



**➤ Secure and privacy-aware reference architecture for medical health data spaces**

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# Motivation for Health Data Spaces



<https://www.tagesschau.de/inland/e-rezept-lauterbach-100.htm>



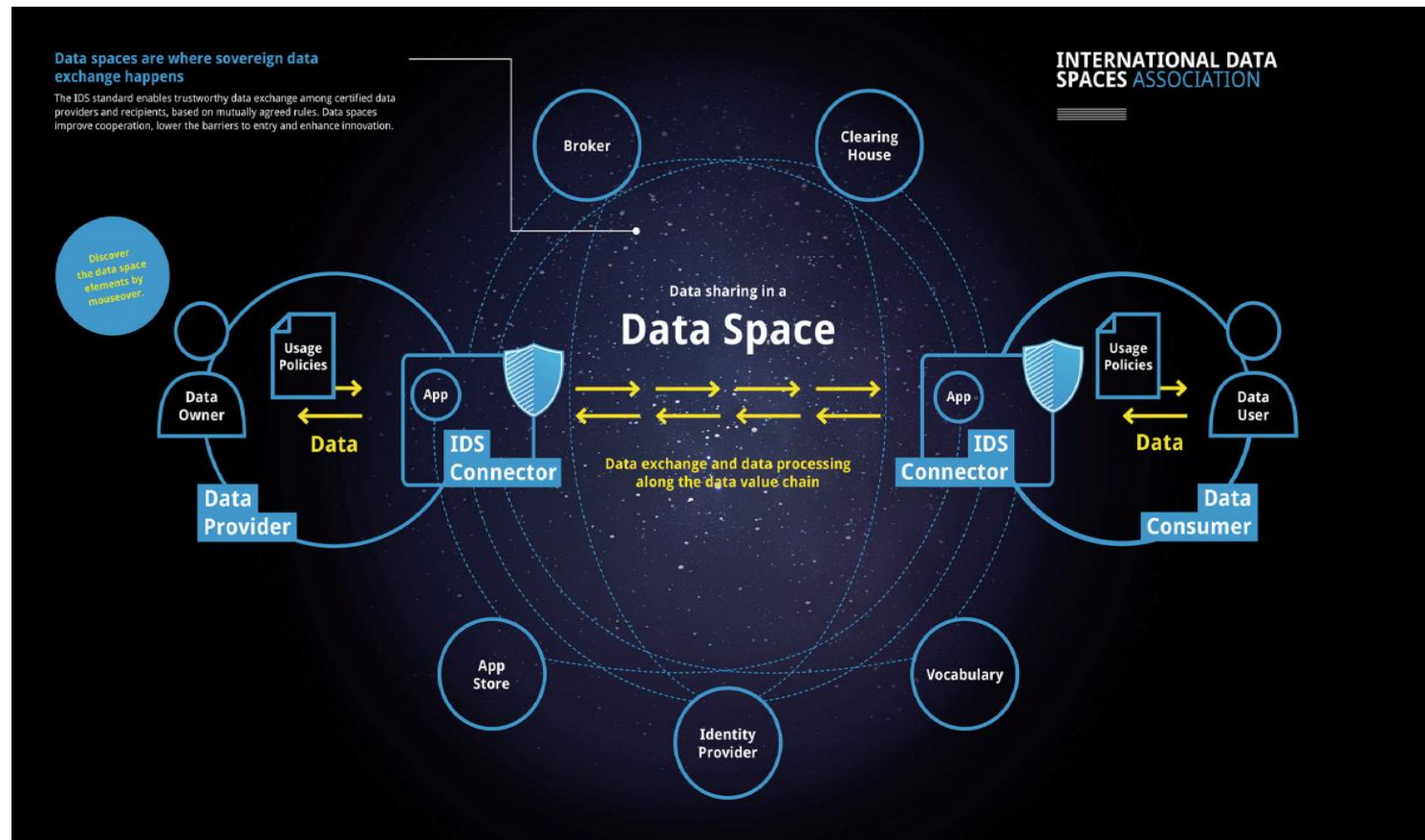
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[https://health.ec.europa.eu/ehealth-digital-health-and-care/european-health-data-space\\_en](https://health.ec.europa.eu/ehealth-digital-health-and-care/european-health-data-space_en)

