Introduction

The “Commission des Titres d’Ingénieur” (CTI) is the French accreditation body for engineering degree programmes at master’s level that was founded by French law in 1934.

CTI is a full member of ENQA since 2005. As an outcome of the ENQA external review process that took place in 2014 the full membership was renewed for five years.

The panel report of the external review identified a certain number of good practices and concluded in very positive terms: “CTI has evolved considerably, at the operational and structural levels. The recommendations of the 2009 review were fully taken into account [...] It has been clearly proved, by the evidence provided as well as by the interviews, that CTI is perceived and acts as the “guarantor” of engineering education in France and is increasing its status and impact in Europe and globally. The Agency is clearly contributing to the enhancement of the French Higher Education System as a whole by applying standards with consistency and a high level of professionalism.”

The expert panel also defined recommendations for improvements. In this follow-up report, CTI will describe how it has taken into account these comments.

CTI’s compliance with the ENQA review report recommendations

ESG 2.1. Use of internal quality procedures

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<tr>
<th>Recommendation: “The panel encourages CTI to improve its members and experts’ awareness of internal quality assurance in order to reach a higher level of understanding of the importance of IQA through mechanisms to train them on that specific matter.”</th>
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<td>ENQA 2014 review report: “Fully compliant”</td>
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CTI set up an “Audit Steering Committee” in October 2014. Its main tasks are to follow-up and analyse the evaluation procedures and define measures for continuous improvement. In order to put a still bigger emphasis on its own quality assurance, CTI set up another steering committee at the same date that deals with quality from the point of view of internal quality assurance and external and internal communication. These two committees work closely together. Their 8 to 12 members are nominated on a voluntary basis amongst CTI members and permanent staff, external advisors and student representatives. The minutes of the meetings of these steering committees are sent to all CTI members and the recommendations often lead to improvement measures that are submitted to the board and approved by the plenary assembly of all members.

The self-evaluation report of the engineering higher education institutions includes a specific chapter on internal quality assurance. Thanks to this part of the evaluation procedure and the activities of the steering committees, all CTI members are confronted with and involved in issues of internal quality assurance on a regular basis.

Since May 2014, CTI has put into place systematic training sessions for all its members and experts. There is at least one training session per year for all members and experts and one dedicated to the student experts. These training sessions include a specific part on internal quality assurance.

A good example of the success of these training sessions is the regular increase of the number of participants: from 60 to over 100 between 2014 and 2016. Another sign is the attendance at the specific training session scheduled in September 2016 for the 7 new members, but in fact largely attended on a voluntary basis by two thirds of all members.
Apart from the members who all actively participate to CTI’s annual conference, all experts and advisors are invited to attend this event, which is part of their training on internal and external quality assurance in CTI procedures. The CTI Newsletter that was started in 2014 also gives regularly information on issues linked to internal quality assurance: http://www.cti-commission.fr/-Lettre-d-information-mensuelle-439-

It may also be added that half of the 32 CTI members and many experts are professionals from industry. They are familiar with internal quality assurance which plays an important role in the professional life of engineers from any field. Normally, each expert panel includes a CTI member from both academia and industry; so that at least one member has a practical experience of internal quality assurance. Some members from academia are also experts in quality assurance.

Furthermore, CTI is part of the network of quality assurance agencies from French speaking countries, FrAQ-Sup, whose four founding members (AAQ, AEQES, CTI, HCERES) translated the ESG into French: http://www.cti-commission.fr/Traduction-francaise-des-Standards. This furthered a better awareness and understanding of the ESG amongst members and experts who are not fluent in English.

