

Call for **Joint Initiatives** in the Strategic Areas of **Energy, Climate and Sustainable Environment** and **Engagement and Dialogue with Society**

1) Introduction:

The ETH Board is currently defining its **Strategic Areas for the period 2025-2028**. The Strategic Areas will be topics of particular societal importance where the institutions of the ETH Domain can make a significant impact, on their own as well as in cooperation. At the time of this communication, the Strategic Areas foreseen for 2025 – 28 are Human Health; Energy, Climate and Sustainable Environment; Responsible Digital Transformation; Advanced Materials and Key Technologies; Engagement and Dialogue with Society.¹

The ETH Board expects institutional activities and close cooperation and collaboration within the ETH Domain among its institutions on the five topics (see figure 1).

The Joint Initiatives for the two topics “**Energy, Climate and Sustainable Environment**” and “**Engagement and Dialogue with Society**” will start in 2022.

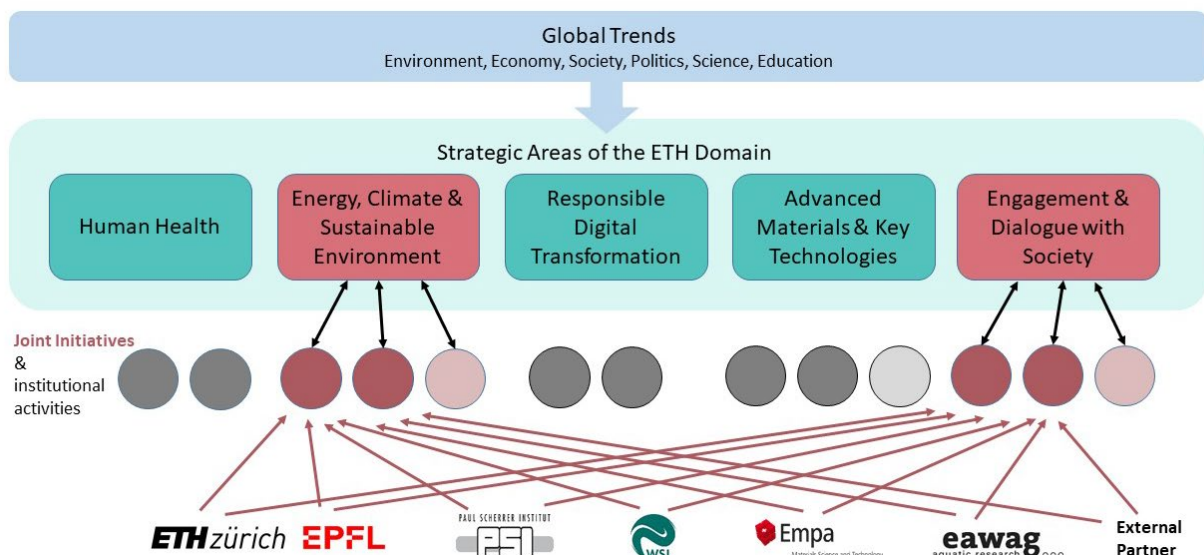


Fig 1: Addressing challenges of global trends in environment, economy and society, the five strategic areas of the ETH Domain for the period 2025-28 aim at creating sustainable impact through institutional activities and in particular, through strategic collaborative Joint Initiatives between institutions.

Joint Initiatives are large, time-limited, strategic collaborative initiatives in one or more Strategic Areas of the ETH Domain. They should include at least two institutions of the ETH Domain and cannot be realized without seed funding. Exceptionally proposals can be submitted by one institution of the ETH Domain with an external partner if that partner is essential for the ETH Domain to create critical impact.

Joint Initiatives include cash or in-kind contributions by all partners and will be co-funded by the ETH Board on the basis of matching contributions (i.e., at most 50% of the cost of the Joint Initiative will be funded by the ETH Board).

¹ Besides these defined Strategic Areas, the ETH Board emphasizes the importance of **fundamental discovery science** as the cornerstone of all the ETH Domain institutions' research activities.

