



## Nuremberg (visitable at short notice)

INDUSTRIE 4.0 DEMONSTRATOR:  
DATA-DRIVEN VALUE CHAINS

Application for the manufacturing industry - illustration of data-driven value chains based on the administration shell and International Data Space

## SUMMARY

The project uses the Industrie 4.0 Demonstrator with a connection to Deutsche Telekom's Data Intelligence Hub and Siemens' MindSphere. In particular, it illustrates the application of the concepts administration shell and reference architecture model of the International Data Space project based on a business scenario typical for the manufacturing industry.

## PARTNERS



INTERNATIONAL DATA SPACES ASSOCIATION

SIEMENS  
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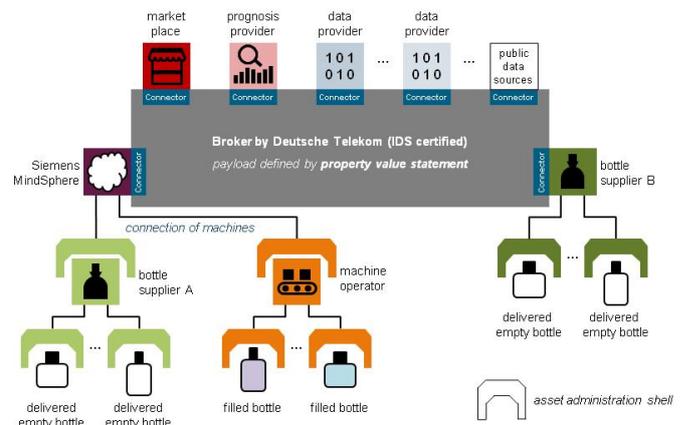
## SOLUTION

The project illustrates two application cases centered on the manufacturing industry:

- **Inquiry regarding a bottle manufacturer:** The machine operator is looking for a bottle manufacturer. The market place identifies possible bottle manufacturers and asks them to make an offer. The market place then present the offers to the machine operator, which then accepts the offer of its choice.
- **Optimization of the supply chain:** The bottle manufacturer produces bottles and supplies them to the machine operator. The bottle manufacturer receives live production data and can then produce based on demand. The market demand for filled bottles is forecast by a provider of prognoses, thus giving the bottle manufacturer the opportunity to plan future production. The market place provides all the data sources needed to make a market forecast.

## INDUSTRIE 4.0 – FEATURES

The project utilizes the concept of the administration shell, establishes a reference to eCl@ss, and uses the Connector and Broker concepts of the International Data Space project.



## PROJECT DESCRIPTION

A value-added network consisting of the following business partners implemented the project:

**Market place:** Upon request, a company in this role submits its best possible offer. The following two specific inquiries are considered:

- Inquiry regarding a bottle manufacturer
- Inquiry regarding data as the basis for market forecasts

**Prognosis provider:** In this role, a company provides a reliable market forecast for filled bottles

**Bottle manufacturer:** In this role a company is responsible for supplying bottles so that the machine user can deliver in accordance with market demand. The company is also interested in optimizing its production, for example by producing larger batches.

**Machine operator:** In this role, a company is interested in optimizing its production, for example by reducing its storage capacities.

## CONTACT

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## STANDARDIZATION APPROACHES

The project follows the recommendations of the DIN "Characteristic value statements" specification project as well as the reference architecture model of the International Data Space project.