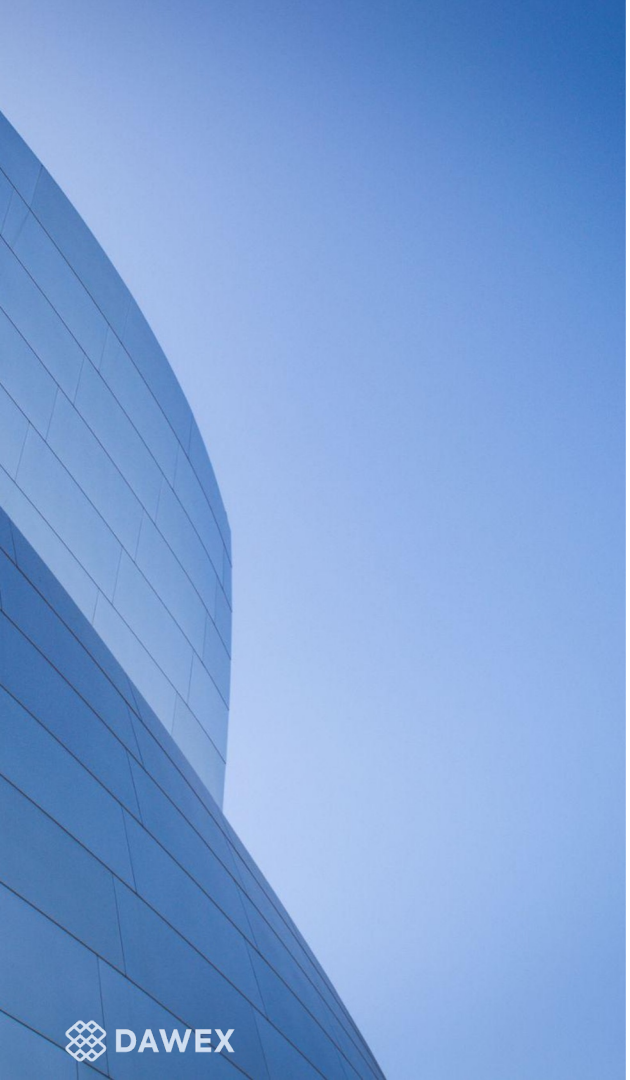


Unlocking Smart Connectivity
How Governance, Standards, and Regulations Enable Trust and Interoperability

Didier Navez, SVP Data Policy & Governance, Dawex

EU-Japan Digital Week

Smart Connectivity and Computing Workshop

Tokyo, March 31, 2025

Dawex at a glance: a European scale-up recognized worldwide for its expertise and achievements in data exchange

Company profile

Founded in 2015

Offices: Paris, Lyon, Montreal, Tokyo

Global reach

- France & Europe
- Japan (2nd largest market)
- North America
- Middle East

Recognized as a pioneer and innovator

- **11 awards & recognitions** US, EU, ME
- **Tech Pioneer** at the World Economic Forum
- Speaker in **Davos**
- **Speaker at G7 Summit** and other global events
- **Data Expert Group** member at the **UN**
- **Leads Gaia-X Data Exchange** Working Group

Customer references

in more than **15 strategic sectors**

- Manufacturing
- Airports
- Automotive
- Aeronautic
- Energy
- Geospatial
- Agriculture
- Mobility
- Media & Culture
- Food
- Infrastructure
- Real Estate
- Retail
- Trading
- Smart cities
- Banking & Insurance

Smart connectivity defined from technology innovation ...

Smart connectivity refers to the intelligent, secure connection of devices, systems, and data that enables advanced services through seamless communication. It incorporates intelligence at multiple levels - from edge devices to cloud systems - creating context-aware, adaptive interactions."

Key technical pillars:

- Advanced networks (5G/6G)
- Internet of Things
- Edge computing

Smart connectivity defined
from technology innovation to data exchange governance

Smart connectivity refers to the intelligent, secure connection of devices, systems, and data that enables advanced services through seamless communication. It incorporates intelligence at multiple levels - from edge devices to cloud systems - creating context-aware, adaptive interactions."

Key technical pillars:

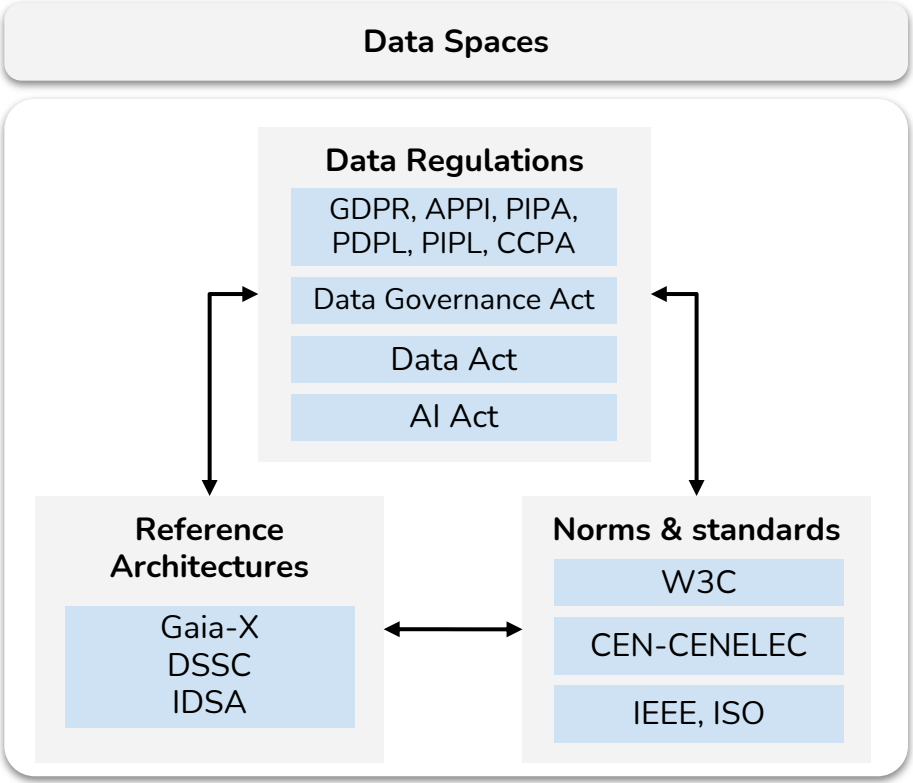
- Advanced networks (5G/6G)
- Internet of Things
- Edge computing

