gaia-x

Gaia-X SUMMIT 2024

EMPOWERING GLOBAL DATA SPACES

SHAPING TOMORROW'S CLOUD INFRASTRUCTURE

Helsinki, Finland | 14 & 15 November

In partnership with gaia-x Hub Finland

How to create a profitable business in data ecosystems

EuProGigant

Project Ecosystem for European Manufacturing Data & Services

November 2024

Dr. h.c. Wolfgang Kniejski

EIT Manufacturing East GmbH

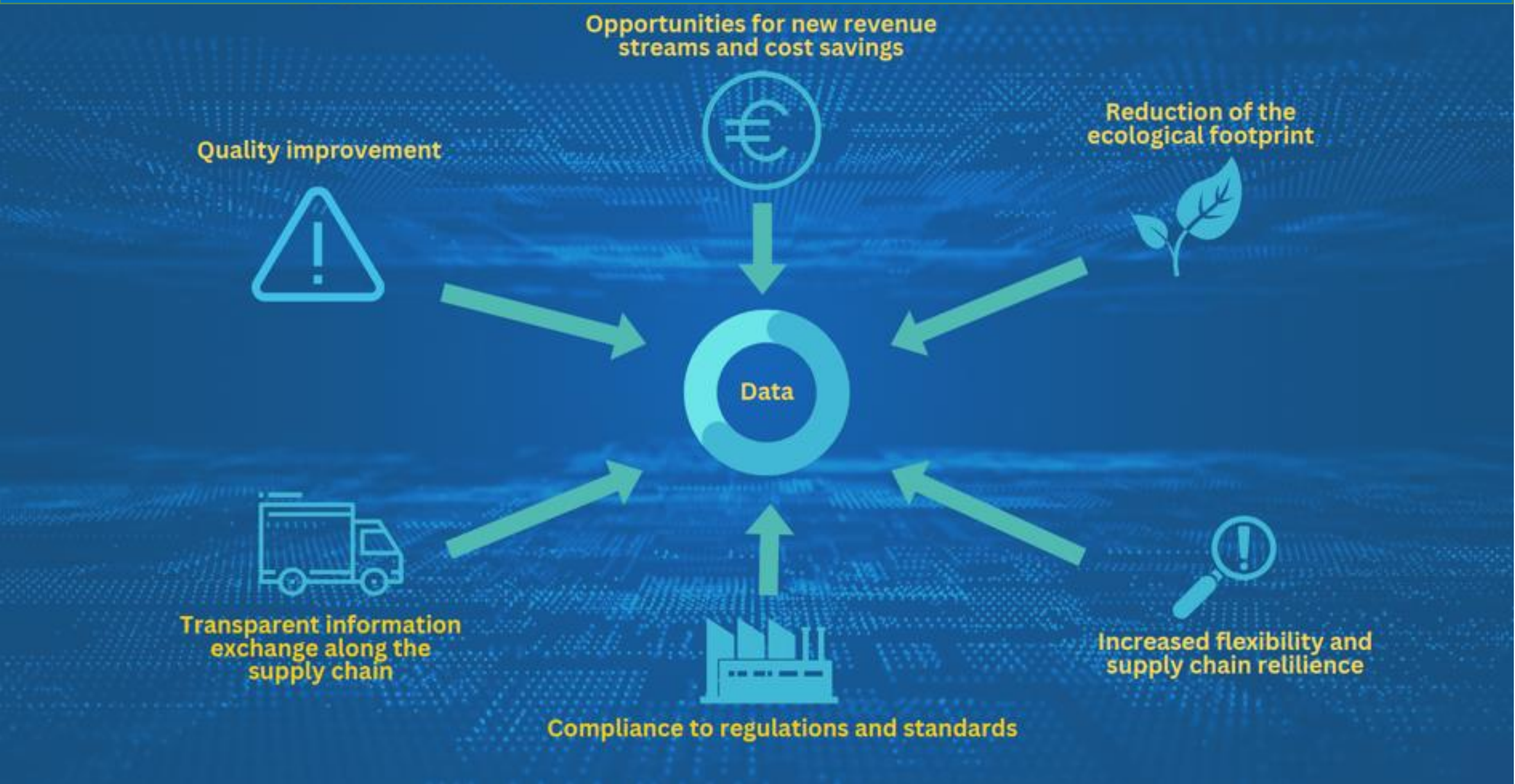
New business models solve data sharing challenges in manufacturing

