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THE NCP NETWORK FOR THE
DIGITAL EUROPE PROGRAMME

Deep Dive DEP S02

AI, Data, Cloud

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June 30, 2025

Housekeeping rules


 • Training **will be recorded**

 • Recordings and presentation **will be published**

 • Sorry, we keep your mic **muted** as default

 • Please send your questions to **Chat**

 • **Answering** your questions in follow-up

 • More, in-depth, **specific information** bilaterally from your **DEP NCP**



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Deep Dive DEP SO2

Strategy and Policy background

Eleni Chaniotaki

June 30, 2025

SO2 Facts and Figures



Key Facts

Implementing authority: European Commission

Work Programme 2025-2027

Available Budget: €705.6 million

Main work strands:

- Continuation of activities in the area of **cloud-to-edge infrastructure and services**;
- **Deployment of sectorial data spaces** alongside activities in the area of Support to Data in the EU;
- Uptake of **generative AI** in its key strategic sectors and application areas and furthering the **application of AI in the health sector**, as well as developing **virtual worlds test beds**;
- Completion of **Destination Earth**'s main components' development, heading for the fulfilment of its main objective (full digital twin of the Earth) in 2030;
- The continuation of the network of **European Digital Innovation Hubs**.

SO2 Policies and Strategies

1. European Data Strategy
2. Data Governance Act
3. European Data Act
4. Implementing Act on High-value datasets
5. AI act
6. AI innovation package

1 European Data Strategy

A common European data space, a single market for data



1 European Data Strategy

Common European data spaces

Rich pool of data
(varying degree of
accessibility)

Free flow of data
across sectors and
countries

Full respect of GDPR

Horizontal
framework for data
governance and data
access



Health



Industrial &
Manufacturing



Agriculture



Finance



Mobility



Green Deal



Energy



Public
Administration



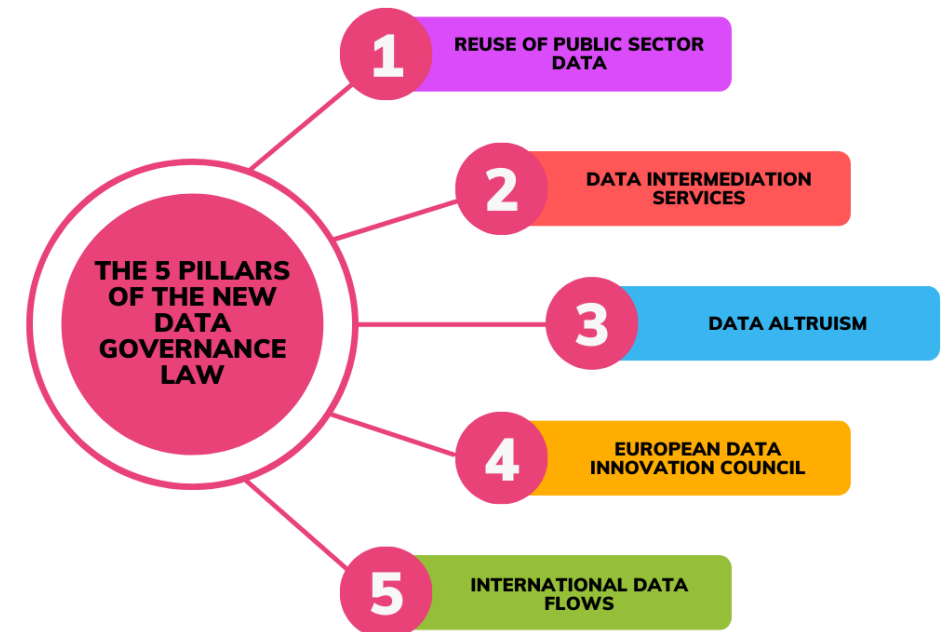
Skills

- Technical tools for data pooling and sharing
- Standards & interoperability (technical, semantic)

- Sectoral Data Governance (contracts, licenses, access rights, usage rights)
- IT capacity, including cloud storage, processing and services