Smart connectivity also represents the ability to create trusted, interoperable digital ecosystems where data can flow and be exchanged seamlessly across borders, industries, organizations and factories

Key governance pillars:

- Data ecosystems & data spaces
- Reference architectures
- Trust frameworks
- Interoperability mechanisms
- Standards & Regulations

Data regulations, reference architectures and standards are powerful levers enabling data exchange at scale

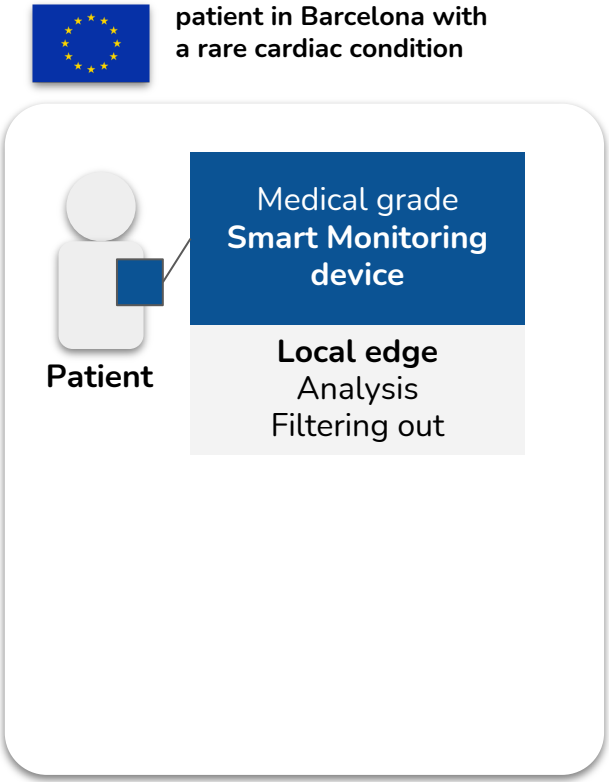


- Cross-border
- Cross-industry
- Cross-organizations

- Create **trust in data spaces and data ecosystems**
- Facilitate **interoperability**
- Ensure the highest level of **security** and **privacy** as well as **sovereignty** to all stakeholders

Healthcare: Early cardiac event detection and prevention

Cloud-edge, AI-powered, international expertise access



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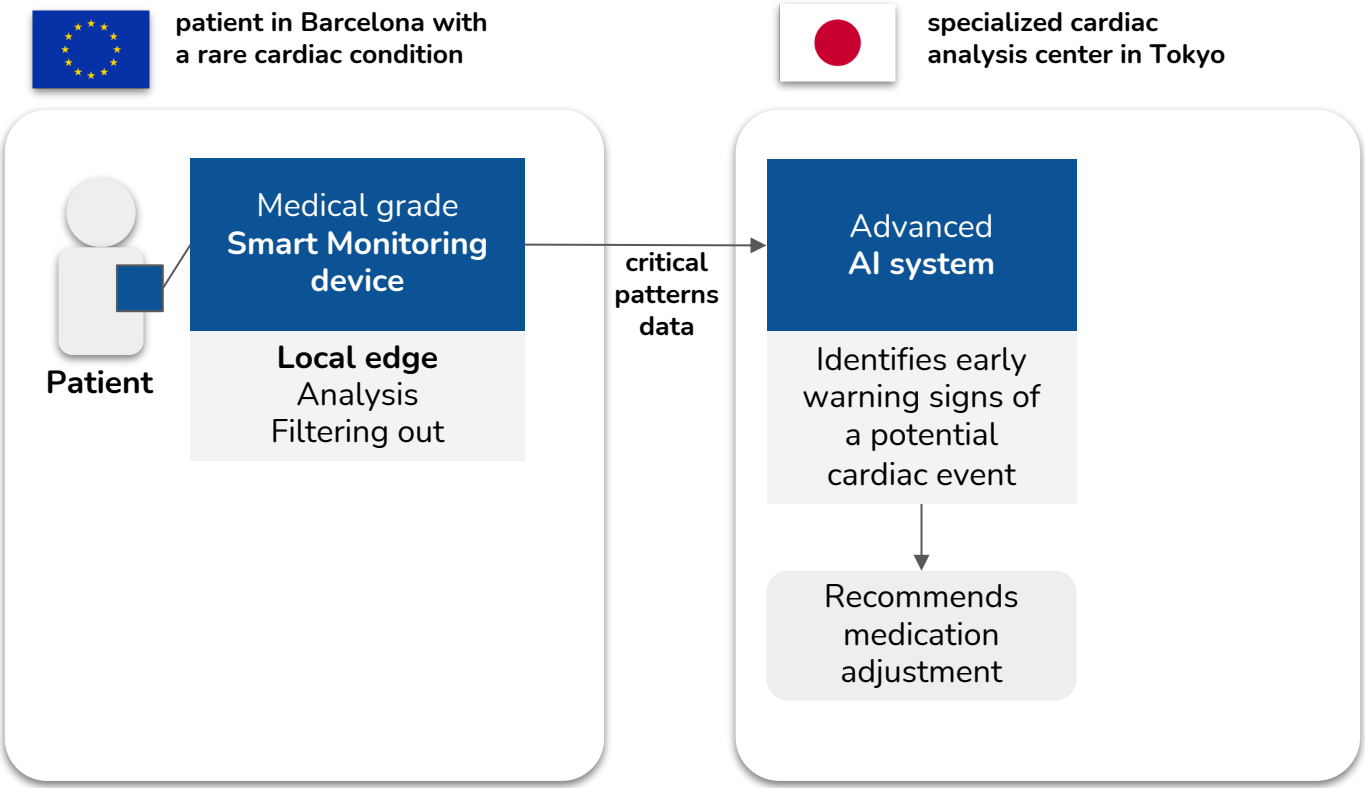

