



The IDS

at a Glance

INTERNATIONAL DATA SPACES
A NEW IDEA FOR SHARING DATA

CHRISTOPH MERTENS
MODERN WIND ABS – 06.03.2019



AGENDA

- 1** Our Approach
- 2** Our Architecture
- 3** Our Offering





OUR APPROACH



I Agree

#datasovereignty



Vision: IDS is a global de facto market standard for the sovereign use of data

As the perception of the value of data is gaining importance in the global value creation, the IDS Approach enables dynamic data and business transactions between participants globally and across all domains.

The IDS reference architecture and ecosystem will achieve and defend their status as de facto market standard for the trade and exchange of all kinds of data assets.

Trust between participants and data-sovereignty are placed at the heart of the IDS: They will be guaranteed to data providers in terms of e. g. who is using their data, for how long, for which application, how many times and under which terms & conditions.

Finding and authenticating appropriate transfer partners will be substantially facilitated, so will the legal and commercial governance of transactions.

By permanently screening and adopting new developments and requirements, the International Data Spaces Association establishes itself as a sustainable building block for ecosystems making the data economy come true.”



95+

INTERNATIONAL DATA SPACES ASSOCIATION





DATA _____

AN ECONOMIC ASSET



TECHNICAL DRAWINGS



FINANCIAL DATA



MOBILITY DATA



MATERIAL CHARACTERISTICS



SENSOR DATA



CUSTOMER DATA

*The key focus for a data-driven economy and new business models is in **linking data**.*

