EU-JAPAN DIGITAL WEEK 2025

31 MARCH - 7 APRIL, 2025

TOKYO, JAPAN

THE EU-JAPAN DIGITAL WEEK IS ORGANISED AS PART OF THE EU-JAPAN DIGITAL PARTNERSHIP

Data Spaces –or the Story How to Make Business from Data in a Legal Fashion" (April 3)

Overview of real market for data spaces and the areas where organisations are expected to create value

What will you get today?

- **Key concepts for the Economics of data spaces**
- **Value proposition for stakeholders in data spaces**
- **Types of data space operators and business models**
- **Data valuation**
- **From general concepts to market figures:**
  - **Insights on evolution of the Data Economy**
  - **Insights on the Market for Data Spaces**

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Economics of data spaces. Key statements

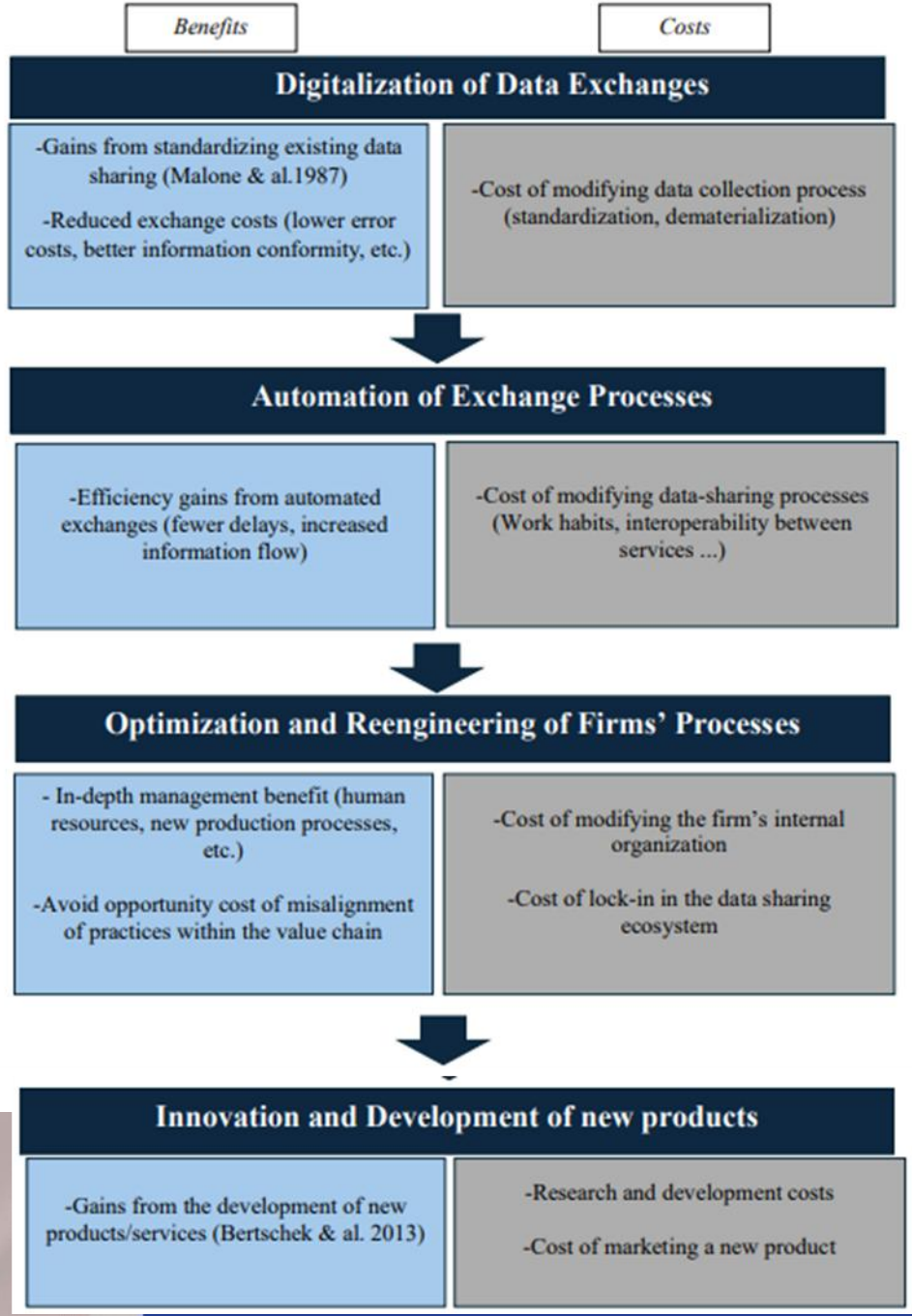
- There is no one-size-fits-all business model for data spaces
- The business model should be defined from the perspective of who is offering the solution (product/service)
- However, the **value proposition for all stakeholders** participating in the data sharing ecosystem should be clear (use case deployment): data providers, data users/consumers, intermediaries/data service providers, data space infrastructure operator
- **Value creation is not ONLY data monetization**; societal/environmental value is important (but of course, it has an impact on the exploitation model)
- The time axis matters: **the data space evolves** and so the business model does
- **Data Space IS NOT equal to a data platform**; however, multi-sided business models could apply
- Understanding the market and how to reach critical mass is key to the **financial sustainability**

Data Market Monitoring Tool here

European data space for smart communities

Benefits for participants in a data space

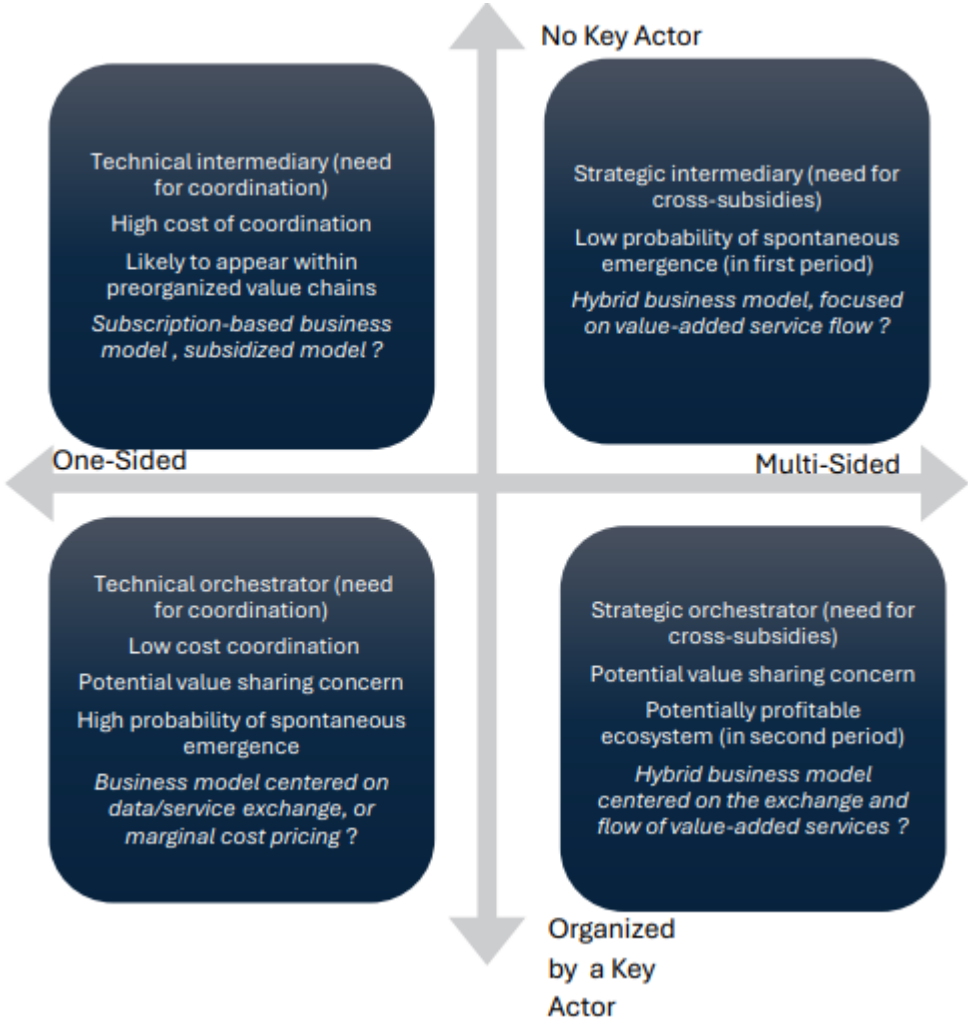
- In a data space, all participants are expected to contribute (either through supply of data, value-added services or financially)
- Being part of the ecosystem brings **benefits but also costs**
- They are **dependent on the level of integration of the stakeholders** involved (integration will generally mean transformation of production processes, and that comes with a cost)
- Examples:
  - Weaker integration (recommended at the beginning): use cases where all stakeholders require information from each other –there is a common and equal interest-: e.g. traceability in a value chain, compliance with regulation when this requires data from third parties
  - Higher level of integration for the creation of new products: e.g. federated artificial intelligence training



