



European Network for Accreditation of
Engineering Education

Report to EUR-ACE Label Committee

On

Application for Authorisation to award the EUR-ACE Label

from

Commission des Titres d'Ingénieur (CTI)

(Second Cycle Programmes)

Members of Review Team

- 1. António Augusto Salgado de Barros (OE/PT)**
- 2. Prof. Ben Barr (University of Cardiff – EC/UK)**
- 3. Prof. Victor Markin (Altai State Technical University – RAEE/RU)**

Date of the Report: 5th of August 2008

Final Report: 4th of November 2008

1. GENERAL INFORMATION

1.1 The ENAEE Team

The application by CTI to be licensed to award the EUR-ACE Label has been assessed by a team composed as follows:

Antonio Salgado de Barros - Ordem dos Engenheiros, Pt

Prof. Ben Barr – Cardiff University - UK

Prof. Victor Markin – Altai State Technical University - Russia

1.2 The Visits and CTI plenary session

The assessment is based upon two visits: the first to the Institute Polytechnique de Grenoble on the 19th and 20th of June and the second to École Polytechnique de Savoie – Université de Savoie on the 24 and 25 of June. A plenary session of CTI was held on 30th of June 2008 and attended by Antonio Salgado de Barros.

- Institute Polytechnique de Grenoble received university status In December 1970 and is a federation of six engineering schools: Ense3 (energy, water and environnement), Ensimag (informatics, applied mathematics and telecommunications) Esisar (advanced systems and networks), Industrial Engineering (design of products or services, management of production and logistics), Pagora (paper sciences, printed communication and biomaterials) and Phelma (physics, electronics and materials).

The assessed Programmes were:

Esisar : Filière EIS (Electronique, Informatique, Systèmes) and Filière IR (Informatique et Réseaux)

Pagora : Filière du Papier, de la Communication Imprimée et des Biomatériaux

- École Polytech'Savoie – Université de Savoie is a merger which occurred in 2008 of l'ESIA (École Supérieure d'Ingénieurs d'Annecy created in 1993) and of l'ESIGEC (École Supérieure d'Ingénieurs de Chambéry created in 1988).

The assessed Programmes were:

Spécialité Environnement – Bâtiment – Energie (Filière Energie, Filière Génie de l'environnement, Filière Ingenierie du bâtiment)

Spécialité Instrumentation - Automatique – Informatique (Filière Automatique et informatique industrielle, Filière Génie Logiciel et organisationnel, Filière Physique appliquée et instrumentation)

Spécialité Mécanique et Matériaux (Filière Ingénierie Mécanique, Filière Matériaux composites, Filière Mécatronique)

- A plenary session of CTI was held on 30th of June 2008 where some applications were discussed and the final decision of CTI agreed.

1.3 – The ENAEE observers approach

The task of ENAEE observers is to verify if the written standards and procedures of CTI are in compliance of ENAEE and EUR-ACE Standards and procedures and if the information obtained on the visits is consistent with the written information.

The present document has three Appendices:

Appendice A : Université de Grenoble – CTI assessment

Appendice B : Université de Savoie – CTI assessment

Appendice C : Réunion Plénière – Discussion on the assessment of programmes

2. HISTORY AND DEVELOPMENT OF CTI

2.1 History

The *Commission des Titres d'Ingénieur* was founded by the law promulgated on the 10th of July 1934 which extended to all French higher education curricula the evaluation and accreditation, from an academic and a professional point of view, the programmes leading to the French degree of “ingénieur diplômé”. Later, the “Savary” law, passed in 1984, completed the accreditation procedure.

However, the obligation for periodic evaluation (every 6 years) by the CTI, has been applied to all existing curricula for the higher education of “Ingénieurs diplômés” in France, only since 1997. For the CTI this obligation leads to the examination of 80 to 100 accreditation requests each year (148 decisions were taken in 2007).

According to French law, “Ingénieur diplômé” is a degree equivalent to that of “Master” (French decree n°99-747, August 30th 1999).

2.2. Main activities

The main activities of the CTI are defined in the document “CTI Application Form for ENAEE” and are as follows:

- a) Definition of the procedures and criteria for evaluation and accreditation;
- b) Evaluation of study programs;
- c) The recommendation or decision to accredit an institution to award the degree of French *ingénieur diplômé*.

