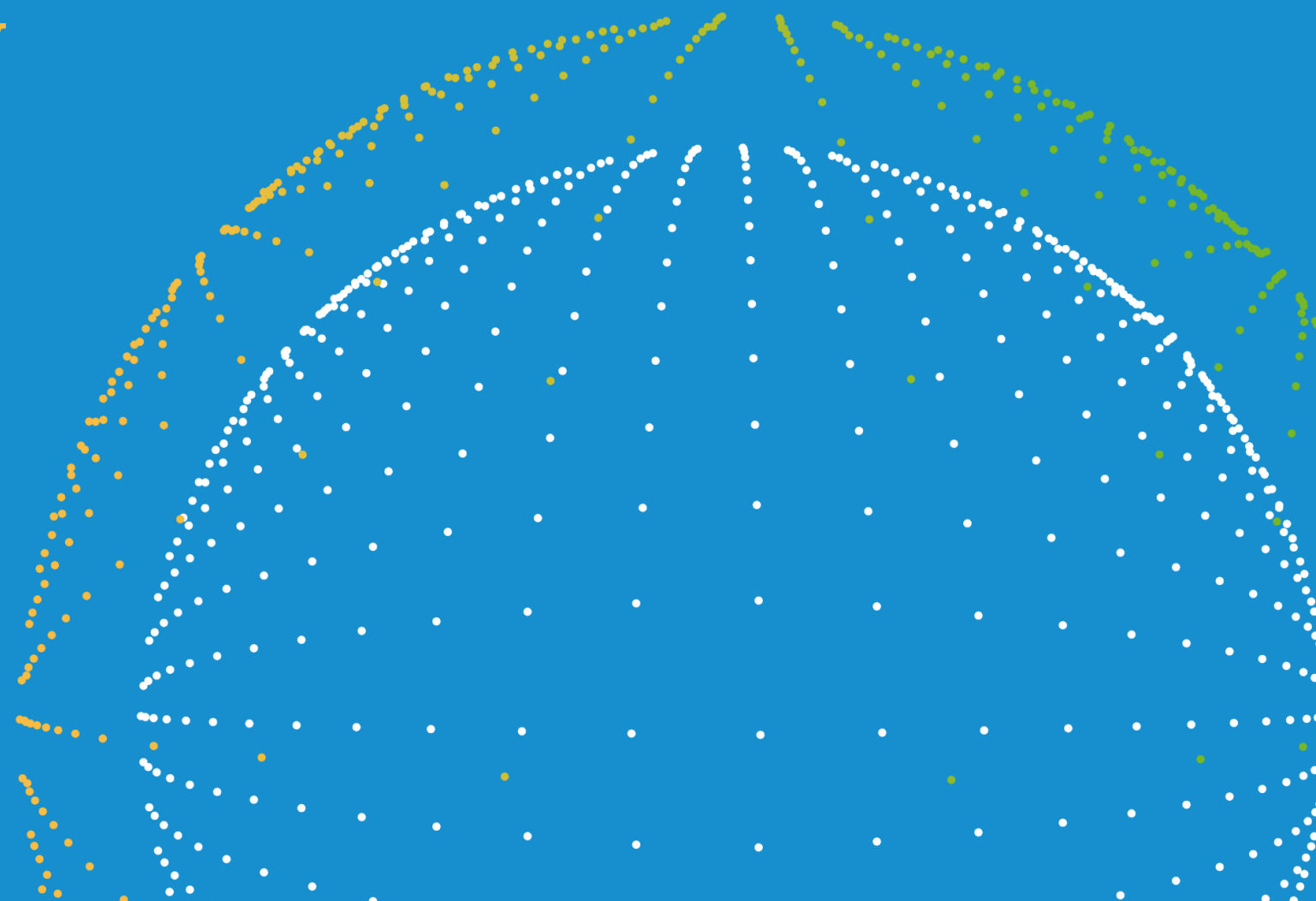


Data Spaces Symposium

Interweaving Data Spaces Internationally
- the Japanese View

Yasunori Mochizuki
NEC Corporation



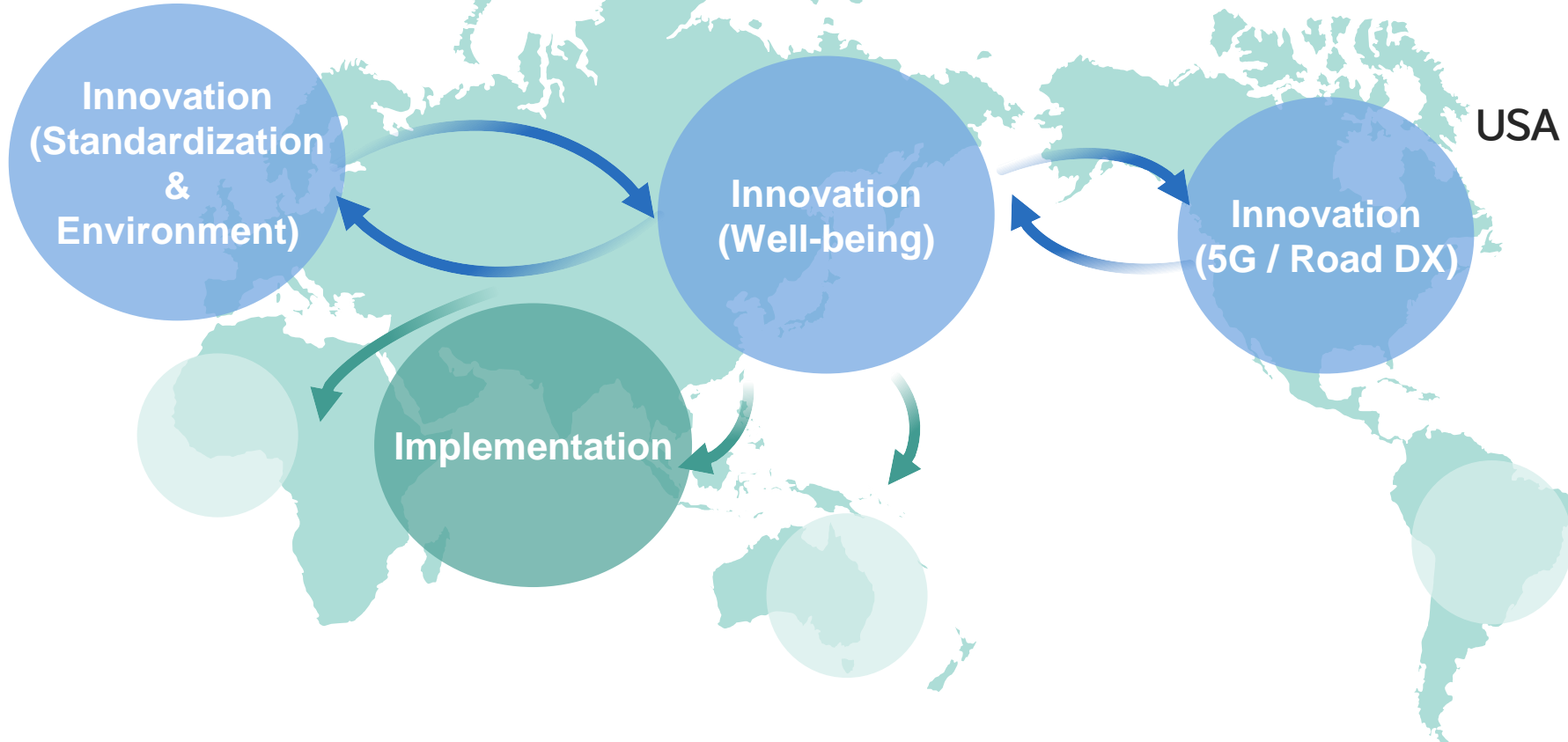
NEC Integrating Innovation Process Across Globe

