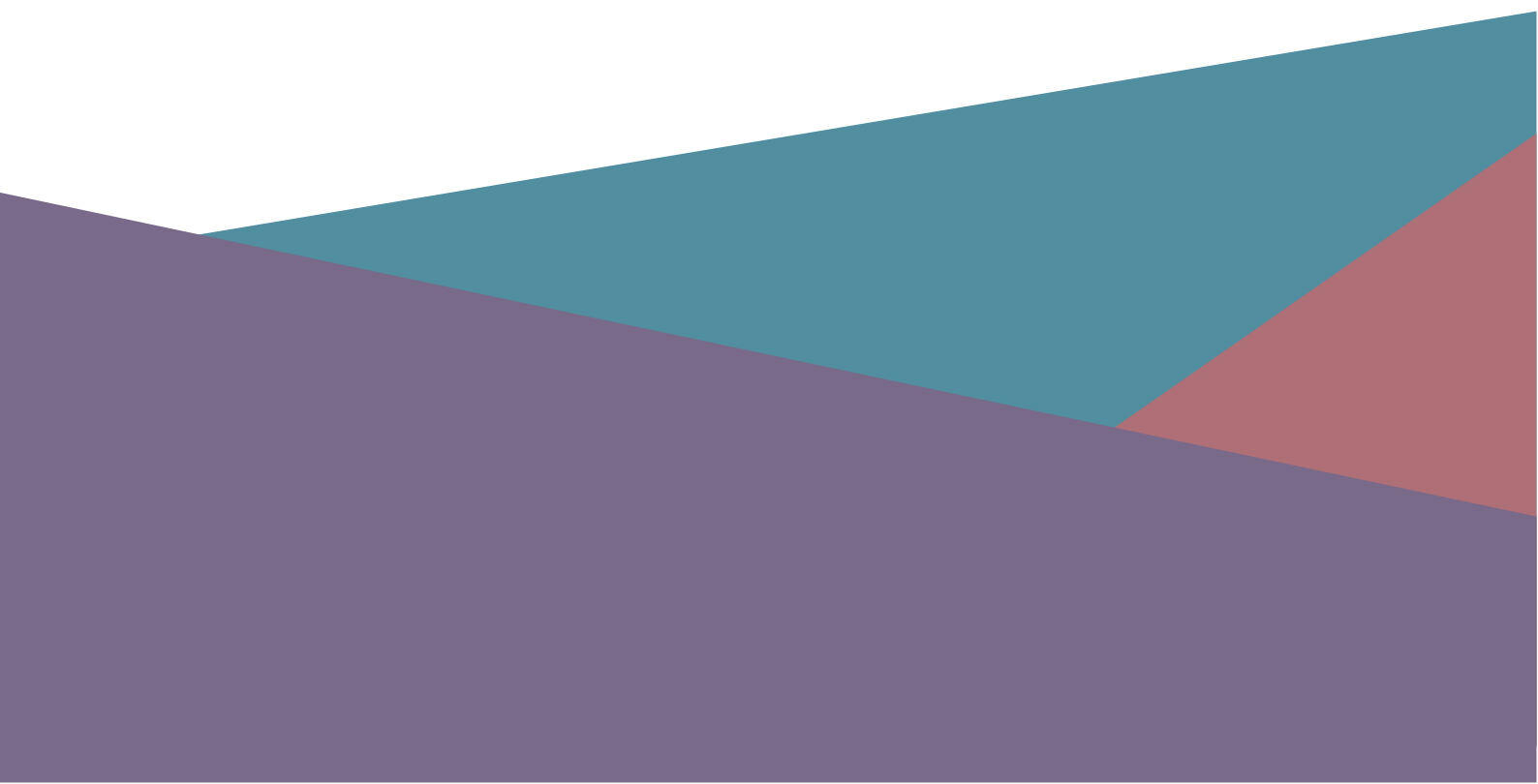


RESPONSE OF THE ETH BOARD TO THE RECOMMENDATIONS OF THE EXPERT COMMITTEE INTERMEDIATE EVALUATION OF THE ETH DOMAIN 2023

Adopted by the ETH Board
at the meeting of 20/21 September 2023



Response of the ETH Board | Intermediate Evaluation 2023 of the ETH Domain |
Adopted by the ETH Board at the meeting of 20/21 September 2023

ETH zürich

EPFL

PAUL SCHERRER INSTITUT
PSI

 Swiss Federal Institute
for Forest, Snow and
Landscape Research WSL

 **Empa**
Materials Science and Technology

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1. Introduction and Main Points

Every four years, half way through its funding period, the ETH Domain undergoes a thorough evaluation by a group of national and international experts mandated by the head of the Federal Department of Economic Affairs, Education and Research (EAER).

The ETH Board would like to thank the Expert Committee of the 2023 Intermediate Evaluation for its in-depth examination of the ETH Domain and its institutions. The examination of the current strengths and weaknesses as well as the productive exchange and stimulating discussions resulted in forward-looking recommendations that are both supportive and challenging. The implementation of these recommendations will support the ETH Domain's development to the benefit of Switzerland's education and research sector, economy and society.

The ETH Board is pleased by the experts' overall assessment of the exceptional quality of the ETH Domain institutions. The ETH Board is also satisfied that the experts have noted significant progress since the last Intermediate Evaluation in 2019 and is aware of the need to continue its constant reflection on how best to further improve the performance and the impact of the ETH Domain and to respond to upcoming challenges.

In this Response to the Recommendations of the Expert Committee, the ETH Board addresses each of the recommendations and presents its considerations and ongoing activities with regard to the points raised by the experts. This is followed by "action lines" with which the ETH Board and the ETH Domain institutions intend to address the recommendations at a general, domain-wide level. More concrete measures are subsequently developed and implemented at the level of the individual institutions.

The ETH Board believes that it is crucial for the ETH Domain institutions to maintain their ability to compete with the best institutions worldwide and to remain the flagship of the Swiss education, research and innovation (ERI) sector. Through their excellence in teaching, research and knowledge and technology transfer (KTT), the institutions of the ETH Domain enhance the attractiveness of the Swiss ERI sector as well as the prosperity and competitiveness of Swiss society and the Swiss economy.

In response to the Expert Committee's report and recommendations, the ETH Board considers the following points in particular to be essential for the successful development of the ETH Domain:

- The institutions of the ETH Domain give the highest priority to research-based teaching. They continue to take the necessary action to maintain and improve the **quality of education** in the long term and in the context of a growing student population – an important contribution to help counteract the shortage of experts in Switzerland. They pay particular attention to assessing the relevance of educational programmes in light of the present and future demands of the economy, industry, research and the public sector.
- The institutions of the ETH Domain continue to perform **research** at the highest level and contribute to anticipating and resolving the most pressing local, national and global challenges. Attracting and retaining the best talent is a major condition for ensuring excellence. Another key factor in the ETH Domain's international attractiveness are Switzerland's first-class **research infrastructures**. The institutions of the ETH Domain further strengthen their leading role in conceptualising, developing, operating and upgrading large-scale research infrastructures and platforms.