Unlocking the potential for new business models

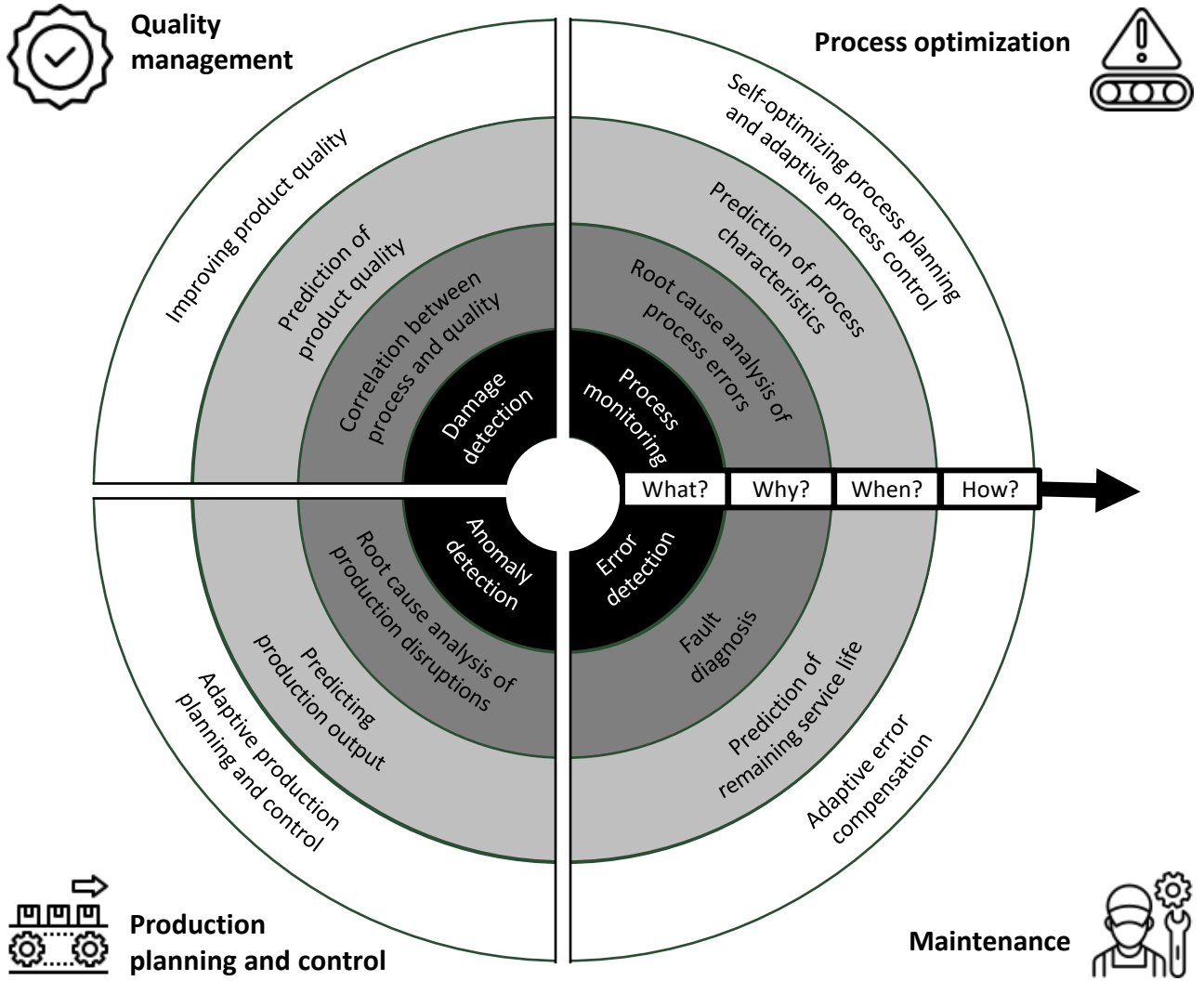
→ **for participants in the ecosystem**

→ **for a data sharing orchestrator**

Let’s have a look at the participants’ values



Where data sharing applies?



Why should I share data?

Intelligent Camera Systems

automate inspection processes during manufacturing, e.g.:

- Surface inspection
- Weld seam inspection
- Presence control
- Counting of objects
- Label recognition

⇒ **Cost and time savings**

⇒ **Reduction of scrap production**

Why should I share data?

Collaborative Condition Monitoring

allows to monitor assets (machines) to predict possible failure of a component to avoid unplanned downtime and defective production

⇒ **Cost and time savings**

⇒ **Reduction of downtimes**

Sharing Data in Individualised KPI Dashboards

Share data for collaborative predictive maintainance to avoid unplanned downtimes and production errors

⇒ **Cost and time savings**

⇒ **Reduction of downtimes**

⇒ **Reduction of scrap production**

Service Offerings for Optimized Use of Tools

Recommendations of cutting parameters for the use of tools based on the individual requirements of the production process

⇒ **Cost and time savings**

⇒ **Reduction of downtimes**

Why should I share data?

Preventive Workforce Augmentation

keeping your manual workers fit for work.

⇒ **Shift optimization**

⇒ **Cost and time savings**

Why should I share data?

CO_2-Footprint Prognosis

allows already in the design stage of a product or component to predict the carbon footprint

⇒ **cost and time savings**

CO_2-Footprint Reporting

allows industries to track emissions down to every container, product, split into details about separate parts of the route including vessels, trains, trucks, planes.

⇒ **cost and time savings**

⇒ **reduced reporting effort**

Why should I share data?

AI-based Energy Efficiency Analysis

allows forecast and optimal operation for energy flexibility and energy efficiency

⇒ **Increasing energy efficiency**

⇒ **cost and time savings**

Building Services Operation

integrate weather, price and load forecasts for maximum efficiency

Peak Loads

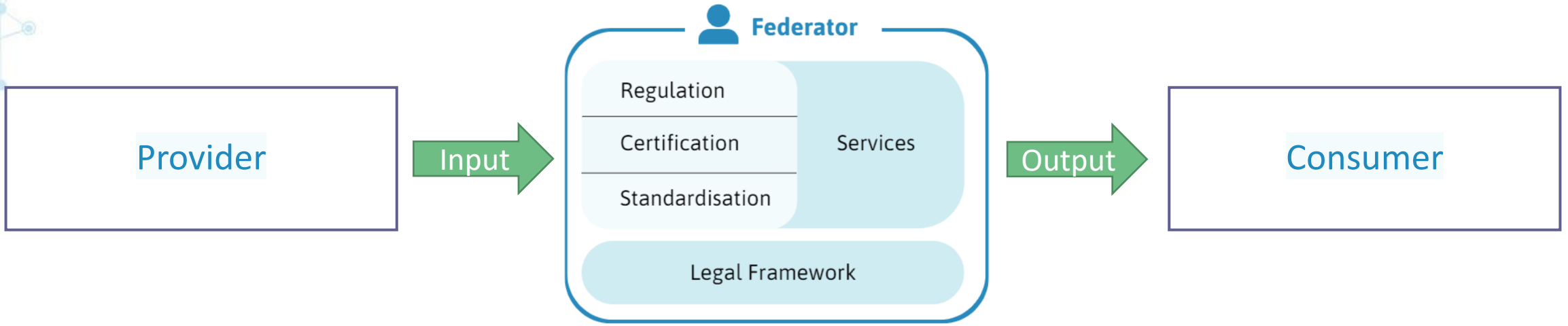
anticipate expensive peak loads and avoid them by load management

