Call for Collaborative Data Science Infrastructure Projects

This document focuses on *Collaborative Data Science Infrastructure Projects* and outlines the terms of collaboration with the SDSC and the conditions of the call.

Please note that information and conditions applicable to all National Calls of the SDSC, such as ***Project Duration, Eligibility criteria, Resources granted in Collaborative Projects, and Domains and tracks,*** *are described in the* ***General documentation of the Second National Calls****.*

All second National Calls can be accessed here.

Collaborative Data Science Infrastructure Projects

The 2025 Call for Collaborative Data Science Infrastructure Projects supports community-driven, FAIR-aligned initiatives to design, prototype, or develop sustainable and reusable data science infrastructures with potential for lasting impact across scientific domains and institutions.

Projects in this call follow a collaborative infrastructure project lifecycle inspired by the design thinking approach. This process emphasises iterative prototyping, testing, and co-design with domain experts to deliver engineering-intensive, reusable solutions. Applicants should be prepared to commit resources and work in close collaboration with SDSC engineers to ensure that the resulting infrastructures are robust, standards-aligned, and capable of long-term adoption.

The call provides a transparent mechanism to allocate in-kind contributions from SDSC engineers. Selected projects will benefit from expertise in software engineering, data governance, secure and privacy-preserving infrastructures, semantic technologies, and machine learning systems.

This document outlines the additional guidelines specific to the Collaborative Data Science Infrastructure Call 2025.

Collaborative Infrastructure Project Lifecycle

Projects in this call follow a collaborative infrastructure project lifecycle structured around the design-thinking double diamond model (Figure 1). This lifecycle guides projects from understanding needs and formulating hypotheses, through iterative experimentation and prototyping, to the development and testing of mature infrastructure components as Minimum Viable Products (MVPs).

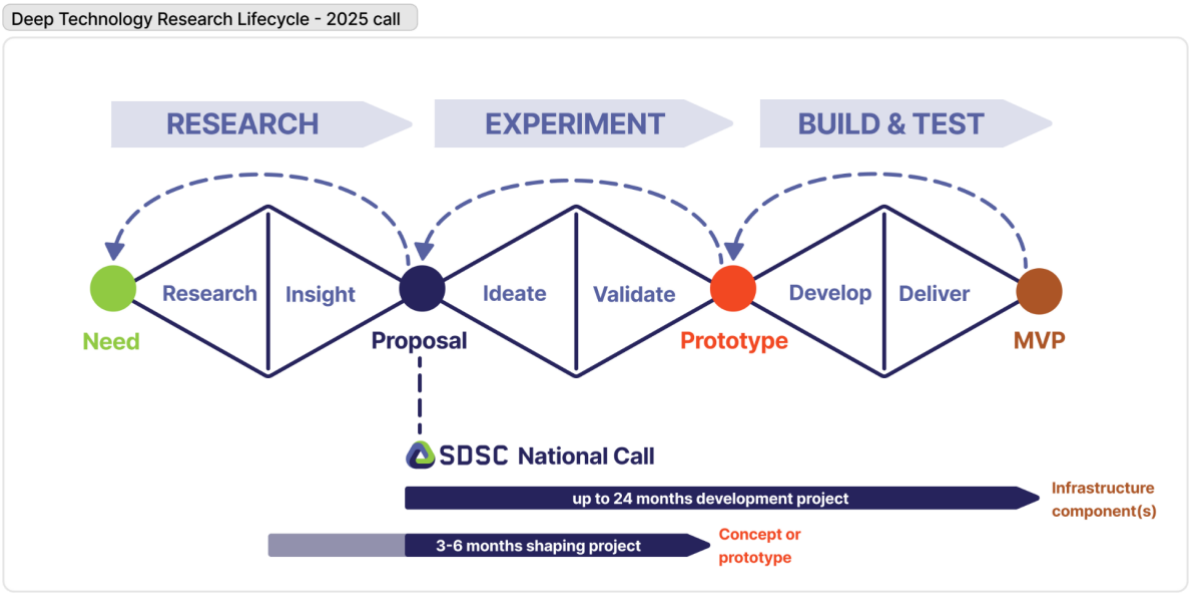

Figure 1. Collaborative Infrastructure Project Lifecycle *illustrating the double diamond phases (Research, Experiment, Build & Test) and the types of support offered by SDSC depending on project readiness.*

- The **Research phase** (need → insight) focuses on understanding user or community needs, competitive landscape, and initial problem framing. At this stage, the responsibility lies primarily with call applicants holding their domain expertise. SDSC involvement typically begins once the need is articulated in a *proposal*, although in exceptional cases, SDSC may provide guidance in shaping proposals.
- The **Experiment phase** (ideate → validate → prototype) is where SDSC support begins in earnest. Iterative exploration and prototyping allow for multiple concepts to be tested, without requiring mature infrastructure resources on the partner side. Outcomes clarify technical feasibility and next steps.
- The **Build & Test phase** (develop → deliver → MVP) continues prototyping and extends into the development of tested, reusable infrastructure components. These are deployed for evaluation in real-world contexts, providing the foundation for full platform investment and long-term sustainability.

