

A SHORT GUIDE INTO THE DATA ACT



TO DATA INTELLIGENCE INITIATIVE



DIO promotes the Austrian data economy in order to take on an international pioneering role in the intelligent use of data. With decentralized data spaces, DIO creates a secure ecosystem to promote data-driven innovation, sustainable value creation and prosperity.

Austria is an attractive business location that can maintain value creation, innovation and prosperity through data sharing and data spaces. Austria has a perfectly functioning data market in which all stakeholders can interact seamlessly without any hurdles. Along the entire value chain are networked, communicate and trust each other. Austria strengthens its existing companies and promotes new business models through an available and functioning data system that is based on legal regulations and transparent contracts.

Data spaces and use cases help to take a concrete and domain-specific view of data challenges. Data spaces focus on higherlevel domains (economic sectors, industrial sectors or other specialist fields of application), with a decentralized data infrastructure on which use cases can be based. This document is a recommendation on the implementation of the Data Act.

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DATA ACT - WHAT IS INSIDE

The Data Act is an important piece of European legislation that aims to regulate the use of and access to data in the European Union and promote a fair data economy. The law, which was proposed by the European Commission in 2022, complements the existing Data Governance Act and is part of the comprehensive European data strategy, which aims to improve the handling of data in an increasingly digitalized society. The Data Act pursues several main objectives: promoting innovation and new business models, strengthening the rights of consumers and companies in relation to the use of data and ensuring fair and transparent access to data.

A central concern of the Data Act is the creation of fair access to data generated by networked devices and products. This includes, for example, data from smart household appliances, vehicles, machines and other Internet of Things (IoT) devices. The idea is that both consumers and companies gain more control over the data they generate and are not exclusively dependent on the manufacturers of the devices. This is intended to stimulate innovation by allowing third parties to develop new services based on this data, such as monitoring, maintenance or optimization services.

Another aim of the Data Act is to promote the data economy. The European Union recognizes the importance of data as a key factor for economic innovation. By creating a clear and uniform legal framework, the aim is to promote the willingness of companies to share data with each other. The rules of the Data Act are intended to facilitate the exchange of data between different players and at the same time ensure the protection of the data concerned. Small and medium-sized enterprises (SMEs) in particular should benefit from this by having easier access to data, which will enable them to achieve competitive advantages and develop innovative business models.



DATA ACT - QUICK FACTS

Scope

Data from connected products and associated services Product data generated through the use of connected products

Service-related data generated during the provision of services Includes both raw data and pre-processed data.

Includes both personal and non-personal data.

Excludes content that is protected by copyright.

Users have the right to access and use the data generated by them

Data owners must make the data available to the user and third parties at the user's request.

Fair, appropriate conditions for data release

Promotes switching between data processing services

Enables data release to public bodies for exceptional needs.

Challenges

The Data Act must ensure that increased data exchange does not compromise privacy or existing data protection laws.

With increasing data exchange, maintaining data quality becomes even more crucial for effective development.

Without standardization, the benefits of data exchange could be limited.

Interoperability is essential for seamless data exchange between different providers, devices, and systems.

Andere Challenges

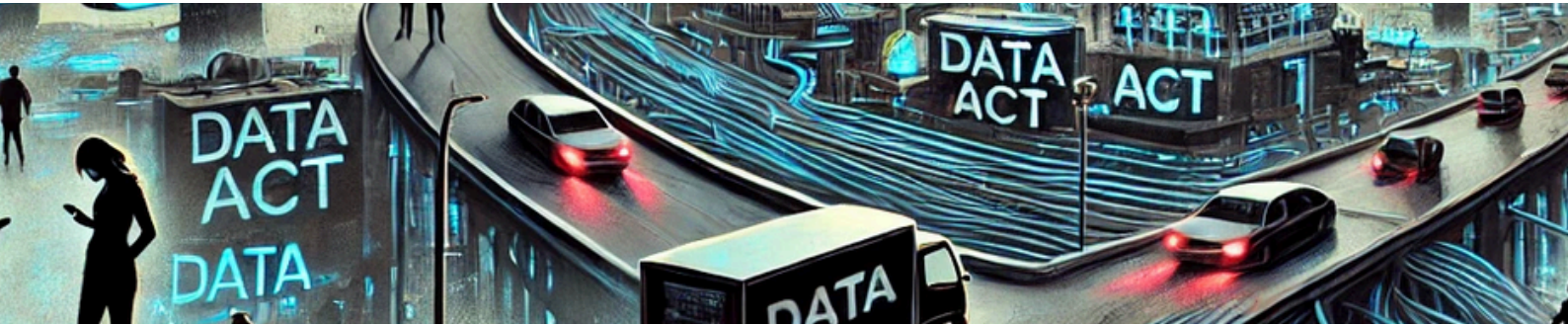
Supplements the existing EU Data protection laws (GDPR and ePrivacy)

Complements existing EU consumer protection laws.
Interferes with existing protection laws for intellectual property laws.