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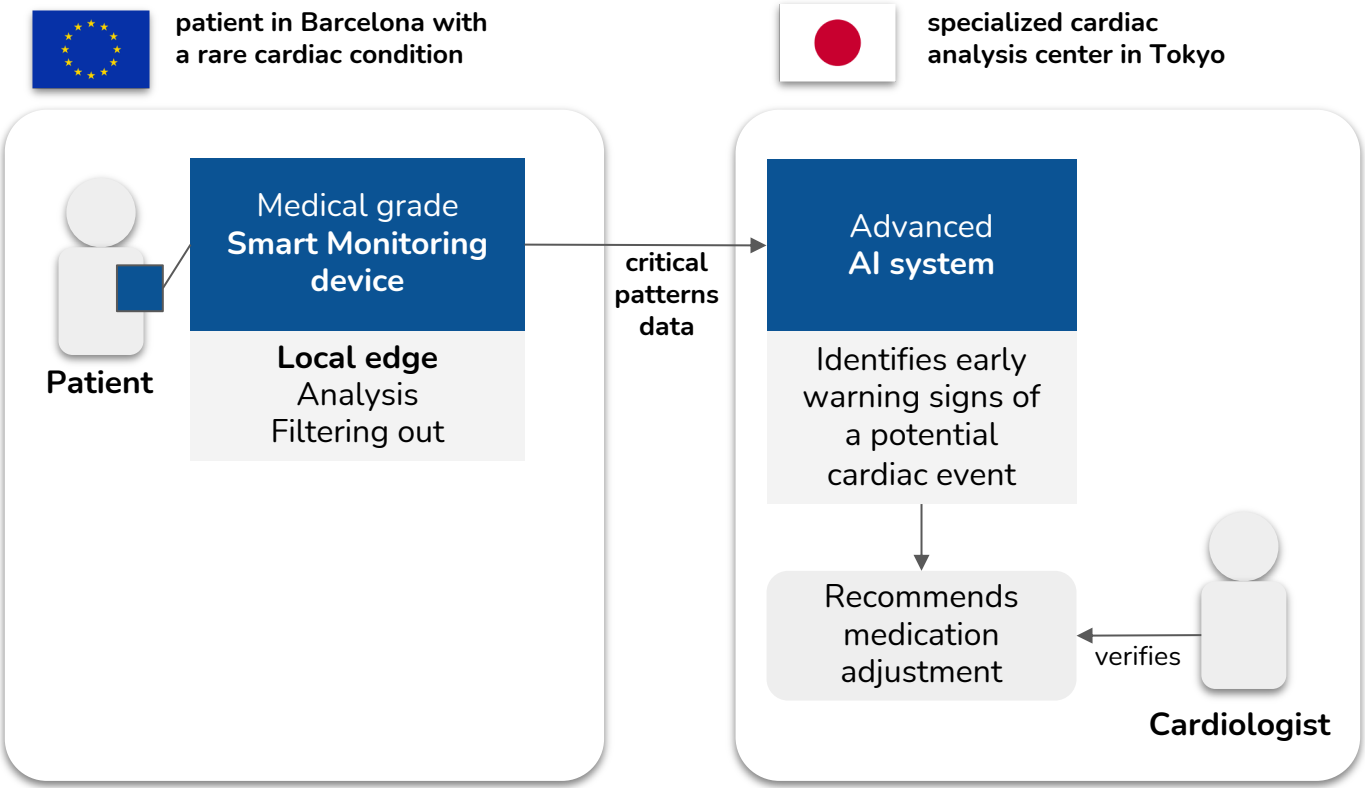