Energy Wastage

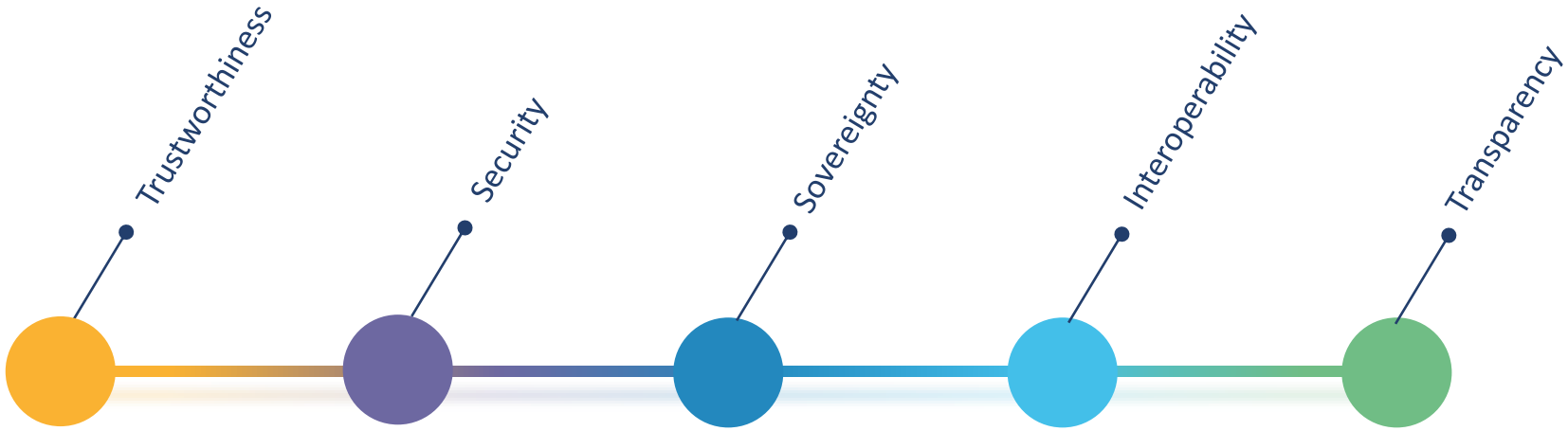
detect idle operation and notify user about energy wastage

Source: etalytics energy intelligence

Data sharing creates values .....



..... but requires:



eit Manufacturing EAST

Co-funded by the European Union

EuPro Gigant

Partners in the manufacturing data ecosystem

+

Relevant manufacturing data

+

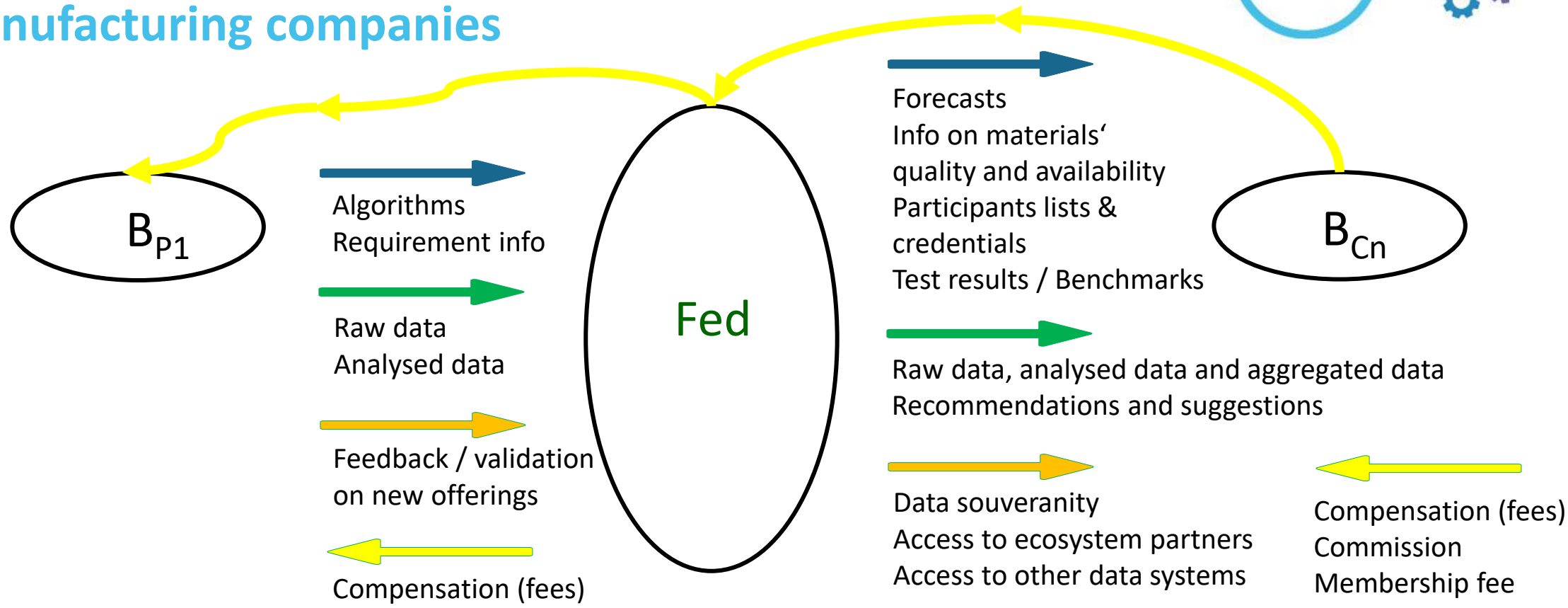
Trusted infrastructure

=

Innovative services and data-driven business models

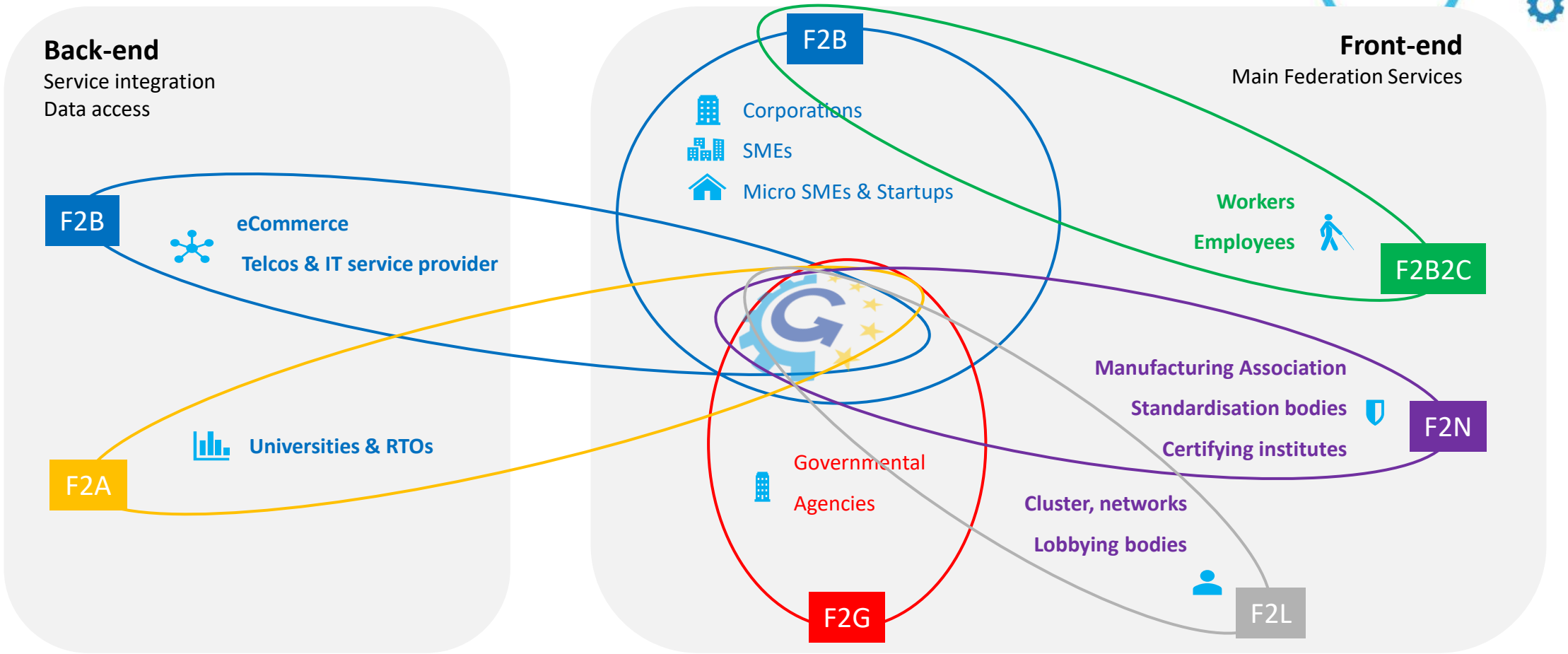
Value chain synthesis - example

Manufacturing companies



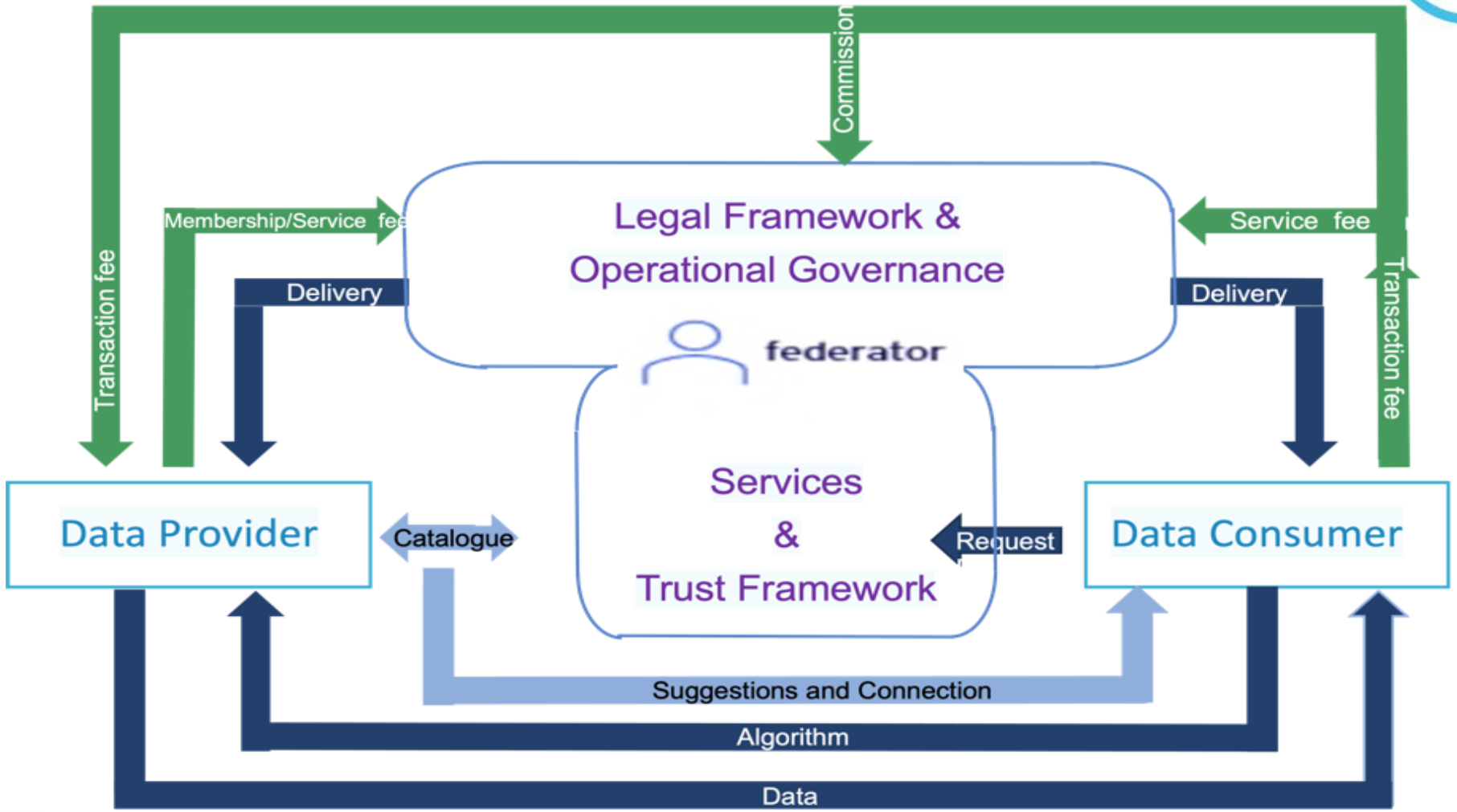
information flow | product/service flow | quality flow | money flow | subsidy