# Background: IDS RAM

Data Sovereignty: IDSA aims to enable people, organizations and governments to have control over their data, including collecting, storing, sharing and processing



Goals of the International Data Spaces:

Trust

Security

Data Sovereignty

Standardized interoperability

# Research objectives

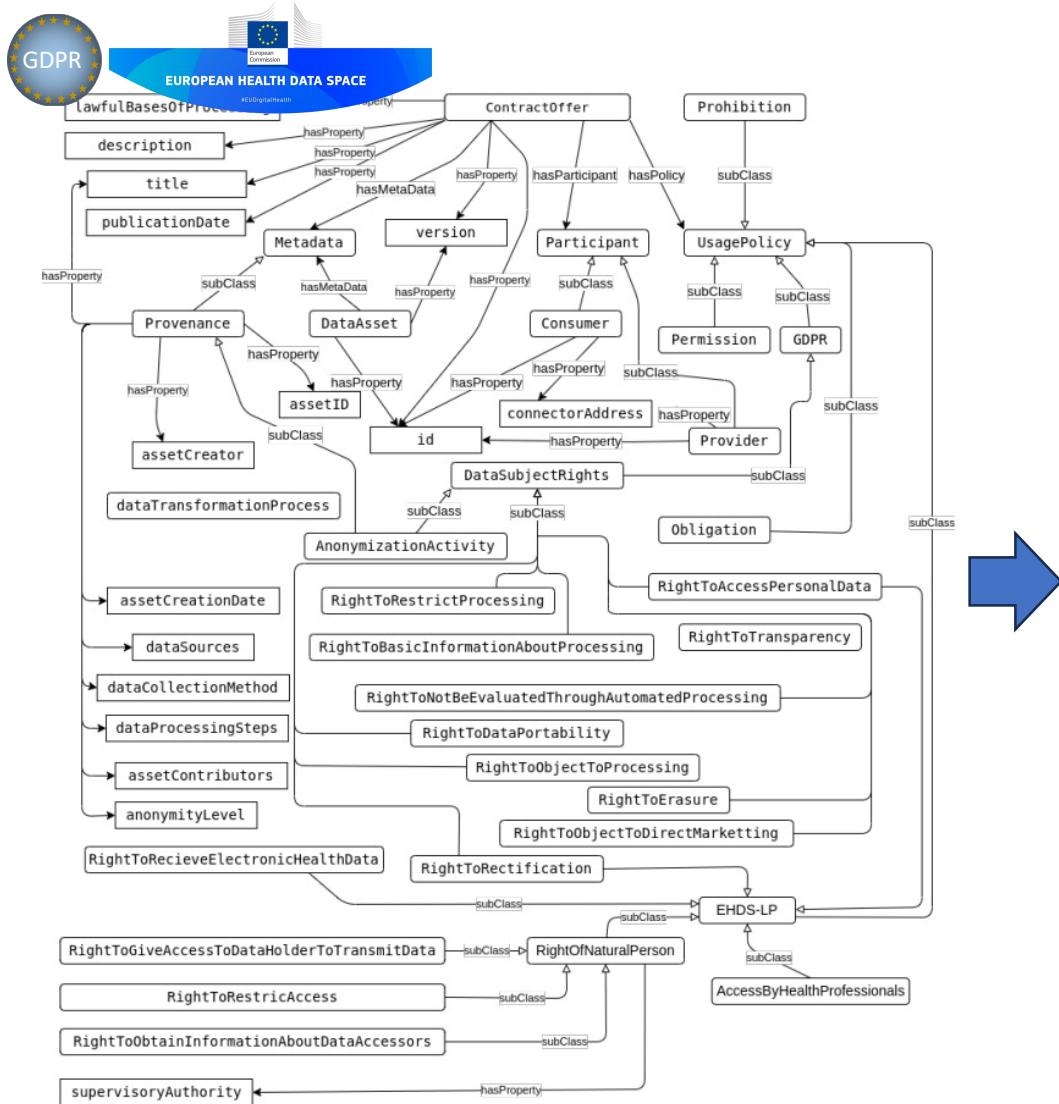
A structure for contracts on data sharing in data spaces that support privacy and security requirements (Sub-project T1.3)