COMPANIES WANT TO LINK DATA WITHOUT REGRET



Interoperability
Data Exchange
»Sharing Economy«
Data Centric
Services



Data Ownership
Data Security
Data Value

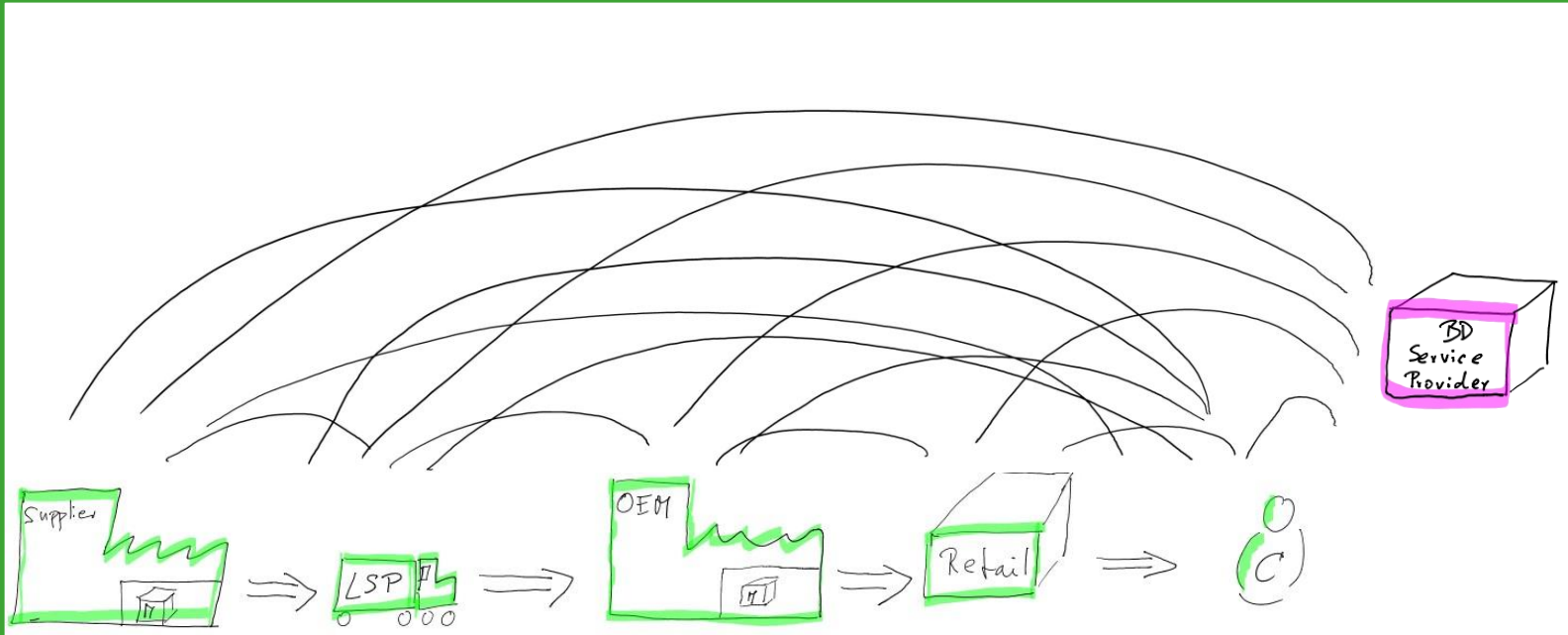


DIGITAL SOVEREIGNTY

is the ability of a natural or legal person to exclusively and sovereignly decide concerning the usage of data as an economic asset.

