

APPENDIX IV

LIST OF GOVERNANCE INSTRUMENTS IN DATA SPACES

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List of Governance Instruments in Data Spaces

1. PURPOSE AND SCOPE

This appendix provides an overview of the governance instruments that are commonly used to design, operate, and oversee data spaces. It is intended as a reference for data space operators, governance authorities, and policymakers who are responsible for translating governance principles into concrete, enforceable arrangements.

The appendix catalogs the main legal, organizational, technical, and procedural instruments through which data space governance is implemented in practice. For each instrument, it describes its function and summarizes its current status within the Swiss data ecosystem.

2. SOURCES AND ANALYTICAL FRAMEWORK

This appendix draws on two primary sources that provide complementary perspectives on data space governance.

First, it builds on the **Data Space Playbook – Governance Guideline** developed by Beyond Civic. The Guideline offers a detailed framework for governing data spaces in Switzerland and similar decentralized contexts. It emphasizes federated governance, neutrality, interoperability, and adaptability, and introduces key governance artefacts such as rulebooks, participation agreements, and governance authorities. This appendix follows the Guideline's classification of governance instruments and uses it as the main reference for describing how these tools function within Swiss data spaces.¹

Second, the appendix incorporates relevant elements from the **UN Broadband Commission's Data Governance Toolkit**, which provides an international, cross-sector perspective on operational data governance. The Toolkit organizes governance around functional mechanisms across the data lifecycle, including stewardship, contractual tools, standards, audit, and capacity-building. These mechanisms complement the Beyond Civic framework by highlighting operational and institutional considerations that support long-term trust and sustainability.²

Where relevant, both sources are aligned with the structure of the Swiss Data Ecosystem and its Data Space Building Blocks, which adapt the Data Spaces Support Centre (DSSC) model to the Swiss context.

3. GOVERNANCE TOOLS FOR DATA SPACES

3.1. FOUNDATIONAL GOVERNANCE AND PARTICIPATION

This category covers the instruments that create the basic structure of a data space. They define its purpose, its legal form, who may join, and the rules that govern participation. These tools provide the backbone for accountability, transparency, and meaningful involvement of all actors, including patients and public-interest groups in the health domain.

3.1.1. Rulebook

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Rulebook (Beyond Civic)	Central reference defining participation, interoperability, and accountability	Clarifies rights and responsibilities, ensuring patient agency, consent, and transparency	Organisational Form & Governance Authority Building Block: Co-create the rulebook with patient councils and hospital consortia; embed “feedback loops” so user concerns update governance clauses dynamically

The rulebook is the central governance framework of a data space. It sets the fundamental rules for the design of data spaces so that actors can know what constitutes participation and what duties they are responsible for fulfilling. A rulebook should be developed collaboratively so that all parties have ownership of the governance framework. In a health data space, this could mean working directly with patient councils and hospital consortia.

A rulebook does not need to take the form of a single document; it is better understood as a set of linked reference materials that together define participation rules, roles and responsibilities, interoperability expectations, and contractual arrangements. In the DSSC Blueprint, the rulebook brings together the outputs of the broader governance framework by specifying semantics, business and financial rules, contractual conditions, and decision-making structures.³ It is overseen by the DSGA and is binding on all participants. Because organizations may join several data spaces, they may need to comply with multiple rulebooks—some general, others domain-specific. This structure supports DSD by making rights, duties, and decision points explicit, helping participants understand both the scope of their commitments and the agency available to them.

The *Guideline* places rulebooks within an international landscape and references models such as the SITRA Rulebook, the IDSA Rulebook, and the DSSC Blueprint. While these offer solid foundations, Beyond Civic argues that they do not fully address the needs of cross-border or cross-sector collaboration, especially in public-private settings. Its own reference documents are therefore tailored to Swiss law and designed to operate as a coherent set.

