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# Transforming the automotive industry with the Industrial Cloud


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# Agenda

1. The Industrial Cloud explained
2. Community value proposition
3. Marketplace development and partner engagement
4. Come and join us!





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# Volkswagen at a glance

1 Group

12 Brands

120+ factories

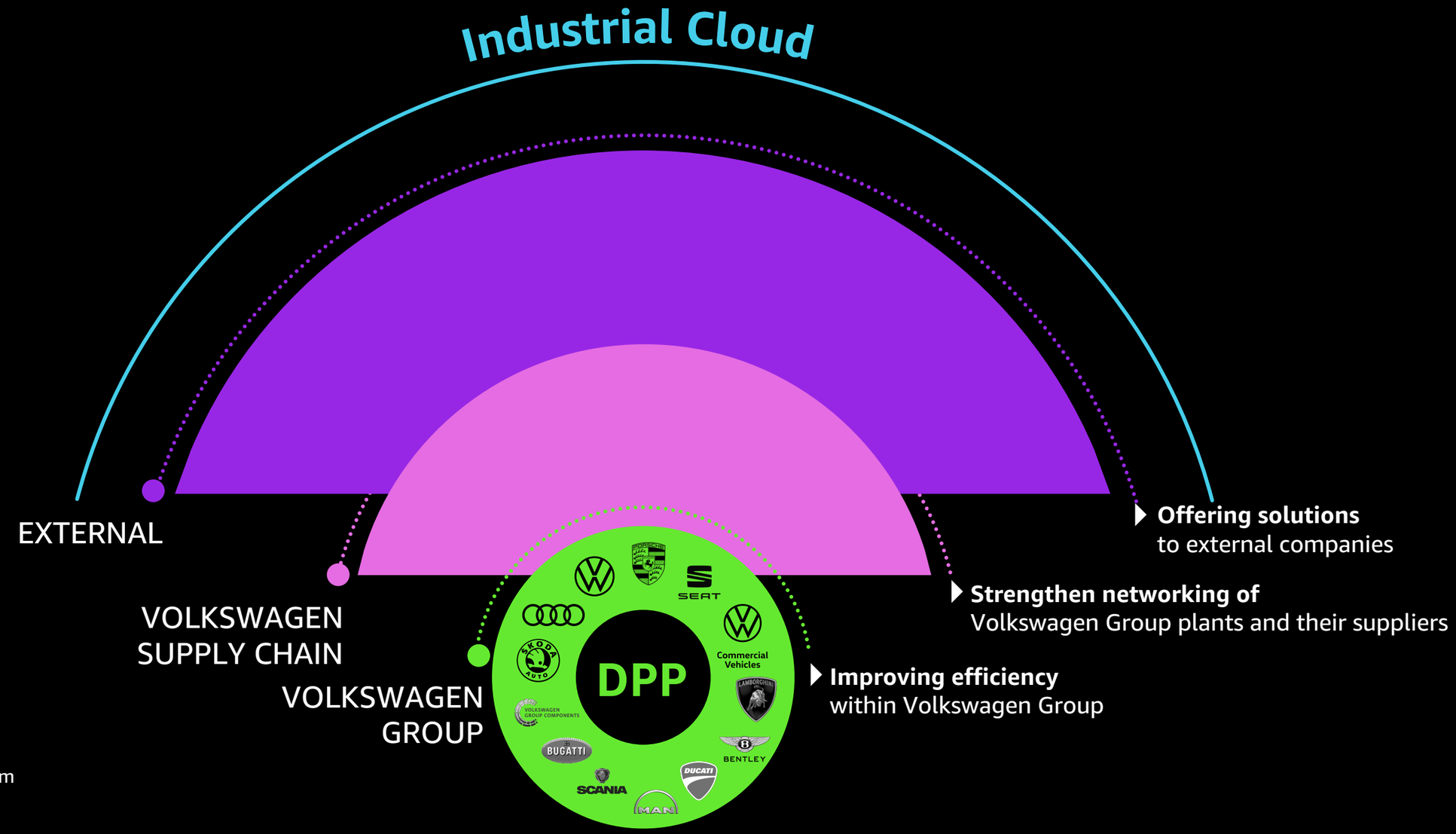



667,748
employees (2019)

10.975 million
vehicles (2019)

€252.6 billion
revenue (2019)

# Evolution of the Industrial Cloud




IC = Industrial Cloud
DPP = Digital Production Platform

# Vision for the Industrial Cloud

The **Industrial Cloud** is designed as an open platform, community, and marketplace of cloud-based solutions to bring **production and supply chain management** into the digital age.