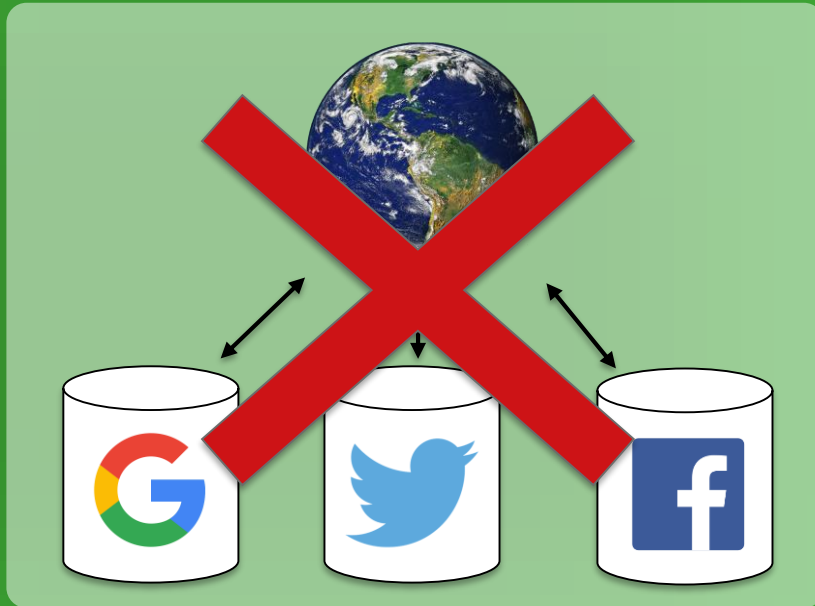
CURRENT SITUATION FOR BIG DATA LANDSCAPE

Implementation of standard interfaces at high costs
and with low flexibility.



DATA _____

AN ECONOMIC ASSET

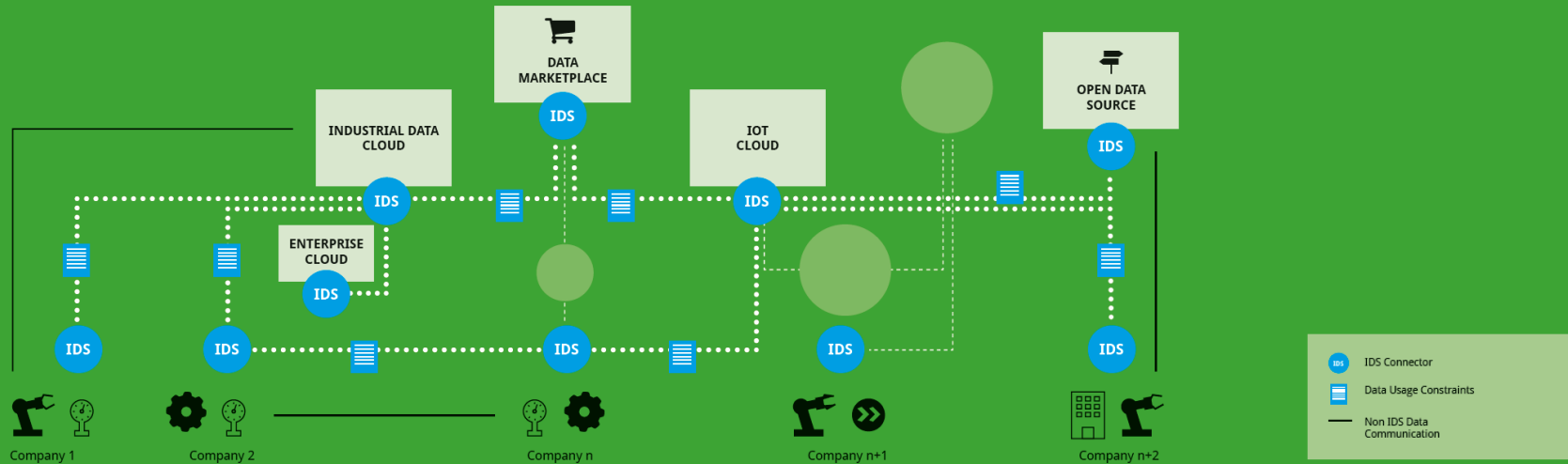


Making data economy really a success, there is a need for a ...