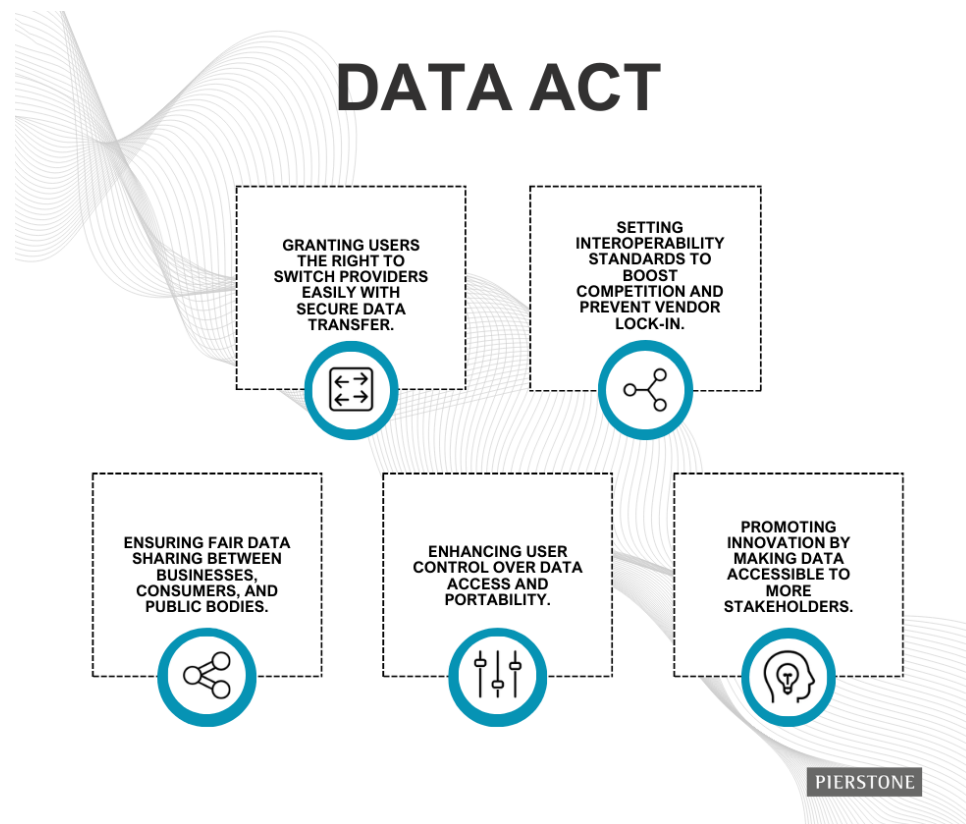
2 Data Governance Act

- **Regulatory framework** to facilitate reuse and sharing of data across sectors and member states promoting a trustworthy and secure data-sharing environment
- Introduces mechanisms to encourage voluntary **data sharing** by individuals and businesses while ensuring strong protections for **privacy** and **security**
- Supports the setup and development of **Common European Data Spaces**



3 European Data Act

- Will begin to be phased in **September 2025**
- Main objective: enable better access and improve conditions for **data sharing** across different economic actors
- Benefits: Better access to IoT data, fairness in B2B contractual relationships over data
- Harmonization of rules on access to and use of IoT data by providing a comprehensive set of rules and a framework for data sharing



Quiz #1: What are High Value Datasets?

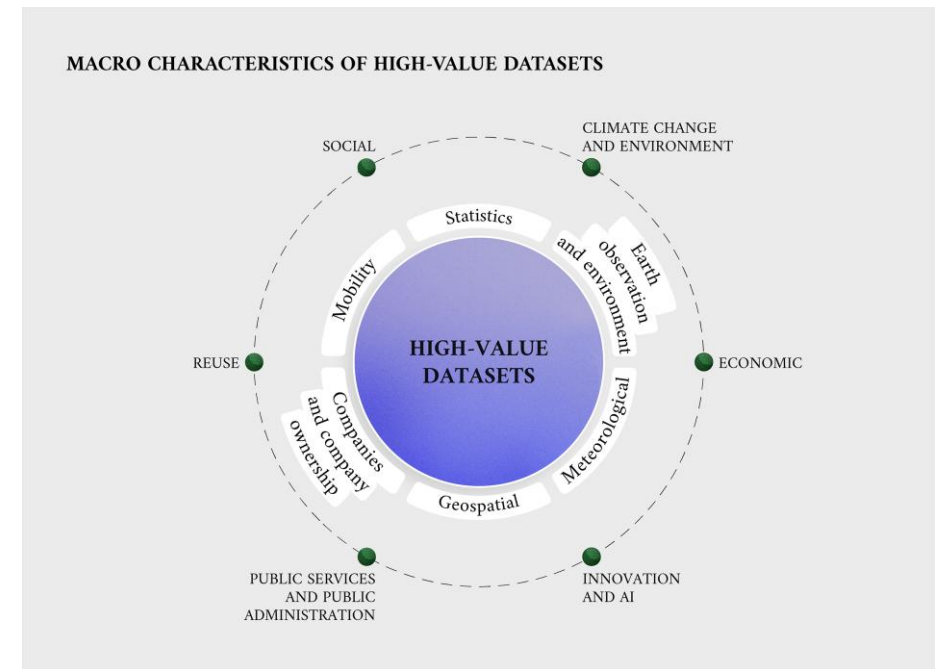
Answer #1: Datasets that are expensive to acquire

Answer #2: Datasets that have significant commercial potential and are key data sources for AI development

Answer #3: Datasets that can be the object of financial exploitation

4 Implementing Act on High-value Datasets

- **Definition of HVD:** data with a significant commercial potential and are key data sources for AI development
- **Main objective of act:** Make these datasets available for **reuse** and **innovation lowering barriers** to entry for **data-driven markets**
- **Key requirements:**
 - Publication in **machine-readable format**
 - Accessibility through **APIs** and **bulk downloads**
 - Datasets must be accompanied by **metadata**
 - Where available datasets should use Union or internationally recognized **vocabularies** and **taxonomies**

