



CLAIU EU Conference 11/12 February 2010

The CLAIU Conference was very well attended with 71 delegates from 16 countries participating.

Friday afternoon's proceedings compared the engineering education systems at third level and the influence of the Bologna Declaration in Australia, Germany, Greece, Italy and Spain. Speakers focused on the Master or second cycle degree in each case. Speakers analysed the impact of the Bologna process in European countries, which appears to be a work in progress in most countries.

“Bologna” may have caused universities and colleges to reevaluate their curricula and the structure of their degrees, but it has also caused huge teaching problems in the process.

SEFI past president and TU Berlin President-elect, Prof Jörg Steinbach illustrated the German case. The Bologna process appeared to be working until the students fought back last year with (mostly) justified claims regarding workload, overly structured curricula, no guarantees to become enrolled in a Master programme as well as a virtually non-existent job market for Bachelor graduates. However, there have been positive outcomes such as a thorough evaluation of curricula, and an evaluation of skills needed by students and employers.

Prof. Dott. Eng. Alfredo Squarzoni spoke about Italy. It is a mixed bag regarding Bologna with industrialists unimpressed with the changes forced through and most students choosing to still study for five years. The old system had a five year “Laurea” and although now under the new system there is a clear division between the first three years and the subsequent two for a Masters, most students prefer doing all five years and industrialists want a return to the old structure.

In the afternoon session we heard about the developing system in Spain. Students who wish to work in industry study for one further year to a Master

degree following a four year Bachelor degree and those who wish to do research study for a further two years to the Master degree.

In Australia, Prof Robin King told us of the great interest in the Bologna structure in a number of universities with some offering programmes structured on a two plus three year basis leading to the Bachelor/Master degree. Prof Yvan Baudoin spoke of a Double Bachelor/Master degree between the Royal Military Academy, Brussels and a US university which had been accredited by CTI France and been granted the EUR-ACE label.

The main issues that were highlighted during the afternoon were: relevance to the job market/employability, soft skills and the fundamentals in the curricula, how the three years Bachelor and two year Masters are expected by most employers.

The second day was less country specific and looked at the overall picture of engineering education at Masters level. Lecture topics included dual degree programmes (within the CLUSTER network and later a lecture on programmes through networking); the Tuning-AHELO Conceptual Framework of Expected/Desired Learning Outcomes in Engineering; EUR-ACE Accreditation Criteria for Second-cycle Engineering programmes; and on Engineering skills needs of Industry.

Prof. Ramon Wyss highlighted difficulties experienced in the transfer of students from some Bachelor degree programmes to Master degrees. This was due largely to variations in academic standards. It was suggested that this matter should be studied by ENAEE.

During the discussion after the AHELO lecture, there was some further criticism of the Bologna scheme pointing out the hindrances to mobility implicit in it (since judged more rigid than the traditional five years scheme), the possible lack of transparency (for instance comparing 3 and 4 years Bachelors). It was also pointed out that ECTS should be used instead of years as a way to evaluate programmes offered across Europe. Prof. Wagenaar remembered that the notion of workload implicit in ECTS is also difficult to measure and has been often misused.

Dr. Paul Crowther of T.I.M.E. described his consortium and the promotion of the dual degree.

In conclusion Marc Goossens gave a highly articulate analysis of the skills expected by European industry, in engineers, highlighting in particular the skills of teamworking, communication and other important soft skills.

All of the papers are now available to view on the CLAIU website www.claiu.org/past activities.

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