Source: Position Paper: Economics of data sharing (GAIA-X Institute; 2024)

Business model for the data space (orchestrator/federator)

- 2 elements can be considered to understand the role, position and business model of the orchestrator
  - **One sided versus multi-sided**:
    - One sided: the need and power of participants is similar (they exhibit same network effects) → orchestrator is a technical intermediary (e.g. traceability)
    - Multi-sided: diverse interests exist, with some parties without incentives to share data → the orchestrator has a more strategic role
  - **Who plays the role of orchestrator (key vs non-key player)**
    - A stakeholder with a clear market power in the ecosystem: easy to set-up, but the data sharing value may not be balanced



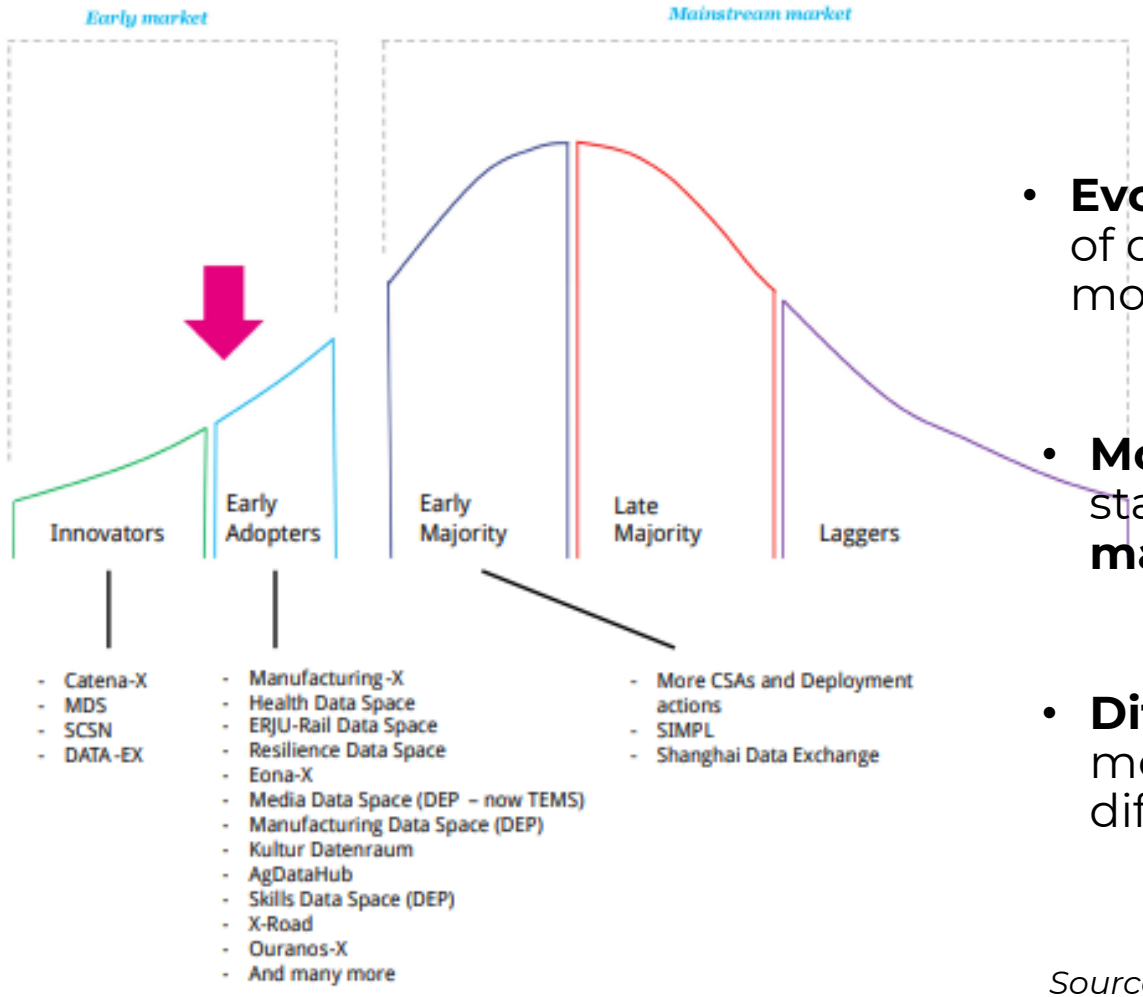
Source: Position Paper: Economics of data sharing (GAIA-X Institute; 2024)

Data Valuation

- Data is still the key asset in the data space
- Data has associated costs and can generate different levels of value
- **Different pricing schemes allow data owners to exploit data valuation**
  - Cost-based pricing techniques (cost + profit)
  - Market-based pricing techniques (based on prices by competitors for similar products)
  - Value-based pricing techniques (value perceived by consumers)
- **Value-based pricing techniques** (most suited to data spaces) include:
  - Economic model (based on economic impact, which requires complex models)
  - Incomed-based model (value of data associated to the direct revenue it generates; e.g. sales, subscriptions…)
  - Utility-based model (how data improves decision-making, operational efficiency, customer satisfaction…)
  - Dimensional model (based on several dimensions such as accuracy of data, completeness, timelessness, relevance)
  - Comparative model (comparison with similar data sets; benchmarks needed)

Source: Data Spaces Business Models (IDSA; November 2024)

Lifecycle of data spaces



- **Evolution of maturity and added-value** of data spaces will impact the business model
- **More incentives** may be needed for some stakeholders (like free access) **until critical mass is achieved**
- **Different levels of public funding** versus more sustainable revenues based on different pricing schemes

