



The Data Space Manifesto

Version 1.0 / April 2025

Introduction to the Data Space Manifesto: A vision for trusted data sharing

In an increasingly interconnected world, data is a critical resource that holds immense potential to unlock new insights, drive innovation, and create value. However, for data to generate this value, it cannot remain locked in silos or inaccessible vaults. Sharing, processing, combination, and analysis of data across organizational boundaries must be enabled. Yet, the movement of data between entities introduces significant business risks, often hindering collaboration and innovation. At the heart of resolving this tension lie two fundamental principles: **interoperability** and **trust**.

Data spaces are the foundation for building this trust. They offer a decentralized, neutral framework of protocols and frameworks that empowers participants to engage in **trusted data sharing**—allowing data to flow freely while ensuring autonomy for all parties involved. This manifesto sets forth a commitment to common rules and conditions. Principles of data spaces are simple, yet profound: **Your data, your choice**—participants must always retain full autonomy over how, when, and with whom they share their data and under which conditions. **With great responsibility comes great power**—agency comes with the responsibility to safeguard and manage that freedom. **Equity, decentralization, and neutrality**—no participant shall dominate or control the flow of data; all must share equal rights and responsibilities. These values form the cornerstone of a robust, interoperable, and adaptable data-sharing ecosystem.

Through **free and open standards, infrastructure-agnostic design, and boundless business potential**, data spaces serve not as rigid, centralized platforms, but as flexible building blocks for any data ecosystem and business models on top. Our commitment is to foster **good faith** in all data transactions, balanced by the ability to verify and uphold trust among participants. By adhering to these principles, we believe data spaces will catalyze the



next wave of innovation, unlocking vast opportunities for organizations, communities, and society as a whole.

This manifesto is both a call to action and a vision for a future in which **trusted data sharing** through international data space concepts is the norm, empowering organizations to responsibly harness the full potential of their data.

Principles of trusted data sharing in data spaces

Data spaces are a mechanism to create trust

Data spaces enable trusted data sharing.

Data does not create value when it is locked away in a vault. It needs to be computed on, combined with other data, analyzed, and used to generate value. To do this data very often needs to move, very often from one organization to another. However, moving data might create business risks, and to reduce those risks we need to create trust between parties that are sharing data. Data spaces enable the reduction of risk and creation of trust and thus are a direct enabler of trusted data sharing.

Your data, your choice

Actors shall have full autonomy in deciding with whom they share data with and under what conditions.

To stay in control over data, they need to be able to make all decisions in the process of sharing data themselves. This includes the decision with whom to share data with: Is it a specific actor, or a class of actors that share a common attribute? Is sharing mandated or prohibited by legal regulations that have to be followed? And what are the conditions under which the data will be shared: Are there restrictions, obligations, or special permissions? If it is their data, and they want to have full autonomy, they need to be able to make these choices. Not a third party that will make those decisions on their behalf!

With great responsibility comes great power

Actors shall be responsible for ensuring their freedom to act autonomously.

Autonomy in sharing their data does not come for free or easy. To ensure that they have full agency over their data they need to be in control of the sharing process. If they hand control over the sharing process to an intermediary they are no longer free and able to execute on their autonomous choice of sharing their data and thus will give up a certain amount of their agency. Intermediaries might be required to fulfill legal obligations or to streamline business processes, but they come at the cost of giving up some autonomy and agency!

Data spaces are decentralized and neutral

All actors shall be treated equitably in their rights and obligations.

A data space is a decentralized mesh of independent actors. It is impartial and neutral towards the actors. No actor of a data space shall have power over other actors. Every actor shall remain free to autonomously decide about their data and act with full agency in sharing it with others. Every actor has equal rights in offering data, requesting that data will be shared



and negotiating the terms of sharing their data. No intermediary (unless legally required) shall have the power to force actors of a data space to perform data sharing or to prohibit data sharing.

Data does not flow through the data space

Sharing of data is executed on private channels.