Collaboration between the SDSC and selected projects is based on joint design, co-development, and shared responsibility for outcomes. SDSC experts typically co-lead technical work packages and provide sustained contributions throughout the project.

Regular interactions between project partners and SDSC staff are expected, including planning meetings, iterative development sessions, and project reviews. This close collaboration ensures that developed solutions are technically sound and aligned with the needs of the research communities they aim to serve.

Types of Projects

All projects supported under this call involve close collaboration with SDSC engineers and follow a design-thinking approach. Depending on the project stage of development and readiness, two types of support are available:

1. **Exploration and prototyping projects (3–6 months)**: Corresponds to the *Experiment phase* of the project lifecycle. Focused on ideation and validation, this phase explores needs and potential solutions, resulting in one or more prototypes or proof-of-concepts. It is intended for initiatives where the need is well articulated but institutional or technical conditions are not yet sufficient for operational deployment.
2. **MVP development projects (up to 24 months)**: Corresponds to the *Build & Test phase* of the deep tech research lifecycle. For projects meeting specific readiness and impact criteria, prototyping is extended into the development and testing of a Minimum Viable Product (MVP) — operational, reusable infrastructure components ready for adoption, integration, and scaling.

This distinction ensures that both early-stage initiatives and more mature projects can benefit from SDSC's expertise in ways suited to their level of readiness.

Application Procedure

The application process distinguishes between *Exploration and prototyping projects (3–6 months)* and *MVP development projects (up to 24 months)*:

- **Exploration and prototyping projects (3–6 months):** Apply once with a **pre-proposal only**. If selected, no full proposal is required.
- **MVP development projects (up to 24 months):** Apply first with a **pre-proposal**. Only projects that demonstrate a sufficient **stage of readiness** for infrastructure building will be invited to submit a **full proposal**. Projects not yet ready may be reclassified and supported for *Exploration and Prototyping* instead.

Phase 1: Pre-proposal Submission

All applicants submit via CMT:

1. **Short pre-proposal** (Word, max. 2 pages).
2. **Project Stage Assessment Form** (completed online and uploaded to CMT).

3. **Optional supplementary material** (e.g., roadmaps, architecture diagrams, or other supporting documents).

Optional audition: In the Project Stage Assessment Form, applicants may indicate their willingness to participate in a short audition (5-minute presentation, 20 minutes Q&A) to present their proposal and answer questions. Auditions are not required and will only be used as complementary input to support the evaluation process.

Phase 2: Full Proposal Submission (MVP applicants only)

Applicants invited to the second phase submit via CMT:

1. **Full Proposal Form** (Word, max. 5 pages).
2. **Letters of Support** (for projects requiring access to sensitive or restricted resources).
3. **Short CVs** of all applicants (max. 2 pages each).
4. **Optional supplementary material** (e.g., technical roadmaps, architecture diagrams, draft governance models, or other relevant documentation).

Timeline

- National Calls Opening Webinar — **Sep 9, 2025**
- Pre-proposal submission deadline — **Oct 27, 2025**
- Final decision on pre-proposals for *Exploration & prototyping* — **Dec 19, 2025**
- Invitation to submit full proposals — **Dec 19, 2025**
- Full proposal submission deadline — **Feb 27, 2026**
- Final decision on full proposals — **June 19, 2026**
- Start of collaborative projects — **September-December 2026**, or earlier upon agreement and resource availability for shorter projects.

Evaluation Criteria

Proposals will be evaluated by an expert panel according to the following criteria:

- **Impact:** Potential for scientific, societal, or community-wide benefits across institutions. Contributions towards sustainable and reusable data science infrastructures are particularly welcome.
- **Feasibility and risk assessment:** The objectives are realistic within the proposed duration. The proposal includes clear milestones, identification of potential risks, and mitigation strategies.
- **Commitment to collaboration:** The role of the SDSC is clearly described. Applicants commit sufficient time, domain expertise, and technical resources to co-design, iterate, and test solutions with SDSC engineers.
- **Reusability:** Potential for outcomes to be shared and reused beyond the immediate project context, and to build upon existing infrastructure solutions.
- **Stage of readiness and appropriateness:** Suitability of the project for the requested type of support (*Exploration and Prototyping* or *MVP Development*). Early-phase projects applying for MVP may be reclassified into prototyping.

- **Sustainability and adoption potential (MVP only):** Credible plans for long-term use, integration with existing infrastructures, and scaling across domains or institutions.
- **Clarity** – The project is described with sufficient detail, in a manner accessible to reviewers from different domains.

Contact

For questions on this call, please write to infrastructure-call@datascience.ch