Does not apply to law enforcement, national security or areas outside the jurisdiction.

Includes data interoperability

DATA ACT - WHAT IS INSIDE



A central aspect of the Data Act is strengthening the rights of consumers and companies in relation to their data. Users are given the right to access the data generated by the devices and products they use. In addition, they have the option of passing this data on to third parties in order to use services from other providers. This leads to increased freedom of choice and promotes competition, as providers are forced to differentiate themselves through quality and innovation instead of tying consumers down through data monopolies.

Another important element of the Data Act is the regulation of access to data by the public sector. In certain crisis situations or emergencies, such as natural disasters or pandemics, it may be necessary for public authorities to access specific data in order to respond quickly and effectively to the crisis. The Data Act sets out clear rules on the conditions under which this access to data is permitted in order to prevent misuse. Access must be proportionate and clearly compensated in order to protect the interests of the parties involved.

In addition, the Data Act also deals intensively with data portability and interoperability. It aims to remove obstacles that make it difficult to switch between different providers of cloud services or other digital services. A key concern here is interoperability, i.e. the ability of different systems and software products to communicate with each other and exchange data seamlessly. Standardized interfaces and regulations should make it easier for users to transfer their data between different platforms without being dependent on one provider.

Another relevant aspect of the Data Act is the protection of sovereignty over data within the European Union. In an increasingly globalized and digitalized world, it is crucial for the EU to maintain control over the flow of data and reduce dependence on non-European providers. The Data Act aims to ensure that data flows within the EU remain regulated and that European values such as data protection and data security are upheld. In this way, the Act helps to strengthen the EU's digital sovereignty.

DATA ACT – IOT DATA SHARING¹

Data generated by networked products or the associated services must be provided to the user - who does not necessarily have to be a natural person - in a simple, secure and free of charge manner. The data should be accessible in a structured, commonly used and machine-readable format and, where technically feasible, made directly available. If direct access is not possible, the available data, including the metadata, must be made available to the user immediately, simply, securely, free of charge, machine-readable and, if possible, continuously and in real time. At the user's request, this obligation to make data available also applies to third parties, albeit for a fee.

The manufacturer of a networked product or associated service is obliged to design it in such a way that the generated data is directly accessible to the user. If direct access to the data is not feasible, the Data Act becomes active and obliges the data owner - who may also be the manufacturer - to provide the product and service data. The data controller may only use the user's existing, non-personal data if this is contractually regulated.

However, the access rights and obligations between users and data owners do not apply without restriction to all types of data. The Data Act primarily covers raw data such as hardware status or error messages, readable data such as gradient or speed, and metadata such as timestamps. However, information derived from this data, such as the results of proprietary algorithms obtained through additional investments (e.g. the interpretation of speed data), is excluded from this right of access. In addition, data generated during the recording, transmission or playback of content, as well as the content itself - which is often protected by intellectual property rights - does not fall within the scope of the Data Act.

Companies are obliged to provide relevant data at the request of certain EU institutions or public bodies. This generally presupposes that there is an exceptional need to use the data, such as in the event of a public emergency or to fulfill a government task if the required data is not available by other means.



Info

<https://digital-strategy.ec.europa.eu/de/policies/data-act>

Cf. art. 14 ff. DA

Cf. art. 14 in conjunction with art. 15 DA. Art. 15 DA

Cf. art. 23 ff. DA.

Cf. art. 25 DA

Cf. art. 29 DA.

Cf. art. 30 & 35 DA

Cf. art. 30 DA.

Cf. art. 35 DA

¹ See Art. 32 DA

(1) Chapters 2-4 of the Data Act

DA - IOT DATA SHARING: WHAT TO DO?

1

It must be determined which of the company's own products and services are fundamentally considered to be networked products or connected services within the meaning of the Data Act. This requires a comprehensive analysis of the entire product and service portfolio, including past products that may already be at the end of their life cycle.