- *vendor independent data market place*
- *connecting vendor-specific platforms*
- *open to all*
- *at low (transaction-) cost and*
- *easy to adopt and easy to use.*

THE INTERNATIONAL DATA SPACES APPROACH CONNECTS ALL KINDS OF DATA ENDPOINTS

When broadening the perspective from an individual use case scenario to a platform landscape view, the INTERNATIONAL DATA SPACES positions itself as an architecture to link different cloud platforms through secure exchange and trusted sharing of data, short: **through data sovereignty.**



By proposing a specific software component, the INTERNATIONAL DATA SPACES Connector, industrial data clouds can be connected, as well as individual enterprise clouds and onpremise applications and individual connected devices.



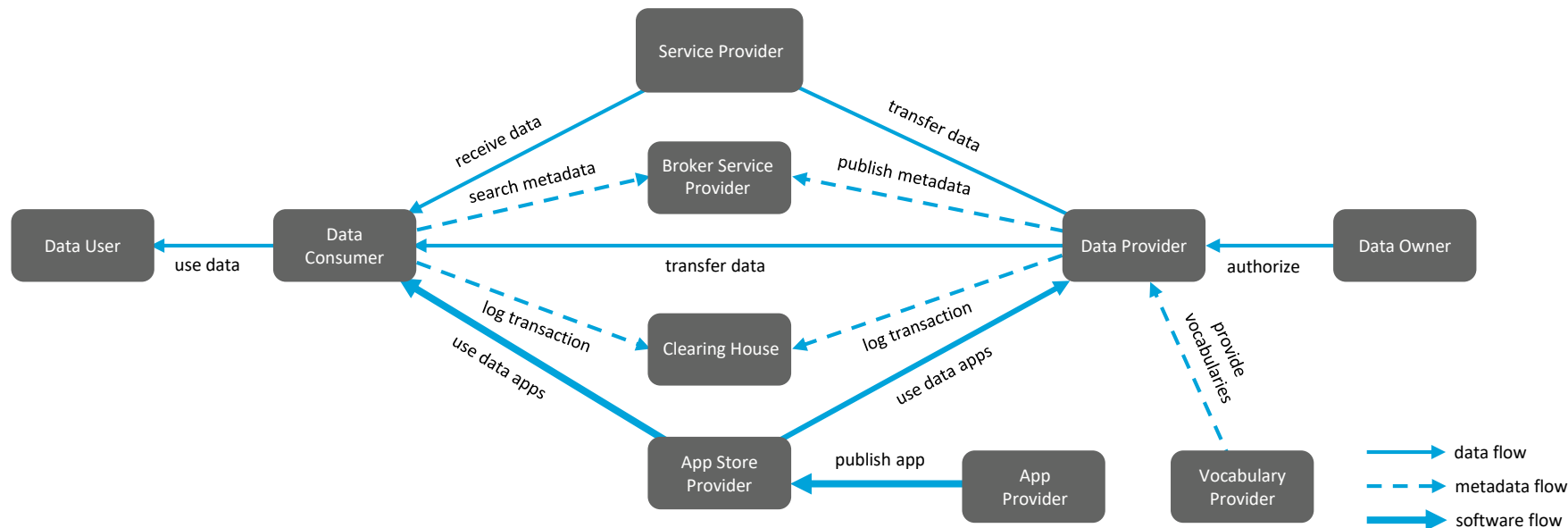
OUR ARCHITECTURE



IDS REFERENCE ARCHITECTURE MODEL

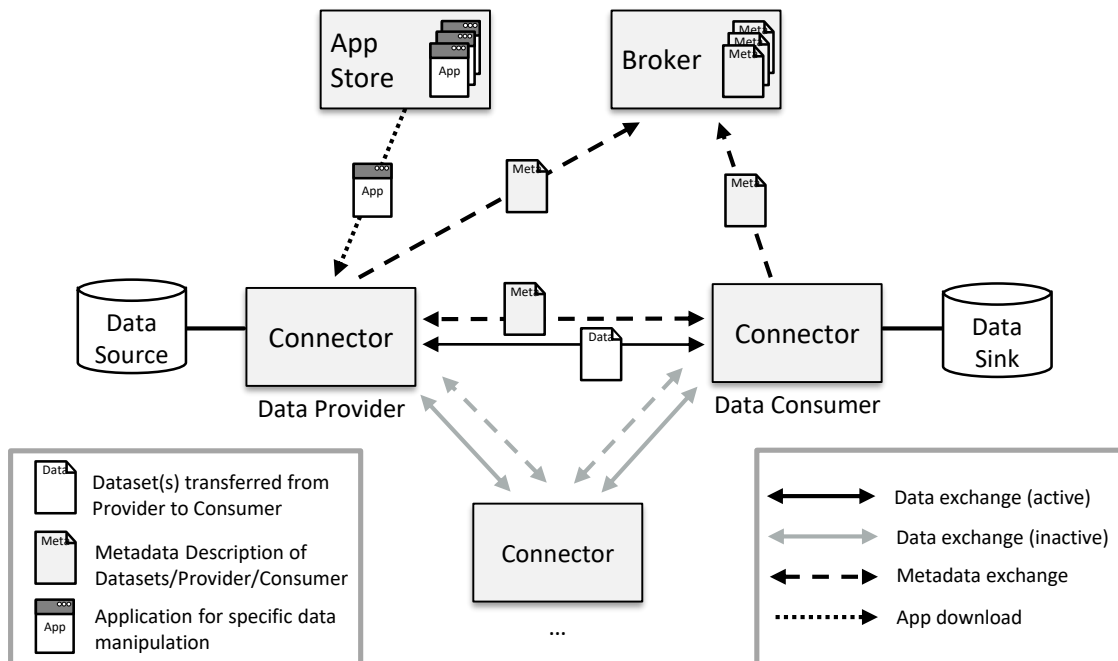
Roles and interactions in the Industrial Data Space

Industrial Data Space			
Layers	Perspectives		
Business	Security	Certification	Governance
Functional			
Process			
Information			
System			