2) Remit of the Strategic Areas targeted in this call:

a) Energy, Climate and Sustainable Environment

As scientifically demonstrated, the unsustainable use of fossil resources, industrial processes, inappropriate land use, intensive agriculture and non-circular use of materials cause climate changes and environmental degradation affecting the environment, biosphere and humankind. The reduction of CO₂ and other greenhouse gas (GHG) emissions, the transition from a linear to a circular economy, sustainable consumption and production and the halt and reversing of the loss of biodiversity and ecosystem services are the solution to this problem. The interdependencies of the challenges related to climate, energy and environment require an integrated problem-solving strategy. The strategies guiding the energy transition and future economic, industrial, urban and landscape developments must incorporate sustainability principles by identifying measures that can simultaneously counterbalance climate changes while preserving natural resources and biodiversity. Severe time constraints confront society, which calls for immediate actions to mitigate and avoid devastating environmental changes.

Activities in this Strategic Area will cover the entire value-creation chain – from enhancing education and basic research to product-specific development and pilot and demonstration projects. For the ‘net-zero’ (GHG) component of this Strategic Area, the activities focus on: (i) avoidance and reduction of CO₂ emissions; (ii) removal from the atmosphere, reuse and storage of CO₂; (iii) monitoring and assessment of impacts and (iv) implementation of NetZero campuses.

In terms of loss of biodiversity, climate change and sustainable land use, there is a requirement for integrative solutions linking ecosystems, land use interests and various stakeholders. The development and incorporation of advanced monitoring methods and the generation of sophisticated local and global models facilitates the prediction of biodiversity dynamics in response to climate and land-use change, estimating GHG emissions and assessing effective mitigation and restoration measures of damaged ecosystems and global warming.

Activities of the ETH Domain-Institutions may address threats and synergies between the following areas: (i) ecosystem services/biodiversity and climate/energy change, (ii) sustainable land use and restoration to preserve ecosystem services, (iii) limitation of alien species and pathogens, (iv) development of nature-based concepts for adaptation to climate change and (iv) fostering biodiversity enhancement and human well-being.

This call is in line with the biodiversity strategy² and action plan³ and the 2030 Sustainable Development Strategy⁴ of the Federal Council, which targets a 50 % reduction of GHG emissions, compared to 1990 and a reduction to net-zero by 2050. It will actively support the Swiss Energy Strategy 2050 of the Federal Council⁵ and its long-term climate strategy to 2050.⁶

² [Swiss Biodiversity Strategy](#)

³ [Action Plan for the Swiss Biodiversity Strategy](#)

⁴ [2030 Sustainable Development Strategy](#)

⁵ [Energy Strategy 2050](#)

⁶ [Long-term climate strategy to 2050](#)

b) Engagement and Dialogue with Society

With this call, the ETH Domain aims to foster a proactive, open-minded and responsible dialogue with society on challenges of global trends in environment, economy, and society, politics, science and education and potential solutions. Joint Initiatives in this field could (i) provide context to scientific insight, (ii) support the formation of cooperative partnerships with societal actors to translate research into concrete solutions and policies, thereby (iii) develop transdisciplinary skills and train a new generation of professionals to be leaders in a world of complex challenges and rapid change.

Today's global challenges are becoming more complex, interconnected and rapidly evolving than ever. Advances in science and technology are no longer sufficient to meet these challenges, as their implementation requires social and cultural acceptance, legal and regulatory frameworks, financing, and government support. Public opinions, including the perception of reliability of scientific insights, are increasingly influenced by a variety of new media channels, platforms and information flows, which are reinforced by digital algorithms. Therefore, the scientific community not only bears a responsibility to make scientific findings accessible to the public by using innovative communication strategies and creative information dissemination channels, but must equally address mistrust in science and research, better communicate how scientific knowledge evolves with time, and expand conventional roles, moving from unidirectional knowledge transfer to a cooperative framing of issues and co-production of knowledge.