Switzerland does not yet have a national rulebook template. Beyond Civic notes that a Rulebook for Data Collaboratives is in development, but for now, high-level ecosystem tools, such as the Code of Conduct for Trustworthy Data Spaces, the Role Model of Actors, and the Swiss Data Ecosystem Building Blocks, provide the basic scaffolding.⁴ These set principles and interoperability requirements but do not replace full rulebooks, which will need to be designed and adopted.

3.1.2. Statutes / Articles of Association

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Statutes / Articles of Association	Foundational legal document of governance authority	Embeds participatory governance and accountability	Organisational Form & Governance Authority Building Block: Reserve board seats for patient or public representatives; require annual participatory review of statutes

Statutes or Articles of Association form the core legal foundation when a data space is constituted as its own legal entity. They set out the initiative’s purpose, define membership rights and obligations, and specify how governance bodies operate. As described in the DSSC Blueprint, statutes are one form of founding agreement: they establish the governance authority, regulate admission and exit, clarify responsibilities and liabilities, and set the rules for collective decision-making.⁵

If a separate legal entity is not required, comparable instruments—such as consortium, joint venture, or cooperation agreements—can fulfill the same function. Regardless of format, a founding agreement must identify initial members, detail the governance model, and outline how new participants can join. Statutes provide the most comprehensive framework by supporting onboarding and codifying binding conditions for participation.

Statutes offer several levers for embedding DSD. They can mandate participatory governance, require representation of affected groups, and introduce periodic reviews to reassess mandates, responsibilities, or accountability mechanisms.

In Switzerland, statutes are typically drafted under national association law and tailored to the organizational form selected for the data space's governance authority. Because statutes govern a specific entity rather than the ecosystem as a whole, each data space must develop its own founding document. The Beyond Civic Governance Guideline notes that a standardized Swiss template is under development to support future implementations.⁶

3.1.3. Membership Application / Accession Agreement

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Membership / Accession Agreement	Formal onboarding and compliance commitment	Ensures new entrants respect DSD principles and transparency	Regulatory Compliance Building Block: Add a "Digital Self-Determination Pledge" and periodic member re-certification audits

The Membership Application or Accession Agreement is the instrument through which new participants formally join a data space. It anchors the onboarding process by requiring applicants to accept the statutes or founding agreement and to comply with the governance structures, standards, and operational rules defined in the rulebook. By aligning newcomers with the obligations and rights of existing members, the agreement creates a consistent and predictable participation framework.

Because it outlines both commitments and entitlements, the agreement can also reinforce DSD. For example, it can clarify participant rights relating to transparency and agency, or introduce a DSD-aligned commitment that members periodically renew as part of ongoing compliance checks.

In the DSSC Blueprint, accession agreements sit within the onboarding process managed by the Data Space Governance Authority (DSGA). Applicants are assessed for legal, technical, and organizational readiness; once approved, they receive a membership credential that can also support cross-space federation and simplified onboarding elsewhere.

In Switzerland, a membership application template tailored to national law exists and can be adapted for different member categories, though no standardized version has yet been issued for ecosystem-wide adoption.⁷

3.2. CONTRACTUAL MECHANISMS

Contractual mechanisms provide the legal backbone for data collaboration. They define rights, obligations, permissible uses, and liability, turning governance principles into binding commitments. As such, they are one of the clearest routes for operationalizing DSD, by making transparency, consent, reciprocity, and redress legally enforceable.

Beyond allocating responsibility, contracts influence incentives, define permissible reuse, and embed governance safeguards. Tools such as the Contractual Wheel of Data Collaboration, developed by The GovLab, split agreements into modular elements (purpose, data type, access rights, retention periods, dispute mechanisms), helping organizations tailor protections while maintaining consistency and fairness.⁸

Contractual mechanisms cover a broad family of instruments: DSAs, Memorandums of Understanding (MOUs), Service-Level Agreements (SLAs), End-User License Agreements, platform terms of service, and API usage policies. They operate both at the institutional level, binding participants to the governance framework, and at the transactional level, governing individual data exchanges.

