

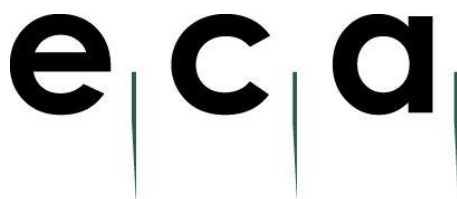
Assessment report

Formation d'ingénieur /Engineering program

Ecole des Ponts ParisTech (ENPC)



Certificate for Quality in Internationalisation



european consortium for accreditation

Assessment report

Formation d'ingénieur /Engineering Programme

(Ecole des Ponts ParisTech - ENPC)

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Glossary

EHEA	European Higher Education Area
HE	Higher education
QA	Quality assurance
UAS	University of Applied Sciences
BDE	Bureau Des Élèves
CTI	Commission des Titres d'Ingénieur
DFL	Département des Formations Linguistiques
ECTS	European Credit Transfer System
ENPC	École Nationale des Ponts & Chaussées
ESTP	École Spéciale des Travaux Publics
EUCEET	European Civil Engineering Education & Training
IELTS	International English Language Testing System
ISCED	International Standard Classification of Education
KTH	Kungliga Tekniska Högskolan
PFIEV	Programme de Formation d'Ingénieurs d'Excellence du Vietnam
RER	Réseau Express Régional
RNCP	Répertoire National de la Certification Professionnelle
SHS	Sciences Humaines & Sociales
TIME	Top Industrial Managers for Europe
TOEFL	Test of English as a Foreign Language
TOEIC	Test of English for International Communication
TU	Technische Universität
UK	United Kingdom
USA	United States of America

1. Executive summary

The Engineering Master program at Ecole des Ponts ParisTech (ENPC) was assessed by the Commission des Titres d'Ingénieur, CTI. This assessment procedure took place within the framework of the Certificate for Quality in Internationalisation project. CTI convened an assessment panel which studied the ENPC self-evaluation report, organized in advance the preparation of interviews, and undertook a site visit at Noisy-Champs on May 28, 2014.

The panel made the following comments:

Standard 1: Intended internationalisation

With regard to Criterion 1a: Supported goals the panel concluded that the internationalisation goals for the programme are satisfactorily documented and shared by the stakeholders.

The panel recommended that the documentation on this domain should be presented both in French and English language; straight forward information should be given in simpler and more uniform terms.

Regarding Criterion 1b: Verifiable objectives the panel recognised that some precise objectives had been formulated and that some of these objectives are verifiable by measurable indicators, thanks to the obligation of the 4-year objective plan with the ministry. But some of those indicators appear to be slightly different from those used internally and are not checked on a year-to-year basis.

The panel recommends that a unified list of indicators be used on a rolling plan basis, even if the Contrat d'Objectifs is negotiated every four years only. The long term vision of ENPC should be made available to all stakeholders.

In view of Criterion 1c: Measures for improvement the panel noted that external and internal evaluations of the programme's internationalisation take place periodically; follow-ups are organized by ENPC staff. A few of the improvements recommended by external evaluators appear to be treated with apprehension. The panel recommends that ENPC may carry out a specific analysis of these delayed actions and present a plan to catch up or propose alternative solutions.

The overall conclusions of the panel regarding Standard 1: Intended internationalisation read as follows: ENPC has given itself ambitious "Internationalization" goals. These goals are shared by all stakeholders, although communication could be improved by using French and English language and a more standardized vocabulary.

The “Contrat d’Objectifs”, negotiated every four years with the French Ministry in charge of ENPC, is an excellent opportunity to set more detailed objectives; ENPC could benefit from a systematic use of measurable indicators in a four-year rolling plan.

External and internal evaluation of the programme’s “Internationalization” is performed periodically. Special attention should be placed on recommendations which fail to receive adequate answers.

The panel assesses Standard 1: Intended internationalisation as satisfactory.

Standard 2: International and intercultural learning

With respect to Criterion 2a: Intended learning outcomes the panel observed: Since “learning outcomes” are not used to describe the educational goals of the engineering programme there is only indirect evidence of a connection between the employed teaching and learning methods and the internationalisation goals of the programme. The panel recommends to the School to work over the course syllabuses in order to inform the students and stakeholders about the connection between the intended learning outcomes and the internationalisation goals of the programme.

Regarding Criterion 2b: Student assessment the panel comes to the conclusion that although learning outcomes are not a formal part of course description the methods of student assessment employed by the School are implicitly based on the notion of international and intercultural learning outcomes. The panel recommends to the School to orient teaching and learning as well as student assessment toward explicitly defined (international and intercultural) learning outcomes.

The panel further assesses Criterion 2c: Graduate achievement to be fulfilled. The achievement of international and intercultural learning outcomes by the programme’s graduates can be demonstrated and is generally recognised. The panel recommends to the School, however, that periodic formal evaluations of graduate achievements should be prepared for the future.

The overall conclusion of the panel regarding Standard 2: International and intercultural learning reads as follows:

The panel was satisfied to see that the programme effectively fosters the achievement of international and intercultural learning outcomes. What is needed is an explicit definition and use of learning outcomes for the orientation of the teaching and learning process as well as for the assessment of students.

In view of the impressive success of the programme regarding the development of international and intercultural competencies in engineering students **the panel assesses Standard 2: International and intercultural learning outcomes as good.**

Standard 3: Teaching and learning

Regarding Criterion 3a: Curriculum the panel comes to the conclusion that the content and the structure of the curriculum provide the necessary means for achieving the intended international and intercultural learning outcomes. It recommends adding some information about the international and intercultural dimensions of the engineering education at ENPC to the Diploma Supplement.

The panel was very satisfied by the information provided by ENCP on teaching methods (Criterion 3b). It concluded that the teaching methods are suitable for achieving the intended international and intercultural learning outcomes. By combining the theoretical and practical education of engineers with innovative language teaching and intercultural project work and/or study abroad phases ENPC provides an outstanding example of modern university education. The panel recommends offering courses taught entirely in English.

With regard to Criterion 3c: Learning environment the panel concluded that the learning environment is especially suitable for achieving the intended international and intercultural learning outcomes.

The panel came to the overall conclusion regarding Standard 3: Teaching and learning:

The panel is convinced that the programme systematically and substantially surpasses the current generic quality for this standard across the standard's entire spectrum. It includes exemplary structural components, teaching methods and learning conditions and can be regarded as an international example for this standard.

The panel therefore assesses Standard 3: Teaching and learning as excellent.

Standard 4: Staff

Regarding Criterion 4a: Composition the panel found that the composition of the staff facilitates the achievement of the intended international and intercultural learning outcomes. Moreover the panel is convinced that staff members have sufficient international experience, intercultural competences and language skills (Criterion 4b). In view of Criterion 4c: Services the panel finally concludes that the services provided to the staff are consistent with the staff composition. These services adequately facilitate international experiences, intercultural competences and language skills. The panel recommends setting incentives for non-academic staff to participate in language skill upgrading and to develop an international exchange programme for persons in charge of student counselling, management and administration.

The panels overall conclusion regarding Standard 4: Staff reads as follows:

The panel found that the composition, qualification and experience of the staff are fully compatible with the obligations resulting from their roles and tasks in the international and intercultural education of engineers at ENPC. Consequently, the panel deems the underlying criteria of this standard to be met or surpassed. The panel is convinced that the international composition of the staff, the opportunities for continuing education of staff members and their close nexus with the practice field of international companies can be regarded as an international example.