A privacy-friendly data sharing in medical data spaces ensuring patients and legal requirements (Sub-project T4)





# Results: Contracts for data sharing in data spaces



```

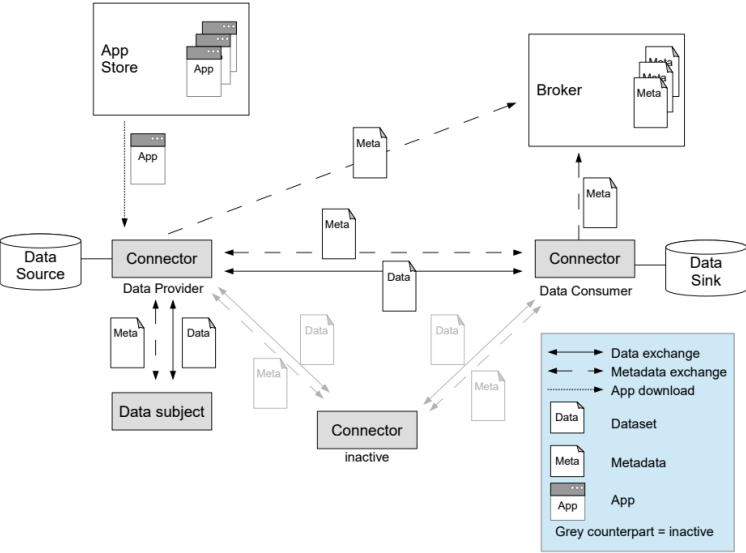
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34    },
35    "version": {
36      "@type": "co:version"
37    }
38  }
39 }

```

Data space ontology:  
Creates a vocabulary for data sharing contracts. It focuses on security, privacy and data provenance.

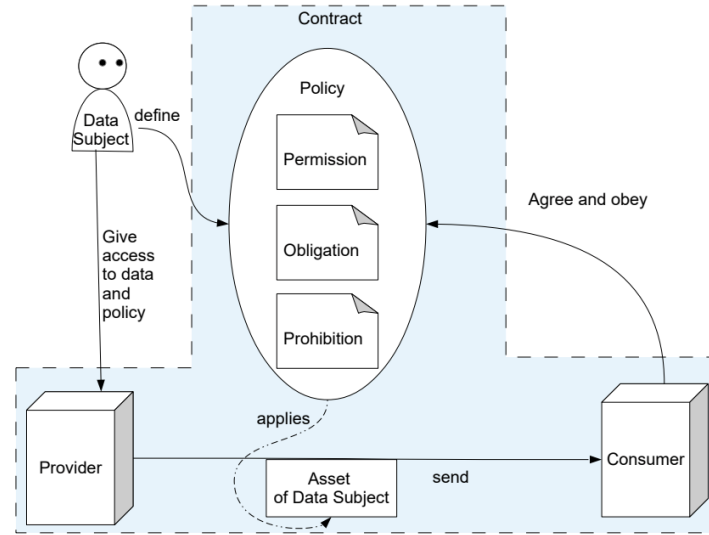
Structured contract:  
Serves as a contract template for data sharing in data spaces. It enables participants in a data space to define their roles, rights and responsibilities.