2.3 CTI Terms of Reference

1 - "References and Orientations" (last edition June 2006) and its supplement (September 2006).

2 - "Guide d'Autoévaluation des Formations d'Ingénieurs" – Approuvée en Assemblée Générale plénière du 13 Juin 2006 - complété en Décembre 2006" (Doc 3) which presents explicitly all criteria described in "References and Orientations".

3 - "Line-up CTI's and EUR-ACE outcome criteria for degree programmes, 2007-01-25" that clarifies the learning outcomes expected.

2.4 CTI commitment for quality assurance

CTI is one of the founders of EUR-ACE through ESOEPE and is a member of ENQA, ECA, and ENAEE.

3. ACCREDITATION STANDARDS AND PROCEDURES

CTI Application Form

1 - CTI Application Form for ENAEE (signed by Bernard Remaud, President of CTI), was received on the 16th March 2008 and has six appendices (Doc 1). CTI has already prepared a document entitled "Lineup CTI's and EUR-ACE outcome criteria". Details of the appendices in Doc 1 are as follows:

Appendix 1 – "Rapport d'auto-évaluation en vue de son évaluation externe - Juillet 2007 » (App 1) ;

Appendix 2 – "External Evaluation Review Committee (EERC) Report: Commission des Titres d'Ingénieur (CTI) - October 2007" (App 2) ;

Appendix 3 – "Références et Orientations - Approuvé en Assemblée plénière du 13 juin 2006 « (App 3) ;

Appendix 4 – "Self-Evaluation Guide for Engineering Education Programmes – Outline - Approved at the Plenary Meeting of June 13, 2006 and Finalized in December 2006"; (App 4); This document is a summary of document 3 in this section.

Appendix 5 – "Note de Politique Internationale de La Cti - Developpement des Ecoles a l'International - Recommandations du Bureau de la Cti du 26 Juin 07 - Approuvées en Assemblée Plénière du 10 Juillet 07 » (App 5) ;

Appendix 6 – “Note d’orientation de la Cti Sur - Les Organisations Europeennes de Reference du Management de la Qualité - Recommandations du Bureau du 23 Janvier 2007 - Approuvées en Séance Plénière du 11 Avril 2007 » (App 6).

2 - Lineup CTI`s and EUR-ACE outcome criteria for degree programmes - 2007-01-25 (Doc 2);

3 – “Guide d’Autoévaluation des Formations d’Ingénieurs” – Approuvée en Assemblée Générale plénière du 13 Juin 2006 - complété en Décembre 2006” (Doc 3).

Further information regarding CTI is provided on its website: www.cti-commission.fr

3.1 Programme Outcomes

– **Is the content of the Agency Standards consistent with the Programme Outcomes in Section 1 of the EUR-ACE Framework for First and Second-cycle degrees?**

The CTI has developed a Self-Evaluation Guide based on the information presented in the document “References and Orientations”, last edition 2006 (App 3).

As indicated in the document “Lineup CTI’s and EUR-ACE outcome criteria for degree programmes” (Doc 2), elaborated on 2007-01-25, the reference to program outcomes is explicitly given in the sections entitled:

D 2 LEARNING OUTCOMES AND COMPETENCES ACQUIRED?

D21 General learning outcomes and competences

D22 Specific learning outcomes and competences

The information requested by CTI is consistent with the EUR-ACE requirements.

Every diploma has a corresponding file for professional certification (fiche descriptive de la certification) which defines the general and specific competences, sectors of employability, and a general description of programme content for the graduates.

Only second cycle programmes were reviewed in this assessment.

Conclusion - Yes, the Agency Standards are consistent with the Second Cycle Programme Outcomes of the EUR-ACE Framework.

– **Do the Agency Standards specify a depth of knowledge and understanding consistent with those of the EUR-ACE Framework for First and Second-cycle degrees?**

With the "Rapport d'Auto-évaluation", chapter F.2.2 CTI the Commission asks the engineering schools to continue and develop their commitment in research activities and expertise, alone or in partnership, towards the needs of the economy and society. This is an explicit strong recommendation.

The document "Références et Orientations - Approuvé en Assemblée plénière du 13 juin 2006" (App 3), Chapter III.2., defines the general competences and chapter VI.1.3, emphasises the importance of innovation and research skills and reinforces the profile of "Ingénieur Diplômé".