Data spaces are a mechanism to create trust to enable trusted data sharing through the exchange of metadata, consisting of policies and claims about actors, data, and data sharing contracts. The data itself is being shared on separate peer-to-peer channels, which are independent of the data space itself. Those peer-to-peer channels enable a diverse set of technologies and are fully customizable to the needs of the two sharing parties. Data can move or stay in place (Code2Data). The data space is agnostic to data management, storage, and processing technologies, although those technologies might have special awareness about trusted data sharing originating through a data space.

Unity in standards—freedom in implementation

Data spaces shall be based on international standards.

To enable every organization to participate in data spaces technical access must be based on standardized protocols. These protocols enable the creation of a global ecosystem of many different implementations which will cater to the needs of diverse organizations and communities. Many existing and new business models will be enabled by capabilities in implementations while a unified protocol basis ensures technical interoperability among actors. The protocol standards need to be openly available to anyone.

There is no single platform to rule them all

Data spaces shall be infrastructure agnostic.

Data spaces are not bound to a specific implementation technology, infrastructure or deployment platform. Different implementations can provide platform specific capabilities for optimal access to data spaces from that platform. Data spaces can be implemented on anything from an IoT device to global multi-stakeholder platforms, depending on the business model and business needs of the data space as well as the software implementing the protocols. Different platforms remain interoperable through the capabilities of the unifying protocol basis.

Data spaces are not data ecosystems

Data spaces are building blocks for data ecosystems.

Data spaces are a building block for data ecosystems and are not forming closed data community silos. They are the technology and the business process that enable trusted data sharing as a foundation for data-driven communities, business models and ecosystems. A data space is the tool that enables the creation of trust between two parties. It does not enforce any business models.

The opportunity is boundless

Data spaces shall be business model agnostic.

Data spaces enable a wide range of business models, many not even invented yet. The opportunities to create value are boundless once trusted data sharing enables data to move and to produce insights and value. New business models enabled through data spaces will enable unforeseen possibilities for value creation!

Act in good faith, but verify

Actors shall honor all data contracts and its associated policies and verify adherence by others.

Trust is a fundamental principle in data spaces, but trust can also be disappointed. Like in any network bad actors will exist. Don't be one of them! Any actor should always verify the actions of other actors that they are interacting with. It is within everyone's autonomous decision to decide not to share data with another actor. It is the actor's agency to stop sharing data if agreements are violated. There might be consequences of various kinds, e.g. technical, economic, legal consequences, for violating and withdrawal from a data sharing contract, and every actor shall be responsible and enabled to make this decision and act accordingly!

Call to action

We invite all organizations, data enthusiasts, technologists, and policy makers to join us in building the future of trusted data sharing through International Data Spaces. Whether you are developing new (open-source) technologies, crafting business models, or setting policies, the **above principles of data spaces are essential** to foster a fair, open, and innovative digital economy.

Now is the time to act:

1

Adopt and advocate for open, decentralized, trusted data-sharing systems that respect autonomy and agency regarding data.

2

Engage with the global community to develop free and open standards that ensure interoperability.

3

Create new business models and ecosystems on the foundation of trusted data sharing and data spaces.

Together, we can unlock the true potential of data for the benefit of all. Join us in shaping a future where data empowers, not constrains.



Any Questions? Contact us!

For technical inquiries:

Anil Turkmayali

anil.turkmayali@internationaldataspaces.org

Senior Project Manager

For content inquiries:

Nora Gras

nora.gras@internationaldataspaces.org

Senior Communication Manager

Cite as

Steinbuss, S., Spiekermann, M., Koen, P., The Data Space Manifesto, International Data Spaces Association, 2025