< Smart City ⇒ + Data Spaces >

Europe

Japan

USA



India

NEC's Membership in Data Space Related Associations

Europe

- FIWARE Foundation
- GAIA-X
- BDVA
- ETSI ISG SIM



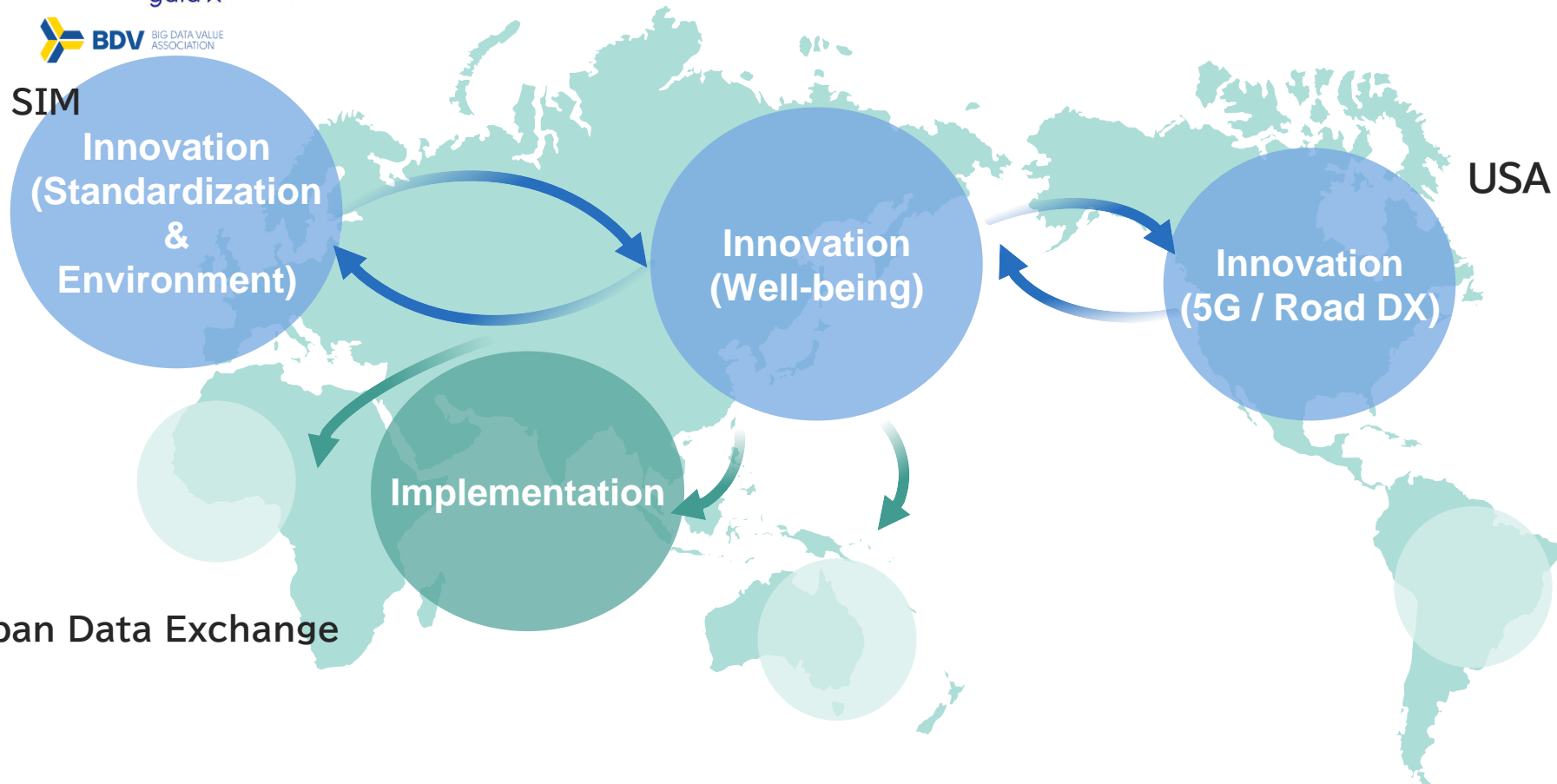
Japan

- Data Society Alliance

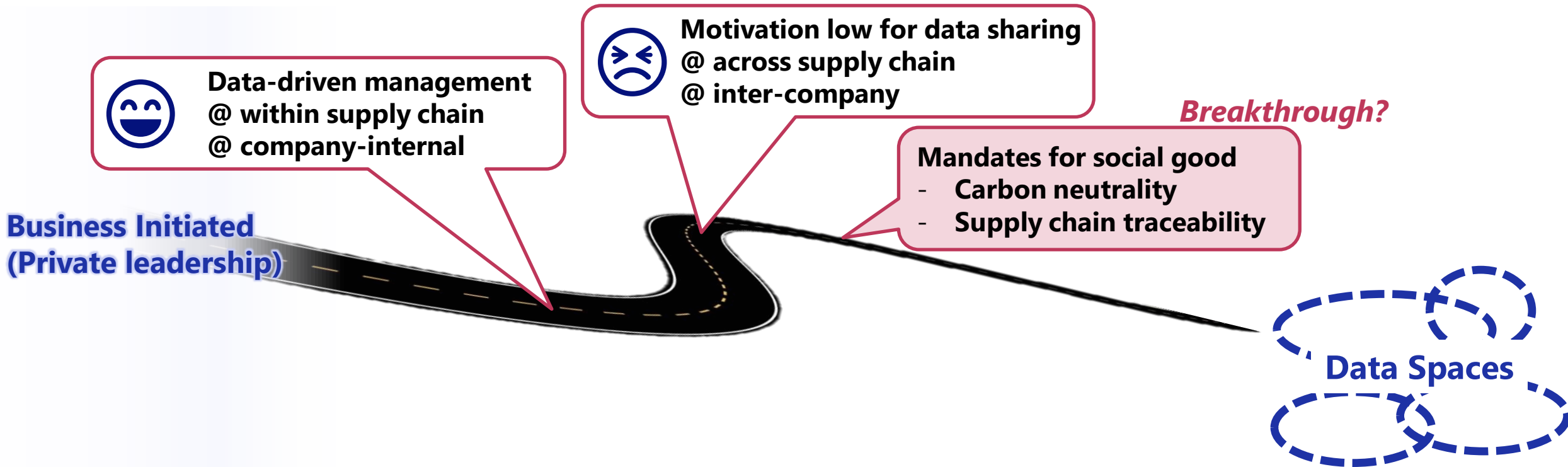


India

- India Urban Data Exchange



Data Ecosystem Journey



CO2 Visualization in Green x Digital Consortium (JEITA)

JEITA: Japan Electronics and Information Technology Industries Association



169 members
@2024

- manufacturing
- power, gas
- logistics
- wholesale
- retail
- ICT
- financial, insurance
- construction
- real estate
- consulting

Utilizing digital technology and solution to achieve carbon neutrality across society

