

Engaging with the SDSC

Expertise, Collaboration Models, National Call

3rd National Call - Opening Webinar

26th August 2026

This webinar is being recorded.

Webinar Agenda & Protocol

Welcome & Protocol	Uta Ünal, Head of Communications
Engaging and collaborating with the SDSC	Olivier Verscheure, Executive Director
Introduction to the 2026 National Call Scope & Eligibility Criteria	Guillaume Obozinski, Deputy Director & Head of Research
Research Data Science Projects	Guillaume Obozinski, Head of Research
End-User Innovation Projects	Silvia Quarteroni, Head of Innovation
Data Science Infrastructure Projects	Oksana Riba-Grognuz, Head of Software Infrastructure Technology
Q&A	Silvia Quarteroni, Guillaume Obozinski, Oksana Riba-Grognuz, Olivier Verscheure, Michele Volpi (Domain Lead Climate & Environment), Roberto Castello (Domain Lead Energy & Sustainability), Alessandro Nesti (Domain Lead Digital Society), Benjamin Bejar (Domain Lead Large-scale Scientific Infrastructures), Uta Ünal
Closing	Uta Ünal

Introduction

The Swiss Data Science Center

Olivier Verscheure, Executive Director



Mission: Enabling data-driven science and innovation for societal impact

Switzerland's National Research Infrastructure for Data Science & AI

SDSC helps researchers, companies and public institutions navigate the full data lifecycle — from collection to insight, from proof-of-concept to impact — ensuring advances in data science and AI serve science, the economy and society.



2017

Founded by
EPFL & ETH Zurich

2021

PSI joins the
founding partners

2025

National Research
Infrastructure

2026

Headquarters
at Biopôle

120+

Data Science &
AI experts

3 x 5

Core Teams ×
Strategic Domains

SDSC offers domain-driven services built on shared foundations

↓ Communities enter here



Research

- Supporting applied research with ML & AI
- Methodological support to domain science

Innovation

- Industry/public sector bridge to academia
- Hands-on AI projects and tailored coaching
- Executive training and events

Engineering

- Reproducible and collaborative data science
- Privacy-centric, FAIR-aligned data governance
- Sustainable, reusable data science infrastructures



Verticals covering five key domains



Domain-specific, **community-driven services**



Built on shared **core services**



SDSC-internal vertical lead



External **Community Steering Groups**:
liaison between community & SDSC



Community representation in SDSC's
Steering Committee



Trusted AI-ready data infrastructure
as foundational block

Collaboration Models

How to work with the SDSC

Olivier Verscheure, Executive Director



How to work with us?



ETH-domain Funded Collaboration through Competitive Call

- Competitive call **twice a year**, fully funded by the ETH Domain.
- For **Swiss academic/research institutions and public administrations**.
- **6–9 months** to resource availability; projects last **6 months–2 years**.



Joint Application to Funding Programs

- SDSC support is **funded by the external programs/grants**.
- For **SMEs, NGOs/IOs, public offices, and academic labs**.
- Projects last **6 months–4 years**.



Paid Support

- **Directly funded by the project partner** and available **year-round**.
- Open to **all organizations**.
- Projects last **3 months–1 year**.

→ For more information, please reach out to contact@datascience.ch

3rd National Call

Collaboration Types, Eligibility, Strategic Domains

Guillaume Obozinski, Deputy Director and Head of Research



Objectives



In-kind support for projects with
strong impact for stakeholder communities and society.

In particular via

- The development of **Data Science / ML / AI** tools
- The production of new **Datasets** and **Data sources**
- Contributions to **Data Science Infrastructures**

Three broad categories of in-kind collaboration available

Research Projects

In **Collaborative Research Data Science Projects**, the SDSC contributes expertise in **statistical modeling, machine learning and AI**, including computer vision and NLP for **diverse application domains**.