<https://doi.org/10.5281/zenodo.15190876>

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Dortmund 2025



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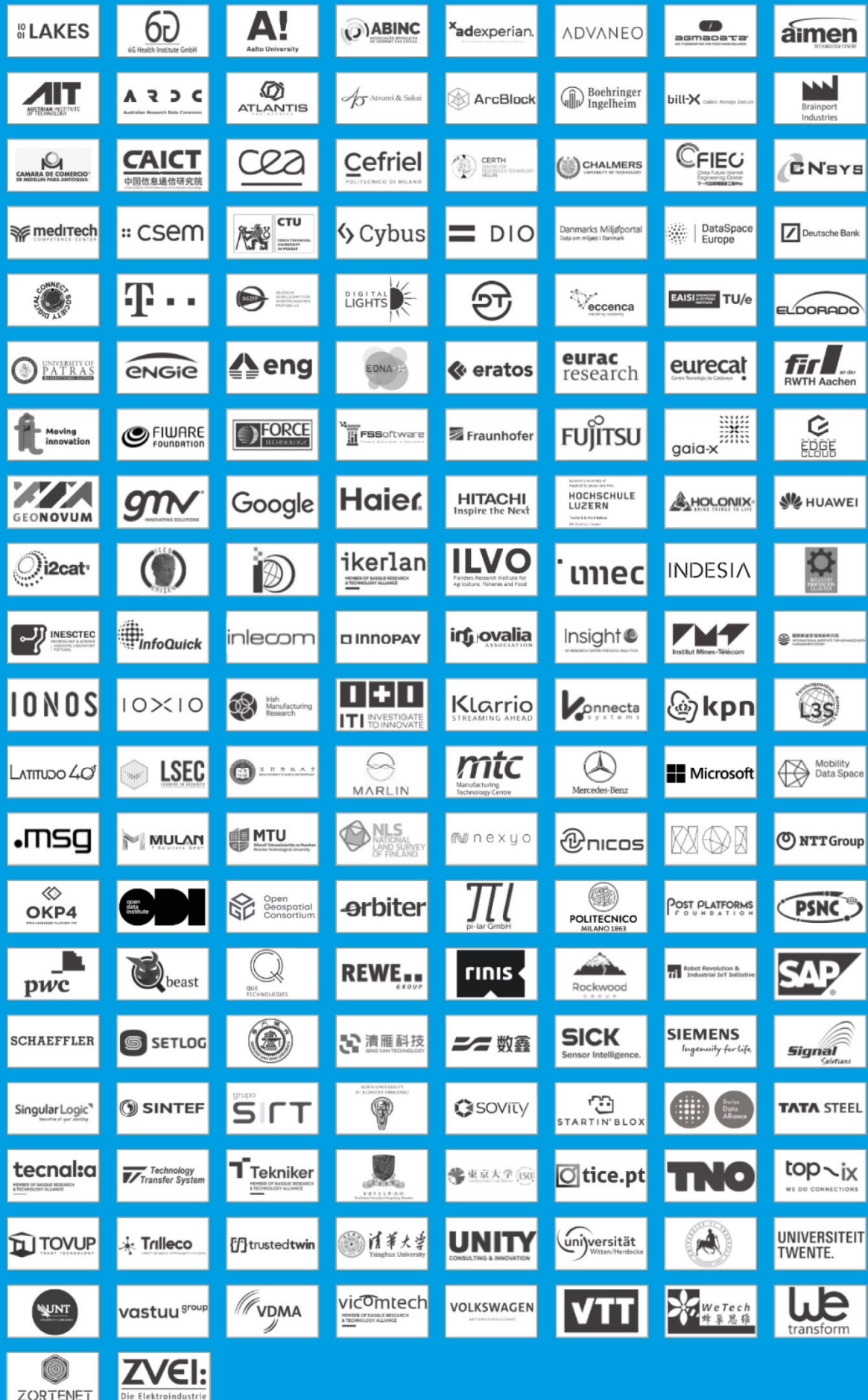
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INTERNATIONAL DATA SPACES ASSOCIATION

Emil-Figge-Str. 80
44227 Dortmund | Germany

phone: +49 231 70096 501
mail: info@internationaldataspaces.org

WWW.INTERNATIONALDATASPACE.ORG



[international-data-spaces-association](https://www.linkedin.com/company/international-data-spaces-association)