

E9 - Adjustments to the Governance Framework and Technical Design

Sustainability Data Space

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Version Control

Version	Date	Authorship	Description of change
1.0.	16th December 2025	A. Arias	Initial version and final layout

1. Purpose of the Deliverable

This deliverable documents the adjustments required to the governance framework and technical design of the Sustainability Data Space, based on:

- Outcomes and feedback collected during the workshops (E7)
- Insights derived from the key use cases and sector prioritization report (E8)

The objective of this document is to ensure that the governance and technical architecture of the data space accurately reflect stakeholder needs, regulatory requirements, and operational realities, while remaining fully aligned with the project's strategic vision and core principles.

2. Input Sources and Stakeholder Feedback

The proposed adjustments incorporate key suggestions and observations expressed by stakeholders during the workshops, including:

- The need for flexible and federated governance models adaptable to different sectors
- Stronger guarantees around data sovereignty, traceability, and auditability
- Clearer definition of roles and responsibilities (data provider, consumer, prosumer)
- Practical mechanisms to support semantic interoperability and ESG comparability
- Avoidance of rigid or over-centralized technical architectures that could hinder adoption

These inputs have been consolidated and translated into concrete governance and technical refinements.

3. Adjustments to the Governance Framework

3.1 Adjustment 1: Federated and Adaptive Governance Model

Description

Transition from a static governance model to a federated and adaptive governance approach, allowing governance rules to evolve by sector and use case.

Justification

Stakeholders highlighted that rigid governance models limit participation and scalability. A federated approach enables tailored governance while preserving common principles.

Improvement Achieved

- Greater stakeholder adoption
- Alignment with Gaia-X and IDSA principles
- Support for multisector use cases

3.2 Adjustment 2: Clear Definition of Roles and Responsibilities

Description

Formal definition of roles within the data space:

- Data Provider
- Data Consumer
- Data Prosumer

Each role is associated with specific rights, obligations, and accountability mechanisms.

Justification

Workshop discussions revealed ambiguity around responsibilities, particularly in cross-sector scenarios.

Improvement Achieved

- Reduced legal and operational uncertainty
- Clear accountability and data usage boundaries
- Easier onboarding of new participants

3.3 Adjustment 3: Strengthened Data Sovereignty and Trust Mechanisms

Description

Enhancement of governance policies to explicitly incorporate:

- Decentralized identity (SSI)
- Usage policies and data contracts
- Verifiable logging and traceability mechanisms

Justification

Trust was identified as a prerequisite for data sharing, especially in regulated and sensitive sectors.

Improvement Achieved

- Increased confidence among data providers
- Stronger compliance with GDPR and Data Act principles
- Audit-ready governance model

3.4 Adjustment 4: Governance Alignment with ESG Ontology Management

Description

Incorporation of ontology governance into the overall governance framework, including:

- Versioning rules
- Change management processes
- Stakeholder validation mechanisms

Justification

Semantic consistency was identified as critical to ESG comparability and automation.

Improvement Achieved

- Controlled evolution of ESG semantics
- Reduced risk of fragmentation
- Long-term interoperability assurance

4. Adjustments to the Technical Design

4.1 Adjustment 5: Reinforcement of Federated Architecture Principles

Description

Reaffirmation and refinement of a federated architecture, where data remains at source and is accessed through secure connectors.

Justification

Stakeholders expressed concerns about centralized data storage models and associated risks.

Improvement Achieved

- Reduced security and compliance risks
- Better alignment with sovereign data principles
- Scalability across sectors and geographies

4.2 Adjustment 6: Integration of a Core ESG Ontology Layer

Description

Introduction of a core ESG ontology layer as a mandatory technical component for all participants.

Justification

Use cases demonstrated that lack of semantic alignment leads to incomparable and non-auditable data.

Improvement Achieved

- Machine-readable and comparable ESG data
- Foundation for automation and analytics
- Consistency across sector-specific extensions

4.3 Adjustment 7: Modular and Minimum Viable Architecture

Description

Definition of a minimum viable architecture (MVA) with modular components that can be incrementally extended.

Justification

Stakeholders requested a pragmatic approach that enables early pilots without full system complexity.

Improvement Achieved

- Faster implementation and testing
- Reduced entry barriers for participants
- Controlled technical evolution

4.4 Adjustment 8: Enhanced Traceability and Auditability Layer

Description

Addition of a dedicated traceability layer capturing:

- Data origin
- Transformations
- Access and usage events

Justification

Auditability was identified as essential for regulatory compliance and trust.

Improvement Achieved

- End-to-end data lineage
- Easier regulatory inspections
- Increased transparency for stakeholders

5. Consistency with Strategic Objectives

All proposed adjustments have been reviewed to ensure full alignment with the project's strategic objectives, including:

- Enabling CSRD-compliant ESG data sharing
- Ensuring data sovereignty and trust
- Supporting multisector scalability
- Maintaining interoperability and semantic consistency

An internal review confirms 100% alignment with the strategic and technical framework previously defined for the Sustainability Data Space.

6. Implementation Feasibility

The proposed adjustments are:

- Clearly defined and documented
- Technically and operationally feasible
- Compatible with existing European data space standards
- Suitable for phased implementation through pilots

No significant inconsistencies have been identified between the adjustments and the foundational principles of the data space.

7. Conclusions

- Stakeholder feedback has been effectively translated into concrete governance and technical improvements.
- The adjusted framework strengthens trust, adoption, and regulatory readiness.
- The proposed changes preserve strategic coherence while increasing practical viability.
- The Sustainability Data Space is better positioned to move into implementation and scaling phases.

8. Next Steps

- Validate adjustments with governance and technical working groups.
- Update official governance and architecture documentation.
- Apply adjustments in upcoming pilot implementations.
- Communicate changes transparently to all stakeholders.