

VTT TECHNICAL RESEARCH CENTRE OF FINLAND LTD



# **Maailmanparannusta datataloudella**

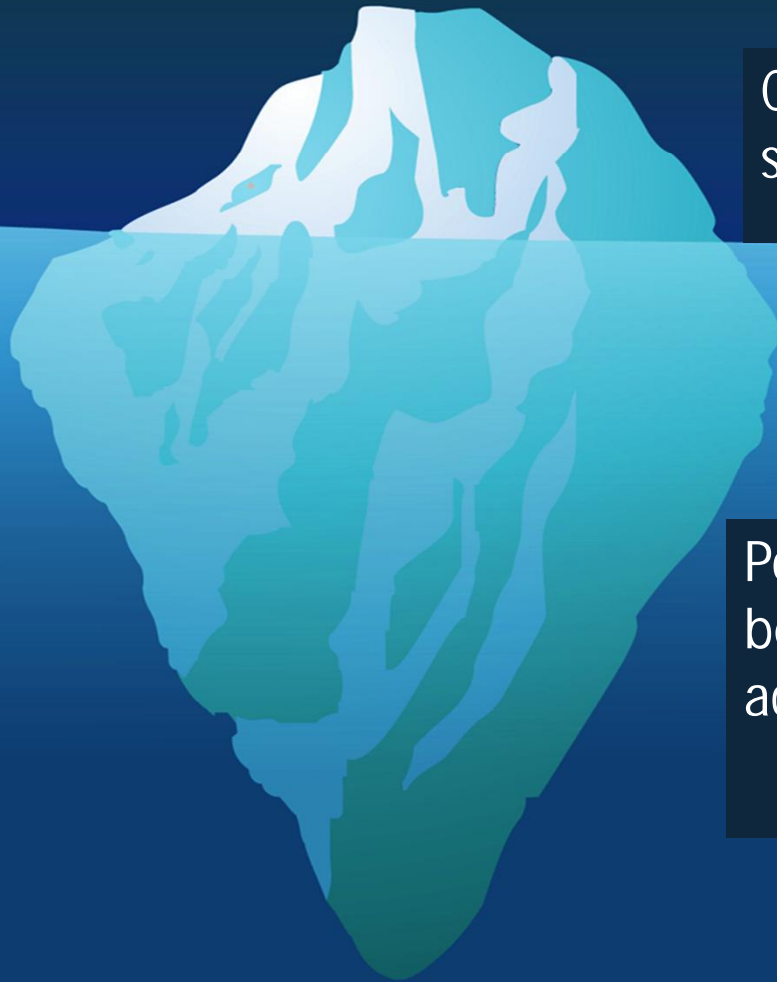
**Ville Kotovirta, VTT**

**Energiadatalla kohti parempaa rakennettua  
ympäristöä –workshop**

**29.5.2019**



- Ever-increasing amount of data by public and private concerns
- Most beyond the reach, unseen and unused.
- Limiting the access limits the number of problems to solve
- The success of future societies depends on the ability to use data