- The institutions of the ETH Domain actively contribute to Switzerland’s innovative capacity by further strengthening their key role in **knowledge and technology transfer** for the benefit of the economy and industry (young companies as well as SMEs and established companies), the public sector and society. They continuously develop their KTT instruments to enable simple and straightforward processes.
- The ETH Board and the institutions of the ETH Domain are engaged in a future-oriented discussion on the mission of the ETH Domain and, building on this, on the question of strategic orientation and the **optimal structure** as one of their central tasks and responsibilities. They evaluate various options on how to best position and organise the ETH Domain to meet future needs.
- The institutions of the ETH Domain further strengthen an inclusive and **respectful culture** and working and studying environment, recognising that inclusion is key to realising the full potential of diversity. They build on existing policies to develop and implement a corresponding strategy.
- The institutions of the ETH Domain contribute to the translation of research into concrete solutions and policies in order to respond promptly to urgent challenges by intensifying the **dialogue** between academic actors, public authorities and society. They play a leading role in the development and implementation of the strategies to improve the involvement of the scientific community in future crisis situations.

In order to address the above aspects, **the corresponding political and financial framework conditions are indispensable**. The Expert Committee mentions the following points, which the ETH Board would like to underline:

- **International openness:** To compete at the highest international level, to attract the best talent and to maintain excellence, international openness and multilateral scientific collaborations are essential. Switzerland's full association with the EU Framework Programme for Research and Innovation Horizon Europe, Digital Europe, Euratom Research and Training Programme and ITER is of utmost importance for the ETH Domain.
- **Stable and reliable funding:** Only with sufficient financial resources can the ETH Domain continue to fulfil its flagship role for the Swiss ERI sector and – in a context of growth in student numbers – maintain the quality of education and meet the demands of economy, industry and the public sector for highly qualified personnel.

2. Response of the ETH Board

2.1. Quality and relevance of education

Recommendation 1¹: Assess and develop the quality and relevance of education

- Assess the relevance of education programmes to the present and future needs of the Swiss economic and administrative fabric (in terms of number of students educated, educational content and objectives) in a demand-driven and not offer-driven way. This relevance should last beyond first employment and the programmes should provide sustainable skills to the graduates.
- Beyond a general assessment of student satisfaction and employability, measure different dimensions of educational quality and fix objectives to be achieved in developing the quality of education. In addition, promote relevant pedagogical innovation in teaching and learning and include benchmarking with other institutions.
- Include in this approach measures to create a culture that encourages the success of competent and motivated students, both at the beginning of the Bachelor's programme (to avoid discouraging them), and over the course of degree programmes.
- Include a reflection on the objectives and methods of assessing students' knowledge and skills, taking into account novel and diverse ways of testing.
- Ensure the best conditions for mentoring of doctoral students and continue to introduce a variety of forms of doctoral training.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

Demand-driven education is very important in order to have an impact on practice and stakeholders and to fulfil the mandate granted by the ETH Act – i.e. to enable students to become the experts needed by the economy, industry, research and the public sector. In fact, the ETH Domain's educational offering is already largely demand-driven. ETH Zurich and EPFL have advisory boards from industry at departmental / school level. Moreover, master programmes and new master proposals are required to demonstrate that graduates will meet the job market's needs. Satisfaction among students and the programmes' ability to meet labour market demand are regularly assessed.² Furthermore, with its four research institutes, the ETH Domain has a unique position and experience in offering demand-driven (continuing) education with high practical relevance in response to the very specific needs of Switzerland's economy and public administration.

The ETH Board is in favour of further strengthening this aspect and paying particular attention to assessing the relevance of educational programmes in light of current and future demand. The ETH Domain's ambition is to offer research-based education with proactive reflection on the (potential) future needs of society and industry. Specifically, the types of interactions with

¹ All the recommendations are quoted from the Report of the Expert Committee (grey boxes). See: Intermediate Evaluation of the ETH Domain 2023 – Report of the Expert Committee, 19.04.2023.

² Strategy regarding the development of student numbers in the ETH Domain – ETH Board (ethrat.ch), p. 8/9.

future employers from industry and the public sector and the tools to measure the relevance of learning outcomes are to be looked at in depth.

Beyond surveying the satisfaction and employability of their students, the institutions of the ETH Domain use a wide-ranging set of tools to assess their positioning in education and research, including evaluations by external experts and peers or institutional accreditation according to the Higher Education Act (HEdA).³ The ETH Board considers it important to evaluate these tools and the criteria used for assessing the quality of education in order to determine whether they are sufficient. This is a continuous process of reflection and adaptation that must take into account all dimensions of and perspectives on quality.

Innovative approaches to teaching, learning and examining will continue to be developed with dedicated staff (Educational Developers at ETH Zurich and Pedagogical Advisers at EPFL).⁴ New developments such as in the field of artificial intelligence are a constant source of new approaches, improvements and adaptation.

Special attention is paid to success in the first year of bachelor studies. The two schools offer additional support. EPFL has newly created the “Centre Propédeutique”, which aims to make first-year studies more effective and thereby increasing students’ success rates. Another important focus lies on doctoral students. The ETH Board agrees with the Expert Committee that research depends to a large extent on the scientific activities of doctoral students. The measures taken by the institutions of the ETH Domain to ensure optimal mentoring and training of doctoral students must be continued.

Action lines in response to the recommendation

- The institutions of the ETH Domain pay particular attention to assessing the relevance of educational programmes in terms of the present and future demands of the economy, industry, research and the public sector. A focus is placed on types of interaction with future employers and tools for assessing the relevance of learning outcomes.
- They continue to evaluate the quality of education and ensure that the indicators and criteria used for this assessment are pertinent and comprehensive. This should be a continuous process of reflection and adaptation, to take into account all dimensions of and perspectives on quality.
- They promote educational innovations in teaching, examining and learning and pay particular attention to new developments and methods. They place a special focus on the needs of first-year bachelor students and doctoral students.

³ Self-Assessment Report of the ETH Board for the 2023 Intermediate Evaluation of the ETH Domain (SAR), p. 120/21.

⁴ SAR, p. 44 et seq. and p. 122.

2.2. Quality in a context of growth in student numbers

Recommendation 2: Continuously evolve the quality of education in a context of significant growth in student numbers

- To ensure a quality education for a large cohort of bachelor and master students, allocate sufficient resources to teaching and adjust the distribution of teaching capacities, including careful attention to first year teaching. Systematically put in place varied measures to support student learning outside the classroom (tutorials, mentoring, study groups etc.).
- Enhance the value of teaching activities in academic careers, and give teaching and support responsibility to a larger number of experienced researchers who do not necessarily hold a professorial position, provided they receive appropriate preparation and support; include more researchers from the four research institutes in the teaching mission.
- Examine the education offering and reassess the delivery of education programmes whose content is outside the fields of expertise of the ETH Domain and is included in study programmes of cantonal universities.
- Maintain open access to all holders of the Swiss Matura and take all possible measures (including the first three points above) to avoid further limiting admission of students with higher education entry qualifications from abroad. If severe capacity problems arise, limit access of international students only in a small number of specific education programmes and for a limited period.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

For the ETH Board, high-quality research-based education is the top priority. While the ETH Board welcomes the growing interest in STEM fields, incl. ICT, it recognises the enormous challenge that the growth in student numbers is presenting. Due to limited resources, upholding the quality of education is becoming particularly difficult. Based on the overall Strategy regarding the development of student numbers in the ETH Domain⁵, ETH Zurich and EPFL are developing and implementing measures to safeguard the quality of education in the long-term.⁶

A central aspect of these measures is the optimal planning and exploitation of resources and synergies. ETH Zurich and EPFL support teaching professionally and are expanding their mentoring and coaching schemes and rewarding excellence in teaching. They seize the opportunities offered by digitalisation and innovation to increase the capacity of study programmes wherever possible and relevant (for example with video recording of lectures and learning outside the classroom⁷).

⁵ [Strategy regarding the development of student numbers in the ETH Domain – ETH Board \(ethrat.ch\)](https://ethrat.ch); Three fields of action: 1) Identification and definition of quality and capacity thresholds 2) Implementation of measures to ensure quality and capacity in the long term 3) Limits on student admissions as last resort

⁶ https://ethz.ch/content/dam/ethz/main/eth-zurich/education/policy/zulassungsstrategie/2023_02_20_Zulassungsstrategie%20der%20ETH%20Z%C3%BCrich.pdf

⁷ SAR, p. 44 or 122.

Cooperation and coordination between ETH Zurich and EPFL and the four research institutes are also crucial. The ETH Board supports greater involvement of the four research institutes in teaching and training activities (e.g. by teaching specialised courses or mentoring experimental master thesis projects). Harmonised rights and duties as well as incentives for scientific staff (e.g. appreciation, career development) play an important role in achieving this goal.

Cooperation, coordination and complementarity is not only fundamental within the ETH Domain, but also with other public and private partners. The two schools and the research institutes cooperate intensively with Swiss higher education institutions and make the most of complementarities (see also Recommendation 15).

The ETH Board agrees with the Expert Committee that limiting the admission of students is a measure of last resort as this may compromise the ETH Domain institutions' efforts to counteract the shortage of experts in Switzerland. If severe capacity problems arise, the ETH Domain may have to temporarily limit the access of foreign-educated foreign nationals. If introduced, such a measure would not affect Swiss citizens, Swiss-educated foreign nationals or students who have already started their studies in Switzerland. Capacity thresholds – whether they relate to space, infrastructure, supervision or funding – must first be clearly identified in order for the institutions to develop a reliable warning system and make adjustments as soon as necessary. While the limitation of admissions could be envisaged for foreign-educated foreign nationals, the ETH Domain is committed to the principle of maintaining open access for all holders of the Swiss Matura and thus continues to advocate for a strong and comparable Matura in all Swiss cantons so that students have a solid basis for succeeding in their studies.

Action lines in response to the recommendation

- The institutions of the ETH Domain give the highest priority to research-based teaching and continue to take the necessary action to maintain and improve the quality of education in the long term.
- They develop solutions and implement measures in the three fields of action⁵ described in the overarching Strategy of the ETH Board for the ETH Domain regarding the development of student numbers in the ETH Domain.

2.3. Sufficient resources in a context of growth in student numbers

Recommendation 3 *Framework conditions*: Allocate sufficient resources to the ETH Domain to allow it to maintain the quality of education in a context of significant growth in student numbers

- Allocate sufficient resources to the ETH Domain to maintain the quality of education in a context of significant growth in the number of bachelor and master students (expected annual growth of about 3.5%). This should be done so that the ETH Domain can meet the demands of the private and public sectors for highly qualified personnel and contribute to the competitiveness of the country.
- Ensure that the ETH Domain institutions maintain open access to all holders of the Swiss Matura.

Considerations of the ETH Board

The ETH Board welcomes the recommendation regarding the framework conditions.

The growth in the ETH Domain's student and doctoral student population reflects the high demand in Switzerland for professionals in scientific and technical fields and especially in the engineering sciences and in information and communication technologies. Educating students both from Switzerland and from abroad helps to counteract the shortage of experts within the country. The employment rate among ETH Domain graduates is very high.⁸

The continuous – and anticipated further – increase in student numbers is generating an increasing demand for human resources, space, infrastructure and support resources. Only with sufficient financial resources can the ETH Domain maintain the quality of education and meet the demand in the economy, industry and the public sector for highly qualified personnel.

See also recommendation 2 for information about the Strategy regarding the development of student numbers in the ETH Domain.

⁸ SAR, p. 46 et seq. (including figures).

2.4. Relations with the European Union

Recommendation 4 *Framework conditions*: Reactivate research and higher education relations with the European Union

- Take all possible diplomatic and political measures to ensure that Switzerland can again fully participate in the European Union's research programmes. The current national compensation measures cannot maintain the trust and the connections established over two decades through European Union projects. Disconnection from European Union research programmes has a negative impact on the attractiveness and competitiveness of research at Swiss institutions.
- Even if the current prospects seem unpromising, pursue as a matter of urgency Switzerland's association with Horizon Europe.

Considerations of the ETH Board

The ETH Board welcomes the recommendation regarding the framework conditions.

Switzerland's full association with the EU Framework Programme for Research and Innovation Horizon Europe, Digital Europe, Euratom Research and Training Programme and ITER is of utmost importance for the ETH Domain. The non-association damages the Swiss research and higher education system as well as the ETH Domain's competitiveness. As it is no longer possible to apply for ERC grants or coordinate collaborative projects, the institutions of the ETH Domain are becoming less and less attractive for the most talented and excellent researchers worldwide and their international networks (for research and also for education) are being weakened. Talented researchers from Switzerland can no longer participate in this high-profile competition. Participation by the ETH Domain institutions in Horizon Europe projects has decreased considerably compared to Horizon 2020. Not to mention the consequences for industry (established companies and start-ups). National measures as well as bilateral and multilateral research cooperation cannot compensate the negative impacts of the lack of full association with the European Programmes.

The association with Horizon Europe is indispensable for the ETH Domain to compete at the highest international level, to attract the best talent and to maintain excellence. The ETH Board, together with other actors in the education, research and innovation sector and the economy, will continue making major outreach efforts to demonstrate this.

Furthermore, the ETH Board and the institutions of the ETH Domain support the Federal Council's political and diplomatic efforts to the best of their ability.⁹ See also recommendation 5 for a corresponding action line.

⁹ SAR, p. 58, e.g. "Stick-to-science" initiative.

2.5. Attractiveness of the institutions of the ETH Domain

Recommendation 5: Maintain and improve the attractiveness of the institutions of the ETH Domain

- Keep attracting and retaining the best talent by offering them, at all levels of their career, research and teaching conditions that allow them to develop their skills and carry out ambitious projects, and by offering them diverse career prospects in Switzerland.
- Offer scientists of the ETH Domain access to world-class researchers through the development of strong institutional partnerships with universities and other research organisations inside and outside the European Union.
- Further develop first-class Swiss research infrastructure and ensure long-term participation in large international research infrastructure projects to deliver excellent research and innovation.
- Regardless of the state of political relations between Switzerland and the European Union, develop mobility opportunities for students, researchers, and administrative and technical staff.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

Attracting and retaining the best talents is crucial to ensuring the excellence of the institutions of the ETH Domain. Academic excellence and freedom, as well as the presence of top-notch researchers who are already studying and working at ETH Domain institutions, are key to attracting other leading researchers and talents to Switzerland. Besides attractive teaching and research conditions, good working conditions and career prospects are key to attracting Swiss and international scientists. The ETH Board is aware that expectations in terms of working conditions are continuously evolving. The institutions of the ETH Domain position themselves as attractive employers (keywords are e.g. Lifelong Learning, dual career advice, flexible working) and provide a diverse set of career development paths and support offers (see also Recommendation 6). However, mobility opportunities and career prospects for international students depend on obtaining a residence permit in Switzerland. Talents from abroad can only help to counteract the shortage of experts if they have the opportunity to stay in the country after graduation. The ETH Board welcomes migration conditions that offer this possibility.

Switzerland's first-class research infrastructures are another key factor in the international attractiveness of the ETH Domain. It is a priority for the ETH Board to further strengthen the ETH Domain's leading role in conceptualising, developing, operating and upgrading large-scale research infrastructures and large, interdisciplinary platforms.¹⁰ The development of world-class large-scale research infrastructures has to take into account the long-term needs of the scientific community. These needs are identified in a foresight and conceptual phase well in advance of the development of specific proposals. Strategic decisions and prioritisation must ensure long-term stable funding for the selected projects.

As the Expert Committee points out, international attractiveness goes hand in hand with strong institutional partnerships with universities and other research organisations both

¹⁰ SAR, p. 59 and 102 et seq.

within and outside Europe. At present, the lack of association with the European Union's research and innovation programmes is seriously damaging the attractiveness of the Swiss research and higher education system and the ETH Domain. Participation in alliances and networks enable the institutions of the ETH Domain to maintain and cultivate ties with peer institutions abroad that have similar visions or in areas of complementary strategic interests. Strategic partnerships with few selected institutions and memberships in alliances such as the European University Network ENHANCE or EuroTeQ Engineering University are also crucial and of strategic importance to safeguard Switzerland's interests.¹¹

Contacts between the institutions of the ETH Domain and many foreign academic institutions also open up mobility opportunities for students and researchers, enriching the ETH Domain through the circulation of talent and ideas. In parallel, student exchanges between ETH Zurich and EPFL are encouraged via joint master and doctoral programmes and joint summer schools. Among others, the Joint Initiatives in the Strategic Areas (see Recommendation 10) will further increase collaborations between the ETH Domain institutions.

The ETH Board welcomes the further strengthening of such cooperation and mobility opportunities and their extension to administrative and technical staff. While staff sabbaticals are already possible at some institutions, opportunities for exchange should be made available to administrative and technical staff at all institutions.

Action lines in response to the recommendation

- The ETH Board and the institutions of the ETH Domain continue making major outreach efforts to demonstrate the crucial importance that the association with Horizon Europe has for the ETH Domain to compete at the highest international level, to attract the best talent and to maintain excellence. They support the Federal Council's political and diplomatic efforts to the best of their ability (see Recommendation 4).
- They further strengthen their leading role in conceptualising, developing, operating and upgrading large-scale research infrastructures and large, interdisciplinary platforms. They take into account the long-term needs of the scientific community and ensure long-term stable funding through strategic decisions and prioritisation.
- The institutions of the ETH Domain further strengthen mobility opportunities both within and outside the ETH Domain. Attention is also paid to exchange opportunities within the ETH Domain and beyond for administrative and technical staff.

¹¹ SAR, p. 56 et seq.

2.6. Prepare early career scientists

Recommendation 6: Prepare early career scientists for industrial and public sector roles as well as academic research careers

- Continue to focus on knowledge transfer through highly qualified graduates entering the Swiss economy.
- Provide increased support to early career researchers, during and after their doctoral training, so that they are made aware of opportunities outside academia where they can apply their skills to pursue careers in private companies and public institutions.
- When designing such support measures, in particular for postdoctoral scientists, investigate best practices from other institutions.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

Knowledge and technology transfer (KTT) through people remains the most important way to transfer knowledge to the private and public sector. The ETH Domain graduates make a big contribution to this transfer in Switzerland.¹² They are supported by their institution with a wide range of offers, programmes, fellowships or courses for career planning, entrepreneurial thinking, establishing-start-ups or science-policy knowhow.¹³ New projects are constantly being developed, such as an innovation platform at ETH Zurich to further improve the match-making between students and industry. Several offerings include or will include – among others – a focus on postdoctoral scientists, such as the planned Lifelong Learning Hub at ETH Zurich or the newly launched Transversal Skills and Career Center at EPFL.

Synergies between the institutions are exploited, in particular between the four research institutes. The Lead Campus, which is scheduled to become operational in early 2024, will provide e.g. continuing education and leadership skills for staff across PSI, WSL, Empa and Eawag.

In addition, the creation of opportunities for doctoral students and postdoctoral scientists to have contact with non-academic partners is very important. Internships in industry, working on Innosuisse projects or participating in exchange meetings with industry or public organisations are often ideal preparation for a career outside academia. The institutions of the ETH Domain also organise a variety of platforms or events where doctoral students and postdoctoral scientists can present their research and interact with distinguished researchers from both academia and industry.

The ETH Board agrees to further strengthen these efforts. Close exchange with peer institutions can contribute to the development of new offerings. On a political level, the ETH Board welcomes migration conditions that allow the potential of international graduates for Switzerland to be harnessed for the long term (see also Recommendation 5).

¹² SAR, p. 67.

¹³ SAR, p. 68 et seq.

Action lines in response to the recommendation

- The institutions of the ETH Domain further strengthen their efforts to support graduates entering the Swiss economy and public sector. Special attention is paid to structured support for doctoral students and, in particular, to postdoctoral scientists to take up positions outside academia.

2.7. Knowledge and technology transfer

Recommendation 7: Continuously develop knowledge and technology transfer

- Continue the transfer of knowledge and technology with multinational corporations, SMEs and start-ups, as well as public organisations (at federal, cantonal, and municipal levels).
- Encourage all processes that favour technology exploitation and lower the barriers to collaborations between the institutions of the ETH Domain and different types of companies. Develop sector- and company maturity-specific approaches to facilitate sharing of intellectual property ownership and protection.
- Make sure the goals of the institutions regarding technology transfer are aligned with the objective of creating value for Switzerland. Reconsider key performance indicators of technology transfer offices to fit these goals. Favour technology transfer processes that are simple and easy to implement for both parties.
- Ensure that technology transfer activities involve companies and organisations in all parts of the country.

Considerations of the ETH Board and ongoing activities

The ETH Board partially agrees with the recommendation.

The ETH Domain plays a key role in knowledge and technology transfer (KTT) for the benefit of the Swiss economy, society, the public sector and public goods. The institutions of the ETH Domain are also pursuing KTT in countries and regions outside Switzerland, including in the Global South (see also Recommendation 15). Collaboration with industry – through long-term framework agreements, public-private partnerships, technology transfer centres and platforms and dedicated events – is one important element in KTT at all institutions of the ETH Domain.¹⁴ The ETH Board would like to emphasise that this collaboration is based on mutual partnerships and is open to interested companies (as well as public organisations) from all parts of the country. It is primarily an instrument for the promotion and acceleration of innovation rather than for financial gain.

The ETH Board agrees that instruments for KTT should be continuously developed to cover the needs of all parties involved. Indeed, technology transfer processes should be simple and easy to implement for both parties. The institutions of the ETH Domain will continue to develop tools to facilitate access for industry, such as the Empa portal¹⁵. They continuously adapt their formats for knowledge and technology transfer, exemplified by the recent introduction of professors of practice, or the strengthening of the thematic specific support for innovation partners. In the ETH Board's view, the criticism of the Expert Committee is only partly justified. The current focus of the institutions goes well beyond young companies and includes SMEs.

While facilitating access is certainly an important goal, the institutions of the ETH Domain must also ensure a proper balance of interests. The mission of the ETH Domain is to contribute to a sustainably strong Swiss economy and research location by enabling economic partners to commercially exploit research results, while guaranteeing the ETH Domain institutions long-term research and publication freedom as public research institutions.

¹⁴ SAR, p. 67 et seq.

¹⁵ <https://www.empa.ch/web/empa/empa-portal>

The ETH Board sees early and transparent communication with industry and potential founders among their students and researchers as key. All institutions should have clear guidelines, based on a close dialogue between the various technology transfer offices through which the licensing situation and their offers to industry are explained. It is important to approach potential founders at an early stage and explain the values and principles of the institution.

In this context, the institutions' objectives in relation to KTT and their measurement through key performance indicators (KPI) are regularly reviewed. Any new KPIs should be well thought through to avoid wrong incentives and conflicting interests. The exchange of ideas and good practices in the national and international KTT network of the ETH Domain is of great importance in this respect.¹⁶

Action lines in response to the recommendation

- The institutions of the ETH Domain are further strengthening their key role in knowledge and technology transfer (KTT) for the benefit of the economy (young companies as well as SMEs and established companies), the public sector and society.
- They continuously develop their KTT instruments to enable simple and straightforward processes, while ensuring a proper balance of interests.
- They develop clear offers for industry (for young companies as well as SMEs and established companies) as well as guidelines explaining the licensing situation in order to ensure early and transparent communication of mutual expectations with companies and potential founders.

¹⁶ SAR, p. 69/70.

2.8. Internal structure of the ETH Domain

Recommendation 8: Reform the internal structure of the ETH Domain

- In order to respond quickly to new challenges, seize the unique opportunity to reform the structure of the ETH Domain. The process initiated by the ETH Board must lead to a solution that goes beyond the status quo and a decision should be taken before the next intermediate evaluation.
- In the definition and implementation of this reform, consider the following boundary conditions:
 - It must be driven primarily by clear objectives that add value to the entire ETH Domain and Switzerland, guided by future research challenges and transversal missions, focusing on the structure in a next step.
 - It must include not only the four research institutes, but also the two schools to avoid setting up entities that would create unnecessary redundancies.
 - It must result in sufficiently large entities to ensure agility for the entire ETH Domain and adaptability to future needs.
 - It should be designed to deliver high level service to stakeholders of the research institutes.
 - It should lead to a structure that facilitates further collaboration with actors inside and outside the ETH Domain.
 - It should minimize bureaucracy and unnecessary overhead.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

The structure, organisation and governance of the ETH Domain have evolved historically and in line with the needs and development of education, research and knowledge and technology transfer to best serve society and the economy. In order to optimally position the ETH Domain for the challenges of the coming decades, the ETH Board welcomes the Expert Committee's assessment and pursues the process initiated.

The ETH Board, together with the institutions of the ETH Domain, developed a common view, evaluated the initial situation and its specific benefits and limits, and held in-depth discussions on the future organisational needs. As a first result, the ETH Board has concluded that an organisational bundling of forces and competencies within the ETH Domain offers great opportunities for Switzerland as a centre of research and innovation in the long term. To this end the ETH Board, together with the institutions of the ETH Domain, is evaluating various options on how to best position and organise the ETH Domain.

The ETH Board aims to achieve an alignment of ambitions that results in a targeted strengthening of effectiveness and a reduction of complexity while at the same time making more active use of synergies, improved visibility and a more agile ETH Domain.

Action lines in response to the recommendation

- The ETH Board, together with the institutions of the ETH Domain, evaluates various options on how to best position and organise the ETH Domain to meet future needs.

2.9. Strategy for sites associated with the institutions of the ETH Domain

Recommendation 9: Implement the strategy for locating certain activities at sites associated with the institutions of the ETH Domain

- Since the ETH Board has developed a strategy for the location of activities at sites associated with the institutions of the ETH Domain, implement this strategy within a reasonable period of time so that the current and future sites meet the criteria set out in this strategy.
- Since a minimum size for each site associated with an institution of the ETH Domain has been defined in this strategy, swiftly take consistent decisions regarding sites that do not reach the required critical mass (by intensifying their activities or closing them).

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

The ETH Board is pleased to note that the Expert Committee considers the “Strategy for ETH Domain institutions’ associated locations, working with cantonal or international partners” to be adequate and compelling.¹⁷ The strategy on associated locations has defined criteria for the establishment, evaluation, renewal or closure of locations.

The ETH Board plans to fully implement the strategy, which applies to locations established after 2006 before the end of the next ERI period. As a first step, the periodic evaluation processes already in place at the institutions are being reviewed to determine to what extent they meet the strategy’s requirements. They will be adapted accordingly. Since a critical mass for each site associated with an ETH Domain institution has been defined in the strategy, the ETH Board plans to address the associated locations that do not reach the required critical mass (i.e., 2023: EPFL Fribourg).

Action lines in response to the recommendation

- The ETH Board and the institutions of the ETH Domain will fully implement the “Strategy for ETH Domain institutions’ associated locations, working with cantonal or international partners” before the end of the next ERI period. Special attention is given to decisions concerning associated locations established after 2006 that do not reach the required critical mass.

¹⁷ [Strategy for associated locations of the ETH Domain – ETH Board \(ethrat.ch\)](#)

2.10. Strategic areas

Recommendation 10: Implement strategic areas activities

- Define the content of these strategic areas and transparently communicate to stakeholders the meaning and scope of the chosen initiatives.
- Remain flexible enough to quickly adapt the strategies when disruptive technologies and new societal challenges arise.
- Fix ambitious goals and timelines in order to develop collective capabilities in the identified topics and allocate sufficient resources to achieve these goals.
- Assess the societal value of the achieved goals and make the objectives and results available to the authorities and the population.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

The five Strategic Areas of the ETH Domain 2025–2028 aim to respond to some of the most pressing global challenges society is facing and where the ETH Domain institutions are well positioned to have a strong impact.¹⁸ The ETH Board is aware of the need to intensify communication about how the Strategic Areas will receive adequate resources and how they will be concretely implemented. External stakeholders will be approached in a coordinated way to explain the concepts of the Strategic Areas while also explaining that many activities will still be carried out outside these areas. Basic research and technological developments are crucial not only for the Strategic Areas but for the long-term success of all the ETH Domain's activities. The ETH Domain's strength in fundamental discovery science must therefore be upheld.

The Strategic Areas are addressed through existing or new activities at the level of the individual institutions and with Joint Initiatives at the ETH Domain level to promote collaboration within the ETH Domain. The ETH Board agrees with the Expert Committee that it is important to set ambitious goals and timelines in order to develop collective capabilities in the identified areas. To further develop the activities within the five Strategic Areas, the institutions of the ETH Domain have drawn up corresponding Action Plans. As the Expert Committee points out, it is necessary to remain flexible to quickly adapt when, for example, new societal challenges arise (see also Recommendation 16).

As the Strategic Areas focus on the most pressing global challenges, it is essential to find effective ways to communicate objectives, results and impact to the authorities and the public. Consideration should be given to ways of ensuring high visibility for projects implemented in the Strategic Areas, or to integrating a communication approach into projects at an early stage. Science communication specialists could be more structurally involved to reach a wide audience. Where appropriate, the communication efforts in the Strategic Areas, including the Joint Initiatives, are coordinated and common communication channels are used.

¹⁸ SAR, p. 97 et seq. 1) Human Health; 2) Energy, Climate and Environmental Sustainability; 3) Responsible Digital Transformation; 4) Advanced Materials and Key Technologies; 5) Engagement and Dialogue with Society

Action lines in response to the recommendation

- The ETH Board and the institutions of the ETH Domain intensify communication about how the Strategic Areas will be concretely implemented. External stakeholders are approached in a coordinated way to explain the concepts of the Strategic Areas. They will also be informed that many activities will still be carried out outside these areas and that basic research and technological development are crucial for the long-term success of all the ETH Domain's activities.
- They consider from the outset how to communicate the results of the activities carried out in the Strategic Areas to a wide audience and – where appropriate – coordinate the communication efforts.

2.11. Diversity and inclusion

Recommendation 11: Enhance diversity and inclusion

- Build on the considerable efforts undertaken in the last four years and their success, and intensify work to increase the number of women among new professors, in governance bodies and more broadly in all senior management positions.
- Beyond gender balance, expand the policies to all aspects of diversity and inclusion, taking into account upcoming challenges related to this topic.
- Work to address social differences in the access of young people to higher education and in the support provided to them during their study path.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

Addressing gender inequalities in the recruitment of professors and participation in decision-making bodies and management and leadership positions has been a priority for the ETH Domain, especially since the 2019 Intermediate Evaluation. The ETH Board is pleased that the Expert Committee values the achievements and progress made, in particular the significant increase in the proportion of women among newly appointed professors. The strategic framework for ensuring equal opportunities and improving gender balance in the ETH Domain has proved effective. The Gender Strategy for the ETH Domain 2021–2024 and the corresponding Action Plans at the individual institutions address the relevant issues from different perspectives and are regularly updated.¹⁹ Gender-sensitive processes at the level of faculty and department recruitment (e.g. diverse selection committees, setting minimum proportions for women on shortlists) or specific support programmes, especially those with an ETH Domain-wide character (such as “Fix the leaky pipeline!”) play an important role.²⁰ While the trends are positive, the ETH Board is fully aware that the efforts are to be continued and intensified.

As the Expert Committee points out, diversity has several aspects and goes beyond gender. The ETH Board is currently developing a strategy for diversity, inclusion and equity for the period 2025–2028 that should expand the focus to further dimensions of diversity.²¹ The aim of the strategy is to further strengthen the development of an inclusive and respectful culture (see also Recommendation 14) and working and studying environment, recognising that inclusion is key to realising the full potential of diversity. The strategy builds on existing policies, results from institutional surveys and ongoing activities such as regular awareness-raising with regard to unconscious bias, harassment, intercultural communication, respect, etc. While the six institutions of the ETH Domain have different focuses and needs, the topic is also addressed in a close dialogue between the institutions. For example, the ETH Domain Equal Opportunities Working Group with representatives of all six institutions as well as the Center of Competences for Diversity & Inclusion PSI - Empa – Eawag and its close ties with WSL have resulted in many synergies. Also of value are the offerings and tools promoting diversity, inclusion and equity at ETH Zurich, which are accessible to all institutions.

¹⁹ SAR, p. 110 et seq.

²⁰ SAR, p. 111 et seq.

²¹ SAR, p. 108; Strategic Plan 2025–2028 of the ETH Board for the ETH Domain, p. 41.

As one dimension of diversity, the Expert Committee specifically mentions the social and cultural background of students and the ETH Domain's responsibility to provide support for students of all social strata. The ETH Board agrees that a special focus should be placed on this aspect to foster equal opportunity and inclusion. The dimension of socio-economic background shall be considered when developing the strategy for diversity, inclusion and equity (2025–2028) and will also be taken into account in the implementation of the Strategy regarding the evolution of student numbers in the ETH Domain (see Recommendation 2).

Action lines in response to the recommendation

- The ETH Board and the institutions of the ETH Domain build on existing policies to develop and implement a strategy for diversity, inclusion and equity based on a culture of respect.
- They pay particular attention to continuing efforts to increase the number of women among new professors, in decision-making bodies as well as in management and leadership positions.

2.12. Respectful culture within the ETH Domain

Recommendation 12: Ensure a respectful culture within the institutions of the ETH Domain

- Building on the measures taken so far to combat inappropriate behaviour and scientific misconduct, ensure successful dissemination and engagement throughout the whole ETH Domain.
- Implement a fundamental and sustainable cultural change through consistent application of processes and measures designed for long-term improvement.
- Put in place the necessary tools (e.g., external scrutiny and transparent review) to verify that the measures implemented are delivering the expected cultural transformation, gaining the trust of all members of the ETH Domain.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

The Expert Committee acknowledges the numerous measures taken in the ETH Domain since the 2019 Intermediate Evaluation to address inappropriate behaviour and lack of respect in interactions within the institutions of the ETH Domain. Today, all institutions have directives, procedures and codes of conduct in place, which are regularly updated, to promote mutual respect and prevent all forms of inappropriate behaviour, such as discrimination, bullying, mobbing, threats, violence and sexual harassment.²² Another important topic is scientific misconduct. The exchange of good practices and the harmonisation of research integrity activities within the ETH Domain based on the “Code of conduct for scientific integrity” of the Swiss Academies of Arts and Sciences²³ is being implemented: a working group is currently drafting a common ordinance on scientific integrity for the whole ETH Domain.

The numerous measures taken need to be further strengthened in order to address all members of the ETH Domain institutions and to inform them about the regulations, processes and structures in place. Effective grievance procedures and low-threshold conflict management structures are already established and should be further developed.

The ETH Board agrees with the Expert Committee that fundamental and sustainable cultural change can only be achieved through the consistent application of processes and measures over the long term. In addition to the application of the above-mentioned directives and processes, emphasis should be placed on the institutional anchoring of the relevant topics, as well as on awareness-raising, training and coaching. The institutional Action Plans accompanying the 2021–2024 Gender Strategy and the future strategy for diversity, inclusion and equity (see also recommendation 11) play an important role in this respect. In particular, the ETH Board encourages the institutions to further develop management training and e-learning tools for students and staff, and to focus on the training of support and contact points in order to further improve the quality and professionalism of counselling and to enable better coordination between the contact points. An important measure at several institutions is the requirement for doctoral students to attend a course on the topic of ethics and good scientific practice.

²² SAR, p. 109 et seq.

²³ SAR, p. 123 et seq.

The Expert Committee also stresses the importance of ways of verifying the functioning and impact of the activities. At present, large-scale surveys for the staff and students are regularly conducted. Furthermore, it is essential to evaluate the measures implemented to check whether they are effective and deliver the expected outcomes.

Action lines in response to the recommendation

- The institutions of the ETH Domain further strengthen the development and consistent application of processes and measures to address inappropriate behaviour and scientific misconduct. In order to ensure successful dissemination throughout the whole ETH Domain and a sustainable cultural change, they pay particular attention to awareness-raising and training.
- They evaluate whether the measures implemented are effective and deliver the expected outcomes.

2.13. Culture of continuous improvement

Recommendation 13: Strengthen a culture of continuous improvement

- Build a culture of continuous improvement in all areas and embed it at all levels within the institutions of the ETH Domain; this culture must be based on the periodic setting of objectives and the monitoring of the gap between objectives and achievements.
- Include the activities of the institutions' central services in the ETH Domain's continuous improvement system.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

The ETH Domain understands quality as the result of a learning culture that is geared to the constantly changing expectations and requirements of society and the economy, of students, professors and employees. The ETH Board and the institutions of the ETH Domain have a wide range of instruments for quality measurement, assurance and development. They regularly assess their position in education and research and are periodically evaluated in accordance with the manual “Procedure of Evaluations in the ETH Domain”. The regular institutional accreditation of ETH Zurich and EPFL is an important tool because it examines the entire quality assurance system of an institution.²⁴

The ETH Board agrees with the Expert Committee that it is important to continue to reflect on this issue in order to implement a genuine culture of continuous improvement in all parts of the ETH Domain, at all levels of the organisation and among all employees. A cycle of external input (evaluation, accreditation) and internal implementation of processes with regular feedback loops is essential for a culture of continuous improvement. The central services of the institutions must be involved in this process to ensure dissemination throughout the institution. A variety of opportunities for participation in quality assurance processes already exists and can be further expanded and strengthened. Internal training, leadership feedback processes or regular dialogue with departments and units remain essential for successful dissemination and must be pursued intensively. Where possible and meaningful, the institutions should develop additional synergies, such as with the Lead Campus, privacy and data protection courses or unconscious bias and diversity activities (see also Recommendation 6 and 11).

²⁴ SAR, p. 120 et seq.

Action lines in response to the recommendation

- The institutions of the ETH Domain continue to apply their wide range of instruments for quality measurement, assurance and development and address discrepancies between performance and objectives.
- They continue to reflect on the issue of a culture of continuous improvement. They pay particular attention to the dissemination and communication of evaluation tools and corresponding processes to all levels, including central services, and to all employees, in order to implement a genuine culture of continuous improvement.
- The ETH Board explores further ways to ensure a close dialogue with peers and to integrate their inputs into the continuous cycle of improvement.

2.14. Quality assessment tools

Recommendation 14: Diversify quality assessment tools in career development

- Increase the use of qualitative assessment tools in the evaluation of academic careers (recruitment and promotion), including clear requirements for high performance in the following dimensions: research, teaching, outreach, innovation, service to the institution and to the public.
- Extend the reflection on new ways to assess research performance and benchmark with peer research institutions.
- Take into account qualitative assessment tools for the career development of administrative and technical staff.
- Ensure that academic staff can concentrate on core missions by minimising unnecessary bureaucratic tasks.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

Quality aspects and respective assessment tools play an important role in the recruitment, career management and development of all ETH Domain staff. It is important to continuously review procedures and – with focus on the academic staff – use qualitative criteria that consider not only the candidates' achievements and scientific excellence but also their future academic potential. The processes and qualitative assessment approaches in place need to be constantly adapted and new developments must be followed.²⁵ This also entails a consistent digitalisation strategy to best support management decisions at different levels of the organisation while minimising bureaucracy.

Particular attention should be paid to new ways of assessing research performance. A wide range of contributions to science should be recognised, including activities such as teaching, mentoring and collaborations. A national discussion platform within the framework of CoARA (Coalition for Advancing Research Assessment)²⁶, in which all relevant stakeholders – including institutions of the ETH Domain – participate, is currently working on concretising the reform of research assessment in Switzerland.

Action lines in response to the recommendation

- The institutions of the ETH Domain are constantly incorporating new developments into their personnel management processes and qualitative assessment approaches. They pay particular attention to the digitalisation and automation of processes and ensure that bureaucracy is reduced to a minimum.
- They further develop – in concert with national and international efforts – new ways of assessing research performance.

²⁵ SAR, p. 121 et seq.

²⁶ coara.eu

2.15. Social impact of research

Recommendation 15: Consider the social impact of research

- Consider ethical aspects, environmental impact and the wide variety of social and cultural contexts when developing scientific and technological advances.
- Build collaboration with other institutions with strong capabilities in humanities and social sciences in order to include these perspectives at every phase of research projects.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

It must be the responsibility of all researchers in the ETH Domain to take into account ethical aspects, environmental impacts and the diversity of social and cultural contexts when developing scientific and technological advances. The coronavirus pandemic has once again highlighted the importance of the direct contribution of research to solving societal challenges, but also the importance of understanding and acceptance of the complexity of research results by society. Researchers in the ETH Domain collaborate intensively with colleagues from universities and other organisations and institutions to integrate the social science and humanities dimensions. The research institutes, in particular WSL and Eawag, have a strong branch of social and economic sciences within their institutions. Many of their projects, including technology development, are collaborations between engineering, natural and social sciences. The two schools have units for humanities, social sciences or management and economics working in close cooperation with scientists in the other units as well as with partners outside the ETH Domain.

The institutions of the ETH Domain are increasingly involved in projects with a high societal impact, which include actors from the humanities and social sciences. The new Swiss PeaceTech Alliance with the Geneva Graduate Institute or the collaboration with the International Committee of the Red Cross are recent examples. In support of the Sustainable Development Goals (SDG), the institutions of the ETH Domain also pursue knowledge and technology transfer in countries and regions of the Global South.

The ETH Board recognises these efforts and emphasises that the involvement of the social sciences and humanities should be guaranteed in all relevant phases of research projects. In particular, it is necessary to start this involvement earlier in the process for the benefit of both science and society.

Furthermore, the ETH Board would like to emphasise the importance of all students and researchers being aware of the (social, environmental...) impact of their work. Educational programmes must include topics such as societal responsibility or sustainability.

Action lines in response to the recommendation

- The institutions of the ETH Domain recognise the importance of involving the social sciences and humanities in all relevant phases of research projects. They reinforce this by starting involvement at an early stage in the process, for example when the project is designed.
- They ensure an educational offering for their students which includes aspects such as social impact, societal responsibility, or sustainability in the context of research and technology transfer.