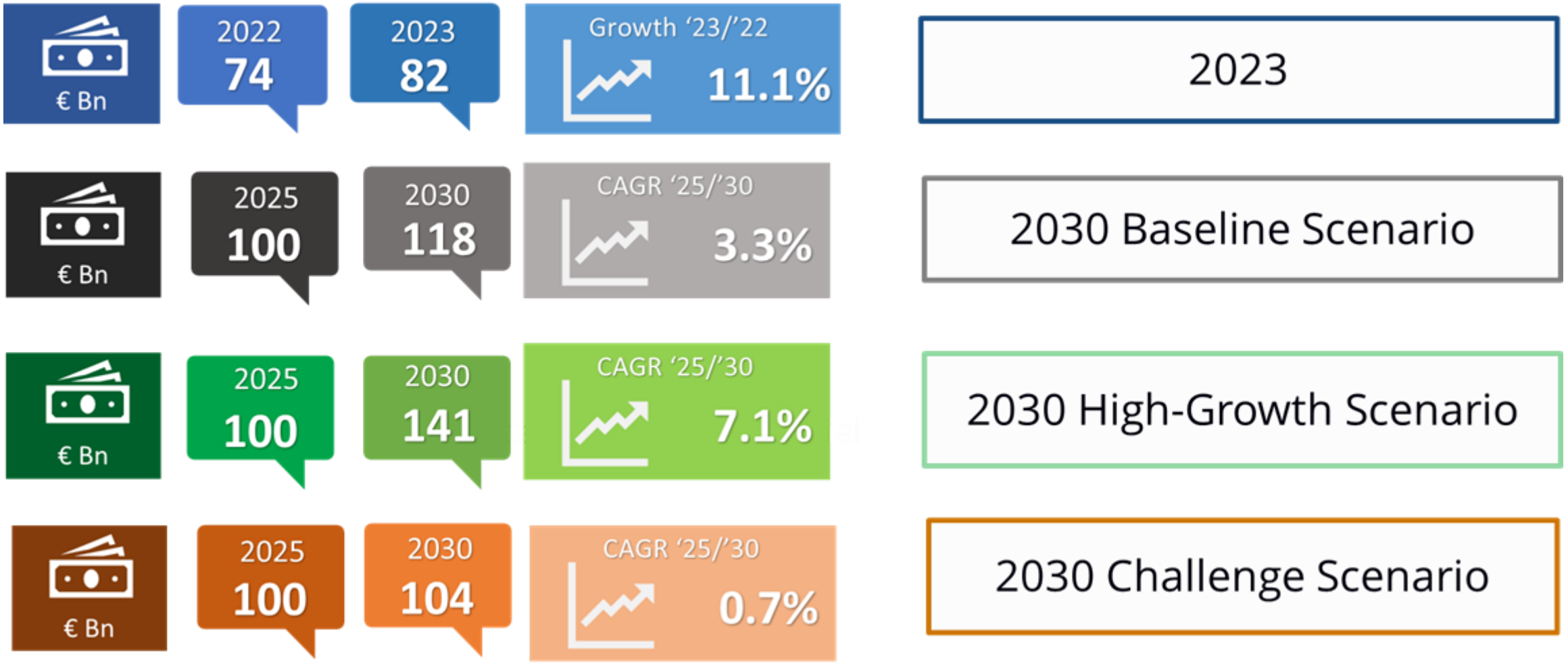
Source: Data Spaces Business Models (IDSA; November 2024)

What do key indicators of the data economy say about the market?

Data Market Study by IDC

Check updates: https://digital-strategy.ec.europa.eu/en/library/european-data-market-study-2024-2026

European Data Market (EU27)



European Data Economy (EU27)

