



The Role of IDS for the European Data Economy

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IDSAs provides a reference architecture that enables an ecosystem for the sovereign exchange of data with clearly defined usage rights.

The reference architecture defines a technical infrastructure and includes contractual regulations: at the semantic level, data linking, or analysis can technically be prevented or made possible.

In this way, the classic structure of cloud services is also embedded in an interoperable digital economy with full data sovereignty on the digital infrastructures of third parties.

The IDS standard solves a market obstacle: In order for data to unfold its value creation potential, it must be described and tradable according to a global and interoperable standard. This has never existed before. But DIN SPEC 27070 (to be published in Nov 19) is the first global and interoperable standard.

100 member institutions from the EU as well as from Brazil, Canada, China, India, Japan and the USA are involved; they come from all branches of industry and have developed information and governance models in the IDSA as the basis for the IDS architecture and its data sovereignty standard.

More than 50 concrete application scenarios and first products are now available from companies of all sizes and sectors – together they are working on operational concepts for a sovereign data exchange infrastructure.

The certification scheme „IDS_ready“ also enables companies outside the association to participate in secure, IDS-based value-added processes via certified participants and components. Reference implementations and sample codes are available for developers and can be tested in testbeds.

IDSAs is in continuous coordination with global initiatives (Industrial Internet Consortium, OPC Foundation, Robot Revolution Initiative, BDVA) and participates in EU research projects to anchor IDS architecture and data sovereignty standards within European digitization strategies. In 8 countries, there are contractually bound IDSA hubs that bring standardization and adaptation of the technology to the respective country.

Read their statements!

International statements:



Dr. Arian Zwegers | EUROPEAN COMMISSION

“We are aiming for a European data space, inspired by the IDS, with a rich pool of data, with free flow of data, and with clear governance rules such as GDPR and data sharing rules.”

Henk Jan Vink | TNO | THE NETHERLANDS

“TNO actively engages in IDS and believes it has a solid architecture that supports the European value of data sovereignty. We apply the principles of IDS in several cases, such as in advanced supply chains in the Eindhoven Brainport Industries Campus. IDS has the potential to become the de facto standard of responsible data sharing.”



Francis Jutand | Institut Mines-Télécom | FRANCE

“We have developed, together with other European partners, numerous implementations of the IDSA data sharing architecture. Joint work carried out within IDSA is crucial to foster open and standardized data governance, which is in turn necessary to establish a successful data economy and to develop a trustworthy AI technology based on European values.”

Dr. Akihisa Ushirokawa | Industrial Value Chain Initiative | JAPAN

“The liaison between IDSA and IVI is based on the joint consideration of industrial data sharing such as a distributed architecture, data usage control (e.g. data sovereignty) and open implementation – with the goal of global interoperability for a cross-border data economy.”



Prof. Dr. Dr. h.c. Vladimír Mařík | Technical University | CZECH REPUBLIC

“The safety and trustworthy data governance represents an important task for Industry 4.0 solutions, and thus plays a key role in the ‘Digital Czechia’ governmental strategy. The IDS approach brings an international, open and standardized solution that offers efficient tools for implementing industrial and scientific systems, and it supports the industry-academia cooperation. Therefore, we will drive the IDS in the Czech Republic.”

Dr. Wong Thein Lai | Tunku Abdul Rahman University | MALAYSIA

“The IDS reference architecture forms the basis for data ecosystems and market places based on considerations to data privacy and security, and offers equal opportunities through a federated design. IDSA has specified an architecture, an information model, interfaces and offered sample code for an open, secure data ecosystem. That’s why we join the IDSA.”



INTERNATIONAL DATA SPACES ASSOCIATION



Prof. Dr. Alfonso Fuggetta | Cefriel | ITALY

“Two critical factors are defining the importance of topics of the IDS approach. The first is the foreseen introduction of the single European digital marketplace, and the second is the increasing attention of the EU to the problems of SMEs and their supply chains and ecosystems. Since SMEs are one of the most relevant, yet critical European backbones, a Europe-wide data-centric approach raises the relevance of IDSA topics.”



Dr. Janne Järvinen | VTT | FINLAND

“The importance of putting data to work is immanent, and trustworthy data governance is a key for successful data economy. IDS is an open and standardized architecture that offers important means to realize the data economy in Finland. Therefore, we will continue driving the IDS initiative in Finland.”

Jesús de la Maza | Innovalia | SPAIN

“The IDS ecosystem offers companies a standardized solution to share data in a secure and sovereign way, respecting property rights to data usage and allowing the development of cloud and edge computing AI solutions without losing control of information. This will boost the competitiveness and efficiency of European industry while triggering the deployment of a data-based economy in the EU by fostering new data business models and services.”



Douwe Lycklama | iSHARE | NETHERLANDS

“We fully support the vision of data sovereignty and the IDS initiative in particular. The user community developed and governs iSHARE on the same foundations. We are very happy that iSHARE and IDS complement each other strategically in bringing data sovereignty ‘live’ in daily business practice.”

Bjørn Marius von Zernichow | SINTEF | NORWAY

“Our challenges are lack of access to ship related data, lack of secure and efficient communication between ship and shore, lack of maritime ecosystem to provide trusted services. Data and service providers, ship, agencies on shore, and data platforms are decoupled with no natural communication channels. And that’s where the Data Space with IDS technology comes in.”



Prof. Dr. Peter A. Bruck | Data Intelligence Offensive | AUSTRIA

“We have to implement IDS standards based on European values and, in particular, take the competitive situation with China and Silicon Valley seriously and continue to work globally.”

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