The panel therefore assesses Standard 4: Staff as good.**Standard 5: Students**

The panel found that the composition of the student groups (Criterion 5a) is in line with the programme's internationalisation goals. Students are generally satisfied with the international and intercultural experience provided by the programme. Based on conversations with students the panel recommends to ENPC to increase the intake of students in order to grow to a size that would improve the international visibility of the institution and its educational programmes.

Regarding Criterion 5b: Experience the panel found that the internationalisation experience gained by the students is excellent and corresponds fully to the programme's

internationalisation goals. The same positive assessment pertains to the services provided to students (Criterion 5c).

Therefore the panel comes to the overall conclusion regarding Standard 5: Students: The panel deems all the underlying criteria of this standard to be surpassed.

Extremely long and well-organized internships at home and abroad, tandem learning pairs, outstanding career guidance workshops and significant services provided to students can be regarded as an international example. The provision of international projects gives the students at ENPC an advantage over other engineering students when they apply for positions on the international labour market.

The panel therefore assesses Standard 5: Students as excellent.

Final conclusion and recommendation

Based on documented internationalization goals, the programme has successfully implemented effective internationalization activities which demonstrably contribute to the quality of teaching and learning. The panel assesses the overall level of internationalization at the Master of engineering programme of the École des Ponts ParisTech as good and recommends to the Steering Group and the ECA Management Group to award ENPC the Certificate for Quality in Internationalisation.

2. The assessment procedure

This report is the result of the assessment of the Engineering Master Programme offered by Ecole des Ponts ParisTech (ENPC). The procedure was coordinated by the Commission des Titres d'Ingénieur, CTI. This assessment procedure took place within the framework of the Certificate for Quality in Internationalisation project.

The assessment procedure was organised as laid down in the Frameworks for the Assessment of Quality in Internationalisation published by the European Consortium for Accreditation (ECA).

A panel of experts was convened by CTI. The assessment panel consisted of the following members:

- Dr Rainer Künzel, Professor, panel chair (Germany)
- Dr Karmen Rodman, Professor (Slovenia)
- Mr Robert Pelletier, national expert at CTI (France)
- Mrs Eva Rika Fazekas, student (Hungary)

The composition of the panel reflects the expertise deemed necessary by the Assessment Framework. The individual panel members' expertise and experience can be found in [Annex 1](#): Composition of the assessment panel. All panel members signed a statement of independence and confidentiality. These signed statements are included in [Annex 2](#): Statements of independence. The procedure was coordinated by Dr René-Paul Martin-Denavit, consultant, Head of International Affairs at CTI (France).

The assessment panel studied the self-evaluation report and annexed documentation provided by the programme before the site visit ([Annex 3](#): Documents reviewed). A number of preliminary remarks, questions and requests of additional information were

collected by the coordinator and discussed via internet among the panel members in April. This has resulted in a document entitled:

“Standards and criteria, questions for the six interviews of the visit programme” (147 questions, 14 pages)

The document was communicated to the school with the aim that the interviewees should be informed ahead of time and that additional information should be sent to the panel in advance. More material was distributed to the panel in the meeting room at ENPC (see for details [Annex 3](#)). The objective was to save time and to reduce any possible source of misunderstanding.

The panel organised a preparatory meeting the day before the site visit on the 27th of May, from 7.30 pm. until 11.30 pm. The site visit took place at Ecole des Ponts ParisTech (ENPC) in Noisy-Champs, near Paris, on the 28th of May 2014. ([Annex 4](#): Site visit programme)

The panel formulated its preliminary assessment for each standard immediately after the site visit. The judgement was based on the findings of the site visit and built on the assessment of the self-evaluation report and annexed documentation.

The panel chair informed the school management about the results and announced the panel’s decision to award the label, with some recommendations. The representatives of the school expressed their thanks and their intent to integrate the findings into the school’s new strategic plan.

Before the preparation of the panel’s assessment report, the coordinator prepared the Minutes Report (9 pages) of the visit and the interviews, to which all members contributed. The draft version of the present Assessment Report was finalised on the basis of the Minutes Report, the ENPC Self Evaluation Report and the available information or relevant findings of the assessment. ENPC provided additional evidences before the visit and during the visit ([Annex 3](#)). The coordinator assembled the draft report to which all panel members



had contributed before 28th June. Where necessary the panel corrected and amended the draft report. The draft report was then sent to the school for the correction of factual mistakes. The panel finalised the Assessment Report on the 21th of July, 2014.

The panel approved the Final Assessment Report on the 24th of July 2014, it was sent to the Steering Committee immediately.

The school's Self Evaluation Report was the first among all applicants to reach the Steering committee. Both the school and the panel's professionalism and motivation have contributed to an efficient audit in a good atmosphere of communication.

3. Basic information

Qualification:

Ingénieur diplômé de l'Ecole nationale des ponts et
chaussées (ENPC)/ Master Degree of Engineering

Number of credits:

180 ECTS – after 120 ECTS at classe préparatoire aux grandes
écoles:

112 ECTS academic courses
18 ECTS foreign languages courses
24 ECTS professional internship
24 ECTS final project
2 ECTS sport

Specialisations (if any):

- Civil engineering and construction
- Mechanical engineering & materials science
- Urban planning, environment & transport
- Economics & finance
- Industrial engineering
- Applied mathematics & computer sciences

ISCED field(s) of study:

- 041: business & administration
- 052: environment
- 054: mathematics and statistics
- 071: engineering & engineering trades
- 072: manufacturing & processing
- 073: architecture and construction
- 104: transport services

Institution: Ecole des Ponts



ParisTech (ENPC)

Type of institution:	Grande école, French engineering school, mainly financed by ministry of ecology.
Status:	Authorization to deliver the Title of Ingénieur diplômé. CTI Accredited Engineering Program, EUR-ACE Master label
QA / accreditation agency:	CTI (Commission des Titres d'Ingénieur)*
Status period:	September 2013 – August 2019

See additional information in annex 5

For mandatory annexes and additional documents taken into consideration by the panel see Annex 3.

4. Assessment criteria

Standard 1: Intended internationalisation

Criterion 1a: Supported goals

The internationalisation goals for the programme are documented and these are shared and supported by stakeholders within and outside the programme.

The general mission of Ecole des Ponts-ParisTech (ENPC) is to provide initial education for engineers, who want to acquire high scientific level, technical and general skills and prepare holding important responsibilities as well as becoming actors of development and sustainable country planning. (<http://www.enpc.fr/>)

This general mission is further spelled out in four main types of competencies:

- Mastering the fundamentals of engineer tasks thanks to high level of scientific and technical training
- Being ready for real engineering projects, thanks to a curriculum with a large content of projects and field work
- Understanding our modern environment and the world of enterprise, ability to take into account societal problems, thanks to a large basis of managerial, social and human soft teaching
- Aptitude to work in teams and international environment, thanks to intensive training in foreign languages, internships or academic periods in partner universities abroad and contact with fellow foreign students at ENPC

(<http://www.enpc.fr/>)

Thus, ENPC has put “Internationalization” as one of its four main goals of education for engineers. Nearly all of the school’s communication via internet, activity reports, information letters, etc. refer to the goals of internationalization. For example, the newly elected chairman of the Board of ENPC pointed to “international reputation and opening to the world thanks to selected international alliances” as the first main challenge of the school. (Interview J.Tavernier, July12, 2013).

Although ENPC did not provide the panel with a formal list of stakeholders, documents received during the site visit or available in public domain indicate that this general “internationalization goal” is largely shared with all of them.

