INTERNATIONAL DATA SPACES ASSOCIATION

SHARING DATA WHILE KEEPING DATA OWNERSHIP
THE POTENTIAL OF IDS FOR THE DATA ECONOMY

SHARING DATA WHILE KEEPING DATA OWNERSHIP

The International Data Spaces Association aims at open, federated data ecosystems and marketplaces ensuring data sovereignty for the creator of the data.

Today, there is a common understanding that data is of high value. Leveraging this value and trading data creates huge revenues for the large data platform providers. Rarely, the creators of data are benefitting from this value in an adequate way. Often, only the cost for data creation and management remain with them. Furthermore, many give their data away for free or pay with it for the use of a service. Finally, others keep it for themselves without taking advantage of the value.

There is a need for vendor independent data ecosystems and marketplaces, open to all at low cost and with low entry barriers. This need is addressed by the International Data Spaces (IDS) Association, a nonprofit organization with today about 100 members from various industrial and scientific domains. The IDS Association specified an architecture, interfaces and sample code for an open, secure data ecosystem of trusted partners.

The specification of the IDS Association forms the basis for a data marketplace based on European values, i.e. data privacy and security, equal opportunities through a federated design, and ensuring data sovereignty for the creator of the data and trust among participants. It forms the strategic link between the creation of data in the internet of things on the one hand side and the use of this data in machine learning (ML) and artificial intelligence (AI) algorithms on the other hand side.

Digital responsibility is evolving from a hygiene factor to key differentiator and source of competitive advantage. Future data platforms and markets will be built on design principles that go beyond our traditional understanding of cybersecurity and privacy. Based on strong data ethics principles the IDS Reference Architecture Model puts the user in its center to ensure trustworthiness in ecosystems and sovereignty over data in the digital age as its key value proposition.

IDSA defines a reference architecture, which supports sovereign exchange and sharing of data between partners independent from their size and financial power. Thus, it meets the needs of both large and small and medium enterprises (SMEs). Further down the road, it may be taken up by individuals as well. Whether data of IoT devices is concerned, in on-premise systems or cloud platforms, the IDSA aims at providing the standard for sharing data between different endpoints while ensuring data sovereignty.

The IDS Association aims at reducing the entry barriers and, thus, the cost of data sharing and exchange. Finding and authenticating appropriate transfer partners will be substantially facilitated, so will the legal and commercial governance of transactions. This goal is achieved by creating a semantic standard for data sovereignty, i.e. the rules and policies that determine who is allowed to do what in which context with the data shared by the data owner. This is a key prerequisite for connecting the various existing and emerging proprietary platforms. The IDS

allows ecosystem partners to define software readable contracts attached to the data. The contracts are based on usage control rules like duration of use, forwarding of the data etc. Furthermore, the purpose and cost of data use can be specified. IDS certified software allows for modelling, configuring, monitoring and enforcement of the rules and polices specified in data contracts.

A first minimal viable product (MVP1) will be available in the fourth quarter 2018. A number of software companies are working on their implementation of the IDS definition. To ensure interoperability certification will be offered early 2019 (MVP2).

With this, the definitions of the International Data Space Association have potential to form a global data exchange standard.

To learn more, please check out the website for additional information and our reference architecture model (www.internationaldataspaces.org).
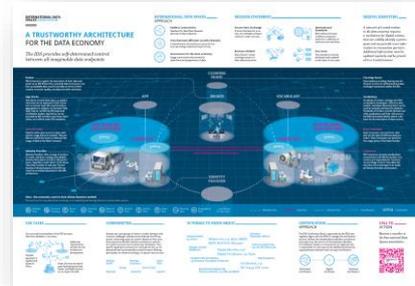
Our Members

Overview Publications

Reference Architecture Model

White Paper Certification

Infographic IDS Ecosystem

Use Case Overview

Study on Data Exchange

Specification Lightweight
Sensor Connector

International Data Spaces Association Magazine – Data Spaces_now!

Downloads available at **www.internationaldataspaces.org/en/ressource-hub/publications-ids/**

Code available at **https://github.com/industrial-data-space**

@ids_association