Evaluation of EPFL Schools: Quality Procedure
A Guideline for Internal Quality Assurance in the EPFL Schools

Management Summary:

Quality Assurance in the ETH domain is a coherent and exhaustive Quality System, involving evaluations of EPFL Schools and EPFZ Departments on a regular basis. This procedure covers the evaluation of EPFL Schools (and Colleges). The outline of the main process can also be used for assessing institutes and laboratories. This Guideline was compiled in association with the ETHZ and includes both international and national standards. It covers the following items:

- description of the evaluation process and key stages;
- composition of the evaluation committee;
- evaluation criteria;
- format and content of the self-evaluation report;
- deontological aspects;
- key points in internal communication;
- reporting to the ETH Board.
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Internal Quality Assurance (QA)

This document constitutes the EPFL guidelines for evaluating its faculties and colleges. It also applies mutatis mutandis to the aforementioned institutes and academic vocational centres.

A. Quality Assurance and the EPF Domain

Legal basis and general aims of the QA in the EPF domain: the legal basis of Quality Assurance in the EPF domain appears in Articles 10a, 23 and 25 of the Law on the EPF (1991); QA in this domain covers two distinct areas:

- Strategy and controlling by addressing the question: Are we doing the right things? The qualitative aspects are predominant; perspective and vision play key roles (strategic level).

- Management, organisation, quality of services and the attainment of the objectives set forth in the strategy and planning documents for the institutions and the domain (for the latter, the current service mandate of the CEPF edited by the Federal Council. The question addressed here is: Are we doing these things right? The quantitative aspects and the use of judiciously selected indicators gain in importance in this second section (organisation and management level).

QA in the EPF domain: it is the subject of a framework document1 of the ETH Board. Quality Assurance in the domain comprises cascaded evaluations (cf. Annex A), including:

1. The intermediate and final evaluations of the services mandate of the Federal Board to the ETH-Board of the EPFs. The SER2 requires these evaluations every two years and under its supervision, but organised by the Board of the EPFs. They cover the activities of the Board, the two EPFs and the group of research institutions (EAWAG, EMPA, PSI, WSL). The evaluation report is public and is discussed in the federal committees of both chambers. Moreover, the ETH Board presents a report of its activities to Parliament annually. This report contains a section that is devoted to the EPFL.

2. The evaluations of the functional sub-units of the two EPF3’s and the group of institutions: faculties, centres, departments, as well as research institutions (EAWAG, PSI, EMPA, WSL).

These sub-units are evaluated every four to eight years (5-6 for EPFL, 8 for EPFZ).

These evaluations are decided by the Senior Management of the institution, but are organised and implemented by the School (EPFL) or the department (EPFZ). The ETH Board functions as a supervisory body in this context. The School evaluation report(s) are presented at the meeting of the Board of the EPFs. Preliminary information is provided during the annual discussion DIALOG (between the EPFL

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1 Evaluations in the ETH-Domain, Item 55 of the meeting of the ETH Board June 28/29, 2005.
2 State Secretariat for Education and Research.
3 This directive was edited in consultation with the Zurich EPF, the main document is moreover cited in the text above.
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Senior Management and a delegation from the ETH Board).

3. *Evaluations of other centres or inter-institutional units* such as the centres of competence in the EPF domain. Initiated by the *leading house* concerned, the evaluation is set up by the centre leadership. The Board of the EPFs also functions as a supervisory body.

4. *Evaluations of institutes and laboratories of a faculty are placed under the responsibility of the dean of the School.* The EPFL Senior Management assumes the role of a supervisory authority, but does not impose a schedule; it may, however, combine the evaluation of faculties, institutes and laboratories. The general sequence of the evaluations of institutes and laboratories is similar to that of the Schools, the subject of this directive.

The ETH Board and the Senior Management of the institutions are entirely free to initiate additional /supplementary audits, according to their needs.

B. Evaluation of the EPFL Faculty and College

**EPFL QA and its quality system**

*Content of the EPFL QA:* EPFL has a Quality Assurance system with two facets, like the best American technology universities:

- dual accreditation of Bachelor and Master Educational Programmes: the Commission for Engineering Titles (CTI; *F*) issues an “habilitation” (a form of accreditation) and the European label EUR-ACE for Masters with the professional title of engineer, whereas the Center of Accreditation and Quality Assurance of the Swiss universities (OAQ) accredits all Bachelors and Masters from the EPFL;
- an evaluation cycle for schools and colleges that forms an integral part of Quality Assurance in the EPF domain.