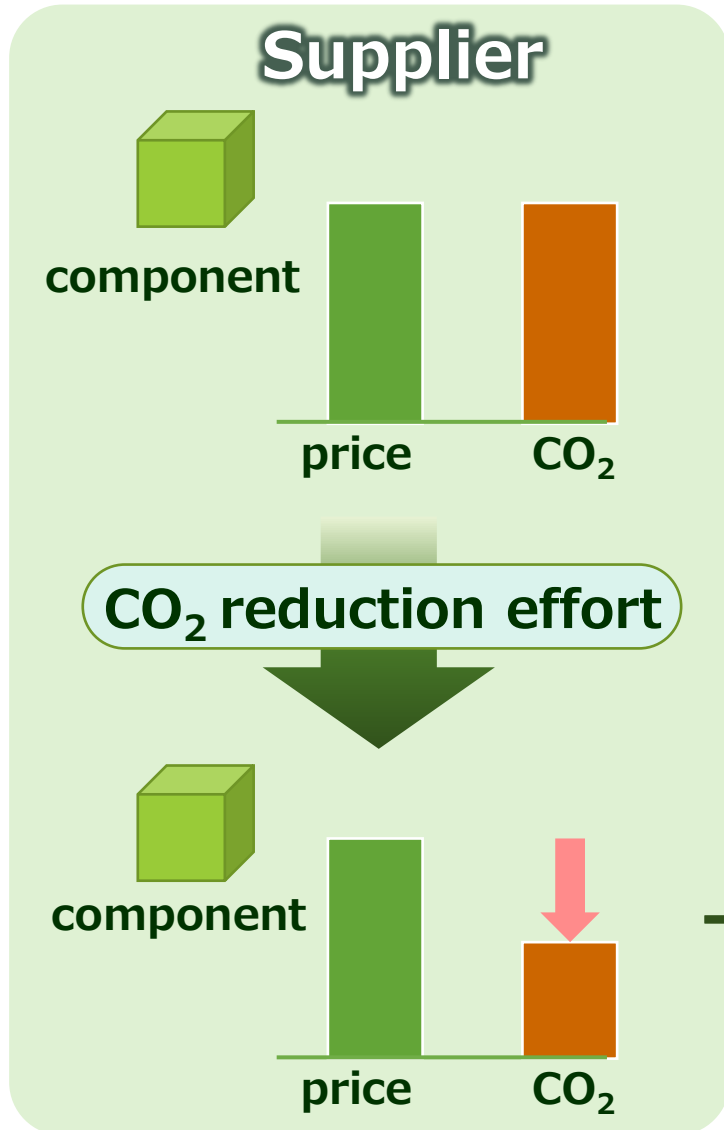
13/03/2023

JEITA

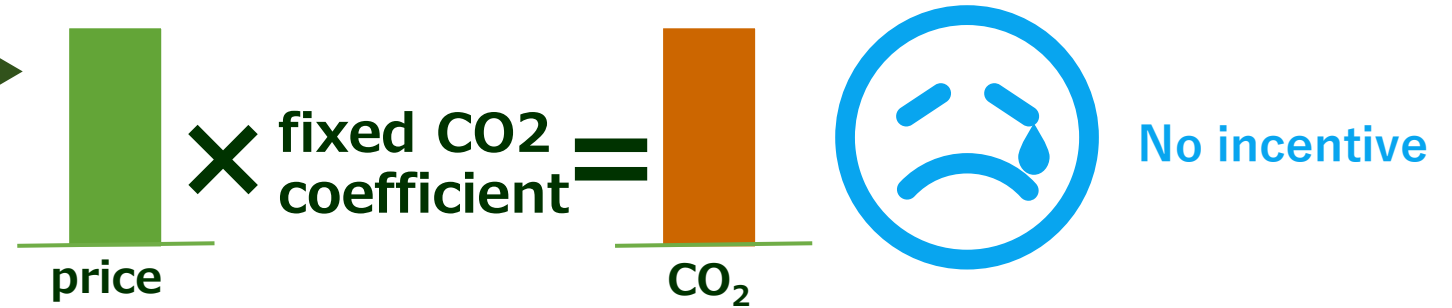
Green x Digital
Consortium

Launched in October 2021

“Scope3, Category1” problem : Supplier-side CO2 reduction



Buyer-side CO2 calculated from procured price

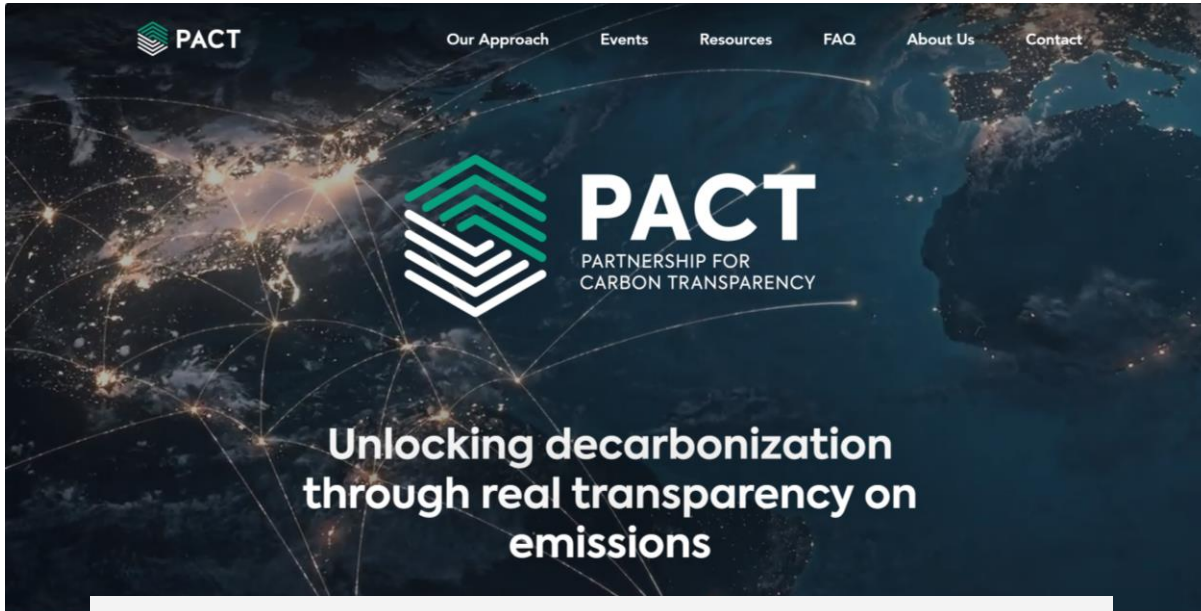


Direct use of CO2 emission reported from supplier

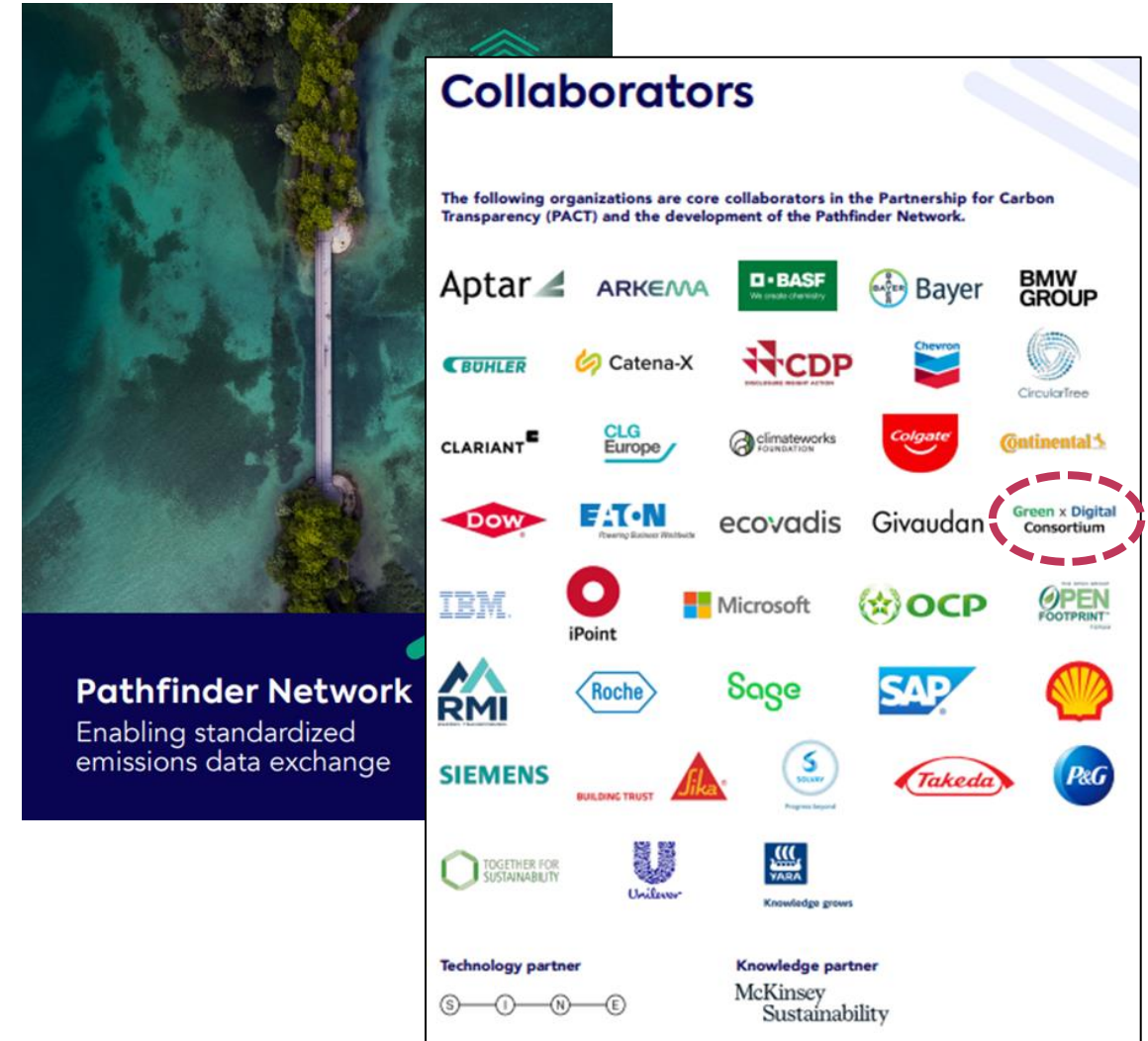


International Collaboration to Address Scope 3 Challenge

World Business Council for Sustainable Development

