LET THE DATA UNION BEGIN

Submission to the public consultation on the European Data Union Strategy

Open3 GOVERNMENT DATA SOCIETY

Index

Executive Summary

This submission to the public consultation on the European Union Data Strategy outlines strategic recommendations for shaping a future-proof, user-centric, and resilient **European Data Union**. It focuses on simplifying the regulatory framework, strengthening public-sector data governance, and enabling meaningful reuse through high-quality infrastructure, legal certainty, and cultural change.

Key Proposals

1. Legal Clarity and Simplification

- Anchor the ***open-by-default*** **principle** in EU law with clear legal hierarchy
- Harmonise core definitions across all EU data legislation (e.g. “data holder”, “data recipient”)
- Reduce complexity through consolidation into fewer, purpose-driven legal acts
- Establish an **EU-wide enforcement and sanctions framework**
- Centre the user perspective through simplified licensing, metadata obligations, and access rules

2. Governance and Coordination

- Appoint national **data coordinators** with formal mandates and inter-agency reach
- Create cross-sector **coordination bodies** for interoperability and policy alignment
- Make metadata standards (e.g. DCAT) and data quality frameworks mandatory
- Provide governance templates to support the practical implementation of data spaces

3. Institutions and Infrastructure

- Fund the modernisation of national data portals and interoperability layers
- Support **competence centres** (Data Labs, helpdesks, training hubs) to build capacity
- Promote collaborative open government initiatives and cross-border reuse pilots
- Embed data publication in public service delivery to ensure visibility and utility

4. High-Quality Data and Linked Data Practices

- Enforce the use of **core vocabularies and semantic standards**
- Incentivise publishing as **5-star Linked Open Data**
- Promote data quality criteria relevant to **AI development** (e.g. multilingual, representative, bias-aware)
- Tie EU funding to the quality and documentation of data outputs

5. Trusted Data Flows and Resilience

- Develop **certification schemes** for secure international data transfers
- Create clear legal pathways for non-personal and mixed data exchanges
- Address transatlantic legal uncertainty with EU-based **Trusted Data Gateways**
- Make **resilience and digital sovereignty** core design principles for cross-border data flows

6. Smart Investment in Data Spaces

- Fund data spaces based on **concrete use cases and business models**
- Promote **cross-sectoral interoperability** and value chain integration
- Support light-touch, modular governance models for scalability
- Prioritise high-impact sectors (e.g. environment, health, mobility, public finance)

7. Cultural Change and International Learning

- Fund **storytelling initiatives** to showcase data reuse success
- Benchmark Member States on **transparency culture** and openness
- Learn from **global frontrunners** like Korea, Singapore, and the OECD
- Recognise openness as both infrastructure and trust-building strategy

8. Improving Accessibility of EU Funding

Recognising widespread concerns that EU funding schemes remain too **bureaucratic and inaccessible**, especially for smaller public-sector and private actors, this submission calls for:

- **Streamlined processes** such as lump-sum-based and cascade funding models
- **Proportional administrative procedures**, with a light-track approach for small projects
- **Greater transparency** in application success rates, timelines, and accessibility for SMEs and public bodies

By reforming funding processes in this way, the Commission can ensure that **resources truly reach and support the diverse actors driving Europe's data transformation**—no matter their size.

Conclusion

Europe has the foundations to lead the next phase of data-driven innovation—rooted in openness, accountability, and interoperability. This submission calls on the European Commission to combine legal ambition with practical support and cultural vision.

Let the Data Union begin.

1. Legal Clarity and Simplification

Achieving a coherent and future-proof European Data Union requires a **radically simplified and harmonised legal framework**. Fragmentation across multiple EU instruments—each with distinct terminologies, obligations, and exceptions—has created legal uncertainty and implementation gaps. This chapter outlines key reforms to ensure clarity, enforceability, and user-centricity in the EU data legal landscape.

