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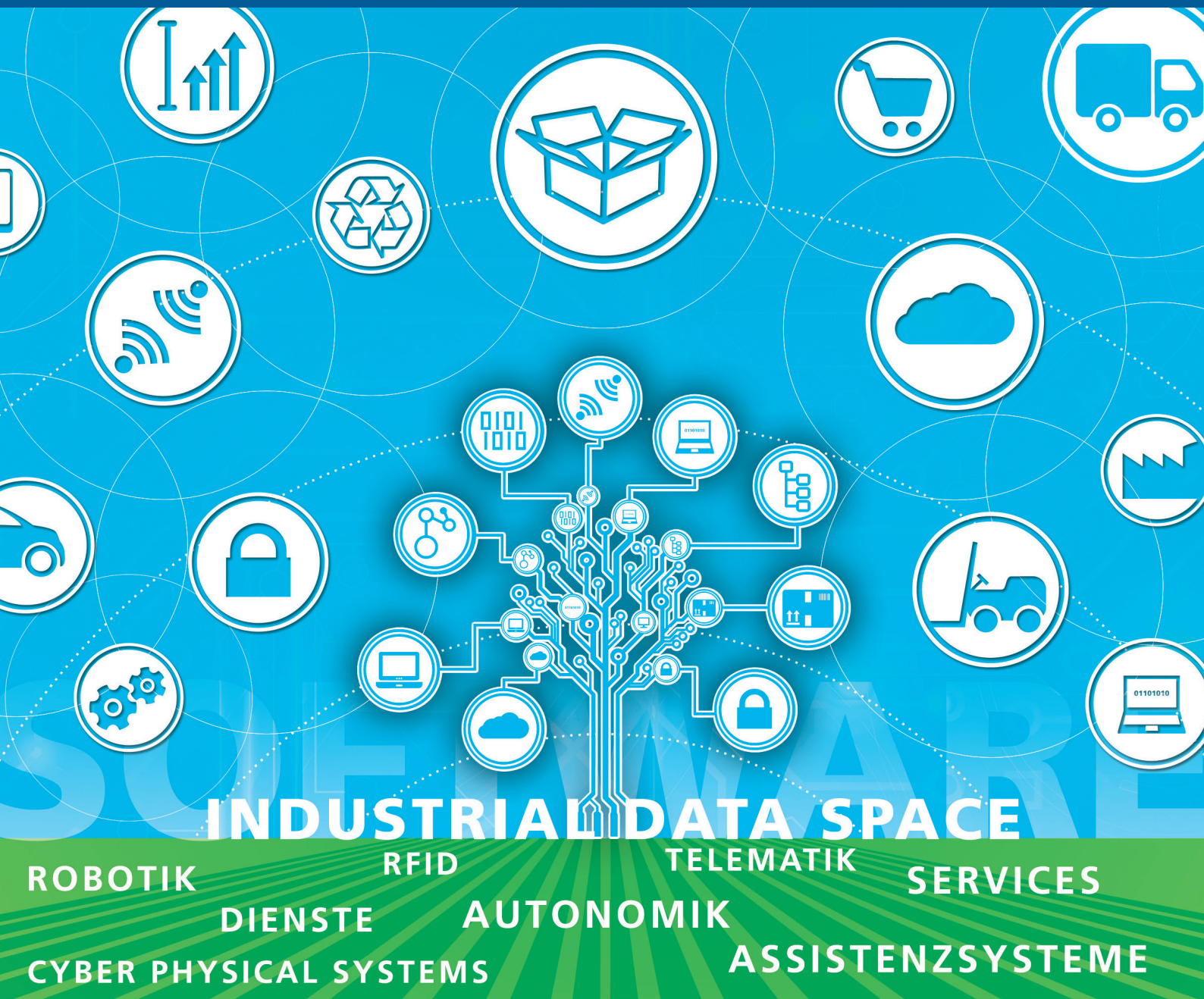
INDUSTRIAL DATA SPACE - KEY ISSUE PAPER

INDUSTRIAL DATA SPACE

DIGITAL SOVEREIGNTY OVER DATA AND SERVICES



KEY ISSUES ON THE ROAD TO AN INDUSTRIAL DATA SPACE

The Industrial Data Space initiative came together in an endeavor to maintain digital sovereignty over data and services for business and society.
Industrial Data Space is being supported by a group of collaborating companies in partnership with the relevant German government ministries, namely the Federal Ministry of Education and Research (BMBF), the Federal Ministry for Economic Affairs and Energy (BMWi), the Federal Ministry of the Interior (BMI), and the Federal Ministry of Transport and Digital Infrastructure (BMVI).