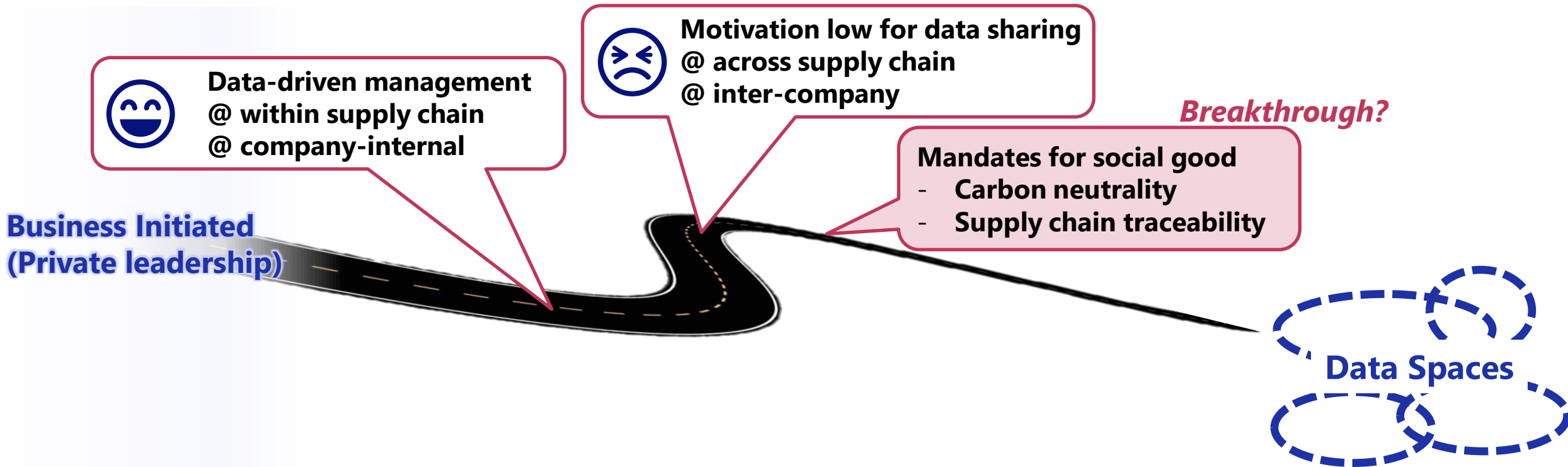


Organizations are under increasing pressure to decarbonize, but struggle to create transparency on emissions across their value chains (Scope 3). The Partnership for Carbon Transparency (PACT) is resolving this challenge by developing the global methodological and technological infrastructure needed for product-level emission accounting and exchange. The Pathfinders PACT is putting in place will empower organizations to tackle and reduce emissions at the scale needed.

