

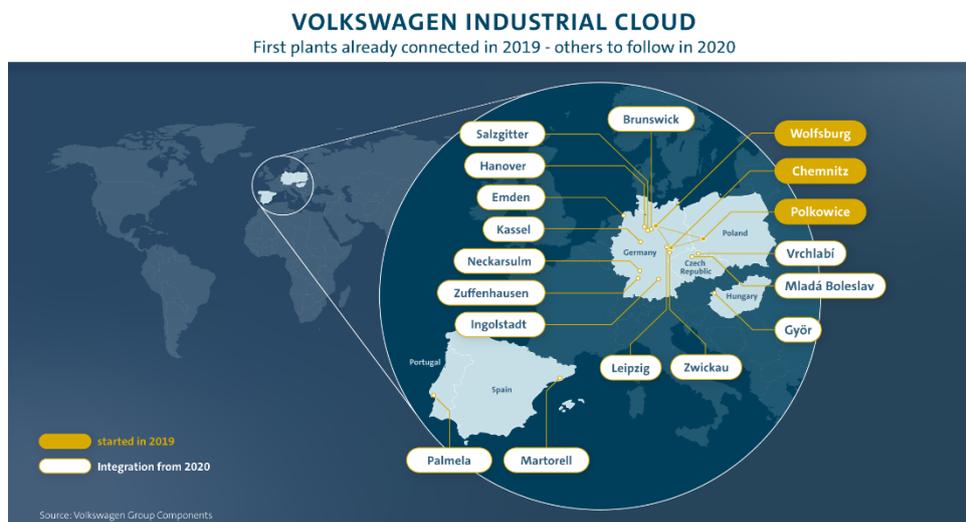
Media information

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Volkswagen steps up development of Industrial Cloud

- 18 Volkswagen Group production locations are already to be integrated in 2020
- Head of Volkswagen Group Production Gerd Walker: “The Industrial Cloud will be a key lever for improving the productivity of plants by 30 percent”
- Head of Volkswagen Group Enterprise & Platform Architecture Roy Sauer: “We are making good progress and are now forcing the pace”
- Cost savings of several billion euros expected with Industrial Cloud in final stage of development

Wolfsburg, April 29, 2020 – The Volkswagen Group is forging ahead with the integration of its plants into the Volkswagen Industrial Cloud. The aim is to further improve the efficiency of the plants and reduce production costs. The first three plants were already linked up in 2019. “In 2020, we intend to bring 15 further plants into the Cloud,” says Gerd Walker, Head of Production of the Volkswagen Group. Work on the project also continued consistently while production was suspended during the coronavirus crisis. “We are making good progress and significantly forcing the pace,” says Roy Sauer, Head of Enterprise & Platform Architecture of the Volkswagen Group. From 2016 to 2025, Volkswagen intends to boost the productivity of its plants by 30 percent and “our Industrial Cloud will be a key lever for achieving this objective,” says Walker. All in all, the Group expects cost savings totaling several billion euros when the data of all 124 plants can be evaluated in a standardized way. The Industrial Cloud is built on Amazon Web Services (AWS), and Siemens is the integration partner.



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In 2019, the Volkswagen Group initially started with the Volkswagen Passenger Cars brand's Chemnitz, Wolfsburg and Polkowice (Poland) plants, in line with its plans. "We are now forcing the pace and taking the Industrial Cloud to a large number of plants," says Walker. This year, up to 15 further plants from the Audi, Seat, Skoda, Volkswagen Passenger Cars, Volkswagen Commercial Vehicles, Porsche and Components brands are to be connected. These include the plants at Brunswick, Emden, Hanover, Ingolstadt, Kassel, Leipzig, Neckarsulm, Salzgitter, Zuffenhausen and Zwickau (all in Germany), Martorell (Spain), Palmela (Portugal), Győr (Hungary), and Mladá Boleslav and Vrchlabi (Czech Republic).

"We're delighted to see the rapid pace of development and expansion of the Industrial Cloud across more Volkswagen production facilities this year," says Dirk Didascalou, VP of AWS IoT, Amazon Web Services (AWS). "The functionality we are jointly developing on top of AWS is providing a cost-effective and standardized way to collect and organize plant data into the Industrial Cloud and accelerate the delivery of use cases that further improve the efficiency of Volkswagen's manufacturing and logistics processes."

Cost savings through standardization

In the first step, the Group defined 15 different applications which are now being made available as standardized apps for all plants. The main focuses include the predictive maintenance of machines and the reduction of reworking on vehicles through artificial intelligence (AI). The implementation of the first 15 applications alone is already expected to bring cost savings of about €200 million up to the end of 2025.

Data of hundreds of thousands of machines on the Cloud

In the "brownfield" approach, data from several hundred thousand machines and plant items will be recorded by sensors and analyzed by standardized apps on the Cloud. Each machine, equipment item and system will be connected manually. In the case of older machines, it will also be necessary to install sensors. In the final stage of development, the total quantity of information to be processed each day will correspond to the volume of data from a small town in Germany. "We have the know-how within the Group to derive efficiency potentials from this data and we are considerably expanding our expertise," says Sauer. Currently, 220 experts within the Group are working on the project and the number is due to rise to about 500 by the end of 2020.

Volkswagen's Industrial Cloud to become industrial partner network

The solutions and applications currently being developed by Volkswagen are also to be made available to other companies within an open ecosystem; development work on these applications will then continue together with the other companies. In this context, there is no focus on the automotive sector. Discussions with a number of other partners from various sectors have already reached a very advanced stage. Joint utilization and development offer considerable advantages

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for those participating because they will not need to develop the platform and services themselves and can benefit from synergies within the system.

Note to editors:

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About the Volkswagen Group:

The Volkswagen Group, with its headquarters in Wolfsburg, is one of the world's leading automobile manufacturers and the largest carmaker in Europe. The Group comprises twelve brands from seven European countries: Volkswagen Passenger Cars, Audi, SEAT, ŠKODA, Bentley, Bugatti, Lamborghini, Porsche, Ducati, Volkswagen Commercial Vehicles, Scania and MAN. The passenger car portfolio ranges from small cars all the way to luxury-class vehicles. Ducati offers motorcycles. In the light and heavy commercial vehicles sector, the products range from pick-ups to buses and heavy trucks. Every weekday, 671.205 employees around the globe produce on average 44,567 vehicles, are involved in vehicle-related services or work in other areas of business. The Volkswagen Group sells its vehicles in 153 countries.

In 2019, the total number of vehicles delivered to customers by the Group globally was 10.97 million (2018: 10.83 million). The passenger car global market share was 12.9 percent. Group sales revenue in 2019 totaled EUR 252.6 billion (2018: EUR 235.8 billion). Earnings after tax in the fiscal year now ended amounted to EUR 14.0 billion (2018: EUR 12.2 billion).