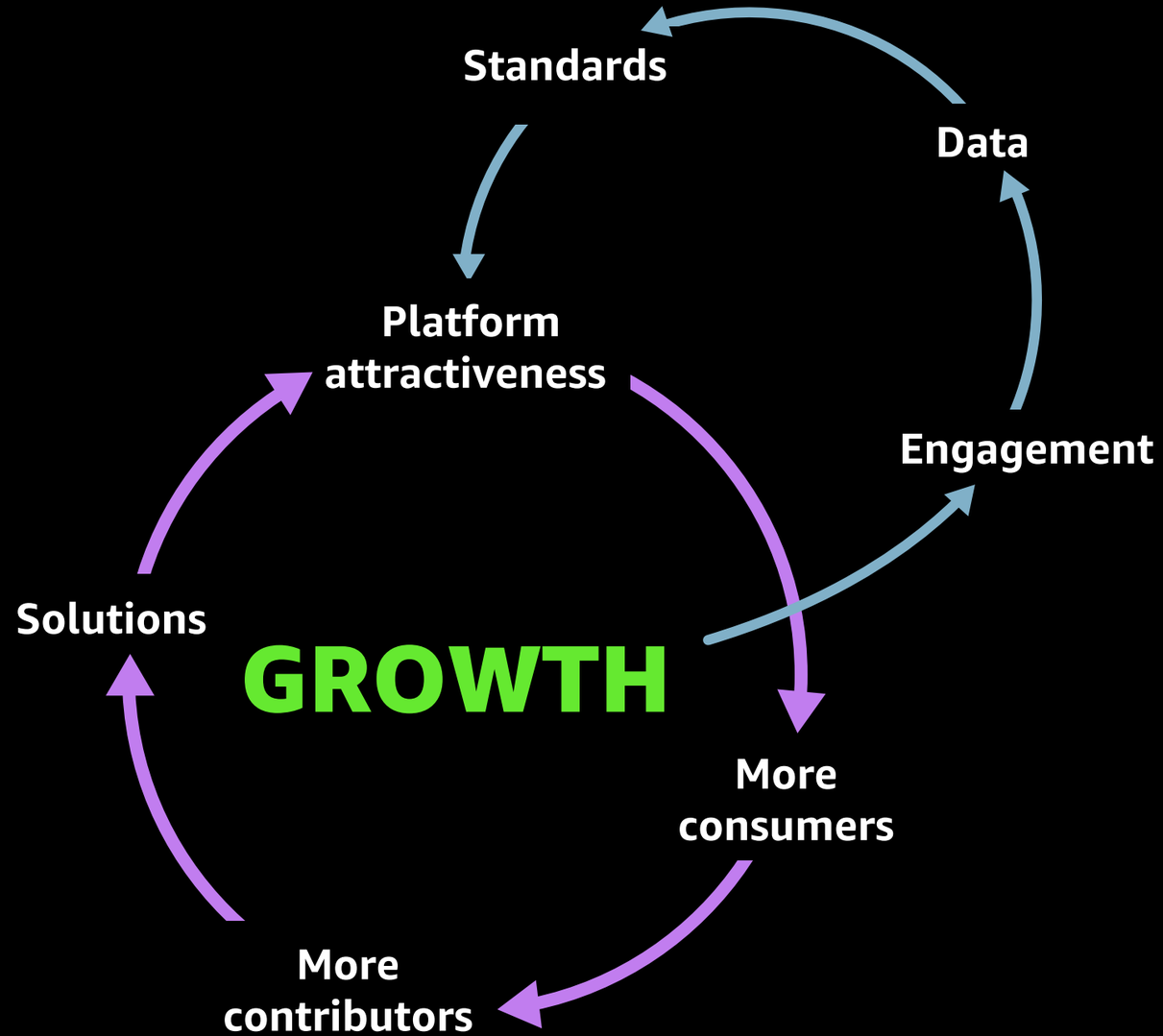



**Platform**

**Community**

**Marketplace**

# Industrial Cloud flywheel



# Community value proposition

## Consumer

The most comprehensive collection of proven Industrial IoT (IIoT) solutions and data insights to empower the automotive manufacturing and supply chain community to transform operations and boost efficiencies gains

## Contributor

The most attractive platform to create, market and scale your IIoT solution business

# Great jump-start for the IC community

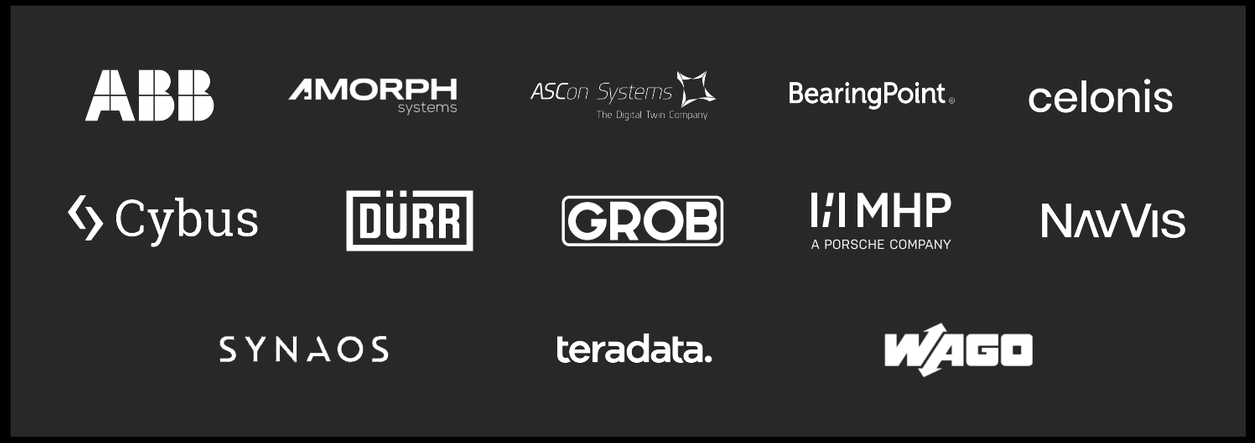
INDUSTRIAL CLOUD

aws | VOLKSWAGEN GROUP

SIEMENS

**13**

**Partners already part of IC since initial announcement**



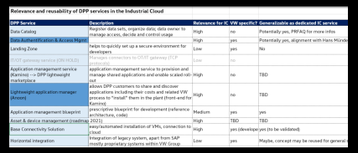

**More**

**Partners under discussion**

# Platform—It‘s simple to contribute

## DPP services

- **Screening existing DPP services**
- **Assessing their relevance for IC**
- **Determine if Volkswagen specific**
- **Evaluate if generalizable**

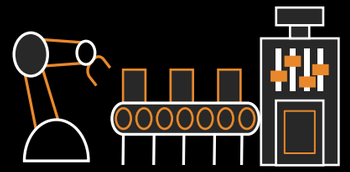


Relevance and reusability of DPP services in the Industrial Cloud

| DPP Service | Description | Relevance for IC | VW specific? | Generalizable as dedicated IC service |
|---|---|---|---|---|
| Data Catalog | Register data sets, organize data, data owner to manage access, decide and control usage | High | no | Potentially yes, PRFAQ for more infos |
| Data Ingestion/Curation & Access Mgmt | | High | yes | Potentially yes, alignment with Hans Mirwald |
| Landing Zone | helps to quickly set up a secure environment for developers | Low | yes | No |
| Edge gateway service (OPCUA server) | Edge gateway service (OPCUA server) | Low | no | |
| Application management service (Kantsiq) -> DPP lightweight marketplace | application management service to provision and manage shared applications and enable scaled roll-out | High | no | TBD |
| Lightweight application manager (Kraken) | allows DPP customers to store and discover applications including their costs and related VW process to "install" them in the plant (front-end for Kantsiq) | High | no | TBD |
| Application management blueprint | given/opitive blueprint for development (reference architecture, code) | Medium | yes | yes |
| Asset & device management (cowboy) | ? | High | TBD | TBD |
| Base Connectivity Solution | easy/automated installation of VMs, connection to cloud | High | yes (developer) | yes (to be validated) |
| Horizontal integration | integration of legacy system, apart from SAP mostly proprietary systems within VW Group | Low | yes | Maybe, core api may be reused for general |

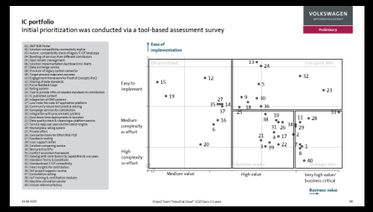
## DPP Partner and ISV

- **Building use cases with Volkswagen**



## IC and DPP Use Cases

- **Volkswagen and AWS co-developed**




## Critical value opportunities

- **Service ideas generated during design sprints**

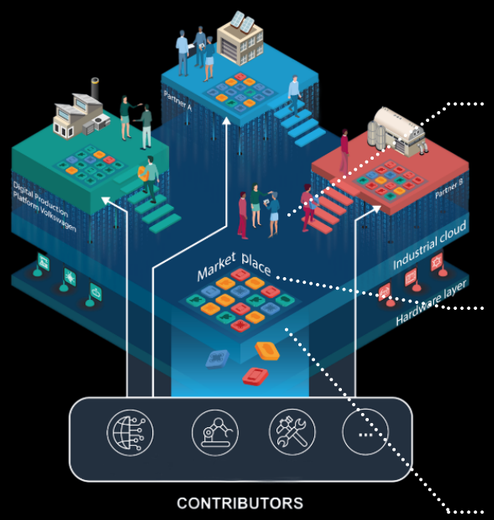



## Other AWS services

- **Services not yet used by DPP, but potentially relevant for the IC**

**Existing solutions are identified and assessed on their applicability for the Industrial Cloud portfolio depending on customer demand**

# Integrated Marketplace in development




Community

Marketplace

Platform

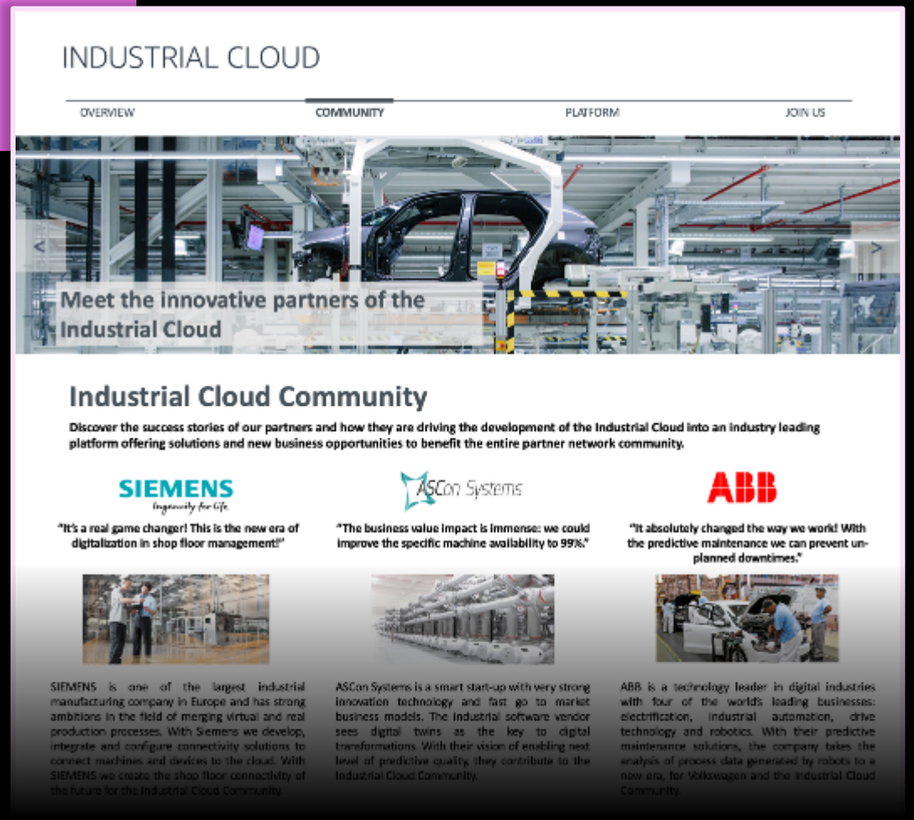
**Value-adding services**

- Rapid app/solution development environment
- Virtual reference factories and reference architectures
- Solution compatibility/connectivity services

**Use-case driven portfolio of solutions**

- Search and discovery along themes, use cases, and vendors
- Plug-and-play services and SaaS applications
- Complex solutions as bundles with integration partners

# Interested? Come and join us!







[www.industrialcloudhub.com](http://www.industrialcloudhub.com)

# Thank you!



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