Introduction

The “Commission des Titres d’Ingénieur” (CTI) is the French accreditation agency for engineering degree programmes that was founded by French law in 1934. A distinctive feature of the CTI is that its members consist of an equal number of representatives from academia and from industry (employers and engineering associations and unions).

The CTI has been a full member of ENQA since 2005. As an outcome of the last ENQA external review that took place in 2019, its full membership was renewed for five years, until June 2024.

The expert panel report of the last external review highlighted many commendations:
- “CTI is a professional organisation that is highly respected and appreciated by stakeholders and authorities.
- Active participation of industry representatives in CTI governance has helped to increase the reliability of CTI in the engineering environment and enhanced the quality of engineering education in France.
- The panel was impressed by the large number and high quality of thematic analyses, given the relatively small scale of the agency, and their dissemination through several different kinds of activities, such as conferences, newsletters and other information sharing for promoting QA in higher education nationally and internationally.
- Annual conferences are much appreciated by stakeholders (especially deans of HEIs).
- Both the staff members and CTI members from industry and academia are highly committed which supports the integration between industry and higher education.
- CTI has developed a comprehensive and user-friendly information management system.
- CTI can be commended for its active collaboration with stakeholders to periodically update the criteria for engineering programmes.
- The panel commends CTI for the involvement of international experts in the panels and encourages CTI to apply this practice to all reviews.”

Apart from these very encouraging comments, the expert panel identified areas of improvement regarding the CTI’s compliance with the ESG which were endorsed by the ENQA Board during its decision-making session on June 20th 2019.

In this follow-up report, the CTI will describe how it has taken into account these ENQA recommendations.
The CTI’s follow-up of the ENQA recommendations

The CTI agrees with the panel’s recommendations as regards the compliance of its procedures with three ESG as it had already started to work on two of the identified issues as early as in 2016-2017. The outcomes of a dedicated working group lead the CTI to comply with the recommendations as described below.

**ESG 2.3. Implementing processes**

| ENQA’s judgement: “Substantially compliant” |
| Recommendation: “CTI is recommended to develop follow-up procedures also in case of full accreditation. In order to limit administrative burden, CTI and HEIs might consider taking use of existing publication tools (e.g., conferences, certified data). The methods for follow-up should be implemented so that quality culture at the institutions will be further developed.” |

At their plenary session in April 2019, the CTI members validated a new follow-up procedure for programmes that were granted a full five year accreditation.

Since the 2019-2020 campaign, the concerned HEIs have to submit an intermediate self-assessment report between two periodical reviews. This follow-up report will take the form of a table listing the CTI’s guidelines for improvement and the implemented changes or the action plan for further improvements. These follow-up reports will be analysed by a CTI member or expert who – where possible – will have participated in the last periodical review. The CTI’s plenary session will decide on a judgement regarding the follow-up report. The follow-up report and the CTI’s judgement will be part of the documents taken into account for the following periodical evaluation procedure.

Apart from this measure that implements the ENQA’s recommendation, the CTI wishes to stress other means to sustain the development of a quality culture in the HEIs and the follow-up of guidelines for improvement.

In 2012, the CTI put into place an “indicator survey” that must be filled in on an annual basis by the institutions and certified by the heads of the HEIs. These “certified data” cover all essential aspects of a programme, from information on admission to feedback on employment. The certified data represent a useful tool for self-evaluation by the institutions; they can easily highlight the progress made and/or any inconsistencies. The CTI considers the certified data as an efficient form of annual follow-up for all institutions. The annual certified data of each HEI are published on the CTI’s website.

In 2018, the CTI added a new section in the data sheet where the HEIs have to describe their internal quality assurance and may add examples of good practice. This encourages the HEIs to update and develop their quality culture on a regular basis.

On the other hand, it may be stressed that since the 2019 version of its guidelines and criteria, the CTI encourages the HEIs to submit the evidences of their compliance with the criteria via an online “portfolio”. The aim of this portfolio is to be updated on a permanent basis and to thus enhance the HEIs’ internal quality assurance.
ESG 2.5. Criteria for outcomes

ENQA’s judgement: “Partially compliant”
Recommendation: “For improved consistency of decisions, CTI is recommended to develop the deliberation rules and criteria for decision-making explicitly. They do not need to be mathematical but should still give a clear indication for the different types of decisions.”