2023

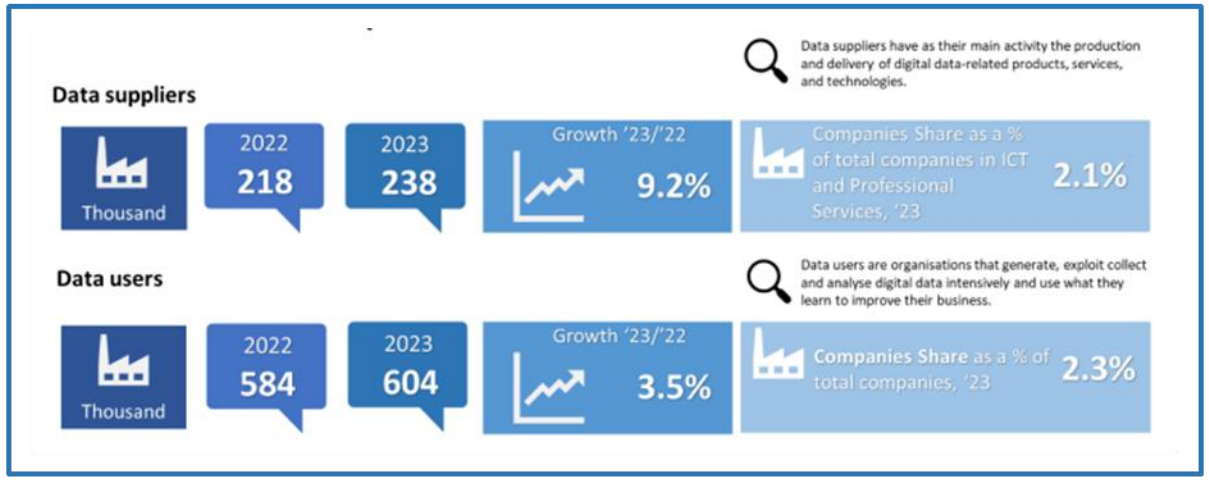
2030 Baseline Scenario

2030 High-Growth Scenario

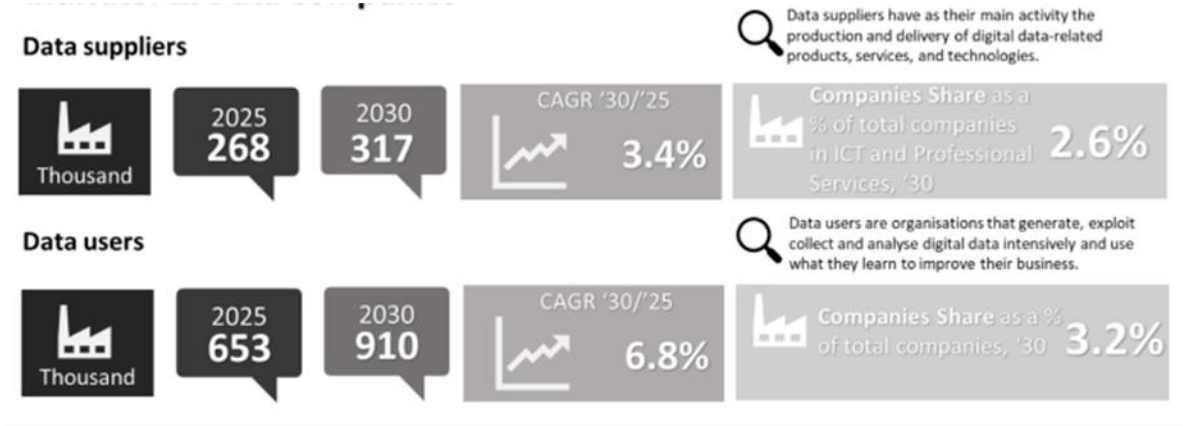
2030 Challenge Scenario

Data Companies

2023



2030 Baseline Scenario



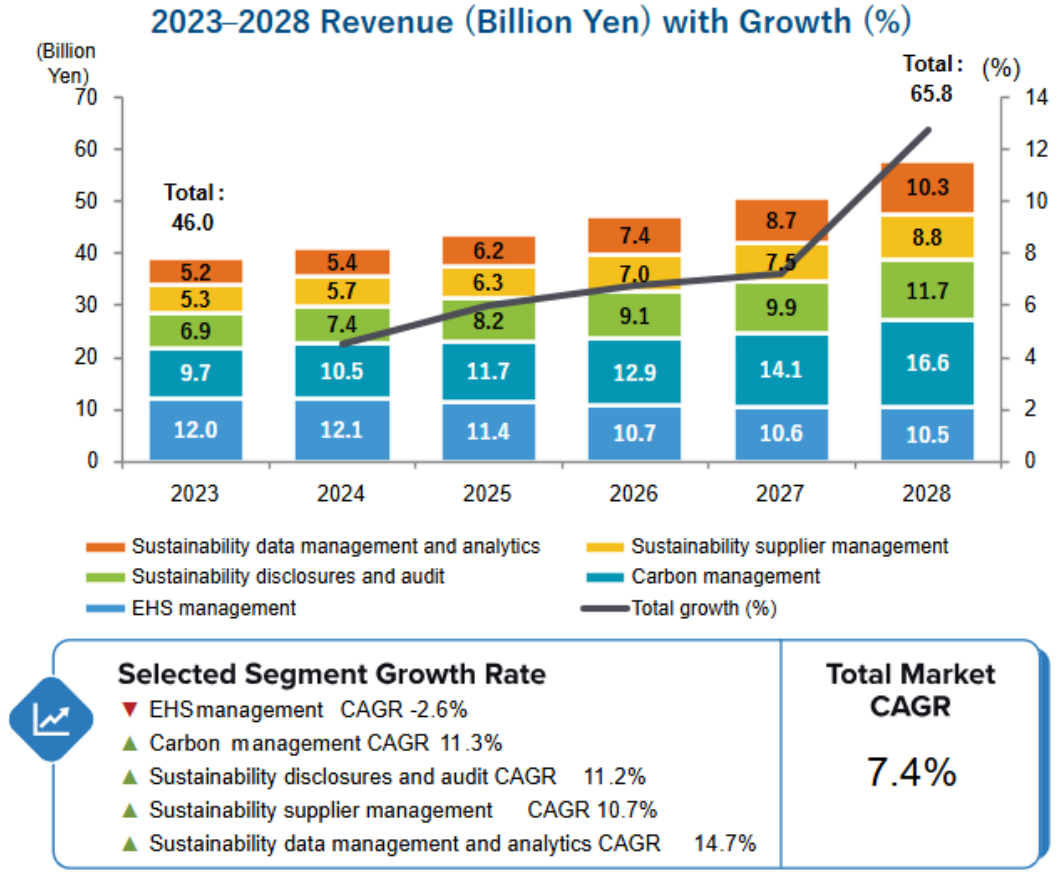
2030 High-Growth Scenario

2030 Challenge Scenario

International Dimension

Value of the Data Market

		2022	2023	Growth '23/'22
	€ Million	292,378	350,471	20.6%
	€ Million	9,252	9,699	4.4%
	€ Million	45,551	53,136	15.1%
	Thousand	40,061	49,737	25.3%
	€ Million	73,754	81,940	13.8%



Japan Environmental, Social, and Governance Application Market (IDC, Japan Sustainability and ESG Applications Software Forecast, 2024–2028)

How much do we know about the data space market?

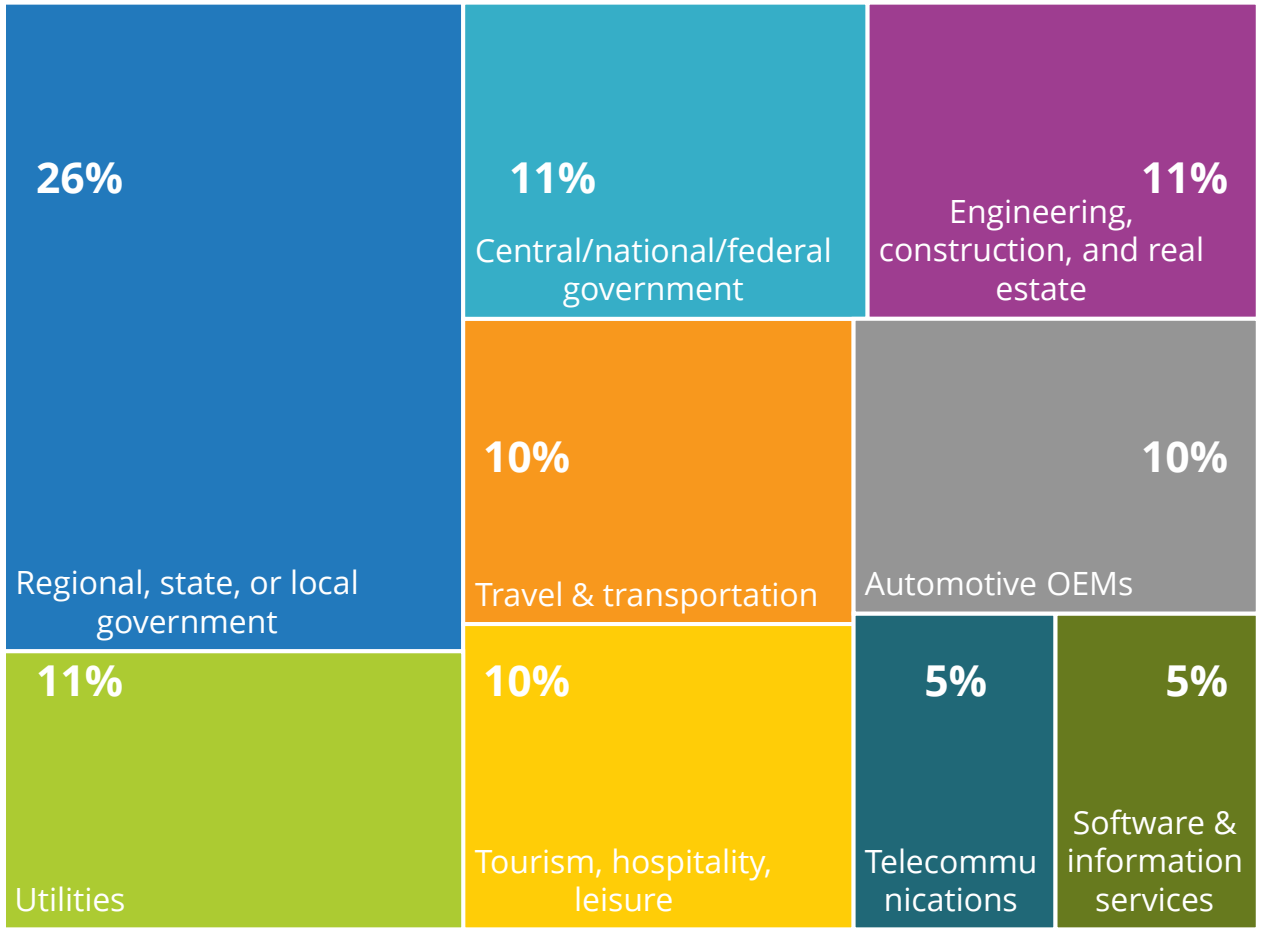
Survey led by IDC in the context of 

Survey Demographics

ToC

Survey Respondents (2)