3.2.1. General Terms & Conditions

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
General Terms & Conditions (GTCs)	Baseline legal framework for joining and operating the data space	Codifies rights to access, portability, withdrawal, and complaint mechanisms	Contractual Framework Building Block: Integrate social license and “DSD impact assessments” at renewal cycles to adjust terms with evolving norms

The General Terms and Conditions (GTCs) form the core contractual framework that participants must accept to join and remain in a data space. In the Governance Guideline, GTCs set out the conditions for fair, transparent, and legally compliant participation. They explain how the arrangement aligns with applicable law (such as GDPR or national data protection rules) and outline procedures for decision-making, membership, and dispute resolution. They also help operationalize DSD by making explicit the rights stakeholders can exercise, including access, portability, withdrawal, and complaint mechanisms.

In the *DSSC Blueprint*, GTCs sit within the Contractual Framework building block, alongside founding and accession agreements (see Figure 3). These agreements formalize the relationship between the governance authority and participants by translating components of

the governance model into enforceable obligations. They define participant roles (governance authority, data providers, users, and service providers), set admission and exit criteria, and codify rules for intellectual property, confidentiality, data protection, cybersecurity, and interoperability. They also provide a vehicle for embedding community-driven requirements, such as renewal cycles that update terms in line with evolving norms or expectations.

GTCs can extend beyond institutional governance to the transaction level by providing standardized clauses and licensing models for data product contracts. This alignment across layers supports consistent and predictable interactions within a data space. In Switzerland, no national-level GTC template has yet been published

Figure 3: Structure of Contractual Framework building block

Three types of agreements give the governance framework legally binding form

Institutional agreements —	
PARTIES	Data space governance authority ↔ each participant / member
FUNCTION	Legal implementation of the governance framework (Rulebook)
EXAMPLE INSTRUMENTS	Founding agreement · General terms & conditions

Data sharing agreements —	
PARTIES	Data space participants / members, between one another
FUNCTION	Legal implementation of the governance framework between participants
EXAMPLE INSTRUMENTS	Data product contract

Service agreements —	
PARTIES	Data space governance authority ↔ service provider
FUNCTION	Contracting of services for data space functionality
EXAMPLE INSTRUMENTS	Defined per data space (e.g., service-level agreements)

Source: Data Spaces Support Centre, Contractual framework.⁹

3.2.2. Data Sharing Agreements

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Data Sharing Agreements (DSAs)	Define rights and duties in data exchange	Operationalize consent, reciprocity, and proportionality	Access & Usage Policies Enforcement Building Block: Integrate smart-contract or API-based consent tracking; enforce reciprocity (benefit-sharing) clauses

A Data Sharing Agreement (DSA) sets the contractual terms for exchanging data within a data space. It defines rights of use, restrictions, and obligations, ensuring that exchanges follow the governance framework established in the rulebook. DSAs reduce uncertainty, clarify accountability, and support trust across participants by addressing legal, organizational, semantic, and technical aspects of sharing. They also can advance DSD by formalizing how parties communicate consent, apply proportionality, and, where appropriate, commit to reciprocal exchanges of value or insight.

In Switzerland, the Swiss Federal Institute of Intellectual Property (IPI) has issued standardized model agreements, developed by *id est avocats* (2024) at the request of the Federal Council. These templates aim to lower barriers, especially for SMEs, by providing ready-to-use contracts.¹⁰ They apply to non-personal “technical data” (machine data, environmental data, anonymized statistics) and explicitly exclude personal or mixed datasets unless fully anonymized.