# Results: A reference architecture for data spaces in medical context supporting privacy



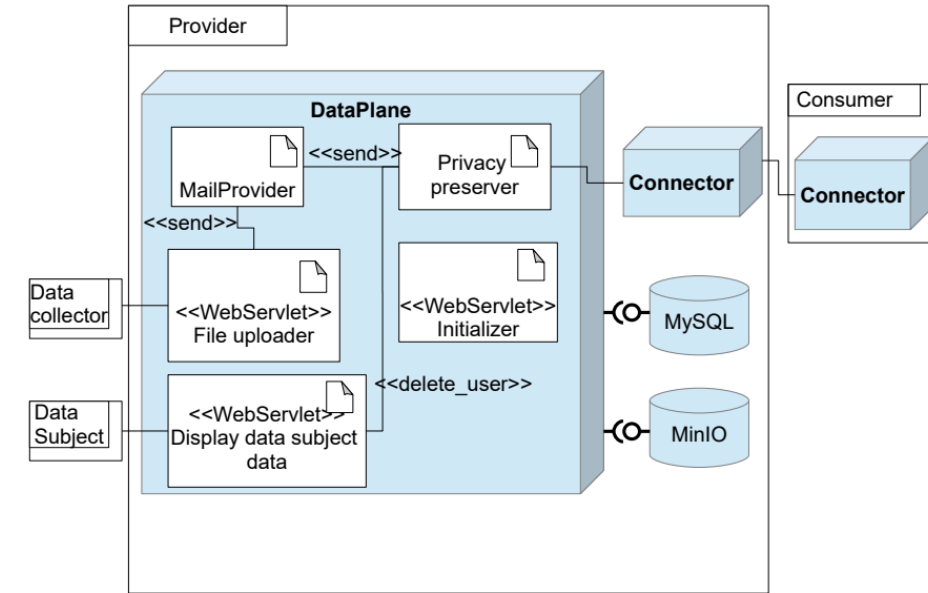
## IDS RAM:

Assurance of data sovereignty for the creator of the data and trust among participants



## Contract exchange:

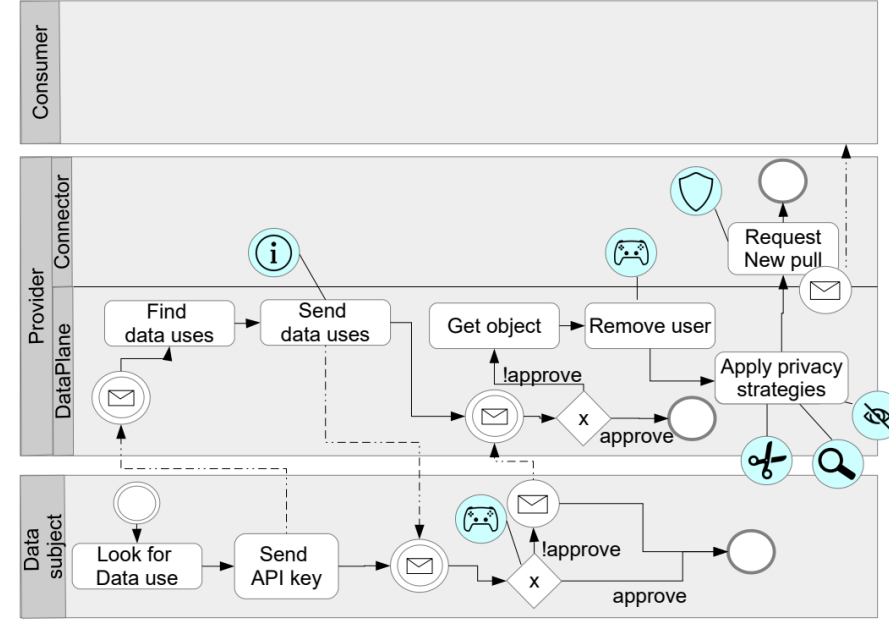
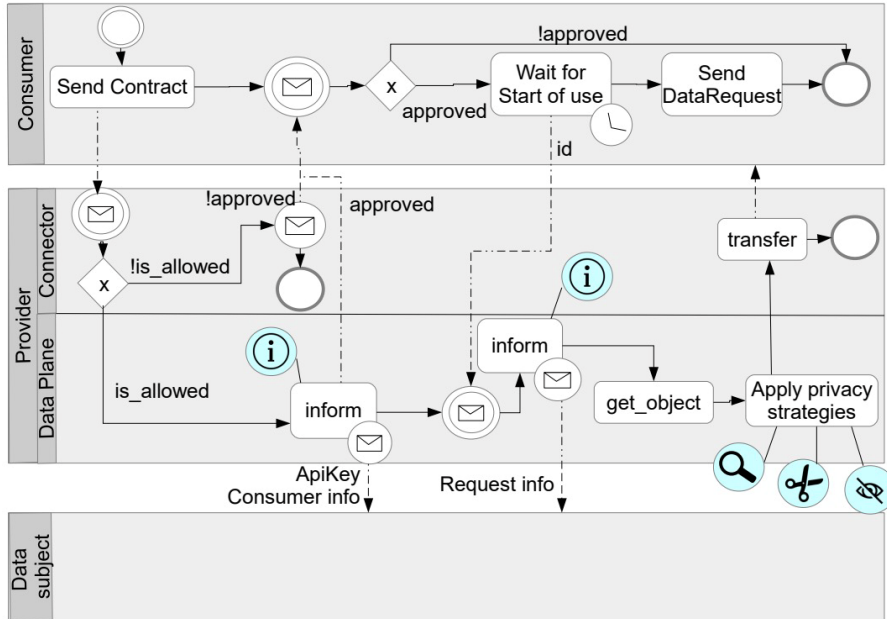
Contracts are essential for setting terms on data sharing. The data subject creates a policy with permissions, obligations and prohibitions