Distribution of respondents by industry



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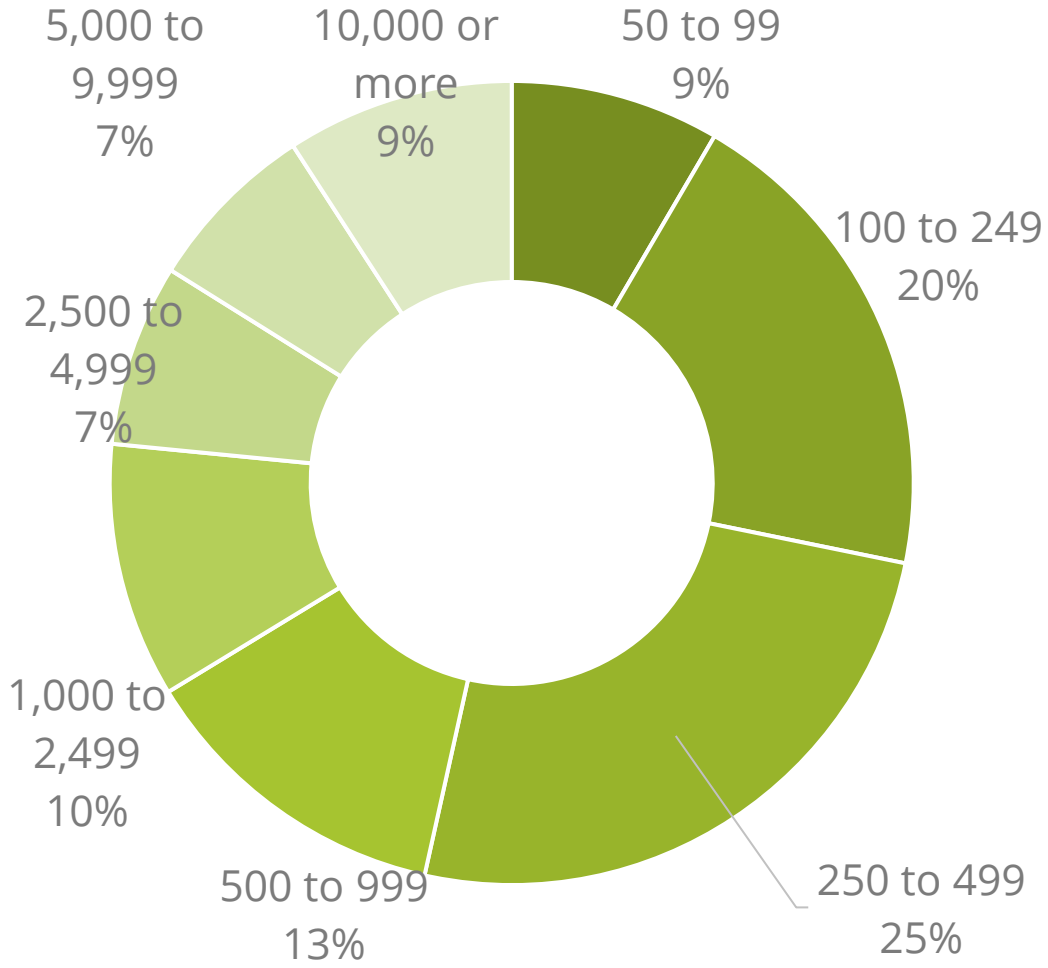
Source: *Data Space for Smart and Sustainable Cities and Communities Survey,* January-February 2025

Distribution of respondents by employee size



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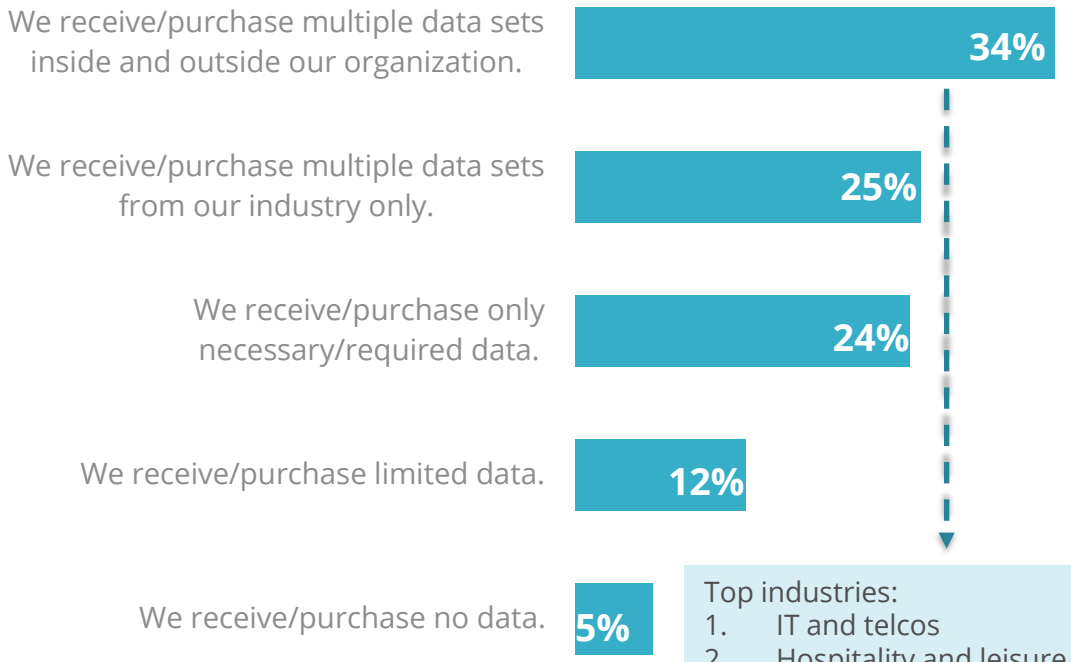
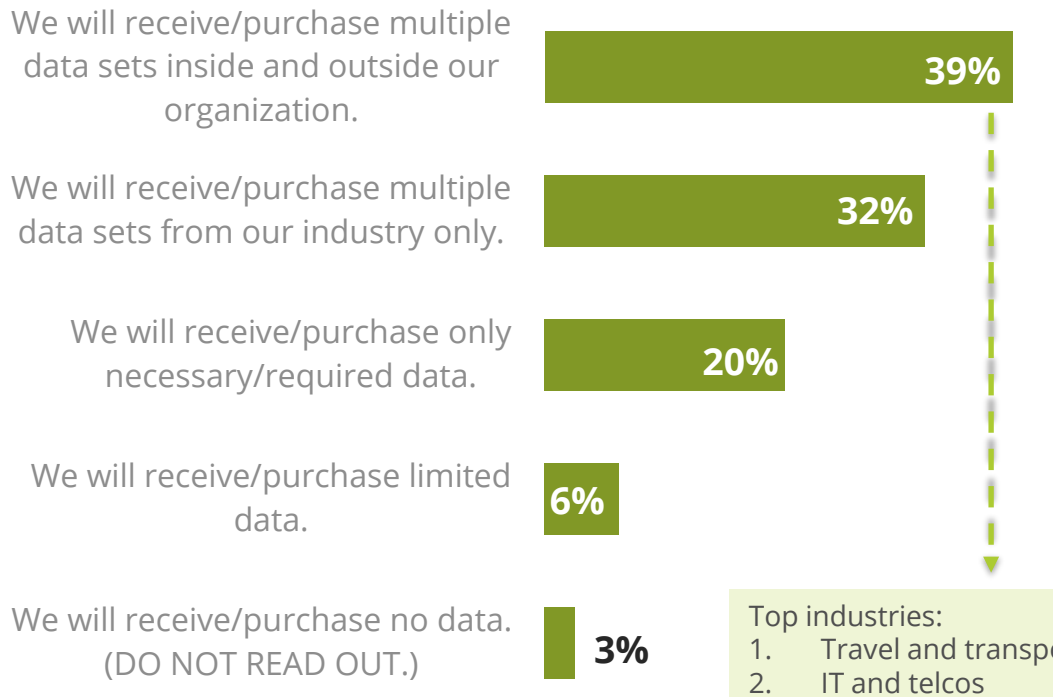
Public and private sector organizations are planning to acquire/ purchase more data from ecosystem partners