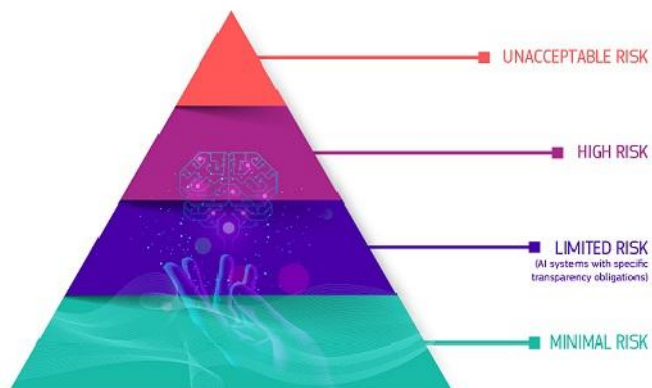


5 AI Act

A wider package of policy measures to support the development of **trustworthy AI**

Main idea: Sets out a clear set of **risk-based rules** for AI developers regarding specific uses of AI.

While most AI systems pose limited to no risk and can contribute to solving many societal challenges, certain AI systems create risks that we must address to avoid undesirable outcomes.



How does it work for providers of high-risk AI systems?



6 AI Innovation Package

Main idea: Support European **startups** and **SMEs** in the development of trustworthy **AI** that respects EU values and rules.

A broad range of **measures** to support AI startups and innovation:

- **AI Start up and Innovation Communication**
 - **Financial support** through EU funding mechanisms
 - Strengthen EU's generative **AI talent pool**
 - Further encourage investments in AI start-ups and scale-ups, including through **venture capital** or **equity support**
 - Development and deployment of **Common European Data Spaces**

- **AI Office** will support **the development and use of trustworthy AI**, while protecting against AI risks
- **GenAI4EU** will develop novel **use cases** and **emerging applications** in Europe's 14 **industrial ecosystems**, as well as the **public sector**.
- **ALT EDIC** will develop a common European infrastructure in **language technologies** to address the shortage of European languages data for the training of AI solutions, as well as to uphold Europe's linguistic diversity and cultural richness.
- **'CitiVERSE' EDIC** apply state-of-the-art AI-tools to develop and enhance **Local Digital Twins** for **Smart Communities**, helping cities simulate and optimize processes



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SO 2 - Related IT terminology

David Mićević

June 30, 2025

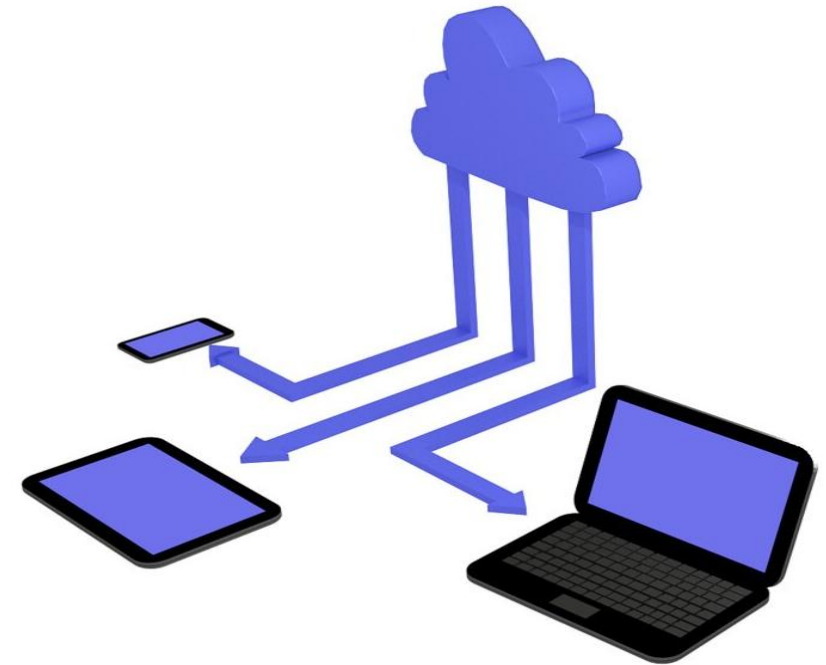
Introduction to Key IT Terminology

Cloud Computing:

- Cloud computing refers to **on-demand access to computing resources** (servers, storage, databases, networking, software) over the internet, allowing *scalability, flexibility, cost-efficiency*, and reduced upfront infrastructure investment.

Edge Computing:

- Edge computing involves **data processing near the point of generation** to reduce latency, bandwidth use, and enhance response times. It *is essential for real-time applications, IoT* (Internet of Things) devices, and critical services such *as autonomous driving or smart factories*.



Generative AI (GenAI) and Data Spaces

Generative AI (GenAI):

- Generative AI refers to machine **learning models** (particularly foundation models) **capable of generating novel outputs** from learned patterns in large datasets, significantly *transforming content creation, automation, data analytics,* and creative industries.

