An EOSC ↔ Data Spaces bridge — building it together

Coordination note to data space partners on HORIZON-INFRA-2026-01-EOSC-02

Trusted frameworks for secure and efficient data sharing in EOSC — EOSC Partnership, Research Infrastructures 2026 call.

1. The opportunity, and why now

The Commission has published a new Research Infrastructures call — HORIZON-INFRA-2026-01-EOSC-02, Trusted frameworks for secure and efficient data sharing in EOSC — opening in 2026 with an indicative budget of €10M for two to three projects of €3–5M each. It is a Coordination and Support Action under the EOSC Partnership.

What makes the moment particularly relevant is its political backdrop. On 17 December 2025, the EOSC Steering Board published an Opinion Paper, Enhancing data sovereignty for research, which explicitly recommends "creating sovereign services, and closer alignment with common European data spaces" as a strategic priority for EOSC. The 2026 call is the operational follow-up to that Opinion Paper. The mandate for what we propose to build is, in effect, already on the table.

> **FROM THE EOSC STEERING BOARD**
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> *"Creating sovereign services, and closer alignment with common European data spaces."*
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> EOSC Steering Board Opinion Paper, *Enhancing data sovereignty for research*, published 17 December 2025.
> research-and-innovation.ec.europa.eu/news/.../2025-12-17_en

2. The bridge we have been wanting to build

For several years now, the European data space community and the open science community have been developing largely in parallel. Common European Data Spaces have built sectoral infrastructure for data sharing across health, mobility, energy, skills, tourism, legal and finance. EOSC has built federated infrastructure for research data and open science. Exchanges between the two worlds exist, but they remain ad hoc and fragmented.

Three projects funded in 2024 are already advanced on the trusted-research-environments side: EOSC-ENTRUST (led by ELIXIR and EUDAT-CDI), SIESTA (CSIC/IFCA) and TITAN (Universidad de Murcia). They run until 2027 and cover the TRE dimension well.

What is genuinely missing — and what the Steering Board has now called for explicitly — is the operational, legal and governance bridge between EOSC and the Common European Data Spaces. This is also the cross-data-space ambition several of us have been articulating for some

time: a framework where a health data space and a research infrastructure can exchange data with the same trust, contract and policy primitives; where sovereignty is operational rather than rhetorical; and where the same European stack supports both sectoral and research use cases. This call looks, to us, like the right moment and the right vehicle to make that ambition concrete.

3. The foundation we already have

PTX has been building, with many of you, an open-source commons for European data spaces. The foundation is now substantive enough to support a credible bid:

- **Production deployment** across six or more sectors and 150+ active organisations, with roughly €30M of cumulative ecosystem investment.
- **Three operational commons axes** — Policy & Legal (ODRL Registry, Rulebook, Contract Manager), DSIF Reference Implementation (catalogue, identity, consent, contract negotiation, connector adapters), and Advanced Building Blocks (anonymisation, semantic interoperability, trusted AI, Data Veracity Assurance, and others).
- **Active role in EU standardisation** — DSSC expert, contributor to IDSA, Gaia-X and Simpl working groups; strategic partnership with FIWARE Foundation.
- **A governance model already in operation** covering contribution, decision-making and policy review.

This foundation is what makes a credible bid possible. It is not, however, sufficient on its own for the research-data context that this specific call addresses — and that is where the rest of the consortium comes in.

4. What still needs to be built together

Research data has its own legal regimes, trust constructs, sustainability models and emerging AI use patterns. The PTX foundation is calibrated for sectoral data spaces and needs to be adapted, extended, and complemented in several dimensions. These are the areas where partner contributions will be essential, and where the work programme of the bid will be substantively shaped:

- **Legal frameworks adapted to research data.** Research exemptions in the GDPR, the AI Act's provisions for research, sectoral regulations such as EHDS, adequacy decisions for cross-border research with third countries — none of these are fully reflected in our current Policy Registry. This work requires legal expertise specific to research and to international data transfers. LDS and academic partners in European digital law will be central here.
- **Trust frameworks for research environments and cross data space exchanges.** Trusted Research Environments, the Five Safes framework, integration with ethics review and data access committees — these are research-specific trust constructs that complement the data space trust primitives we already have. Embedding them properly calls for collaboration with research infrastructures and with the existing TRE projects (EOSC-ENTRUST, SIESTA, TITAN).

- **Business and sustainability models for research data.** Sectoral data spaces have commercial value flows; research data largely does not. Sustaining research data infrastructure depends on different cycles: grant funding, institutional contribution, federated cost-sharing, recognition rather than monetisation. The contribution models we have started to develop in PTX need to be reworked for this economy.
- **AI-specific data sharing patterns.** Research data is increasingly the substrate for AI training and inference. New patterns — model cards, federated learning, synthetic data, differential privacy budgets, training-data lineage requirements — call for policy extensions, contract clauses and provenance constructs that go beyond what current ODRL specifications cover.
- **Semantic and metadata alignment with research communities.** FAIR data principles, DataCite, RO-Crate, ProvONE, domain ontologies in life sciences, social sciences, environmental sciences — each scientific community has its own substrate. The semantic interoperability built for sectoral data spaces needs to interoperate with these, not replace them.

None of these are minor adjustments. They are substantive work packages, and they are the natural place for the partners we are now inviting into the consortium — including those of you not yet formally engaged with PTX.

5. Why a CSA is the right vehicle

A Coordination and Support Action does not fund primary technical R&D. What it funds is the development of frameworks, guidelines, templates, governance models, and the demonstration of those frameworks in concrete adoption cases. The format fits what we need to do: not build new core components from scratch, but adapt, extend, integrate and operationalise what already exists across our two communities.