IDS REFERENCE ARCHITECTURE MODEL

Interaction of technical components

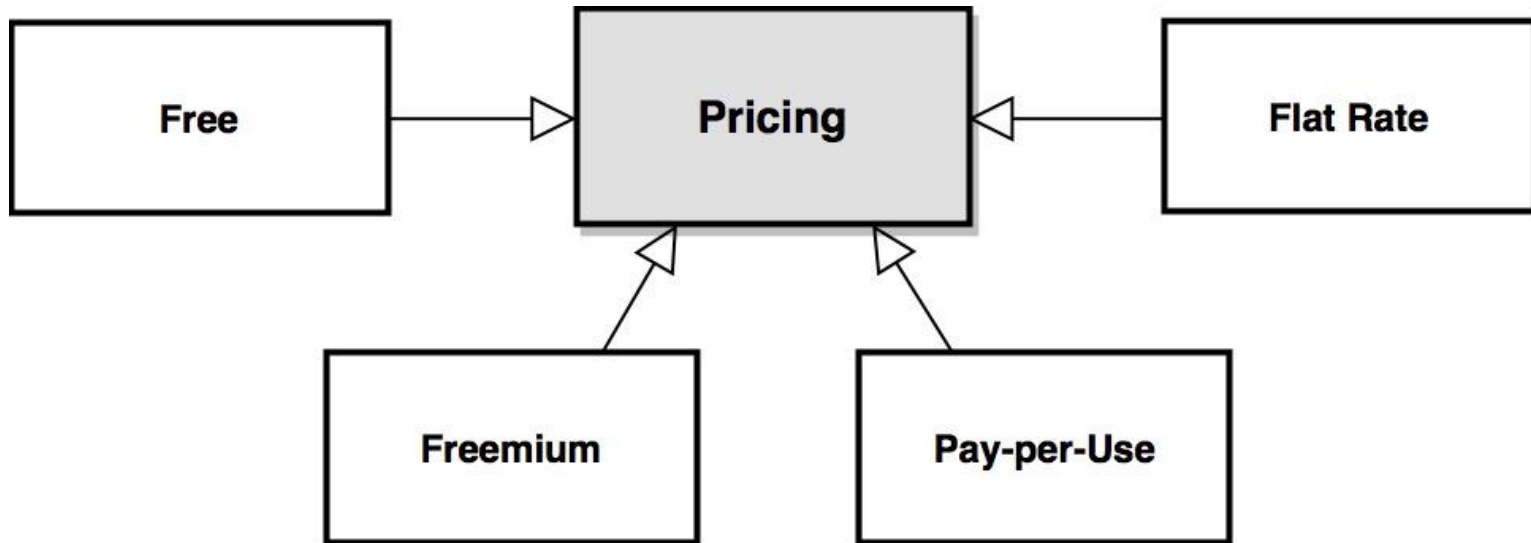


Industrial Data Space		
Layers	Perspectives	
Business	Security	Certification
Functional		
Process		
Information	Governance	System
System		

IDS REFERENCE ARCHITECTURE MODEL

Taxonomy of Product Pricing concepts

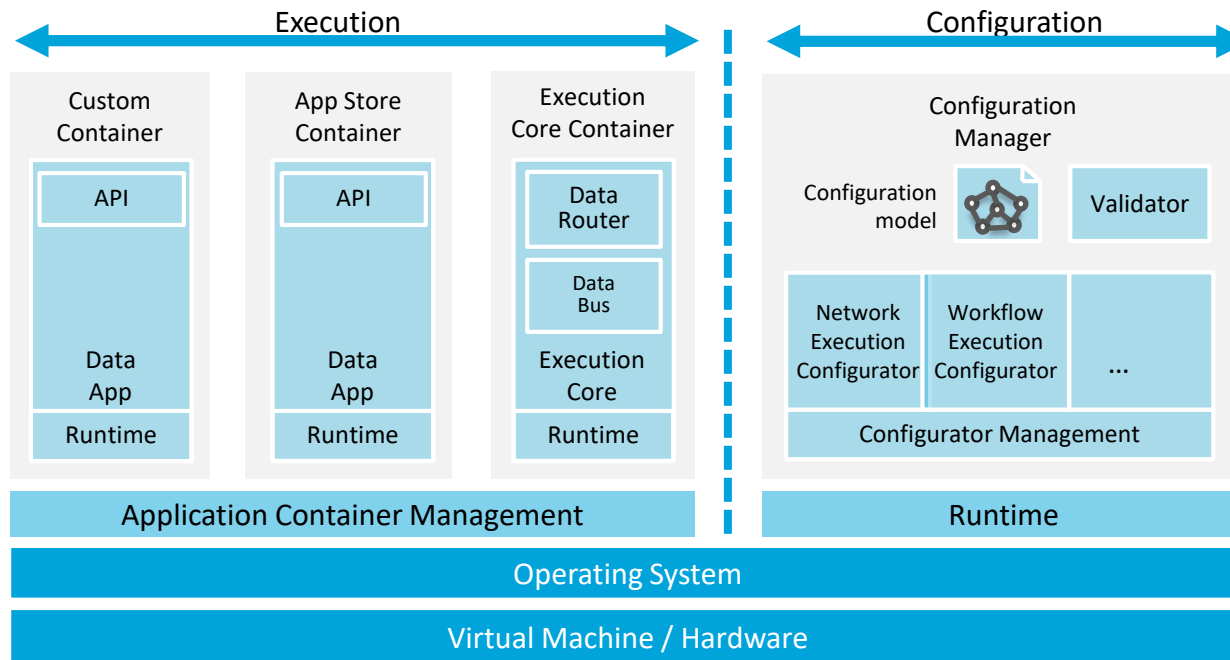
Industrial Data Space			
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IDS REFERENCE ARCHITECTURE MODEL