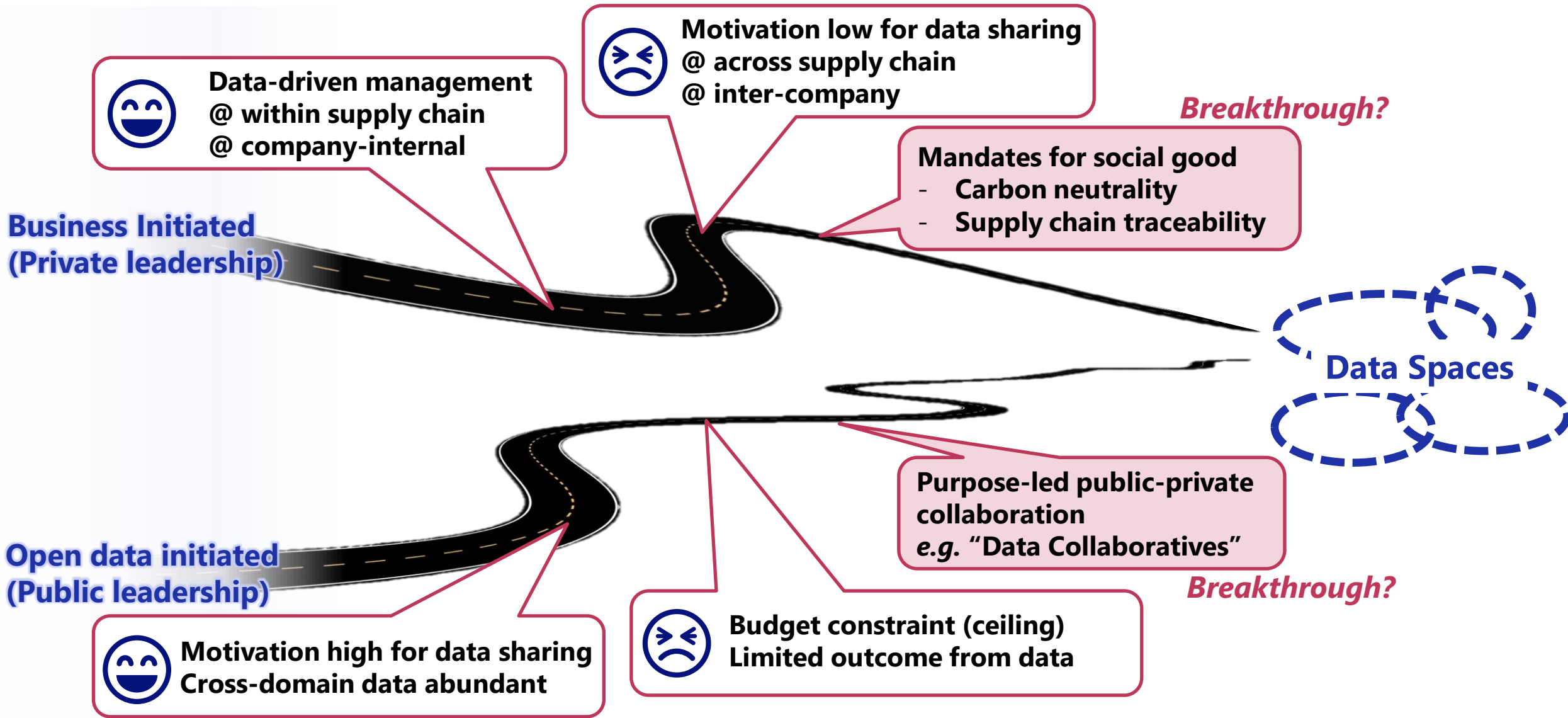


Pathfinder Network
Enabling standardized emissions data exchange

Data Ecosystem Journey



Data Ecosystem Journey

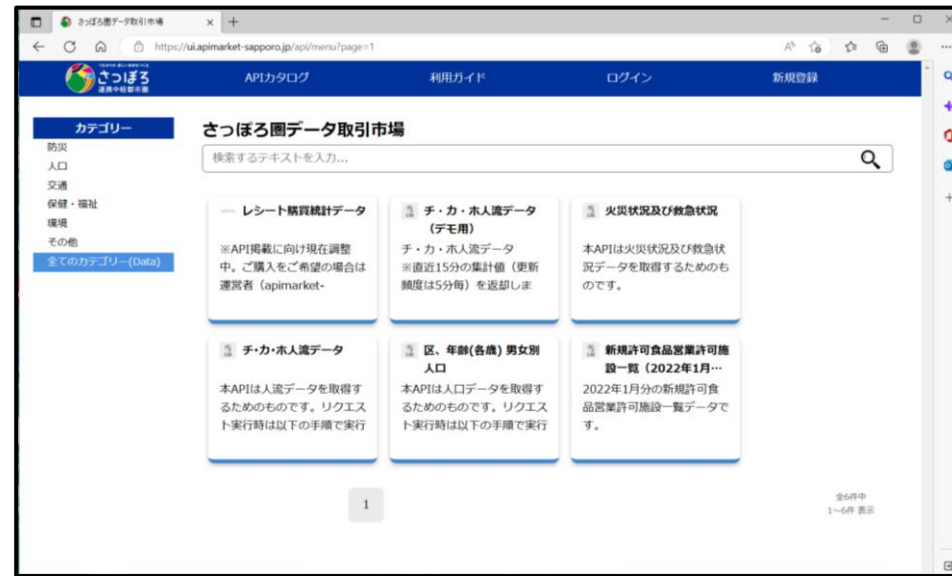
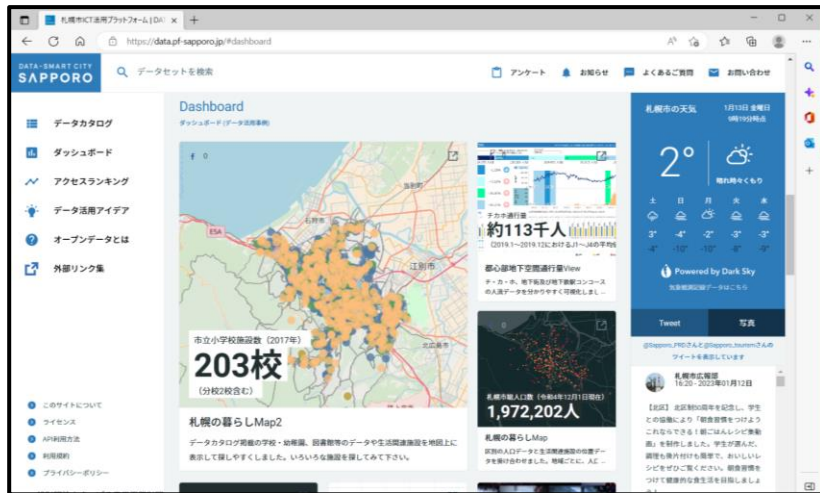


From Open Data to Data Trading Market @Sapporo City

- First-of-a-Kind initiative led by Japanese local government -

Open Data by Sapporo city government

Sapporo Area Data Trading Market



Priced data from companies

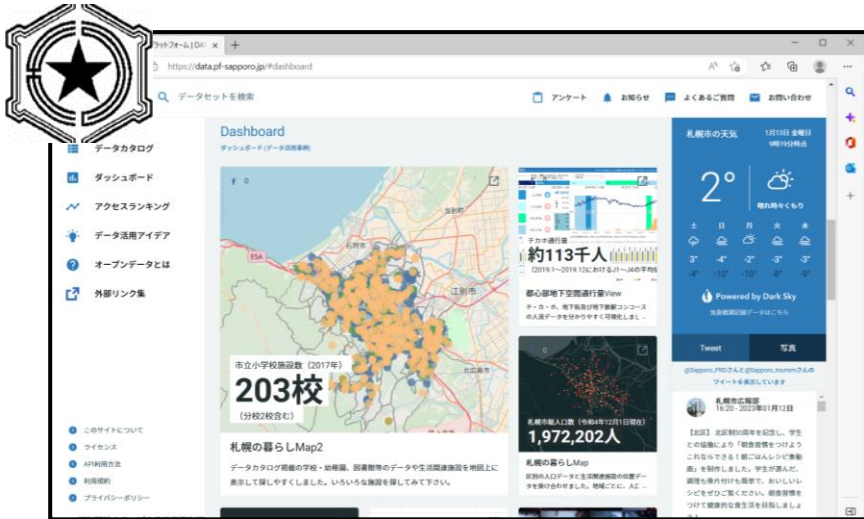


Launched in December 2022

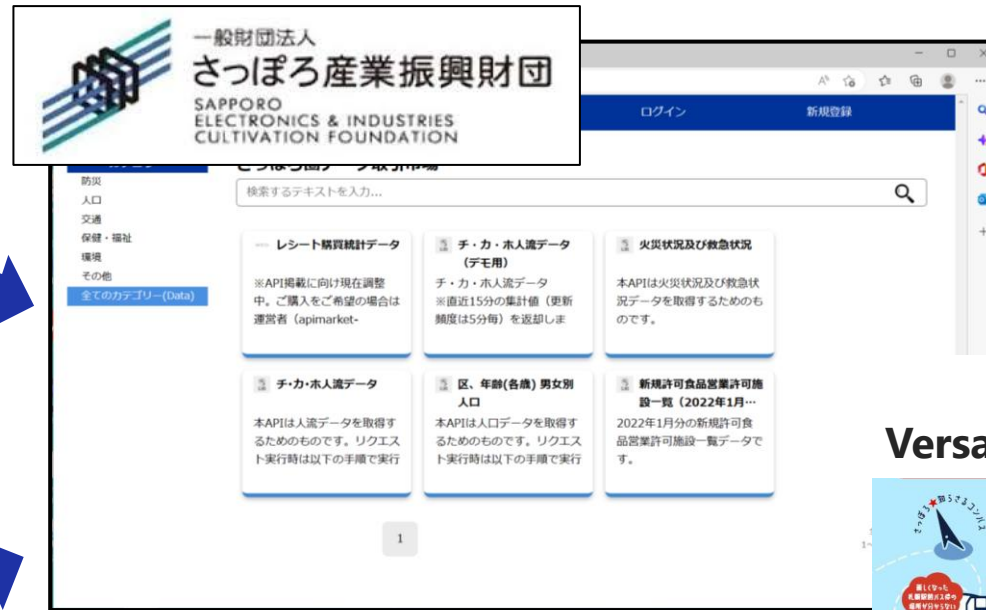
From Open Data to Data Trading Market @Sapporo City