The CTI itself had identified the consistency of the outcomes of an evaluation procedure as a major issue for improvement. A working group was set up in 2016-2017 that started working on a new template for the panel reports that included a table listing the major criteria and an evaluation of the programme’s compliance with each of them.

The new template for the panel reports and the table of compliance with the major criteria was used during a pilot phase in 2017-2018 and 2018-2019.

After an analysis of the outcomes of the pilot phase, the CTI’s plenary session validated in April 2019 the following updated tools for the CTI, that have been used since the academic year 2019-2020:

- A new template for a publishable panel report (see comment on ESG 2.6 below) that includes tables in each chapter regarding the compliance with the relevant criteria.

- A summary table with the major criteria and an evaluation of the programme’s overall compliance with them that is used as a tool for decision making.

<table>
<thead>
<tr>
<th>R&amp;O criteria</th>
<th>EVALUATION</th>
<th>FURTHER INFORMATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Non compliant</td>
<td>Partially compliant</td>
</tr>
<tr>
<td>A. Mission and organisation (7 criteria)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Internal Quality Assurance and continuing improvement (6 criteria)</td>
<td></td>
<td></td>
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<tr>
<td>B. Co-operations and partnerships (6 criteria)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. The engineering degree programme (10 criteria)</td>
<td></td>
<td></td>
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<tr>
<td>D. The student admission &amp; integration (5 criteria)</td>
<td></td>
<td></td>
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<tr>
<td>E. Employment (4 criteria)</td>
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<tr>
<td>Total</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
At the same time, the CTI worked out a provisional system with rules for decision making based on the summary table that allowed space for a holistic approach (taking for example into account the trajectory of improvement of the HEIs). These rules were set up after checking their consistency with accreditation outcomes during the academic year 2018-2019. Before publishing these rules, the CTI decided to analyse the consistency of its decisions with regard to the summary tables after the first semester of the academic year 2019-2020.

The need to adapt the CTI criteria and set up a new procedure for virtual site visits (as a response to the sanitary crisis in spring 2020) delayed the finalisation of the planned observation & analysis period. The outcomes of the analysis had to be postponed and were undertaken in spring 2021, with the aim to make the rules public in the new version of CTI’s guidelines & criteria (R&O) to be finalised by the end of 2021 and published in February 2022. The outcome of the analysis confirmed the consistency of decisions with the rules and criteria.

### Deliberation rules and criteria:

<table>
<thead>
<tr>
<th>Evaluation of: Compliance with the major criteria Implementation of the guidelines for improvement</th>
<th>Recommendation/Decision regarding the duration of the accreditation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Several major criteria <strong>not compliant</strong> Several guidelines for improvement <strong>not implemented</strong></td>
<td>- 1 year for existing programmes - No accreditation for new programmes/campuses</td>
</tr>
<tr>
<td>At least one of the major criteria: <strong>Not compliant</strong> Several guidelines for improvement <strong>not implemented</strong></td>
<td>Limited duration (with or without an urgent action plan to provide within 6 months)</td>
</tr>
<tr>
<td>One or several major criteria <strong>partially compliant</strong> Some guidelines for improvement <strong>not implemented</strong> (according to trajectory: in progress or not &amp; depending on the usefulness for the HEI to undergo a new review in the short or medium term)</td>
<td>Limited duration of 2 years Limited duration of 3 years</td>
</tr>
<tr>
<td>Most major criteria <strong>overall compliant</strong> Guidelines for improvement <strong>implemented</strong></td>
<td>Maximum duration of 5 years</td>
</tr>
</tbody>
</table>
ESG 2.6. Reporting

ENQA’s judgement: “Partially compliant”
Recommendation: “CTI is recommended to intensify efforts regarding the new template for panel reports in order to increase redactional uniformity and coherence. Full reports should be publishable in a short period, given the fact that this recommendation already exists since the previous ENQA review.”

The working group on the consistency of decision making (see ESG 2.5 above) was also assigned to work on the ENQA’s recommendation to publish the full evaluation reports including the expert panel reports, and not exclusively the synthesis report established by the plenary assembly.

A new template for the panel reports worked out by the working group and validated by CTI’s plenary session was used during a pilot phase in 2017-2018 and 2018-2019.

After an analysis of the outcomes of the pilot phase, CTI’s plenary session validated on its session in April 2019 a new template for publishable panel reports that was used for all procedures, starting in 2019-2020.