Currently visible data value of known sources and uses

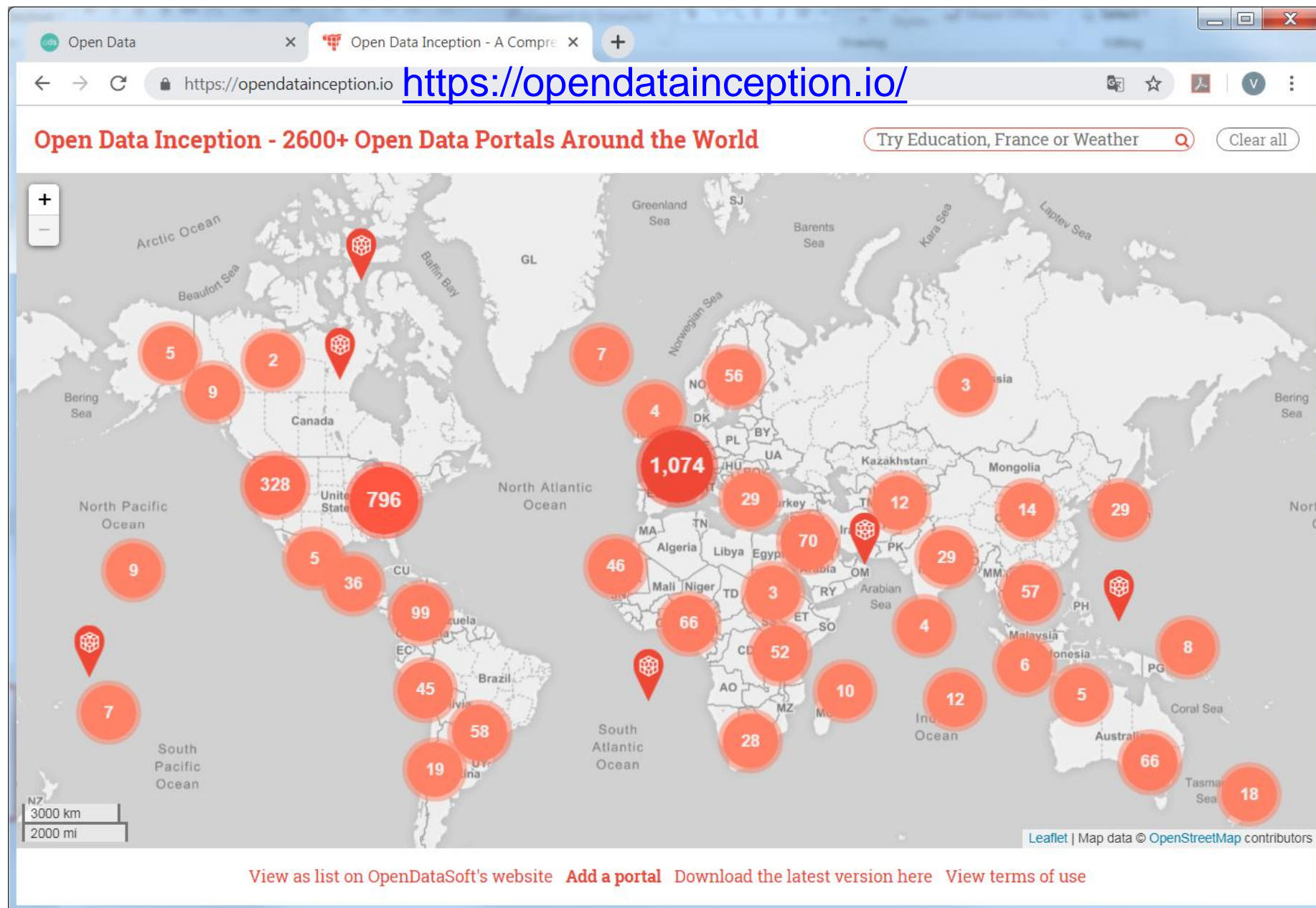
Potential data value - currently hidden because data are not known, cannot be accessed or utilised