Multi-sided business model

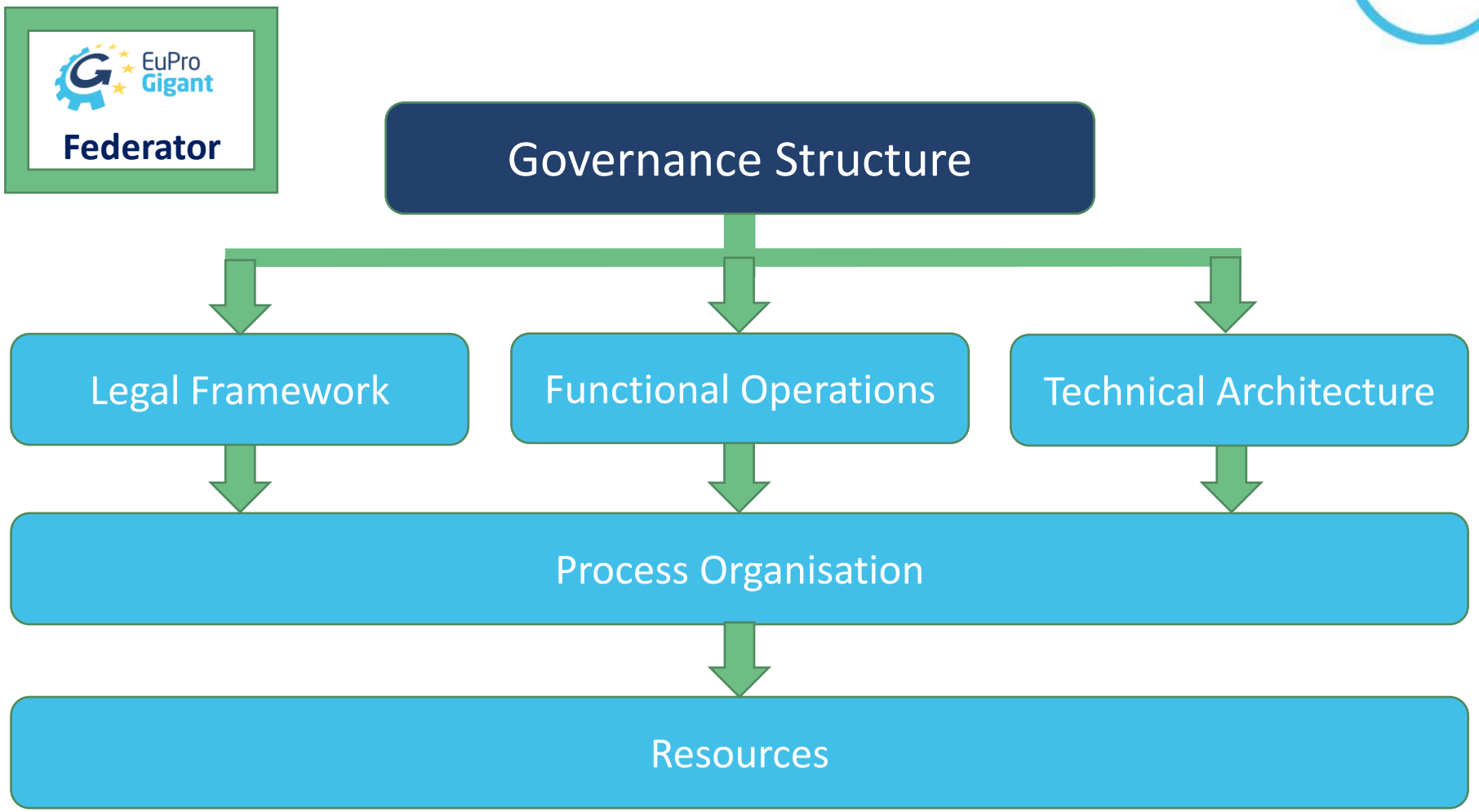


Other partner in the manufacturing ecosystem

Business options for an Orchestrator



How are we getting there?



Opportunity for a profitable business

EuProGigant provides vendor-neutral, business-friendly and industry-grade open-source tools for sharing data that can be exploited via innovative business models.

This data marketplace contributes to resilient and sustainable manufacturing by providing a secure and trustworthy environment for sovereign data exchange.

Thank You!