Current status of receiving/ purchasing data from the ecosystem



Top industries:
1. IT and telcos
2. Hospitality and leisure
3. Engineering and construction

Expected status of receiving/ purchasing data from the ecosystem, **in 12 months**



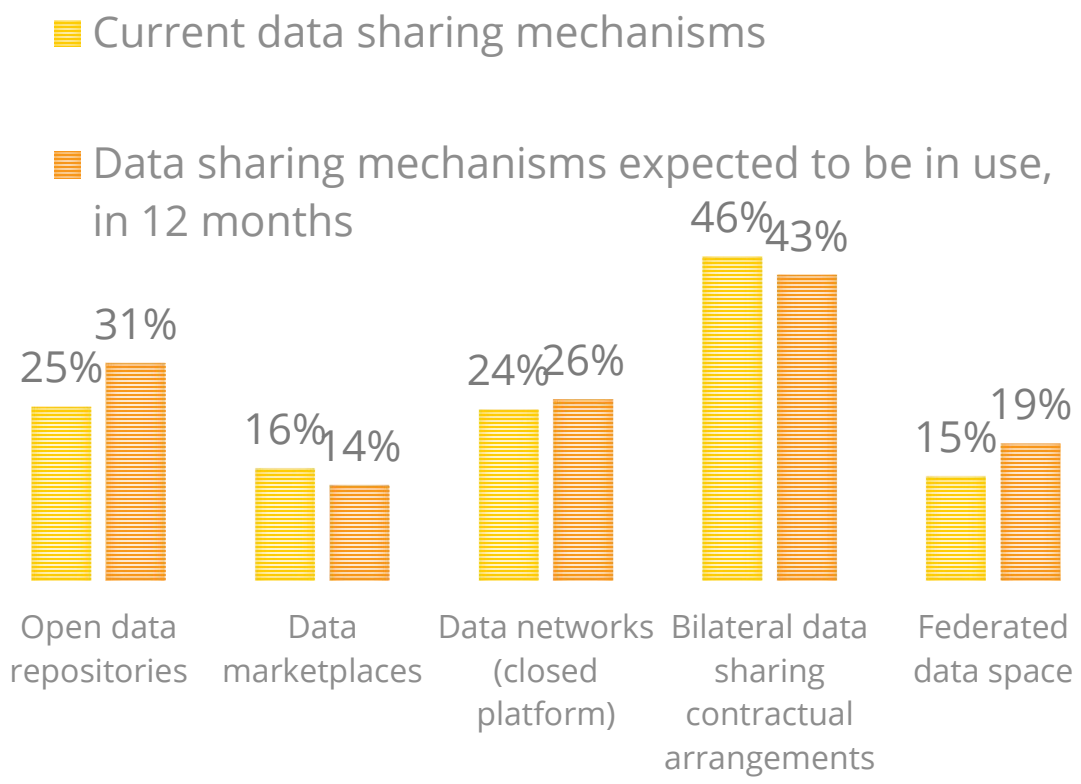
Top industries:
1. Travel and transportation
2. IT and telcos
3. Hospitality and leisure

N = 273

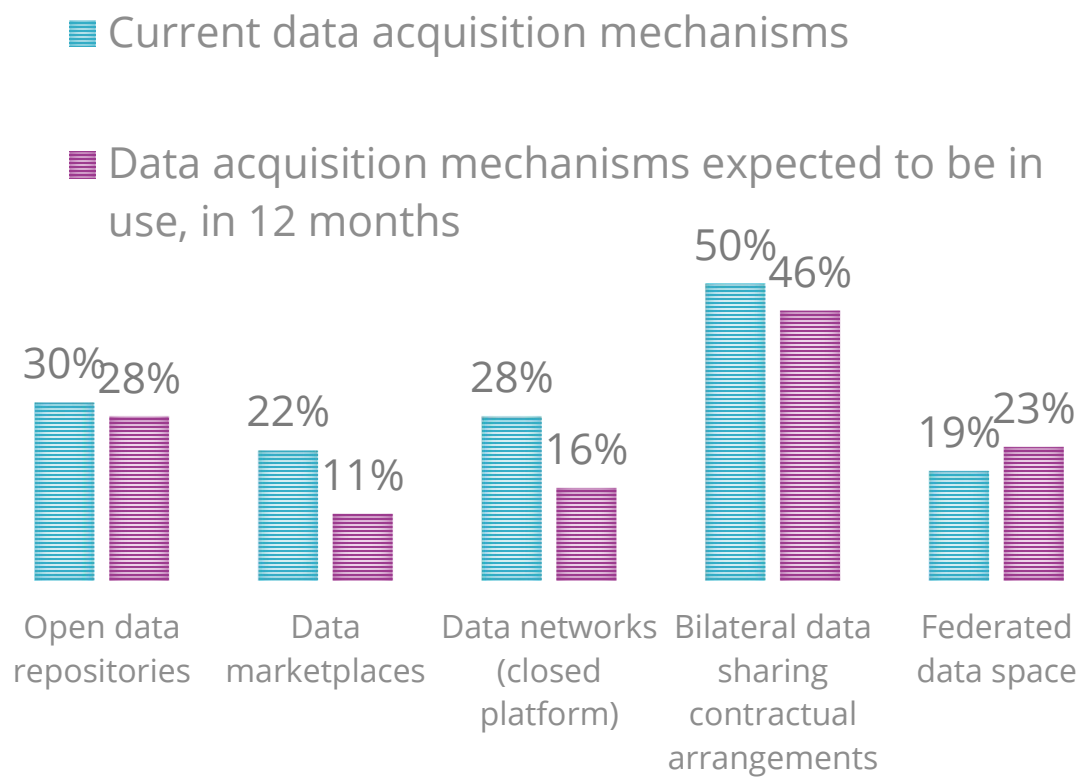
Source: *Data Space for Smart and Sustainable Cities and Communities Survey,* January-February 2025

Despite the wide variety of data sharing architectural and governance mechanisms, bilateral data sharing still dominate the European market

