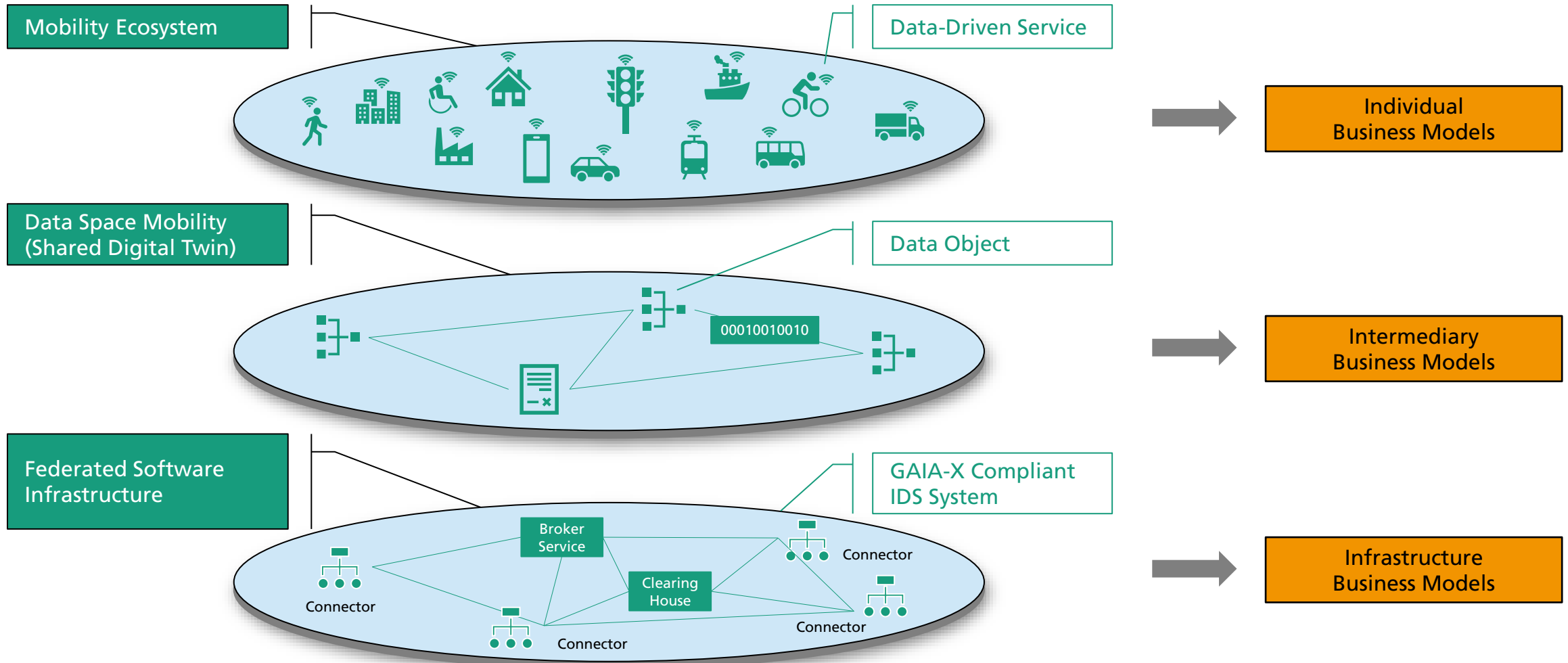


# Federation of European Data Spaces

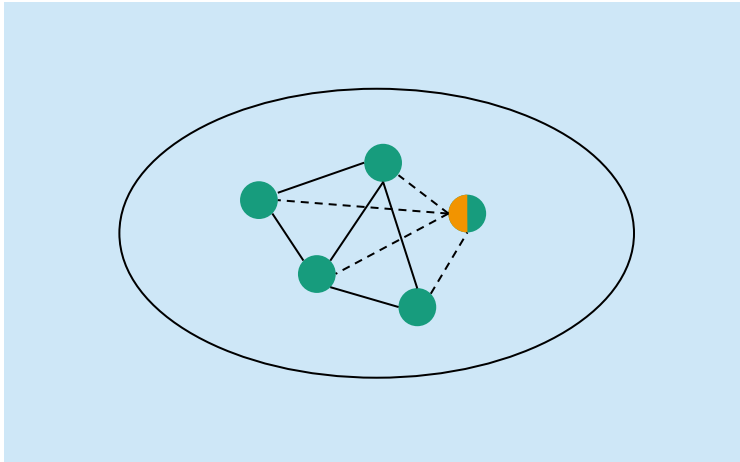
Prof. Dr. Boris Otto · 9 June 2021

# Resting on a federated software infrastructure, data spaces are an enabler of business ecosystems – as in the example of the mobility domain