Conclusion – Yes, the Agency Standards specify a depth of knowledge and understanding consistent with those of the EUR-ACE Framework.

3.2 - Programme Organisation

- Does the Agency satisfactorily assess how the programmes are organised, managed and maintained in order to ensure that the Programme Outcomes are achieved?**

The school first prepares a self-evaluation report taking into account the new issues that Higher Education and Engineering Education programs have to address in the CTI Application Form for ENAEE (Doc 1 refers).

The "Self-Evaluation Guide for Engineering Education Programmes – Outline - Approved at the Plenary Meeting of June 13, 2006 and Finalized in December 2006"; (App 4), chapter D.3 requires details of the content of disciplines (which is then verified by the analysis of the submitted documents by the schools). In particular, the subjects and their sequence must be clearly presented by the school in order to offer an overview of the programme and the way it is accomplished.

Conclusion – Yes, the supplied information shows how the the programmes are organised, managed and maintained in order to ensure that the Programme Outcomes are achieved.

- Does the Agency accreditation procedure require course providers to provide adequate resources to deliver programmes?**

The document "Guide d'Autoévaluation des Formations d'Ingénieurs – Approuvée en Assemblée Générale plénière du 13 Juin 2006 - complété en Décembre 2006" (Doc 3) establishes in sections A6, A7 and A8 (Ressources humaines, Moyens Matériels and Finances) the resources to be available in order that the school can deliver the curriculum.

The documents submitted by the two universities visited refer to all the resources to fully support the delivery of the programme objectives.

Conclusion – Yes, the Agency accreditation procedures require course providers to provide adequate resources to deliver programmes.

3.3 Accreditation Procedure

– Are the Agency’s accreditation procedures satisfactory?

The procedures are defined in two documents:

1 - “References and Orientations” (last edition June 2006) and its supplement (September 2006) (App 3), in Chapter XI, The evaluation process and empowerment training.

2 - “Self-evaluation Guide for Engineering Education Programmes in HEIs” (Décembre 2006). These documents present explicitly all criteria described in “References and Orientations” Part D - Education & training for integrated master degree.

The procedures were verified not only during the visits to the universities but also in the plenary session of CTI.

Conclusion - The analysis of the procedures shows its accordance with the EUR-ACE recommended procedures.

– Does the Agency documentation provide adequate information for all the participants in the accreditation process?

CTI has a set of normative documents in order to inform the schools about the national law and regulations and CTI accreditation procedures and criteria:

“References and Orientations” (last edition June 2006) (App 3) and its supplement (September 2006).

“Guide d’Autoévaluation des Formations d’Ingénieurs” – Approuvée en Assemblée Générale plénière du 13 Juin 2006 - complété en Décembre 2006 (Doc 3), from which “Self-evaluation Guide for Engineering Education Programmes” (App 4) is a summary, and presents explicitly all criteria described in “References and Orientations”.

Before the formal visit the team coordinator establishes a personal contact with the president of the school to clarify information and ask for any further supplementary information that may be required by the team.

Conclusion – Yes, the Agency documentation provides adequate information for all the participants in the accreditation process.

- **Does the Agency documentation provide clear guidance to enable the university to produce a comprehensive self-assessment report and other necessary information?**

The document “Self-evaluation Guide for Engineering Education Programmes in HEIs” (December 2006) (App 4) gives a good approach to the objectives of the assessment namely covering the “Description of National System of Formation on Engineering”, “The Implementation Of European Guidelines For The Establishment Of The European Higher Education In The System Of Formation Of Engineering” and “Adaptation of Training System To The Needs of Professional Engineers and Societal”. This documentation is detailed and well organised and so, easily understandable.

Conclusion – Yes, the Agency documentation provides clear guidance to enable the university to produce a comprehensive self-assessment report and other necessary information.

- **Is the composition of the accreditation team adequate?**

The document “Self-evaluation Guide for Engineering Education Programmes in HEIs” (Décembre 2006) (App 4) Chapter F.4.2 :The heads of mission are appointed by the bureau and the rapporteurs are appointed in a plenary session. If necessary, outside experts, possibly international members complete the mission team.