Data Spaces:

- Data spaces are structured **frameworks enabling secure, interoperable, and trusted data sharing and reuse across sectors**. They provide governance, technical standards, and security controls to facilitate effective collaboration, innovation, and advanced analytics across industry and public services.



High-Value Datasets (HVD)

High-Value Datasets (HDV):

- High-value datasets are **strategic datasets identified under EU legislation due to their significant potential** for socio-economic impact, innovation, and commercial reuse.

Key Characteristics of HVD:

- Machine-readable and available through APIs and bulk downloads
- Accompanied by detailed metadata ensuring clarity and ease of reuse
- Harmonized according to EU-wide standards and vocabularies



Virtual Worlds and Digital Twins

Virtual Worlds:

- Virtual worlds encompass **advanced immersive environments integrating augmented reality (AR), virtual reality (VR), and mixed reality (XR) technologies**. These environments support interactions enabling innovation in areas such as education, healthcare and industrial operations.
 - Virtual World Test Beds

Digital Twins:

- Digital twins represent accurate **digital replicas of physical systems or processes** that **utilize real-time data and simulation technologies to predict performance**, monitor operations, **optimize processes**, and support decision-making.
 - Destination Earth





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Related novelties and focus points from the DEP WP

David Mićević

June 30, 2025

Strategic Context and Priorities (2025–2027)

Continuity and Consolidation:

- Further deployment of Common European Data Spaces
- Continued development of Destination Earth digital twin initiative
- Strengthening European Digital Innovation Hubs (EDIHs)

New Strategic Directions:

- Emphasis on EU Digital Compass and Path to Digital Decade goals
- Enhanced focus on technological sovereignty and security
- Integration and uptake of advanced Generative AI across sectors.

Main Focal Points of the DEP Work Programme

Cloud-to-edge and Data Infrastructure:

- Enhanced European middleware platform (Simpl)
- Expansion and interoperability of sectorial Data Spaces.

Artificial Intelligence:

- Widespread deployment and validation of Generative AI.
- AI-driven innovation across industry, healthcare, and public services.

Virtual Worlds and Digital Twins:

- Real-world application and validation facilities.
- Advanced simulations for societal and industrial sectors.

Support for Innovation and SMEs:

- Strengthened European Digital Innovation Hubs (EDIHs).
- Facilitating digital transition for SMEs and public administration.

Advanced Cloud-to-edge Infrastructure and Services

Simpl Cloud Federation:

- European open middleware platform ensuring interoperability
- Connects cloud, edge computing, Data Spaces, AI Factories, and HPC resources
- Facilitates secure data sharing and reuse.

Cross-border Telco Edge Deployment

- Expansion of Telco Edge nodes across Europe.
- Priorities include interoperability, enhanced security, resilient connectivity, sustainability, and efficiency
- Supports real-time applications in healthcare, manufacturing, and public services

Destination Earth – A Digital Twin of Earth by 2030

Objective:

- Complete Digital Twin of Earth developed by 2030
- Integrates advanced AI, high-performance computing, and extensive Earth-observation data

Applications and Benefits:

- Climate adaptation and resilience strategies
- Strategic urban planning and infrastructure management
- Renewable energy forecasting and management
- Support for environmental and sustainability decision-making

Indicative Calls for Proposals (2026–2027)

Indicative Calls 2026:

- Expansion of Data Space for Manufacturing
- AI-based image screening pilots in medical centres
- Virtual Worlds Testbeds for real-world validation

Indicative Calls 2027:

- Reference implementations of Cloud-edge deployments
- Data Spaces for Tourism and Skills sectors
- Deployment of Virtual Human Twins in healthcare
- Support for Multi-Country Projects in connected public administrations



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2025 SO2 Topics

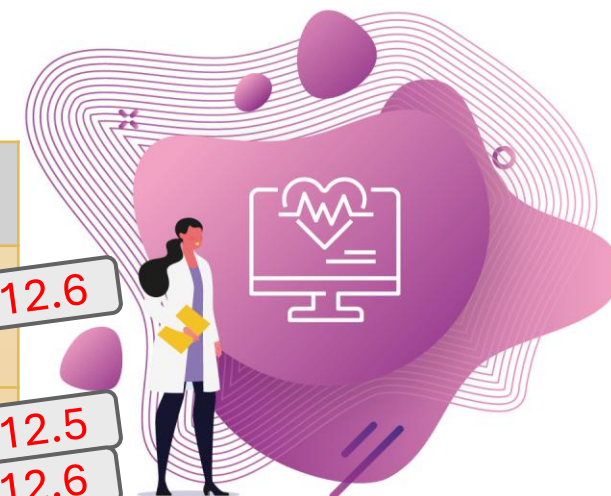
Leonardo Tonetto

30.06.2025



Topics Summary

Topic	Title	Action	Deadline	Budget	Expect. Grants
DIGITAL-2025-AI-08-PROCESSOR	Support to the secretariat for the Alliance on Processors and Semiconductor Technologies	DIGITAL-CSA	2-Sep-25	1 M€	1
DIGITAL-2025-AI-08-SUPPLY-AI	Apply AI: GenAI for the public administrations	DIGITAL-Grants for Procurement	2-Sep-25	21 M€	4
DIGITAL-2025-AI-08-COMPLIANCE	Digital solutions for regulatory compliance through data	DIGITAL-SIMPLE	2-Sep-25	8 M€	3
DIGITAL-2025-AI-08-DS-SUPPORT	Data Spaces Support Centre	DIGITAL-CSA	2-Sep-25	10 M€	1
DIGITAL-2025-AI-08-AGRIFOOD	Multi-Country project in Agri-Food	DIGITAL-JU-Grants for Financial Support	2-Sep-25	15 M€	1