- First-of-a-Kind initiative led by Japanese local government -

Open Data by Sapporo city government



Sapporo Area Data Trading Market



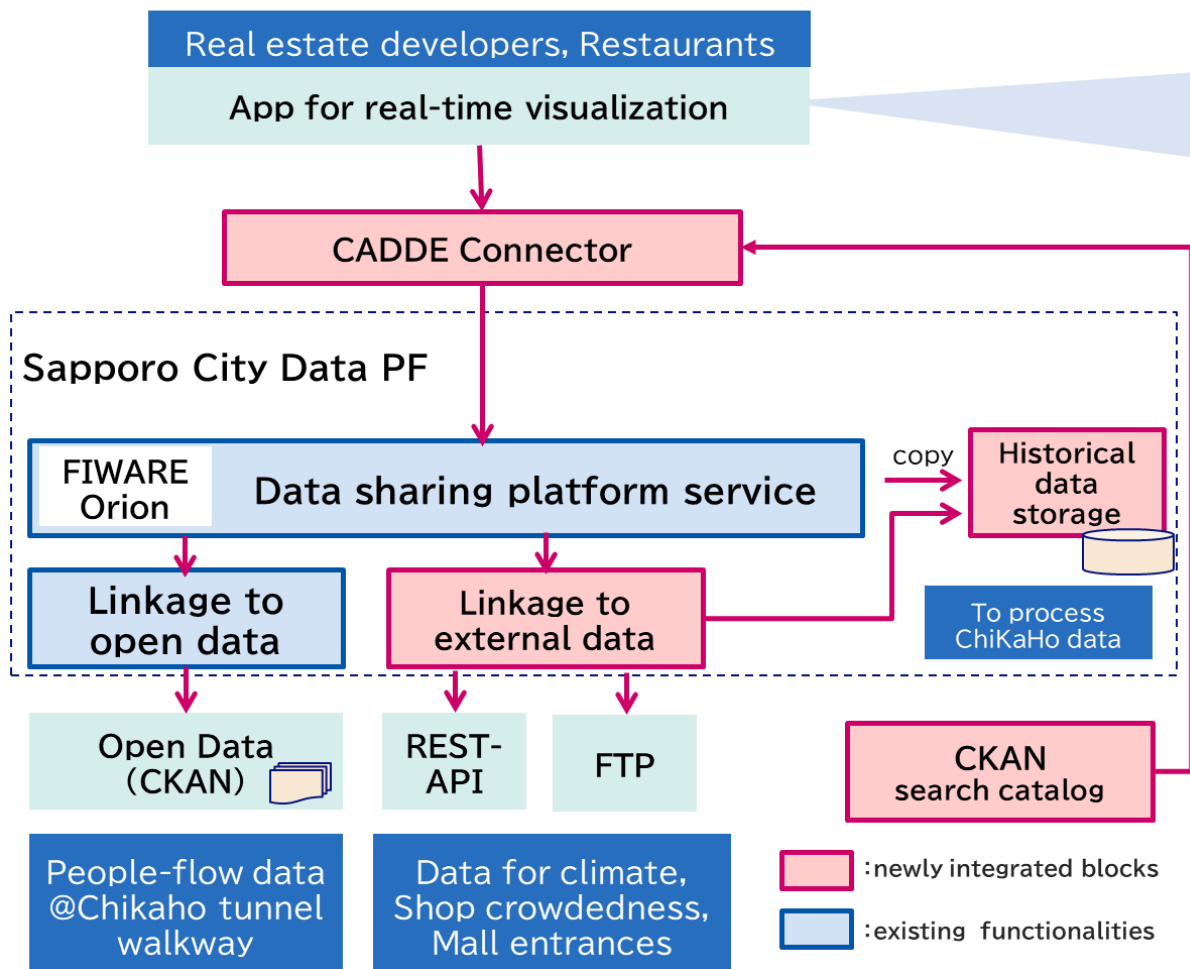
Priced data from companies

Versatile Tourism Chatbot



Integration with Japan's Data Space Connector (CADDE)

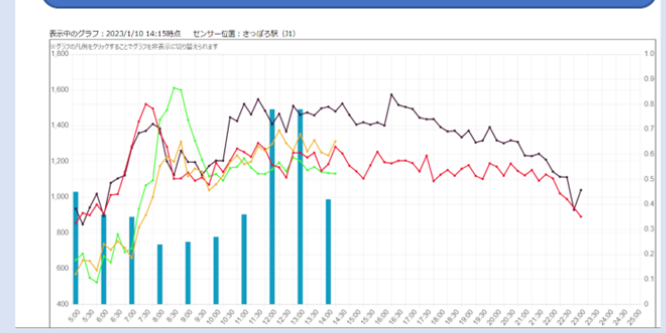
Achievement announced in April 2023



Realtime people-flow pattern



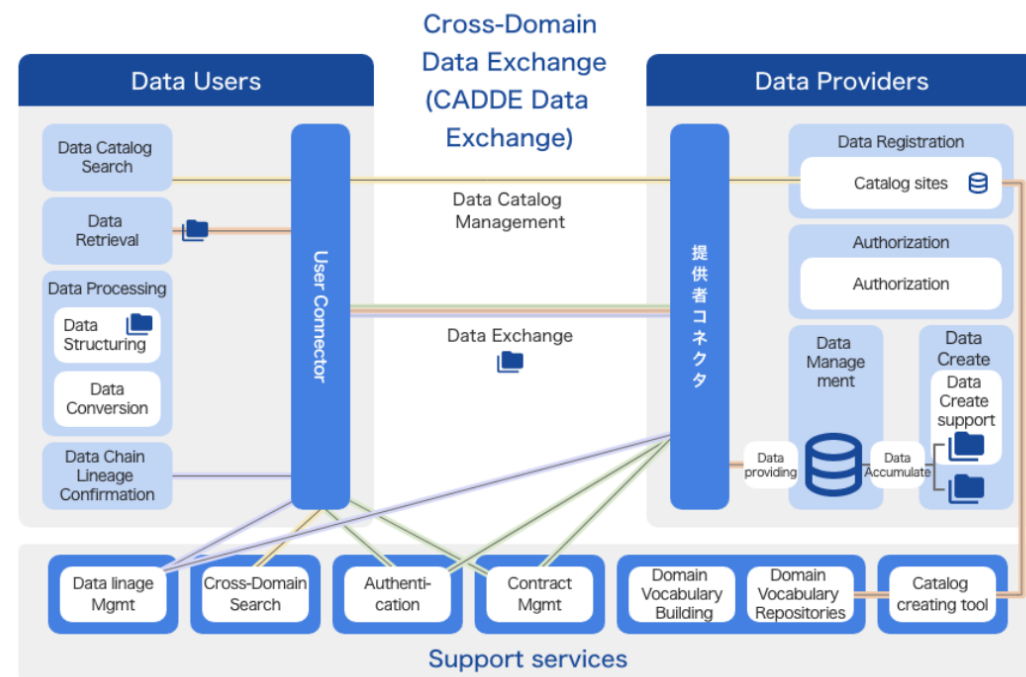
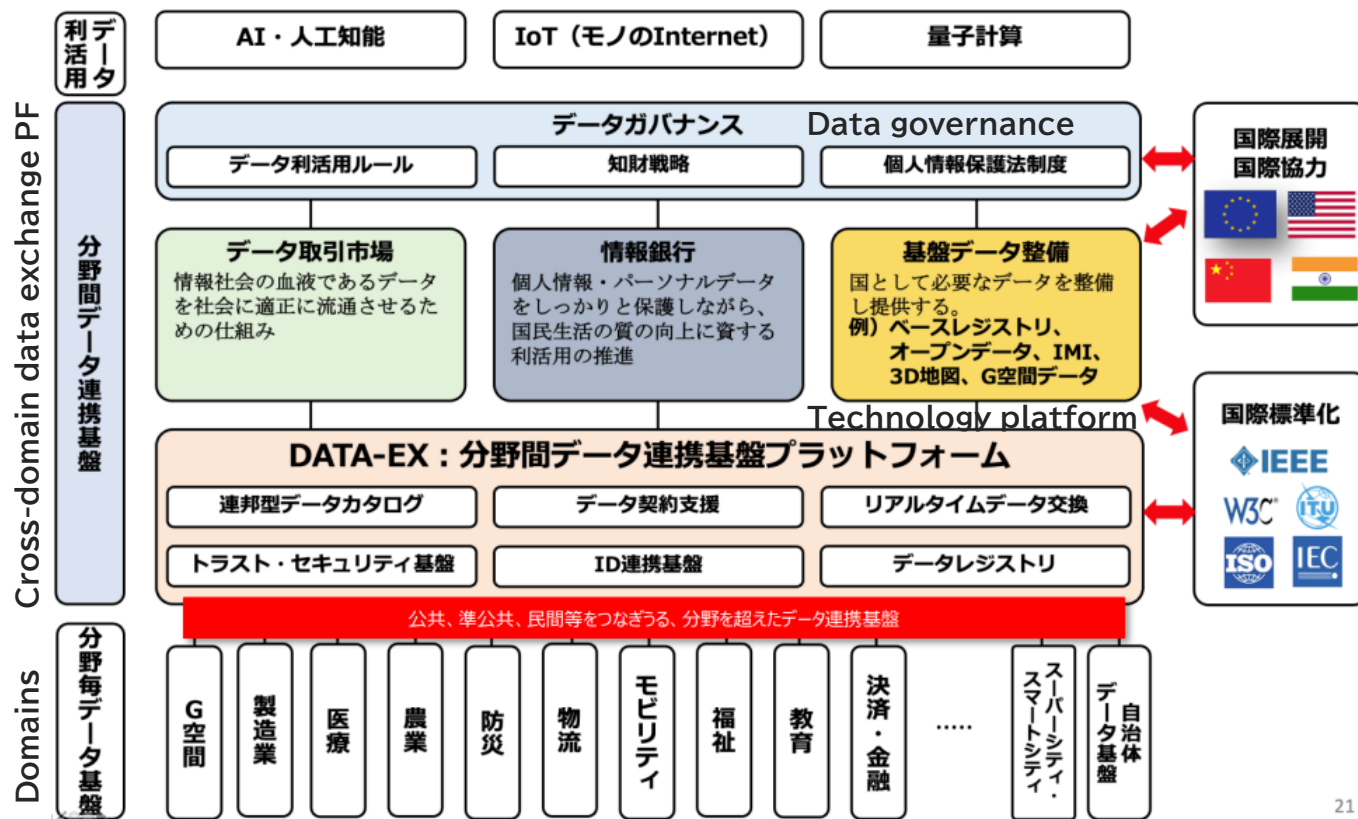
Trends of people-flow and snowfall