To strengthen the exchange between science, politics, and society, Joint Initiatives in this field require cooperation both within and beyond the ETH Domain. With its excellence in teaching, research and knowledge transfer, the ETH Domain is ideally positioned to set new standards for outreach and policy advice and to promote the implementation of scientific findings in Switzerland and beyond. Joint initiatives in this field shall enable creative and innovative processes and strategies of linking science and society to enhance the exchange of information. Fostering knowledge exchange between ETH Domain experts, specialists from cantonal universities, universities of applied sciences and actors from society (politics, administration, the economy and civil society organizations, NGOs and the public including the younger generation) shall facilitate the uptake of innovation and evidence-based policy-making in Switzerland.

Joint Initiatives in this field can draw insights from experiences of ETH Domain institutions in research, education, and knowledge and technology transfer. Examples are the National COVID-19 Science Task Force with experts from across the Swiss academic landscape or the Lab for Science in Diplomacy in Geneva. Ongoing programmes foster public dialogue and exchange, for example on topics related to climate, energy, public health, and urban development. Similarly, educational outreach programmes contribute significantly to engaging public interest and attracting young people into STEM (Science, Technology, Engineering, and Mathematics) fields. The institutions of the ETH Domain also host and/or participate in platforms designed to share open data, models, and technical guidance. These serve as an excellent basis for open dialogue. Moreover, research platforms can provide access to technical infrastructure and support synergies with industry. Finally, the engagement and inclusion of implementation partners in developing and conducting research projects such as for example in the Engineering Humanitarian Aid initiative of ETHZ, EPFL and ICRC, help to foster the ultimate uptake of project outcomes in policy and practice. Joint Initiatives of the Strategic Area "Engagement and Dialogue with Society" will continue, improve, and increase these activities, thereby enhancing the visibility and impact of existing and future research of high societal relevance. They will holistically support input from the society that extends from the initial identification of needs to the ultimate utilisation of scientific results.

3) Scope of the call:

- Joint Initiatives relate to at least one of the Strategic Areas targeted in this call and involve at least two institutions of the ETH Domain.
- Joint Initiatives shall exploit (i) the potential lying in the diversity of disciplines within the ETH domain and (ii) align the spatially distributed competencies within the disciplines. Traditionally, networking is an established asset in science and will become vital for the future due to the dimensions of the challenges we are facing and the limited resources. The Joint Initiatives programme provides the seed funding to explore new ways of cooperation.
- Joint Initiatives address the question: “How to best serve Switzerland?” when defining their contribution to one of the Strategic Areas and their impact. The Joint Initiatives must create solutions of global and/or national relevance (e.g. national platforms) and achieve a tangible impact on society in Switzerland and beyond.
- Joint Initiatives require a high level of inter-institutional coordination and cooperation that an individual institution cannot bear alone to achieve excellence at the national and international level.
- Joint Initiatives should have a long-term horizon and lead to new institutionalised forms of collaboration within the ETH Domain and beyond.
- **Excluded are:**
 - projects that receive or are eligible for financing by national research and innovation funding agencies (e.g. SNSF, Innosuisse).
 - projects considered as national infrastructures for the Swiss Roadmap for Research Infrastructures 2023.
 - projects submitted to the call for Open Research Data (ORD) activities in the ETH Domain.

4) Eligibility Criteria

A team of at least two leading applicants from at least two different institutions of the ETH Domain may submit applications. As an exception and only if required to achieve the aim of the Joint Initiative or its impact, one of the leading applicants may be from a partner institution outside the ETH Domain.

All leading applicants must be employed permanently or in a tenure track program, covering the duration of the proposed Joint Initiative, and in a position to carry out projects under their responsibility and to lead/employ project staff both scientifically and as personnel.