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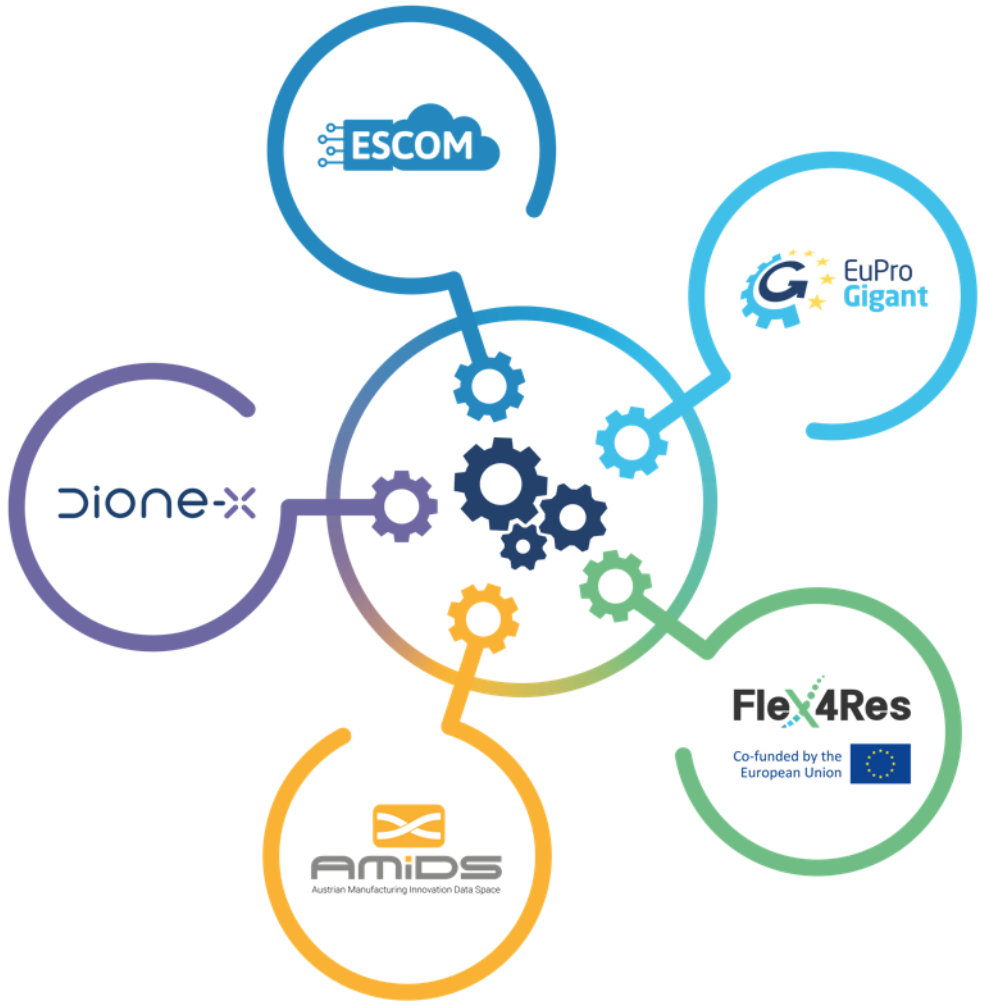


Basic Economics of Pontus-X

Thomas Komenda

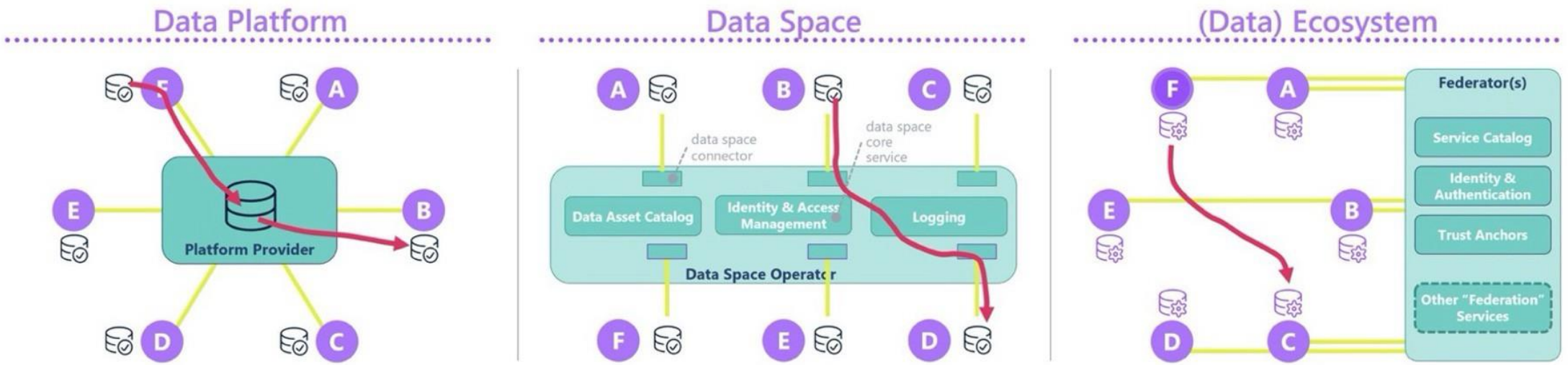
Business Development

deltaDAO AG

What is Pontus-X?

gaia-x

PONTUS-X



lead concepts: «API» «data asset» «service»

A **(product) platform** is a set of elements (components, roles, processes, relationships, and interfaces) with a uniform architecture serving an organization as the basis for products and services for different customers.

