



Fraunhofer-Institute for Software and Systems Engineering ISST is presenting the first Data-Ecosystems on basis of the reference architecture »International Data Space« at Hannover Trade Fair, Hall 2, Booth C22, 1-5 April 2019.

Deutsche Telekom is one of the first industrial companies, implementing this architecture within corporate reality. Taking the example of glass bottles, Telekom will show, how differently rated data from the supply chain can be analysed comprehensively.

The above mentioned Data Ecosystem consists of the Telekom Data Intelligence Hub, the Low-Cost-Tracker and the first ever »IDS ready« Connector of the »International Data Spaces Association«. This Connector has been dedicated to safe and sovereign data exchange via the »International Data Space«-Architecture.

FURTHER INFORMATION:

www.isst.fraunhofer.de
www.dih.telekom.com
www.iot.telekom.de
www.internationaldataspaces.org
www.telekom.com/hannover-messe

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DIGITAL ECOSYSTEMS ON BASIS OF THE »INTERNATIONAL DATA SPACE« ARCHITECTURE

HANNOVER TRADE FAIR, HANNOVER, 1-5 APRIL 2019
HALL 2, BOOTH C22

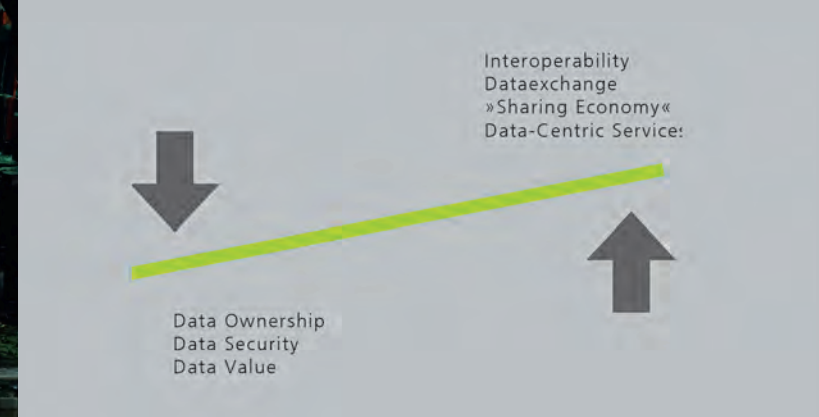




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THE SCENARIO

A glass manufacturer produces bottles on behalf of a juice manufacturer. Even during production, a wide range of data is generated, making it possible to make statements about the quality of the product. Further data is generated, while the glass bottles are transported on pallets. On their way to the bottling plant, the bottles spend several kilometers on a truck, train or ship.

Deutsche Telekom's Low-Cost-Tracker can determine the position of the pallet, as well as movement, shock effects and temperature profiles. The waterproof sensor registers impacts, position, tilt angles, accelerations and the temperature of the pallet the bottles are transported on. In addition, data is generated at the bottling plant.

All data, from production, over delivery, and all the way to ready-for-sale products, are provided sovereignly for the data ecosystem, using the International Data Space (IDS) infrastructure, developed by the Fraunhofer-Gesellschaft in cooperation with numerous partners from industry and research.

PERSPECTIVE ON DATA THROUGH DATA INTELLIGENCE HUB

Within our use case, the Data Intelligence Hub is first used for data fusion, taking in data from all participating industries, which is then, in step two, followed by data analysis. For this, the platform uses an AI-Workshop, combining different tools for analysis.

The operator of the bottling plant receives the, by AI analyzed, results of the bottle production and information on the whereabouts of his order. The bottle producer will receive the same information, as well as further usage-data made available by the bottling plant operator. This way, he will be able to further optimize his own product.

The logistics service provider obtains reports on his loading and unloading times, making it possible for him to react dynamically according to status updates. In case of damages to the bottles, or delays within production or supply chains, any involved company will be able to act much faster and much more precisely.

The IDS infrastructure, thus eases and enables »just-in-time« reactions, as well as a transparency of all processes.

INTERNATIONAL DATA SPACES: REAL DATA SOVEREIGNTY

Who may use or access what data is regulated by the IDS-Architecture: This architecture, developed by Fraunhofer under the management of Fraunhofer ISST, establishes a framework enabling the data-owning Company to exchange data with other companies, whilst still always keeping control over distribution as well as usage of said data. The IDS framework, thus, creates real data sovereignty within an industrial context and serves as a key component of a data infrastructure in and for Europe.

The International Data Spaces Initiative makes open data market places possible for the economy. Via these marketplaces data can be exchanged between trustworthy partners. Data Sovereignty of all parties is always ensured throughout the complete data value chain. The International Data Space is part of a safe data infrastructure and thus a key technology for innovative applications of Artificial Intelligence (AI). It thus contributes to economy's competitiveness as well as society's prosperity. As an important component of digital infrastructure, the IDS aides to exploit all chances AI offers for the well-being of humanity and companies, as well as encountering its risks.