1.1 Harmonised Definitions Across All EU Data Legislation

The Data Union must be grounded in **consistent legal language**. Core concepts such as *data*, *information*, *data holder*, *data user*, *data recipient*, and *data intermediary* must be clearly defined and uniformly applied across all relevant instruments—including the Data Act, Data Governance Act (DGA), Open Data Directive, AI Act, and upcoming legislative acts. A lack of definitional clarity leads to:

- Confusion in implementation at Member State level
- Legal exposure for public bodies and SMEs
- Reduced cross-border interoperability and enforcement potential

We recommend the development of a **unified EU data glossary**—linked to Recitals and operational annexes of future legal acts—and maintained centrally (e.g. by the European Data Innovation Board).

1.2 Binding "Open-by-Default" Obligation (with Regulated Exceptions)

The open-by-default principle should be **codified** in EU law as a **primary publication obligation** for the public sector. The legal hierarchy must be clear:

1. **Open access** as default (e.g. under CC BY 4.0 or similar)
2. If not possible, **governed access under the DGA or Data Spaces**
3. In exceptional cases, access can be restricted (justified by law and proportionality)

This would not only increase legal clarity but also ensure a **transparent, accountable baseline for public data** throughout the EU. The Commission should embed this structure into new sectoral legislation and revise existing instruments accordingly.

1.3 Consolidation of EU Legal Instruments

Currently, the EU data regulatory framework is spread across multiple instruments, leading to **overlaps, ambiguities, and inconsistent enforcement**. A strategic **consolidation into two legal clusters** should be pursued:

- One comprehensive instrument for **public sector data** (incl. transparency, open data, public registers)
- One for **private-sector and industrial data**, covering sharing obligations, access rights, and fair use

This would reduce compliance burden, simplify national implementation, and create **legal scalability** for new technologies like AI and digital twins.

1.4 Common Enforcement and Sanctions Framework

To ensure real impact, the Data Union must move beyond declarations and adopt a **shared enforcement architecture**:

- Define **minimum enforcement powers** for national authorities
- Establish **sanctions or penalties** for non-compliance (e.g. refusal to publish High-Value Datasets)
- Enable **cross-border cooperation mechanisms** for legal redress and oversight

Such a framework would provide Member States with **legal certainty** and create **incentives for compliance**, especially where current monitoring is weak or fragmented.

1.5 Embedding the User Perspective

Finally, all data legislation must place the **user experience**—whether citizen, SME, researcher or civic tech actor—at its centre. This includes:

- Simplified licensing models (e.g. standardised open licenses)
- Mandatory **metadata provision** for findability and reuse
- Rights-based access procedures (e.g. consistent response times, appeal mechanisms)
- Clarity around **formats, APIs, and documentation**

A **user-centred legal architecture** will unlock the true value of Europe's data assets and align legal ambition with practical utility.

2. Governance and Coordination

Legal frameworks alone are not enough to realize the vision of a European Data Union. Robust, coordinated **governance mechanisms** are essential to turn obligations into action and ensure that data is managed, published, and reused in a consistent, high-quality and cross-sectoral manner. This chapter outlines key institutional and procedural elements for effective data governance at EU and Member State level.

2.1 Designation of National Data Coordinators

Each Member State should formally appoint a **National Data Coordinator** (or equivalent entity) with a mandate to:

- Oversee **Open Data implementation** across all levels of government
- Act as a liaison to EU institutions, especially in Data Act and DGA contexts
- Coordinate with statistical offices, transparency units, and digitalisation agencies
- Promote coherence between **open data, shared data, and regulated access models**

These coordinators should be empowered by national law, resourced adequately, and made visible through the EU's institutional directory of responsible bodies.

2.2 Intra-Governmental Coordination Bodies for Interoperability

Data governance cannot succeed in silos. Member States should establish **cross-agency coordination bodies** to:

- Align sector-specific data initiatives (e.g. in health, mobility, energy, environment)
- Develop joint strategies for **semantic interoperability and metadata harmonisation**
- Resolve institutional conflicts and clarify responsibility for data stewardship
- Monitor implementation of EU rules and national strategies in a unified way

The Commission could support this by providing a **governance blueprint** (e.g. coordination group roles, legal templates, KPIs), and by organising an annual **Data Governance Dialogue** across Member States.