0.5-1 FTE for 1-2 years

Innovation Projects

In **End-User Innovation Projects**, the SDSC aims to ensure that **novelty developed in academia or public sector** achieves its full potential in **end-user contexts**, serving a community or society at large.

0.5-1 FTE for 1 year

Infrastructure Projects

In **Collaborative Data Science Infrastructure Projects**, the SDSC supports initiatives to design, prototype, or develop **sustainable, reusable, FAIR-compliant data science infrastructures**.

- Proof of concept: 3-6 months
- Full project: 0.5 FTE for 1 -2 years

Expertise Request

A lighter form of support **consisting of a sequence of group working sessions** in which the SDSC provides neutral, authoritative **guidance** on initiatives carried out by partner institutions to optimize their chances of impact.

Calls for a fair allocation of resources

Robust Evaluation Process

The evaluation of our calls is carried out by rigorous panels of **internal and external experts**. This makes it possible to:

- **Identify & Engage**
Focus on highly impactful projects and strategic collaborations.
- **Ensure Fair Access**
Provide equitable allocation of SDSC's resources.

Track Record (Since 2018)

165

Collaborative Projects

Successfully engaged and supported through competitive national calls.

500+

Submissions Evaluated

Rigorous review of proposals received from institutions nationwide.

Eligibility



Project lead (PI - Principal Investigator)



Must be hired for the duration of the project at:

- **A Swiss Higher Education Institution**, or accredited under HEdA, including:
 - EPFL, ETH Zurich, PSI, Empa, Eawag, WSL
 - Cantonal Universities
 - Universities of Applied Sciences
- **A Swiss Research Facility of National Importance** (Art. 15 RIPA)
- **A Swiss Federal or Cantonal Administration**
- **A Swiss NGO or an international organization** with a strong presence in Switzerland.

Must have:

- Relevant qualifications
- Necessary resources to contribute to the project



Co-applicants (co-PIs)

Must be hired for the duration of the project at:



- **A not-for-profit institution ***

Must have:

- Relevant qualifications
- Necessary resources to contribute to the project

** Private companies may join as implementation partners in the Innovation Call*

Strategic Domains

*In our Call, proposals can be submitted to one of our **five strategic domains**, or to a general track.*

Health & Biomedical



Using AI and supporting infrastructures for biomedical data — enabling precise diagnostics, personalized treatment, and public health strategies — advancing research from lab to hospital.

Climate & Environment



Building AI models and data infrastructure to analyze Earth system data, mitigate climate change, and foster environmental research collaboration.

Large-Scale Infrastructures



Data science and AI for large-scale research infrastructures, from data acquisition and facility control to specialized large scale data processing and analysis, and end-user applications.

Digital Society



Deploying data science and AI approaches to drive inclusive digital transformation, empowering communities and strengthening public services and civic engagement.

Energy & Sustainability



Applying data science and AI to accelerate the transition to a low-carbon, resource-efficient future for Switzerland.

General Track

Strategic Domains

Subset of topics and activities in the *five strategic domains* and the general track.

Health & Biomedical



- Preventive & precision medicine
- Data infrastructures & interoperability
- Translational & clinical implementation
- Imaging & multi-modal data integration
- Time-dependent & longitudinal data

Digital Society



- Accessibility of services and rights
- Strengthening of public interest institutions
- Citizen engagement
- Open access & education

Climate & Environment



- Ecology & biodiversity
- Climate & weather modeling
- Natural hazards & pollution
- Hydrology & Earth system processes

Energy & Sustainability



- Energy efficiency & smart grids
- Renewable energies
- Built environment
- Green materials & mobility

Large-Scale Infrastructures



- Data acquisition & processing
- Instrument control & feedback
- Inverse problems & estimation
e.g. accelerators, sensing networks

Other Domains

- Biology, Physics, Chemistry
- Engineering Sciences
- Economics & Social Sciences
- Humanities