The Board (Conseil d’administration) of ENPC is regularly informed and consulted on all events related to agreements with foreign institutions. The Board includes representatives

of three Ministries as well as five members from the industrial world. As the Director of ENPC said to the panel), “ENPC is training the engineers who will help civil engineering companies extend their business abroad”.

Teaching and research staff and also students are associated with this general goal. In a recent (Jan 31, 2014) seminar devoted to “Which orientations for tomorrow’s training of engineers at ENPC”, a sub-working group gathering the president of the Alumni Association, representatives of teaching staff coming from the School’s laboratories and industry, members of the four “Conseils d’enseignement” from both the school and industry, and representatives of the students put forward the following question:

“Which type of engineers do we want to form?” Their answer was :

“We confirm the necessity of international development for the recognition of ENPC, but also for the training of our students We want engineers open to the world, with intercultural competencies. We recognize that international recruiting of our students must be kept under control, with selected partners, but its “raison d’être” is no longer under discussion: it is a must!” (*Information letter ENPC, N°3, Feb. 2004*)

Potential students applying to ENPC are also well informed of this strong international orientation.

Conclusion and recommendations

The panel concludes that the internationalisation goals for the programme are satisfactorily documented and shared by the stakeholders.

The panel recommends that documentation on this domain should be presented both in French and English language; straight forward information should be given in simpler and more uniform terms.

Criterion 1b: Verifiable objectives

Verifiable objectives have been formulated that allow monitoring the achievement of the programme’s internationalisation goals.

The on-going “Contrat d’objectifs”, signed in 2011 by ENPC with the French “Ministère de l’Ecologie, du Développement Durable et de l’Energie”, lists three **main strategic orientations** for the period 2011-2014 (<http://www.enpc.fr/rapport-dactivite-2011>,):

- 1-Academic excellence
- 2-Training of engineers able to contribute to sustainable development
- 3-Contribution to construction of an academic hub in Paris-Est with global visibility, especially in the field of “engineering for environment and cities”

Related to main orientations number 1 and 3, “internationalization” objectives are treated under Objective 4 (one among the 22 objectives of this Contrat d’objectifs. (<http://cl.ly/2T0R0FOQ1i2P>)

“Objective 4: Increase the attractiveness abroad, develop the admission of foreign students and create curriculums in partnership with foreign institutions, based on the international reputation of Ecole des Ponts ParisTech”.

This broad objective is further detailed in a one-page document.

It first recalls that ENPC has historically received international recognition, especially in the field of civil engineering, that it has extended traditional cooperation with Spanish and Moroccan institutions to new partnerships in Brazil, China, Japan and Central Europe, and with famous universities of European and Anglo-saxian countries, as was required by the former “Contrat d’objectifs” for 2007-2010.

It then sets the new extended objectives for 2011-2014:

- Maintain the existing international network and moderately develop new links in countries such as Russia, Turkey and India
- Develop internationalization not only in the historically famous Civil Engineering Department, but also in the other less known three departments;
- Increase attractiveness for foreign students by proposing courses in English language, in specialized Master programs but also in the Diplôme d’ingénieur curriculum.
- Establish joint programs, in cooperation with high level European universities, taking advantage of the existing links developed by research teams.

This objective 4 is further quantified as depicted in a table of five indicators:

Indicators	2010	2011	2012	2013	2014
Number of students from double degree agreements	63	68	70	75	80
Number of students NOT from Civil engineering Dept	24	29	30	32	35
Number of double degree agreements	33				38
Curriculums (master, MS, or engineer training) in English language (partially for engineers program)	1				2
Master within frame of international partnership	0				1

However, this list of measured objectives negotiated with the Ministry is not used on a year-to-year basis, as would be in a typical 4-year rolling plan, but only when the next contract (in 2015) will be negotiated. Thus, the panel could not obtain the forecast from ENPC for the end of 2014 nor any quantitative information of where the school intends to be in 5 years time. Also, the panel noted some uncertainty of what “Master within frame of international partnership” really meant.

From the discussions during the visit the panel understood that some of these objectives may not be reached (such as English language courses in the engineering curriculum).

Conclusion and recommendations

The panel concludes that some precise objectives have been formulated and that some of these objectives are verifiable by measurable indicators, thanks to the obligation of the 4-year objective plan with the ministry. But some of those indicators appear to be slightly different from those used internally and are not checked on a year-to-year basis.

The panel recommends that a unified list of indicators be used on a rolling plan basis, even if the Contrat d'Objectifs is negotiated every four years only. The long term vision of ENCP should be made available to all stakeholders.

Criterion 1c: Measures for improvement

As a result of periodic evaluations of the programme's internationalisation, the successful implementation of measures for improvement can be demonstrated.

As an institution delivering the French "Diplôme d'Ingénieur" ENPC has to be certified by the "Commission des Titres d'Ingénieur" (CTI) on a 6-year basis (or less if significant weaknesses are observed). For that purpose, it has to perform a self-evaluation according to CTI's reference manual, which contains a specific chapter on "Internationalization".

<http://cl.ly/1A3F1p3K1E43>)

ENPC also intends to use the results of the present CeQuInt audit in the future.

In 2012 ENPC has implemented an internal Quality Assurance evaluation on a yearly basis. Reports on the "Processes review" dealing with "Management of International Relationships" was provided to the panel members (*C.R. de revue de processus 30/01/2014*). It analyses the main facts of 2013, the present state of the 12 improvement projects launched in the action plan of 2013 (with indication of leadership, date of termination and main steps), the analysis of the main indicators used internally and the new main points of improvement to be tackled in 2014.

Three of the 2013 projects have been completed (godfathering of foreign students by members of the alumni, specific Facebook page dedicated to arriving foreign students by the Student Association, improved follow-up of international outgoing mobility), while seven other projects are still in progress and two remaining to be launched. All but one (creation of an International Institute for Logistics and Transports) are programmed to be finished in 2014.

Major new points of improvement selected for 2014 are:

- Improved process for partnership selection
- Improved efficiency for financial support of students and reduced payment delay

- Improved balance between outgoing and incoming student fluxes

These external and internal evaluations seem to be taken seriously by ENPC. However, some of CTI's recommendations did not receive any clear answer yet (such a larger opening towards Anglo-Saxon universities), most probably because of the difficulty of the task. Some others (such a higher proportion of courses given in English language in the engineering program) seem to suffer from a certain lack of enthusiasm of the teaching staff. Improved external mobility of the teaching staff may be difficult to implement, because of the very specific ENPC system of temporary allocation of Teaching Units to inside or outside coordinators.

Conclusion and recommendations

The panel concludes that external and internal evaluations of the programme's internationalisation take place periodically; follow-ups are organized by ENPC staff. A few of the improvements recommended by external evaluators appear to be treated with apprehension. The panel recommends that ENPC may carry out a specific analysis of these delayed actions and present a plan to catch up or propose alternative solutions.

Overall conclusion regarding Standard 1: Intended internationalisation

The panel found that ENPC has given itself ambitious "Internationalization" goals. These goals are shared by all stakeholders, although communication could be improved by using French and English language and a more standardized vocabulary.

The "Contrat d'Objectifs", negotiated every four years with the French Ministry in charge of ENPC, is an excellent opportunity to set more detailed objectives; ENPC could benefit from a systematic use of measurable indicators in a four-year rolling plan.

External and internal evaluation of the programme's "Internationalization" is performed periodically. Special attention should be placed on recommendations which fail to receive adequate answers.

The panel therefore assesses Standard 1: Intended internationalization as satisfactory.

Standard 2: International and intercultural learning

Criterion 2a: Intended learning outcomes

The intended international and intercultural learning outcomes defined by the programme are a clear reflection of its internationalisation goals.

