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# More Efficient, Smarter, More Resilient: Volkswagen Group collaborates with AWS to help transform production for the age of AI

- Volkswagen Group advances production digitalization
- The Digital Production Platform (DPP) – Volkswagen’s “factory cloud” – enables widespread use of artificial intelligence (AI) and cutting-edge IT systems across all sites
- 43 factories worldwide already connected
- Next step: Preparing for software-defined vehicles
- Collaboration with AWS extended for another five years

Wolfsburg, 28. August 2025 – More efficient, smarter, more resilient: Volkswagen Group is gearing up its vehicle production for an AI-powered future. Volkswagen and Amazon Web Services, Inc. (AWS) are extending their collaboration on the Digital Production Platform (DPP) – Volkswagen’s “factory cloud” designed to support automotive manufacturing – for another five years. Volkswagen uses the DPP to deploy AI and cutting-edge IT systems across its global production sites. This makes production more flexible and faster, reduces IT costs, and helps bring new models to market more quickly.



Volkswagen uses the DPP to deploy AI and cutting-edge IT systems across its global production sites.

Originally launched as an industrial partner network, Volkswagen and AWS have developed the DPP into a key digital link helping connect order intake, logistics, and manufacturing – helping ensure seamless data flows throughout the entire process chain. This is a fundamental prerequisite for the widespread use of AI, a core strategic objective of the company. In addition, the DPP helps enable Volkswagen to roll out new IT systems as standardized solutions across its factories.

Across the Volkswagen Group, 43 sites in Europe, North and South America are already connected to the DPP. In total, the Volkswagen Group operates 114 production facilities worldwide.

“Our ambition is to become the global automotive tech driver. To achieve this, we are consistently digitalizing and connecting all areas of our company. Our goal is to bring products and technologies to our customers even faster. The Digital Production Platform plays a key role in this: it is the digital nervous system of our factories – and the key to a future of AI-powered production,” said Hauke Stars, Member of the Board of Management for IT at the Volkswagen Group.

**More Efficient and Cost-Effective:** Volkswagen can roll out new key IT systems for production and logistics uniformly across all factories connected to the DPP. One example, called “Guided Vehicle Completion”, is a digital solution that helps optimize the coordination of complex processes in vehicle assembly, and is already in use at 13 plants across Volkswagen, Audi, and Volkswagen Commercial Vehicles.

The high availability and scalability of AWS help enable Volkswagen to host these production-critical systems in the cloud and help reduce risk of production line stoppages. Thanks to more standardized systems across sites, the Volkswagen Group is already seeing medium-term savings in the double-digit million range. At the same time, these central standards help create a unified, cross-functional data foundation – enabling an even more consistent use of technologies like AI. For example, with ‘KI4UPS’, Volkswagen leverages AI to assist assembly line teams in software deployment for vehicles, more swiftly pinpointing potential electronic issues. This helps lead to a substantial reduction in Volkswagen’s manual workload.

The Volkswagen Group now uses more than 1,200 AI applications – far beyond the realm of production. Through innovative AWS services like Amazon SageMaker, Volkswagen trains AI models and builds industrial computer vision use cases that improve quality control systems and drive cost savings. These AI applications include sustainability efforts: at the Poznań, Poland, plant, for example, AI is used to help optimize electricity consumption. As a result, energy costs have been reduced by 12 percent, along with a decrease in CO<sub>2</sub> emissions.

**Smarter:** With its DPP, Volkswagen lays the groundwork for data-based improvements in manufacturing efficiency. This includes, for example, predictive maintenance and remote monitoring of quality assurance processes. At German sites such as Wolfsburg and Ingolstadt, AI systems perform real-time image analysis during production, helping ensure that every component is accurately fitted to match each vehicle’s configuration. This helps enable faster detection and immediate correction of potential production errors.

**More Resilient:** Thanks to the continuous availability of data throughout the entire manufacturing process, decisions can be made more quickly, allowing production to be adjusted more flexibly – especially in response to short-term disruptions in the supply chain. Cybersecurity and the digital resilience of systems also benefit from centralized standards and a unified data foundation provided by the DPP.