3rd National Call

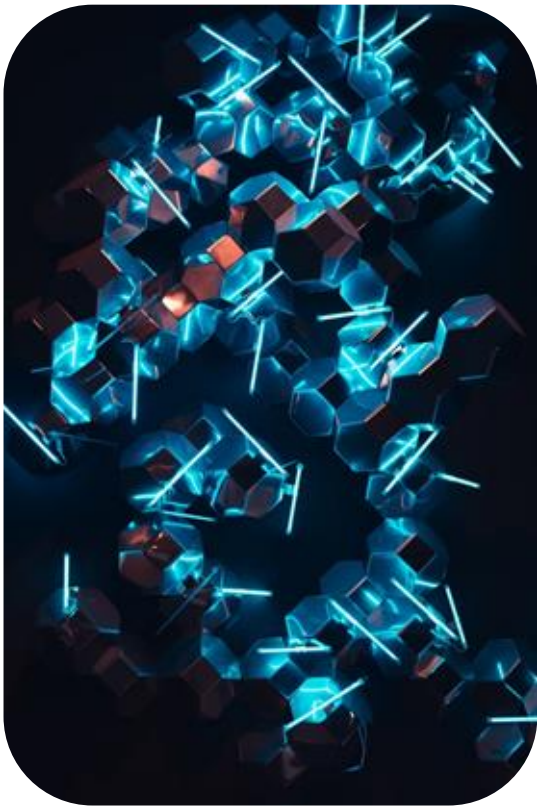
Collaborative Research Data Science Projects

Guillaume Obozinski, Deputy Director and Head of Research



Research Data Science Collaborations

Objective: Support technical and applied research projects requiring research-type methodology with statistical data science and AI & ML expertise.



How:

- Leveraging **state-of-the-art** AI & ML techniques
- **Designing** AI & ML formulations **tailored** to problem considered
- **Incorporating** domain experts' **prior knowledge** into models
- **Joint evaluations** of implemented models

Output:

- **Scientific code**, implementing algorithms or analyses
- Curated and openly accessible **datasets**
- **Publications/technical reports**

What does a Research Collaboration look like?

Health & Biomedical

I-DEEP-TRUST - Interpretable deep learning models for treatment decisions in acute ischemic stroke patients

Partner(s): USZ/UZH, Department of Neurology and Biomedical image Analysis group; ZHAW, Applied Statistics

Context: Medical decision support, identification patients to treat urgently

What we achieved: Multimodal integration of embeddings from tabular and image foundation models, together with distillation of target-relevant information for second stroke prediction

More info: [1st National Call projects](#)

Large Scale Infrastructures

LAMP - Lensless Actinic Metrology for EUV Photomasks

Partner(s): PSI, Advanced Lithography and Metrology Group, Center for Photon Science

Context: Chip manufacturing, metrology and quality control

What we achieved: Efficient and accurate reconstruction method for EUV ptychography leveraging data-driven priors and ideal mask design, reducing considerably the data acquisition demands.

More info: [Project overview](#)

What does a Research Collaboration look like?

General

Sustainable Masonry Automated by Reinforcement Learning

Partner(s): EPFL, Institute of Civil Engineering

Context: Automatic approaches for stone masonry can help re-using locally available resources, reducing the CO2 impact of the construction industry

What we achieved: A multi-stage RL pipeline for constructing masonry walls made of irregular stones. By splitting the process into optimal selection and placement, the method maximizes load-bearing capacity, leading to better-performing walls.

More info: [1st National Call projects](#)

Climate & Environment

High throughput eDNA processing using artificial intelligence for ecosystem monitoring

Partner(s): ETH Zurich

Context: Environmental DNA metabarcoding is a new approach to fine grained, non-invasive, monitoring of biodiversity. However, processing of such massive data requires precise data-driven approaches to extract relevant information.

What we achieved: ML-based end-to-end processing methods to achieve: i) representation learning from eDNA assemblages ii) fine grained, zero shot prediction of taxa. Open code and models.