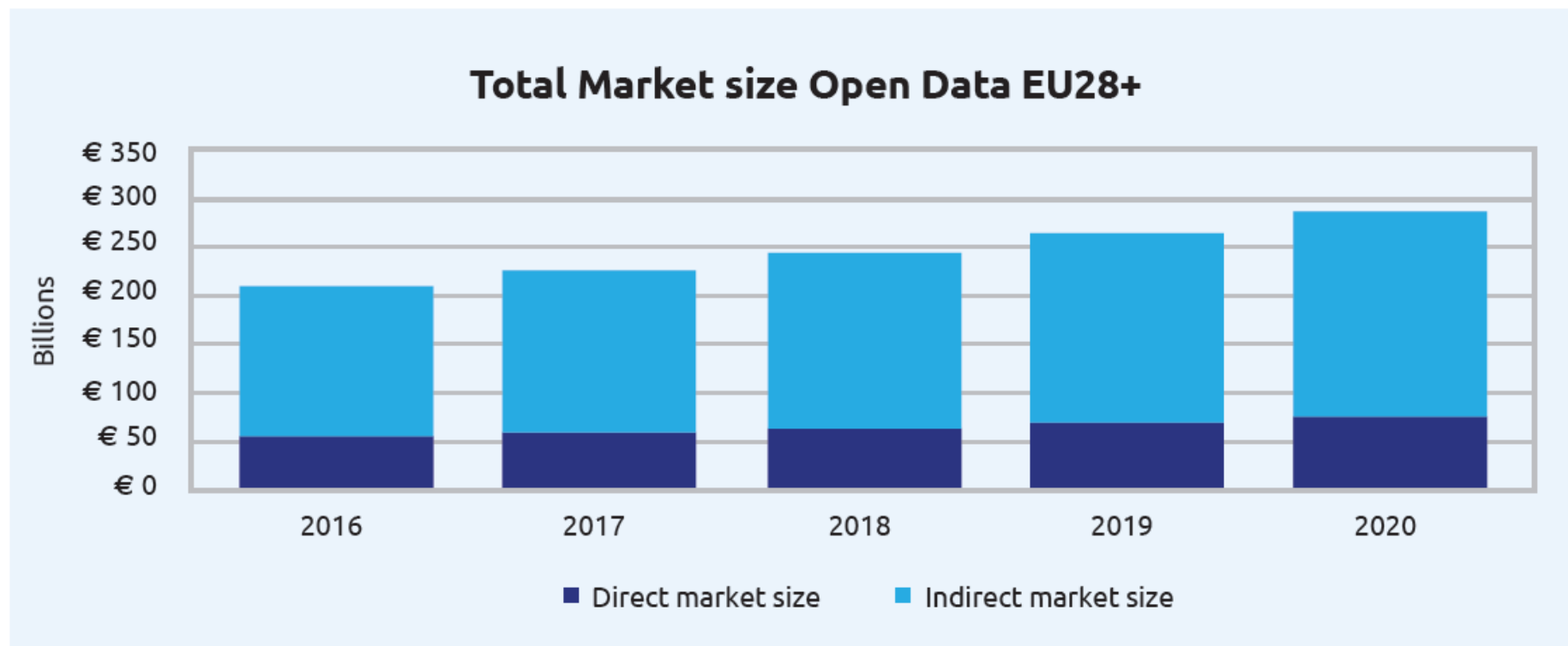
# Solutions for sharing data

- Standards
  - E.g. geospatial data: OGC
- Legislation
  - E.g. INSPIRE
- Open data
  - [avoindata.fi](http://avoindata.fi)
  - [hri.fi](http://hri.fi)
  - [data.europa.eu](http://data.europa.eu)
  - US, Asia, ...





- European data portal study about open data market size (nov 2015)

