

CTI & the French engineering schools and degree



The CTI

The Commission des titres d'ingénieur (CTI) is an independent organisation established by law in 1934. The CTI is in charge of carrying out the evaluation procedures that lead to the accreditation of the French institutions to award the engineering degree "titre d'ingénieur diplômé"; to evaluate upon request foreign engineering Higher Education Institutions towards the accreditation of their engineering degrees at master's level; to improve the quality of engineering programmes; to promote the engineering education and professional title in France and abroad.

In France, the CTI also evaluates the institutional Bachelor diplomas of accredited engineering schools that apply for the academic grade of « licence ». The CTI awards European quality labels in engineering and internationalisation (EUR-ACE®, CeQuInt).

Its organisational Structure

A distinctive feature of the CTI is that its members consist of an equal number of representatives from academia (16 members) and from industry (16 members representing both employers and engineering associations and unions). These members are proposed by their organisations and appointed by the Minister in charge of Higher Education for a four-year term, renewable once. They are involved in all areas of the organisation's life, such as governance; drawing up the Standards and Guidelines for the accreditation of engineering programmes; participating in the evaluation procedures, debating and voting on the outcomes of the accreditation procedures; interacting with the stakeholders; being a proactive driving force in all matters regarding the engineering profession and its impact on societal issues; Higher Education and its Quality Assurance.

In addition, around 150 experts (including student experts) provide assistance in their areas of proficiency, such as engineering, science, education, international affairs, soft skills and quality assurance. The experts take an active part in the accreditation procedures.

The CTI may also count on its about ten special advisors to manage or participate in certain projects that require specific expertise.

A permanent staff team is responsible for day-to-day management and supporting the CTI's governance.

Registry services are provided by the *General Directorate for Higher Education* within the Ministry of Higher Education.

The CTI is an independent body, responsible for managing its own finances. Its administrative operator is a partner association, the association of deans of engineering schools, the *Conférence des directeurs des écoles françaises d'ingénieurs* (CDEFI).

Its missions

The various missions of the CTI have evolved over the years, and currently include:

- 1. Periodic **evaluation** of all **French engineering schools**, that leads to the **accreditation** of the institutions to award the **engineering degree**.
 - The CTI is responsible for accreditation decisions for private institutions; it issues recommendations to the relevant ministries for public owned higher education institutions. On request and subject to the support of the relevant authorities in the host countries, the CTI can also carry out evaluation procedures of engineering programmes provided by French institutions on their campus abroad, in order to extend the accreditation to the foreign site.
- 2. On request of the institutions and relevant governments, **evaluation** of **foreign higher education institutions**. The positive outcome of a CTI procedure may lead to the **recognition** of their master level engineering degrees in France ("**Admission par l'Etat**"). This recognition is granted by the French Ministry of Higher Education.

- 3. Defining the generic profile of the engineer at master's level and drawing up criteria and procedures for awarding the engineering degree and for carrying out of the CTI's missions. The CTI thus contributes to the continuing development of engineering education, adapting it to the needs of industry and society as a whole.
- 4. Issuing opinions on all topics regarding the French engineering education and the professional title.
- 5. Since 2020, the evaluation of three-year **institutional Bachelor diplomas** of accredited French engineering schools which apply for the academic grade of "Licence".
- 6. **Developing a quality assurance culture** within French engineering schools and the CTI itself, in line with the *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG) adopted by the Ministers of Higher Education of the European Higher Education Area. In this context, the CTI itself has its procedures and practice evaluated on a regular basis in order to check their compliance with the ESG and has been confirmed as a full member of the *European Association for Quality Assurance in Higher Education* (ENQA) since 2005 and appears on the *European Quality Assurance Register for Higher Education* (EQAR) since 2010.

The CTI has become a major player in implementing the "Bologna Process" within French engineering schools and cooperates with other French and international quality assurance agencies, either under bilateral agreements (for example with ABET, AEQES, AAQ, Hcéres, IEAQA and others) or in associations and networks such as FrAQ-Sup, ECA and ENAEE.











- 7. Any actions to promote the academic and professional recognition of the French engineering degree. Since the engineering profession is not regulated in France and there is no institution of chartered engineers, the CTI is the natural point of contact for foreign engineering bodies. In this capacity, the CTI has signed various agreements regarding the recognition of the professional title abroad. The CTI has also signed co-operation and mutual recognition agreements with other quality assurance agencies.
- 8. Evaluation of French and foreign engineering programmes in order to award **quality labels**. The CTI is a founding member of the *European Network for Accreditation of Engineering Education* (ENAEE) and is authorized to award its European quality label for engineering degree programmes EUR-ACE® at master's level. In the framework of the association of Francophone quality assurance agencies FrAQ-Sup, the CTI participated in the translation into French of the EUR-ACE® standards and guidelines.

The CTI is also a member of the European Consortium for Accreditation (ECA) and is involved in awarding its Certificate for Quality in Internationalisation (CeQuInt).







The engineering schools & degree

The engineering schools

In France, most engineering programmes are offered by specific higher education institutions called "Ecole d'ingénieurs". These engineering schools may be run by the public or private sector, may or may not be part of a university, and may come under different ministries (Higher Education, Research and Innovation; Agriculture; Economy; Defence; Ecology and Sustainable Development) or a local authority.

Engineering schools in figures:

- ★ 200 engineering schools (51 private)
- ★ 560 programmes and 1100 curricula
- ★ 188,000 engineering students
 - o 30% beneficiaries of income based scholarships
- ★ 43,000 graduates per year
 - o 28% women
 - o 17% foreign nationals
 - o 14% through an apprenticeship track
 - o 3% via continuing education
 - o 0.4% through validation of informal or non-formal learning (VAE)
- ★ 80% of engineering graduates find a first job in less than 2 months

The engineering degree

The engineering profession is not regulated in France but the "titre d'ingénieur diplômé" is protected by law and considered in employment-related negotiations.

The French engineering degree confers the academic grade of **master** and enables the graduates' direct access to doctoral studies. The engineering degree is listed at level 7 of the French National Qualifications Framework and of the European Qualifications Framework.

In order to be accredited to award the engineering degree, an institution must comply with the CTI's standards and guidelines (*Références et Orientations*).

The engineering programme must fulfil a set of minimum requirements, namely:

- the degree is awarded upon successful completion of at least 10 semesters of studies in higher education and a total student workload of 300 European credits (ECTS)
- ★ admission to the programme is based on strict criteria and a structured procedure (entrance exam or parallel admission procedure for holders of prior qualifications)
- the achievement of the intended programme outcomes by all students is evaluated in an appropriate way
- the programme includes:
 - o a solid core science programme to promote analytical capabilities and the capacity for long-term knowledge acquisition,
 - o an introduction to research and innovation to develop open-mindedness and creativity,
 - o a structured contact with industry, particularly as regards internships and the participation of professionals in the teaching and the programme governance,
 - o an international dimension (command of other languages, studies or internships abroad, incoming mobility, etc.),
 - a good foundation in humanities and social sciences in order to guarantee that the graduates take into account the social and environmental responsibility including issues such as sustainable development, digital impact, ethics, workplace organisation, health & safety at work, etc.
 - o a varied range of teaching methods
 - o a robust internal quality assurance system.

For further information



