



Data Factory

Capabilities & Services

The Data Factory provides data, platform and integration services for digital railway infrastructure.

- End-to-end data ecosystem from data acquisition on the vehicle to the data product in the cloud
- Data platform for large sensor data repositories and for providing analytics, AI and development environments
- Manual and wireless data transfer, prototyping and validation of digital solutions in the real railway environment of HVLE
- Provision of datasets and data products

Methodology & Approach

The Data Factory combines domain expertise, data management and IT in a pragmatic end-to-end approach.

- Requirements-driven implementation together with specialist departments and end users
- Rapid prototyping, piloting and scaling of new data products
- Implementation in compliance with security, compliance and operational requirements



Impact & Integration

The Data Factory transforms sensor data into usable information for operations, maintenance and automation.

Learn more about
our services:

www.signon-group.com



- Foundation for condition assessment and digital representation of railway infrastructure
- Enabling AI applications and digital twins
- Integration into the railway ecosystem and connection to the Cloud

Trains & Sensors

Trains are equipped with sensors (cameras, lidar, infrared, etc.) and record data

Vehicle Data Logger

On-board multi-sensor connectivity and data acquisition with local storage and pre-processing

Data Touchpoint

Automated data transmission from train to track-side

Data Center

Storage of large datasets and high-performance computing resources

Cloud

Connection to DB and external cloud resources

Data Platform

Environment for data management, visualization, analysis, and the development of AI and algorithms. Productive data processing within automated and orchestrated pipelines.

Data Set

Compilation of sensor data and annotations: Sensor data from the entire German rail network and AutomatedTrain project

Use Cases

Automated train operations, condition assessment and maintenance of rail infrastructure, digital twin