2.3 Mandatory Metadata Standards and Data Quality Guidelines

A functional Data Union depends on **shared semantics and quality**. The EU should require Member States to adopt:

- **Mandatory use of DCAT-AP and relevant extensions** (e.g. DCAT-AP for HVDs, Linked Data vocabularies)
- **Data quality frameworks** including timeliness, accuracy, completeness, and provenance indicators
- **Metadata validation services and quality dashboards**, ideally integrated into national and EU portals

Without reliable metadata and trust in data quality, openness and sharing lose their effectiveness.

2.4 Support for Data Space Development via Governance Models

The development of **common European data spaces** will depend not only on funding and infrastructure, but on practical, scalable **governance models**. These must:

- Define roles for **data holders, data users, intermediaries, and stewards**
- Specify access and usage rules (including redress mechanisms)
- Provide operational guidance for onboarding new actors
- Ensure inclusion of **public sector bodies** and compatibility with national strategies

The Commission should publish **standard governance templates** and incentivise their adoption across sectors. A flexible but accountable framework will be essential to balance innovation, security, and coordination.

3. Institutions and Infrastructure

A successful Data Union requires not only sound legal and governance frameworks but also strong **institutional capacity** and resilient **technical infrastructure**. Public administrations must be equipped with the tools, platforms, and human capital needed to manage and deliver high-quality, user-oriented data services. This chapter outlines how EU policy and funding can help strengthen national and local capacities across the Union.

3.1 EU Funding for National Data Portals and Interoperability Platforms

While many Member States operate data portals, capabilities vary widely in terms of scale, functionality, metadata quality, and integration with **data.europa.eu**. The European Commission should:

- Provide targeted **funding streams** (e.g. through the Digital Europe Programme or CEF) to modernise national portals
- Support development of **cross-border interoperability layers**, such as metadata harvesting, semantic mapping, and DCAT-AP validation tools
- Encourage integration of **registers, APIs, and open datasets** into a seamless national access infrastructure

These platforms form the backbone of the Data Union and must be maintained as **digital public infrastructure**.

3.2 Support for Competence Centres (e.g. Data Labs, National Data Helpdesks)

To enable institutions to meet their obligations under EU law, the Commission should promote the establishment of national and regional **data competence centres**, such as:

- **Data Labs** that provide support for data cleaning, transformation, visualisation, and impact analysis
- **Helpdesks** for public authorities and SMEs to navigate data sharing rules, metadata standards, and licensing options
- **Training hubs** for civil servants, data stewards, and legal advisors working in the data domain

These centres can act as catalysts for **capacity building**, **experimentation**, and **inter-administrative learning**, especially in less-resourced regions.

3.3 Promote Collaborative Open Government Practices via Funded EU Initiatives

Beyond infrastructure, the Data Union should foster a culture of **collaboration and co-creation**. The EU should fund initiatives that promote:

- **Joint projects between administrations and civil society** using open data to address local challenges
- **Cross-border pilots** that test reuse of data in multiple legal and linguistic contexts
- **Open Government accelerators** that bring together data owners, users, and intermediaries to generate policy-relevant solutions

These actions help make the Data Union **tangible, visible, and trusted** among end users and stakeholders.

3.4 Anchor User-Facing Services in Data Publication and Reuse Workflows

Open data should not be an afterthought—it should be **embedded into service delivery**. The EU should encourage Member States to:

- Integrate open datasets into **digital public services**, portals, and citizen dashboards
- Ensure that data published under legal obligations is also **documented, searchable, and actively promoted**
- Use analytics to track how published data is used and feed insights back into policy cycles

Public data must be more than published—it must be **used, useful, and user-friendly**.

4. High-Quality Data and Linked Data Practices

The true value of a Data Union lies not only in the quantity of available data, but in its **quality, structure, and semantic interoperability**. To enable meaningful reuse—especially in AI development, cross-border services, and evidence-based policymaking—the EU must move decisively toward **standardised, linked, and high-integrity datasets**. This chapter outlines key measures to achieve that.