The 2019-2020 campaign was considered as a transitory phase and the reports were due to be published on a voluntary basis only, for those HEIs which agreed to participate in the new procedure. Since no HEI was interested, the reports were not published, but they served as a template that was regularly updated.

In its standards & guidelines (R&O), its annual conferences in 2019 and 2020 and Newsletter, CTI announced that all evaluation reports of the campaign 2020-2021 were going to be published on its website starting in September 2020 (see link), which was effective. [https://www.cti-commission.fr/seance-pleniere-du-15-septembre-2020](https://www.cti-commission.fr/seance-pleniere-du-15-septembre-2020)

Since the CTI is listed on the EQAR registry, its evaluation reports and recommendations/decisions for accreditation are published in the DEQAR database. The uploading of the documents of the last 10 years is currently being finalised. [https://www.eqar.eu/qa-results/search/by-report/?limit=20&ordering=-date_created&country=France&agency=CTI&offset=0](https://www.eqar.eu/qa-results/search/by-report/?limit=20&ordering=-date_created&country=France&agency=CTI&offset=0)
Further developments

Apart from the above described major improvements regarding the compliance with the ESG, further developments have taken place or are planned in the near future that the CTI wishes to comment below.

Suggestions for further developments by the ENQA Board and review panel

Student participation in the governance

The ENQA Board’s letter & expert panel’s report: “ESG 3.1 Activities, policy and processes for quality assurance. In dialogue with all stakeholders, especially student organisations, and within the possibilities of the law, CTI could consider incorporating students in the governance structures of CTI[…]. As the composition of CTI is regulated by law, this should be seen as an advice to the minister.”

The students are amongst the major stakeholders of the CTI and participate in all its major activities and evolutions, such as: up-dating of standards and guidelines, events, working groups etc. As stated by the ENQA review team, the membership of the CTI is defined by law and changes would imply a complex and long procedure.

The CTI however agrees with the analysis of the review team and in the short term decided to put into place an annual process review of its procedures and activities where students are represented with voting rights. The first session is scheduled on September 14th 2021.

In the medium term, the CTI will change its practical organisation by creating its own non-profit-making association to run its administrative and financial operations. This new structure was planned to be created in 2020-2021, but the sanitary crisis had the back-draw to postpone the project to the following period 2021-2022. All major stakeholders, including students and international partners, will be represented in the governing bodies of the CTI association in the future.

Major developments since the ENQA review in 2019

Since the last ENQA review in 2019, the CTI’s activities have continued to evolve.

Apart from the various working groups that the CTI initiated or contributed to with stakeholders on important issues such as the renewed database of the national qualifications framework (fiches RNCP); the national quality label for Continuing Education (Qualiopi); the co-ordinated evaluation procedures with the Haut conseil de l’évaluation de la recherche et de l’enseignement supérieur (Hcéres); the participation in the French Bologna follow-up group; the involvement in international projects… the CTI’s missions were particularly impacted by two major issues described below.
The evaluation of Bachelor programmes in engineering

In spring 2020, the ministry of Higher Education conferred a new mission to the CTI: the evaluation of institutional programmes at Bachelor level offered by engineering schools applying for the academic grade of “licence” for these programmes.

This represents a new opportunity for the HEIs. They may obtain a national recognition for their short three-year programmes in engineering subjects -which are not to be considered as engineering degrees (“titre d’ingénieur diplômé”)- under the condition that they undergo a successful external evaluation procedure.

During the first pilot phase in 2020, the CTI set up standards and guidelines for these programmes and an evaluation procedure for an external evaluation of the programmes. The CTI attached a particular attention to the compliance of all documents and the procedure with the ESG, based on its practice of the evaluation of engineering degree programmes. The first evaluations were carried out in autumn 2020 and the accreditation decisions were taken by the ministry in January 2021.

After this first pilot phase, the ministry confirmed the CTI in this new mission for 2021 and following years. After an internal feedback on the pilot phase, the CTI launched a consultation phase with its major stakeholders: ministry of Higher Education, students and engineering schools. Before finalising the new version of the standards and guidelines, the CTI participated in co-ordination meetings with two quality assurance agencies that evaluate institutional Bachelor programmes in other fields, the Conférence des écoles et formations de gestion (CEFDG) and the Haut conseil de l’évaluation de la recherche et de l’enseignement supérieur (Hcères). The three agencies exchanged on their practice and compared the threshold levels for the criteria for the “grade de licence” in order to organise consistent evaluation procedures for programmes leading to the same academic grade. The updated standards and guidelines were published on CTI’s website in spring 2021.