5) Budget and Eligible Costs

The maximum total budget for matching funds by the ETH Board foreseen per Joint Initiative call is:

- **Strategic Area Energy, Climate and Sustainable Environment:** CHF 30 Mio over three years, with the possibility of a 3-year extension (see also 8) Follow Up).
- **Strategic Area Engagement and Dialogue with Society:** CHF 9 Mio over three years, with the possibility of a 3-year extension.

Within this budgetary frame, the Steering Committee intends to propose to the ETH Board a small number of Joint Initiatives per Strategic Area for funding.

Eligible costs:

- Eligible are costs directly aimed towards achieving the goal of the Joint Initiative. These may include:
 - materials and equipment,
 - networking activities, public events and workshops,
 - knowledge and technology transfer activities (incl. communication, dissemination, exploitation) as far as they can't be covered by other means,
 - salaries of project staff and other costs directly attributable to achieve the aim of the Joint Initiative.
- Not eligible are:
 - the applicants own salaries and costs for research activities that fall within the scope of a project, already receiving or being eligible to receive funding from national research and innovation funding agencies (e.g. SNSF, Innosuisse) or
 - is considered as national infrastructures included in the current or proposed for the next Swiss Roadmap for Research Infrastructures
 - or duplicates funding from the Open Research Data (ORD) calls in the ETH Domain.

Co-funding:

- The ETH Board will finance 50% of the total costs of a Joint Initiative. ETH Board co-funding is only available for ETH Domain institutions. The applicants are responsible to secure the commitment for matching funds from their institutions. The institutional contribution can be in-kind or in-cash. Management costs for the initiative should be included in the institutional contribution. The applicant institutions are free to decide how to distribute their co-funding commitment amongst themselves.
- At the full proposal stage, each applicant must submit a commitment letter from their institution and identify the total amount (including in-kind) and source of the matching contribution (see also: 6) Application).

6) Application

Proposals are submitted and selected in a two-stage procedure: based on a successful pre-proposal, an invitation follows to submit a full proposal. Pre- and full proposals are to be submitted in English using the templates provided in the Annex. The proposals must address all points given in the template. Applications (pre-proposals and full proposals) must be submitted **via email to grants@psi.ch** at the latest **28 February 2022 for Pre-Proposals** and **14 April 2022 for Full Proposals** (see Important Dates).

By submitting the pre-proposal, the applicants confirm that the participating institutions have been informed of the application and agreed in principle to provide the necessary matching contribution if the proposal is successful (see 5) budget and eligible costs).

At the full proposal stage, each participating institution must sign a commitment letter, using the template provided in Annex C.

7) Evaluation and Communication

The Steering Committee assesses the submitted pre-proposals based on the scope of the call. An invitation for a full proposal follows if a pre-proposal passes the assessment.

A scientific review committee of national and international experts for each strategic area evaluates the full proposals based on the evaluation criteria below. The scientific review committee will provide the Steering Committee with a rank-ordered list. The Steering Committee proposes a list of Joint Initiatives for co-funding to the ETH Board, which approves the ETH Domain Joint Initiatives for funding.

The following criteria apply for proposal evaluation:

- The Joint Initiative addresses a current challenge within the Strategic Areas **Energy, Climate and Sustainable Environment** and/or **Engagement and Dialogue with Society**. The chosen challenge aligns well with the expertise of the ETH Domain, and the ETH Domain can provide a substantial contribution.
- The contributing institutions are committed to inter-institutional coordination and cooperation to achieve a new institutionalised form of collaboration within the ETH Domain and beyond (e.g. provision of a national platform/centre/task force etc.)
- The proposal has a clear strategy on how to achieve tangible impact beyond the duration of the project. This includes the description of anticipated products, outcomes and processes that will initiate the targeted change and a plan for how to identify, address and involve specific target groups in order to best serve Switzerland.
- The proposal includes a Knowledge & Technology Transfer strategy including appropriate budget allocation.
- The Joint Initiative ensures the long-term competitiveness of ETH Domain research in the selected Strategic Area at an international level.
- The team of applicants has the right combination of expertise and skills to deliver the aims of proposed Joint Initiative.