## Application architecture

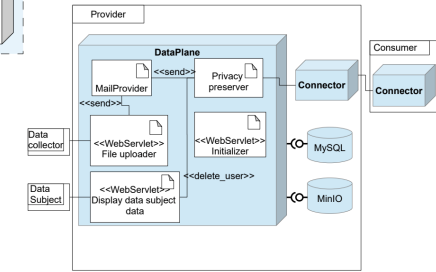
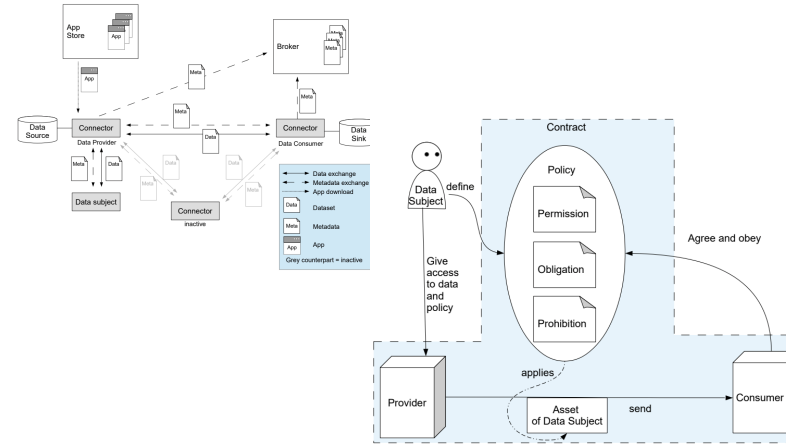
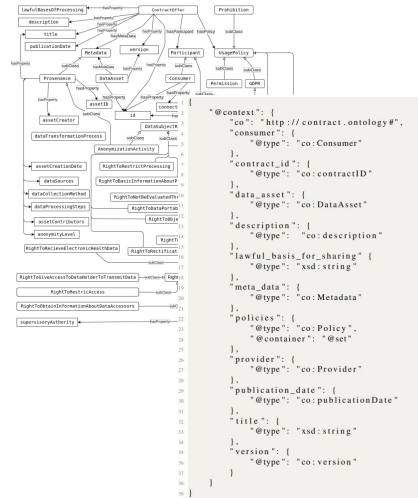
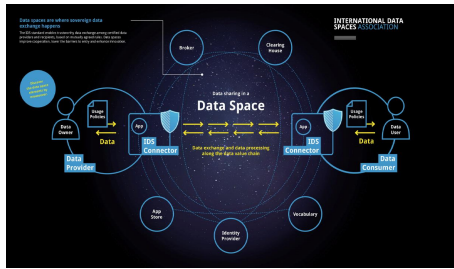
The EDC connector enables data sharing by managing policies and cataloguing assets

# Results: A reference architecture for data spaces in medical context supporting privacy



Data processing supporting patients in data spaces:

To realize patients (data owners) privacy requirements according to the General Data Protection Regulation, several privacy design strategies are integrated into the default processing scenarios of the IDS RAM



Thank you for your attention