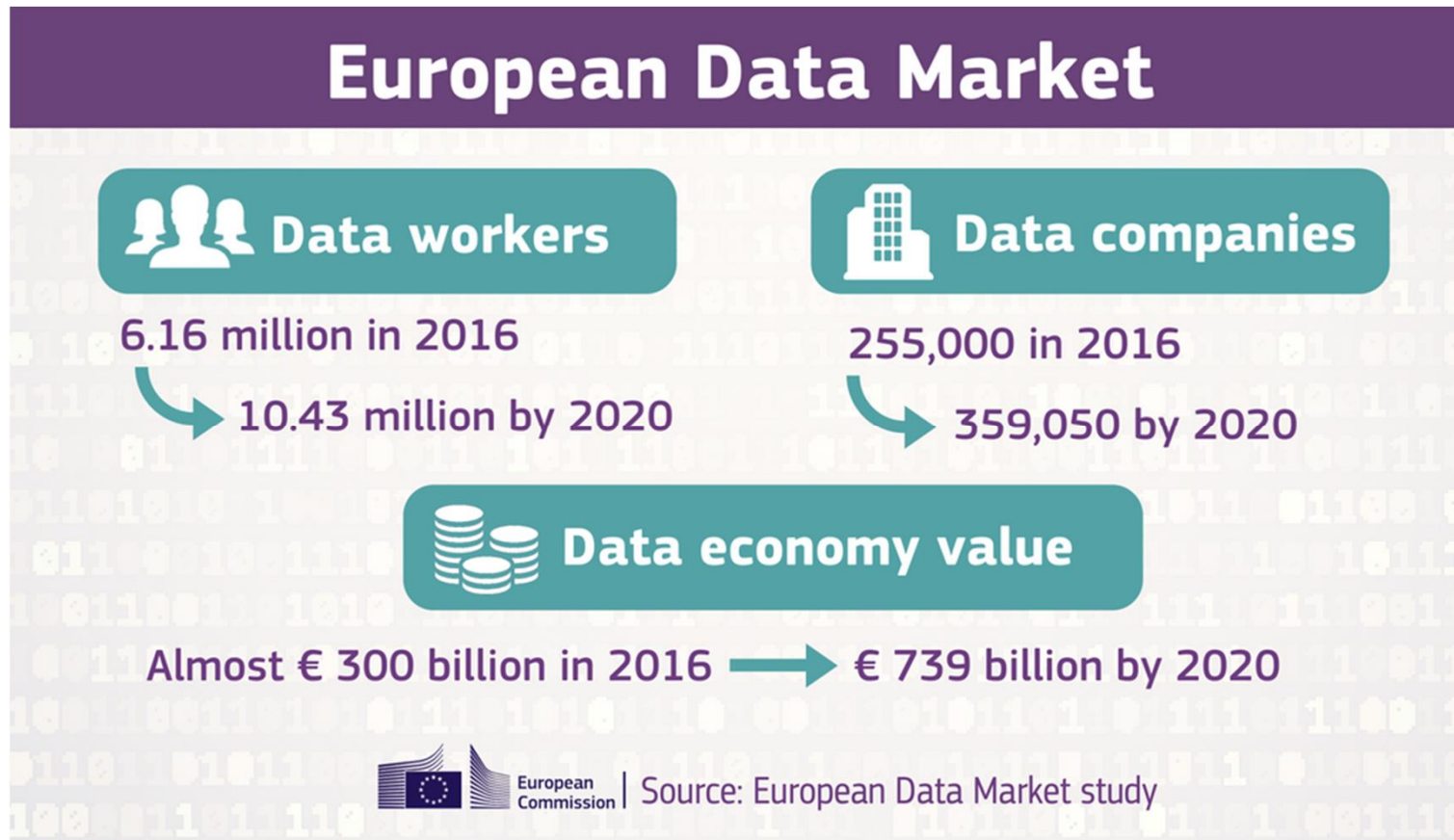




# Next solution: data markets



- European data market study (2017)



- EU strategies: Digital single Market, European Data Economy, Digitising European Industry



## Study on data sharing between companies in Europe (2018)

- <https://publications.europa.eu/en/publication-detail/-/publication/8b8776ff-4834-11e8-be1d-01aa75ed71a1/language-en>