*Evaluation and accreditation:* first of all it is necessary to differentiate the evaluation from an accreditation audit: the evaluation is a *de facto* institutional accreditations that do not bear their name — by the Centre of Accreditation and Quality Assurance (OAQ). A technical university that wishes to have its programmes accredited in an academic manner (OAQ) and professional (CTI), the EPFL has chosen to have curricula of study and institutions accredited.

In Switzerland, accreditations of programmes and institutions are being replaced by “quality audits” — *de facto* institutional accreditations that do not bear their name — by the Centre of Accreditation and Quality Assurance (OAQ). A technical university that wishes to have its programmes accredited in an academic manner (OAQ) and professional (CTI), the EPFL has chosen to have curricula of study and institutions accredited.

**EPFL QA and QMS:** the EPFL Quality approach surpasses the scope of quality assurance (QA) and embraces the Quality Management System (QMS): the CTI standard that the EPFL follows is a QA system of Total Quality that is akin to the *Baldridge Award* in US education.

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4 European Network for Quality Assurance.

5 European Higher Education Area, an enlarged Europe with states participating in the Bologna Process.

6 European Network for Accreditation of Engineering Education.

7 Engineering Titles Commission.

8 Standard to download, [l’URL: http://www.nist.gov/baldrige/enter/education.cfm](http://www.nist.gov/baldrige/enter/education.cfm)
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**Evaluations of EPFL faculties and colleges:** The School evaluation is an essential governance and guidance instrument for both the School and EPFL Senior Management. It validates the policy on teaching, research and transfer of knowledge and technologies and enables the ETH-Board, the supervisory authority of Switzerland, to make judicious and efficient use of the resources provided by the Swiss citizen.

It must not be forgotten that this instrument also assumes an absolutely essential long-term aspect; it is a cardinal tool for developing the School and faculty, its institutes and laboratories. In this sense, the audit committees, comprised of high-calibre experts, are also in a position to advise the faculty wisely about its future options and to reply to its queries.

**Objectives of the evaluation**

The evaluation mainly applies to the three services provided by the faculty: teaching, research, transfer of knowledge and technologies, as well as factors that contribute to their excellence, such as organisation, etc. The result is compared with the content of the current strategic documents issued by the School, the EPFL (and the ETH domain), as well as with world-class know-how.

**First objective, accountability:** The objectives of an evaluation are firstly of a general nature that applies to all the Schools and aim at improvement (based on a cyclical and incremental method). It is here that the evaluation provides proof of responsible use (in the sense of accountability) of public funds.

**Second objective, specific themes for future developments and questions:** Secondly, some questions originating from the EPFL Senior Management are specific to each School; they address, for example, thoughts about the future, projects or programmes in progress. They may also be drawn up by the Faculty itself. General and specific questions (terms of reference) are included in a questionnaire that is submitted to the audit committee (to formulate specific questions, for example, cf. Annex B).

The results of the evaluation must enable the faculty to make optimal strategic decisions. This is the reason why the evaluation is both retrospective and prospective, with greater emphasis on the latter aspect.

**Deontology of the evaluation**

All evaluations take a basic deontological approach, implementing the virtues of integrity, probity, impartiality, transparency, cordiality towards the auditors and the audited, thereby facilitating an accurate, coherent and neutral judgement, equal treatment and possible comparisons.

In contrast to the accreditation audits that use standards, as well as guidelines to clarify the behaviour and performance of experts, the evaluation of the academic institution

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10 The Références et Orientations 2009 and Cahier complémentaire 2010 compiled by the Engineering Titles Commission, comprehensive and regularly updated, are useful reference works, as is the Guide d’autoévaluation des formations d’ingénieur - June 2006.

11 The document from the Centre of Accreditation and Quality Assurance - Standards de qualité des institutions universitaires, points de références of 17 March 2003 is a standard reference document, despite focusing on accreditation.

12 See in this connection M. Jaccard, Objectif Qualité - Introduction aux systèmes de management de performance et de durabilité, chap. 10. éléments de morale et d’éthique et 11 La déontologie des professions et fonctions, PPUR (2010).

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presupposes highly qualified auditors in terms of ethics and science, and who on account of their reputation and expertise have the complete confidence of the Senior Management, and more freedom for their investigations, mode of operation within the group and analysis. This freedom enables them to make relevant recommendations, frequently beyond the scope of the questions posed, thereby providing an innovative view of the school and the college under scrutiny.

The evaluations are planned and executed so that individual rights and integrity are respected and protected. The evaluation report is published, and everyone involved is informed of the results.14

C. The procedure

Evaluation programme and ETH Board
The ETH Board must be notified annually of the faculty evaluation programme.

The evaluation is conducted by an ad hoc committee appointed by the EPFL Senior Management. The latter receives the following documents 4 weeks before the start of the evaluation:
- the evaluation schedule - lasting from three to five days15;
- the self-evaluation documents from the faculty16;
- the questionnaire - the terms of reference (cf. Annex B, which lists a set of possible questions).

The stages
Figure 1 shows how the evaluations follow the PDCA (Plan Do Check Act) cycle, also known as the Deming Wheel, which is typical for a Quality Assurance approach:

The faculty evaluation comprises several key stages:

a) prior definition of the schedule of faculty evaluations by the EPFL Senior Management;
b) acceptance of the schedule by the ETH Board;
c) selection of specific evaluation themes by the EPFL Senior Management;
d) selection of the audit date by the EPFL Senior Management by agreement with the School;
e) selection of the audit committee by the EPFL Senior Management by interacting with the School;
f) compilation of the list of questions;
g) drafting the self-evaluation document by the School;
h) dispatch of the documents to the committee one month before the audit;
i) evaluation of the School over three to five days;
j) compilation of the report by the president of the committee and dispatch to the EPFL Senior Management within 4 weeks after the audit;
k) receipt by the EPFL Senior management and dispatch of the document to the School for its opinion;
l) drafting of an opinion by the School and a list of measures to be implemented, with a schedule and priorities;

14 The EPFL, exactly like the Centre of Accreditation and Quality Assurance (OAQ), adheres to the deontological principles in the document Standard d’évaluation SEVAL of 5 December 2000, and particularly to thesis D2: protection of individual rights.
15 By way of illustration, see the audit schedule of 2006 from the ENAC Faculty - available on request.
16 By way of illustration, see the self-evaluation document of 2006 from the ENAC Faculty - available on request.
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m) decision by the EPFL Senior Management to accept the audit report and the opinion of the School;

n) information to the ETH Board delegation during the annual DIALOG meeting;

o) discussion of the audit report and its impact at the ETH Board meeting within four months after the evaluation;

p) inclusion of possible comments by the ETH Board;

q) implementation and follow-up of the recommendations.

Each evaluation must be the subject of detailed planning discussed with the Officer from the QA Unit of the Presidency.

Selection of the audit committee

_Diversity, number and type:_ the audit committee\(^\text{17}\) must display diversity. This applies to nationality, scientific expertise, gender, experience and age. The requirements of knowledge transfer and technologies necessitate including (a) representative(s) from the world of finance, professional and employers' associations as well. The composition of the committee must also reflect the specific questions that are addressed to it. Participation of the deans or heads of department from world-class technological universities is thus particularly appreciated.

The committees comprise 8-12, respectively 6 experts for the faculties and colleges (as does the evaluation), 50% of whom are selected from a list proposed by the faculty and around 50% by EPFL Senior Management; this number must in fact be adapted to the size of the faculty and the degree of granularity of the evaluation. The standard composition of a

\(^{17}\) Also see the Centre of Accreditation and Quality Assurance (OAQ), _guide d'évaluation externe – Recommandation à l’intention des experts_ of 1 March 2003, as well as the _ECA Principles for the Selection of Experts_ (European Consortium for Accreditation, Dublin, 2 June 2005).
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committee of experts for the Faculty evaluations is typically 30% US, 40% EU (the selection of Swiss experts is authorised, albeit expressly subject to possible conflicts of interest), 20% alumni and members of the private sector, 10% Asia. The selection of at least one expert having participated in the previous evaluation is judicious.

Selection of the President: within the group, one of the experts, with vast experience in evaluation or accreditation procedures, is selected in advance as president and is responsible for the group. He is expressly included in the list of experts as a potential candidate (three potential candidates must be proposed).

The president must be a university professor, unless there is a good reason for making an exception. He is responsible for coordinating the activities of the experts and assumes responsibility for compiling the evaluation report. The group must also have a competent expert to stand in for the president, should he be indisposed.

Potential conflicts of interest: the neutral stance adopted by the auditors is an essential factor that ensures the accuracy and credibility of the results of the audit. All potential conflicts of interest must be avoided. It is therefore essential to be careful in the selection of experts:

- who have established personal relationships with a member of the audited professorial body;
- who have had academic links with a laboratory or a professor (postdoc, dissertation, etc.) during the last ten years;
- who have published with professors from the Institute under scrutiny;
- who have joint research projects in progress;
- who are collaborating on research programmes financed by national, European agencies, etc.
- who may have had personal conflicts with one faculty member.

Some institutions have their experts sign a form certifying that there are no conflicts of interest.

Evaluation criteria
The criteria provide the basis for an intelligible portrait of the sectors and audited activities of the faculty and determination of future potential. These criteria depend on the disciplines and activities that are evaluated. However, the general criteria apply to:

- quality (in the sense of excellence);
- productivity and efficiency (output);
- relevance and interest (scientific and socio-economic);
- enthusiasm, potentialities and implementation capabilities (flexibility, conduct, leadership);
- academic and societal impacts (including the economy) of the activity of the unit under scrutiny; and
- its participation in the major political endeavours in society, Swiss society in particular (tenacity, participation in the Science and City dialogue, etc.).

The audit committee has the task of generating a qualitative judgement according to the aforementioned criteria based on a scale (for example: excellent, very good, good, satisfactory). This qualitative judgement is ideal for assessing the institutes and laboratories.
Self-assessment document

The self-assessment document is prepared by the School and its faculty. It must convey a fair and true view and enable the committee members to reply to the questions asked. The committees may interrupt and postpone the evaluation if they believe the document fails to reflect the reality that they observe.

The document is generally divided into two sections (A and B):

Document A\(^\text{18}\): a summary report of the main results, qualitative and quantitative indicators relating to the faculty, the school, the educational programmes and the institutes. The minimum indicators are those for the services mandate that the Federal Council submits to the EPF Board. This document, which also comprises the result of a questionnaire sent to alumni, must take stock of the situation and trends, and also include prospective content and contain a SWOT analysis. It must additionally contain a section that takes stock of the implementation of the recommendations resulting from the previous audit.

Document B\(^\text{19}\): a report that includes all the laboratories, drafted in accordance with a common, standard method and comprising for each laboratory or unit:

Audit schedule

This schedule must be designed so that the auditors have the opportunity to reply to and complete the questionnaire sent to them, or even to improve the self-evaluation documents. It must also give the School Body a voice. Below is an example of an audit lasting three and a half days:

- The experts arrive in the evening prior to the commencement of the evaluation. They use their first meeting to validate the audit programme and set up the internal organisation of the committee. A preliminary hearing of the Dean is possible.
- The first day is mainly devoted to the aspects relating to strategy, leadership, organisation and management (briefing with the EPFL Senior Management, dialogue with the School Senior Management, with the Dean) and some internal participants (lecturers, junior professors, students, doctoral candidates). The evening is devoted to a reception with the EPFL Senior Management, the audit committee and the School Senior Management.
- The second day is used to deal in greater depth with the training and dialogue with the internal participants (department/institutes heads, teaching committee(s), visit to the practical science laboratories, women professors, administrative and technical body, junior and senior researchers, visits to facilities and key centres). A standing dinner with the members of the faculty is scheduled for the evening.
- The third day is devoted to examining the research policy of the institutes and laboratories. The evening is free; the audit committee prepares the report and the debriefing.
- The fourth day is exclusively devoted to the debriefing with the faculty and the EPFL Leadership. The committee members begin leaving the EPFL at 11.30.

\(^\text{18}\) More information enclosed in the « Guidelines for the Preparation of the Self-Assessment Documents Provided to the Committee.»

\(^\text{19}\) More information enclosed in the « Guidelines for the Preparation of the Self-Assessment Documents Provided to the Committee.»
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The schedule must be validated by the committee president no later than two weeks prior to the commencement of the audit. He must be definitively sworn in at the plenary session of the committee on the evening prior to the evaluation. On the first day, a time slot is reserved for a briefing with the EPFL Leadership. On this occasion, the committee is still able to receive additional information on the main areas of the evaluation.

Evaluation report
The final report must be sent to the EPFL Senior Management no later than four weeks from the end of the evaluation. The committee is invited to structure the report according to the chapter headings of the questionnaire in Annex B, but in actual practice, as far as academic evaluations are concerned, committee presidents (senior, award-winning and very prominent scientists, often editors of renowned journals), who are also very prominent, generally determine the structure on their own initiative.

A list of the main recommendations should be included in the Management Summary of the document. The style of editing must be future-oriented, the tricky and delicate points picked up during the audit must be thoroughly discussed with the EPFL Senior Management during debriefing.

Implementation of the recommendations
Implementation will commence at the latest upon the acceptance of the report by the ETH Board. Some large-scale measures may be included in the next planning document. The other measures are reported during the School’s mid-term review with the EPFL Senior Management. The School must send a substantiated report, specifying the content of the corrective actions, to the EPFL Senior Management one month before the meeting.

Mid-term review
In order to validate the evaluations, a mid-term review is prepared by the Dean’s Office or the college leadership three years after the audit to take stock of the situation between the two evaluations:

The mid-term review informs the EPFL Senior Management of the measures adopted and of the events and new factors. The underlying concept is that of a dialogue, mutual information, but not bean counting under any circumstances.

D. Communication
According to the policy on transparency adopted by the EPFL and defined under B, the faculty evaluations comprise key communication points:

a) The QA Unit of the Presidency must inform the deans’ offices, college leadership, and the School Assembly and the ETH Board simultaneously of the evaluation programme - after the annual decision made by the EPFL Leadership.

b) The dean is responsible for communication within the School. It comprises:

   i) the preparation of the evaluation and its programme;
   ii) the publication of the evaluation report on the faculty WEB;
   iii) the decision by the EPFL Leadership on the position taken by his faculty with its

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20 Also see the “Handbuch zum Qualitätsmanagement von Lehre, Forschung und Dienstleistungen an der ETH Zürich”, by Christophe Niederwald, Urs Hugentobler, Konrad Osterwalder, (ref Nie 30.09.2003) 2.4 Peer review
c) The QA Unit of the Presidency undertakes the following actions:

i) provision of general information on the progress of the evaluation (Flash);
ii) communication of the decision by the EPFL Senior Management, the main results of the evaluation with communication of the WEB address where the evaluation report is available, the position adopted by the School and the summary document compiled by the EPFL Senior Management for the ETH Board (Flash);
iii) information to the committee members responsible for organising the procedure after the decision by the ETH-Board (by e-mail or included in a thank you letter signed by the EPFL President).
## Annex A: Evaluations in the EPF Domain

<table>
<thead>
<tr>
<th>Body / Level</th>
<th>Content</th>
<th>Reference document</th>
<th>Type of evaluation</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Board</td>
<td>FRT Message</td>
<td>Final</td>
<td>4 years</td>
<td></td>
</tr>
<tr>
<td>CEPF</td>
<td>Service mandate.</td>
<td>Intermed. and final and annual report</td>
<td>2 years annual</td>
<td></td>
</tr>
<tr>
<td>CEPF</td>
<td>Service mandate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPFL</td>
<td>Agreement on obj.</td>
<td>DIALOG</td>
<td>annual</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>Strat. plan EPFL</td>
<td>Audit$^5$</td>
<td>6 years</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>Strat. plan EPFL</td>
<td>Mid-term review EPFL</td>
<td>3 years after audit</td>
<td></td>
</tr>
<tr>
<td>Institute</td>
<td>Strat. plan EPFL$^1$</td>
<td>Audit$^5$</td>
<td>as appropriate</td>
<td></td>
</tr>
<tr>
<td>Head of the Institute</td>
<td>Strat. plan EPFL$^1$</td>
<td>interview and report$^2$</td>
<td>as appropriate</td>
<td></td>
</tr>
<tr>
<td>Head of the Laboratory</td>
<td>Strat. plan EPFL$^1$</td>
<td>interview and report$^3$</td>
<td>as appropriate</td>
<td></td>
</tr>
<tr>
<td>Laboratory</td>
<td>Strat. plan EPFL$^1$</td>
<td>Audit$^5$</td>
<td>as appropriate</td>
<td></td>
</tr>
<tr>
<td>Lecturer</td>
<td>Syllabus</td>
<td>evaluation$^6$</td>
<td>each course</td>
<td></td>
</tr>
<tr>
<td>Assistant</td>
<td>Terms of reference</td>
<td>interview and report$^4$</td>
<td>annually</td>
<td></td>
</tr>
</tbody>
</table>

1. Plus the documents, objectives and indicator charts from the faculty, compiled by the Dean’s Office, as appropriate.
2. Between the head of the Institute and the dean of the faculty.
3. Between the head of the laboratory and the dean of the faculty, also on the basis of his terms of reference; annual interview for professors and assistants (tenure track).
4. Introduction in progress.
5. According to the directive.
6. Evaluation by students: if average below 4, interview with head of department and the lecturer concerned.

The area shaded grey shows the external QA of the EPFL in direct relation to the EPF domain. This table does not include the Centre of Accreditation and Quality Assurance/ Engineering Titles Commission (OAQ/CTI) accreditation audits, and hence not the entire EPFL QA.
Annex B: Possible Terms of Reference Accompanying the Self-assessment Document.

This document must be drawn up for each evaluation, allowing for the specific features of each faculty and the objectives established by the EPFL Leadership. The document below addresses frequently asked questions, but experience shows that the terms of reference should not exceed 12-14 items, excluding generic questions).

Possible Terms of Reference

Purposes

For the School - The Team of Experts will evaluate where the School stands internationally and nationally. The Team will ascertain how well the mission/vision of the School are corroborated / measured by past activities, future plans, financial (budgets, personnel) and infrastructure resources.

For the Leadership of EPFL, the ETH Domain and the ETH Board – The Experts will provide first-class information in response to the strategic questions:

- Does the EPFL do the right things?
- Does the EPFL do things right?
- What about the future?

in relation to the size, performance and visibility of the School, its positioning and integration as an international technical university (EPFL), and in the ETH Domain.

This audit is basically an evaluation of the School by the EPFL Senior Management.

Objectives of the evaluation system

Improvement and accountability are additional objectives of the quality evaluation system. Public accountability is both a requirement for publicly funded research and an integral part of the improvement cycle in which this evaluation scheme plays a dominant role. The results of the evaluation are intended to help the School make better decisions about future policy. The evaluation is both retrospective and prospective.

Evaluation criteria

The criteria present a comprehensive picture of the School’s performance in a given field and its future potential. It should be noted, however, that the elaboration of these criteria may vary, depending on the field. The main criteria to be used in the evaluation are quality, productivity (scientific output), relevance (scientific and socio-economic impact), vitality and feasibility (flexibility, management and leadership). The evaluation committee presents its judgements according to these criteria on the basis of a scale (for example: excellent, very good, good, satisfactory).

Audit report

The final report is submitted directly to the EPFL Leadership. The report should be sent 3-4 weeks from the end of the audit. The committee is invited to structure the content of the report according to the main fields listed in the following document. A list of the main recommendations should be included in the document’s management summary. The content of the document is future-oriented. Critical points must be discussed carefully in the debriefing session with the EPFL Leadership.
Main Fields and Questions to the Evaluation Committee – School

Note: The list of questions is a general guideline, an awareness tool, rather than a checklist. The main points are printed in bold.
The audit is conducted on the basis that the self-evaluation provides a fair, correct and critical description of the current situation. Questions must be adapted to the specific activities, for instance the institute of Architecture (Key factors: studio, design).

1. General considerations

- **Mission and objectives**
  - How do you value the establishment of the School in 2002, grouping architecture, civil and environmental engineering? Can it be compared to other similar initiatives worldwide?
  - How do you assess the excellence (in view of the stiff competition), the importance of the mission and the objectives of the School with respect to its role as a centre of competence for architecture, civil and environmental engineering in the national, European and worldwide contexts?
  - Please comment on the core competences of the School
  - Does the School recognise and fully take into account current developments and the relevant cultural, scientific, technological and professional trends? Which areas should be given more emphasis? Which areas are given too much attention at present?
  - What is your opinion of the current strategic planning document for the School? Did the School use the correct tools and instruments to monitor and control implementation?
  - Will the School initiate or play a substantial role in the development of competence centres and innovation and cooperation projects at national or international level?
  - The Bologna Process aims to promote Quality Assurance in academic institutions. Please comment on the current position of the School in terms of this trend.

- **Adequacy of education (teaching), research and services to achieve the objectives**
  - Are the teaching and research activities and services adequate in terms of fulfilling the requirements and achieving the objectives of the School?
  - Are the strategy and allocation of School professorships for the present and future planning periods adequate?
  - Please comment on the replacement of retiring professors in key areas in connection with industrial and public activities.

- **Availability of financial and personnel resources to achieve the objectives. Flexibility to adapt to changing needs**
  - What is your opinion of the qualitative and quantitative allocation of available resources in terms of fulfilling the teaching and research obligations and the duty to provide services (from the EPFL to the School, and within the School)?
  - Does the allocation of resources reflect the educational/research output?
  - Are procedures in place to regularly review and improve the School and/or is the existing structure sufficiently flexible to make changes as appropriate?
  - What is your opinion of the technical support provided for the major installations and facilities in the School?

- **Human resources**
  - Please comment on the general culture, entrepreneurial spirit and level of enthusiasm of the School in the fields of research activity, teaching and collaboration.
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- Please comment on the current balance among full professors, associate professors and (tenure track) assistant professors, educational background, gender and age.
- What is your opinion of the quality, integration and impact of the professors appointed recently (since the creation of the School)?
- Teaching and research in the faculty of architecture: would the appointment of (tenure track) assistant professors be relevant?
- How do you assess the administrative load of professors and assistants?
- Is enough attention devoted to the career development of junior and senior scientists, the administrative and technical staff? Are their teaching and research activities recognized? Do they receive sufficient recognition?
- Does the School actively promote gender equality? Does the School have a policy and policy instruments to develop career opportunities?

**Organisation and management**

- Please comment on the management, managerial skills and overall governance of the School. What are the advantages and achievements of the strategic, financial, and managerial autonomy?
- How would you characterize the managerial and leading roles of the Dean of the School?
- How would you rate the administrative organisation of the School? Would you suggest a different structure and/or more efficient processes?
- What is your opinion of the support provided by the central administration (academic, financial, personnel, IT, central library, etc)? Would you suggest other processes?
- Please comment on the School Council, especially on the participation of students and junior scientists, teaching, technical and administrative staff.
- Please comment on the interaction among the School, the ETH-Board, the EPFL Senior Management and the other Schools.
- Is the transfer of tasks from the EPFL central services to the School appropriate? Does it contribute to the development of the School?
2. Education and teaching

- **Curriculum and achievement of the objectives**
  - Are educational goals and activities based on a consistent strategy of (educational) programmes?
  - Is the curriculum appropriate for the needs of future development requirements and the responsibilities of professionals in public institutions or in the private sector?
  - Does the new curriculum develop independence, flexibility, entrepreneurial spirit, and project management abilities?
  - Please comment on the international standing of the Bachelor, Master and Doctoral programmes.
  - Identify which areas should be strengthened (or scaled down).
  - How is research integrated into education (especially Master programmes)?
  - Is the education of doctoral students adequate? What is your opinion of the level of dissertations?

- **Organization and adequacy of education**
  - Please comment on the recent introduction of Bachelor, Master and Doctoral programmes - on the adequacy of their interfaces. Do you have any comments on the new links between curricula (minors, etc.)?
  - Is the ratio of lectures, exercises, practical and individual projects (semester papers, degree theses and fieldwork) well balanced?
  - What is your opinion of the courses offered in terms of quantity and quality - level of instruction, teaching methods, demand on time, use of new learning technologies, problem and case-study-based learning, computer simulations, computer assisted project development - and coordination among courses?
  - Is the relationship between basic and engineering sciences adequate?
  - What is your opinion of the system of tests and examinations?
  - What is your opinion of the overall performance during study periods, e.g. duration of studies, selection procedures, drop-out rate?
  - Do you have any comments on the rating of teaching by students?