The IPI provides four templates covering different sharing scenarios:

Agreement for the Transfer of Technical Data (Unilateral, ad hoc)

- ▶ For one-time transfers such as test datasets or pilot projects.
- ▶ May be free or fee-based
- ▶ Allows providers to impose use restrictions (e.g. no resale or onward sharing)
- ▶ Data provided “as is,” without warranty on quality or fitness
- ▶ Includes confidentiality and baseline compliance clauses

Subscription Agreement for Access to Technical Data (Unilateral, ongoing)

- ▶ For continuous or regular access (e.g. via API or portal)
- ▶ May involve subscription fees; for SMEs, fees cannot exceed the provider’s cost of making the data available
- ▶ Provider may set use restrictions and retain audit rights
- ▶ Access is non-exclusive

Agreement for the Exchange of Technical Data (Mutual, bilateral)

- ▶ For reciprocal sharing arrangements
- ▶ Access is typically free of charge
- ▶ Parties may agree whether to share results generated from the data
- ▶ Includes confidentiality and compliance obligations
- ▶ Optional audit rights for verifying adherence to restrictions

API Terms of Use

- ▶ Specifies conditions for technical access through an API
- ▶ Defines licensed uses and restrictions (e.g. no harmful activity, no exceeding quotas)
- ▶ Allows suspension or termination for breach
- ▶ Often used alongside one of the above agreements to govern the access mechanism itself

All four model agreements use electronic templates and checkbox structures to simplify adoption and support consistency across actors. They also anticipate alignment with European regulatory development, including interoperability expectations under the EU Data Act, facilitating cross-border technical and legal compatibility.

3.2.3. Licensing

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Licensing	Define data reuse permissions and obligations	Balances openness with control and attribution	Contractual Framework Building Block: Adopt dynamic licenses (e.g., time-limited or community-benefit clauses) for health-data reuse

Licensing mechanisms define the permissions, restrictions, and obligations that govern how data may be reused or redistributed. They clarify what recipients may do with data—copy, transform, analyze, commercialize, or share it further—and help balance openness with protection. Licensing is a key tool for making governance rules enforceable across the data lifecycle and can embed DSD by linking reuse conditions to safeguards such as time limits, attribution, or community-benefit provisions.

While licenses and DSAs both define rights and limits, they operate at different levels:

- ▶ **Licenses** specify permissible uses once access has been granted.
- ▶ **DSAs** define the broader exchange relationship, including roles, liability, transfer conditions, and interoperability requirements.

The IPI model agreements incorporate licensing in several ways. The API Terms of Use grant a revocable right to integrate and display data through an API while distinguishing between data access (via a DSA) and data use (via license conditions). The Data Transfer, Subscription, and Data Exchange Agreements each include a *Limited License* clause that grants a non-exclusive right to use the covered data for the agreed purpose and term, without transferring ownership. They also allow for *Additional Terms*, such as separate API licenses or platform terms of service, that govern the tools used for exchange. Interoperability provisions require dataset content, use restrictions, licensing terms, and data quality to be described clearly enough for recipients to find, access, and reuse the data effectively.

3.3. POLICIES, STANDARDS, AND SHARED LANGUAGE

This category includes the governance tools that define the shared expectations—ethical, procedural, semantic, and organizational—that make a data space legible, trustworthy, and interoperable. These instruments set the normative and interpretive foundations for collaboration, providing the common language and value commitments that other governance tools rely on.

3.3.1. Policies and Guidelines

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Policies & Guidelines	Convert high-level principles into operational policies	Create shared ethical reference points	Regulatory Compliance Building Block: Mandate DSD alignment assessments for every new data initiative under DigiSant�

Policies and guidelines translate broad governance principles into day-to-day expectations for responsible data management. They can take many forms, including open data policies, AI ethics frameworks, data responsibility guidelines, and human-rights-aligned principles such as OECD Data Ethics Principles, the UN CEB Principles, and FAIR/CARE. These instruments provide common ethical anchors and can delineate how concepts like DSD should inform decision-making. Organizations can also use policy to require DSD-alignment assessments when launching new data initiatives.