2

As a provider of networked services, I have a duty to provide information.

- Type, scope and frequency of data collection
- Storage of data
- Processing of data etc.

3

Identifying the correct claimant - the key determinant of the role of data owner is whether there is actual access to the data generated by the connected product or service and whether there is an intention to use this non-personal product data. If the original manufacturer or supplier does not have access to this data, for example because the data is stored exclusively by the manufacturer, only the manufacturer of the product is considered the data owner and is therefore the contact person for the data access claim.

4

In the Data Act, a declaration of consent must be obtained from the user for data processing or data sharing. In turn, contract/consent management systems could be helpful here.

5

It must be clarified which specific data from different sources is required across the entire product life cycle and how this can be effectively merged to ensure standardized and legally compliant access. One challenge could arise from separate data silos that exist for different networked products or associated services. The situation becomes even more complicated if the company's own service providers (such as maintenance services) store data in separate systems. Here, it must be clarified who is responsible and who acts as the data holder.

As part of the Data Act, it would therefore be advisable to take an inventory of all data sources and check their relevance. Obsolete and redundant data could be removed - if permitted by the Data Act - which would lead to an optimized and more efficient data structure. Cleansing the data sources would not only reduce storage requirements, but also increase data quality and simplify administration.

DA – IOT DATA SHARING: WHAT TO DO?

6

As part of the implementation of the Data Act, comprehensive data governance policies can be introduced that set out clear responsibilities and processes for the use and management of data. If this has not yet been done, a Chief Data Officer (CDO) can be appointed to ensure the development of and compliance with these guidelines.

Such clear data governance guidelines create transparency and security in data management and ensure that both legal and organizational requirements are met.

7

Establish a dataspace or join a dataspace. Dataspaces within the framework of the Data Act offer an innovative solution for establishing the necessary data exchange. By providing a standardized infrastructure, they enable companies, institutions and public bodies to share and use data in a trustworthy and controlled manner. A dataspace acts as a neutral space with clearly defined access and usage rules that ensure that all stakeholders involved retain their data sovereignty while benefiting from the data of others. This is particularly important in areas such as healthcare, mobility, energy or manufacturing, where large amounts of data are available that offer valuable insights and optimization potential in their entirety, but are often scattered across different systems and organizations.

The establishment of a dataspace has far-reaching benefits: it facilitates collaboration between companies, public institutions and research organizations, which can work together on innovative solutions and business models without having to fear that their data will be misused. At the same time, access to data is made easier for small and medium-sized enterprises, which often have limited access to large amounts of data. By providing standardized protocols and interfaces, a dataspace improves interoperability and increases efficiency by eliminating the need for complex and costly integrations between different systems. Another benefit is compliance with the Data Act, which aims to promote fair access to data while protecting the rights of data owners. In this sense, a dataspace provides the basis for a future-oriented data economy that is based on trust, security and transparency and strengthens both the innovation potential and competitiveness of the European market.