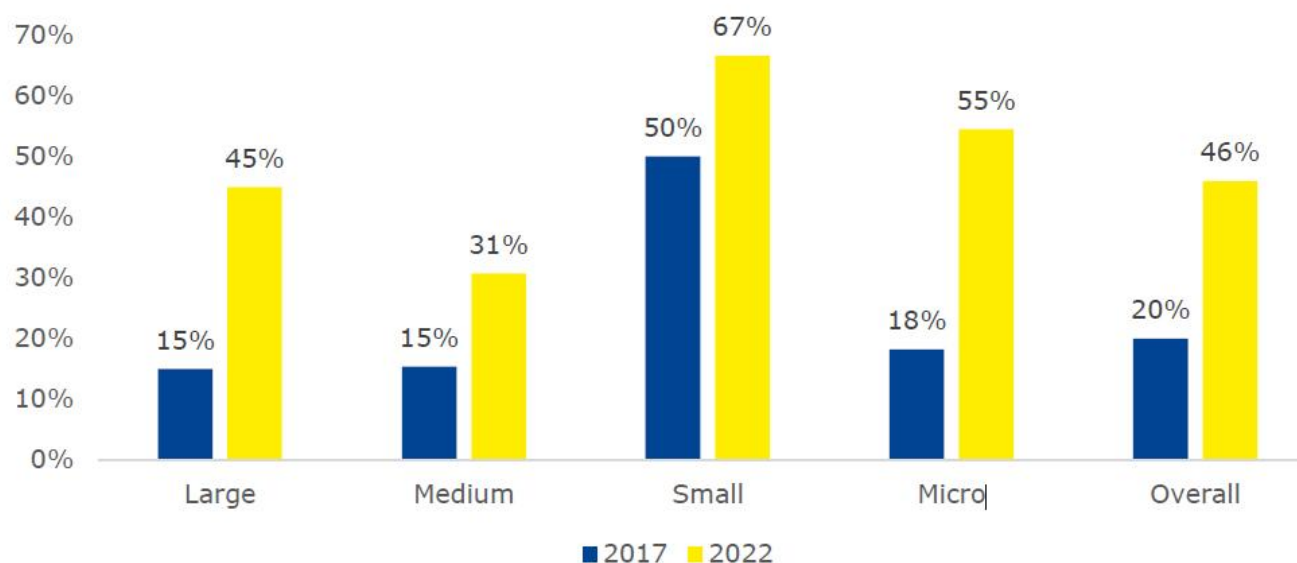


Figure 15. Percentage of companies sharing data as their primary activity in 2017 vs expectations for 2022 across company sizes

Reasons for sharing data	No. responses	%
Possibility to develop new business models and/or products or services	37	74 %
Possibility to establish partnerships with other companies interested in my data	24	48 %
Economic value of the data sold (data revenues)	20	40 %
Legal requirements to share data	13	26 %
Economic incentives to share data (e.g. fiscal incentives, subsidies, etc.)	4	8 %
Other	3	6 %

*Table 2. Motivations for B2B data sharing (a company could select up to three reasons)*

Reasons	No. responses	%
Privacy concerns	39	49 %
Trade secrets / fear of misappropriation by others / considerations of commercial strategy	26	33 %
Lack of demand for my company's data	25	32 %
Uncertainty about safety, security and liability conditions related to the technical process of sharing data	22	28 %
Lack of incentives to share data	22	28 %
Lack of data skills inside the company	14	18 %
Economic costs of sharing data (e.g. costs of making the data available in the desired format, infrastructure costs related to data collection, data curation costs, etc.)	12	15 %
High efforts and burden on the company to engage in this activity (e.g. collection, analysis, etc.)	12	15 %
Uncertainty about usage rights on the data and potential reputational costs for the company in case of misuse	12	15 %
Difficulties with measuring the value of data	9	11 %
Lack of appropriate licensing conditions	0	0 %

*Figure 27. Reasons for not sharing data (a company could select up to five reasons)*



**Data re-used**

No	Yes
75 Companies	54 Companies

**Re-use of real-time data or positioning data**

Up to EUR 50 000		Between EUR 50 000 and 1 million		More than EUR 1 million		Unknown	
No	Yes	No	Yes	No	Yes	No	Yes
12	18	3	13	0	7	0	1