More info: [Project overview](#)

What does a Research Collaboration look like?

Digital Society/Climate & Environment

A Mountain Biodiversity Knowledge Graph for Evidence-Based Assessment

Partner(s): University of Bern

Context: Crucial information for the definition of environmental policies is trapped in the vast corpus of biodiversity scientific literature

What we achieved: Developing a pipeline, based on models fine-tuned on expert annotations and synthetic data, to extract entities and relations from biodiversity PMC

More info: [1st National Call projects](#)

Climate & Environment

Towards Global Analysis of Atmosphere Particle Pollution Sources

Partner(s): EPFL, PSI, UC San Diego, UC Davis

Context: Global issue of particulate matter air pollution is associated with increase in excess mortality. Accelerating source attribution in monitoring networks for infrared spectra measurement with machine learning

Proposed approach: A probabilistic model of the measurement and an estimation procedure to reconstruct the concentration of chemicals - with better performance than classical PLS method.

More info: [2nd National Call projects](#)

3rd National Call

Collaborative End-User Innovation Projects

Silvia Quarteroni, Head of Innovation & Chief Transformation Officer



End-User Innovation Collaborations

Objective: Ensure that novelty developed in an academic or “R&D” context **achieves its full potential** in production/end-user contexts.



This includes:

- The **industrialization of research prototypes** in the form of data products or licenseable software with clear market potential;
- The **adoption** of data science solutions designed by academic/research organizations by **public sector entities** such as cantonal administrations or federal offices;
- The **translation** of machine learning models created in specific domains – e.g. clinical research – **into robust applications** serving end-users - e.g. practitioners and patients.

What does an End-User Innovation Collaboration look like?

Digital Society

Enhancing Digital Heritage using Generative AI

Partner(s): EPFL ECAL Lab, Bibliothèque Cantonale et Universitaire de Fribourg

Context: Archival institutions play a crucial role in preserving cultural identity

What we achieved: Indexed a vast, multi-modal collection, making it searchable and accessible to the general public via a booth in the Cantonal Library

Public inauguration on Sep 12

Climate & Environment

Using Data Science and Edge Computing for Debris Flow Warning

Partner(s): WSL

Context: Debris flows: severe flood-related hazards that endanger mountain communities

What we achieved: Combined portable seismic sensors with ML-based hazard recognition algorithms for a scalable, affordable early-warning system

More info: [Project overview](#)

What does an End-User Innovation Collaboration look like? (2)

Health & Biomedical

Identifying Effective Cancer Drug Combinations with Graph Neural Networks and Functional Profiling

Partner(s): KISPI, Balgrist, UZH

Context: Limited availability of effective drug combinations for relapsed/refractory cancer patients

Goals: Adapt a Graph Neural Network developed for a rare metabolic disorder to pediatric oncology. Embed the resulting pipeline in the LOOP AI-TumorBoard used by clinicians.

More info: [2nd National Call projects](#)

Energy & Sustainability

Fast Learning Algorithm for a Single Sensor Based Heating System Fault Detection (Expertise mandate)

Partner(s): FHNW

Context: Sensor data from residential heating/solar thermal system offers fault detection opportunity

Expertise we provided: Advice on feature engineering and evaluation/optimization of ML methods for forecasting and fault detection

More info: [1st National Call projects](#)