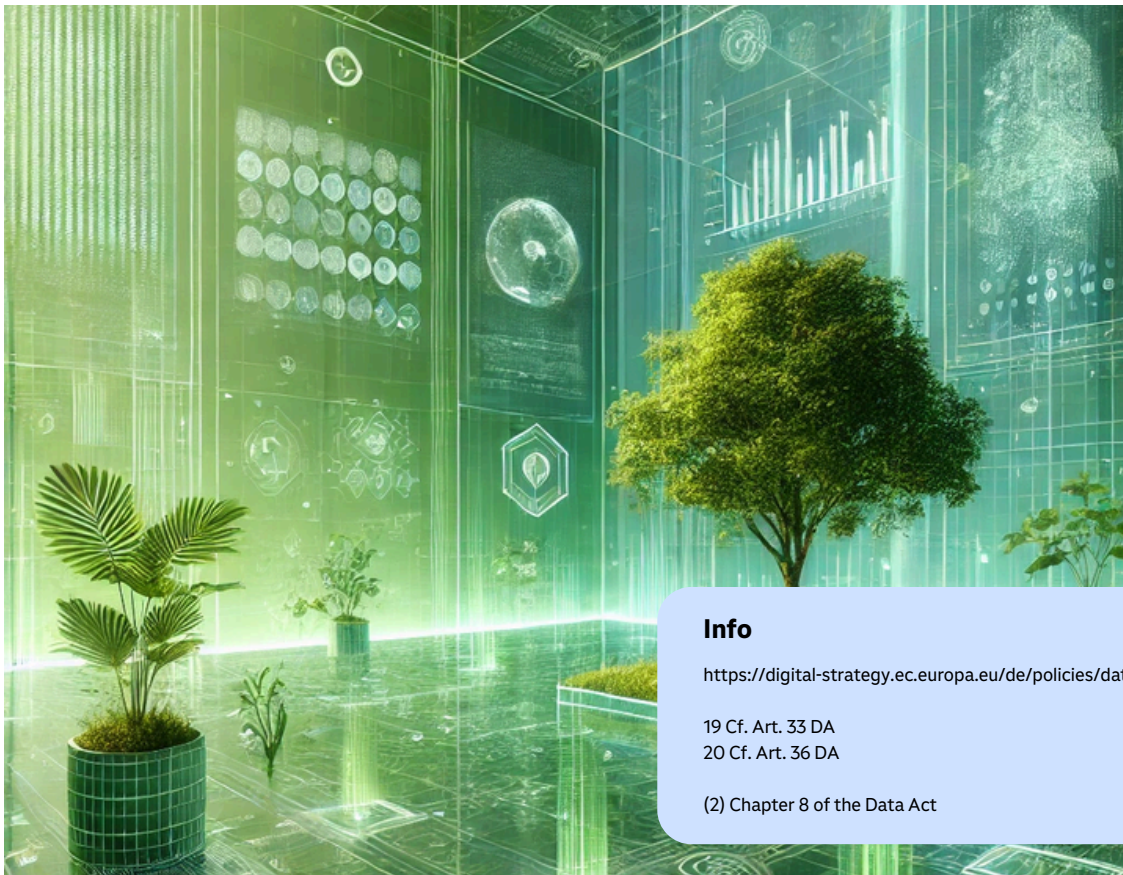
DATA ACT

DATA SPACES & DATA SHARING

SMART CONTRACTS²

Participants in common European data spaces are obliged to comply with specific interoperability standards. This includes, in particular, the provision of certain metadata, which includes information on dataset content, licenses, data quality, formats, APIs and the like. The smart contracts in the data spaces must ensure that these contracts meet defined requirements, such as those relating to stability, access control, termination and pausing, as well as archiving and continuous access to data.

Companies are obliged to provide data at the request of certain EU institutions or public authorities. However, this is only permitted if there is an urgent need to use the data, for example in the event of a public emergency, or if the data is required to fulfill a government task and cannot be obtained otherwise.



Info

<https://digital-strategy.ec.europa.eu/de/policies/data-act>

19 Cf. Art. 33 DA
20 Cf. Art. 36 DA

(2) Chapter 8 of the Data Act

DA - DATA SPACES & SMART CONTRACTS: WHAT TO DO?

1

As part of the Data Act and the use of dataspace, it is crucial that companies have a clear overview of their existing data pools. The first step is to identify and categorize the company's internal data in order to understand what data is available and how it can be used.

The introduction of a data catalog (data assets) is of central importance here. Such a catalog acts as a comprehensive inventory list of all relevant data sources in the company and makes it easier to manage and access various data sets. The data catalog should be structured in such a way that it clearly documents all data resources and makes them easily accessible to authorized users. It is also essential to provide the data in the catalog with meaningful metadata. This metadata provides important information about the type, content, structure, origin and quality of the data. This ensures that all stakeholders who access the data understand the context in which it was collected and the purposes for which it is suitable.

2

Although the Data Act does not oblige anyone to participate in a data room, participation offers considerable advantages. It promotes interoperability and facilitates the secure exchange of data between companies and institutions, leading to more efficient processes, improved cooperation and new opportunities for innovation

3

The implementation of licenses and clear access and usage policies for smart contracts is essential in the context of dataspace. These ensure that the conditions for data access and use are adhered to transparently and automatically so that all participants in a dataspace can interact in a legally compliant and efficient manner. Such policies regulate who may access which data and under what conditions, which strengthens trustworthiness and legal compliance within the data space

4

Join a trusted data space that supports the standards set out in the Data Act. Such a dataspace provides you with the infrastructure and technical standards required for secure and compliant data exchange.

Regularly review data transfer processes and adjust licenses and security standards as necessary to meet current legal requirements and technological developments.

USING THE DATA ACT

Example - consumer protection:

Under the Data Act, consumer protection could be significantly strengthened through more comprehensive data availability, as companies would be increasingly obliged to make relevant information on their products transparent and accessible. This data could include details on production sites, materials used, chemicals used and information on the recyclability of products. This would give consumers the opportunity to be comprehensively and thoroughly informed about the quality and sustainability of a product before they make a purchase decision.