The international policy of Ecole des Ponts ParisTech stresses three priorities that are also supported by the Ministry:

- consolidate and strengthen double degree agreements with prestigious universities around the world;
- contribute to the pedagogical projects, develop joint teaching programmes and joint research;
- participate in prestigious international networks.

These three priorities are also considered as guidelines in the assessed Master of Engineering programme and verified by the panel in the communication with different stakeholders. From the evidence, such as 32 double degree agreements with different prestigious universities around the world (30 of them are implemented in practice), membership in the prestigious international networks TIME and EUCEET, it can be deduced that ENPC is on its path towards its primary internationalization goals.

Although in the SER the school has not shown to have clearly defined and formalised objectives, strategies and action plans with a time frame of activities and a defined person responsible for each activity/objective, an additional document provided at the end of the site visit can be appraised as proof of the existence of such a defined process of internationalization. Apparently the strategy for the next period is being prepared and should be completed by the end of 2015. What is still missing is a demonstrable connection between specific measures and clearly defined international and intercultural learning outcomes of the programme.

From the discussion with different groups of stakeholders the panel concludes, however, that the training of engineers at ENPC aims at a very high level of intercultural competencies, such as the capability to live and work in different cultural environments, to

build relationships with people from different countries and cultures and to collaborate in different fields and with specialists from different cultural backgrounds. .

The panel learned that the students, alumni and employers were satisfied with the intercultural learning outcomes provided by the Master's programme even though the course syllabuses do not describe such objectives. Neither do they list the competences to be acquired, the learning and teaching methods and the type of assessment to be employed, nor the reading required from the students. For the panel the intended international and intercultural learning outcomes could only be inferred from the presented teaching and learning methods presented during the site visit.

Conclusion and recommendations

Since "learning outcomes" are not used to describe the educational goals of the engineering programme there is only indirect evidence of a connection between the employed teaching and learning methods and the internationalisation goals of the programme. The panel recommends to the School to work over the course syllabuses in order to inform the students and stakeholders about the connection between the intended learning outcomes and the internationalisation goals of the programme.

Criterion 2b: Student assessment

The methods used for the assessment of students are suitable for measuring the achievement of the intended international and intercultural learning outcomes.

Ecole des Ponts ParisTech employs different methods of student assessment. Since intended international and intercultural learning outcomes are not formally used in the course description the assessment methods do not explicitly refer to learning outcomes either. However, there is an implicit relation between the assessments and the competences expected to be acquired by the students.

In language education, for example, the mutual teaching of a foreign language in tandems of two students includes the experience of gaining insight into the culture and every day-life of the tandem partner through conversation and joint social activities. The learning process takes place under the supervision of a professor/tutor from the Foreign Languages Department. At the end of the semester (after 14 weeks with 2 hours of team work a week) each tandem is assessed through the written self-evaluation report and an oral presentation in front of a panel composed of language professors/tutors of the tandems.

An essential part of the education of engineers at Ecole des Ponts ParisTech is internship. Every year approximately 70 French students in their 1st year of study go abroad on a scientific internship. After returning they prepare a written 'Human experience report', that is used in the assessment of the learning outcomes, in the self-evaluation process in which the internship programme is evaluated, and also as a tool and material for promoting this type of learning. Part of the written report deals with the student's intercultural experience. The students can also take part in the contest for the best internship report of the year.

A formal type of the assessment of intended international and intercultural learning outcomes assessment is team work on a defined subject. The team is composed of students from different countries or language backgrounds. During the site visit professors and students pointed out that this type of work characterizes many courses and learning projects.

Thesis work in double-degree programmes is prepared and presented in French, but it is also presented and discussed in the home country of the student

Conclusion and recommendations

The panel comes to the conclusion that although learning outcomes are not a formal part of course description the methods of student assessment employed by the School are implicitly based on the notion of international and intercultural learning outcomes. The panel recommends to the School to orient teaching and learning as well as student assessment towards explicitly defined (international and intercultural) learning outcomes.

Criterion 2c: Graduate achievement

The achievement of the intended international and intercultural learning outcomes by the programme's graduates can be demonstrated.

An important evidence of graduate achievement of international and intercultural learning outcomes is the fact that 15-20 % of the graduates find their first employment in a foreign country.

The assessment of graduate achievement is not only done at the time of graduation, but also by questionnaire (getting a response rate of over 90 %) 6 and 18 months after graduation. Qualitative methods are not used formally but the school stays in touch with the graduates through conferences on professional themes, Skype meetings on different practical issues, and dinners (more than 100 events yearly with approximately 50 people participating at a single event) the qualitative evaluation is done on an informal basis.

During the interviews external stakeholders and graduates stressed the fact that the international and intercultural education provided by ENPC was much better than its reputation because the school is still much too small.

Conclusion and recommendations

The panel comes to the conclusion that the achievement of international and intercultural learning outcomes by the programme's graduates can be demonstrated and is generally recognised. The panel recommends to the School, however, that periodic formal evaluations of graduate achievements should be prepared for the future.

Overall conclusion regarding Standard 2: International and intercultural learning

The panel was satisfied to see that the programme effectively fosters the achievement of international and intercultural learning outcomes. What is needed is an explicit definition and use of learning outcomes for the orientation of the teaching and learning process as well as for the assessment of students.

In view of the impressive success of the programme regarding the development of international and intercultural competencies in engineering students the panel assesses Standard 2: International and intercultural learning outcomes as good.

Standard 3: Teaching and Learning

Criterion 3a: Curriculum

The content and structure of the curriculum provide the necessary means for achieving the intended international and intercultural learning outcomes.

The Master's programme in engineering at ENPC allows for specialisation in six areas of engineering sciences, for historical reasons the most demanded ones being "Civil engineering" and "Urban planning, environment and transport". Basic information about the structure of the programme is provided in the SER, fig. 1.2., in the "ECTS course catalogue" (Annex 3) and in the "Overview of the curriculum in diagram form" (Annex 2). Annex 4 provides a list of "courses where intercultural and international learning outcomes will be achieved".

In addition to a sound technical education the students are supposed to acquire the intercultural and managerial qualifications necessary for working in teams with specialists from different (professional and cultural) backgrounds. (Cf. SER, fig. 1.1.) By providing its engineering students a broad international orientation and experience as well as foreign language communication skills ENPC seeks (in line with the "Contrat d'objectif" with the Ministry of Ecology) to contribute to the competitiveness of the French civil engineering companies. To this end the parts of the scientific and technical curriculum are supplemented with

- Language training
- One humanities course per semester dealing with intercultural issues
- Project work in teams composed of French and foreign students and
- Studies abroad of at least 2 months duration

English language teaching amounts to 20% or 300 hours of total teaching time. On a voluntary basis the professional internships equivalent to 24 ECTS credits may also be absolved abroad.

The school's extensive double diploma (DD) programmes are the curricular basis of the international and intercultural education of engineers at ENPC. Ecole des Ponts ParisTech has partnerships agreements with 54 institutions in 32 countries, including 32 double-degree agreements in 22 countries. 80 students per year take advantage of these double-degree agreements; most of them spend 2 years in the host institution. Through Erasmus 30 students per year receive part of their education at one of 36 partner institutions in 20 countries.

70% of the incoming students opt for Civil Engineering or Urban Planning whereas the French students are more evenly distributed over the six areas of specialisation. The

foreign students are especially appreciative of the high level of theoretical training, of the opportunity to be involved in projects with industry and to complete internships in international companies. They are attracted by the prospect to be immersed in the French culture and in student life at school and by the work opportunities resulting from the prestige of ENPC. Participation of French students in the DD programmes is relatively low, but the experience of studying with foreign students in teams and of spending time with them in the extracurricular activities provided by the numerous student service organisations arouses their interest in continuing their education in foreign programmes after graduation.

Conclusion and recommendations

The panel concludes that the content and the structure of the curriculum provide the necessary means for achieving the intended international and intercultural learning outcomes. It recommends adding some information about the international and intercultural dimensions of the engineering education at ENPC to the Diploma Supplement.

Criterion 3b: Teaching methods

The teaching methods are suitable for achieving the intended international and intercultural learning outcomes.

Foreign languages are not only taught by customary methods but also by mutual teaching of two students who speak a different mother tongue (“tandem teaching”). There are 15-30 tandems per year at ENPC that are advised and guided by language teachers. The students are obliged to present the outcome of their joint efforts to a jury at the end of the year. In addition, Skype discussions with foreign students (e.g. “Speaking near and far” with US students) and e-learning via “Educnet” are organised.

The engineering parts of the curriculum are taught by experienced practitioners from the companies of the region. The fact that these teachers are not employed by ENPC does not seem to create any problems because they spend all the time needed with their students. While the theoretical elements of the curriculum are taught in class the practical issues of engineering sciences are dealt with in small groups of students from different origins. The heterogeneous mix of students in these groups is considered to be of great value by the students because they learn to work in a “real world situation”. The foreign students

consider the “European way of teaching” to be especially effective because it fosters creative thinking and problem solving instead of accumulating “facts and figures”. An important asset results from the necessity to deal with different legal and technical systems, codes and norms.

Teaching materials, but not complete courses, are provided online. Internships in industry are evaluated and graded. They get promoted by companies and the career centre at ENPC. If the final project is part of a DD programme it is discussed and graded at both higher education institutions involved.

While most French students have spent six months abroad when they graduate the minimum requirement is only two months. For the 2018 graduating class the target is six months of study or internship abroad for all French students at ENPC. When returning from an academic stay or internship abroad the students are asked to turn in a “human experience report” which describes the challenges of integrating into a foreign culture. These reports are used – in combination with a report on the academic learning experience at the foreign partner institution – to evaluate the quality of the exchange programme and to inform the next generation of DD students.

Foreign incoming students are selected early enough to allow the acquisition of sufficient knowledge of the French language. ENPC does not offer significant teaching in English although this could help broaden the origin of foreign visiting students.

By placing language learning, international mobility and intercultural communication at the heart of the engineering education ENPC greatly enlarges the job opportunities of its graduates and helps to foster the competitiveness of French construction companies.

Conclusion and recommendations

The panel concludes that the teaching methods are suitable for achieving the intended international and intercultural learning outcomes. By combining the theoretical and practical education of engineers with innovative language teaching and intercultural project work and/or study abroad phases ENPC provides an outstanding example of modern university education. The panel recommends offering courses taught entirely in English.

Criterion 3c: Learning environment

The learning environment is suitable for achieving the intended international and intercultural learning outcomes.

With regard to the international and intercultural dimensions of the engineering education at ENPC the following components of the learning environment are of particular importance:

- The Library Lesage provides the relevant scientific information in print or electronically, web access, meeting rooms, and service to international users
- More than 10 student service associations offer cultural events and sports as well as contacts with companies. The “Bureau des Éléves” coordinates these activities
- An “Academic student inspector” in each department provides tutoring to all students with respect to their academic development. Other support-staff (including medical services) deals with non-academic problems.
- ENPC is a member of Paris Tech (12 écoles), Université Paris Est Créteil, and the Paris School of Economics. Other partners are large multi-national French companies which provide places for internships, sometimes even pay fees and living expenses of international students. Research labs are shared by the HEIs and the companies of the region.
- Student exchange networks connect ENPC with prestigious engineering faculties in other countries. ENPC selects its partners with respect to reputation and on the basis of an evaluation of the quality of the incoming students, of research cooperation and of personal acquaintance of the teaching staff. ENPC prefers DD contracts over Joint Degrees for ease of administration and quality control.
- Membership in prestigious networks like T.I.M.E. and EUCEET adds to the international visibility and reputation of the engineering programme.
- The large number of carefully selected foreign students on campus is considered to be a challenge for the French students as the foreign students tend to raise the

academic level of education and necessitate a greater openness of mind on the part of the French students.

Conclusion and recommendations

The panel concludes that the learning environment is especially suitable for achieving the intended international and intercultural learning outcomes.

Overall conclusion regarding Standard 3: Teaching and learning

The panel is convinced that the programme systematically and substantially surpasses the current generic quality for this standard across the standard's entire spectrum. It includes exemplary structural components, teaching methods and learning conditions and can be regarded as an international example for this standard.

The panel therefore assesses Standard 3: Teaching and learning as excellent.

Standard 4: Staff

Criterion 4a: Composition

The composition of the staff (in quality and quantity) facilitates the achievement of the intended international and intercultural learning outcomes.

At ENPC 166 teachers are responsible for the professional education of approximately 880 Master of engineering students. Being employees of other academic institutions or of companies they are hired by ENPC as teachers on the basis of their academic qualification and professional experience. Many of them are active researchers. The teachers represent 20 different nationalities. 13 permanent professors are in charge of language education, 70 persons belong to the administration of the studies department and 3 persons make up the International Relations Office. Each DD programme is controlled and supported by an "international correspondent". Visiting professors are rare. They are usually the guest of a researcher employed at ENPC.

The qualification of the teaching staff hired from other institutions and business companies corresponds to the combination of theoretical and practical education of the engineering students at ENPC.

Conclusion and recommendations

The panel concludes that the composition of the staff facilitates the achievement of the intended international and intercultural learning outcomes.

Criterion 4b: Experience

Staff members have sufficient internationalisation experience, intercultural competences and language skills.

“All teachers of the language department are native speakers.” (SER, Criterion 4b) Most other teachers are either of foreign origin or have spent several years studying or working in a foreign country. This is also reflected in their ability to speak a foreign language. Nevertheless, English does not seem to generally have the status of working language at ENCP. Since a large percentage of the teaching staff are involved in the student exchange programmes and in advising foreign students as well as in project work with international students their intercultural competences do not only root in their professional career but are renewed and enlarged by working with their engineering students.

Conclusion and recommendations

The panel concludes that staff members have sufficient international experience, intercultural competences and language skills.

Criterion 4c: Services

The services provided to the staff (e.g. training, facilities, staff exchanges) are consistent with the staff composition and facilitate international experiences, intercultural competences and language skills.

The services to the staff provided by ENPC encompass:

- 30 hours of (language) training per year
- Support of research cooperation at a foreign academic institution
- Support of participation in international conferences and symposia as well as organisation of such conferences at ENPC
- Support of collaboration in international networks where academic best practices are discussed

- Management training (2 days) and pedagogical upgrading (10 days) by the Centre for Staff Development

Conclusion and recommendations

The panel concludes that the services provided to the staff are consistent with the staff composition. These services adequately facilitate international experiences, intercultural competences and language skills. The panel recommends setting incentives for non-academic staff to participate in language skill upgrading and to develop an international exchange programme for persons in charge of student counselling, management and administration.

Overall conclusion regarding Standard 4: Staff

The panel found that the composition, qualification and experience of the staff are fully compatible with the obligations resulting from their roles and tasks in the international and intercultural education of engineers at ENPC. Consequently, the panel deems the underlying criteria of this standard to be met or surpassed. The panel is convinced that the international composition of the staff, the opportunities for continuing education of staff members and their close nexus with the practice field of international companies can be regarded as an international example.