The assessment team for Université de Grenoble (Esisar) was composed of Patrick Chedmail, “rapporteur principal”, Professor à l’Ecole Centrale de Nantes, André Mora, “rapporteur”, Professor à l’Ecole Nationale Supérieure d’Electronique, Informatique et Radiocommunications de Bordeaux, Yves Bréval, “rapporteur”, representative of l’UNICI (Union Nationale Interprofessionnelle des Cadres et Ingénieurs), Nadine Guillemot, Vice-présidente du Conseil des Études et de la Vie Universitaire – CEVU.

The assessment team for Université de Grenoble (Pagora) was composed of René Paul Martin Denavit, “rapporteur”, représentant le Conseil National des Ingénieurs et des Scientifiques de France - CNISF, Henry Schoorens, “rapporteur”, Professeur des Ecoles des Mines Service de la tutelle des Ecoles des Mines, Jean Michel Siwak, “rapporteur”, Directeur de polytech’nantes Enseignant – Université de Nantes and Chistian Schaeffer, “rapporteur”.

At Grenoble, the ENAEE observers only attended one of the assessed schools: the Esisar.

The assessment team for Université de Savoie was composed of Henry Schoorens, “rapporteur principal”, Professeur des Ecoles des Mines Service de la tutelle des Ecoles des Mines, Chistian Rombaut, “rapporteur” and Universities Professor and Jean-Jacques Lenne, “rapporteur” and Director of the UIMM (Union des Industries et Métiers de la Métallurgie).

Conclusion – Yes, the number and qualification of accreditation members are adequate. However, sometimes their specialities are not in accordance with the profile of the programmes.

– **Are the timetable and the agenda for the visit acceptable?**

The document « Rapport d'auto-évaluation en vue de son évaluation externe - Juillet 2007 » (App 1) defines the usual time-table for the visits in Chapter F.4.2.

Both visits to IP Grenoble and to EPU Savoie were two-day visits. The time tables for both visits were adequate and there were many meetings with stakeholders, graduates and local institutions (see Appendices A and B at the end of this document for further details).

Conclusion – Yes, the timetable is adequate for the purposes of the assessment team.

– **Is the conduct of the visit acceptable? Are the meetings efficient in obtaining the necessary information?**

Before the visit the coordinator has a previous appointment with the school to evaluate if all the information is available and if the visit has conditions to be carried out with efficiency.

Each member of the assessment team read the documents thoroughly and this was obvious during the discussions with the school. There were no changes in the programme of the visit and the team showed good ability to collect all relevant information during various meetings.

Usually the assessment team split into different groups to visit the departments and after the visit all the groups visiting the same school discuss together their collective findings.

Conclusion – The conduct of the visit is acceptable and the meetings provide the necessary information.

– **Is the decision-making process acceptable? Are the decisions communicated properly?**

The document “Rapport d'auto-évaluation en vue de son évaluation externe - Juillet 2007” (App 1) defines the decision-making process in Chapter F.4.2.

The document “Références et Orientations - Approuvé en Assemblée plénière du 13 juin 2006” (App 3) states in section XI. 3.4 that the authorization is granted by the minister on the advice of the CTI.

At the end of the visit the assessment team summarises the conclusions and report their views to the school staff. This discussion is fair, open and objective within an environment of mutual respect.

The report of the accreditation team is sent to the dean of the institution evaluated for correction of any factual error and the report of the accreditation team is then presented to a plenary session of CTI.

Conclusion – Yes, the decision-making process is acceptable and the decisions are communicated properly.

– Is there an appeals system in place?

The document “Rapport d'auto-évaluation en vue de son évaluation externe - Juillet 2007” (App 1) refers to an appeals system in section F.4.3.

Conclusion – Yes, there is an appeal system in place.

4. AGENCY MISSION AND STRUCTURE (cf. ENQA)

4.1 - Official Status

– What is the legal basis for the accreditation role and how is compliance demonstrated?

The composition and missions of CTI are defined by the law so CTI is recognized as the organization in charge of accreditation of institutions that give the title of “ingénieur diplômé” as is stipulated in “Code de l'éducation” in articles L-642-3 and a decree of State Council n° 85-685 of 5th July 1985.

Conclusion – The legal basis of CTI is clear and well supported.

– Are its constitution and administrative procedures adequate to conduct accreditations?