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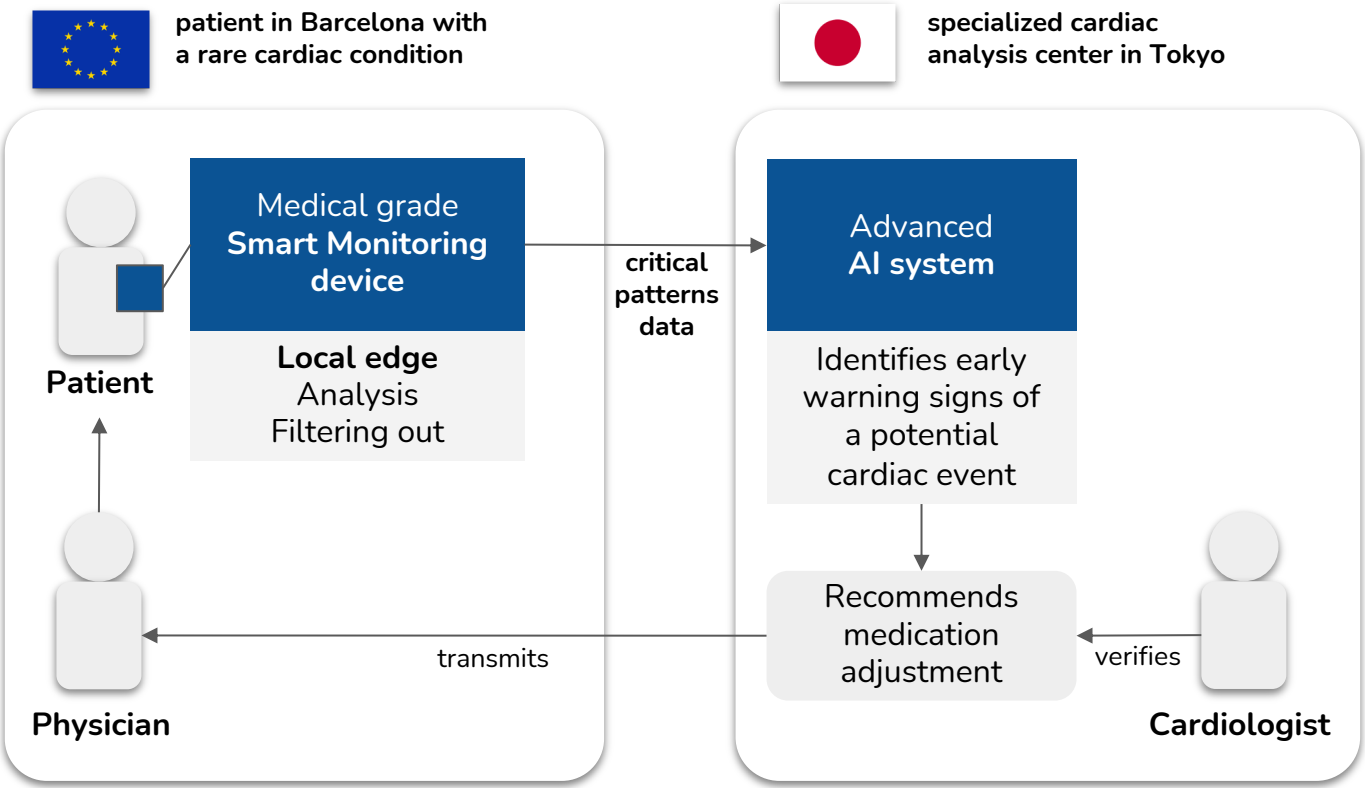

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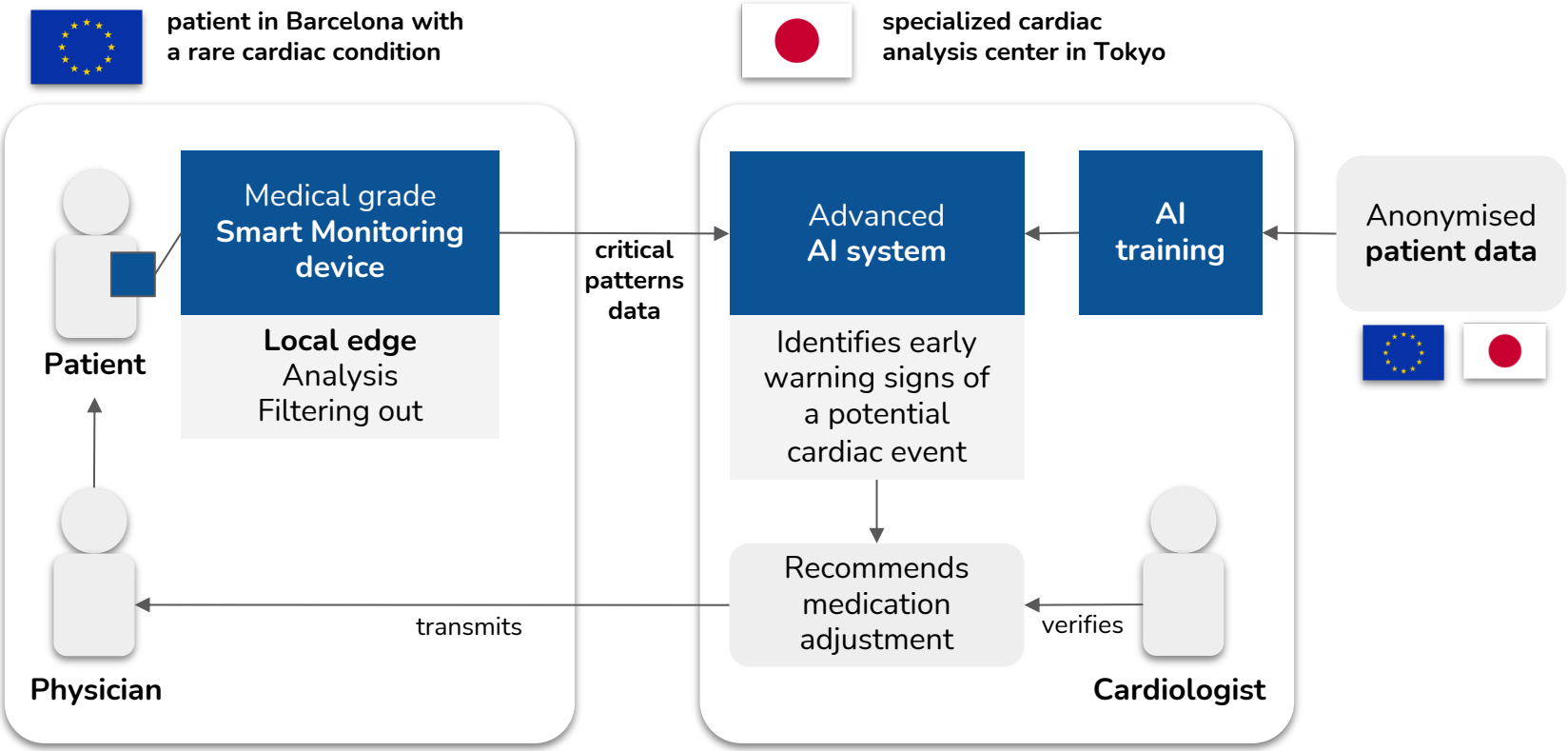