The panel therefore assesses Standard 4: Staff as good.

Standard 5: Students

Criterion 5a: Composition

The composition of the student group (national and cultural backgrounds) is in line with the programme's internationalisation goals.

The key statistics show that 32 % of the students on campus are international. The strong institutional partnerships with some of the world's best universities create an outstanding opportunity for the students to advance academically. The represented 48 nationalities make sure that the composition of the student groups is mixed and international.

According to the statistics in 2011, there were 58 incoming Engineering students from Europe, 13 from Maghreb countries, 3 from North America, 13 from Latin America and 13 from Asia.

In 2013, most of the 105 foreign students came from Morocco, Spain, Brazil and China. The origins of the other students were: Tunisia, Turkey, Uruguay, Vietnam, Algeria, Bulgaria, Cambodia, Ecuador, Finland, Germany, Greece, Hungary, Italy, Japan, Lebanon, Portugal, Romania, Senegal and Slovakia. The basis of internationalization at ENPC is the double diploma, the first agreement with Escola de Caminos Madrid dating back to 1988.

Through the panel's discussions with students from abroad it became clear that they are quite satisfied with the international and intercultural experience of studying at ENPC.

Conclusion and recommendations

The panel concludes that the composition of the student groups is in line with the programme's internationalisation goals. Students are generally satisfied with the international and intercultural experience provided by the programme. Based on conversations with students the panel recommends to ENPC to increase the intake of students in order to grow to a size that would improve the international visibility of the institution and its educational programmes.

Criterion 5b: Experience

The internationalisation experience gained by students is adequate and corresponds to the programme's internationalisation goals.

The students at ENPC are exposed to numerous international and intercultural experiences:

- Many of them take part in the DD academic exchange programmes
- Prolonged internships are offered by international companies either in France or abroad
- Internationalisation at home encompasses:
 - Working in mixed learning groups

- Being involved in social activities and events with foreign students at ENPC
- Being taught by teachers of foreign origin

Conclusion and recommendations

The panel concludes that the internationalisation experience gained by the students is excellent and corresponds fully to the programme's internationalisation goals.

Criterion 5c: Services provided to students

The services provided to the students (e.g. information provision, counselling, guidance, accommodation, Diploma Supplement) support the programme's internationalisation goals and correspond to the composition of the student group.

The panel applauds that the students get general provision of information, assistance in filling document as well as information on education and dedicated support services. ENPC takes the responsibility for welcoming and monitoring foreign students at every stage of their stay. Guidance and counselling of students before their arrival is provided by contact through e-mail and phone connections. A specific orientation meeting is organised for foreign students and the welcome booklet is updated on an annual basis and in various languages. The panel applauds the organisation of language testing and tutoring in French before classes start. A seminar for upgrading mathematical and mechanical skills has been organized for foreign students as well. The International Office helps students to get long-stay visa and health insurance. An international section of the student associations represents international students. 2/3 of the travel costs of the orientation week are paid by École des Ponts ParisTech. The panel applauds the organization of cultural events and meetings with international alumni.

There are several agreements with student residences, in Champs-sur-Marne, but also in Paris. The panel could discern from the SER and additional documents provided that housing is allocated before the arrival of the students, and housing certificates are sent

abroad to students to facilitate their visa application. Several months before the arrival of incoming students a sheet listing accommodation prices is available to international students. The International Office prepares a preference list and tries to allow for the first choice.

Conclusion and recommendations

The panel concludes that the services provided to students are excellent and meet the student's needs. They support the programme's internationalization goals and correspond to the composition of the student group.

Overall conclusion regarding Standard 5: Students

The panel deems all the underlying criteria of this standard to be surpassed.

Extremely long and well-organized internships at home and abroad, tandem learning pairs, outstanding career guidance workshops and significant services provided to students can be regarded as an international example. The provision of international projects gives the students at ENPC an advantage over other engineering students when they apply for positions on the international labour market.

The panel therefore assesses Standard 5: Students as excellent.

Conclusion

Based on documented internationalisation goals, the programme has successfully implemented effective internationalisation activities which demonstrably contribute to the quality of teaching and learning. The panel assesses the overall level of internationalization at the Master of engineering programme of the École des Ponts ParisTech as good and recommends to the Steering Group and the ECA Management Group to award ENPC the Certificate for Quality in Internationalization.

5. Overview of assessments

Standard	Criterion	Level of fulfilment
1. Intended internationalization	1a. Supported goals	satisfactory
	1b. Verifiable objectives:	
	1c. Measures for improvement:	
2. International and intercultural learning	2a. Intended learning outcomes	good
	2b. Student assessment	
	2c. Graduate achievement	
3. Teaching and learning	3a. Curriculum	excellent
	3b. Teaching methods	
	3c. Learning environment	
4. Staff	4a. Composition	good
	4b. Experience	
	4c. Services	
5. Students	5a. Composition	excellent
	5b. Experience	
	5c. Services	

Annex 1. Composition of the panel

Chair	Dr Rainer Kuenzel rainer.kuenzel@uni-osnabrueck.de
Relevant positions	Professor of Economics 1975-1990, President of Osnabrueck University 1990-2004. Academic director of the Central Evaluation and Accreditation Agency (ZEvA) 2001-13. VP for International Relations of the HRK 1997-2000, Senior professor of HE Management and Policy 2004-14.
Expertise/experience	HE Management, Educational experience, Acquainted with development in the European higher education area
Internationalisation	International profile with considerable international/internationalisation experience
Expert	Dr Karmen Rodman karmen.rodman@gmail.com
Relevant position	Assistant professor of Quality Management, Coordinator of vocational training for students. Tutorial system coordinator, Head of the Center for advising students. Senate member of the Faculty of Management, University of Primorska.
Expertise/experience	HE management, Educational, Assessment experience. Acquainted with developments in the European HE area
Internationalisation	International profile with considerable international/internationalisation experience.
National expert	Robert Pelletier pelandco@yahoo.fr
Relevant position	Former industrial director in a petrochemical company, with plants in 9 different countries of Europe, Asia and USA. Professor at Institut Français du Pétrole (IFP). Visiting professor in many universities around the world, 6 countries, and in large petrochemical corporations in 5 other countries.
Expertise/experience	As a member of CTI for 6 years, and now as a registered expert for CTI, participation in a large number of external audits of Engineering programs in France and Belgium. Special expertise in the fields of energy, petroleum, chemical engineering.
Internationalisation	Both industrial and academic careers involved permanent international exposure (projects, joint R&D, mergers, licensing in and out, educational hub in a Gulf country, etc. and management of multicultural teams of engineers from many different countries).
Student	Eva Reka Fazekas silbereis@gmail.com
Relevant position	Member of the Foreign affairs Committee of HÖÖK, Member of the Quality Assurance Experts pool (ESU)
Expertise/experience	Assessment and/or audit experience and international/internationalization experience
Internationalisation	2012 ENQA agency review training. 2nd round of IEP, evaluating 2 universities in Romania as a student reviewer. Member of the

	assessment panel of the JOQAR pilot procedure.
Coordinator	Dr René-Paul Martin-Denavit rpmartind@yahoo.fr
Relevant positions	Innovation and HR development director in chem. industry, CTI member 1998-2014, AERES conseil, member 2007-2013,
Expertise/experience	Industrial chemistry activities: research, development, innovation, quality management, education and employment policy, external evaluation and accreditation of engineering programs.
Internationalisation	Int. RD management, Internationalization of recruitments, Head of CTI international affairs, audits of 60 engineering programs in 10 countries

Overview panel requirements

<i>Panel member</i>	<i>Subject</i>	<i>Internat.</i>	<i>Educat.</i>	<i>QA</i>	<i>Student</i>
• Rainer Künzel	X	X	X	X	
• Karmen Rodman		X	X	X	
• Robert Pelletier	X	X	X	X	
• Eva Reka Fazekas		X			X
<i>Coordinator</i>					
René-Paul Martin-Denavit	X	X	X	X	

Subject: Subject- or discipline-specific expertise;

Internat: International expertise, preferably expertise in internationalisation;

Educat: Relevant experience in teaching or educational development;

QA: Relevant experience in quality assurance or auditing; or experience as student auditor;

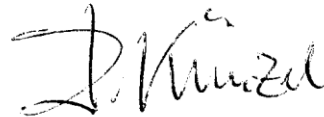
Student: Student with international or internationalisation experience;

Annex 2. Statements of independence

In accordance with the Frameworks for the assessment of quality in internationalisation (Certificate for Quality in Internationalisation) I Rainer **Künzel** declare that I will, when assessing application for awarding the Certificate for Quality in Internationalisation (Master Programme – titre d'ingénieur diplômé Ecole des Ponts ParisTech, France) respect the principle of impartiality and avoid conflicts of interest.

I have worked professionally and independently.

Signature



Champs-sur-Marne, 27th May 2014

In accordance with the Frameworks for the assessment of quality in internationalisation (Certificate for Quality in Internationalisation) I Karmen **Rodman** declare that I will, when assessing application for awarding the Certificate for Quality in Internationalisation (Master Programme – titre d'ingénieur diplômé Ecole des Ponts ParisTech, France) respect the principle of impartiality and avoid conflicts of interest.
I have worked professionally and independently.



Signature

Champs-sur-Marne, 27th May 2014

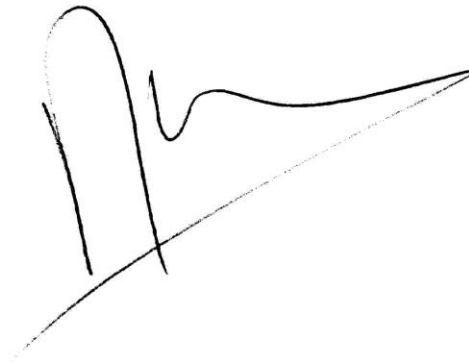
Annex 2. Statements of independence

In accordance with the Frameworks for the assessment of quality in internationalisation (Certificate for Quality in Internationalisation) I, Robert PELLETIER, declare that I will, when assessing applications for awarding the Certificate for Quality in Internationalisation (Master Programme – titre d'ingénieur diplômé de l'Ecole des Ponts ParisTech, France) respect the principle of impartiality and avoid conflicts of interest.

I have worked professionally and independently.

Signature

Champs-sur-Marne, 27th May 2014

A handwritten signature in black ink, consisting of a large, stylized 'R' followed by a series of loops and a long horizontal stroke extending to the right.

Annex 2. Statements of independence

In accordance with the Frameworks for the assessment of quality in internationalisation (Certificate for Quality in Internationalisation) I Rainer Künzel declare that I will, when assessing application for awarding the Certificate for Quality in Internationalisation (Master Programme – titre d'ingénieur diplômé Ecole des Ponts ParisTech, France) respect the principle of impartiality and avoid conflicts of interest.

I have worked professionally and independently.

Signature

Champs-sur-Marne, 27th May 2014

In accordance with the Frameworks for the assessment of quality in internationalisation (Certificate for Quality in Internationalisation) I Eva Reza Fazekas declare that I will, when assessing application for awarding the Certificate for Quality in Internationalisation (Master Programme – titre d'ingénieur diplômé Ecole des Ponts ParisTech, France) respect the principle of impartiality and avoid conflicts of interest.

I have worked professionally and independently.

Eva Reza Fazekas

Signature

Champs-sur-Marne, 27th May 2014

Annex 3. Documents reviewed, mandatory annexes

- Self-evaluation report
- CVs of relevant staff:
- Diploma Supplement

Mandatory annexes

1.	The documented internationalisation goals;	X
2.	Overview of the curriculum in diagrammatic form;	X
3.	ECTS Course Catalogue or, if not available, the available full description of the curriculum components;	X
4.	A reference to courses or other (curricular) activities (by means of a matrix or reading guide) where intercultural and international learning outcomes will be achieved (if not already included in the course catalogue under 3.);	X
5.	List of student assessments which can demonstrate achievement of international and intercultural learning outcomes and for each of these the type of assessment, the grading approach and the (international and intercultural) learning outcomes assessed;	X
6.	Example of a Diploma Supplement;	X
7.	Table of incoming and outgoing students of the last three years (percentage and absolute figures) per country, per type (credit or degree mobility and international internships by country, company name and duration);	X
8.	CV's of the staff, in an easily accessible and comparable format, and in addition an overview of the nationality and international or internationalisation experience of staff;	X
9.	A list of international or internationalisation projects related to education of the last three years (e.g. Intensive Programmes, Curriculum Development, thesis projects, exchange programmes, projects, etc.) and the programme's role in these.	X

9 other annexes relevant to the topic are provided:

- List of international or internationalisation projects related to education and the program
- Interview of Jacques Tavernier, chairman of the board
- Ranking "L'Etudiant" 2013 with respect to internalisation of French Engineering Schools
- Contrat d'objectifs, volet international – Government contractual objectives: international item

- National Professional Certification System (RNCP): European Qualification Framework (EQF), a public document
- Humanities and social sciences department objectives
- Languages department objectives
- Scientific internship human experience report example
- Paper presenting the “Tandem” pedagogic process

Other information and additional evidence as provided on 28th May, 2014, at Ecole des Ponts ParisTech:

- USB key content provided to all panel members and coordinator: 64 documents
- 20 folders shared between two panel members and coordinator in response to the list of questions sent in advance to the school, with the following content:
 - o Q2: Rapport CTI
 - o Q2: Rapport AERES
 - o Q3: list of projects describing the international research cooperation
 - o Q4: Minutes of the board related to internationalization
 - o Q4: Interview of the new Chairman of the board
 - o Q5: “Palmarès de l’Etudiant”
 - o Q5: QS ranking
 - o Q7: Internal Quality assurance for “Gestion des Relations Internationales” – action plan.
 - o Q16: composition of board
 - o Q38: recent improvements
 - o Q40: TIME and EUCEET networks
 - o Q46: Curriculum
 - o Q47: Career guidance
 - o Q58: Financial support through “Foundation des Ponts”
 - o Q98: Athens week
 - o Q104: Student associations
 - o Q110: Staff development
 - o Q129: Internships durations
 - o Q133: Services provided to outgoing students
 - o Q144: International Alumni
 - o Q145: Student accommodations
 - o Q146: Educational tutor international correspondent
- And additional evidence:
 - o AE1: list of projects describing the international research cooperation (same as Q3)
 - o AE4: Description of the program
 - o AE5: Guide to write course description
 - o AE5: Call for Application “Responsible for a course”
 - o AE5: Conditions of appointment for teachers
 - o AE6: Evaluation of students stay abroad
 - o AE8: Courses syllabus
 - o AE8: Annexe 13: Contrat d’objectifs. Volet International et indicateurs
 - o AE8 : Vision on internationalisation

- AE8: Foreign graduates: Follow-up in their career.
- AE8: Tables of incoming and outgoing students
- AE8: Projects in annex 10 – students engaged
- Other documents:
 - Figures prepared for Scholl strategic seminar (One workshop, out of three, dedicated to internationalization)
 - Samples of student work, demonstrating international and intercultural learning outcomes
 - Buddy/Sponsorship program for international students
 - Evaluation of courses.

