International Standards for Accreditation Around the World : the French approach

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(French Accreditation Body for Engineering Degrees)

The French approach

- The European framework
- The French engineering accreditation body
- The accreditation criteria and procedure

The European Higher Education context

- Construction of the European Higher Education Area (1998 Sorbonne Paris; Bologna 1999)
- Development of Quality assurance is one of the aims
- Creation of ENQA (European Association for Quality Assurance in Higher Education) in 2000
- Publication of ESG (European Standards and Guidelines) in 2005
- Definition of standards specific to engineering field by EUR-ACE (European System for Accreditation of Engineering Education)

The Bologna Process

- 47 participating countries
- Goals
  - Mobility
  - Attractiveness
  - Cooperation
  - Quality

A framework
- Definition of the cycles
- European Credit Transfert System

The French framework : CTI

- Informal 1920s + French laws (1934 + 1984 +2000)
- non profit organisation officially recognised as the independent body in charge of performing establishments' accreditation to grant engineering degrees in France
- 32 Members (board) appointed under legislative order (equal balance between academic and professional) + experts
- France and abroad
- CTI code = References and Guidelines 1995

CTI MISSIONS

- Evaluation and accreditation of HEI in the fields of engineering, computer science, applied mathematics, project management, etc : France and abroad
- Development of quality in engineering education
- Promotion of engineering curricula and careers in France and abroad. (Belgium, Germany, Bulgaria Switzerland, Burkina Faso, Viet-Nam, China …)

French definition of an engineer

- The engineering profession consists in **asking and answering complex questions** in an effective, **innovative** way, in the fields of **creation, design, production, implementation**, within a **competitive environment** and with a focus on products, systems or services, and possibly their financing and sale.
- Engineers should have a good understanding of technical, economic, social and human issues, based on a solid scientific background.

Accreditation criteria for engineering degree programs

- Degree-holders' employability,
- Selection of engineering students,
- School diversity and organisational structure.
- Schools’ openness).
- A skills-based approach to programs,
- The schools' quality process.

Accreditation criteria for Engineering training establishments

- Identity
- Mission and engineering training objectives
- Organization, autonomous teaching methods and resources
- Governance board and a management team
- Decision-making processes.
- Image policy
- External and internal communication
- Transparency about information

Evaluation procedure

- Standards and procedure manuals are public
- Procedure
  - self-evaluation by the HEI
  - application form
  - project team appointed by CTI with members and experts
  - on- site visit (1 or 2 days) and report
  - discussion and approval in CTI plenary meeting
- Accreditation
  - Government for public HEI
  - CTI for private HEI
  - 6-year period, sometimes 3 or less

Essence of the approach

- Needs of industry
- Programs with strong bases and immediate operationality
- Strong HEI
- Quality assurance process

Figures

- 585,000 working engineers in France graduated from institutions accredited by CTI
- 30,000 students get a “titre d'ingénieur” (master’s degree of engineering) from the 220 French institutions accredited by CTI
- 2,000 students are graduates from foreign universities (Switzerland, Germany, Bulgaria, Viet-Nam, China) accredited by CTI, their degrees being officially recognised by the French State
- Each year, CTI evaluates about 150 engineering programmes

French Higher Education system