4.1 Enforce Use of Core Vocabularies and Semantic Interoperability

Semantic interoperability is essential for both human and machine understanding. The EU should:

- Mandate the use of **Core Vocabularies** (as developed by the ISA² and Interoperable Europe programmes) across all public-sector datasets
- Promote alignment with **standard ontologies** and taxonomies within sectoral data spaces
- Require national data portals and registries to support **linked data structures** and controlled vocabularies

These measures will ensure that datasets can be reliably combined, compared, and reused across languages, sectors, and jurisdictions.

4.2 Incentivise Publishing as 5-Star Linked Open Data

Tim Berners-Lee's 5-star model for Open Data remains the gold standard. The EU should create incentives—financial or reputational—to encourage public bodies to move beyond mere publication toward **fully linked open data**, including:

- Use of URIs and RDF formats
- Interlinking between datasets (e.g. geodata ↔ administrative units ↔ statistical data)
- Integration into **semantic web infrastructures** and knowledge graphs

This would significantly improve **discoverability, interoperability, and long-term utility**, especially for AI and advanced analytics applications.

4.3 Promote Data Quality Standards for AI

To support **responsible and representative AI**, the EU must promote the publication of **AI-relevant datasets** that meet high quality standards:

- Multilingual data to support language diversity in training sets
- Demographically representative datasets to avoid algorithmic bias
- Provenance, update frequency, and coverage metadata to assess reliability
- Documentation of **data curation processes** and legal basis for reuse

These datasets should be identified as part of a future **High-Value Dataset for AI** list and be accompanied by quality benchmarks.

4.4 Tie Funding Eligibility to Dataset Quality and Documentation

To create strong incentives for quality, the EU should require that:

- Projects receiving public funding (e.g. Horizon Europe, Digital Europe, CEF) must **publish their datasets** under open licenses
- Published data must include **DCAT-AP-compliant metadata**, licensing, and contact points
- A minimum level of **semantic richness** and documentation is met for eligibility

Only by linking funding to open, well-structured outputs can the EU ensure that publicly funded data contributes meaningfully to the Data Union.

5. Trusted Data Flows and Resilience

As data becomes a critical asset in geopolitics, trade, and AI development, Europe must ensure that its cross-border data flows are both **legally secure and strategically resilient**. The EU's Data Union Strategy must address current legal gaps, respond to external uncertainties, and establish Europe as a trusted hub for **international data cooperation**. This chapter proposes concrete instruments to achieve that goal.

5.1 Develop Certification Schemes for International Data Transfers

The EU should establish a **certification framework** for data intermediaries and infrastructure used in cross-border data flows, focusing especially on:

- Legal compliance with EU data regulations (e.g. DGA, GDPR, Data Act)
- Technical safeguards such as encryption, access logs, and audit trails
- Organisational trust mechanisms (e.g. transparency policies, complaint handling)
- Use-case-specific requirements for sectors like health, finance, and energy

Such **Trusted Data Gateway certifications** could be administered via ENISA, national authorities, or a dedicated EU body and would provide legal certainty for both public and private actors.

5.2 Provide Legal Pathways for Secure Outbound and Inbound Data Flows

Current data transfer rules often focus on **personal data** (e.g. adequacy decisions under GDPR), leaving **non-personal or mixed datasets** in a legal grey zone. The EU should:

- Clarify conditions under which **non-personal data** can be transferred outside the Union
- Create **contractual templates and standard clauses** to ensure compliance and accountability
- Establish **bilateral and multilateral data partnerships** that recognise EU standards
- Support public sector bodies in assessing and documenting risk in outbound transfers

This would unlock legal confidence for sharing datasets with trusted partners while safeguarding EU values.