The upcoming evaluation campaign starts in July 2021 when applying engineering schools have to submit their self-assessment report. Site visits will be organised in September and the plenary session of November will analyse the evaluation reports and vote the recommendations to the ministry regarding the award of the academic grade. The review reports and recommendations for accreditation will be published on the CTI website and uploaded in DEQAR.

The CTI’s response to the sanitary crisis in 2020 and 2021

Like all organisations, the HEIs and the CTI were significantly impacted by the sanitary crisis in 2020 and 2021.

The CTI’s major preoccupation was to support the HEIs and the students and to make sure that their workload and everyday life was suffering in the least possible way, without putting at risk the quality of the programmes.

The CTI therefore took the following measures:
Adaptation of the accreditation criteria

A first obvious step was to suspend the compulsory international mobility criterion for engineering students enrolled for the last two years of an engineering degree programme.

Also, given the lockdown context and the economic difficulties of some sectors of industry, the CTI adapted the criterion regarding internships in companies. The rule of a minimum professional experience of 28 weeks was suspended. The final overall project, that is normally carried out in a company, was possible with a flexible duration and working conditions. The CTI advised the HEIs to allow overlaps to the following academic year without charging tuition fees and without impacting the official graduation class.

The CTI recommended that students enrolled for apprenticeship tracks should where possible preserve the original calendar with alternate periods in industry and at school. Where stays in a company were cancelled, the HEIs and the company were invited to offer adapted terms to enable students to achieve the expected learning outcomes despite this absence.

All these adaptations were offered, provided that:
- the students on the programme were not penalised;
- the achievement of all programme outcomes were ensured;
- the teaching & learning methods and the conditions for the validation of the degree were adapted to the situation;
- the relevant authorities and boards of the HEIs endorsed the adaptations;
- the changed rules were published in an annex of the study regulations;
- the measures taken were disseminated amongst students and other stakeholders;
- an individual follow-up of students, especially those in a fragile situation, was put into place.

Adaptation of the CTI procedures

As far back as autumn 2019, even before the sanitary crisis, the CTI had started a working group on digitalisation (regarding teaching, learning, evaluation). The sanitary crisis all of a sudden accelerated the process and HEIs made a huge progress in using new digitalised tools and methods.

For the CTI, it also meant to adapt very quickly its evaluation procedures. The most significant measures were:
- postponement of the submission dates for self-evaluation reports and intermediate reports by HEIs;
- postponement of all site visits & plenary sessions during the lockdown period in spring 2020;
- postponement of new international procedures to 2021-2022;
- adding 5 full days of plenary sessions in summer 2020 and in 2021 in order to catch up with the postponed procedures;
- the setting up of a specific procedure for online site visits, including a deontology charter to be signed by the HEI and the CTI before an online site visit;
- first virtual site visits in July 2020;
- joint CTI-Hcéres procedures separated in order to make the adapted planning more flexible;
- new composition of certain expert panels due to the changed evaluation dates.
Communication

In such a crisis situation, an effective communication is essential. CTI used several means to exchange with the engineering schools:

- several general messages sent to all engineering schools with the information on adapted accreditation criteria and recommendations regarding the support to all students and particularly to the more fragile ones;
- individual response to engineering schools and students on particular subjects;
- a survey launched with the association of the deans of engineering schools (CDEFI) on distance teaching & learning (issues, problems, perspectives...);
- a specific webinar with the association of the deans of engineering schools (CDEFI) with exchanges on good practice in distance teaching & learning;
- participation of CTI representatives in a working group of the deans of engineering schools (CDEFI) on the alternative ways to achieve the learning outcomes of an international mobility;
- various bilateral exchanges with the CTI’s stakeholders (associations of HEIs, ministries, student associations...);
- messages in the CTI Newsletter & on its website.

Conclusion

Since the ENQA evaluation that took place in 2018-2019, the CTI had the time to finalise some of the evolutions in its practice that were already planned before the procedure took place.

Although some analyses and changes were somewhat postponed due to the worldwide sanitary crisis, the CTI may confirm in 2021 that it succeeded in implementing all ENQA recommendations.

The CTI will benefit from an ENQA progress visit in October 2021, which will enable it to exchange on its practice and the issues that remain to be improved such as the further harmonisation of the published evaluation reports.