4. Site visit programme

Overview

Date: 28 May 2014

Institution: Ecole des Ponts ParisTech (ENPC)

Programme: Diplôme d'ingénieur – Master degree (If relevant)

Location: Cité Descartes, 6-8, avenue Blaise Pascal, 77455 Champs-sur-Marne, France

Phone : 0033 (0)164153405 Contact person : Mrs Corinne Gabillard

Programme

Tuesday 27 May 2014

19.30 Dinner and preparatory meeting. Participants: panel members

Location: IBIS Hotel, Boulevard Newton, Marne-La Vallée-Cité Descartes

Phone: 0033 (0)164680083

Dr René-Paul Martin-Denavit – CTI coordinator

Phone: 0033 (0)661329970

Wednesday 28 May 2014

08.00 - 9.00: 1. Meeting with management of the programme (division between presentation/questions 30/70)

<i>Full name</i>	<i>Position</i>
• Dr Armel de la Bourdonnaye	Director
• Dr Victor Gomez-Frias	Vice-dean of education
• Pierre Michaux	Director for international relations

09.00 - 10.00: Internal meeting and possibility to review additional documentation and student work.

10.00 - 11.00: 2. Meeting with students

Full name

- Axelle Alavoine*
- Lorenzo Salvatoni
- Zouhair Adnani

11.00 – 11.45: 3. Meeting with teaching staff

<i>Full name</i>	<i>Module or Course</i>
• Dr Joachim Broomberg	City and regional planning & Environment : issues & professional perspectives
• Prof Jorg Eschenauer*	Head of languages department
• Stacey Benoit	<ul style="list-style-type: none">○ English: diggers & dreamers○ English: field trip○ English: speaking near & far○ English: the big one○ English: we are what we eat
• Prof Pierre Delage	<ul style="list-style-type: none">○ applied design of geotechnical works○ design of geotechnical works○ design of structures exposed to specific risks

11.45 – 12.00: meeting with students of the “tandem course”

12.00 – 13.00: Lunch, panel internal meeting and review of materials

13.00 - 13.30: 4. Meeting with alumni

<i>Full name</i>	<i>Year</i>	<i>Current position/company</i>
• Gibet Camos Daurella	2007	Deputy technical director / Systra
• Anna-Maria Bordas	2006	President / Bordas+Peiro
• Benoît Steinitz*	2009	Subsea engineer / Technip

13.30-14.00: 5. Meeting with external stakeholders (professional field)

<i>Full name</i>	<i>Current position/company</i>
• Anna-Maria Bordas	President / Bordas + Peiro

14.00-14.30: 6. Meeting with representatives of international services

<i>Full name</i>	<i>Position</i>
• Pierre Michaux	Director of international affairs
• Alma Catala-Luna	Exchange student coordinator
• Thibaut Skrzypek	Project manager

14.30-16.30: Panel discussion on the outcomes of the assessment

16.30-17.00: Final meeting with management

<i>Full name</i>	<i>Position</i>
• Dr Armel de la Bourdonnaye	Director
• Dr Victor Gomez-Frias	Vice-dean education
• Pierre Michaux	Director of international affairs

End of site visit and departure

Annex 5. Additional Information

CTI accreditation of every engineering program is based on the application of “CTI Accreditation Criteria Guidelines and Procedures (2012)”, pages 32 – 50 (English version <http://www.cti-commission.fr/Documents-de-reference-de-la-CTI>).

One may also have access there to the last French version of “Références et Orientations: Version 2012-2015 – 7th Edition – Tome 1 – Principes – Tome 2 – Mise en oeuvre (<http://www.cti-commission.fr/Nouvelle-version-du-referentiel>) where internationalization criteria and standards are more detailed.

CTI internationalization standards and criteria are explicitly given in the A to F chapters, namely:

A Mission and organization of the HEI, A4: promotion of the engineering program,

B External links and partnerships B3: international links, B31 international strategy, B32 organisation and internationalization, B33 partnerships and international networks, B34 joint and double degrees,

C Educational process and programme C11 communication with stakeholders, C12 analysis of future needs, C22 programme level and graduate profile, C41 description of the curriculum, C5 international dimension of the program, C51 expected outcomes, C52 cultural background and language skills, C53 outbound mobility, C54 inbound mobility, C8 engineering qualification certificate,

D Student selection and recruitment D3 sources of admission and attention to diversity,

E Graduate employment,

F Quality assurance F31 consideration of national and international regulations and guidelines

These criteria have been updated by CTI in fulfilment of Prof. de Wit’s and ECA’s early publications and discussions on internationalisation requirements. The CeQuInt standards and criteria are thus included in CTIs references. However, but the CeQuInt assessment is more detailed.

In consequence, ENPC, as other schools, applies the international CTI standards and criteria. The last CTI evaluation and accreditation report on the present programme, approved in November 2012, provided the following analysis of strengths and weaknesses:

Strengths:

The school builds its education and research activity on clear objectives. ENPC resources are well adapted. Both recruitment and placement are excellent. School awareness of companies is built in and partnerships are of high level and long term guarantee. Research is prioritized and its link with education is efficient. Inbound foreign students activity is well developed and organized. The two last years of education form a well identified cycle, internationally visible. The education organisation is innovative and efficient. The faculty permanent members are satisfactorily involved in the management of the education.

Weaknesses:

The competences approach is not enough analysed and developed. The link between LO and education units is not yet done. The innovation position is not enough developed. Courses taught in English are not developed in the Engineering program. The “année de césure” is presented as “an optional internship” integrated into the programme, without the corresponding characteristics. The second year internship is not enough monitored by the school.

The School director sent a letter to the CTI Chair on 5th November 2012 to comment (no major observations) and inform CTI on further improvement actions.

Finally, results and accreditation decisions, including the EUR-ACE label award, were published on CTI’s website <http://www.cti-commission.fr/>, and were used as such by the Ministry of Higher Education for the school’s authorization (habilitation) to award the Titre d’Ingénieur diplômé, master grade, in 2013 following CTI’s recommendation of the maximum period of 6 years.

ENPC has also been evaluated as an institution and a public research contributor by AERES (Agence d’Evaluation de la Recherche et de l’Enseignement Supérieur), published in <http://www.aeres-evaluation.fr/> in 2009. The CTI audit team concluded in its external evaluation that the “AERES evaluations are very positive”. A new self-evaluation report by ENPC was received by AERES in the same period as CeQuInt. The AERES Self-Evaluation Report has also been communicated to the panel. It contains a chapter devoted to European and international relationships (pages 39-43).

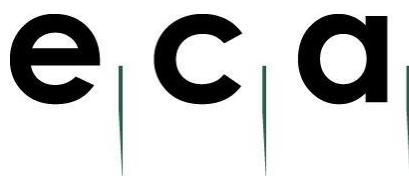
See also: CTI References and standards Frameworks (<http://www.cti-commission.fr/Documents-de-reference-de-la-CTI>), CTI Avis on habilitation and EUR-ACE

label award (<http://cl.ly/0u331a461B1y>) and AERES evaluations for institutional aspects (http://www.aeres-evaluation.fr/aeres/advancedsearch?SearchText=ponts&language_doc=&academy=CRET_EIL&wave=&reportType%5B%5D=217&reportType%5B%5D=252&SearchButton=Afficher+les+r%C3%A9sultats&SearchOrder=pertinence&SearchOrder-bas=pertinence)

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