5.3 Respond to US Legal Uncertainty with EU Trust Frameworks

The invalidation of previous EU–US data transfer agreements (e.g. Safe Harbor, Privacy Shield) has underscored the fragility of transatlantic data flows. In response, the EU should:

- Develop **autonomous EU trust mechanisms** that do not depend on third-country legislation
- Promote the use of **European-based infrastructures and open standards** for critical datasets
- Use **Trusted Data Gateways** as an alternative or complement to future adequacy frameworks

This approach ensures that **EU resilience and digital sovereignty** are not compromised by sudden external legal shifts.

5.4 Make Resilience and Sovereignty Central to Cross-Border Data Design

Resilience must become a **design principle** for future data flows. This means:

- Diversifying dependency on specific jurisdictions or infrastructures
- Encouraging **multi-hosting and federation models** across Member States
- Including **fallback procedures** and access continuity guarantees in data spaces
- Requiring critical public-sector data to be hosted within the EU or under EU jurisdiction

The EU must proactively shape the rules of global data exchange, not simply react to them.

6. Smart Investment in Data Spaces

Common European Data Spaces are one of the EU's flagship tools to structure the sharing and reuse of data across domains. To fulfil their promise, investments must be **strategic, interoperable, and focused on real-world value creation**. This chapter outlines how to make data spaces operationally effective and economically sustainable.

6.1 Fund Use Case-Driven and Business Case-Driven Data Spaces

Rather than building data spaces as abstract infrastructure, the EU should **anchor them in concrete needs**. This includes:

- Focusing on **real-world use cases** with measurable public or commercial benefit
- Supporting **business case development**, especially for SMEs and the public sector
- Funding the **onboarding of participants**, not just the platforms
- Embedding reusability of data outputs from EU-funded pilots and innovation projects

Prioritising *use first, then architecture* ensures that data spaces meet actual demands, not just policy aspirations.

6.2 Focus on Cross-Sectoral Value Chains and Real-World Interoperability

Siloed data spaces risk reproducing the very fragmentation they aim to overcome. EU support should prioritise:

- **Cross-sectoral integration**, e.g. linking health and mobility data to tackle ageing populations
- **Horizontal interoperability** in formats, APIs, and licensing
- Data flows along **complete value chains**—from source to impact
- Alignment with open data principles where appropriate, especially for public-sector datasets

The EU can play a convening role in identifying shared priorities and fostering ecosystem-wide cooperation.

6.3 Promote Light, Modular Governance Models

Data spaces must be **simple enough to scale**. Complex governance models deter participation and slow down innovation. The EU should promote:

- **Modular governance templates** (e.g. clear roles, responsibilities, onboarding flows)
- "Governance-as-a-service" concepts that reduce entry barriers for smaller players
- **Role separation** between infrastructure providers, data holders, users, and stewards
- Inclusive models with a clear place for the **public sector and civil society**

This enables faster deployment, lower cost, and better adaptability across Member States.

6.4 Prioritise High-Impact Sectors: Environment, Health, Mobility, Public Finance

To maximise impact and visibility, the EU should focus early data space investment in sectors that:

- Address **societal challenges** (climate, pandemic preparedness, demographic change)
- Involve **diverse stakeholders** across regions and sectors
- Offer **high reuse potential** across multiple use cases (e.g. public procurement data)
- Can serve as **model spaces** for governance and technical patterns

Strategic coordination with relevant Directorate-Generals (e.g. ENV, SANTE, MOVE, BUDG) will ensure alignment with EU missions and policy priorities.

7. Cultural Change and International Learning

A functioning Data Union is not only a legal or technical project—it is a **cultural transformation**. Unlocking the full potential of data requires changing how public administrations, institutions, and societies understand and value transparency, reuse, and collaboration. This chapter outlines how the EU can support cultural change and learn from global leaders.

7.1 Fund Civil Society and Public Sector Storytelling on Reuse

To make data governance relatable and inclusive, the EU should support **storytelling and visibility of real-world data impact**. This includes:

- Funding civil society, NGOs, and public authorities to **document successful reuse cases**
- Promoting **multilingual, citizen-facing narratives** about how open data improves services, accountability, or innovation
- Integrating these stories into **training, awareness campaigns, and curricula**

Changing attitudes starts with **showing what is possible**—not just stating what is required.