**Expenditure of companies on data re-use**

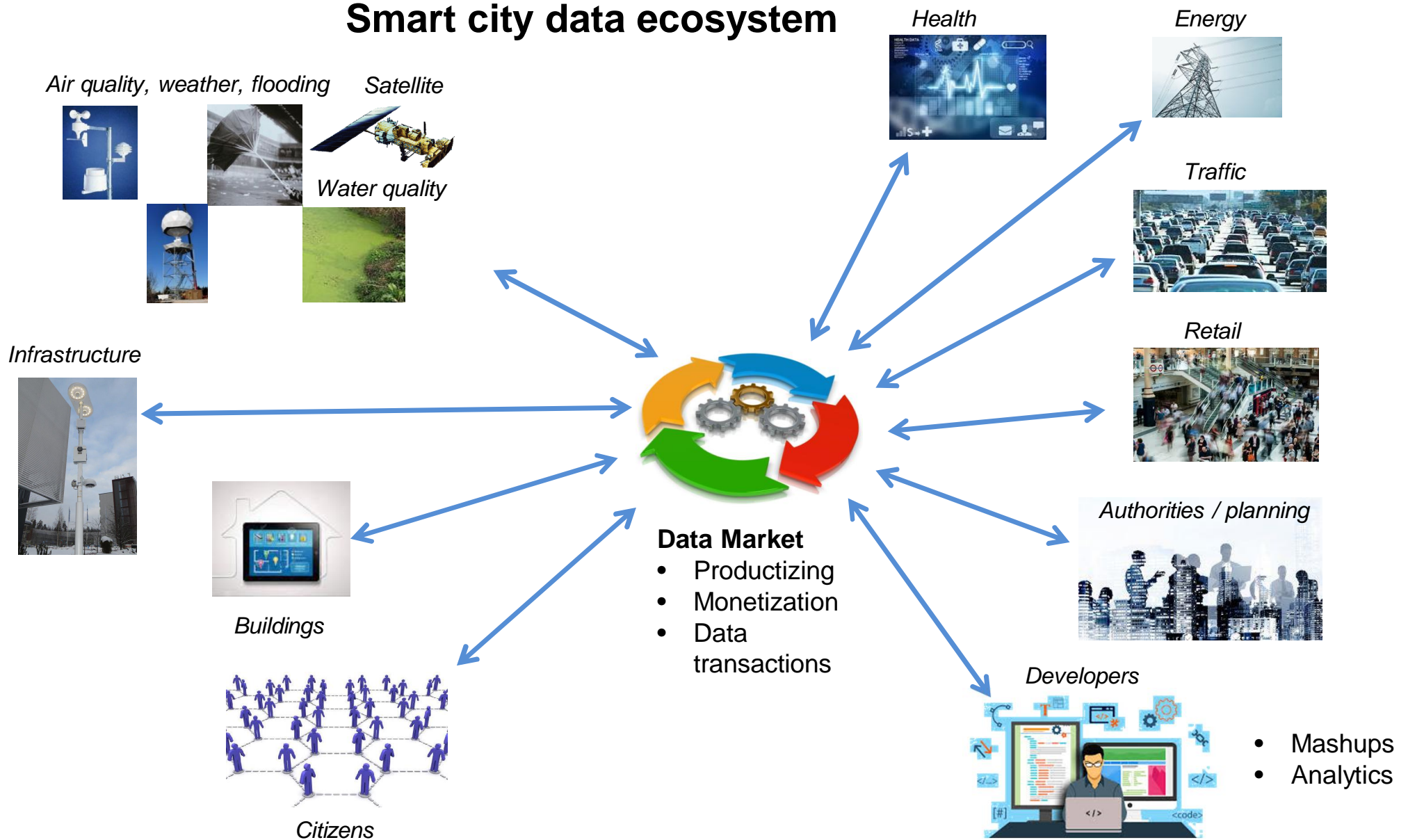
companies that missed business opportunities	108
companies that enhanced business opportunities	20

Figure 48. Number of companies that missed business opportunities

## **BDVA (Big Data Value Association) Position Paper (April 2019)**

- TOWARDS A EUROPEAN DATA SHARING SPACE - Enabling data exchange and unlocking AI potential (2019)
- “The successful development and adoption of a pan-European data sharing space will mark a milestone in the evolution of the new data economy.”
- “Primary initiatives shaping the European Data Economy in the B2B area are being driven by the International Data Spaces (IDS) Association, Industrial Internet Consortium (IIC), Data Market Austria, Ocean Protocol and the IOTA Foundation”
- [http://www.bdva.eu/sites/default/files/BDVA%20DataSharingSpace%20Position\\_Paper\\_April2019\\_V1.pdf](http://www.bdva.eu/sites/default/files/BDVA%20DataSharingSpace%20Position_Paper_April2019_V1.pdf)

# Smart city data ecosystem

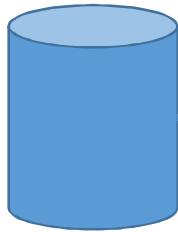




## Use case Type 1

Partner A's data's value recognised for partner B's service, connection not implemented

