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A data spaces example for Research Data Sharing

Dr. Carina Kemp

Principal Business Development Manager,
Research - World-Wide Public Sector – Global
Education Industry Team

AWS

David McAmis

Principal Solution Architect
AWS



International data spaces



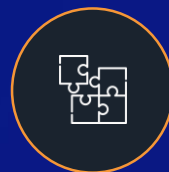
Researchers and Industry want to share data with a trusted community of organizations, but face challenges



Data silos



Lack of trust



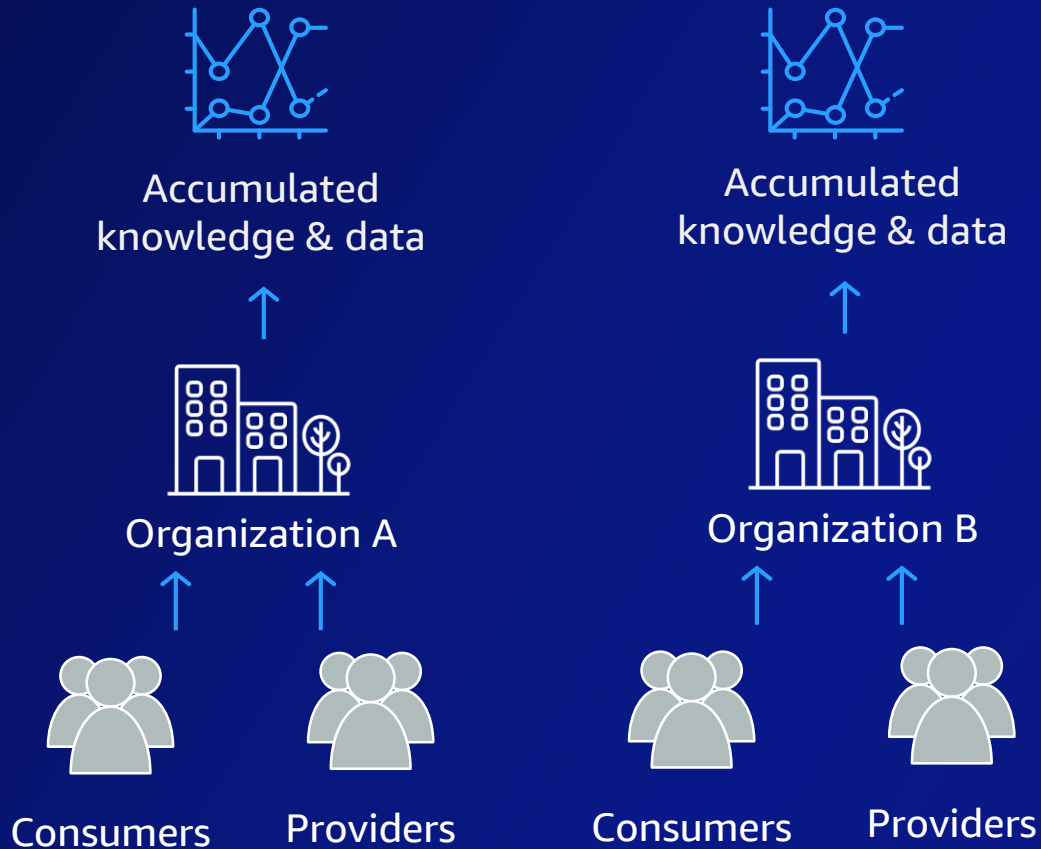
Lack of standards

What are data spaces?

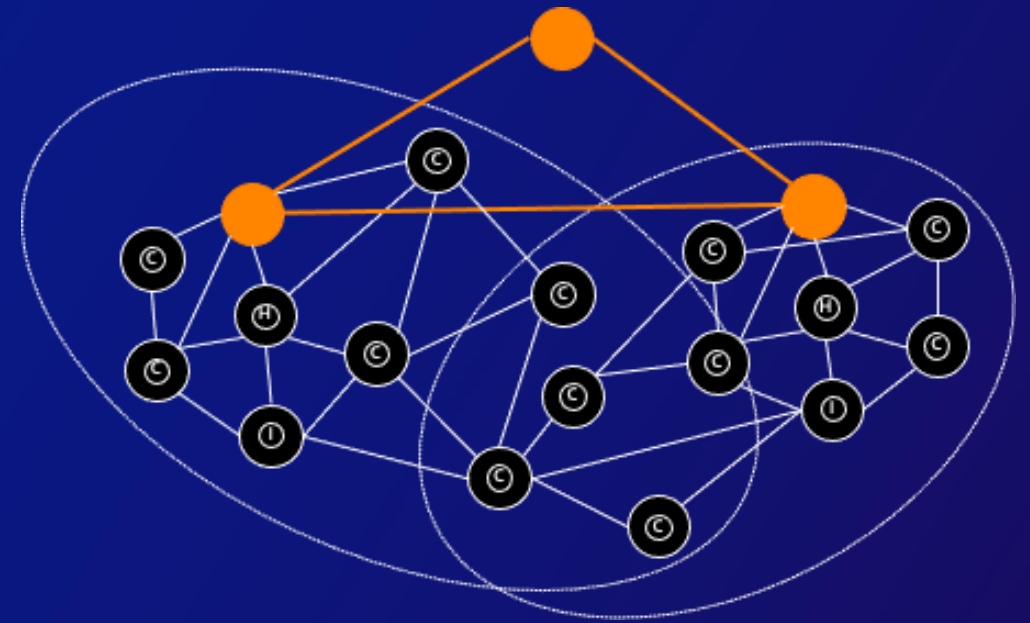


Data spaces for inter-organizational data sharing

Data silos across organizations

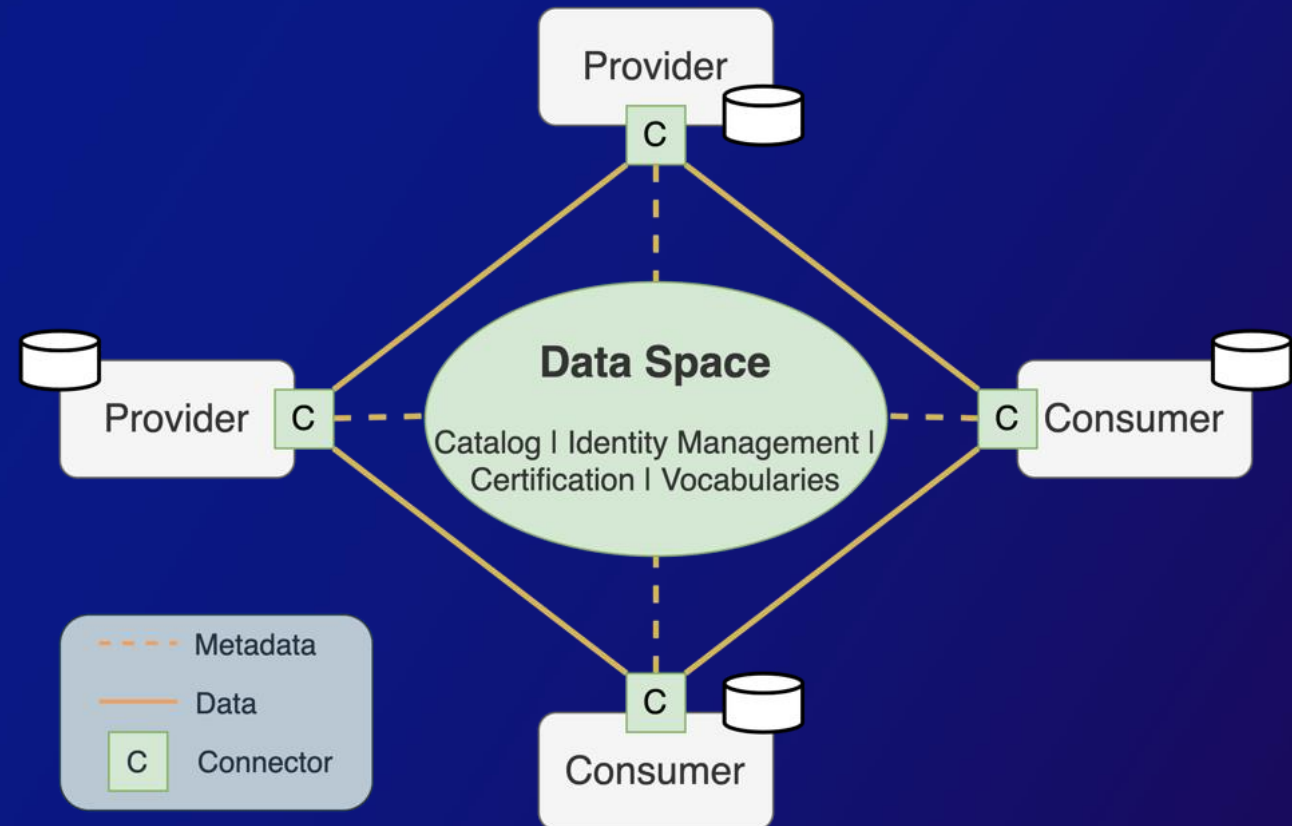


Data Space

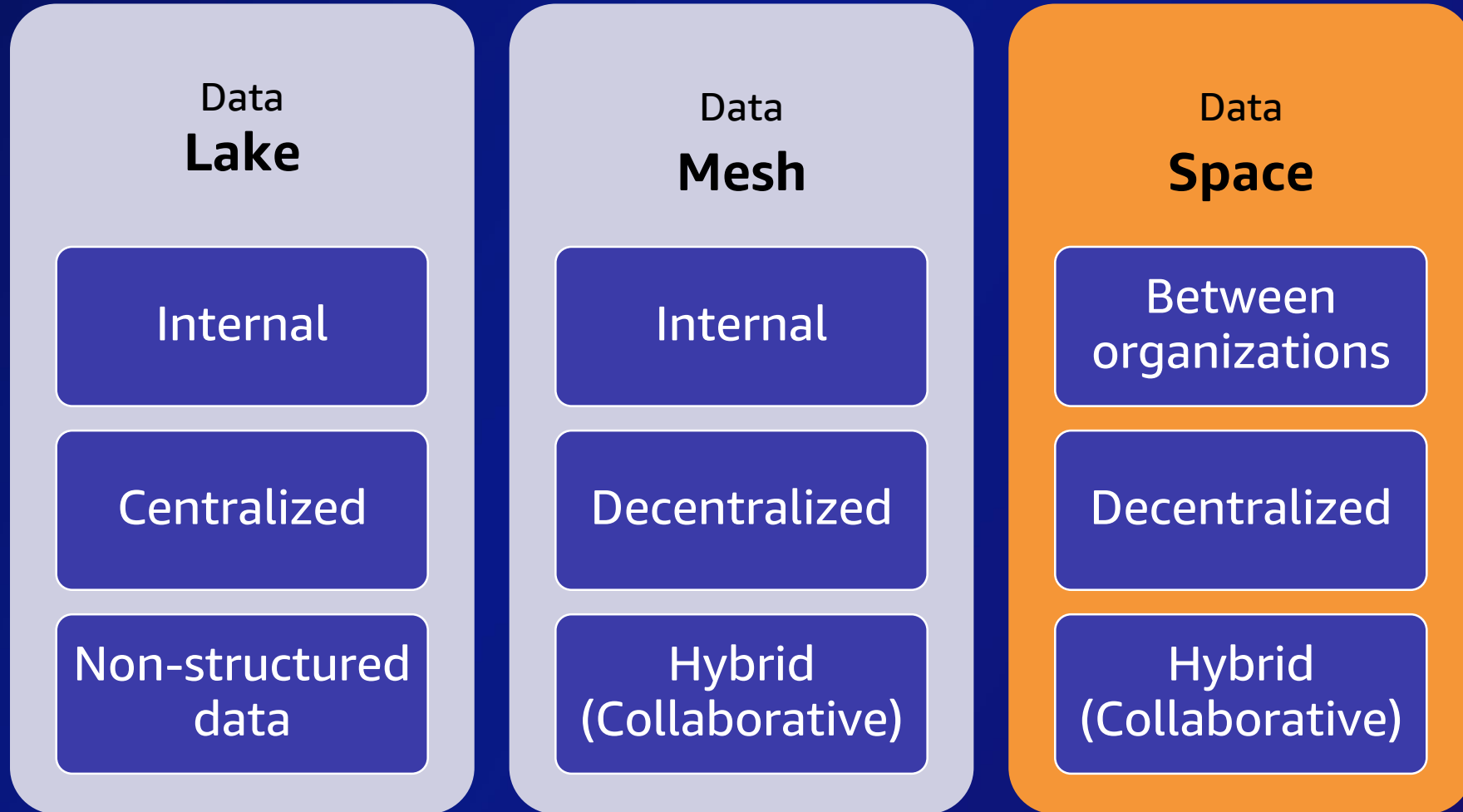


Key Requirements of a data space

- Participants want to pool, access, process, use and share data
- Open and decentralized data exchange
- Software functionality for data sovereignty and trust
- Standard building blocks
- Interoperability and portability

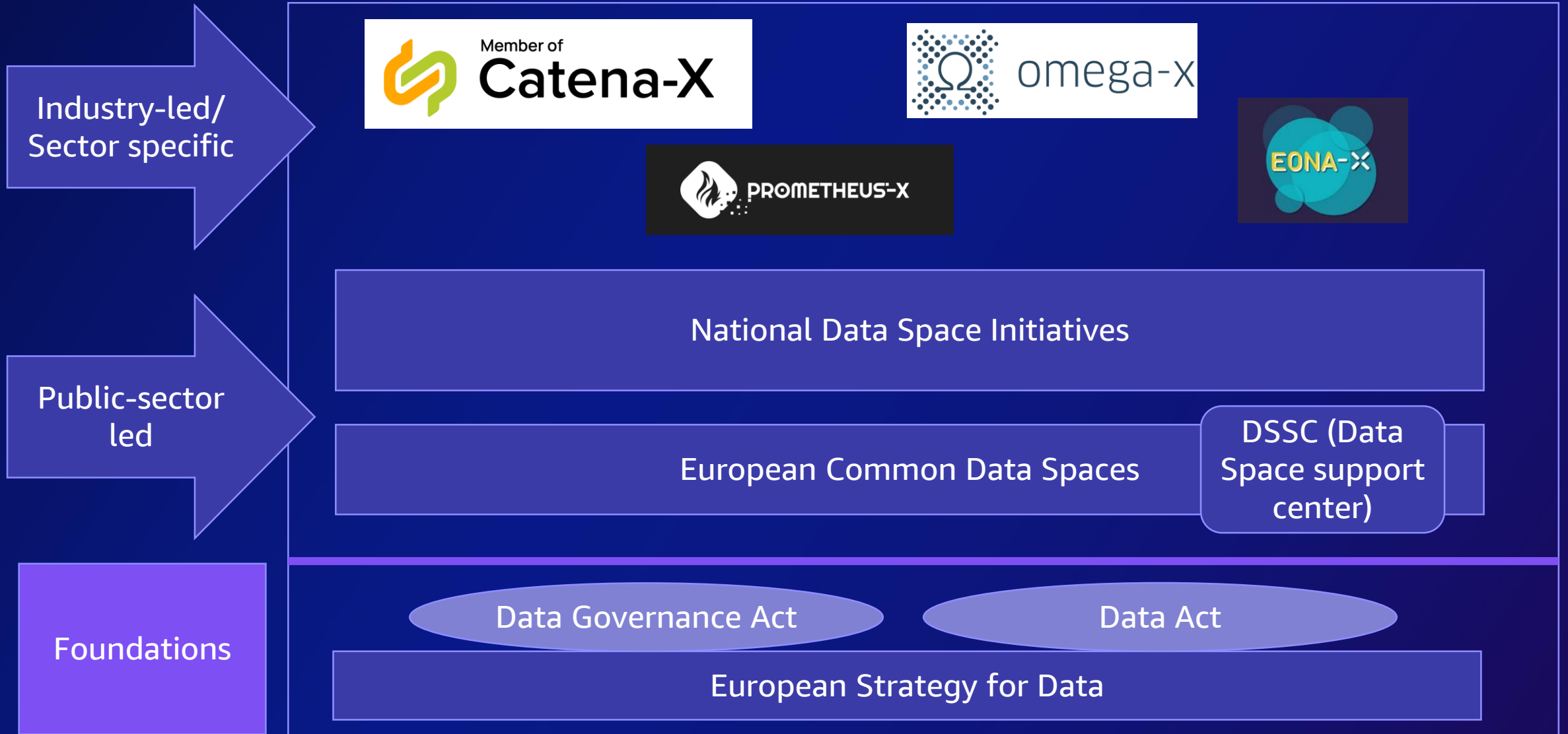


Cooperation on data



EU data spaces landscape

Key Initiatives



Common european data spaces



Mobility

Preventing car accidents through local hazard tracking via car sensors and data-sharing



Energy

Creating better models to understand the renewable distribution systems



Industrial & Manufacturing

Achieving supply chain transparency through an automatized exchange of data between all involved supply chain parties



Public administration

Increasing transparency and integrity through linking industry data and public procurement data across Europe



Green Deal

Creation of open digital solutions for identification, tracking, mapping, integrity-check and sharing of product information.



Skills

Modelling educational trends and guidance pathways to improve tailor-made counselling



Health

Identifying patients of high risk of disease by integrating long-term follow-up data from hospitals and health insurers

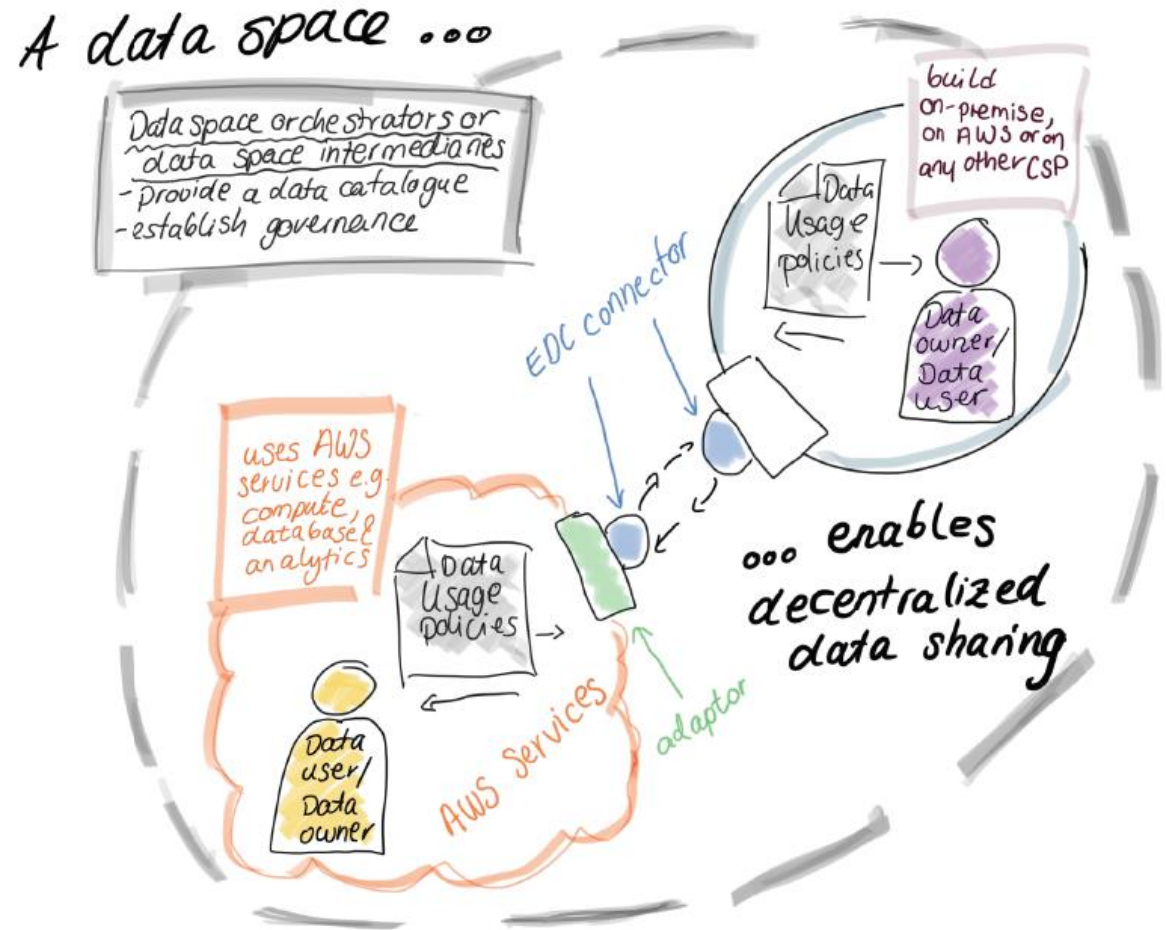
...Financial
...Agriculture
...Open Science Cloud (Research)
...Media
...Cultural Heritage

Data Spaces and AWS

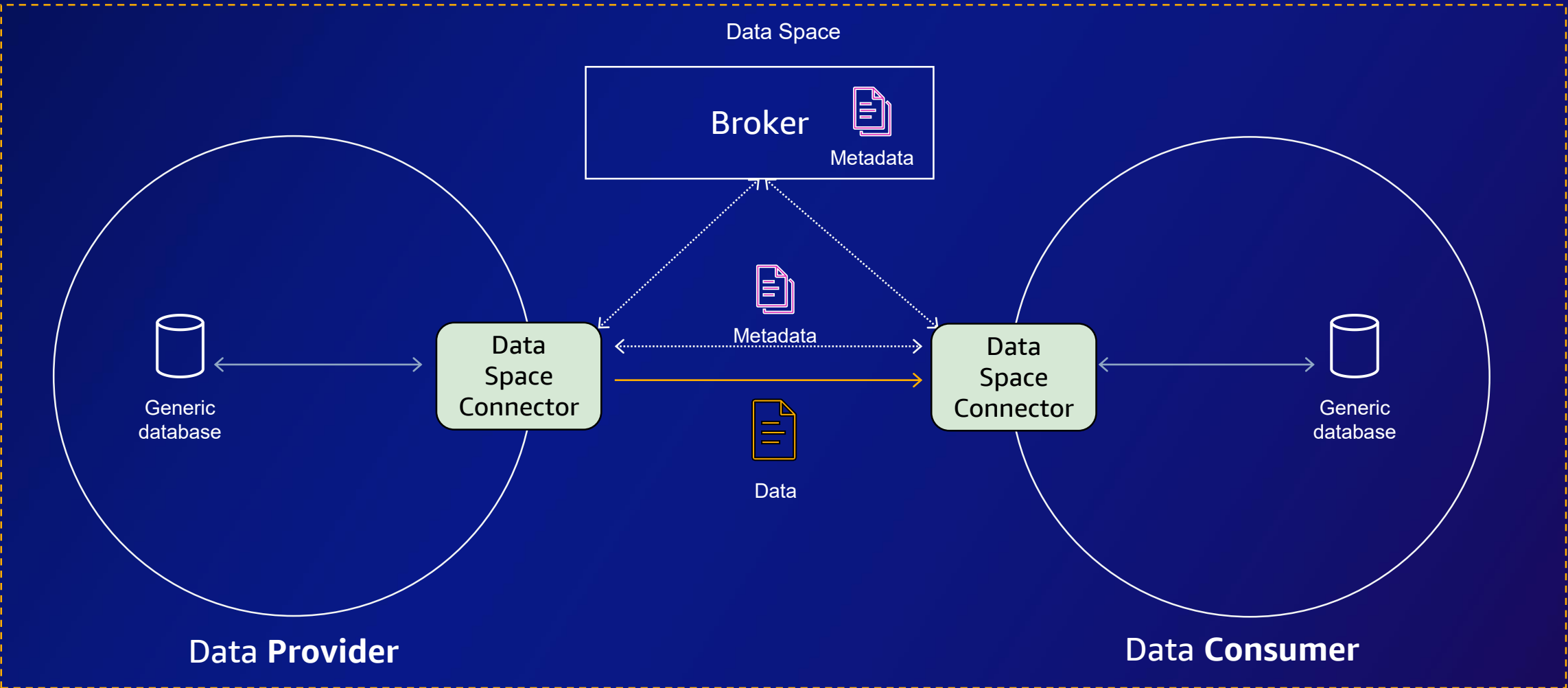


Data spaces on AWS

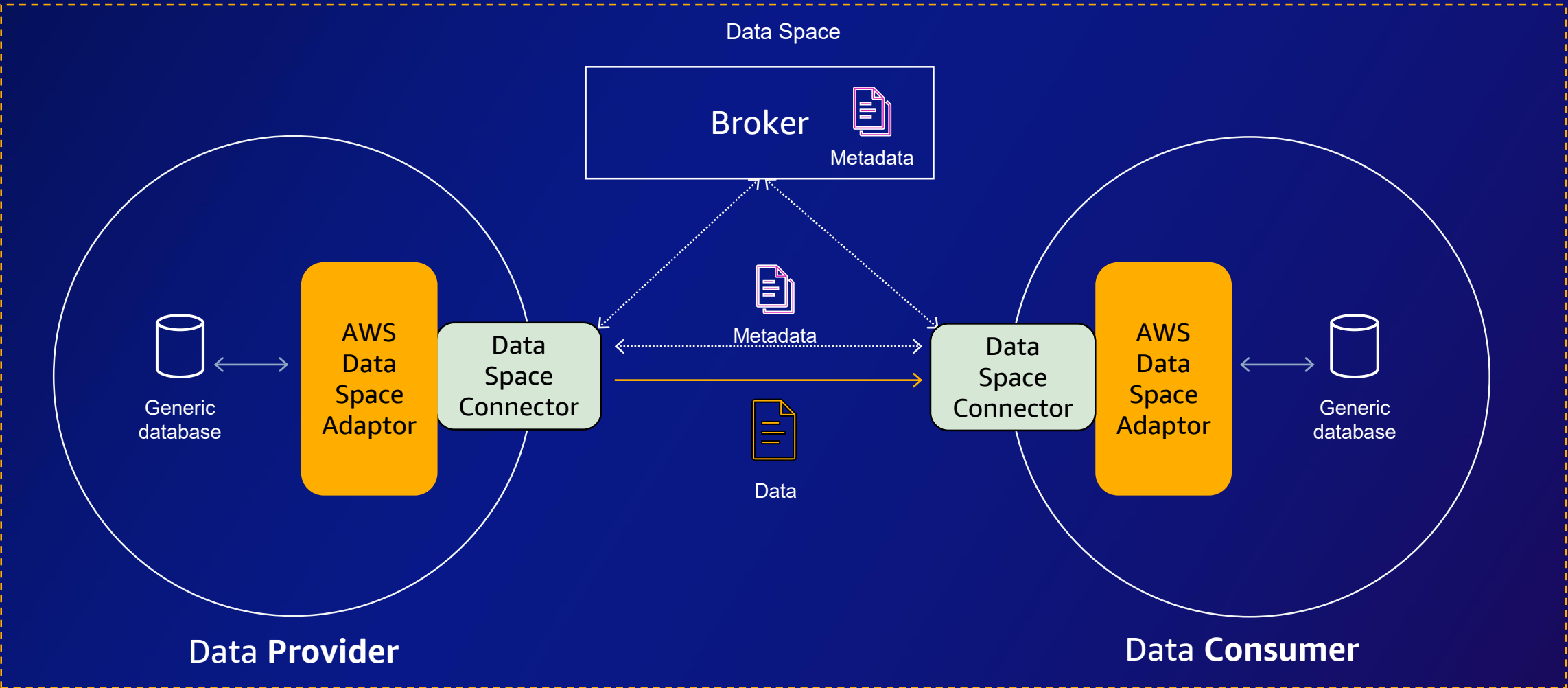
- Integrated with AWS Services
- Support for interoperability and data sovereignty
- Connect with other entities, regardless of their infrastructure provider
- Benefit from a modern data architecture on AWS



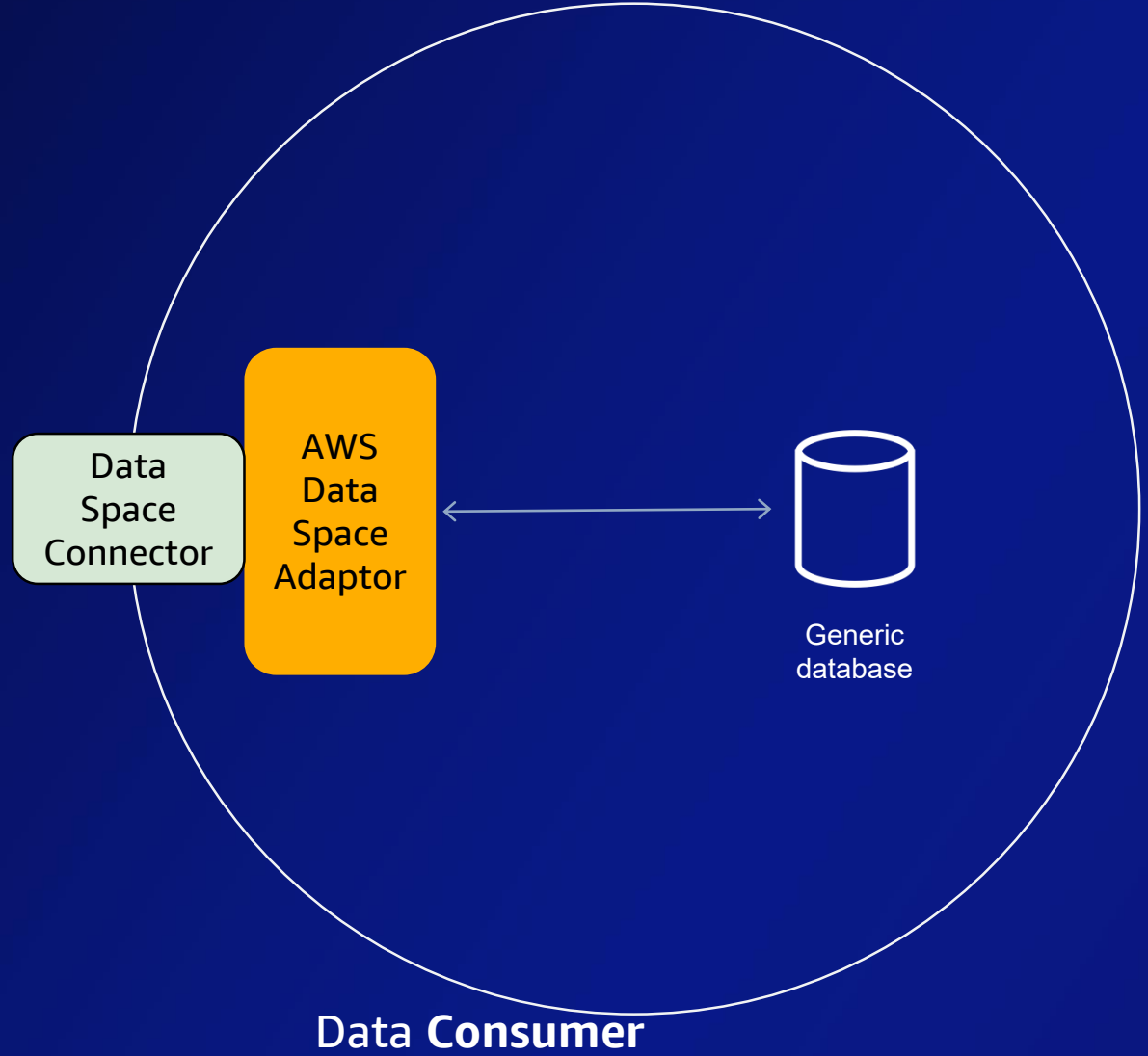
Data spaces on AWS – high-level architecture



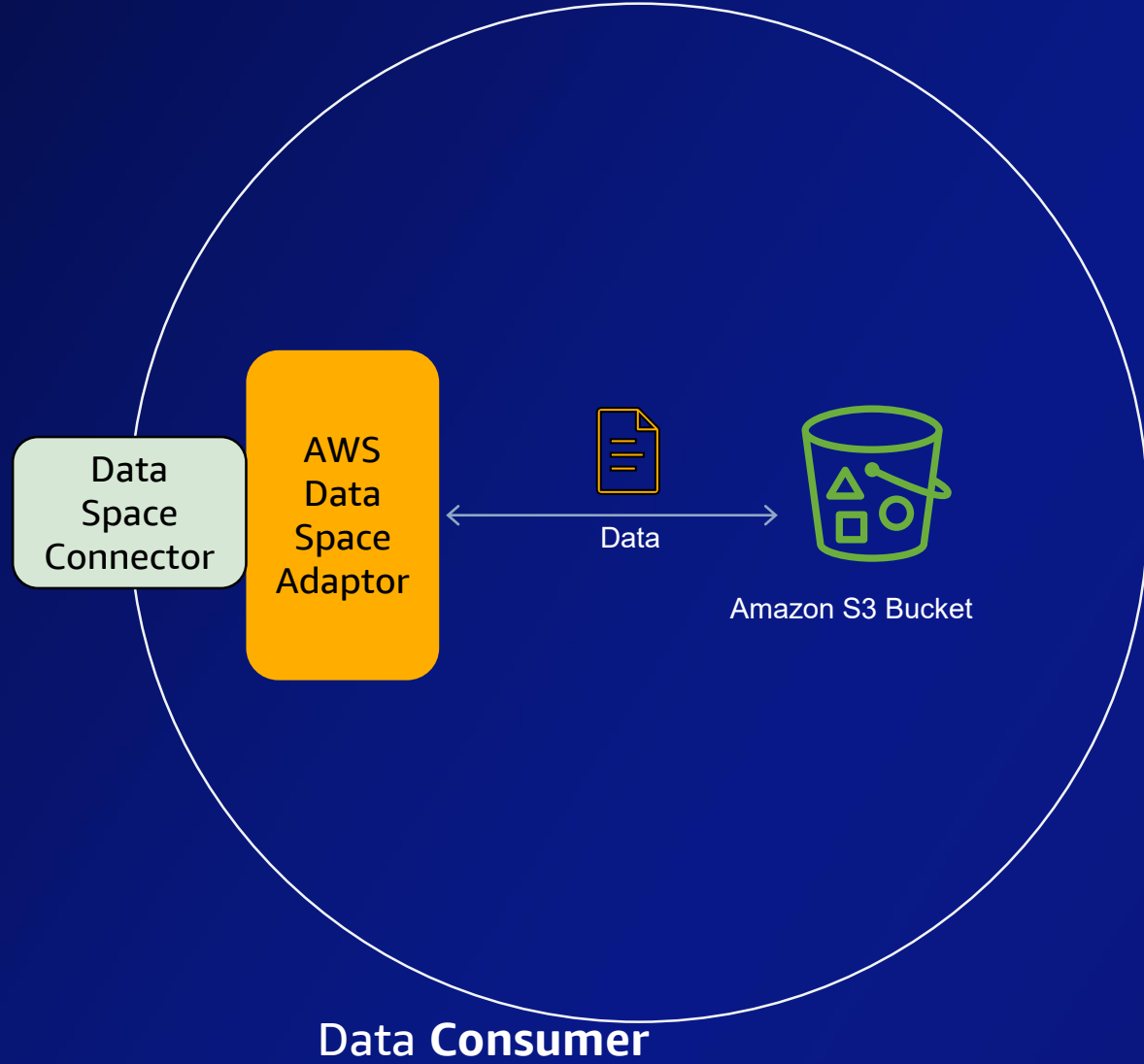
Data spaces on AWS – high-level architecture



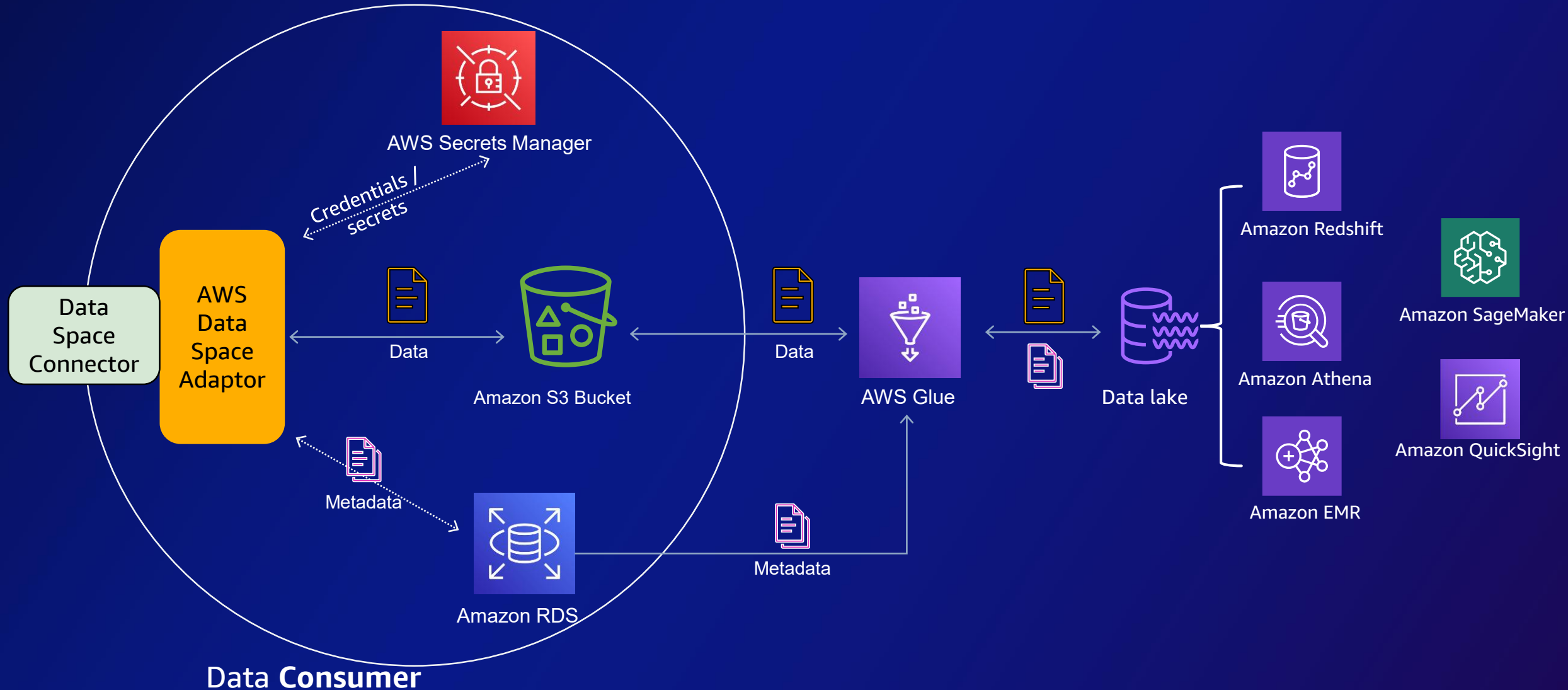
Data spaces on AWS – high-level architecture



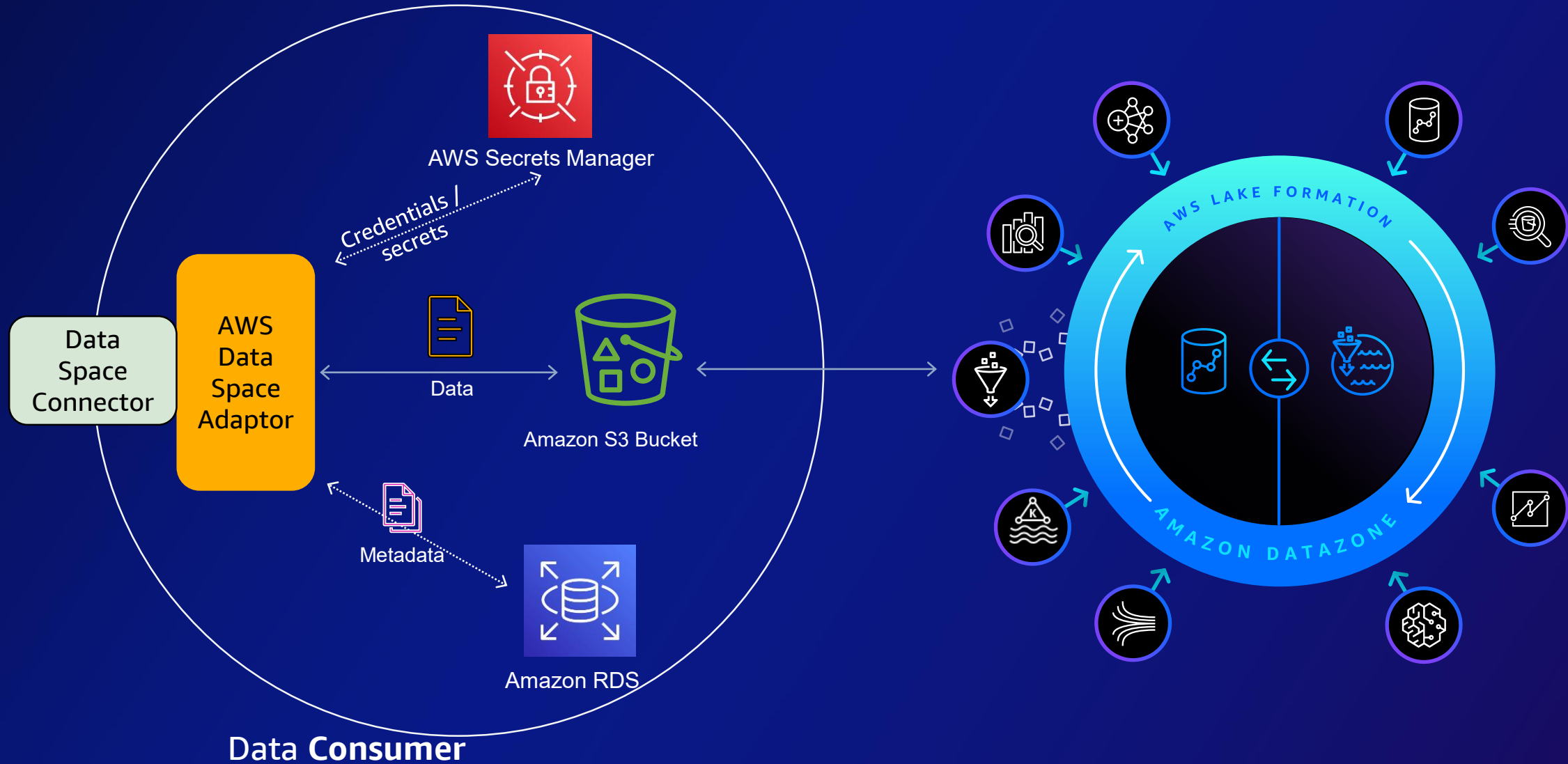
Data spaces on AWS – high-level architecture



Data spaces on AWS – high-level architecture




Data spaces on AWS – high-level architecture



Data spaces example



 Getting Started Catalog Browser Contracts Transfer History Contract Definitions Policies Assets

Eclipse Dataspace Connector

The Eclipse Dataspace Connector provides a framework for sovereign, inter-organizational data exchange. It implements the International Data Spaces standard (IDS) as well as relevant protocols associated with GAIA-X. The connector is designed in an extensible way in order to support alternative protocols and integrate in various ecosystems.

[GitHub](#)[Getting Started](#)[Onboarding Guide](#)

EDC Data Dashboard (this application)

This EDC Data Dashboard is a developer UI for the EDC Data Management API. This application is not intended for production usage and can be used to showcase EDC from a technical perspective, as the UI is designed as a 1-1 mapping of the Data Management API.

[Data Management API](#)

Example use cases, that you can try out with this application, are:

- ✓ View the asset catalog available to you in your Dataspace using the [Catalog Browser](#)
- ✓ Negotiate a contract for data sharing in your Dataspace using the [Catalog Browser](#)
- ✓ View your existing contracts in the [Contracts](#) page
- ✓ Transfer an asset in your Dataspace using the [Contracts](#) page
- ✓ View which assets have been transferred in your Dataspace in the [Transfer History](#) page

Access

Built on top of:



Giving Access

Funded by:

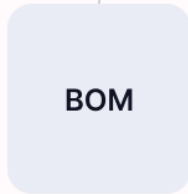


Federated
Climate
Data
Initiative



Federated
Distributed
Infrastructure

Granting Access



Additional resources



[AWS Blogpost: Enabling data sharing through data spaces and AWS](#)



[AWS Blogpost: Learn more about our involvement in Catena-X](#)



[AWS Blogpost: Read about AWS' work with Gaia-X](#)

Thank you!

Dr. Carina Kemp

carinamk@amazon.com.au

 [linkedin.com/in/carina-kemp-4610795/](https://www.linkedin.com/in/carina-kemp-4610795/)

David McAmis

dgmcamis@amazon.com

 [linkedin.com/in/davidmcamis/](https://www.linkedin.com/in/davidmcamis/)