**ESG 2.4 Processes fit for purpose**

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<th>ENQA 2014 review report: “substantially compliant”</th>
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| Recommendations: “- The panel recommends CTI to increase the number of international experts in its evaluation committees, not only at national but also at international level.  
- It is also recommended to publish the composition of the committees for each review on the website indicating their profile and role in the accreditation process.  
- The panel considers that the procedure for the selection and nomination of experts could be improved by clarifying the process of selection of the expert members of the evaluation committees as well as the policy used for selection.  
- Finally, the panel recommends that student participation in the evaluation committees be increased and also to consider the possibility to involve them at the member level.” |

CTI regularly increased the number of its international experts: their number has nearly doubled between 2012 and 2016. The aim is to have an international expert in each evaluation panel for the periodical programme accreditation, which is the case for 87% of the visits scheduled in 2016-2017. Some of the accreditation procedures abroad are organised jointly with the local agency which provides in that case its own experts. When organising accreditation procedures abroad on its own, CTI may rely on the local agency or authorities to supply an expert from the national system who may also help understand the cultural differences and read documents in the national language.

The role of the panel members and the panel chair are described in CTI’s guidelines “R&O” that are public: http://www.cti-commission.fr/References-Orientations-version-2016. The standardized CVs of all CTI members have been published on the website for many years: http://www.cti-commission.fr/-Les-membres-de-la-CTI-. During the academic year 2016-2017, CTI will also publish the CVs of its experts under the same standard form. Each year at its annual conference in February, CTI announces and publishes on its website the chairs of the expert panels for the following evaluation period starting in September. Before an evaluation procedure starts, CTI informs the institution of the panel composition. If an institution identifies a conflict of interest, it may ask for the change of an expert. This happened twice in 2016. The published evaluation report lists the names of the panel members.

The mandate of a CTI expert has a duration of two years, renewable for 2 terms. In May 2016, CTI released an internal note that defined the principles of selection and management of the expert list for the upcoming period 2016-2018. It was thus decided to reduce the number of national experts in order to make sure that each of them was involved in at least one evaluation procedure per year and to increase the number of international experts. The profile of the experts is to be complementary of the profile of
the members, in order to enlarge the field of expertise of the panels. Interesting profiles may be identified by CTI members or known thanks to individual applications. The CVs are analysed by the Audit Steering Committee and validated by the CTI board and then by the plenary assembly that votes the expert list for the 2 years to come. The student experts are selected by the national union of engineering students (“Bureau National des Élèves Ingénieurs”-BNEI).

CTI’s annual surveys filled in by the members, the experts and the evaluated institutions as well as the feed-back of the panel chair may identify problems with a specific expert which may lead to his/her removal from the expert list.

The individual expert panels for the evaluations are set up by a subgroup of the Audit Steering Group, composed of three people (two CTI members and one permanent staff member). As a rule, each expert panel for the periodical reviews is composed of at least two CTI members (one representing academia and one industry), one expert (specialist in a field related to the evaluation), one international expert and a student.

As stated above, each expert panel for the periodical reviews includes an engineering student. As regards CTI membership, it is determined by law: 32 members (50% professionals from academia and 50% professionals from industry) and the participation of students as members is not within CTI’s capacity. Although students may not become CTI members, they are full members of the evaluation panels and participate to the whole evaluation procedure. In the near future, CTI intends to invite experts to the plenary sessions with an advisory seat. Students also participate to most internal steering committees and many working groups of CTI. The specific training session for student experts in October 2016 was organized in co-operation with the student union (BNEI).

**ESG 2.5 Reporting**

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<th>ENQA 2014 review report: “fully compliant”</th>
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<td>Recommendation: “Even if the published information is satisfactory for the different stakeholders, it could be of use to publish the full evaluation reports on the Agency’s website.”</td>
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CTI agrees when the ENQA review report states that it is fully compliant as regards the former ESG 2.5., although there might be a different perception of what ENQA and CTI call the “full evaluation report”.

After a site visit, the CTI expert panel writes down what is called the “report” but represents in fact “the minutes” of the site visit with elements from the auto-evaluation report and prepares a standard presentation of the evaluation for the plenary assembly. Up to then these “minutes” are considered to be an internal work document that is sent to the institution that may change fact-based information before it is presented at CTI’s plenary assembly. Following discussions and the vote at the plenary assembly, the SWOT analysis and conclusions may be changed. The “final evaluation report” (with a decision for private owned institutions and a proposal for state owned institutions) is written after the outcome of the plenary assembly and considered by CTI to be the “final evaluation report”. It is published on the CTI website: [http://www.cti-commission.fr/-Assemblee-plenieres-releve-de-conclusions-avis-et-decisions-concernant-les](http://www.cti-commission.fr/-Assemblee-plenieres-releve-de-conclusions-avis-et-decisions-concernant-les).