Across the data lifecycle, institutional policies shape standards for privacy, consent, interoperability, quality, and inclusion. Sector-specific frameworks, such as the WHO Data Principles or the Pan-American Health Organization’s governance guidance, illustrate how high-level values are translated into operational practice. Additional reference points

from ITU, UNDP, UNESCO, and ASEAN help promote consistent and adaptive governance across jurisdictions.¹¹

In Switzerland, the *Code of Conduct for the Operation of Trustworthy Data Spaces* and the *Swiss Data Ecosystem Building Blocks* serve as the central anchors. Together, they provide shared expectations for transparency, trust, interoperability, and responsible behavior.

3.3.2. Code of Conduct

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Code of Conduct for Trustworthy Data Spaces	Defines ethical and behavioral norms for participants	Institutionalizes fairness, transparency, and user control beyond legal minimums	Participation Management Building Block: Create public dashboards tracking adherence; enable citizen reporting mechanisms (bottom-up feedback loops)

A code of conduct (CoC) sets out the cultural and normative expectations that guide behavior within a data space. It articulates shared values, defines expectations for both the governance authority and participants, and strengthens trust by establishing standards that go beyond statutory obligations. CoCs are well suited to expressing general goals, principles, and indicators that can then be monitored by the public or civil society.

In Switzerland, this approach has been formalized through the *Code of Conduct for the Operation of Trustworthy Data Spaces*, approved by the Federal Council in December 2023 following consultation with government, industry, academia, and civil society.¹² The Code defines four guiding principles—transparency, control, fairness, and effectiveness—supported by recommended measures for governance authorities, intermediaries, providers, and users.

- ▶ **Transparency** calls for accessible documentation, organizational openness, clear and comprehensible information, provenance traceability, and machine-readable metadata.
- ▶ **Control** covers mechanisms for managing data use, oversight of transfers outside the space, voluntary participation, and security risk management.
- ▶ **Fairness** emphasizes proportionality, non-discrimination, balancing of interests, high data quality to prevent bias, and protections for children and young people.
- ▶ **Effectiveness** focuses on implementation, interoperability, agility, and ecological, social, and economic sustainability.

The Code also promotes peer exchange among providers and requires organizations to publish periodic reports on their implementation progress.

3.3.3. Standards and Vocabulary

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Standards and Vocabulary (Toolkit)	Ensure interoperability, quality, and shared understanding	Promotes clarity on data meaning, access, and rights	Data, Services & Offerings Descriptions (Building Block): Require machine-readable usage conditions and provenance metadata in all offering descriptions

Standards and shared vocabularies make governance rules executable across systems. Common protocols and definitions reduce friction, support quality, and enable secure re-use. Examples include ISO 27001 for information security and DCAT for cataloguing. The Toolkit highlights interoperability, metadata discipline, and portability as foundations for trustworthy data exchange.

In the Swiss context, the *Swiss Data Ecosystem Building Blocks* specify FAIR-aligned, DCAT-structured catalogs and federated publication practices linked to national assets such as i14y (federal API/interoperability platform), LINDAS (Linked Data Service), and opendata.swiss. Offering descriptions should include machine-readable access and usage controls, provenance information, and quality attributes expressed through ODRL and related standards.¹³ Offering descriptions could improve DSD through machine-readable access and usage controls, provenance information, and quality attributes (via ODRL and related standards).

The SwissHDS adopts a standardized data model, a national interoperability layer, and FHIR-compatible formats to support consistent communication across healthcare systems.¹⁴

3.3.4. Glossary

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Glossary & Role Model	Establishes shared terminology and minimal roles	Reduces ambiguity, clarifies who safeguards users' interests	Data, Services & Offerings Descriptions Building Block: Continuously update the glossary through multi-stakeholder input (patients, hospitals, insurers) to align language with DSD values

A glossary provides a common vocabulary for how a data space operates. It standardizes key terms, reduces ambiguity, and helps participants interpret governance rules, technical standards, and roles in a consistent way. Clear terminology lowers onboarding barriers, supports interoperability, and helps participants understand how responsibilities are distributed. Because language shapes expectations, a glossary can also advance DSD by making concepts transparent and accessible, especially for smaller actors.