8) Follow Up

A Management Office with dedicated Scientific Officers will (i) act as contact points for the communication between the Joint Initiatives, the Steering Committee and the ETH Board, (ii) be in charge of the management of the evaluation process, and (iii) support the Joint Initiatives during implementation.

The [Steering Committee](#) may suggest to applicants to join forces with similar Joint Initiative proposals to maximise the value of the available funding. In order to optimise potential synergies, titles and contact names of all successful pre-proposals will be shared among the applicants invited to submit a full proposal.

Initial funding is granted for 3 years. Only in justifiable cases, a single extension of funding for another 3 years is possible. Details about this process will be communicated at a later stage of this process.

The selected Joint Initiatives will provide a detailed implementation plan, which must be approved by the Steering Committee. Each Joint Initiative must submit a mid-term and a final report.

Important Dates:

Pre-proposal submission deadline	28 February 2022
Information of applicants invited to submit full proposals	15 March 2022
Full proposal submission deadline	14 April 2022
Information of successful applicants	15 July 2022
Earliest start of Joint Initiatives	September/October 2022

Contacts:

For administrative questions regarding the call:

[Dr. Michèle Erat \(PSI\)](#)

Scientific Officer in the area of **Energy, Climate and Sustainable Environment:**

[Dr. Jörg Roth \(PSI\)](#)

Scientific Officers in the area of **Engagement and Dialogue with Society:**

[Dr. Astrid Bjørnsen \(WSL\)](#) and [Regula Meierhofer \(eawag\)](#)

Frequently asked questions will be made available on the call website: <https://www.psi.ch/de/strategic-areas-eth-domain/joint-initiatives-eth-domain>

Annexes:

A) Template Pre-proposal

B) Template Full-proposal

C) Template Commitment Letter of the contributing institutions

Annex A) Pre-proposal template for Joint Initiatives

(max. 3 pages, fontsize: 11pt Arial, margins: 2 cm)

Pre-Proposal for a Joint Initiative 20XX–20XX of the ETH-Domain:

Joint Initiative (Name) in the Strategic Area (Name)

Contributing Institutions:

External partners (if applicable / please justify):

Main contact (name and email address):

Proposal description**a. Purpose of the Joint Initiative and National Relevance**

Lead questions: What is the aim of the Joint Initiative? How does it address a current challenge of national relevance within the Strategic Area(s) concerned? What is the vision for inter-institutional coordination and cooperation and why is it essential? Why is it important to address this challenge now?

b. Current Situation of the Thematic Area

Lead questions: What are common practices and the state-of-the-art in this thematic area? Why are available funding instruments (SNF/Innosuisse/ETH Domain ORD measures) not suitable to achieve the aims of the Joint Initiative?

c. Activities and Actors

Lead questions: What are the main activities planned during the course of the Joint Initiative? Who are the key members of the applicant team? Briefly describe the expertise and skills the team combines to deliver the aims of proposed Joint Initiative.

d. Expected Outputs and Outcomes

Lead questions: What are the expected outputs and outcomes from the Joint Initiatives within the three-year funding period?

e. Intended Long-term Impact

Lead questions: How will the Joint Initiative create a tangible impact on society beyond the three-year funding period? What measures are planned during the Joint Initiative in order to enable such long-term impact?

Cost estimate:

Total cost	
Request to the ETH Board (max 50% of total costs)	
In-kind and/or cash contributions from the involved institutions	
Other sources of financing given into the ETH Domain e.g. external partners like hospital, industry, government, NGO; donation.	

By submitting this pre-proposal, we confirm that the participating institutions have been informed of the application and have expressed their intent to provide the necessary co-funding if the proposal is successful.