A concrete example would be the purchase of an electronic device such as a smartphone. The Data Act could oblige manufacturers to provide data that discloses the origin and processing of critical raw materials (e.g. rare earths and metals). In addition, information on working conditions in production facilities and environmental standards in supply chains could be made available. This would enable consumers to choose more sustainable and ethically responsible products, which in turn would motivate companies to adhere to higher standards in terms of labor rights and environmental protection.

The Data Act could also support the traceability of products with regard to their environmental footprint. For example, consumers could use a QR code on the packaging to find out more about the carbon footprint of a product or gain insight into its recycling options. Such access to data makes it possible to choose products consciously and with regard to their lifespan, which in turn helps to reduce waste and promote the circular economy.

Through this transparent access to data, the Data Act would strengthen consumer confidence and create a reliable basis for conscious purchasing decisions that are not only based on price and functionality, but also on the ethical and ecological values of product production.

USING THE DATA ACT

Example - agriculture:

With the Data Act, agriculture could be continuously optimized through shared access to comprehensive data, which could significantly increase efficiency, productivity and sustainability in the industry. Farms could share anonymized data on soil health, weather conditions, pest infestations and crop yields via a common network. This data could then be collected and analyzed in a dedicated "agricultural data room", allowing farmers to access valuable information and make informed decisions.

One concrete example would be the optimization of soil use. If farmers share soil samples and analysis data, a comprehensive picture of soil conditions in different regions could emerge. With this information, farmers could find out which crops thrive best in which soil type and region and thus plan in a more targeted manner. By sharing data on fertilizer requirements or nutrient deficiencies, fertilizers could also be used precisely and according to need, reducing both costs and the ecological footprint.

In addition, regularly updated weather data could help farmers to better adapt harvest and planting cycles to seasonal and regional climate conditions. A nationwide network for collecting weather data could support early warning systems for extreme weather events, so that farmers are protected against heavy rain, droughts or frost and can take countermeasures in good time. The ability to share such information in real time could reduce damage to yields and minimize risks in agriculture.

In addition, the exchange of data on pest infestations and disease outbreaks would be of great benefit. If farmers in a particular area report an outbreak of pests or plant diseases, other farms in the area could be informed early and take preventative measures to protect their own crops. This knowledge transfer could also encourage the development of new, more natural pest control methods, which in turn protects the environment and reduces reliance on pesticides.

The Data Act would therefore enable agricultural businesses to access a shared knowledge base that helps them to use resources more efficiently, reduce costs and operate sustainably at the same time. The collective use and analysis of agricultural data would make agriculture in Europe more resilient and environmentally friendly and could also promote innovation in the sector by establishing data-based approaches to solving problems in farmers' everyday lives.

USING THE DATA ACT

Example - Industry:

Let's imagine we work in the automotive industry and are developing a new electric vehicle. The sensors in production continuously provide IoT data on various production steps, such as the quality and efficiency of battery production, assembly and calibration. This data could be securely shared via the Data Act with a research partner or university that has specialist expertise in battery development. Researchers could use this real-time data to analyze how the batteries react under different production conditions, for example, and optimize their service life and performance.

Another example is the optimization of materials and resources in production. If you provide IoT data on material efficiency and waste in your production line, external partners or companies in the same industry could use this data to jointly develop more sustainable production methods and use materials more efficiently. This could lead to the development of innovative materials or resource-saving processes that not only reduce costs but also contribute to achieving sustainability goals.

The Data Act could also play an important role in the pharmaceutical industry. If you provide IoT data on temperature and humidity control in the production of sensitive active ingredients or medicines, external laboratories or research institutes could use this data to develop new standards for storage and production. This would enable more precise control of environmental conditions, which would increase the quality and shelf life of products and lead to innovations in drug production.

Complex production machines are installed in the plant, where unplanned downtime would cause significant production delays and high costs. With the help of IoT sensors, you can measure vibrations in the machine bearings, for example. If these values suddenly deviate from normal operation, this could be an early sign of a possible defect. Using a data room, you could automatically share this data with the maintenance provider or machine manufacturer, who can carry out predictive diagnostics based on this information. The data could be analyzed in an AI-supported system that detects anomalies at an early stage and suggests maintenance measures before damage occurs.

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