Car manufacturing: anomaly detection and correction

Cloud-edge, AI-based, real time, cross-border cooperation

Japanese manufacturer factory

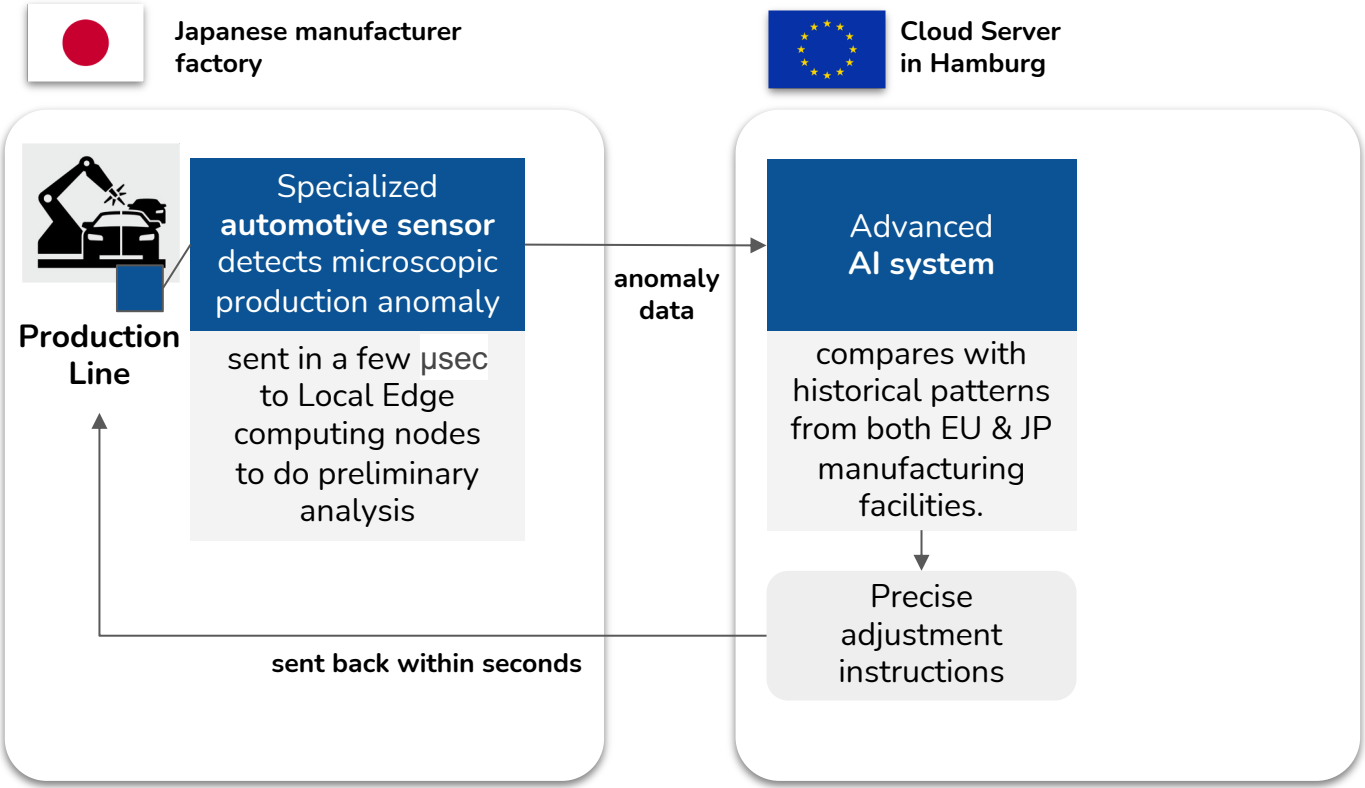
Production Line

Specialized **automotive sensor** detects microscopic production anomaly

sent in a few µsec to Local Edge computing nodes to do preliminary analysis

Car manufacturing: anomaly detection and correction

Cloud-edge, AI-based, real time, cross-border cooperation



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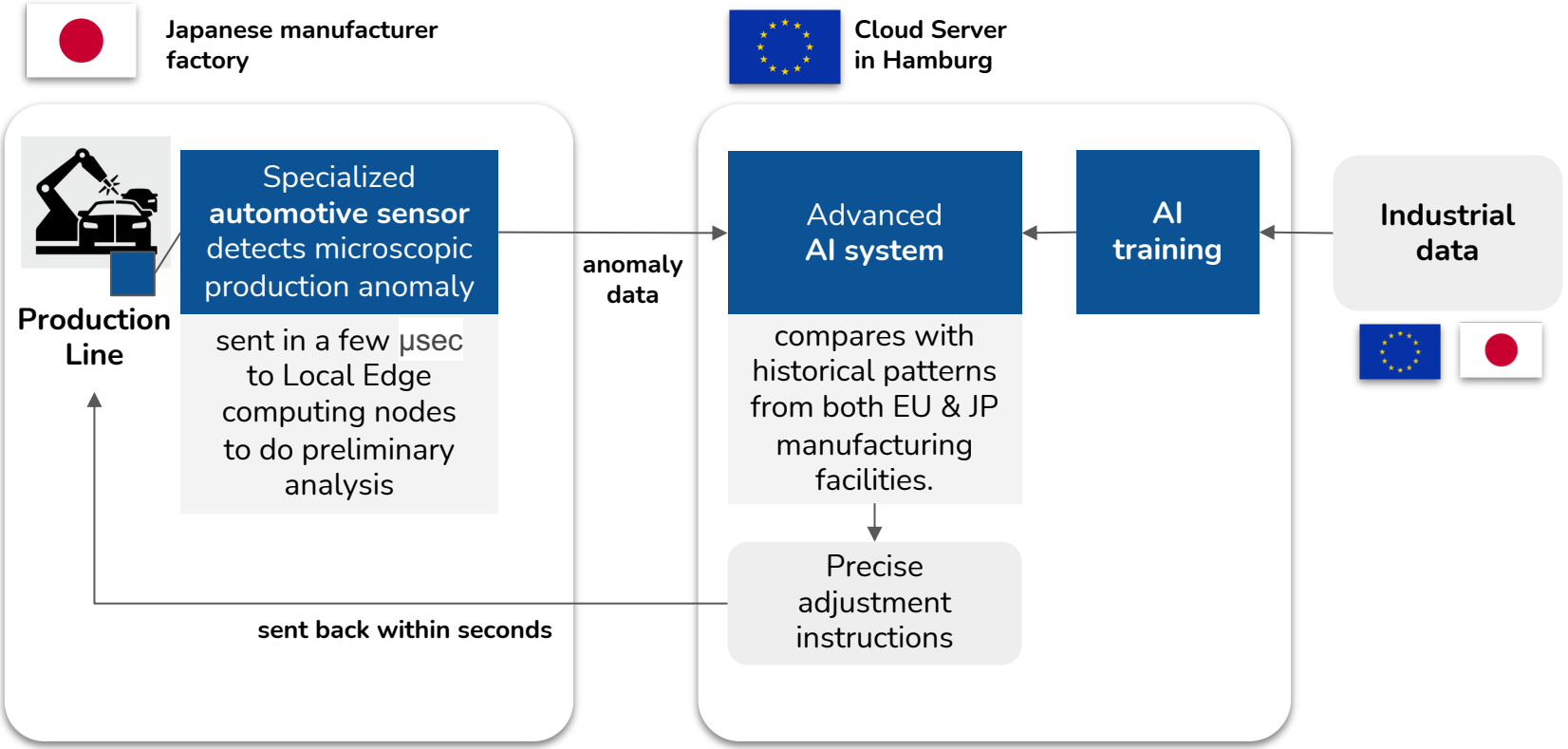
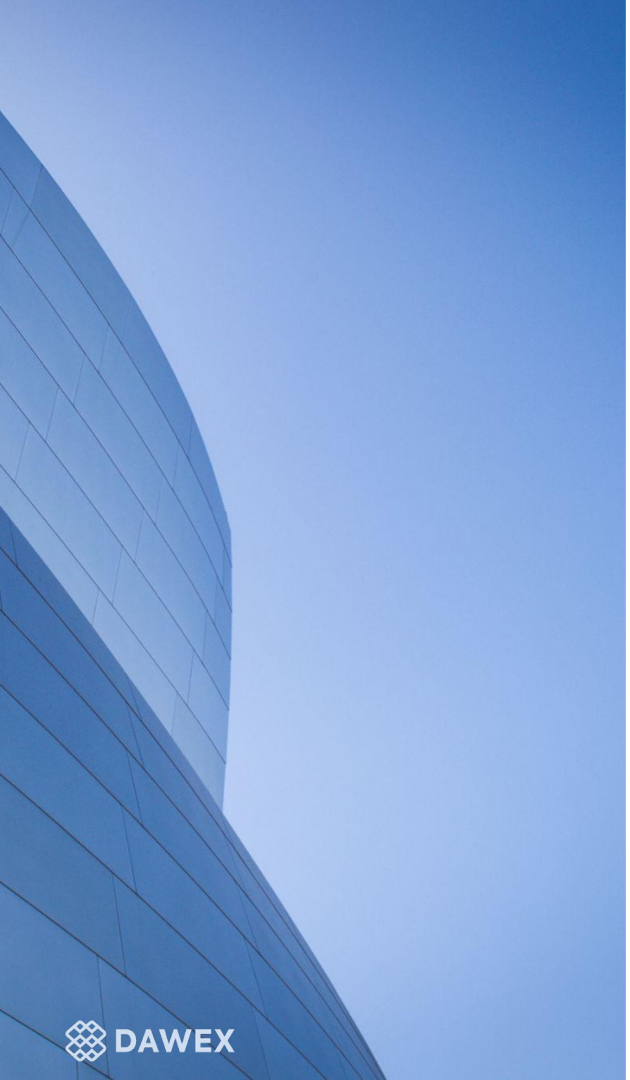


In every sector, smart connectivity solutions, combined with Data Exchange and AI, enable valuable use cases

Smart Cities	Agriculture	Financial Services
Osaka air quality sensors detect pollution spikes	Bordeaux vineyard IoT sensors monitor crop conditions	Paris system detects unusual transaction patterns
Edge processing identifies emerging patterns	Edge computing filters and aggregates critical data	Initial processing categorizes suspicious activity
Data shared with Helsinki smart city consortium	Analysis transmitted to Tsukuba research facility in Japan	Data securely sent to Tokyo financial security center
AI compares with historical European city data	Japanese AI compares patterns with global outbreak data	Advanced algorithms identify emerging cyber threats
Rapid response recommendations returned to Osaka	Customized treatment recommendations sent to vintners	Countermeasures developed and distributed to EU banks