Partner A

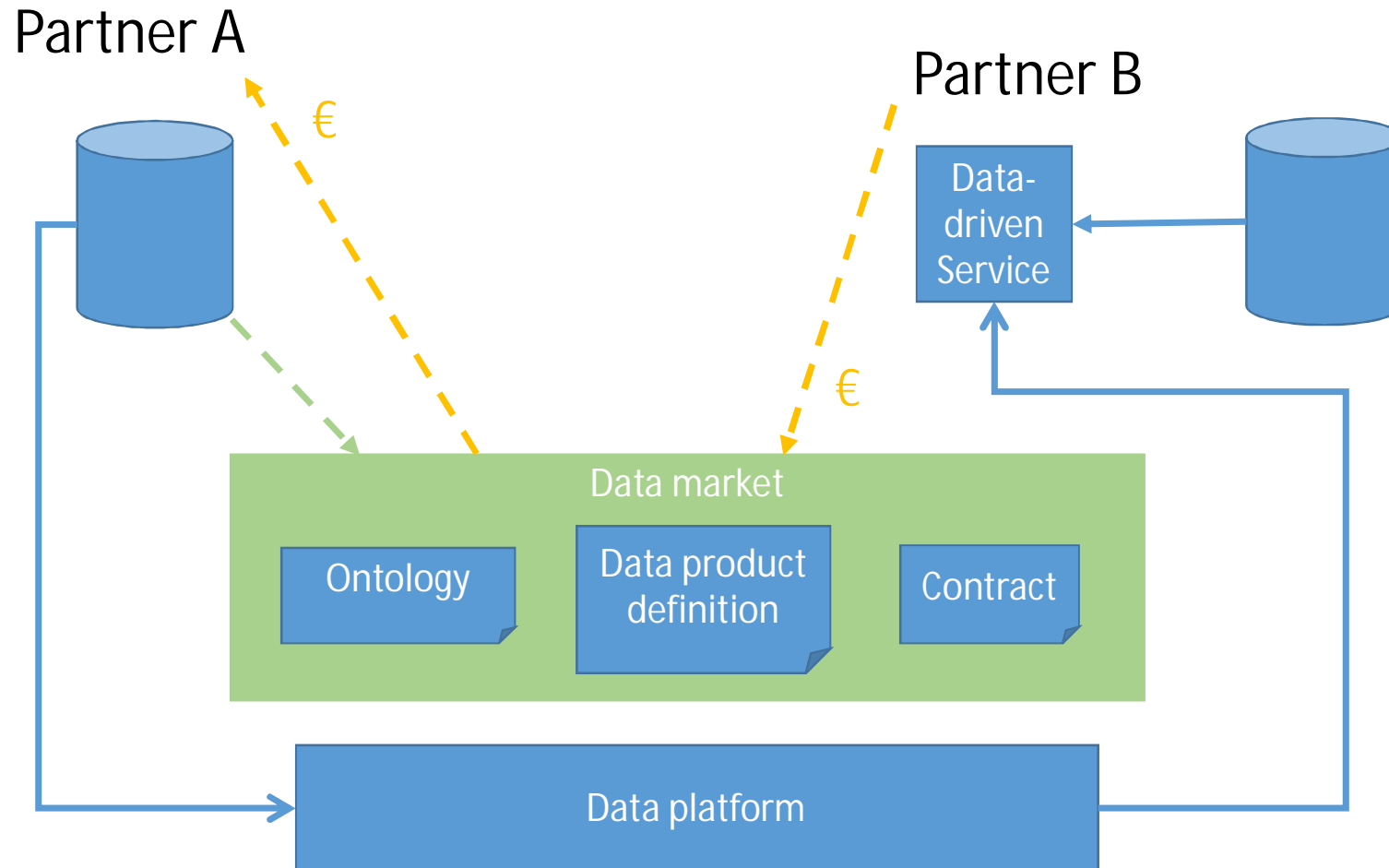


Partner B



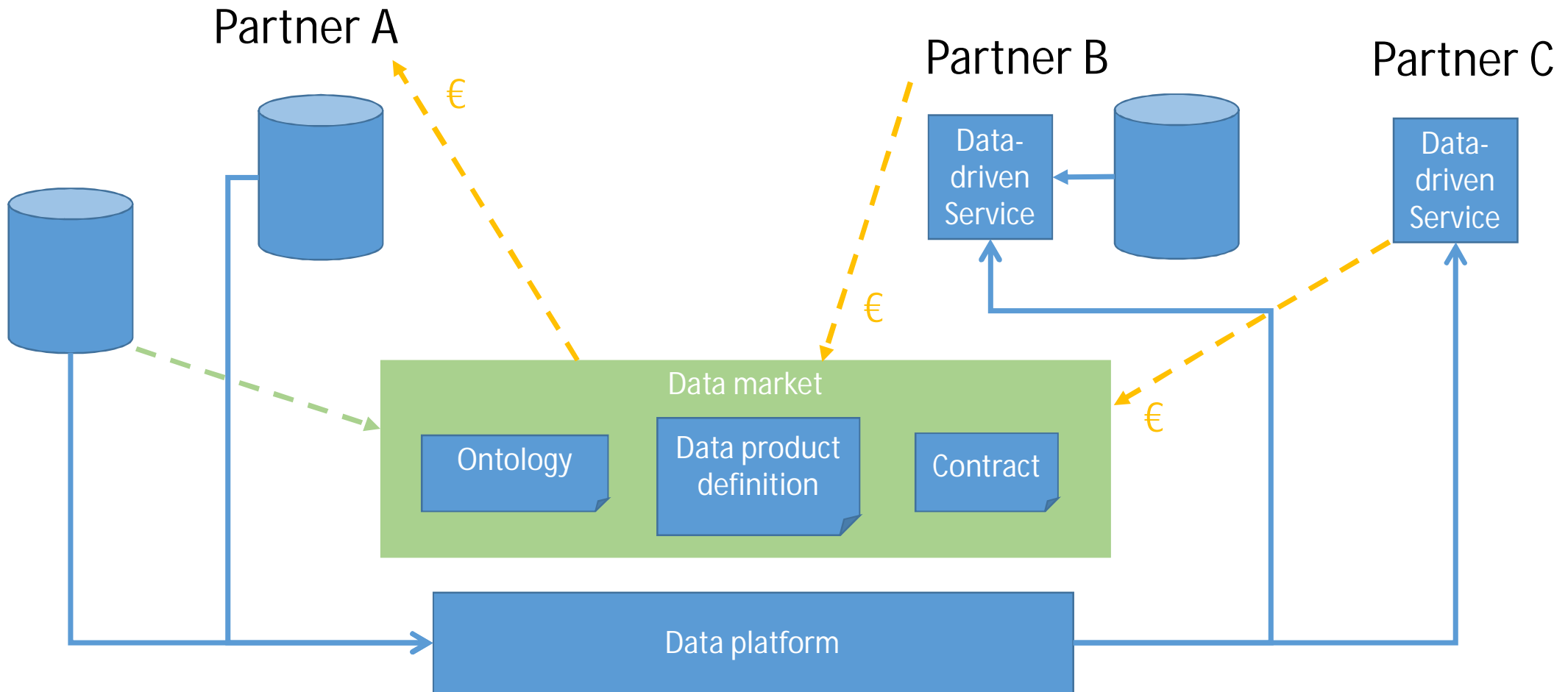
# Type 1 solution

Partner A's data product defined in the market place, ontology defined (what the data is about?), API implemented to access the data, and contract made.