“Our high-performance vehicle production is a key driver of success for the Volkswagen Group and its brands,” said Christian Vollmer, Member of the Brand Board of Management of Volkswagen for Production and Logistics and Member of the Extended Group Executive Committee. “By more

closely integrating development and manufacturing through a shared, AI-capable data structure, we are creating the conditions to bring our vehicles to customers even faster."

## **Next Step: Preparing for Software-Defined Vehicles**

With the ongoing development of the DPP, Volkswagen is placing greater emphasis on software-defined vehicles (SDVs) – next-generation models where most functionalities are managed and updated through software. The DPP will play a key role in helping enable software deployment directly during the manufacturing process. This capability will be shaped by the Volkswagen Group's joint venture with Rivian Automotive, which is developing the next-generation of electronics architecture and vehicle software. Already developed AI solutions such as KI4UPS and their data models can be flexibly adapted to the future electronics architecture. This enables Volkswagen to utilize the joint venture's rapid development cycles, even within its production environment.

"Volkswagen Group is setting new standards for smart manufacturing," said Kathrin Renz, Vice President of AWS Industries. "Our five-year extended collaboration combines AWS's cloud infrastructure and purpose-built IoT and machine learning services with Volkswagen's manufacturing expertise. Together, we're fast-tracking AI solutions that will help unlock new levels of innovation throughout Volkswagen Group's manufacturing operations."

In the medium to long term, the DPP is intended to represent large parts of Volkswagen's production system. At the same time, it serves as the foundation for forward-looking developments in the industrial context and is compatible with industry-wide standards such as Catena-X.

### **Jonas Kulawik**

Corporate Communications

Spokesperson Product & Technology, Digitalization

+49 (0) 152 29452616

[jonas.alexander.kulawik@volkswagen.de](mailto:jonas.alexander.kulawik@volkswagen.de) | [www.volkswagen-group.com](http://www.volkswagen-group.com)

### **Christian Schiebold**

Corporate Communications

Spokesperson Production & Logistics

+49 (0) 152 5495 4231

[christian.schiebold@volkswagen.de](mailto:christian.schiebold@volkswagen.de) | [www.volkswagen-group.com](http://www.volkswagen-group.com)



**Media Contact AWS**

**Jonathan Hillson**

AWS Communications

[hillson@amazon.com](mailto:hillson@amazon.com)

**Note to editors:**

**Volkswagen Group at the IAA Mobility in Munich**

The Volkswagen Group is on its way to becoming the "Global Automotive Tech Driver" of the automotive industry and is already actively shaping the technological transformation of mobility today. At the IAA Mobility in Munich from 7 to 12 September, the Group and its brands will showcase numerous world premieres and a week-long showcase of innovations.

The focus will be on the Electric Urban Car Family from the Brand Group Core, innovations in battery technology and artificial intelligence, insights into the Group's design language, and forward-looking technologies for the smart mobility of tomorrow. The central promise is: Technology for people – Tech for the People.

All content related to the IAA can be found on our website [volkswagen-group.com](https://volkswagen-group.com) (including images and footage for download) and on our social media channels LinkedIn and TikTok.

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## About the Volkswagen Group:

The Volkswagen Group is one of the world's leading car makers, headquartered in Wolfsburg, Germany. It operates globally, with 115 production facilities in 17 European countries and 10 countries in the Americas, Asia and Africa. With around 680,000 employees worldwide. The Group's vehicles are sold in over 150 countries.

With a comprehensive portfolio of strong global brands, leading technologies at scale, innovative ideas to tap into future profit pools and an entrepreneurial leadership team, the Volkswagen Group is committed to shaping the future of mobility through investments in electric and autonomous driving vehicles, digitalization and sustainability. The goal: As a "Global Automotive Tech Driver", to make the best automotive technologies accessible to customers worldwide - from entry-level mobility to the luxury segment.

In 2024, the total number of vehicles delivered to customers by the Group globally was 9.0 million (2023: 9.2 million). Group sales revenue in 2024 totaled EUR 324.7 billion (2023: EUR 322.3 billion). The operating result in 2024 amounted to EUR 19.1 billion (2023: EUR 22.5 billion).

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## THE GLOBAL AUTOMOTIVE TECH DRIVER.

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