This public information is completed by two further compulsory documents that are linked to the evaluation and public:

- a qualification framework form for each engineering degree programme must be published in the national register (“Répertoire national des certifications professionnelles”-RNCP) [http://www.cnep.gouv.fr/reertoire](http://www.cnep.gouv.fr/reertoire),

- an annual “indicator survey” (see below ESG 2.6) must be filled in by the institutions and the results are published on CTI’s website: [http://extranet.cti-commission.fr/recherche/rechercheEcole](http://extranet.cti-commission.fr/recherche/rechercheEcole)
Despite the above argumentation, CTI is aware that there is an issue regarding the non publication of the initial report (called “minutes” above). During the academic year 2016-2017, CTI aims to set up a working group with its mainly concerned stakeholders, the institutions, in order to work on the new ESG 2.6. “Reporting”.

**ESG 2.6 Follow-up Procedures**

| ENQA 2014 review report: “substantially compliant” |
| Recommendation: “The panel considers that it would be useful to include a follow-up procedure for the newly created programmes and the programmes with no major problems detected.” |

Globally, in 2016, 70% of the periodical evaluation procedures resulted in a follow-up procedure that may take different forms: limited duration of the accreditation, “urgent action lines”, follow-up report.

In the case of new programmes, CTI systematically grants a short accreditation of maximum 3 years and thus assures a follow-up after a short period of time.

In the case of existing programmes with a certain number of short-comings, CTI grants a short accreditation of 3 years only and organizes a new review of the whole programme after a short period of time.

In the case of programmes with major problems identified, CTI has recently put into place a new procedure with compulsory “urgent action lines”. In that case the institution has 6 months to forward a plan of actions to CTI; in the case of non compliance or if the plan of action is not considered satisfactory, a new evaluation of the programme will be organised immediately.

As for programmes with no major problems detected, there has been a significant increase in the number of recommendations in the final reports as well as in the number of follow-up reports to be submitted after 3 years: the figures went up from 4 follow-up reports in 2013 to 16 follow-up reports in 2016.

CTI considers the above (ESG 2.5) mentioned “indicator survey” as an efficient form of annual follow-up for all institutions. The annual survey is compulsory and lists major indicators which are public and give important information on the quality of the programme and show the annual evolution, such as:

- contact hours & ECTS (ESG 1.2.: programme design, student work-load, consistency with the Bologna process, …)
- research & innovation (ESG 1.2. & 1.5.: programme objectives, intended Learning Outcomes, stakeholders’ involvement, link between education & research, …)
- links with industry (ESG 1.2.: involvement of stakeholders, benefit from external expertise, placement opportunities, …)
- international relations (ESG 1.2. & ESG 1.4.: involvement of stakeholders, benefit from external expertise, cooperation with other institutions, …)
- student life (ESG 1.3. & ESG 1.6.: number of administrative staff, housing, transportation, extracurricular activities, …)
- social openness (ESG 1.3. & 1.6.: support, scholarships, disability, …)
- duration of studies (ESG 1.3.: assessment & success rate)
- student profile & prior studies (ESG 1.4: admission & recognition issues)
- number and profile of faculty (ESG 1.5.: profile of teaching staff & links to research)
- employment survey (ESG 1.4. and 1.7.: achieved programme Learning Outcomes, recognition, carrier paths, links to industry, …)
ESG 3.2 Official Status

ENQA 2014 review report: “fully compliant”
Recommendations: “- The panel recommends that CTI develops the agreement with AERES in order to find a way to better align their evaluation calendars and to reduce the workload it represents for the Institutions.
- It is also recommended to have a mechanism for assuring the continuity of the agreement between both Agencies taking into account the change from AERES to HCERES in the near future.”

Since the 2014 ENQA review, significant changes have taken place.

AERES has become HCERES that is fully established now.