In practice, this means the consortium message is consistently "we adapt, configure, and integrate existing commons and infrastructures for the EOSC sovereignty context" — **never "we will develop new components".**

6. Call activities — foundation, adaptations, partners

The call lists eight activities. The following table maps each to the foundation we already have, the adaptations needed, and the partners that would naturally lead or contribute to them:

Activity required by the call	Foundation in PTX	Adaptations & partner contributions
Research data sovereignty frameworks aligned with EU legislation	Rulebook, ODRL Policy Registry, CIC/PRB governance	Research-specific legal regimes (GDPR research exemptions, AI Act, EHDS, third-country adequacy)

Activity required by the call	Foundation in PTX	Adaptations & partner contributions
Demonstration on concrete adoption cases	Driver data spaces (DS4SKILLS, HDT, LDS, DEPLOYTOUR, DS4SSCC) — the partners receiving this note	Each driver to define a research-data use case in cooperation with a research-infrastructure counterpart
Harmonised governance frameworks for enforcement	CIC/PRB governance model, transposable	Integration with EOSC Federation governance
Data provenance tools to trace and verify lineage	Data Veracity Assurance building block (Axis 3); ODRL provenance metadata	Interoperability with FAIR provenance (RO-Crate, ProvONE, DataCite)
Templates and guidelines for sharing, publication, reuse, licensing	ODRL Policy Registry as the substrate	Research-specific templates: data citation, AI-training licensing, FAIR licensing
Classification of critical data and risk management	Rulebook with sectoral extensions	Research-specific criticality (dual-use research, sovereign datasets)
Cross-discipline analysis of data categories	PTX cross-sector methodology	Domain-specific knowledge across sciences
Support centre integrated in the EOSC Federation	PTX onboarding patterns (Cohort, Passport)	EOSC Federation integration

7. What we need from you, and what we still need to secure

The data-space-side of the consortium is largely in motion. The piece we need to lock in is EOSC-side partnership. Without credible EOSC actors in the consortium, the bid will not pass — the Impact criterion of the call explicitly evaluates “coordination efforts and resources with other relevant projects and the European Open Science Cloud (EOSC) governance structure in the context of the EOSC Partnership”.

Priority EOSC-side targets, ranked

1. **OpenAIRE** — a core EOSC service provider, explicitly positioned as the bridge between EOSC and Common European Data Spaces. Approach already in motion.
2. **ELIXIR or EUDAT-CDI** — embedding one of them as a partner would limit potential competitive friction with EOSC-ENTRUST and bring research-environment depth.
3. **CESSDA, DARIAH or CLARIN** — at least one research infrastructure from social sciences or humanities to cover the cross-discipline dimension.

4. **At least one national EOSC node** — CSC (Finland), DKRZ or GWDG (Germany), BSC (Spain), CNRS or INRIA (France) — for sovereignty and federation credibility.
5. **EOSC Association** — at minimum as advisor or observer; ideally with a formal letter of support.

Concretely, here is what we ask of you

- **Warm introductions** — if you have working relationships with any of these actors, please flag them and offer to broker an introduction.
- **Network signal** — let us know which EOSC-side actors you would consider credible co-leaders, and which you would advise against.
- **Conflict check** — confirm by return whether you are committed or being courted for any competing consortium on this call, so we can plan accordingly.
- **Confirmation of intent** — confirm in principle that you intend to be part of the consortium as a driver or demonstrator, with a working assumption of one tangible interoperability use case toward EOSC to be defined together.

8. Indicative work package structure

The structure below is indicative and will be refined with the consortium. It reflects the CSA discipline — frameworks, integration and demonstration rather than core technical R&D — and aims to create clear ownership zones for each partner profile.

Work package	Indicative lead	Focus and outputs
WP1 — Coordination, governance and ethics	PTX or co-lead with EOSC partner	Consortium management, ethics, alignment with EOSC Partnership governance, risk and quality management
WP2 — Research data sovereignty: legal and policy frameworks	Legal partner (LDS and academic legal)	Mapping of research-data legal regimes (GDPR research exemptions, AI Act, EHDS, third-country adequacy); policy templates; ODRL extensions for research
WP3 — Trust frameworks and federation governance	EOSC-side partner	TRE and Five Safes integration; ethics review and data access committee interfaces; EOSC Federation governance integration
WP4 — Cross-data-space interoperability blueprint	Visions	DSIF adaptation for the EOSC context; identity, consent, contract negotiation, connector adapters across the data-space ↔ EOSC boundary
WP5 — Data provenance, classification and AI-ready data	Datacraft	Data Veracity Assurance combined with FAIR provenance (RO-Crate, ProvONE, DataCite); classification guidelines; AI-specific patterns (model cards, training-data lineage)

Work package	Indicative lead	Focus and outputs
WP6 — Driver data spaces: implementations and cross-data-space tests	Rotating, per driver	Each driver data space implements and tests one concrete cross-data-space exchange — with EOSC services and with at least one peer driver. Validated integration tests, reusable interoperability patterns.
WP7 — Support centre design and capacity building	EOSC-side partner	EOSC-federated support centre (blueprint and proof of concept); training, federated with Skills4EOSC; cohort onboarding adapted to the research community
WP8 — Dissemination, exploitation, sustainability of commons	PTX	Communication; alignment with DSSC, IDSA, Gaia-X and EOSC Association; sustainability of commons post-project; exploitation roadmap

On WP6, the implementations. WP6 is the natural home for the driver data spaces receiving this note. Each driver implements and validates one concrete cross-data-space exchange — with EOSC services, and with at least one peer driver in the consortium — producing reusable interoperability patterns that feed back into the framework work packages. The implementation and test dimension is explicit: this is where the bridge becomes operational rather than conceptual.