MECHANISMS THROUGH WHICH ORGANIZATIONS ARE SHARING DATA



MECHANISMS THROUGH WHICH ORGANIZATIONS ARE RECEIVING/ PURCHASING DATA



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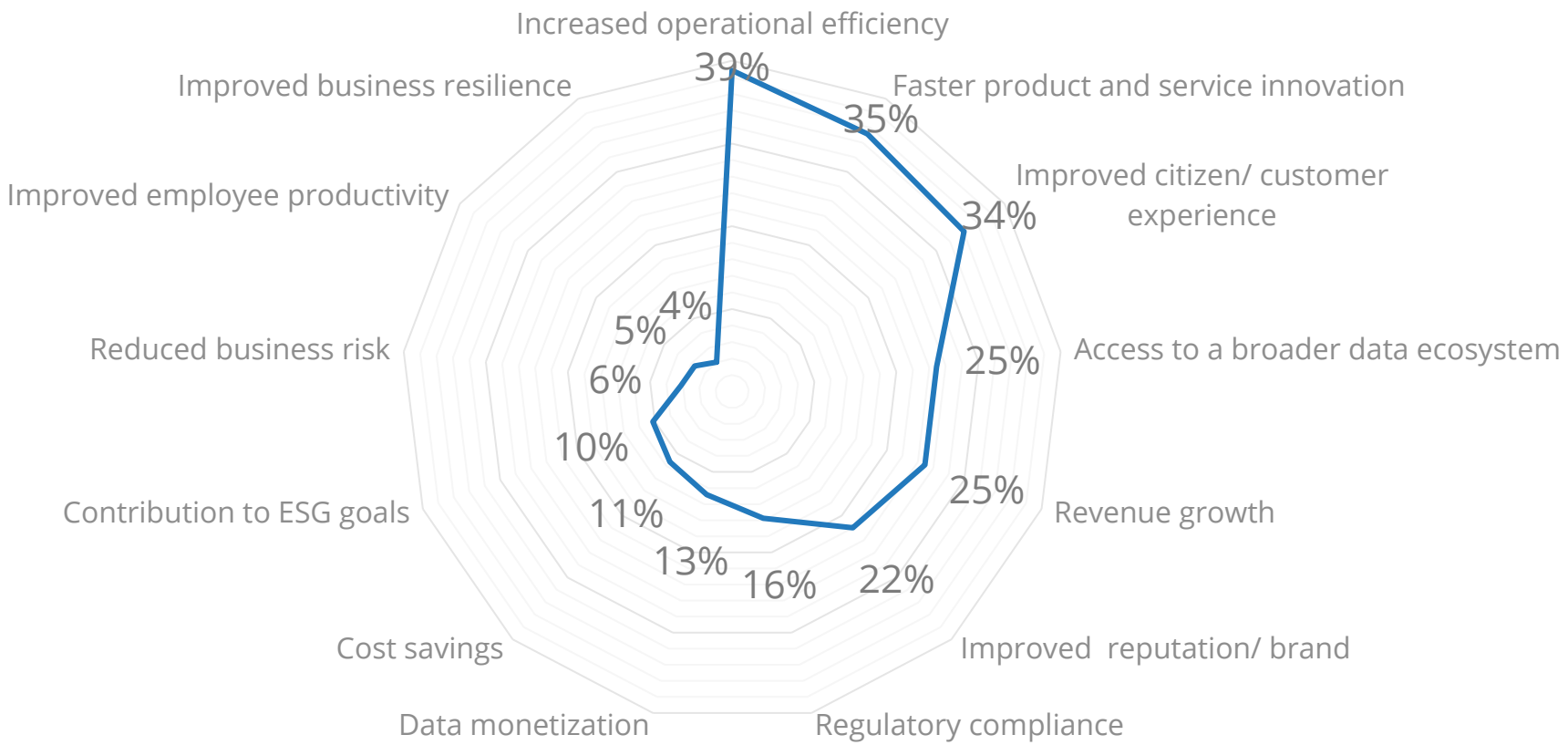
Source: *Data Space for Smart and Sustainable Cities and Communities Survey,* January-February 2025

Public and private sector organizations are driven to share data by operational efficiency, faster innovation and customer experience goals

Outcomes that organizations are trying to achieve through data sharing



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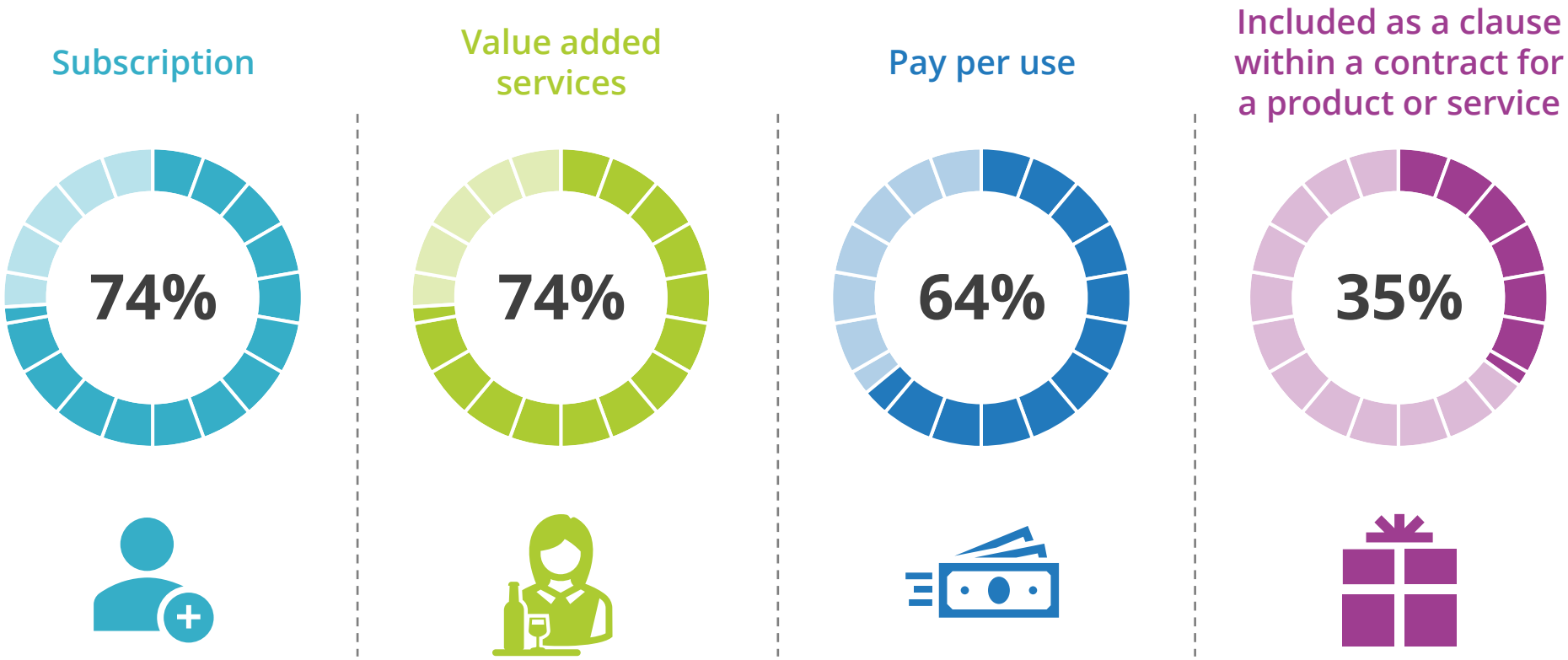
Source: *Data Space for Smart and Sustainable Cities and Communities Survey,* January-February 2025

Organizations prefer to pay for data via subscription, value added services, or pay per use