A new cooperation agreement has been signed between HCERES and CTI in September 2016 for 5 years and a working committee has been set up for its follow-up. This working committee is composed of three members from each agency and meets currently twice a month.

CTI participated in summer 2016 to the HCERES evaluation by ENQA as one of the stakeholders.

CTI has changed its annual calendar from 6 to 5 years, in order to align with the ministry’s five year contracts with the institutions and the related HCERES evaluation. From the academic year 2017-2018 on, CTI aims to publish the evaluation reports before the beginning of the 5 year contracts of the institutions with the Ministry. HCERES will be able to use recent CTI reports as part of the evaluation documents. Another facilitating factor is the annual “indicator survey” by CTI (see above ESG 2.6 and ESG 2.5.). Although it represents a certain workload for the institutions, it is useful for the institutions’ own auto-evaluation and may be used for the HCERES evaluation procedure.

But the calendar is not the only issue; the regional division of the French territory for organizing the periodical evaluation procedures is not the same either. The HCERES-CTI working committee is presently working on all these practical issues. A first partially joint site visit will take place as a pilot in spring 2017 with the aim to develop these joint actions during the 2017-2018 period.

As regards international relations, both agencies never stopped working closely together, either on joint projects (such as currently the setting up of a Quality Label for Chinese-French Institutes), or by representing alternately France in networks and associations (for example on boards of ENQA and ECA). HCERES and CTI together are amongst the founding members of the network of quality assurance agencies from French-speaking countries, FrAQ-Sup.

ESG 3.3 Activities

ENQA 2014 review report: “fully compliant”
Recommendation: “The panel recommends that CTI puts in place a mechanism to protect the Agency from the possible risk due to the equilibrium between the main mission and the international requests which are becoming more and more numerous and could have an impact on the main activity.”

CTI fully agrees with this recommendation. Between 2014 and 2015, the international applications have risen from 7 programmes in 4 higher education institutions to 27 programmes in 6 higher education institutions, but have since been stabilized at this number. CTI’s Audit Steering Committee and International Steering Committee are well aware of the risk and plan the calendars for national and international evaluations far ahead. The maximum number of cross-border accreditation for the year 2018 has already been determined: 24 programmes in 8 higher education institutions abroad.

CTI’s international strategy is renewed every two years. It is proposed by the International Steering Committee and voted by the plenary assembly. The international policy and action plan for the period
2016-2018 - that was validated on November 8th 2016 - clearly states that applications from abroad are not the first priority for CTI: http://www.cti-commission.fr/La-politique-internationale.

On the other hand, CTI is aware that accreditation abroad contributes significantly to the recognition of the French engineering degree and the mobility of the graduates and CTI intends to maintain this activity. In order to structure its workload, CTI put into place a new procedure for international applications: prior to a new accreditation procedure, the foreign applicant has to fill in a simplified document, the "preliminary admissibility file" including the "indicators survey". The analysis of this short file is not time consuming and serves to identify whether the concerned programme is an engineering programme at master’s level and consistent with CTI’s missions. In case the outcome is positive, an accreditation procedure is planned according to CTI’s availability and national priorities.

Another way to lessen the workload for CTI members is the decision to nominate a maximum number of 2 members for the same accreditation procedure and to rely more on experts. CTI also nominates every two years a list of “advisors” who participate to missions, steering committees and working groups on a voluntary basis. They are not only experts in their field and contribute to the knowledge and competencies of CTI but they lessen considerably the workload of the members and permanent staff.

Recently CTI has put into place lighter procedures for some reviews and follow-up reports. In this instance, CTI relies more on the institutions’ growing capacity for internal quality assurance and asks for a written report without a site visit. The evolutions are registered and analysed later on during the upcoming periodical review.

ESG 3.4 Resources

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<th>ENQA 2014 review report: “fully compliant”</th>
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<td><strong>Recommendation:</strong> “The panel recommends that CTI takes into account the risk of a higher workload for the staff with the view of increasing its activities (EURACE label, international accreditation, etc.) in the near future as well as with regards to the accreditation period which is due to be changed from 6 to 5 years.”</td>
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It is true that the major difficulty of changing the accreditation calendar from 6 to 5 years was the stress put on the workload for both members and staff. Several measures have been taken to face this challenge.