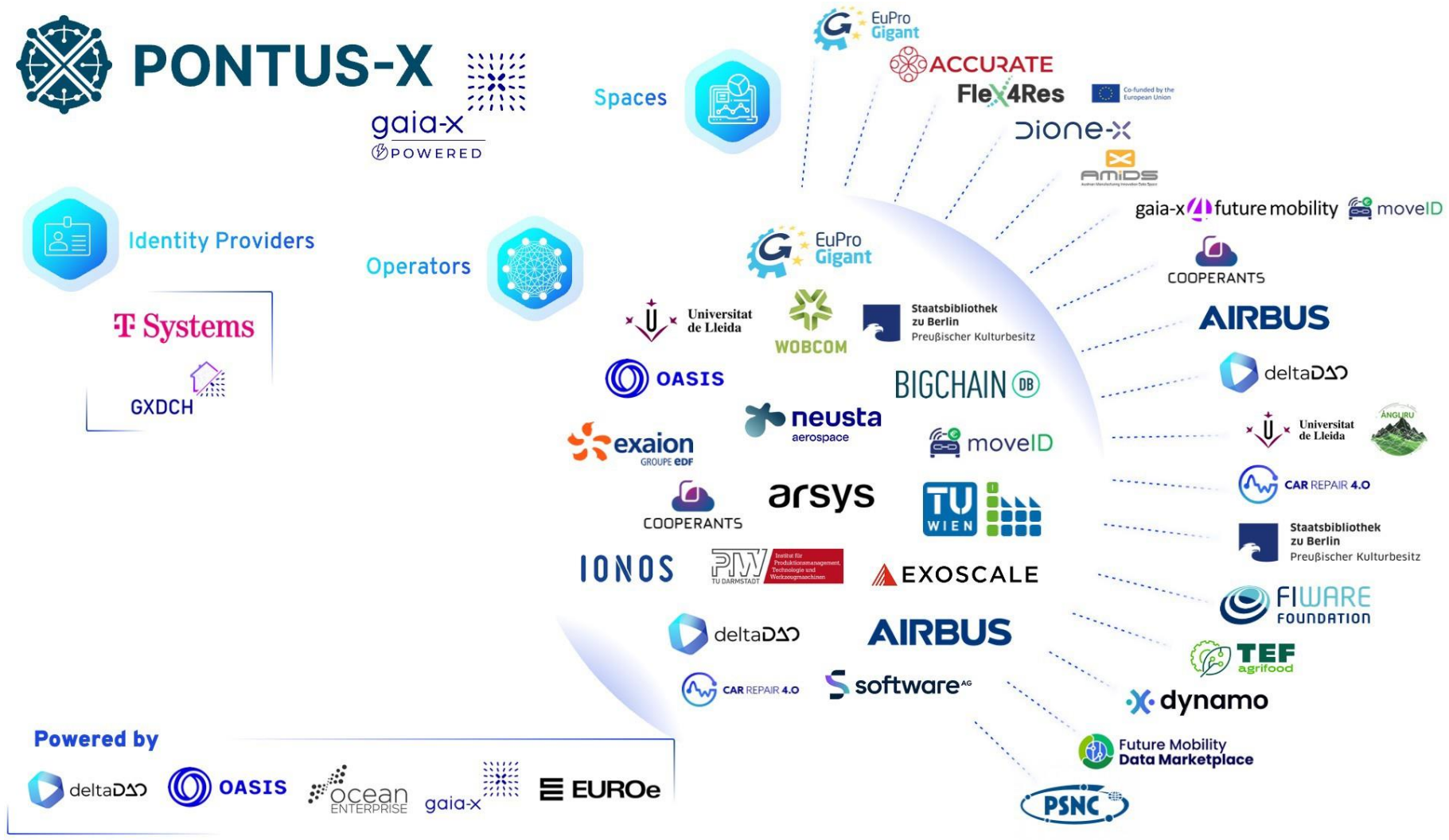
A **data space** is a coordinated set of (i) technical standards, (ii) organizational policies, and (iii) core services under a (iv) specified governance model to enable and facilitate data exchange between its participants.

An **ecosystem** is the alignment structure of the multilateral set of partners that need to interact in order for a focal value proposition to materialize.

data warehouse (DWH) • data lake • data lake house • cloud data warehouse • data mesh • data hub • industry platform • one/two-sided platforms

Source: Strnadl & Schöning (2023). Data platforms, Data Spaces, and (Date-) Ecosystems. in: Weber (Ed.), Data Governance. Springer

What is Pontus-X?



Participants in Pontus-X

- Orchestrators / Operators (Base Services)
- Data, Software, Compute, Identity, Validation
  - Service Providers
- Consumers