12.6

12.5

12.6

12.6

12.6

DIGITAL-2025-AI-08-PROCESSOR

Art. 12.6

CSA
100%
funding

Support to the Secretariat for the Alliance on processors and semiconductor technologies

Objectives:

- Gather stakeholders to strengthen Europe's capacities in advanced processors and other electronic components
- Identify gaps in production and development of microchips

Keywords:

- Manufacturing and processing
- Micro- and nanoelectronics, optoelectronics

Policy:

- [Alliance on Processors and Semiconductor technologies](#)
- [European Chips Act](#)

Duration: 36 months
Budget: 1 M€

Stakeholders:

- Representatives of European processor and semiconductor technology value chain and of Alliance's technology priorities.
- Representative of types of eligible Alliance stakeholders



DIGITAL-2025-AI-08-PROCESSOR

Art. 12.6

CSA
100%
funding

Support to the Secretariat for the Alliance on processors and semiconductor technologies

Expected Outcomes:

- Develop and promote roadmaps for the Alliance's objectives
- Identify end-user needs for the next decade
- Creation and maintenance of the Alliance's website
- Organize annual General Assembly and Forum (with EC)
- Support upskilling/reskilling

Related topics:

- DIGITAL-2021-CLOUD-AI-01-DATA-TECH
- DIGITAL-Chips-2024-CSA-CCC-2

Duration: 36 months
Budget: 1 M€

KPIs:

- Alliance members engagement and satisfaction
- EU Member States covered
- Alliance members engaged in strategic activities



DIGITAL-2025-AI-08-DS-SUPPORT

Art. 12.6

CSA
100%
funding

Data Spaces Support Centre

Objectives:

- Assure continuation of the Data Spaces Support Centre
- Ensure Data Spaces coherence in deployment

Keywords:

- Data integrity, data reuse, data usage control
- Interoperability, data management systems

Policy:

- European Data Act
- Data Governance Act

Related topic: DIGITAL-2021-CLOUD-AI-01-SUPPCENTRE

Duration: 36 months
Budget: 10 M€
Min. 3 organizations

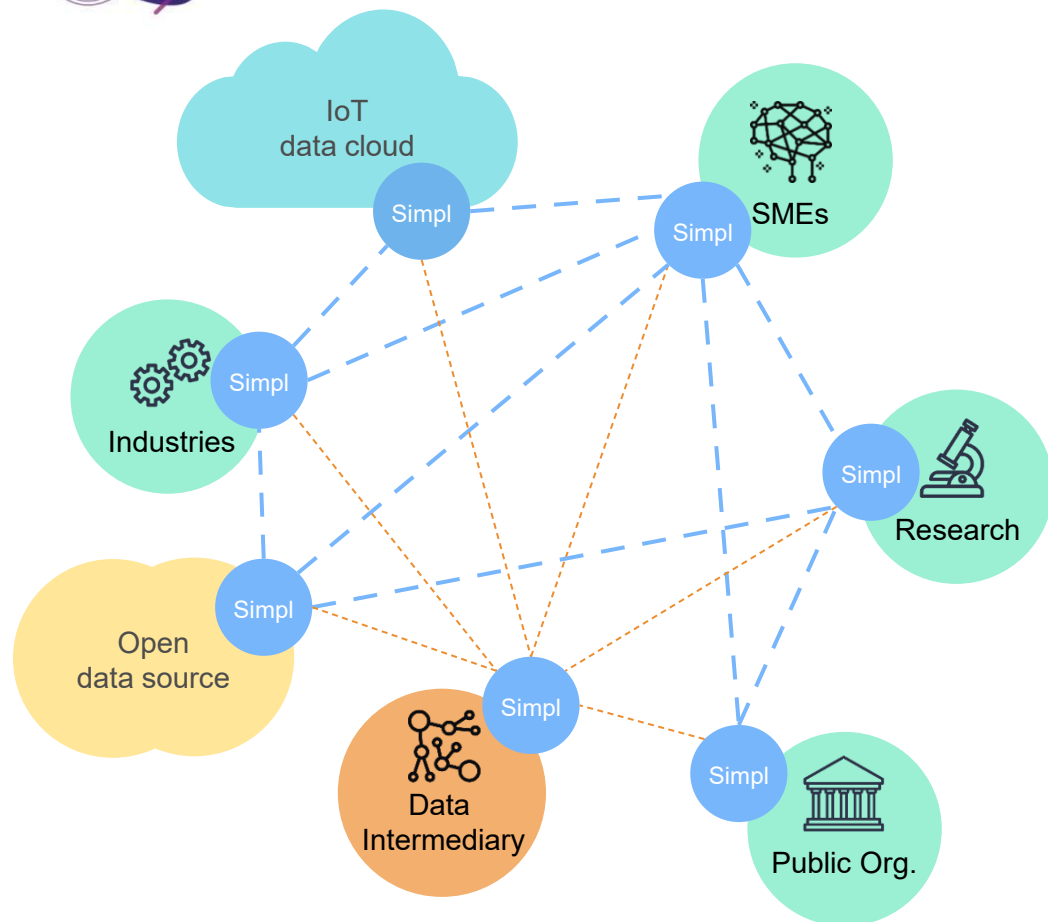
Stakeholders:

- Entities active in data spaces
- Orgs. Expert on data sharing
- Associations, NGOs, Academia with extensive expertise on data spaces





Common European Data Spaces



— Data exchange
- - - Metadata exchange

A **Common European Data Space** is a distributed system defined by a governance framework that enables trustworthy data transactions between participants.

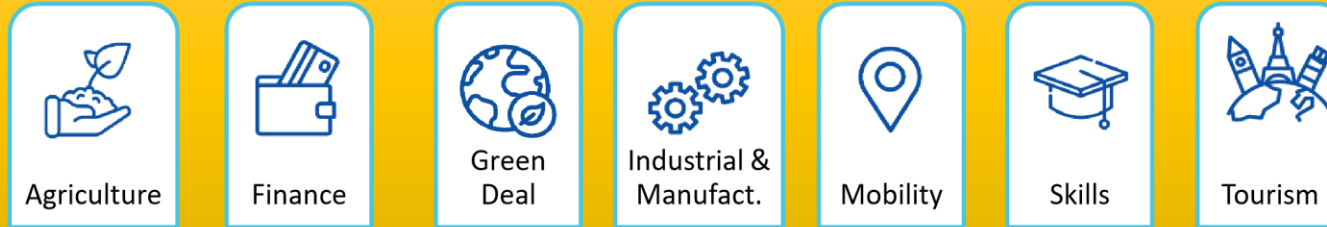
Data holders seek to leverage their data by either monetising it or trading it for extra services. They maintain control over who can access and use their data, as well as the purposes and conditions under which it can be used.

Once the access conditions are met, **data users** can access and use the data for extracting information, creating innovative products, services, or develop artificial intelligence tools.

For data spaces of **public interest**, data is more widely accessible for reuse.

Funding plan for Common European Data Spaces

Phase 1: DIGITAL coordination and support actions – FINISHED (late 2022 – Apr 2024)