The document “External Evaluation Review Committee (EERC) Report: Commission des Titres d'Ingénieur (CTI) - October 2007” (App 2) is the evidence of the interest of CTI to comply with the European Standards and Guidelines for the External Quality Assurance of Higher Education (hereafter referred to as the ESG).

In the last few years, the CTI has taken initiatives in order to conform with the international framework of quality assurance.

The CTI decided that it wished to undergo an external evaluation review, not only to verify its compliance with the relevant ESG, but also to evaluate the way the CTI carries out its mission.

Conclusion - The administrative procedures are adequate for CTI to conduct accreditations.

4.2 - Activities

- Is the undertaking of the accreditation processes at programme level part of the core functions of the Agency?**

The Commission des Titres d'Ingénieur (CTI), is an accreditation body institution (training or schools) to issue the title engineering graduate and has as its principal objective continuous improvement of these formations in order to achieve a high degree of quality.

Conclusion – Yes, accreditation is a core function of the agency.

4.3 - Resources

- What resources does the Agency have at its disposal to carry out its accreditation process(es)?**

Human resources

The “Commission des Titres d'Ingénieur“ includes 32 members:

16 members are from the socio-economic sector and designated by professional organisations, including:

- eight members chosen by employers' organisations
- eight members chosen by associations and professional organisations of engineers

16 members are from the academic sector, including:

- eight members chosen from among the staff of public scientific, cultural and vocational schools and institutes under the Ministry of National Education
- eight members chosen for their scientific and technical competence including members from institutions under ministries other than the National Education.

This composition brings together representatives of training engineers, experts, representatives of professions and businesses, and representatives of major trade unions and associations of engineers.

In addition, in order to broaden his spectrum of skills and be able to meet its new obligations, the CTI has added a delegate general in charge of the mission, **two administrative assistants**, and a college of national and international experts

Financial resources

For the time being, the operational budget of CTI is given by the ministry of education, and European contracts partnerships.

A decision has been taken by the plenary assembly to obtain money from the schools being evaluated, from the professional world, and from the umbrella ministries.

This is necessary because, at this moment, CTI depends on unpaid service from the members, experts and delegates.

The evaluation workload amounts to nearly 1600 workdays each year which has a significant cost implication. These costs are covered implicitly by the CTI members salaries (equivalent to 1.2 millions Euros). Increasing the operational resources of CTI is very important to develop its own logistics and back office and its internal quality standards.

For more details see Appendix 1 (App 1) of the Application Form for ENAEE, paragraph D3.4

Conclusion – CTI has not yet sufficient of its own resources which is a difficulty. However, CTI's performance has not been compromised due to this difficulty.

- **What provisions have been made for the development of the processes and procedures?**

The document "Rapport d'auto-évaluation en vue de son évaluation externe - Juillet 2007" (App 1) defines the decision-making process in Chapter F.4.2.

Conclusion - CTI commitment for quality assurance is shown as a member of ENQA, ECA, and ENAEE.

4.4 - Mission Statement

- **Is the Agency's mission statement publicly available? Are its central points acceptable?**

CTI have a site www.cti-commission.fr where the documents, procedures, criteria and list of accredited schools are publicly disseminated.

The list of accredited schools are also published in the "Bulletin Officiel du Ministère de l'Éducation National et du Ministère de l'Enseignement Supérieur et de la Recherche".

4.5 Independence

– How is the independence of the Agency ensured?

The document “CTI Application Form for ENAEE” (Doc 1) states that Members of CTI are proposed by public and private organisms in a statutory way and criteria and procedures are elaborated inside CTI in relationship with stakeholders in a permanent transparent approach.

Conclusion - The independence of the Agency is ensured.

4.6 Accountability Procedures

– How is the accountability of the Agency secured?

This question is answered in the document “CTI Application Form for ENAEE” (Doc 1) item 12 where it is reported that “Références et Orientations” (App 3) and “Guide d’auto evaluation” (Doc 3) are changed every three years and presented to the deans of schools during the annual conference of CTI.

Concerning decisions, quantitative reports are given during plenary assembly of CTI and qualitative reports is given in: “Reference et orientations-Cahier complémentaire-Report of the evaluations 2004-2006” (App 3).