The Industrial Data Space initiative has set itself the following goals:
– to lay the groundwork for the foundation of an Industrial Data Space Consortium
– to drive forward the setting-up and funding of the Industrial Data Space and the establishment of its fundamental business models in line with market requirements
– to create the basic conditions required to open it up soon afterward to other partners – including partners from other EU countries and beyond

To achieve this, a task force is being established whose job will be to determine and create suitable framework conditions. The Industrial Data Space initiative has agreed on the following key points:

1. Digital sovereignty over data and services

The value of users' own data must be increased by connectivity and lead to new services through software production. To this end, the creation of a secure Industrial Data Space seems as necessary as it is full of opportunities.

2. Security and privacy

Security of data – including secure access – is essential. The goal of the virtual Industrial Data Space is to offer maximum security and to protect companies' data and privacy through a principle of ad-hoc connectivity. Data can be tiered and shared in a controlled manner, business interests are respected, and data is used only when a service is also being used.

3. Need for software production

Data connectivity alone does not create value. Only companies who develop their own technologies will be able to maintain a significant competitive advantage. The Industrial Data Space is a place where software production can take place in an industrial setting and where data and applications are plentiful. Politics and business must create the right underlying conditions and take measures to facilitate innovations in software technology.

4. Collaboration and horizontal connectivity in the Industrial Data Space

IT solutions that enable IT-supported, inter-company collaboration and fast, automated data exchange are a major selling point to help companies stand out in international competition. To this end, the Industrial Data Space will facilitate horizontal connectivity and virtualization as well as securing access for apps to private and global data.

5. Vertical integration as the basis for attractive services in the Industrial Data Space

There is a strategic opportunity in promoting vertical, sector-specific integration that incorporates the advantages of individual locations in terms of manufacturing, trade, services, and logistics. Software also has a key role in this context, as regards both management and the design of adequate systems. Through horizontal connectivity and virtualization, the Industrial Data Space offers the space for high-quality vertical contextual and cognitive services.

6. Transparency and market orientation

Transparency, traceability, and market-oriented mechanisms are the basis for any trustworthy connectivity of data and for any competitive service. This applies in particular to competitive environments, where different companies are vying for the

same customers with data and services, but can also connect with each other via the Industrial Data Space. To this end, the Industrial Data Space contains the required mechanisms for accountability and market development (such as online ad auctions, real-time bidding, and many more). At the same time, politics must support legal certainty based on clear, transparent rules and transnational solutions and agreements.

7. Opening up and standardization

To establish technologies quickly and secure market share, ad-hoc standards are common practice in the IT world. For long-term, open-development global interoperability and the multi-sourcing demanded by industry, integration into consensus-based international standardization is imperative in the medium term. Progress must be made on this swiftly and without delay, because the speed at which information technology develops is increasingly leading to de-facto standards. At the same time, concepts must be developed to open up the technology and make the Industrial Data Space attractive for others, generating even broader commercial utility. Making sure that the required speed and depth of standardization takes place is an international task that must also be supported and actively promoted at national level. This helps to secure locations' competitiveness and avoids dependency on monopolies.

8. The Industrial Data Space as digital infrastructure

The Industrial Data Space requires a powerful broadband and mobile digital infrastructure with blanket coverage. At the same time, as a virtual space for data and services, it is actually also part of the digital infrastructure in a broader sense (for example, in a future Internet of Things).

9. The Industrial Data Space and the Internet of Things

The Industrial Data Space initiative creates a virtual space and the corresponding services to enable secure multi-sourcing data exchange on demand and based on existing networks. The Industrial Data Space sees itself as a complementary partner to near real-time and real-time capable technologies in the context of the Internet of Things and the fourth industrial revolution.

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The following companies and partners are helping to develop the Industrial Data Space:

Bosch GmbH
Allianz SE
Deutsche Post AG
Siemens
BMBF – Bundesministerium für Bidlung und Forschung
BDI – BDI - Bundesverband der Deutschen Industrie e.V. -
REWE Markt GmbH
SICK AG
Salzgitter AG
Evonik Industries AG