Phase 2: DIGITAL deployment actions – ONGOING



European Digital Infrastructure Consortia - EDICs

Ongoing

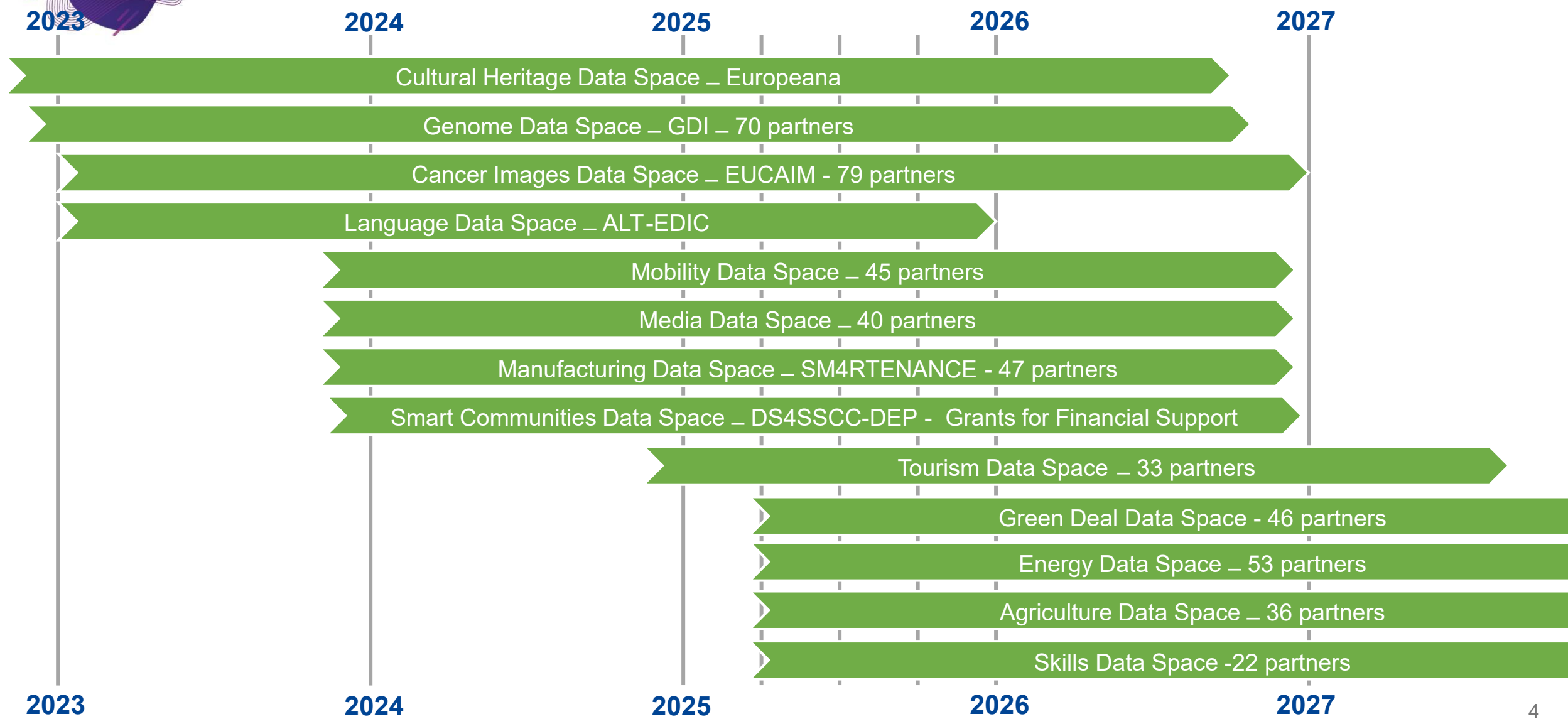
Under Preparation



DATA SPACES
SUPPORT CENTRE



Common European Data Spaces roll-out



DIGITAL-2025-AI-08-COMPLIANCE

Art. 12.6**SIMPLE**
50%
funding

Data Spaces Support Centre

Objectives:

- Deploy solutions for transmitting information relevant for compliance with EU legislation
- Automate compliance process for several pilot cases
 - e.g., agriculture, manufacturing, healthcare, energy

Keywords:

- Data curation, data reuse, regulation, cloud services, AI

Policy:

- EU AI Act

Duration: 24 months
Budget: 8 M€
2-8 M€ / project
Min. 3 organizations

Stakeholders:

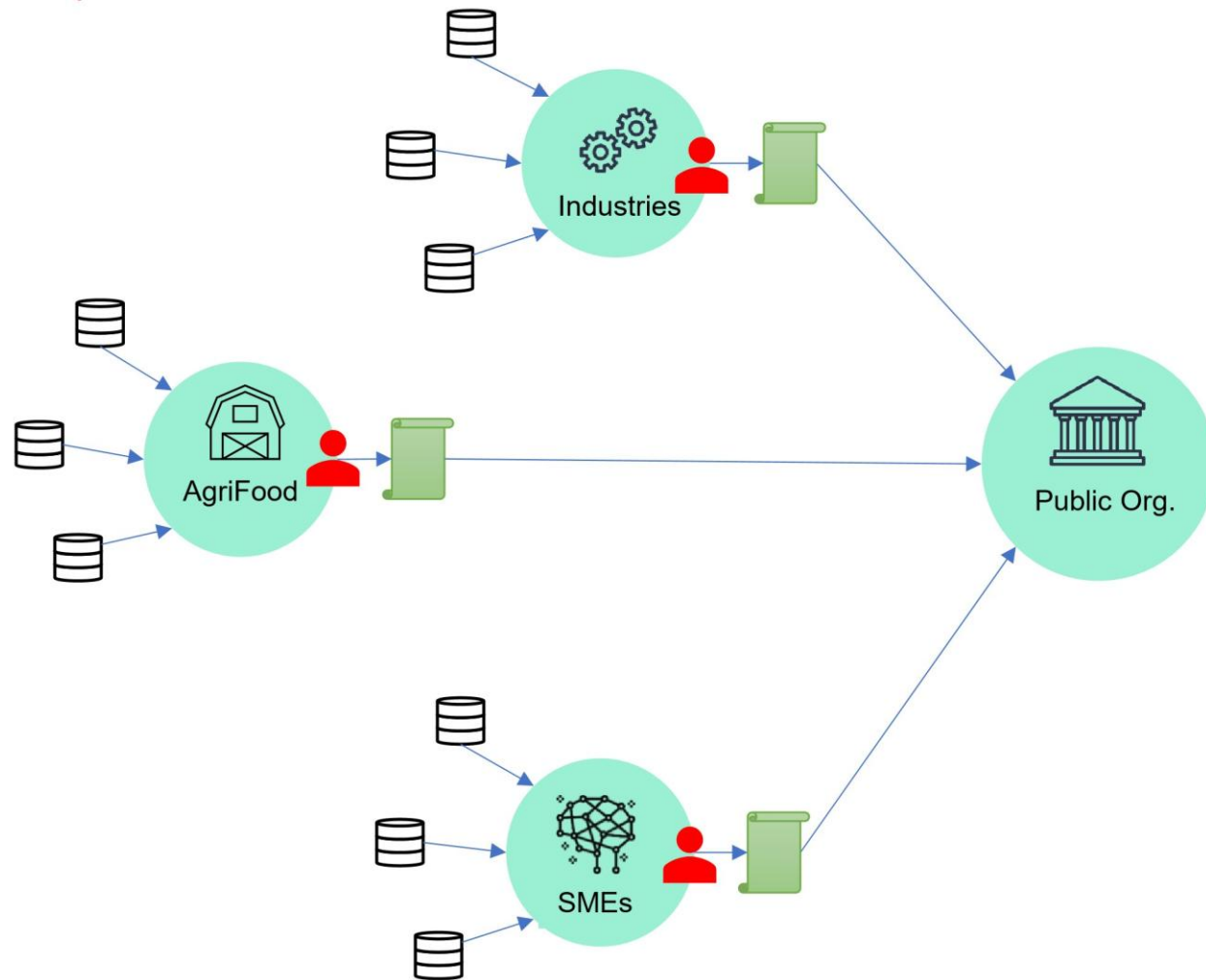
- Public admin. developing tech for regulatory compliance
- Orgs. concerned by the application of the specific regulation
- Orgs. with extensive expertise on digital/data tech