The work was supported by Council for Science, Technology and Innovation, "Cross-ministerial Strategic Innovation Promotion Program (SIP), Big-data and AI-enabled Cyberspace Technologies". (funding agency: NEDO)

DATA-EX: Cross-Domain Data Exchange PF for Japan

Technology elements developed in Japan's SIP project (2018–2022)
 ⇒ Data Society Alliance (DSA) launched to operationalize "DATA-EX" platform (2021)



21

https://cio.go.jp/sites/default/files/uploads/documents/digital/20211202_meeting_data_strategy_wg_03.pdf

<https://sip-cyber-x.jp/en/>

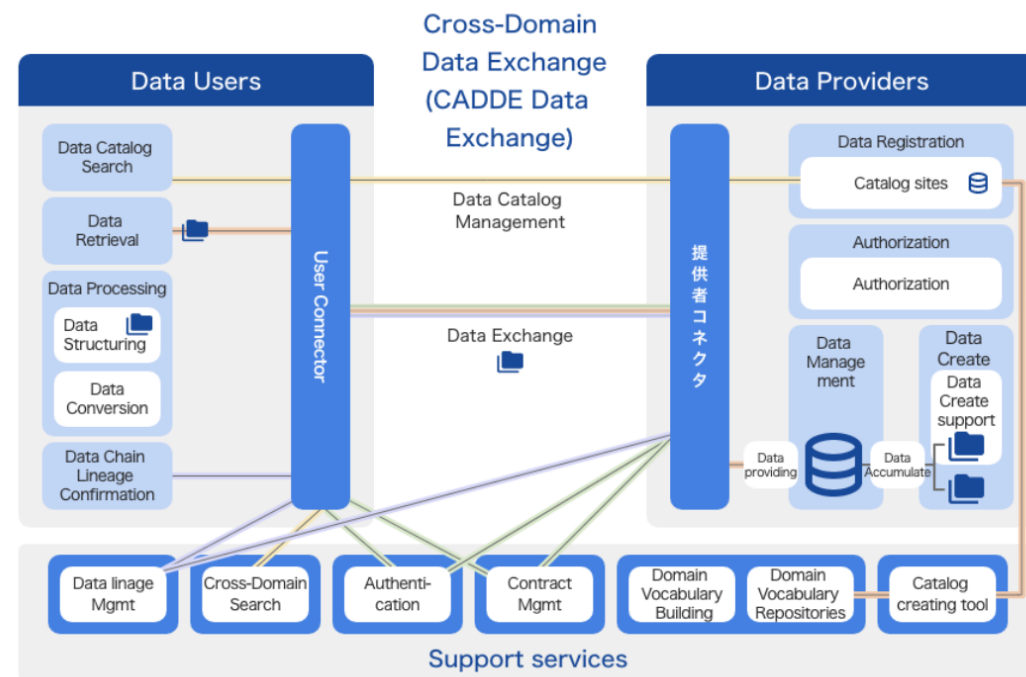
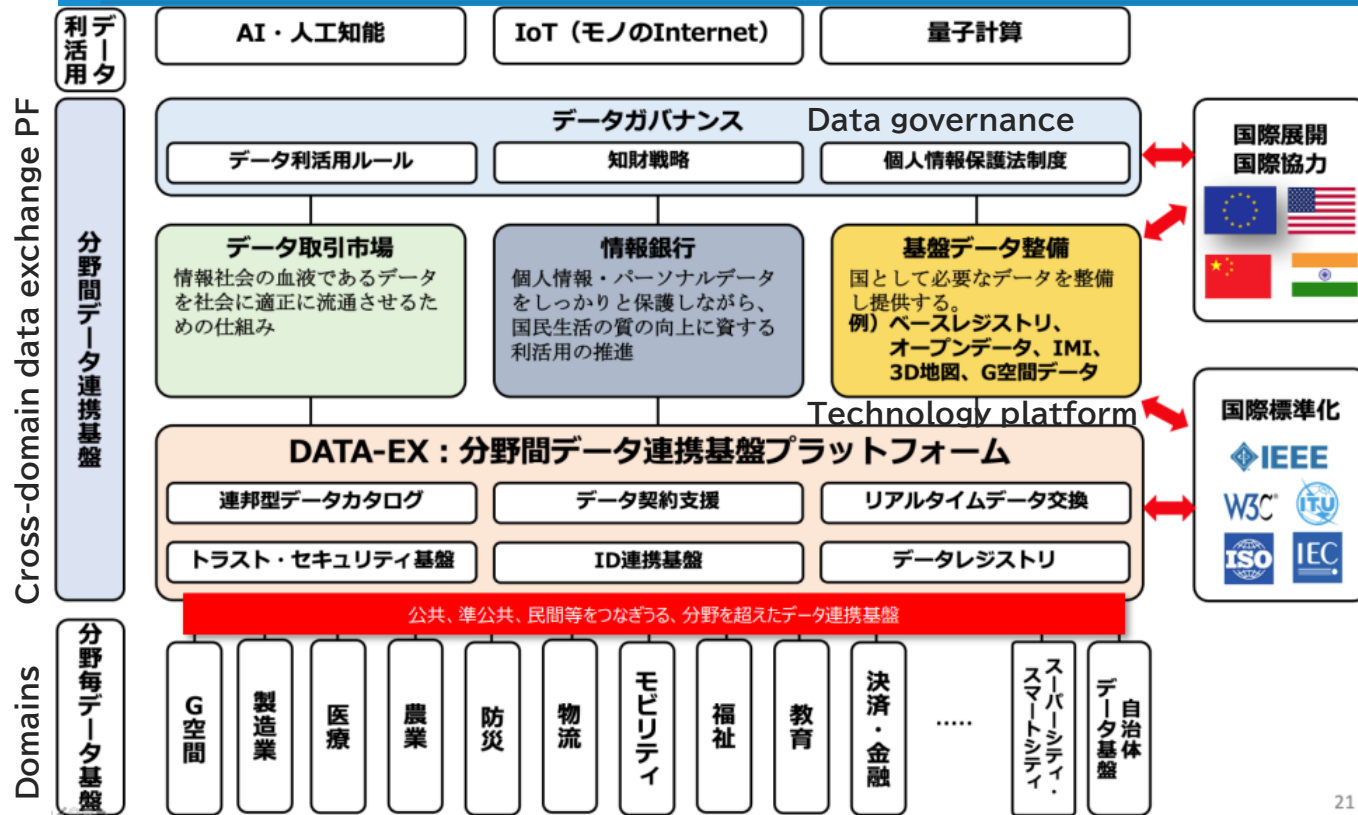
DATA-EX: Cross-Domain Data Exchange PF for Japan