Reference Architecture of Connector

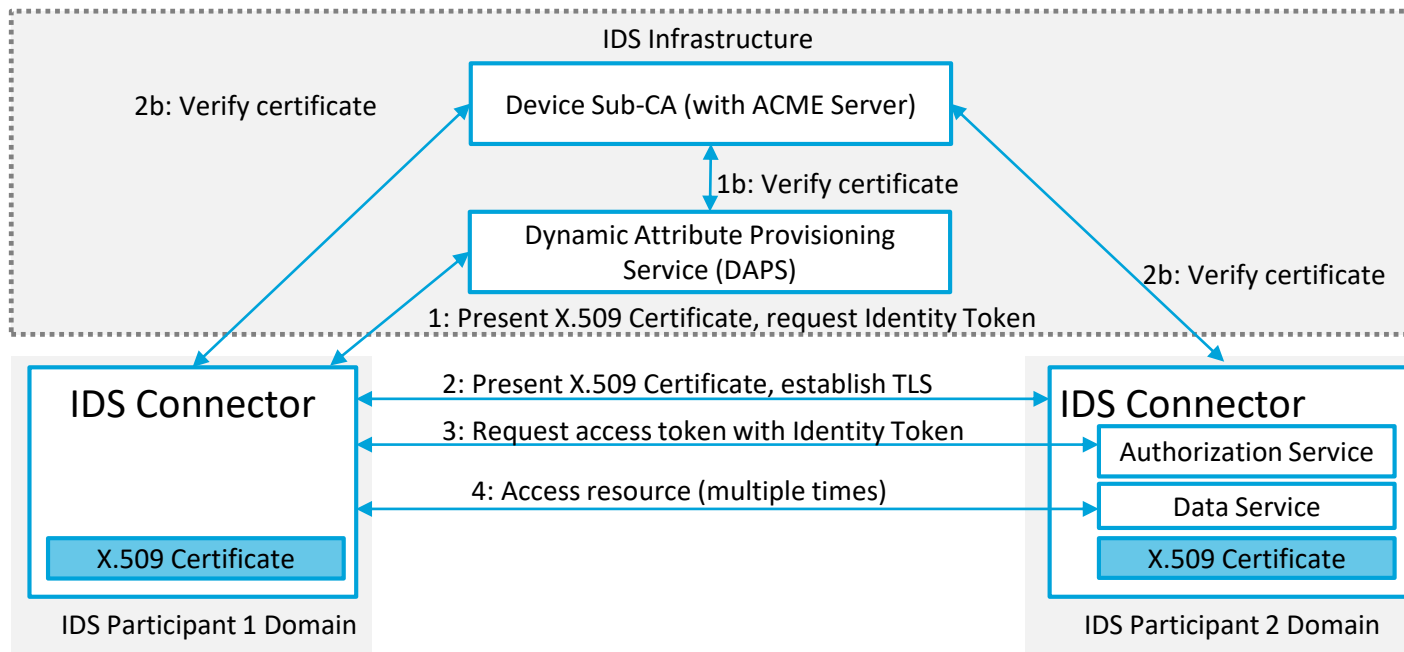
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IDS REFERENCE ARCHITECTURE MODEL

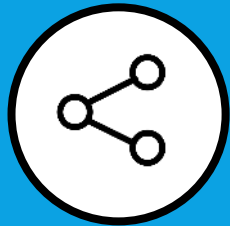
Resource access workflow

Industrial Data Space			
Layers	Perspectives		
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INTERNATIONAL DATA SPACES APPROACH: SELF DETERMINED CONTROL OF DATA FLOWS



Unlimited **Interoperability**

standard for data flows between
all kinds of data endpoints



Trust between different security domains

Comprehensive security functions
providing a maximum level of trust



Governance for the data economy

usage control and enforcement
for data flows



IDS CONNECTOR IMPLEMENTATIONS RUNNING ON DIFFERENT DEVICES



Trusted Connector

- Connector running on sensor device
- Implementation by Sick AG



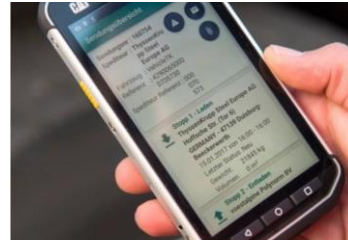
Base Connector

- Connector running on Raspberry Pi
- Implementation by nicos AG



Lightweight Sensor Connector

- Connector running on 32 bit microprocessor
- Implementation by Fraunhofer



Mobile Connector

- Connector running on mobile device
- Implementation by thyssenkrupp AG, Fraunhofer and Logenios GmbH



FURTHER DEVELOPEMENT OF THE IDS RESEARCH RPROJECTS





OUR OFFERING

3



OUR OFFERING

Standardization of the semantics for data exchange protocols

... a pre-condition for connecting existing, proprietary platforms

Delivering sample code – no commercial product

... which companies may use at their own risk

Commercial IDS implementations will be available

from IDS-certified vendors

Driving standards ...