DAWEX

Data4 Industry-X

a Trusted and Sovereign Environment to Securely Exchange Industrial Data

Dawex & industrial leaders join forces to create Data4Industry-X

Data4 Industry-X

Schneider Electric

cea list

DAWEX
data exchange technology

Valeo

Prosyst
Master of system automation

contributing to

endorsed by

supported by

Description and value proposition

- **Industry Data Space** for industry manufacturing
- **Trusted, secure, compliant and sovereign** data exchange environment
- For **cross-border, cross-company, cross-factory industrial data exchange**
- Allow organizations to **innovate and operate on distributed data** from various plants and countries
- **Consolidate** and **report on Co2 emissions** of each shopfloor
- Priority use cases in **energy** and **automotive** manufacturing
- Implements **Gaia-X de facto standard**

Data4Industry-X aims at improving efficiency, competitiveness and reducing the carbon footprint of major global industrial organizations with operations spread across multiple countries

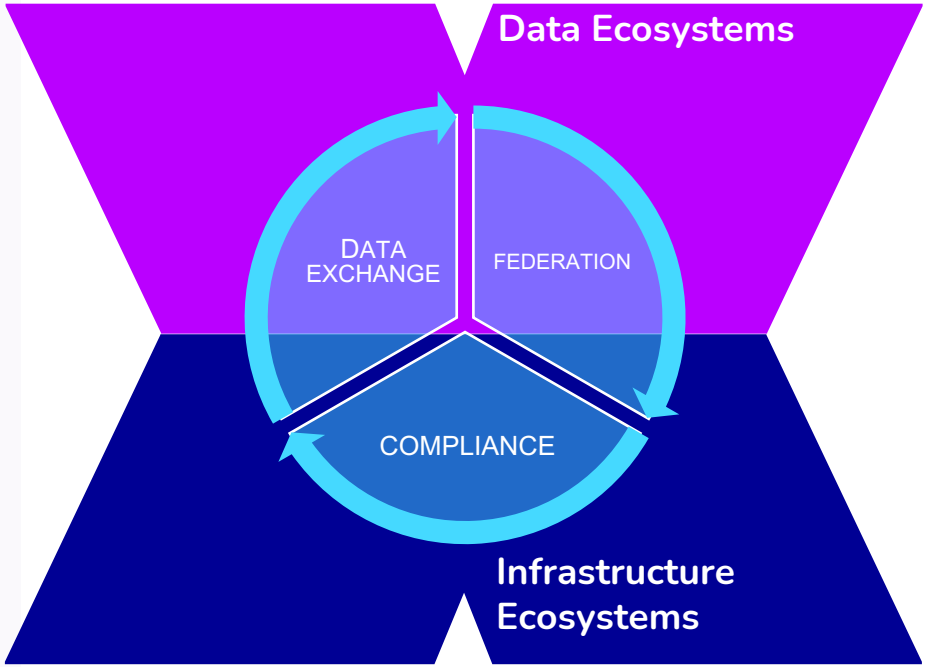
- **Automotive industry use case**: enabling **better interoperability** between different manufacturing plants and external partners, globally distributed around the world, facilitating **impatriation of data**, allowing for **standardized reporting and analysis** of environmental metrics, **production efficiency**, and other KPIs across the entire organization.
- **Power generation industry use case:** improving **default detection and predictive maintenance** through semantic analysis and data normalization automated and using strong data exchange capabilities between AI models trained on large historical knowledge bases, and industrial organizations.
- **Supply chain traceability use case**: Data4Industry-X solution will enable the **modeling of perturbations and the resilience of the supply chain**, including stochastic forecasts and risk management, as well as increase the **warehouse dynamic optimization**.

The Gaia-X initiative establishes de facto standards for trustworthy data exchanges

- Gaia-X is a **European initiative** committed to design of federated **data and infrastructure ecosystems**, with stated aims of being **efficient**, **competitive**, **secure** and **trustworthy**.
- Gaia-X is based on **open standards** (W3C)
- The initiative publishes technical specifications to allow constructions of European Data Spaces
  - Gaia-X **Architecture Document**
  - Gaia-X **Trust Framework**
  - Gaia-X **Data Exchange Services**
  - Gaia-X **Policy Rules** and **Compliance**

Dawex role and contribution:

- Dawex Co-CEO, Laurent Lafaye, **member of the Gaia-X Board of Directors**
- **Leads the Data Exchange Services** specification group
- Contributes to the Data Space Business Committee (DSBC) covering data spaces such as **Energy, Aeronautical and Smart Manufacturing**



gaia-x

1800+ Contributors

350+ Members

Regulation Growth Demands Next-Level Data Exchange governance solutions

Selected list of key horizontal and vertical regulations

	EHDS European Health Data Space	CSRD - Corporate Sustainability Reporting Directive.	FSDN Farm Sustainability Data Network	FiDA Financial Data Access regulation
	Adopted by the European Parliament April 24 2024	*In force since January 5, 2023*	*Applies from the reporting year 2025*	*Proposed June 2023 Expected to take effect 2025*
Data Act — *In force since January 11 2024*	• Enables users of connected objects to **access collected data** and to **share these data with third parties** • Allows the access and use by public sector bodies of data held by enterprises in cases of **public emergencies** • Provides **protection from unfair contractual terms** that are unilaterally imposed • Promotes the development of **interoperability standards** for data-sharing			
Data Governance Act — *Applies since Sept 24 2023*	• Imposes obligations to **data intermediation service providers** that facilitate data exchanges • Imposes obligations to **data altruism organisations** that facilitate the voluntary sharing of data for the common good. • Allows the **re-use of certain data held by public sector bodies**, that cannot be made available as open data • Creates the '**European Data Innovation Board**'' to facilitate the emergence of best practices and standards			
AI Act — *In force since August 1 2024*	• Establishes a **risk-based framework** for AI systems • Imposes **strict requirements on high-risk AI systems,** including conformity assessments, transparency obligations, and ongoing monitoring • Introduces **transparency obligations** for AI systems interacting with humans • Creates a governance structure, incl. the creation of a **European Artificial Intelligence Board**			