Related topics:

- DIGITAL-2024-BESTUSE-TECH-06-TRUST



Digital solutions for regulatory compliance through data



In most cases regulatory compliance **requires human intervention:**

- collecting data from different source
- elaborate the data
- preparing a report
- submit the report

DIGITAL-2025-AI-08-AGRIFOOD

Multi-Country Project in Agri-Food

Objectives:

- Support the Agri-food sector through data infrastructure to enhance efficiency, sustainability, and competitiveness
- Foster access, sharing, reuse of agri-food data
- **FSTP**: development of cross-border use cases on agri-food data sharing – use case implemented across several EU MS; foster use of advanced tech like Artificial Intelligence

Policy:

- Data Union; Apply AI / AI Continent
- Competitive Compass; Simplification

FSTP
100% +
50%

Duration: 48 months
Budget: 15 M€
EDIC + min. 3 orgs.

Stakeholders:

- EDIC
- Public admin.
- Private actors in agri-food – appointed by gov. as representing the country

Related topics:

- DIGITAL-2021-PREPACTS-DS-01-AGRI
- DIGITAL-2024-CLOUD-DATA-AI-06-AGRISPACE
- DIGITAL-2022-CLOUD-AI-02-TEF-AGRIFOOD

DIGITAL-2025-AI-08-AGRIFOOD

Multi-Country Project in Agri-Food

Expected Outcomes:

- Set-up of digital infrastructure for the agri-food ecosystem
- Implementation at multi-country / EU level with sustainable structures for its maintenance and further development
- Capacity building; Information exchange platform
- Assessment of ongoing initiatives and coordination roadmap
- Recommendations for the development, operation, and maintenance; elements to roll-out the project towards countries not yet involved in the MCP
- Use cases portfolio & use case evaluation reports
- Policy recommendations on the creation of favourable framing conditions for achieving MCP objectives and furthering the digital transformation of the sector

FSTP
100% +
50%

Duration: 48 months
Budget: 15 M€
EDIC + min. 3 orgs.

FSTP (more details):

- 55% – 65% of budget reserved to it
- 60k – 500k per third party

DIGITAL-2025-AI-08-SUPPLY-AI

Apply AI: GenAI for the public administration

Objectives:

- Accelerate trustworthy EU GenAI for public admin.
- Streamline processes, personalized services
- Improve decision making, and simplify procedures

Keywords:

- Public sector, public admin., Artificial Intelligence

Policy:

- Competitive Compass
- EU AI Act

Art. 12.5

Art. 12.6

GP
50%
funding

36-48 months
Budget: 21 M€
5-7 M€ / project
Min. 3 organizations

Stakeholders:

- Public administration (all levels)*
- Also: RTOs, Unis, system integrators, NGOs and civil society groups

** each public can only take part in one pilot project*

DIGITAL-2025-AI-08-SUPPLY-AI

Apply AI: GenAI for the public administration

Expected Outcomes:

- Fully deployed and integrated genAI in admin. workflows
- Documentation to replicate in other EU admin.
- GenAI4EU Community to foster collaboration
- Capacity building for public sector staff
- Insights for policymaking, and standard genAI practices

Related topics:

- HORIZON-CL4-2024-DATA-01-01
- DIGITAL-2024-AI-06-FINETUNE

Art. 12.5

Art. 12.6

GP
50%
funding

36-48 months
Budget: 21 M€
5-7 M€ / project
Min. 3 organizations

Procurement (more details):

- Min. 50% must go to procurement
- Solutions based on fine-tuned **European** foundational models
- Integration with existing platforms, systems, and workflows



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Q&A



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Thank you!

Thank you for your attention and hope to see you on our next trainings!

Coming up next!

- **DEP Deep Dive – SO5 – Deployment and best use of technologies** (July 15. 13.00 – 14.30)
- **DEP Deep Dive – SO3 – Cybersecurity** (Date to be decided)
- **Black-belt DEP proposal writing and project management** (Date to be decided)