3rd National Call

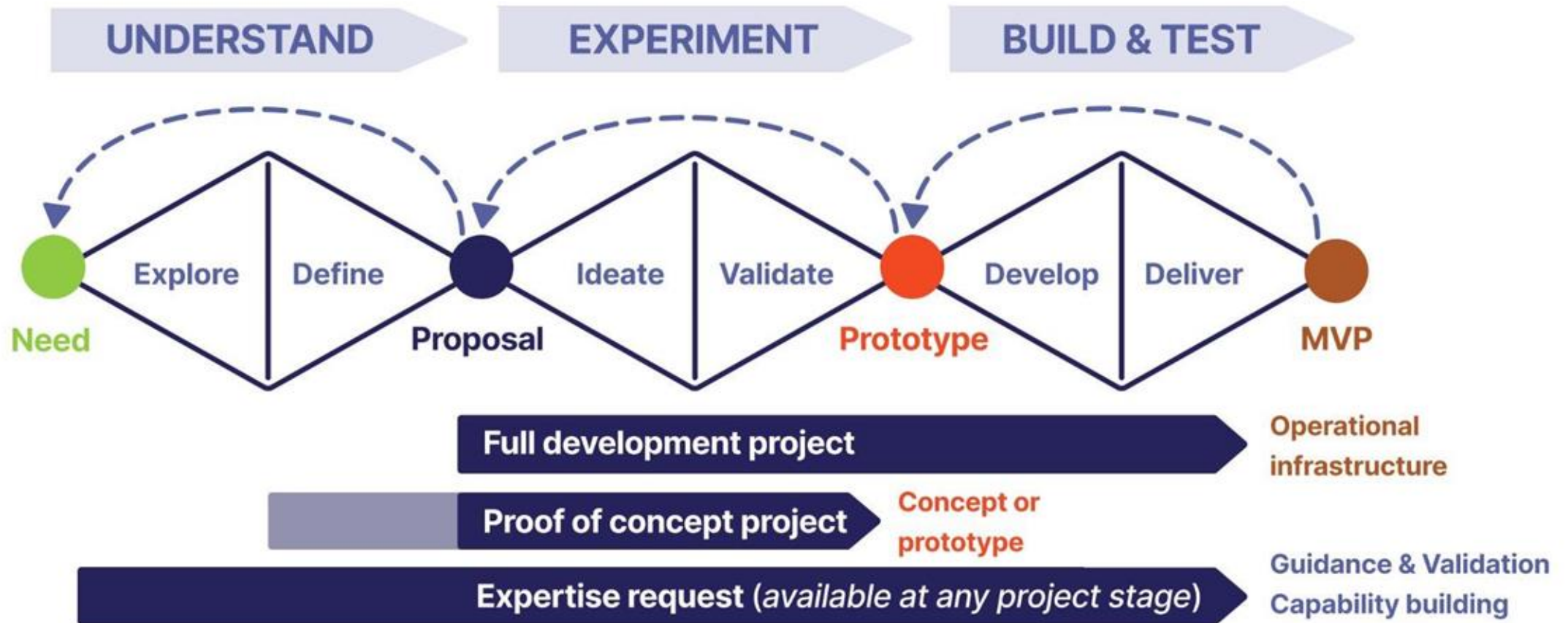
Collaborative Data Science Infrastructure Projects

Oksana Riba-Grognuz, Head of Software Infrastructure Technology, SDSC



Data Science Infrastructure Collaborations

Objective: Support research communities in designing, prototyping, and developing sustainable, reusable data science infrastructure with potential for lasting impact across domains and institutions.



What does a Data Science Infrastructure collaboration look like?

Health & Biomedical

ACROSS: Actionable, Collaborative, Reusable, interOperable Sepsis System

Partner(s): CHUV, Inselspital, KiSpi

Context: AI solutions developed in one hospital are difficult to transfer because clinical data and IT environments differ.

Infrastructure: A standardized, OMOP-based data layer and reusable framework enabling AI applications to be deployed across Swiss hospitals.

Expected impact: Interoperable and reusable clinical AI across hospitals, starting with sepsis and extending to broader clinical applications.

linkMore info: datascience.ch/projects/across-sepsis-system

Digital Society

MAVA: Multimodal Audio-Visual Analysis Cluster

Partner(s): UZH / LiRI, VIAN, TIB-AV-A, CLARIN-CH

Context: Audiovisual research tools use different data formats and workflows, limiting interoperability and data exchange.