Place(s) and Date(s):

Names and signatures of the leading applicants:

Annex B) Proposal template (max. 10 pages excl. finance table, fontsize: 11pt Arial, margins: 2 cm)**Proposal for a Joint Initiative 20XX–20XX of the ETH-Domain:***Joint Initiative (Name) in the Strategic Area (Name)*

Contributing Institutions:

External partners (if applicable):

Main contact (name and email address):

a. Purpose of the Joint Initiative and National Relevance*Lead questions: What is the aim of the Joint Initiative? How does it address a current challenge of national relevance within the Strategic Area(s) concerned? Why is inter-institutional coordination and cooperation essential for achieving this aim? Why is it important to address this challenge now?***b. Current Situation of the Thematic Area***Lead questions: What are common practices and the state-of-the-art in this thematic area? Why is the ETH domain best placed to provide a substantial contribution in this area? How will the proposed Initiative leverage ongoing efforts within the ETH Domain or build up capacity in order to achieve a step-change in ETH Domain's capability to have a positive effect in this thematic area? Why are available funding instruments (SNF/Innosuisse/ETH Domain ORD measures) not suitable to achieve the aims of the Joint Initiative?***c. Activities and Actors***Lead questions: What are the main activities planned during the course of the Joint Initiative? Who are the key members of the applicant team? Briefly describe the expertise and skills the team combines to deliver the aims of proposed Joint Initiative.***d. Expected Outputs and Outcomes***Lead questions: What are the expected outputs and outcomes from the Joint Initiatives within the three-year funding period? Which concrete problems does the proposed solution solve and why is this solution better than existing ones? What is the knowledge and technology transfer strategy?***e. Sustainable Long-term Impact***Lead questions: How will the Joint Initiative create a tangible impact on society beyond the three-year funding period? Please provide a detailed plan for measures aimed at enabling long-term impact. What form of new institutionalized form of collaboration within the ETH Domain and beyond will this Joint Initiative initiate and how will it be sustained beyond the three-year funding period?***f. Organisation***Lead questions: Why are the partners in this proposal best placed to deliver this Joint Initiative? Why does this Joint Initiative require inter-institutional coordination and cooperation that goes beyond the capabilities of a single institution and how will this be achieved? (If external partners are included: What is the added value of the external partner for this Joint Initiative?)***g. Implementation and Management:***Proposed management structure of this Joint Initiative? Project Plan, description of Work Packages and SMART⁷ Milestones Identification and description of the main risks for the implementation of the proposed project and proposed mitigation strategies. Templates for deliverables, milestones and risk assessment will be provided together with the invitation to the full proposal.*⁷ SMART = Specific, Measurable, Attainable, Relevant, Time-bound

Cost and Financing

	Months 1-18	Months 18-36
Personnel Costs		
Equipment > 100 k CHF		
Other costs		
TOTAL COSTS		
Co-funding request from ETH Board		
Institutional contributions (institution 1)		
Institutional contributions (institution 2)		
...		

Justification of Resources (max 1 page)**Application for** (give number of foreseen positions for each type)

PhD student(s)		Technician	
Postdoc		Scientist	
Intern		Other	

Justification of foreseen staff

Text

Justification of equipment > CHF 100k

Text

Justification of other costs

These may include:

- Consumables and equipment < CHF 100k,
- networking activities, public events and workshops,
- knowledge and technology transfer activities (incl. communication, dissemination, exploitation) as far as they can't be covered by other means,

***Please note that you must provide a letter of commitment for each participating institution based on the template provided in Annex C)**

Place(s) and Date(s):

Names and signatures of the leading applicants:

Annex C) Template Letter of Commitment from participating institutions

To be signed as follows:

- at ETH Zurich by the Head of Department
- at EPFL by the Dean of School
- at Eawag by the Director or Deputy Director
- at Empa by the Head of Department
- at PSI by the Head of Division
- at WSL by the Director

Written confirmation of the institution

The **[name department/institution]** confirms that it supports the application for a Joint Initiative entitled **[name initiative]** proposed by **[name main PIs]** and, in case of successful evaluation of this proposal, commits to make the following contributions over the course of the funding period:

[detailed contribution]

For the **[institution]**

Place(s) and Date(s):

Names and signatures:
