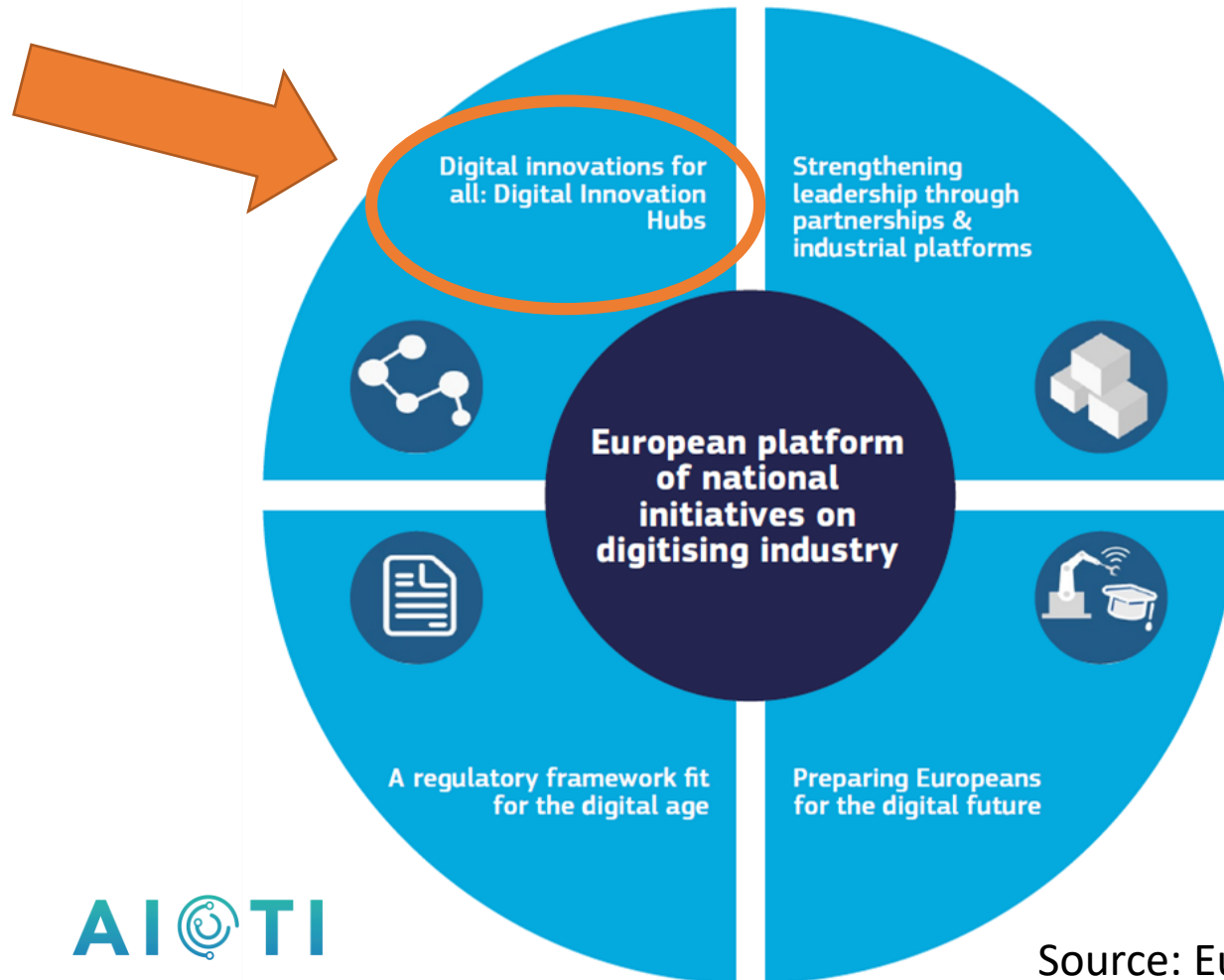


DIHs as one of the pillars of EU's digitalisation strategy



- One-stop-shop
- Regional/local dimension
- Training
- Business modeling
- Access to funding
- **Infrastructure for experimentation, testing → DATA**

Source: European Commission

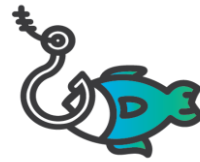
Example of data-driven, cross-sectoral DIH