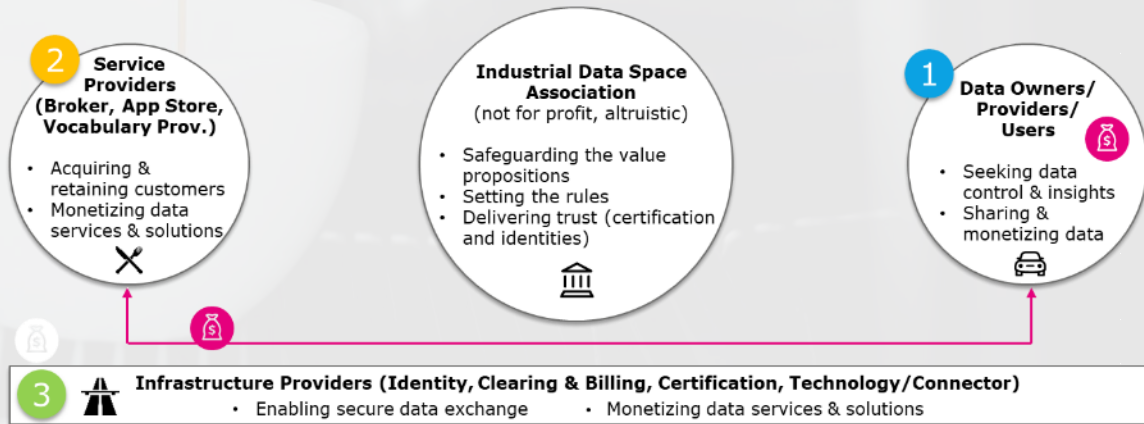
*... pulling requirements and implementation insights together
across its members and users – worldwide*

Supporting the exchange of insights, ideas and solutions

... across regions, segments and industries

MAKE THE ECOSYSTEM WORK

ECOSYSTEM FOR THE DATA ECONOMY OPEN, VENDOR NEUTRAL, TRUSTWORTHY





OUR COMMUNITIES

- Interest Groups from one domain, one ecosystem with common challenges
- Validating International Data Spaces and proliferating the approach and technology
- Finding common and new requirements from the community to amend the reference architecture
- Driving domain specific implementation, business model development, product launches
- Jointly solving common challenges using International Data Spaces technology



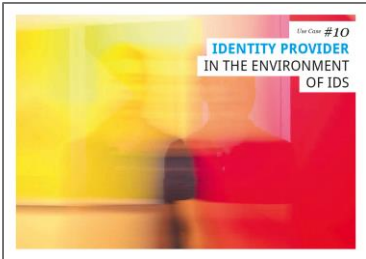
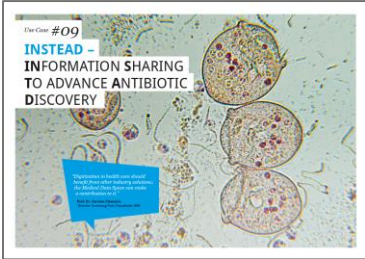


COMMUNITY

ENERGY



OUR GALLERY OF IMPRESSIVE IDS USE CASES



...have a look at
our use case
brochure and
website for more
success stories

SEE YOU:

2019

25th & 26th June

IDSA Summit

Location: t.b.a.

1st to 5th April

Hannover Fair

Hall 8, booth C25



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JOIN US!



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#internationaldataspaces*

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Association*

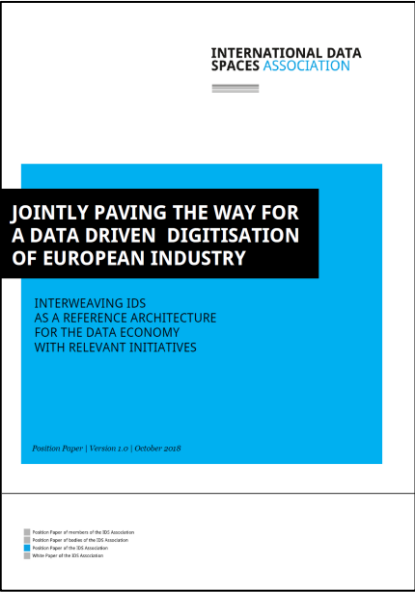


www.internationaldataspaces.org



Interweaving our
architecture with other
leading global initiatives

NEW PUBLICATION



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