Glossaries may be ecosystem-wide—such as those included in the DSSC Blueprint or IDSA Rulebook—or tailored to a specific data space.

In Switzerland, no standalone glossary exists yet, but two instruments partially fulfill this function. The *Data Space Building Blocks – Swiss Data Ecosystem* define core components of a data space and their interdependencies. The *Roles in the Swiss Data Ecosystem* document provides a minimal role model, clarifying the tasks, competencies, and responsibilities necessary for the operation of data spaces and their coordination within the national ecosystem. It outlines six essential roles: data providers, data users, intermediaries/brokers, service providers, the Contact Point, and Communities of Practice. Together, these documents create a baseline for interoperability and help distribute responsibilities in a consistent way.

3.4. TECHNOLOGY & GOVERNANCE BY DESIGN

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Technology & Governance by Design	Embed safeguards and controls into system architecture	Hard-codes privacy, consent, and accountability	Access & Usage Policies Enforcement Building Block: Integrate federated learning, PETs, and continuous DSD compliance monitoring as system defaults

Governance by design embeds safeguards directly into the technical architecture so that compliance, accountability, and user protection are built into system behavior rather than added through policy alone. Core measures include privacy-enhancing technologies (PETs) such as differential privacy, homomorphic encryption, secure multi-party computation, and synthetic data; federated learning; encryption; role-based access controls; and technical protection measures that enforce rules at the infrastructural level. These are supported by operational controls such as provenance tracking, audit trails, multi-factor authentication, secure deletion, and continuity procedures.

Privacy-by-design complements these measures by applying data minimization, encryption or anonymization at the point of collection, consent management, and early bias detection.

In Switzerland, the clearest illustration is the SwissHDS under the DigiSanté program. Its reference architecture adopts a Zero Trust approach based on NIST SP 800-207, requiring authentication, authorization, and logging for every access request. It also provides common governance services—authentication, consent management, authorization, pseudonymization, and secure logging—as shared components within the infrastructure. These elements operationalize governance through the system itself, reducing reliance on manual enforcement and helping align technical behavior with emerging DSD expectations.¹⁵

3.4.1. Data Network Description

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Data Network Description	Describes architecture, mechanisms, and standards of data access.	Clarifies how data moves and who is involved	Provenance & Traceability Building Block: Publish a machine-readable data flow map; include a public summary of intermediaries, access points, and controls.

The Data Network Description defines the architecture of a data space by outlining its components, participants, and data exchange mechanisms. It explains how data sharing is technically and organizationally arranged, including transfer methods, applied standards, and trust and accountability structures. By making data flows explicit, it can support DSD by giving participants a better understanding of how data travels, which entities handle it, and where decisions occur.

3.4.2. Interoperability Specifications

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Interoperability Specifications	Define semantic and technical standards	Enable user portability and system-to-system autonomy	Provenance & Traceability Building Block: Standardize APIs for real-time consent revocation and data traceability (auditable provenance chain)

Interoperability Specifications set the technical, semantic, organizational, and legal standards that allow participants to exchange data securely and consistently. They define how systems communicate, how data is structured, and how compliance with shared rules is verified. These specifications provide the basis for cross-organizational compatibility and support portability across domains.

Interoperability can also operationalize DSD. When systems offer standardized APIs that support real-time consent withdrawal or provide traceability of data uses, individuals gain practical means to monitor and influence how their data is handled.

3.5. TRUST, OVERSIGHT, AND COMPLIANCE

Trust, oversight, and compliance mechanisms provide the assurance layer that keeps a data space dependable and legitimate over time. These instruments clarify who is responsible for safeguarding data, verify that governance rules are followed, and make sure outsourced or third-party systems meet the same expectations as the data space itself. They reinforce accountability, reduce risk, and create the operational feedback loops that support evolving DSD expectations.

3.5.1. Data Stewardship & Institutional Arrangements

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Data Stewardship & Institutional Arrangements	Assign roles for data quality, trust, and compliance	Ensures continuous oversight and representation	Organisational Form & Governance Authority Building Block: Expand on the roles of <i>Data Stewards and Custodians</i> as fiduciaries for citizens; establish a federation of stewards

Data stewardship and institutional arrangements determine who is responsible for data quality, compliance, and coordination within a data space. Clear stewardship roles strengthen accountability and create a human layer of governance that complements technical and legal controls.

In Switzerland, the *Roles in the Swiss Data Ecosystem* document identifies two key stewardship-related roles:

- ▶ **Data Custodian:** Responsible for storing, maintaining, and securely transmitting data in line with instructions from the data steward. This role can sit within a data provider or be outsourced to intermediaries
- ▶ **Data Steward:** Responsible for harmonizing and standardizing data within an organization, implementing quality and security measures, and coordinating with internal governance bodies.

The Contact Point supports these functions by coordinating roles across domains. These arrangements create the conditions for ongoing oversight and, especially if strengthened, could support DSD through fiduciary-like responsibilities on behalf of affected groups.

3.5.2. Audit & Compliance Mechanisms

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Audit & Compliance Mechanisms	Verify adherence, detect misuse, assure trust	Builds transparency and accountability loops	Organisational Form & Governance Authority Building Block: Introduce independent DSD audits feeding directly into rulebook revisions

Audit and compliance mechanisms help verify that governance rules are carried out in practice. They provide transparency on how obligations are met, identify risks or breaches, and support continuous improvement. Over time, audits can create feedback loops that strengthen DSD by prompting revisions in response to transparency or accountability gaps.

Relevant Swiss Data Ecosystem Building Blocks highlight this function across several areas:

- ▶ **Organisational Form & Governance Authority:** Calls for guidelines and monitoring mechanisms, including audit procedures and possible certification.
- ▶ **Provenance & Traceability:** Specifies the need to log actions performed on data (e.g., use, modification, consent changes) and to define retention and access rules.
- ▶ **Regulatory Compliance:** Emphasizes ongoing identification of applicable laws, implementation of safeguards, and (where appropriate) providing tools and support services to help participants meet regulatory obligations.
- ▶ **Trust Framework:** Highlights trust anchors, transparency logs, and verification

mechanisms to validate participant credentials.

3.5.3. Procurement & Vendor Management

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Procurement & Vendor Management	Integrate governance requirements into sourcing and outsourcing	Aligns external providers with DSD, privacy, and interoperability standards	Contractual Framework Building Block: Embed standard DSD, portability, and audit clauses in framework contracts and public tenders

Procurement and vendor management integrate governance requirements into the sourcing of external systems, services, and technologies. They help prevent gaps between internal policy and outsourced implementation by requiring suppliers to meet standards for security, privacy, interoperability, auditability, and data portability. Contract terms can include audit rights, minimum logging and metadata requirements, and clear conditions for continuity and exit. In this way, procurement can extend DSD protections to third-party components by embedding safeguards for consent, transparency, and user control.

3.6. TRAINING & CULTURAL CHANGE

Governance Instrument	Purpose / Function	How It Enables Digital Self-Determination (DSD)	Key Leverage Points (Systemic Interventions)
Training & Cultural Change	Build capacity and literacy for responsible data use	Enables individuals to understand and exercise control	Participation Management Building Block: Embed DSD literacy in medical, policy, and citizen training curricula to shift norms and behaviors

Training and cultural change mechanisms build the human and organizational capability needed for governance frameworks to function effectively. Technical and legal tools rely on a culture of responsibility, literacy, and ongoing learning. Embedding DSD concepts into training can help individuals understand their rights, exercise control, and set expectations for transparency and accountability. Over time, these practices influence norms and support more participatory governance cultures.

Endnotes

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