How organizations are paying (or plan to pay) for data



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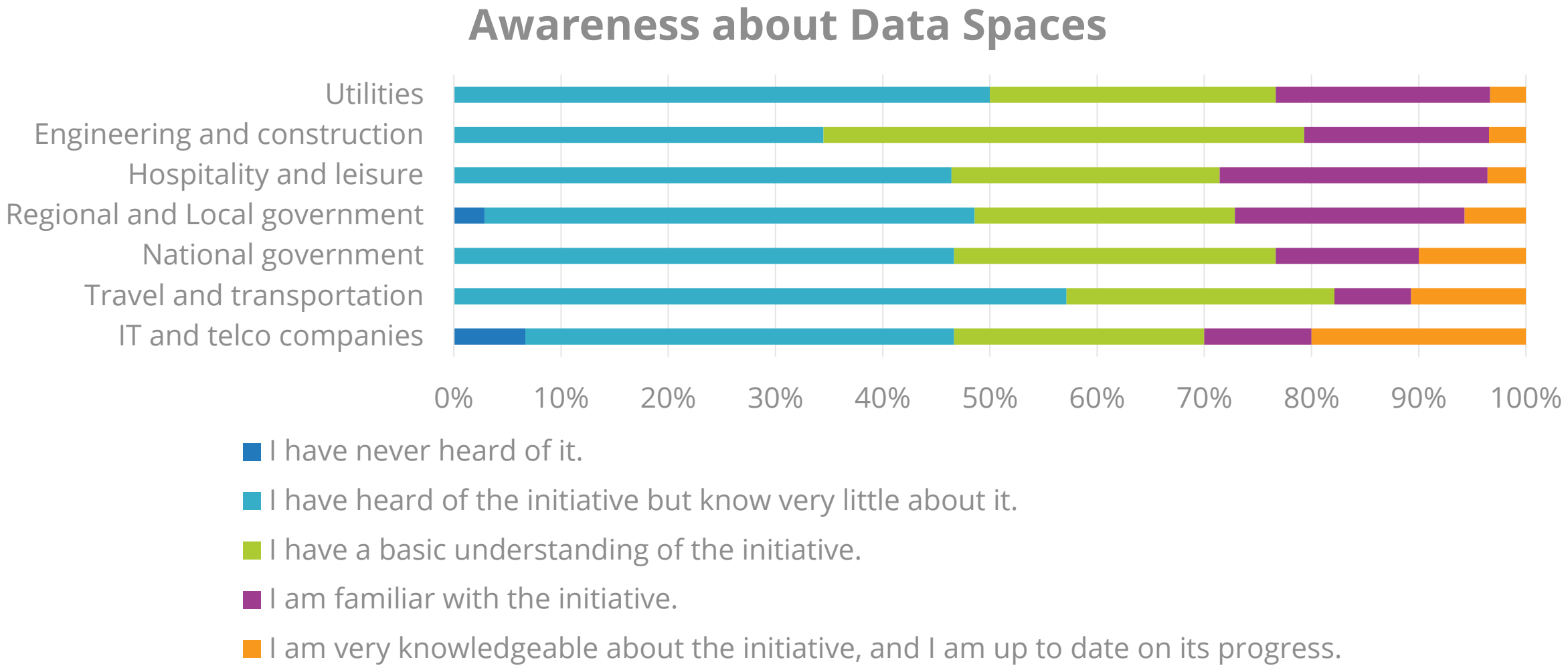
Source: *Data Space for Smart and Sustainable Cities and Communities Survey,* January-February 2025

There's an awareness gap about Data Spaces, across all industries!



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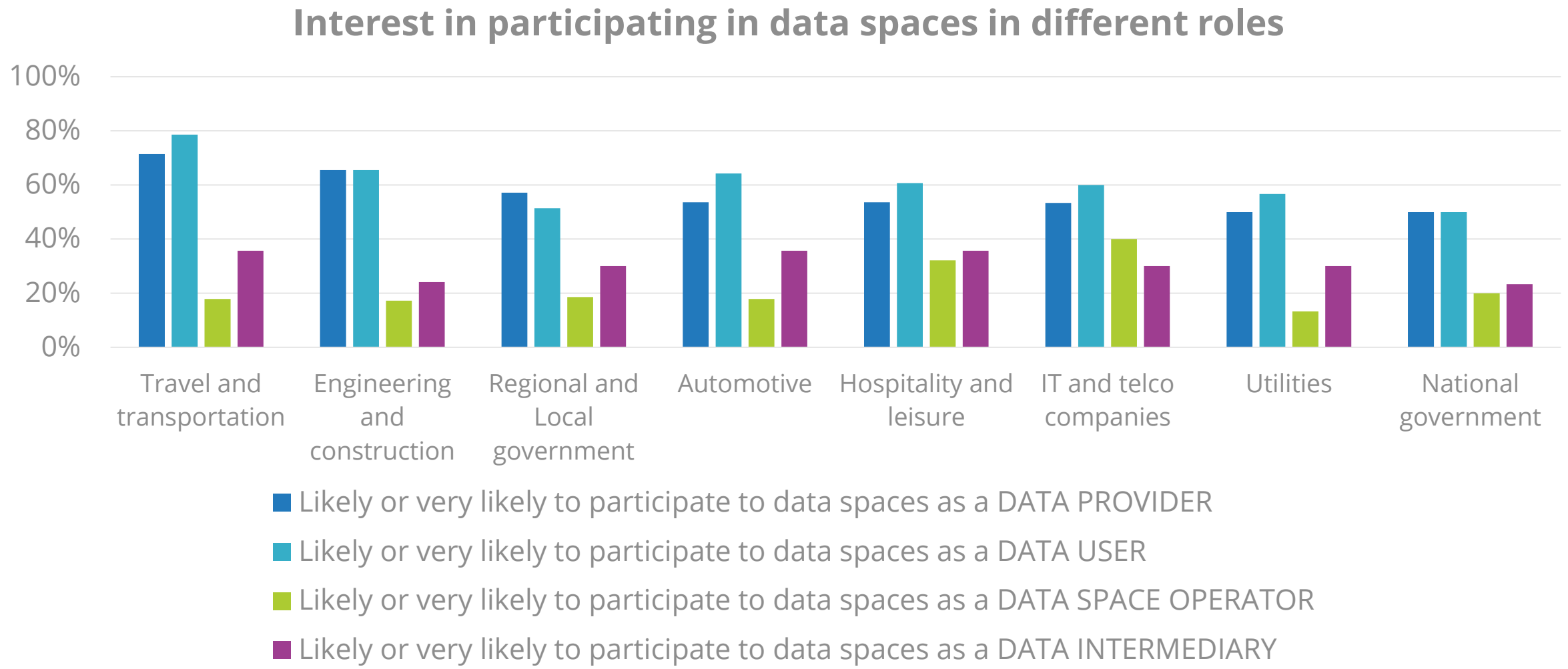
Source: *Data Space for Smart and Sustainable Cities and Communities Survey,* January-February 2025

Many are interested in being data providers or users. Few are interested in being intermediaries. Only IT and telco companies show some interest in becoming data space operators.



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Source: *Data Space for Smart and Sustainable Cities and Communities Survey,* January-February 2025

The most valuable data sets vary by industry

Top 3 most valuable datasets	Survey respondents by industry							
	National Govt	Regional and Local Govt	Travel and Transport	Utilities	AEC	IT and Telcos	Automotive	Hospitality and Leisure
Mobility	2nd		1st			1st	1st	1st
Planning		3rd	2nd		1st	3rd	3rd	2nd
Earth observation and environmental		3rd						
Geospatial		3rd	2nd		1st	2nd	2nd	
Meteorological				2nd			3rd	3rd
Water and soil	1st	2nd		1st		3rd		
Individual/ commercial Land use	2nd	1st		2nd	2nd			3rd

N = 273

Source: *Data Space for Smart and Sustainable Cities and Communities Survey,* January-February 2025

The most valuable data sets vary by industry

Top three use cases driving participation to data spaces

National Govt	Regional and Local Govt	Travel and Transport	Utilities	AEC	IT and Telcos	Automotive	Hospitality and Leisure
Transport planning and operations	Transport planning and operations	Route planning, scheduling, & optimization	Grid decarb	Supply chain mgmt. and planning	Demand sensing and predicting	Vehicle design, prototyping, and testing	Connected guest experience
Urban and infrastructure planning and operations	Urban and infrastructure planning and operations	Connected traveler experience	Climate change adaptation	Sustainable infrastructure	Supply chain optimization	Autonomous driving	Demand forecasting
Public security and disaster management	Public security and disaster management	Smart and sustainable operations and assets	Distributed energy resource mgmt	Built asset/ infrastructure design	Data monetization	Route optimization	Omnichannel booking, ordering, and distribution
Public health protection			Water supply optimization	Project risk mgmt			Hyper-personalized engagement/marketing
					1st	2nd	3rd

N = 273

Source: *Data Space for Smart and Sustainable Cities and Communities Survey,* January-February 2025

THANK YOU FOR YOUR ATTENTION!

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