Each year, a list of accredited institutions is publicised in the Journal Officiel de la Republique Francaise.

Conclusion – Yes, the accountability of CTI is secured.

4.7 Miscellaneous Criteria

– Does the Agency pay careful attention to its declared principles at all times and ensure that both its requirements and processes are managed professionally?

This question is answered in the document “CTI Application Form for ENAEE” (Doc 1) item 13, concerning the nomination of the experts for each evaluation mission.

Each member of the assessment team must sign a responsibility form (chartre de travail et de Deontologie des membres et experts de CTI) in order to declare the acceptance of the code of practice for the CTI assessment.

Conclusion – The requirements and processes of CTI are managed professionally.

– Does the Agency satisfactorily ensure that its judgements and decisions are reached in a consistent manner, even if formed by different groups?

The “Rapport d'auto-évaluation en vue de son évaluation externe - Juillet 2007” (App 1) explains the cooperation academic/professional and the control of the criteria in the sections F.1.2 and F.1.3. The composition of the Commission with parity between academic and professional members, people from the world of employers and trade unions as well as the discussion in plenary supports a coherent decision making process.

Conclusion - The decisions are reached in a consistent manner.

5. CONCLUSIONS OF THE REVIEW TEAM

- **If a Review Team considers that the Agency has satisfied the EUR-ACE criteria, the conclusion of the Review Team should be that the Agency be granted the authority to award the EUR-ACE Label to the First-cycle and/or Second-cycle degree programmes it has accredited.**
- **If serious deficits in satisfying EUR-ACE criteria are identified, then the conclusion should be that this authority should be withheld. Clearly articulated reasons for this recommendation should be given.**
- **In both cases, a Review Team may offer advice on improvements for the consideration of the Agency.**

1. The Review Team concludes that the Label Committee should make the following recommendation(s) to the ENAEE Administrative Council:

that the Commission des Titres d'Ingénieur (CTI) be granted the authority to award EUR-ACE labels from 17 November 2008 to 31 December 2013 to the following accredited degree programme(s)

Second Cycle Engineering Degree Programmes

2. The Review Team also concludes that the Label Committee should report to Commission des Titres d'Ingénieur (CTI) that their procedures would be enhanced by:

- Improving the financial support in order to support the activity of the Commission in a more efficient manner.
- Analyzing with detail the pedagogic structure of the programme. This is not done very deeply due to the fact that the basic speciality of the members of the assessment team is not in accordance with the subjects of the programme (see third recommendation).

- Taking care that the assessment team is composed of professionals with basic formation and/or training of a similar area of the programme assessed.

The ENAEE observers

Antonio Salgado de Barros

Prof. Ben Barr

Prof. Viktor Markin

6. DECISION OF THE LABEL COMMITTEE

The LC discusses the report of the review team and adopts their recommendations in full.

The Label Committee recommends to the ENAEE Administrative Council that the Commission des Titres d'Ingénieur (CTI) be granted the authority to award EUR-ACE labels from 18 November 2008 to 31 December 2013 to Second Cycle Engineering Degree Programmes.

The Label Committee recommends that the ENAEE Administrative Council should report to CTI that their procedures would be enhanced by

- improving the financial support in order to support the activity of the Commission in a more efficient manner;
- analyzing with detail the pedagogic structure of the programme. This is not done very deeply due to the fact that the basic specialty of the members of the assessment team is not in accordance with the subjects of the programme (see third recommendation);
- taking care that the assessment team is composed of professionals with basic formation and/or training of a similar area of the programme assessed.

Annex

STATEMENT OF THE REVIEWED AGENCY.

1. The CTI is grateful to the panel for its active and professional way in which it worked both during the visits and for the report. The outcomes of external assessments are welcomed. They provide useful external feedbacks for continuing improvement discussions of the internal quality assurance system of CTI.

Comments on the Section 6 - RECOMMENDATION TO EUR-ACE LABEL COMMITTEE

2. The first improvement advice – Support improvement: This point is a priority action taken by the CTI with the objective to achieve this goal in 2009.

3. The second improvement advice – Detailed analysis of the pedagogic structure of the programmes: The evaluation on which is based the accreditation concerns the programme and the institution as well (Self-Evaluation Guide for Engineering Education Programmes). It is result oriented. This explains that the panel experts are specialists of the required characteristics, and not only of the scientific discipline of a programme. CTI pays attention to the balance between the disciplinary/ generalist and academic/professional aspects in the panel competences composition.