Infrastructure: Shared APIs, data standards, and workflows connecting existing video-analysis tools through a modular framework.

Expected impact: Interoperable and reusable audiovisual research infrastructure, enabling new tools to integrate and connecting Swiss resources with European infrastructures such as CLARIN.

linkMore info: [1st National Call projects](#)

3rd National Call

Resources, Call Process, Timeline

Guillaume Obozinski, Deputy Director and Head of Research



Computational resources contributed in-kind by the SDSC

The SDSC covers **in-kind** computational resources including temporary storage + **CPU/GPU** at **SWITCH** or **CSCS** for:

SDSC Team

The work of **SDSC data scientists and engineers** supporting your project directly.

Project Partners

The **directly related data science or infrastructure work** carried out by the active project partners.



For collaborative **research projects**, an **estimation** of the required computational resources **should be included** in the proposal.

The effective computational resources **allocation** is **based on evaluations**.

Call Procedure



Collaboration and Expertise Request Form

Microsoft Form

- To be filled with simple administrative information, motivation & impact, objectives, SDSC expertise requested, resources contributed, etc.
- Should be submitted **at the latest on September 19th 2026** to be considered in the 3rd National Call.

Motivation, Impact and Objectives

9. Motivation and Impact

- What motivates you to undertake this project
- What impact do you foresee? For which stakeholders or community?

Please enter at most 2000 chars

10. Objectives

- What are the main objectives of this project?- How is overall data & software infrastructure engineering, data science & AI needed to attain them.

Please enter at most 2000 chars

SDSC Expertise and Services requested

In this section, you are invited to express the type of support needed and details of the expertise and services requested. Please see the call documentation for detailed descriptions of categories.

11. The support needed matches best:

- ☐ Expertise Request (set of session)
- ☐ Proof of Concept (PoC) project (3-6 months)
- ☐ Full project (1-2 year)

12. The request/collaboration requires SDSC support in

- ☐ ML, AI, NLP, computer vision, statistical data science
- ☐ Data and Software Infrastructure Engineering
- ☐ Deployment and AI/DS solutions for end-user settings

... Only a subset of the form questions is shown above for illustration purposes ...

Evaluation Criteria

Impact

- Project with **clear scientific and/or societal impact**
- A plus if the project benefits a **broader community**

Feasibility

- Objectives are **achievable** within **project duration**
- Potential **risks** are identified
- Corresponding **mitigation** strategies are proposed

Quality of Collaboration

- The **role** of the SDSC is **clear**
- The SDSC contributions are **needed** for the success of the project
- Collaborators are available to dedicate **sufficient** time, domain expertise, and technical **resources** to collaborate and support the project.

Data

- **Most data is accessible at start**
Exception: projects requiring DTUA/ethical approval (accessibility by May 2027 is fine)
- Appropriate data quality & quantity
- Acquisition plan guarantees additional **data delivered in time**

Clarity

- The objectives are described with **sufficient detail**
- The proposal is **accessible to non-domain experts**

Sustainability

For infrastructure projects:

- credible plans for **long-term use**
- **integration** in existing structures
- **scaling** across domains/institutions.

Timeline



**PoC: Proof of Concept*

Introducing the new Form

Expertise & Collaboration Request

Access our requests form to submit your collaboration proposal and expertise request need.

Direct link:

[SDSC Collaboration & Expertise Request Form](#)

More information on SDSC National Call webpage:

<https://www.datascience.ch/call-for-projects-2026>



Scan to Access

Point your camera at the QR code to open the form directly on your mobile device.

Q&A

SDSC 2026 National Call Opening Webinar | 26.08.2026

Thank you

For specific questions, please reach out:

research-collaboration@datascience.ch

innovation-collaboration@datascience.ch

infrastructure-collaboration@datascience.ch

www.datascience.ch