**SOME FINAL NOTES**

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I am really enthusiastic about the quality and variety of the papers presented at this Conference: they have covered the main aspects of quality and accreditation of engineering education and tackled, sometimes in critical terms, several problems internal and external to ENAEE.

While it is of course a task of the ENAEE Administrative Council and Promotion Committee to take operative decisions, and without trying to draw conclusions from a debate that is still open, I will just sketch some indications that I believe emerge from what I have heard so far, and add some suggestions of mine.

First of all, it is absolutely essential to preserve the quality of the EUR-ACE label: therefore, the process for authorizing an Agency must continue to be rigorous and thorough as it has been so far.

However, it is also essential to expand the EUR-ACE system: at the moment, nine Agencies in nine EHEA countries are authorized, vs, 47 EHEA countries! Too few!

1000 EUR-ACE labels awarded in less than 6 years (2007-2012) is certainly a success... but less so if compared to the number of European engineering graduates!

Let therefore ENAEE fix and pursue realistic objectives: e.g., four new Agencies per year?

I know that the Promotion Committee is working to set up a programme for these new Agencies: I do hope such a programme will be ready soon, but I would suggest to catch any occasion that may arise, even if unexpected.

I do recommend to all concerned ENAEE people to be pro-active: as soon as you hear of an Agency, an organization, even an individual, who is interested in joining or promoting EUR-ACE, do contact him/they immediately and discuss what can/should be done without waiting for them to take the initiatives or for an occasion of meeting.

To be 100% explicit, this is was the (in my view unsatisfactory) reaction to the letter that the Director of the Spanish Accreditation Agency ANECA sent to our President, after our good friend Guy Haug visited him in Madrid to solicit his interest: we have just waited until this Conference!

Anyway, ANECA and “Instituto de la Ingenieria de Espana” (IIE), an ENAEE Member, are both present at this Conference and are exchanging ideas: thus, I do hope that the seeds that I sowed with visits to Spain during my ENAEE Presidency will soon give good fruits and ENAEE can welcome Spain in the EUR-ACE system.

In a presentation at this Conference, we have also heard of an authorization process that lasted three years: too long! (and in the specific case I personally add that the process was prolonged by unjustified delays and postponements, while a member of the concerned Agency had become Vice-President of ENQA!

The same, I am afraid, is happening with other pending applications: I do not quote them explicitly, because I do not want to be too provocative, and because I know that appropriate remedies are being taken.

But from these episodes the necessity arises to envisage and implement strict internal quality rules for ENAEE, in particular for the EUR-ACE-authorization process, with strict deadlines for responses and visits.

Allow now me to present you a couple of proposals for consideration in the future.

We have always maintained that the EUR-ACE label can be awarded only to programmes that are “entry route to the engineering profession” at the Bachelor or Master level, and I think that this must be confirmed.

However, I have heard on various occasions of concerns for the quality of Fist-Cycle engineering degrees of applicants for a Master Degree in a different HEI.

To facilitate the mobility in such cases, I suggest to study the possibility of awarding a ENAEE quality label (not a EUR-ACE label!) to FC degrees that can be accepted as sufficient to enter into a EUR-ACE-accredited SC programme.

Another point worth noting: the Bologna process recognizes three Cycles: Bachelor, Master and Doctorates. Lately, increasing attention has been devoted to the Third Cycle: ENAEE, that so far has dealt only the first two Cycles, cannot ignore Doctorates in Engineering any more.

Certainly, Doctorates cannot be tackled by writing Standards containing a set of learning outcomes that must be satisfied, analogous to the EUR-ACE Framework Standards.

Indeed, there is a great variety of Doctoral titles and programmes: we have heard a paper on the Engineering Doctorates in UK, while in Germany there is the Dr.-Ing. degree, and in almost all countries Ph.D.s essentially based on research are awarded.

I expect this theme to raise controversial discussions, but the question cannot be ignored any further (indeed, the Chemists’ Network ECTNA is awarding European Doctorates in Chemistry): ENAEE should launch a deep study, and in a few years come out with ideas and initiatives.

Another initiative in which some people active in ENAEE have been (and are) involved is the OECD global initiative for the “Assessment of Higher Education Learning Outcomes” (AHELO). Preliminary results were the “Tuning-AHELO Conceptual Framework of Expected/Desired Learning Outcomes in Engineering”, compiled in May 2009 from a merger of the ASEE Learning Outcomes and the First Cycle EUR-ACE Framework Standards, and the parallel “Framework” for Economics. The current AHELO feasibility study also regards Economics and Engineering (more specifically, Civil Engineering) and is expected to be concluded in a few months. ENAEE should examine with attention the results of the AHELO exercise, and be active in any further developments.