Data Free Flow with Trust

Data Availability and Transparency Act (Public data)

AI Bill of Rights

CFPB's U.S. open banking rule

Interim Provisions on Accounting for Enterprise Data Resources

Business Responsibility and Sustainability Reporting

Regulation Growth Demands Next-Level Data Exchange governance solutions

Selected list of key horizontal and vertical regulations

Data Act — *In force since January 11 2024*

Data Governance Act — *Applies since Sept 24 2023*

AI Act — *In force since August 1 2024*

EHDS European Health Data Space

Adopted by the European Parliament April 24 2024

- Establishes a framework for the **primary use of electronic health data**, ensuring citizens' control over their health data across the EU.
- Facilitates the **secondary use of health data** for research, innovation, and policy-making, while maintaining strong data protection standards.
- Creates a s**ecure & standardized infrastructure** for cross-border health data exchange and **interoperability** between health systems.
- Introduces a European **governance framework**

CSRD - Corporate Sustainability Reporting Directive.

In force since January 5, 2023

- **Obligation to measure and report Scope 3 emissions:** 2025 for large companies, 2027 for listed SMEs, 2029 for foreign companies with subsidiaries in France
- Ecosystem protection and restoration
- Shift **from a linear to a circular** economy
- **Achieving zero pollution** within the EU

FSDN Farm Sustainability Data Network

Applies from the reporting year 2025

- Boost sustainability in agriculture by **collecting and sharing on-farm data**
- Measure and pilot social and environmental trajectory
- Provide orientations and counsels to farmers
- Participating in the data collection / sharing process should be incentivized by member states

FiDA Financial Data Access regulation

Proposed June 2023 Expected to take effect 2025

- Giving consumers and businesses the right to authorize third parties – or data users – to **access their financial data** held by financial institutions (data holders)
- **Data sharing with non-financial conglomerates** regulated by several rules
- **Setting financial compensation** for making data accessible to data users

Data Free Flow with Trust

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Interim Provisions on Accounting for Enterprise Data Resources

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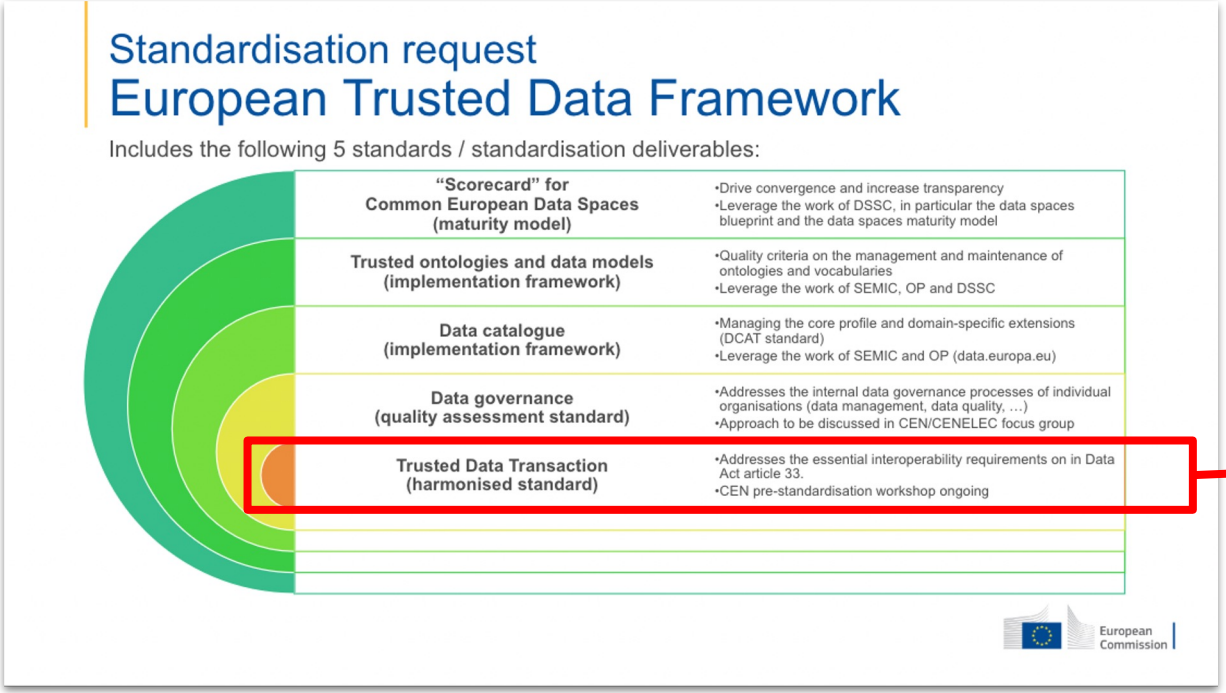
The European Commission places *Trusted Data Transaction*, a concept introduced by Dawex, at the heart of the EU's standardization strategy.



Trusted Data Transaction will become a **Harmonized European Standard**, linked to the Article 33 of the **EU Data Act** (defining essential requirements regarding **interoperability of data, of data sharing mechanisms and services, as well as of common European data spaces**

Adhering to the standard will create a presumption of conformity to the regulation

Other sessions not to miss

- Wednesday 14:00 – 18:00
  Trusted Data Exchanges: From Standards to Pilots in a Changing World
  - **15:15 – 16:30: Requirements and standards for trusted data exchanges**

- Thursday 09:00 - 19:00
  Data Spaces – or the Story How to Make Business from Data in a Legal Fashion
  - **15:30 – 17:00 Session 3: Regulatory Landscape for Data Free Flow with Trust**
    - **The EU Data Strategy with a focus on the Data Act**

Thank you
ありがとうございます

didier.navez@dawex.com

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