- **Students**
  - Are highly talented students given sufficient encouragement? Is the range of Master and PhD programmes adequate and of interest to talented students?
  - Are the entry requirements adequate?
  - Please comment on student mobility.
  - Is the number of international students in line with the objectives of the School?

- **Teaching load of professors, assistants and lecturers**
  - What is your opinion of the teaching load of the professors and lecturers?
  - Is it evenly distributed within the (educational) programmes?

- **Continuing education**
  - How does the School implement the new EPFL policy?
  - What is your opinion of the new EPFL policy on continuing education, and how does it affect the existing postgraduate programmes?
  - Do the postgraduate courses offered to practitioners provide a significant transfer of knowledge?
  - Is the teaching (methods, contents) appropriate for the range of postgraduates needed in industry and education? Would you suggest other (educational) programmes?
3. Research

- **Mission and objectives of research**
  - Are research goals and activities based on a consistent strategy adopted by the School?
  - Does the research conducted at the present time satisfy the mission and objectives of the School?
  - Should some research areas be emphasised or de-emphasised? Are some research fields not represented appropriately?

- **Research support**
  Differentiate among the support provided by national and international research sponsors, government and public institutions, and private industry.
  - Is research organised effectively and efficiently? Are responsibilities and tasks allocated appropriately?
  - Is the research activity adequate in terms of the number of senior staff?
  - Is there a proper balance between funding by public grants or by private institutions (industry, trade, etc.)?
  - Is the research proposal process sufficiently competitive?
  - Is the number of PhDs adequate in comparison to other universities?

- **Research collaboration**
  - What is the quality of the contacts and collaboration in the School and with its scientific environment (schools in the EPFL and ETH domains, Swiss - such as UNIGE - and foreign universities, economy and industry)?
  - What about collaboration by the faculty of architecture with design institutions?
  - What is your opinion of the international cooperation projects in terms of quality and quantity? Does the School have a policy?
  - Are the interdisciplinary and/or trans-disciplinary research activities adequate? Is there sufficient flexibility in the system to work on such collaboration?
  - Please comment on the inclusion and relevance of global sustainability and climate change, as well as the humanities and social sciences, in the research and educational activities of the School.

- **Standing in the international scientific and research community, including professional organisations, commissions etc.**
  - Is the School (nationally/internationally) well-established in its specific research community?
  - How do research activities and their results compare on an international level? Is the number and quality of publications adequate? Are they documented in the relevant scientific journals and/or conference proceedings?
  - What is your opinion of the visibility of the School with regard to conference contributions and guest lectures?
  - Is the School active in national and international scientific and professional organizations?
  - Do members of the School occupy leading positions within these organisations?
  - Is the research undertaken by the School recognized by scientific agencies (SNF, KTI, EU institutions) and the scientific community? Are enough projects funded by them?
4. Technology and knowledge transfer

- **Links with the “real world”**
  - Please comment on the interface between activities in the architecture, civil and environmental engineering faculties and industrial and public activities.
  - How does the School involve professional associations and circles? How does the School incorporate their input?
  - Does the School evaluate the degree of satisfaction of professional associations and groups?
  - Does the School develop contacts with its own alumni? Does the School include their experience and feedback?

- **Knowledge transfer**
  - Are the School’s research results recognised in terms of existing practical implementation by private institutions and public agencies (industry, trade etc.)? Do they support research sufficiently by making financial contributions?
  - Does the School provide an adequate transfer of knowledge between the academic level and the practical level, including small and medium-sized enterprises?
  - What contribution does the School make to national and international standards and norms?
  - Do the publications in professional journals correspond to the needs of the end-users?

- **Technology transfer**
  - Is the technology transfer in line with the mission of the School (as a research University)?
  - Please comment on the output and appropriate balance of the types of technology transfer (start-up, spin-off, patent, licence, private mandate and services).
  - Would you suggest other fields?