7.2 Benchmark Transparency Progress and Administrative Openness

The EU should extend its existing digital maturity tools to **include transparency and cultural openness indicators**, such as:

- Proactive publication rates by sector and region
- Presence of open data mandates and data stewards
- Institutional engagement with civic tech and data journalism communities
- Qualitative benchmarks for **attitude change within administrations**

Transparency must be seen not as a burden but as **a strategic resource**—and measuring progress is key to embedding that view.

7.3 Look Beyond Europe: Learn from Korea, Singapore, and OECD Standards

While Europe is a leader in regulatory innovation, other countries are advancing rapidly in **data usability, openness, and citizen services**. The EU should:

- Analyse best practices from **Korea and Singapore** on open data APIs, service integration, and citizen engagement
- Benchmark against **OECD data governance indicators** and the Open Government Partnership (OGP)
- Include non-EU case studies in Commission guidance documents and policy workshops

A confident Data Union is one that **listens, learns, and adapts**—not only internally but globally.

8. Reducing Bureaucracy in EU Funding

A consistent concern among stakeholders—from public agencies to small innovators—is that **EU funding procedures remain overly bureaucratic**. This complexity makes it especially hard for smaller—and sometimes higher-impact—projects to gain access to necessary resources. To remedy this, the following strategic adjustments are essential:

8.1 Simplify Access, Especially for Small-Scale Initiatives

The current funding architecture often burdens applicants with **complex eligibility criteria**, **lengthy application forms**, and **delayed grant agreements**—discouraging particularly small or local public-sector and private actors. As observed in Horizon 2020 experiences, **simplification through "lump sum" models** and lighter procedures has helped reduce administrative barriers (source).

8.2 Reduce Red Tape Across All Programs

Stakeholders frequently describe EU grants—even in media and civil society contexts—as **administratively heavy**, often requiring specialist support just to apply or report. High-level reviews (e.g. by Mario Draghi's team) highlight that accessing funding is still "**excessively difficult**, especially for newcomers" (source).

8.3 Recommended Reforms

- Introduce **cascade funding schemes**, allowing larger EU projects to redistribute smaller grants efficiently to third parties (e.g. SMEs and local actors).
- Implement **standardised, user-friendly application interfaces**, clearer eligibility windows, and faster decision timelines.
- Ensure **proportional administrative requirements** based on project scale—a "light track" for smaller projects, robust for larger ones.
- Monitor and publish **dashboard metrics** on funding accessibility, approval times, and beneficiary diversity to drive transparency and accountability.

These measures will vastly improve the **inclusiveness, responsiveness, and strategic impact** of EU funding—especially for localized, innovative, or niche-enabled projects critical to a dynamic Data Union.

About the Authoring Organization

This submission is prepared under the aegis of **open3.at**, a non-profit network dedicated to fostering an open, transparent, and participatory Austrian society. open3 is exclusively oriented toward the **public good**, advancing the principles of **Open Society, Open Government, and Open Data in Austria and Europe**.

Mission and Activities

- **Purpose**: Promote a data culture based on **transparency, civic engagement**, and **public accountability**, core to the foundation of democratic governance.
- **Key Focus Areas**:
    - Educating institutions on **open data best practices**, including data licensing, metadata schemas, and publication strategies.
    - Hosting projects and tools such as *Opendata Buddy* and *Create Camps* to explore data-driven civic innovations.
    - Empowering **collaborative tech and research communities**, providing guidance on publishing, visualising, and reusing both public and private data.
- **Role in Submission**: open3 bridges civil society expertise with institutional reform, making this contribution grounded in both **on-the-ground experience** and broader democratic objectives.

Through this contribution, open3.at shares its **practical insights, governance philosophies, and collaborative frameworks**—not as an advocacy group, but as a trusted partner in shaping a Data Union that is equal-parts open, sustainable, and oriented toward public benefit.