First of all, the calendar was adapted with a transitory phase in order not to increase the workload all of a sudden.

CTI’s financial means improved thanks to an increase of the grant by the ministry of higher education and of the yearly contribution of the institutions. This allowed CTI to strengthen the permanent staff team and to hire a further full-time staff member. It also enables CTI to have occasionally recourse to experts for dedicated missions and counselling or to hire short term employees or interns for administrative work.

In September 2016, CTI moved to new premises in the same building as its administrative operator, which greatly facilitates and accelerates the exchanges between the staff members.

ESG 3.5 Mission

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<th>ENQA 2014 review report: “fully compliant”</th>
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| **Recommendations:** “- The panel recommends that CTI develop the strategic aims of the Agency to strengthen its vision and goals.  
- The panel also recommends that CTI continue to publish the biannual activity reports noting that the 2010-2012 report is not yet published.” |

During the academic year 2016-2017 the CTI presidential team (president and two vice-presidents) will work on an update of CTI’s strategic plan, partly based on the outcomes of the Strategic Steering Committee in order to define CTI’s mid-term and long-term evolution goals and action plans.

In the recent past, CTI did not publish its annual reports due to a disruptive period for its permanent team that coordinates the activity: it had to face maternity and sick leaves and the renewal of the staff members and president. Nowadays the team is stabilized and the annual report 2014-2016 is currently being prepared for a presentation at the annual conference in February 2017. It will be published on CTI’s website and in the CTI Newsletter that is sent to the stakeholders.

**ESG 3.6 Independence: fully compliant**

| ENQA 2014 review report: “fully compliant” |
| Recommendation: “The panel recommends that CTI develops the strategic aims of the Agency so as to reinforce the way the Agency wants to follow its activities and make this public.” |

CTI’s upcoming strategic plan (see above ESG 3.5.) will include 3 parts: objectives, action plans and indicators of implementation. As soon as this new strategic plan will be finalised and voted by the plenary assembly (in 2017), it will be published on CTI’s website and presented in the Newsletter and communications. CTI’s international policy and action plan for the period 2016-2018 was voted on 8th November 2016 and is published on the website: [http://www.cti-commission.fr/La-politique-internationale](http://www.cti-commission.fr/La-politique-internationale). The Newsletter publishes regularly a feedback on CTI’s positions and strategic communications at seminars, conferences, events: [http://www.cti-commission.fr/-Lettre-d-information-mensuelle-439-](http://www.cti-commission.fr/-Lettre-d-information-mensuelle-439-).

**ESG 3.7 External Quality Assurance Criteria and Processes used by the Agencies**

| ENQA 2014 review report: “substantially compliant” |
| Recommendations: “- As mentioned previously, under criterion 2.4, the panel considers that the procedure for the selection and nomination of experts could be improved by clarifying the process of selection of the expert members of the evaluation committees as well as the policy for selection.
- And, under criterion 2.6, the panel considers that it would be useful to include a follow-up procedure for the programmes with no major problems detected.” |

See above, measures taken described under criteria 2.4 and 2.6.

The 2017 edition of the annual “indicator survey” (mentioned above, ESG 2.5. and ESG 2.6.) will enable institutions to demonstrate the evolutions in their internal quality assurance.
Conclusion

CTI not only expects from the engineering higher education institutions and their programmes that they improve continuously, but applies this same requirement to itself.

Thanks to the external evaluation reviews, the feedback from its stakeholders through surveys, steering and working groups, seminars, individual exchanges, ... and thanks to networking and co-operation at national and international level, CTI continuously questions its own procedures and aims to improve its processes, standards and guidelines.

The latest version of CTI’s standards and guidelines (R&O) was published in 2016 and has taken into account the new version of the ESG.

Thanks to these continuous efforts, CTI is increasingly compliant with the ESG. This follow-up report lists part of the positive evolutions that CTI has undertaken in the recent past.