4. The improvement advice 3 – Assessments by trained professionals of the same area: This point is important. The experts from the profession are also expected to evaluate the content of the subjects related to the competences needed in industry, to check the ECTS devoted to human, social and economic sciences, to evaluate the internships and apprenticeships periods in industry, and in general the balance between transferable skills and specialty training.

Comments on the other sections of the Report

5. The paragraph 3.3 indicates that sometimes the specialty of the panel members are not adequate. This point has been commented in the preceding item. The CTI uses its own competence data base on specialties and horizontal competences.

APPENDIX A – UNIVERSITÉ DE GRENOBLE

CTI ASSESSMENT

INTRODUCTION

The evaluation reviews were carried out by a team composed of 7 CTI members, without outside “associate experts”. The team split into two sub-groups for the first day – one visiting Esisar and the other visiting Pagora. The teams had meetings with the employers, the alumni, the professors, the researchers, the non-teaching staff and the students. The ENAEE observers attended only the visit to Esisar.

SCHOOLS AND PROGRAMMES VISITED:

Esisar : Filière EIS (Electronique, Informatique, Systèmes) and Filière IR (Informatique et Réseaux)

Pagora : Filière du Papier, de la Communication Impromée et des Biomatériaux

CTI EXPERTS :

Visiting Esisar: Patrick Chedmail, André Mora, Yves Bréval and Nadine Guillemot.

Visiting Pagora: René Paul Martin Denavit, Henry Schoorens, Jean Michel Siwak et Christian Schaeffer.

ENAEE OBSERVERS:

Antonio Salgado de Barros, Prof. Ben Barr and Prof. Viktor Markin.

At Grenoble, the ENAEE observers only attended one of the assessed schools: the Esisar.

ARRANGEMENTS AND AGENDA FOR THE VISIT :

Mercredi 18 juin 2008

20h45 Dîner à la Gazzetta avec l'Equipe dirigeante

Jeudi 19 juin 2008 - Audition des écoles Grenoble INP-Esisar et Grenoble INP-Pagora en parallèle

07h30 Départ du site Viallet vers l'Esisar

Experts : Patrick Chedmail, André Mora, Yves Bréval, Nadine Guillemot

Observateurs de l' ENAEE: A. Salgado de Barros, Prof. B. Barr, Prof. V. Markin

08h30 Accueil sur le site de l'Esisar

09h00 Présentation des intervenants

- Exposé général du Directeur

- Présentation des études

- Présentation du transfert de technologie

- Présentation de la recherche

12h30 Déjeuner avec les partenaires économiques

14h00 Rencontre avec des étudiants, des enseignants, enseignants-chercheurs et des personnels IATOS

16h00 Synthèse de la journée

16h30 Retour vers Grenoble

Vendredi 20 juin 2008

08h30 Séance plénière en salle des conseils du site Viallet

Synthèse et rappel sur la réforme de l'établissement

Paul Jacquet, Administrateur général de Grenoble INP

08h45 Echanges

09h00 Réponse aux recommandations de la CTI

La question du site en termes d'ingénierie

Paul Jacquet, Administrateur général de Grenoble INP

Notion d'ingénieur

Point sur les filières

Henri Tiger, Directeur ENSGI

Chiffres des écoles actuelles sur les stages et projets

Roger Mohr, Chargé de mission Ensimag

L'informatique pour les non-informaticiens

Pierre Benech, Chargé de mission Phelma

Positionnement des années de spécialisation

Olivier Métais, Chargé de mission Ense3

Les priorités à l'international

Jean Luc Koning, Vice président Relations Internationales

La notoriété des nouvelles écoles à construire

Paul Jacquet, Administrateur général de Grenoble INP / Nelly Biboud

10h00 Echanges

10h30 Pause

10h45 Débriefing des auditeurs entre eux

12h00 Déjeuner en salle des pas perdus

14h00 Débriefing en salle des conseils du site Viallet

Débriefing avec l'Equipe dirigeante et les Chargés de mission écoles

16h00 Fin de la visite de la CTI

APPENDIX B – UNIVERSITÉ DE SAVOIE

CTI ASSESSMENT

INTRODUCTION

The evaluation reviews were carried out by a team composed of 3 CTI members without, outside “associate experts”. This team had meetings with the employers, the alumni, the professors, the researchers, the non-teaching staff and the students.

