European Data Spaces Landscape Assessment

Methodology, Results, and Next Steps

Authors: Bruno Jardim (bjardim@novaims.unl.pt)*, Nuno António (nantonio@novaims.unl.pt)*

*NOVA Information Management School, Campus de Campolide, 1070-312 Lisboa

1. Introduction

Within the **DEPLOYTOUR** project (WP5), we conducted a structured evaluation campaign to assess a broad set of European initiatives related to data sharing and determine which of them can be classified as fully fledged Data Spaces, versus earlier-stage forms such as data-sharing initiatives or collaborative platforms. The campaign's goal was twofold:

1. Provide a consistent, evidence-based classification of initiatives mapped by the consortium;
2. Generate a consolidated, report-ready results set to support dissemination and inclusion in project deliverables (notably Deliverable 5.1).

The evaluation approach follows the Data Spaces Support Centre (DSSC) framing of Data Spaces as interoperable ecosystems grounded in governance, trust, interoperability, and enabling services. Therefore, this evaluation provides a consistent basis to: (i) classify initiatives using the same criteria and thresholds, and (ii) summarize the overall landscape in a way that is useful for reporting and dissemination

2. Evaluation Methodology

2.1 Framework and assessment logic

To perform the evaluation, a framework named "Evaluation Framework for Data-Sharing Initiatives, Collaborative Platforms, and Data Spaces" was developed. This framework was designed as a practical "scoring + classification" instrument derived from two main references:

- DSSC Data Spaces Blueprint v2.0 (conceptual and architectural reference)
- DSSC Maturity Model (operational foundation for assessment logic)

The evaluation used a multi-criteria scoring framework, translating high-level requirements into concrete checks that can be verified from publicly available evidence (e.g., official websites, documentation, technical descriptions, governance pages, and relevant publications).

Each initiative was reviewed and scored across a set of pillars that capture the capabilities expected in a Data Space:

Pillar	Description
Participants and roles	Existence of defined participant types, onboarding, role responsibilities
Data products and services	Evidence of data/service offerings, discovery mechanisms, supporting services
Governance and rulebook	Presence of governance structures and operational rules
Trust and identity	Mechanisms that enable trustworthy participation
Interoperability	Use of interoperability mechanisms across layers, ability to connect across contexts
Distributed/federated architecture	Whether initiative demonstrates centralised operation vs hybrid/federated characteristics

2.2 Scoring approach (evidence-based)

To ensure consistency, each criterion was scored using an evidence-based scale:

- 0 = no evidence / not implemented
- 1 = partially implemented (limited scope, pilot, or incomplete evidence)
- 2 = fully implemented (clear evidence of implementation and operationalization)
- N/A = not verifiable due to insufficient information (used to preserve transparency rather than force assumptions)

Scores were aggregated into an overall total and used to assign each initiative to one of four categories:

- Data-Sharing Initiative
- Collaborative Data Platform
- Collaborative Data Platform (centrally managed)
- Data Space

A specific additional condition was applied for the Data Space classification: beyond achieving a high overall score, the initiative must show evidence of at least partial distributed/federated operation, since Data Spaces are not defined only by “having data”, but by enabling trusted, governed, interoperable exchange in a scalable ecosystem.

The evaluation was carried out collaboratively by reviewers representing multiple DEPLOYTOUR partner organizations. The participating organizations in this evaluation cycle were NOVA IMS, ITI, Tecnalia, EONA-X, Ávoris, Intellera, Breda University of Applied Sciences (BUas), and Intellera Consulting. Reviewers from these organizations applied

the same evidence-based criteria and thresholds to ensure consistency across assessments.

3. Results

A total of 56 initiatives were assessed using the same evidence-based scoring framework and classification thresholds. Overall, the results show a landscape that is still largely in an early-to-intermediate stage of maturity: most initiatives demonstrate solid capabilities for structured data exchange and/or open data publication, but do not yet consistently meet the broader set of requirements typically associated with Data Spaces—particularly those related to formal governance, trust mechanisms, interoperability beyond basic technical integration, and federated/distributed operation.

From a classification perspective, the majority of cases fall under Data-Sharing Initiatives (38), meaning they primarily enable data access or exchange but with limited ecosystem-level governance, cross-organization trust frameworks, or advanced interoperability. A smaller set corresponds to Collaborative Data Platforms (8), where the initiative goes beyond basic sharing by providing more structured collaboration and enabling services. In addition, 4 initiatives were categorized as Collaborative Data Platforms (centrally managed), reflecting cases where collaboration exists but the operational model remains predominantly centralized rather than ecosystem-federated.

Only 6 initiatives reached the threshold and conditions required to be classified as Data Spaces, indicating that - within the evaluated set - fully developed Data Space characteristics are still relatively rare. The initiatives classified as Data Spaces were:

- E015 (Regione Lombardia)
- EONA-X
- Resilient Tourism NADIT (National Data Infrastructure for Tourism)
- Swiss Data Alliance
- INESData Incubator
- Dados.gov.pt

Data Space	Link
E015 (Regione Lombardia)	https://www.e015.regione.lombardia.it/
EONA-X	https://eona-x.eu/
Resilient Tourism NADIT (National Data Infrastructure for Tourism)	https://www.resilienttourism.ch/
Swiss Data Alliance	https://www.swissdataalliance.ch/en
INESData Incubator	https://inesdata-project.eu/
Dados.gov.pt	https://dados.gov.pt/pt/

Given that “Data Space” is a concept with non-trivial practical interpretation - and that public documentation may not fully reflect operational reality - these outcomes should

be understood as the result of a structured screening and classification exercise. They provide a robust basis for reporting, but they also justify a subsequent validation step to confirm the classification in depth, especially for borderline or complex cases.

4. Future Work

The evaluation completed in this cycle provides a consistent, evidence-based snapshot of the current landscape, but it should be treated as the start of a continuous improvement process rather than an endpoint.

As a first priority, the initiatives classified as data spaces should be validated through a focused follow-up review with domain and technical experts. The purpose is to confirm, with higher confidence, elements that are difficult to verify through documentation alone, such as how governance is enforced in practice, whether trust and identity mechanisms operate consistently across participants, and the extent to which interoperability is achieved beyond basic technical connectivity. This step is also important to reduce the risk of false positives, given that “data space” is a concept that can be applied inconsistently across sectors and maturity stages.

In parallel, the inventory of initiatives should be maintained as a living list. Initiatives evolve quickly: new services are launched, rulebooks are refined, interoperability standards are adopted, and organizational models may shift. Periodic updates to the list, together with the supporting evidence used for assessment, will ensure that future reporting remains current and that newly relevant initiatives can be incorporated without restarting the process.

Finally, the evaluation should be repeated in regular re-assessment cycles (for example every 6 to 12 months), using the same criteria and thresholds to support comparability over time. This will allow DEPLOYTOUR to track maturity progress at both initiative level and ecosystem level, identify recurring capability gaps (for example in governance, trust, or federation), and support more robust reporting in subsequent deliverables and dissemination activities.