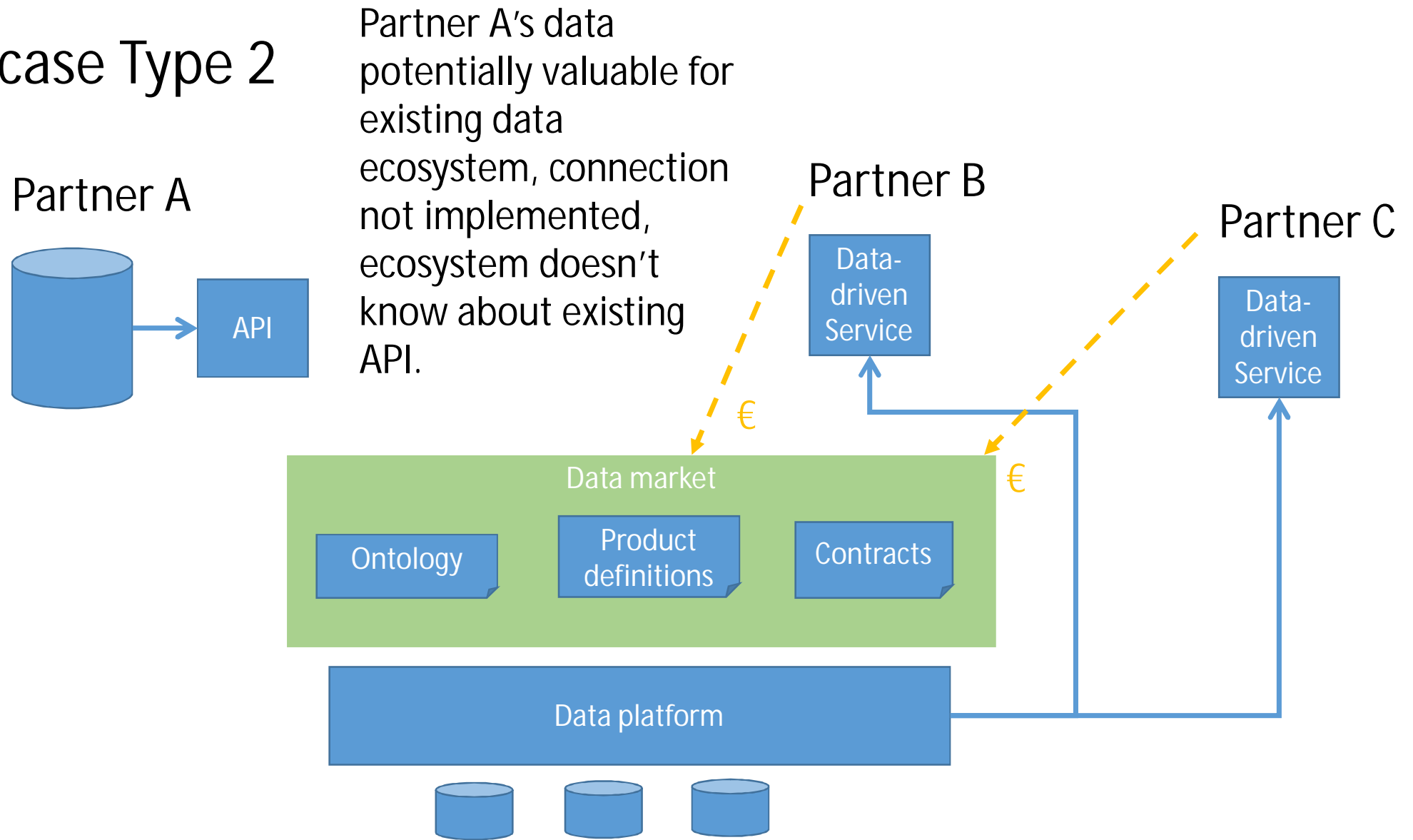
# Type 1 evolution

Partner A can add new data, and new partners can join the market to buy data and access to data.



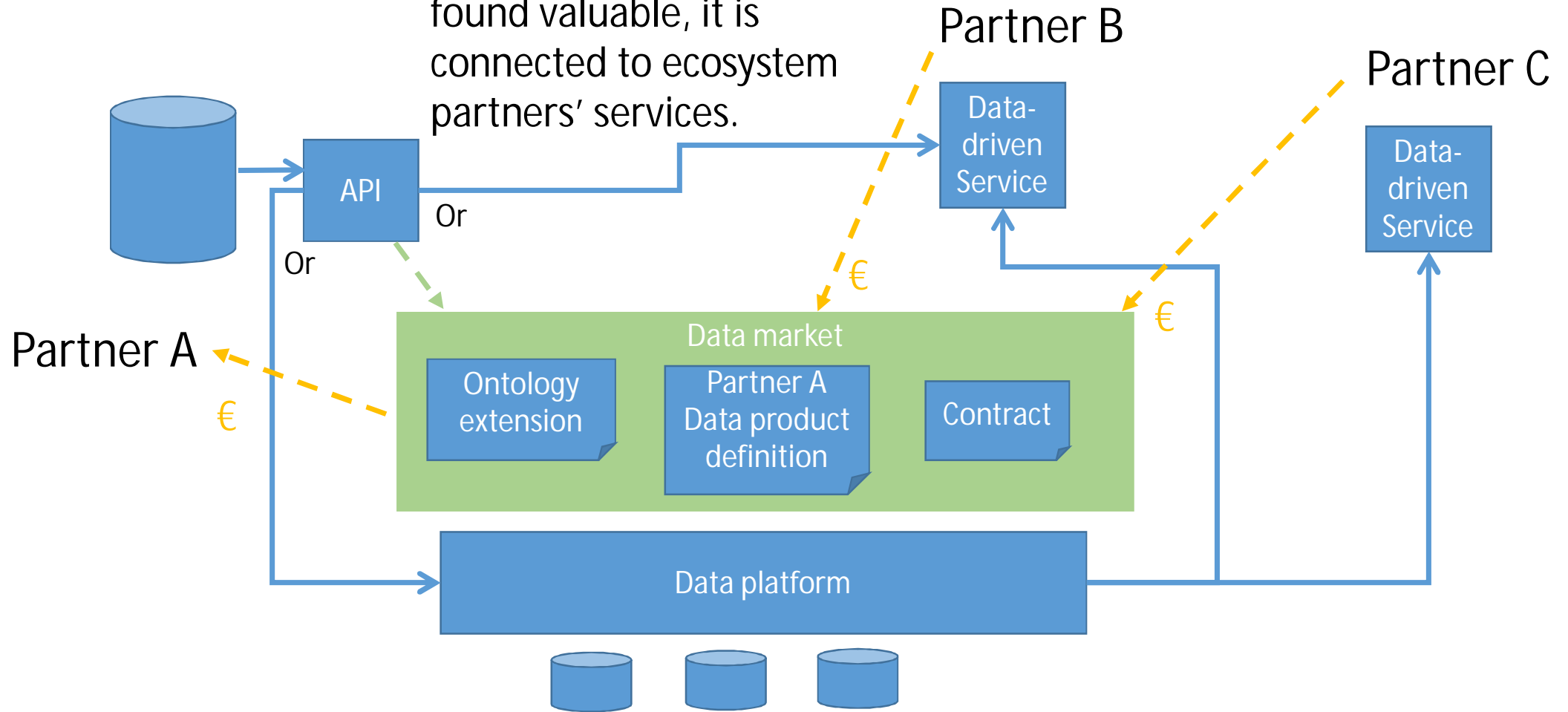


## Use case Type 2



# Type 2 solution

Partner A's data defined as a data product and put on sales. If the data product is found valuable, it is connected to ecosystem partners' services.



# Type 2 evolution

Partner A's data attract new partners to join the ecosystem