Value Creation

Happens on the Application Plane

Enabled through

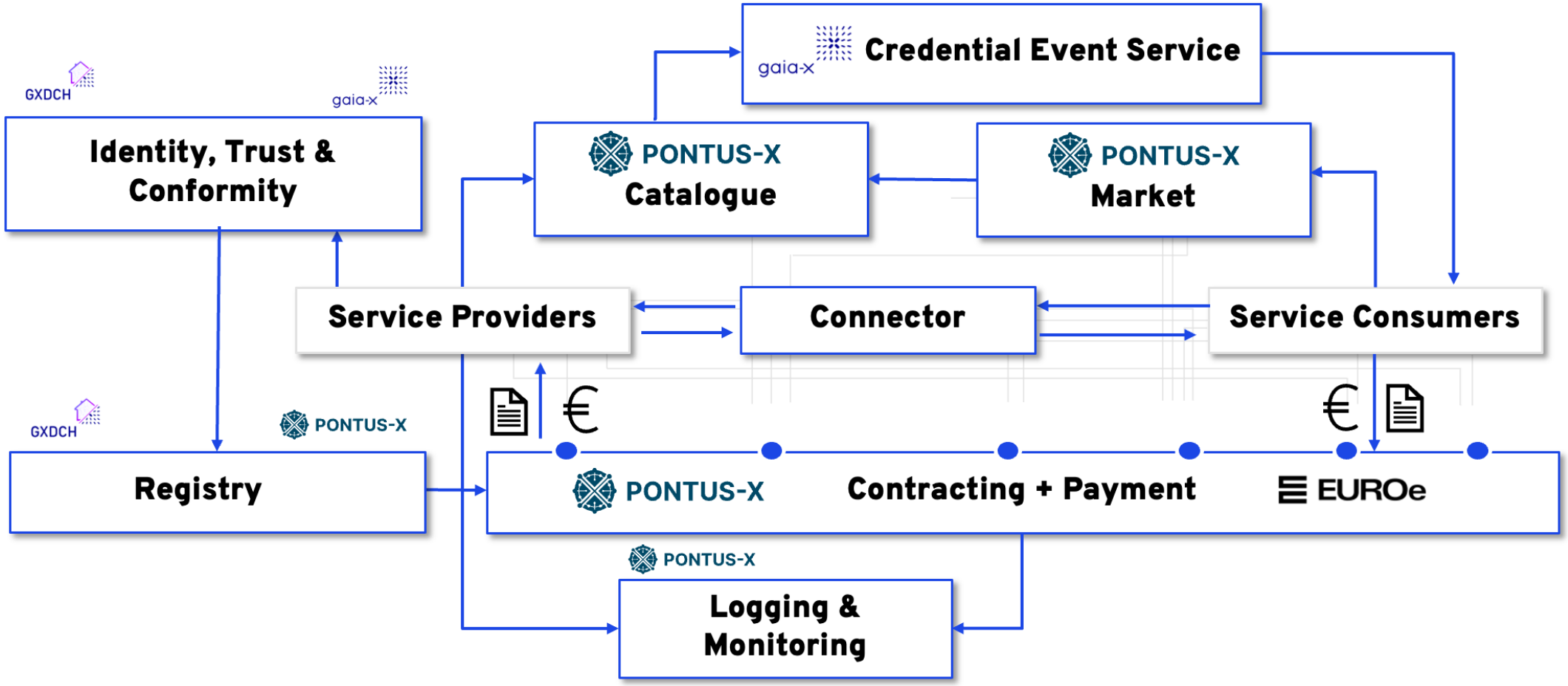
Base Services + Service Offerings

Basic Economics of Pontus-X

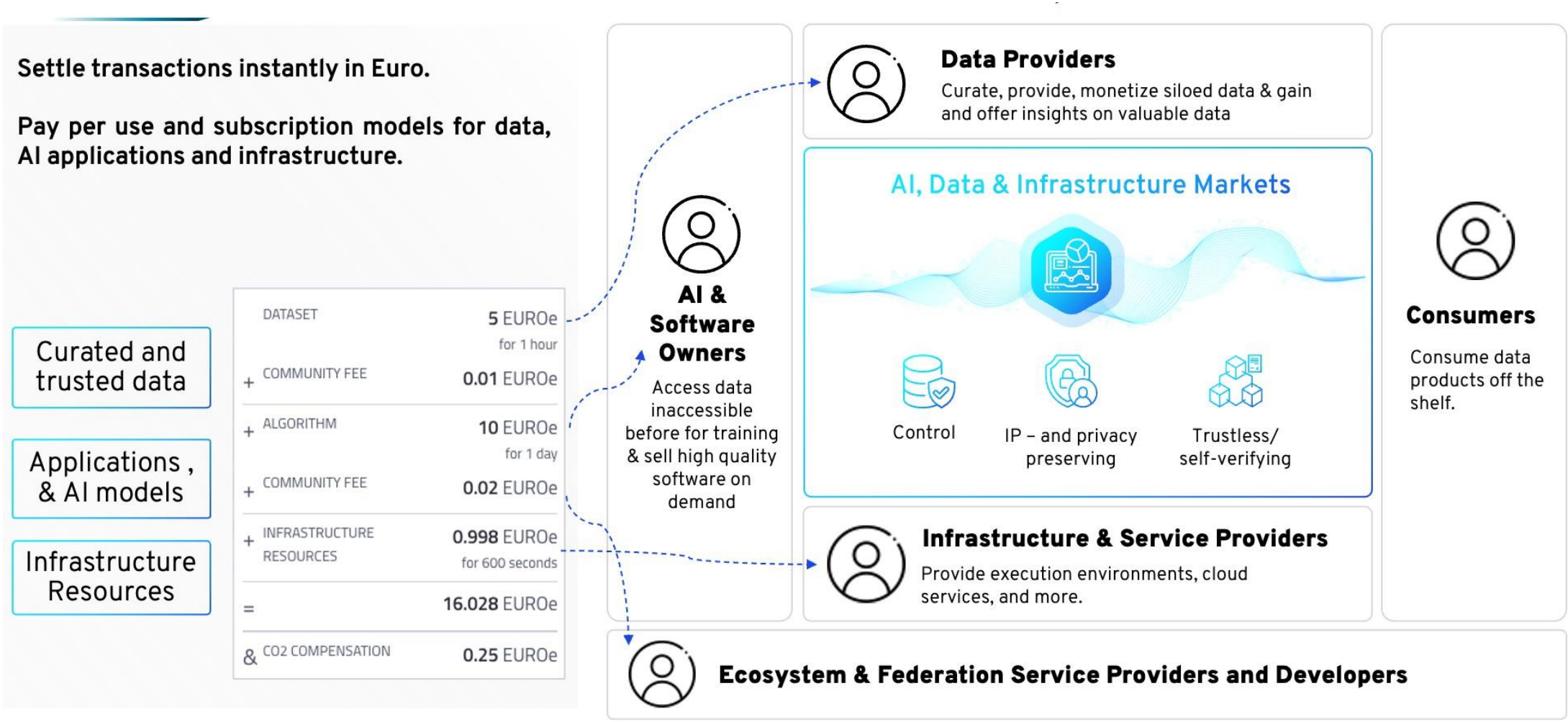
Service Types enabled (across domains)

- Data transfer (added value)
- Software transfer (added value)
- Data Product Generation (added value)
- General Service Contracting (added value)
- Compute Service Offerings (added value)

Basic Economics of Pontus-X



Basic Economics of Pontus-X



Basic Economics of Pontus-X

Cornerstones of Economics

Transaction Fees (fair usage & no free riders)

Subscription Model (for SaaS components)

No ringfencing in an open ecosystem!

Sharing Use Case Costs (Consortia)

Free competition across all service providers

Basic Economics of Pontus-X

Outlook: Highly automated interactions incl. automated settlement

Smart contracts enable

- automated access controls
- automated contracting
- instant settlement and microtransactions
- automated value distribution

Creating the basic prerequisite for a scalable machine economy with M+ tx daily

Validation

TEST and STAGING successful, over 2M TX

Next step: PROD evaluation

Thank you!

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