2.16. Dialogue with society

Recommendation 16: Improve the dialogue with society

- Encourage and intensify the dialogue between academic actors and society in cooperation with other academic institutions.
- Focus greater attention on the needs and concerns of society in addition to communicating the achievements of the ETH Domain.
- Support the members of the ETH Domain involved in this dialogue by clearly defining their role, establishing general principles for their communication, and offering them advice and training.
- To be ready for crisis situations, define the roles and responsibilities of each actor within the ETH Domain and the appropriate focus of their message, and work to ensure coordination between political and scientific circles.
- Evaluate the efficiency and effectiveness of the dialogue with society undertaken by the institutions of the ETH Domain.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

The ETH Domain fosters a proactive and open dialogue with society. Such dialogue helps to translate research into concrete solutions and policies, promote science and research, and attract the younger generation into STEM fields.²⁷ The ETH Board agrees with the Expert Committee that this dialogue has always been important, but in recent years it has taken on an even more fundamental social, political and cultural significance. In its planning for the 2025–2028 ERI-period, the ETH Board defined the Strategic Area “Engagement and Dialogue with Society”. This Strategic Area aims to increase the visibility and impact of existing and future research activities of high societal relevance. A portfolio of activities will take up input from society that extends from the initial identification of needs to the ultimate utilisation of scientific results. In this context, identifying needs should not be seen as reacting, but rather as engaging in an equal dialogue. In order to respond promptly to urgent challenges, the ETH Board decided to already launch the Joint Initiatives for this Strategic Area in 2022 (see also Recommendation 10). Four Joint Initiatives have been launched so far.²⁸

The coronavirus pandemic demonstrated the importance of coordination and defined roles and responsibilities of scientific actors and public authorities. As part of the evaluation of the federal administration's crisis management, strategies are currently being developed to improve the involvement of the scientific community in future crisis situations. Under the lead of the Federal Chancellery, the ERI actors in Switzerland, including the ETH Domain, participate in this process and are currently drafting an implementation plan for the involvement of the scientific community in the crisis management of the federal administration. At the heart of this are scientific ad hoc bodies based on an interdisciplinary network. Support, coaching and training for the scientists involved are also part of this plan. The ETH Board is convinced that such tools and training opportunities are an important prerequisite for successful dialogue and that the ETH Domain should also invest more in this area. EPFL is currently optimising its outreach and communication services and ETH Zurich is bundling its educational efforts in the Communication Academy training programme open to researchers at ETH Zurich

²⁷ Strategic Plan 2025–2028 of the ETH Board for the ETH Domain, 2022, p. 24 et seq.

²⁸ [Joint Initiatives – ETH Board \(ethrat.ch\)](https://ethrat.ch)

and the four research institutes, and is implementing a central contact point for scientific policy advice, the Science-Policy Interface.

Action lines in response to the recommendation

- The institutions of the ETH Domain are intensifying the dialogue between academic actors, public authorities and society and are becoming involved in relevant debates at an early stage in order to respond promptly to urgent challenges. They play a leading role in the development and implementation of the strategies to improve the involvement of the scientific community in future crisis situations.
- They provide coaching and training for researchers in this area, exploiting synergies between institutions.

2.17. Allocation of resources to the institutions of the ETH Domain

Recommendation 17: Ensure that resources are allocated to the institutions of the ETH Domain in a strategic and transparent manner

- Increase the long-term commitment of the institutions to acquire third-party funding to finance innovative activities, including developing new forms of fundraising.
- Ensure transparent distribution of federal core funding within the ETH Domain taking into account the contribution to the core missions and the performance of each institution.
- Use reserve funds to accelerate strategic activities and respond to urgent needs.

Considerations of the ETH Board and ongoing activities

The ETH Board agrees with the recommendation.

Third-party income is an important complementary funding mechanism for the institutions of the ETH Domain and accounts for approximately 30% of the ETH Domain's funding. The ETH Board encourages all institutions of the ETH Domain to further increase their level of third-party funding, including donations. At the same time, it must be understood that third-party grants rarely cover the full costs of the funded activities and that only selected activities of the ETH Domain are amenable to third-party funding. Stable and reliable base funding is key to conducting basic research and realising scientific breakthroughs.

The allocation of financial resources to the institutions of the ETH Domain is a key task of the ETH Board. Budget allocation is based on the budget requests of the institutions, the strategic plan of the ETH Board for the ETH Domain and the institutions' development plans, and takes into account the institutions' achievement of the strategic objectives, their academic performance and the financial obligations arising from their teaching, research and KTT activities, as well as from the tasks assigned to them by the Swiss Confederation.²⁹ The allocation of funds is outlined in the budget report and in the annual report of the ETH Board for the ETH Domain, both of which are presented to the parliamentary commissions.

Reserves are also an important element of the necessary financial flexibility for the ETH Domain institutions. They increase planning security and make it possible to invest in new scientific areas. The ETH Board requests that the institutions of the ETH Domain make best use of their reserves by investing them in favour of science and society. The ETH Board further requires them to reduce their reserves to balance their operating budgets (e.g. to take account of energy costs and inflation) and to maintain teaching quality (e.g. hiring of additional staff). While this makes sense in the short term, it is not sustainable in the long term. The reserves will not be able to absorb the current cuts and low growth while compensating for the inflationary cost increase for 2024–2028 in the face of rising student enrolment (see also Recommendation 3 and 18).

²⁹ Strategic Objective 7.1 of the Federal Council for the ETH Domain for the years 2021–2024, <https://www.sbf.admin.ch/sbfi/en/home/ihe/higher-education/domain-of-the-federal-institutes-of-technology/strategic-objectives-of-the-federal-council-for-the-eth-domain.html>

Action lines in response to the recommendation

- The ETH Board further ensures transparent distribution of federal core funding within the ETH Domain, taking into account the contribution to the core missions and the performance of each institution.
- It encourages all institutions of the ETH Domain to increase their level of third-party funding and especially donations. The diversification of third-party income will be further explored by sharing good practices and by developing new forms of fundraising.
- It requests that the institutions make best use of the reserves by investing them in favour of science and society.

2.18. Political and financial support for the ETH Domain

Recommendation 18 *Framework conditions*: Assert political and financial support for the ETH Domain

- Protect and promote the ETH Domain's unique role in the scientific, economic, social, and cultural development of Switzerland. Ensure its ability to serve as an engine for sustainable economic growth and the creation of talent for the country.
- Despite the present financial situation, ensure a steady and appropriate increase in the federal government's core contribution to the ETH Domain. In addition, continue sufficient funding for buildings and scientific infrastructure, so that the ETH Domain can meet the needs of education (especially in the context of a shortage of highly qualified personnel), research, and knowledge and technology transfer so as to maintain its global position as a leading institution.

Considerations of the ETH Board

The ETH Board welcomes the recommendation regarding the framework conditions.

Switzerland's prosperity and success are built on its outstanding education system and its strong research and innovation base. The ETH Domain is a central pillar of this. Its unique role in the scientific, economic, social, and cultural development of Switzerland needs and deserves protection and promotion. The ETH Domain provides Switzerland with comprehensive support in solving upcoming challenges such as the energy transition, digitalisation, and cybersecurity. With its close cooperation with the business community and public authorities, as well as the founding of successful start-ups, the ETH Domain makes a key contribution to Switzerland's economic development. Around 6,000 graduates (master and doctoral) complete their education in the ETH Domain every year, thus alleviating the acute shortage of skilled workers in Switzerland. Additionally, the ETH Domain performs numerous tasks in the interest of Switzerland as a whole and operates state-of-the-art research facilities available to researchers in Switzerland and abroad as well as to industry.

The ETH Board is aware of the ETH Domain's responsibility as a flagship for the Swiss ERI sector. The institutions of the ETH Domain have the ambition and the ability to compete with the best institutions worldwide. An inflation-adjusted real growth rate of 2.5% per year in the federal government's core contribution to the ETH Domain is necessary to enable the ETH Domain to continue to fulfil its flagship role and its many tasks for the benefit of the Swiss ERI sector as well as Switzerland's economy and society as a whole.

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ETH Board

Board of the Swiss Federal
Institutes of Technology

Zurich
Händeliweg 15
8092 Zurich
Switzerland

Bern
Hirschengraben 3
3011 Bern
Switzerland

www.ethboard.ch