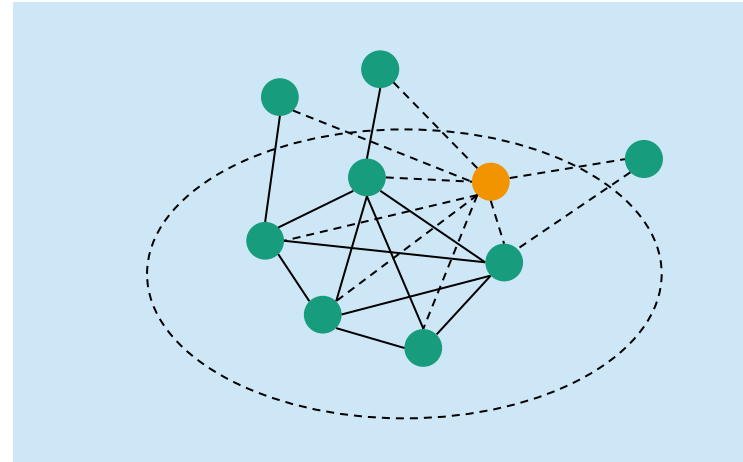


# Ecosystems based on Data Spaces evolve over time

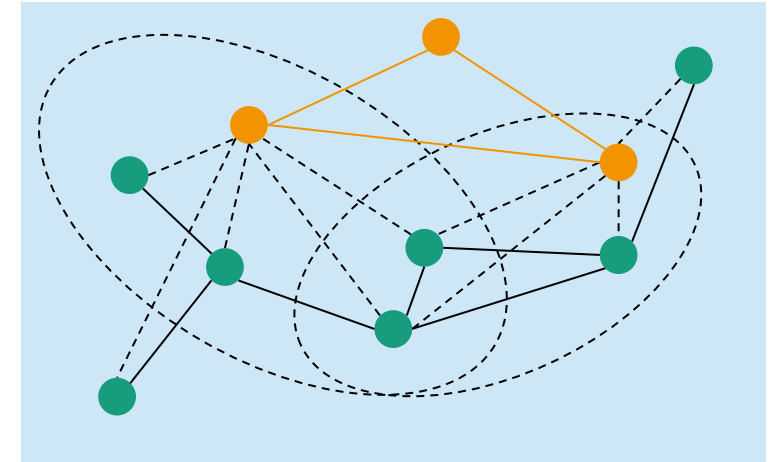
## I Closed Ecosystem



## II Open Ecosystem



## III Federation of Ecosystems



Legend:

Roles: ● Participant (Data Holder | Data User); ● Intermediary.

Data Exchanges: — Shared data incl. metadata between participants; - - - Metadata between participant and intermediary; — Metadata between intermediaries.

Ecosystems: ○ Closed; ○ Open.

# Business requirements of data holders and data users point to provisions for data sharing intermediaries

## What businesses need ...

- Data value creation
  - Increased use and re-use of data
- Low transaction costs
  - Data interoperability
  - Metadata interoperability
  - Cross-sectorial data sharing
- Fair data sharing
  - No lock-in
  - No data monopolies
  - No gate-keeping, no entry barriers
  - Openness
- Data sovereignty
  - Transparency of data use
  - Self-determination about data use

## ... and what that means for intermediaries

- Adoption of a standardized software infrastructure
  - Interoperability, portability, and reversibility
  - Data sovereignty »by design« (»ex ante« compliance)
- No concentration of ...
  - ... data storage/aggregation,
  - ... metadata of data transactions,
  - ... data transactions processing,
  - ... »locus of control« on data models, business rules/policies etc. ...
- ... if intermediary reaches dominance ...
  - ... in one market,
  - ... across markets,
- ... or operates in critical domains.

# The mobility domain is well prepared to take a lead in the journey towards domain-specific data spaces in Europe

- Mature semantic information systems standards (e.g. DATEX II)
- Network of National Access Points
- Strong initiatives in the member states such as
  - Mobility Data Space in Germany
  - Travel Data Space in France
- Various ecosystem members and stakeholders in a B2B2C2G set-up
- Ongoing projects to implement IDSA and GAIA-X standards

# Your Contact Person



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