bioeconomy + sustainability + health



Biotech



Fisheries



Agrifood



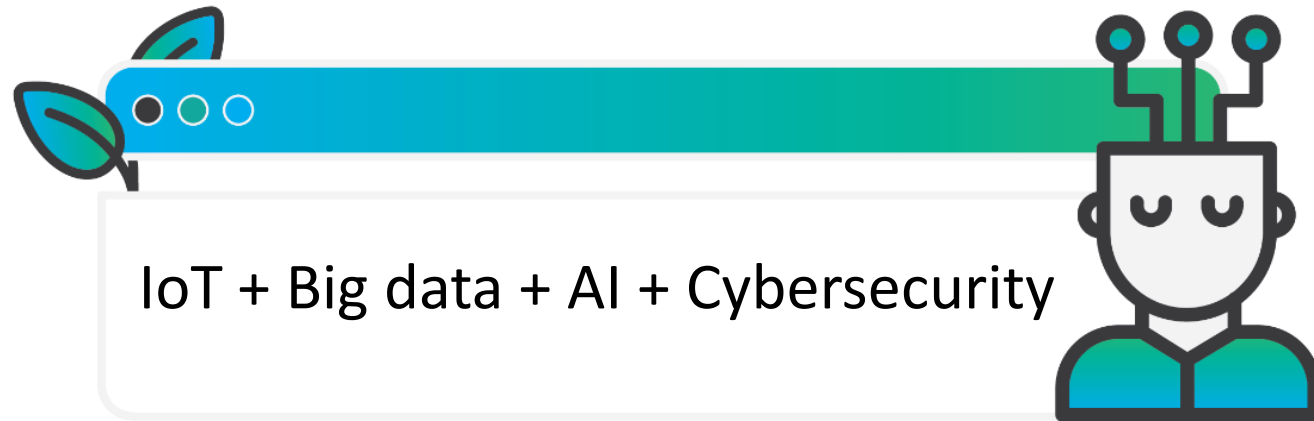
Forestry



Health

19.4%

Galician GDP



Shared data space - DATAopen

Trust as a basic enabler

- Build on **real data**
- Trust - an unnegotiable **enabler** of the digital economy
- Data spaces built on top of many layers/systems:
 - Physical devices (sensors)
 - Connectivity and networking
 - (IoT) platforms and services
 - (IoT) applications
- Issues: provenance, assurance, ownership, usage rights...

Some experiences

EU code of conduct on agricultural data sharing: https://copa-cogeca.eu/img/user/files/EU%20CODE/EU_Code_2018_web_version.pdf

Examples of national initiatives in farming: <https://api-agro.eu/en/> and <https://www.join-data.nl/> → focused on centralized discovery, accessibility and interoperability, legal agreements



Some experiences

IoT-enabled data marketplaces (AIOTI)

High level generic architecture: https://aioti.eu/wp-content/uploads/2019/02/IoT-data-market-places-drivers-and-architectures-white-paper-Elloumi-De_Block-Samovicz.pdf

Monetization and smart contracts

Projection on vertical industries (mobility, energy, agriculture,...)

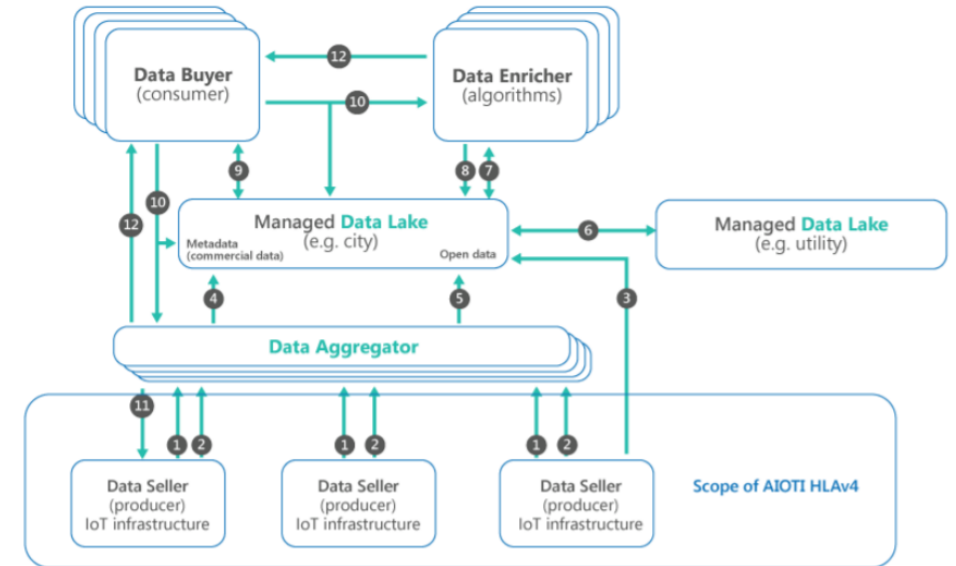


Figure 2: A possible high-level architecture for an IoT Data Marketplace

Market Drivers and High-Level Architecture for IoT-enabled Data Marketplaces

Omar Elloumi chair AIOTI WG Smart cities¹

Tom De Block chair AIOTI Distributed Ledger Technologies

Natalie Samovich chair AIOTI WG Smart Energy²

Key takeaways

1. **Hands-on experiences** at regional/national level to learn from → coordination
2. Development of data spaces must place **cybersecurity** at their core as cyberthreats endanger almost any current digital business model
3. **Public-private cooperation:** *“we have more data than we can manage”*
4. **Coordinate regional-national-EU instruments**, e.g. Digital Europe (HPC, AI, Cybersec)