17:15 Presentation

Data spaces testbed seen by the Japanese Data Society Alliance



Noboru Koshizuka
University of Tokyo



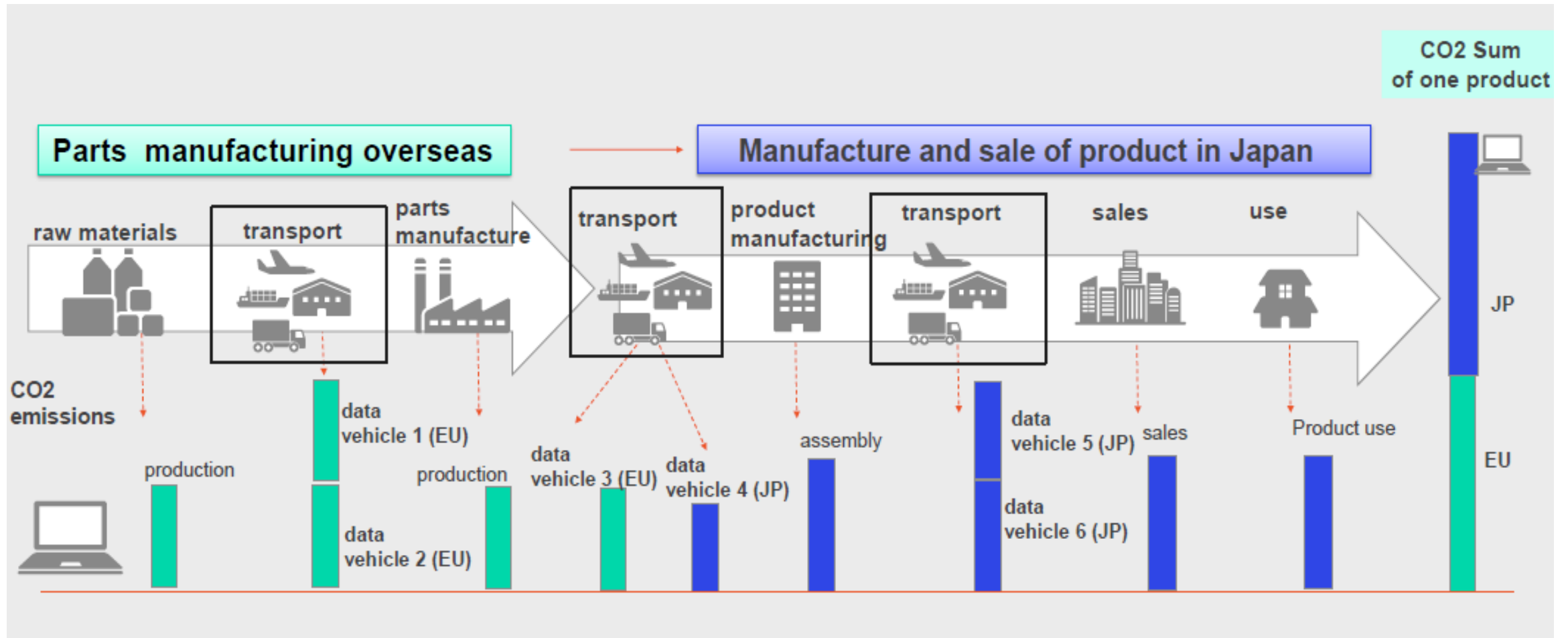
21

https://cio.go.jp/sites/default/files/uploads/documents/digital/20211202_meeting_data_strategy_wg_03.pdf

<https://sip-cyber-x.jp/en/>

Data Space Bridging Pilot between Japan and EU

Carbon Management in an International Supply Chain



Overview and Architecture of Japan-EU Pilot

Overview

- Two independent Data Spaces
- One Aggregator for Carbon Calculation

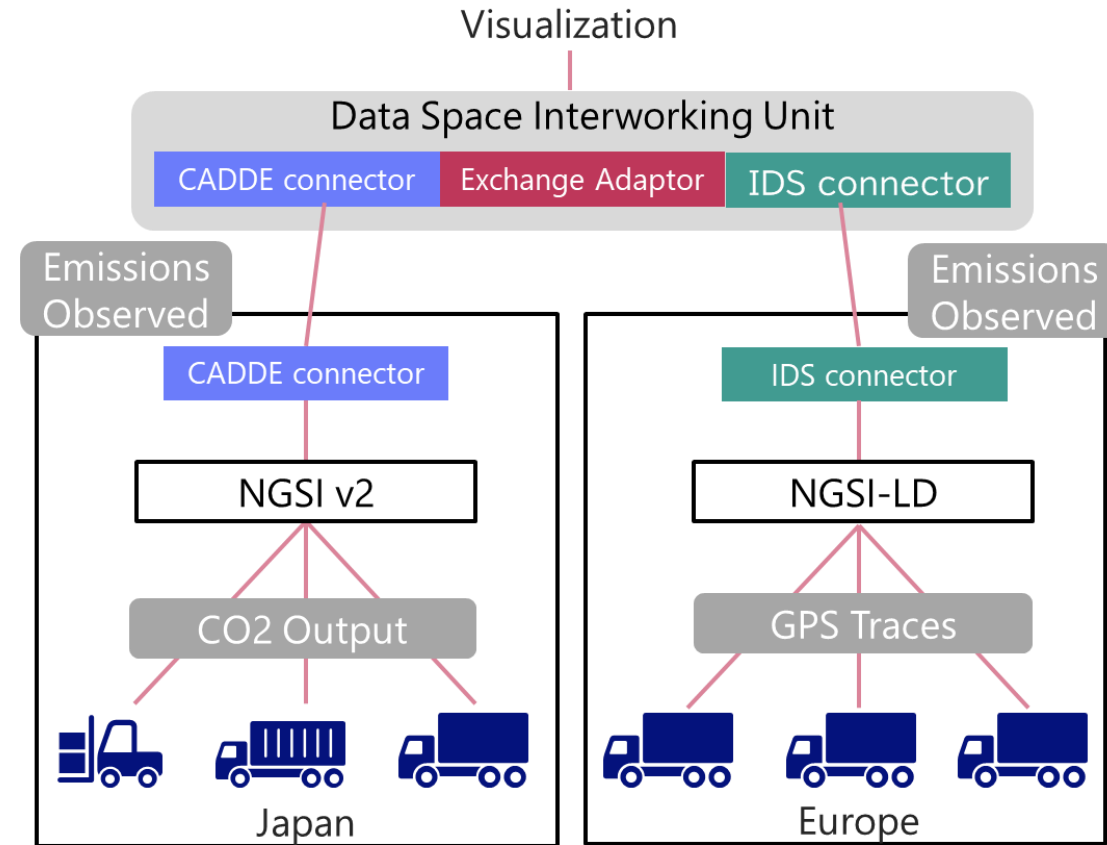
Europe

- Technology: FIWARE (NGSI-LD) + IDSA
- Trust Sources: European Trust Framework

Japan

- FIWARE (NGSI-v2) + CADDE
- Trust Sources: Japanese Trust Framework

--- Trust harmonization yet to be developed !



The work was supported by Council for Science, Technology and Innovation, "Cross-ministerial Strategic Innovation Promotion Program (SIP), Big-data and AI-enabled Cyberspace Technologies". (funding agency: NEDO)

Summary – the Japanese view

- ◆ **Data sharing pilots active both for industry-led and public-led mechanisms**
- ◆ **DATA-EX platform for Japan developed in SIP-2 (national R&D project)**
- ◆ **More work needed toward global harmonization of data spaces**
 - **Technical interoperability (incl. trust mechanism)**
 - **Regulatory/legal interoperability**
 - **Alignment of domain-dependent business rules/standards**
- ◆ **Mandates, enablers and initiatives for data spaces in Europe are well in sight**
- ◆ **Best practices shared worldwide will drive expansion of data space ecosystems**

\ Orchestrating a brighter world

NEC