SCHOOLS AND PROGRAMMES VISITED:

Spécialité Environnement – Bâtiment – Energie (Filière Energie, Filière Génie de l’environnement, Filière Ingénierie du bâtiment)

Spécialité Instrumentation - Automatique – Informatique (Filière Automatique et informatique industrielle, Filière Génie Logiciel et organisationnel, Filière Physique appliquée et instrumentation)

Spécialité Mécanique et Matériaux (Filière Ingénierie Mécanique, Filière Matériaux composites, Filière Mécatronique)

CTI EXPERTS:

Henry Schoorens, Christian Rombaut and Jean-Jacques Lenne.

ENAAE OBSERVERS:

Antonio Salgado de Barros, Prof. Ben Barr and Prof. Viktor Markin.

ARRANGEMENTS AND AGENDA FOR THE VISIT :

Mardi 24 juin 2008

08h45 : Accueil site de Chambéry

09h00 : Rencontre avec l’équipe de direction

- Aspects généraux du fonctionnement de l’école
- Relations avec les entreprises
- Relations internationales

10h30 : Rencontre avec l'équipe de direction - offre de formation

- Aspects généraux de l'offre de formation

- Spécialité EBE

- Spécialité IAI

- Spécialité MM

- Spécialité MP

12h15 : Rencontre avec le Président de l'Université

13h00 : Déjeuner

14h00 : Visite du site de Chambéry

15h00 : Rencontre avec des personnels IATOS

16h00 : Rencontre avec des étudiants

17h00 : Transfert sur Annecy et dépose à l'hôtel

18h00 : Rencontre avec des anciens élèves

19h00 : Rencontre avec l'APEI et des entreprises partenaires

20h00 : Dîner à l'école avec les partenaires

Mercredi 25 juin 2008

08h45 : Accueil site d'Annecy

09h00 : Rencontre avec le directeur de la recherche et les directeurs de laboratoires

10h00 : Rencontre avec des doctorants

11h00 : Rencontre avec le Président du conseil de l'école

12h00 : Rencontre avec des représentants des collectivités

13h00 : Déjeuner

14h00 : Visite du site d'Annecy

15h00 : Rencontre avec des personnels enseignants-chercheurs et enseignants

16h00 : Réunion des experts

17h00 : Réunion de synthèse avec le directeur

18h00 : Pot avec l'ensemble des participants

APPENDIX C – REUNION PLÉNIÈRE de LA CTI

Discussion on the assessment of programmes

Introduction

The ENAEE observer was Antonio Salgado de Barros. He attended a meeting on 30th June 2008 in Paris (34 Avenue Charles de Gaulle, 92200 Neuilly sur Seine).

The meeting was carried out in a large meeting room with enough area and comfort.

The Session

The meeting started with an evaluation of the decisions which could be taken according to the number of participants present at the meeting.

The names of the programmes were discussed in order to represent the real content of the course and to satisfy a professional need. The number of programmes in a particular area is a concern for CTI, in order to prevent an excess of provision in a particular area. A new programme for a narrow niche of the market is usually accepted.

The Plenary session also designated the names of CTI members to assess schools making an application for accreditation.

For each assessed programme the coordinator (rapporteur) made a presentation regarding the strengths and weaknesses of the programme and the plenary group established collectively the improvements to recommend to the school. The stakeholders' support is a significant issue and is given high importance.

The plenary discussion is usually about the research programmes of the school, students admission, its suitability with the entrepreneurial needs, relationship with schools and other institutions, management competences, communication and other general aspects.

Usually the report considers as one package all the assessed programmes at a particular school.

Sometimes the duration of the accreditation period is not proposed by the assessment team, leaving this issue for the consideration of the plenary group.

Comments

The procedures for the Plenary Session of CTI are stated in the document – “Références et Orientations - Approuvé en Assemblée plénière du 13 juin 2006” (App 3), chapter XI 3.

The meeting was well directed with fairness and efficiency, and the conclusions were recorded in a Minute and approved by all the participants and according to the established CTI rules.