet, enabling state-of-the-art automated driving functionalities. A primary feature will be the ability to automate driving of regular routes from address to address. In addition, there will be numerous future safety and convenience applications. Customers will be able to purchase and add capabilities, software applications and subscription services through over-the-air software updates during the life of the car.

Jensen Huang, founder and CEO of NVIDIA, said: "We are excited to work with Mercedes-Benz. It's the perfect partner for us given its long record of innovation and our strong technical relationship. It's clear from our extensive discussions with Ola and his team that we share a common vision of the automobile of the future. Together, we're going to revolutionize the car ownership experience, making the vehicle software programmable and continuously upgradeable via over-the-air updates. Every future Mercedes-Benz with the NVIDIA DRIVE system will come with a team of expert AI and software engineers continuously developing, refining and enhancing the car over its lifetime."

Ola Källenius, Chairman of the Board of Management of Daimler AG and Head of Mercedes-Benz AG, said: "We are delighted to be able to extend our cooperation with NVIDIA. Jensen and I know one another well and we have spent a great deal of time talking about the goals and potential of next-generation vehicle computing architecture. This new platform will become an efficient, centralized and software-defined system in our future Mercedes-Benz vehicles. NVIDIA's AI computing architecture will help us streamline our journey towards autonomous driving. These new capabilities and upgrades will be downloaded from the cloud, improving safety, increasing value and extending the joy of ownership for all Mercedes-Benz customers."

### A New Computing Architecture

Automated driving functions in future Mercedes-Benz cars will be powered by the next-generation NVIDIA DRIVE platform. The computer system-on-a-chip, called NVIDIA Orin™, is based on the recently announced [NVIDIA Ampere supercomputing architecture](#). The NVIDIA DRIVE platform includes a full system software stack designed for automated driving AI applications. NVIDIA and Mercedes-Benz will jointly develop the AI and automated vehicle applications that include SAE level 2 and 3, as well as automated parking functions (up to level 4).

The new system's state-of-the-art capabilities will be harnessed with a total focus on safety. As the technology and regulatory framework develop, it will be possible for every car to be updated over the air to enable new automated driving functions. Convenience as well as other safety features will also be available.

To develop the new models, both companies will be utilizing NVIDIA DRIVE Infrastructure solutions to enable data-driven development and deep neural network development to handle the requirements of the regions and operational domains where the cars will be available.

### About Mercedes-Benz

More information from Mercedes-Benz is available at [www.mercedes-benz.com](http://www.mercedes-benz.com). Press releases and digital services for journalists and multipliers are available on our online platform Mercedes me media at [media.mercedes-benz.com](http://media.mercedes-benz.com) and on our Daimler Global Media Site at [media.daimler.com](http://media.daimler.com). You can also learn about current Mercedes-Benz Cars & Vans topics and events on our Twitter channel @MB\_Press at [www.twitter.com/MB\\_Press](https://www.twitter.com/MB_Press).

Mercedes-Benz AG is responsible for the global business of Mercedes-Benz Cars and Mercedes-Benz Vans with over 173,000 employees worldwide. Ola Källenius is Chairman of the Board of Management of Mercedes-Benz AG. The company focuses on the development, production and sales of passenger cars, vans and services. Furthermore, with its pioneering

innovations, the company aspires to be a leader in the fields of connectivity, automated driving and alternative powertrains. The product portfolio comprises the Mercedes-Benz brand with the sub-brands Mercedes-AMG, Mercedes-Maybach and Mercedes me, as well as the smart brand and the EQ product and technology brand for electric mobility. Mercedes-Benz AG is one of the largest manufacturers of premium passenger cars. In 2019, it sold nearly 2.4 million passenger cars and more than 438,000 vans. In its two business segments, Mercedes-Benz AG is continually expanding its worldwide production network with over 40 production sites on four continents, while gearing itself to meet the requirements of electric mobility. At the same time, the company is constructing its global battery production network on three continents. Sustainable actions play a decisive role in both business segments. To the company, sustainability means creating lasting value for all stakeholders: customers, employees, investors, business partners and society as a whole. The basis for this is Daimler's sustainable business strategy. In it, the company takes responsibility for the economic, ecological and social effects of its business activities and looks at the entire value chain.

#### **About NVIDIA**

[NVIDIA](#)'s (NASDAQ: NVDA) invention of the GPU in 1999 sparked the growth of the PC gaming market, redefined modern computer graphics and revolutionized parallel computing. More recently, GPU deep learning ignited modern AI — the next era of computing — with the GPU acting as the brain of computers, robots and self-driving cars that can perceive and understand the world. More information at <http://nvidianews.nvidia.com/>.

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