

FEANI and the Bologna Declaration

The Ministers in charge of higher education from European countries decided in 1999, in Bologna, to create a European Higher Education Area by the year 2010, aiming at making Europe “the most competitive and dynamic knowledge based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion”.

The Ministers committed themselves to introduce a more easily readable and comparable system of degrees, based on two cycles, the first cycle being relevant to the labour market, and a system of European credits, in order to promote student mobility. They also showed their support to further development of quality assurance on institutional, national and international levels.

The engineering profession has always played a significant role in the development of the society and the aim of a more competitive and knowledge based economy cannot be achieved without highly qualified engineering professionals.

FEANI, the European Federation of Engineering National Associations, gathering engineering associations from 25 countries, has been involved, for many years, in promoting engineers mobility in Europe.

FEANI has developed a system of recognition of engineering expertise through the analysis of the higher education, training and professional experience of the candidate. In order to be recognised by FEANI as a EUR ING, an engineer must have a minimum of 3 years engineering higher education (included in the FEANI Index) and a minimum 2 years of relevant engineering experience. Overall, the candidate must have at least 7 years of engineering education and practice.

With a large experience in the field of the engineering profession, FEANI welcomes the signing of the Bologna Declaration by the Ministers in charge of Higher Education.

FEANI agrees with the adoption of a two cycles engineering higher education system and has adapted its Index of engineering courses to include this definition. Engineers with a 1st cycle degree and engineers with a 2nd cycle degree are both relevant to the economic development of Europe. Integrated five years programs are also recognised as a relevant academic basis for the engineering practice. A 1st cycle degree awarded after three years of such a program will enable the degree holder to transfer to another integrated engineering program or gain employment based on the acquired skills, but may not meet FEANI higher education requirements.

FEANI welcomes the introduction of a European credit system, as a mean to introduce readability between degrees and as a facilitator of student mobility. The promotion of students, teachers and researchers mobility will certainly have an effect in the increase of mobility, employability and European dimension of engineers.

FEANI is involved in several European projects regarding accreditation of the engineering practice and welcomes the commitment of the Ministers to the further development of quality assurance in the engineering schools. Quality must be achieved by a competence-based project and cannot be determined by duration of the degree or total number of credits. This competence-based approach is flexible to accept different educational systems and different types of engineers (more scientific oriented and more applications oriented engineers), who play a multitude of relevant roles in the economic world, from design and research to maintenance and service to the client. Professional associations must play an important role in the external assessment of programs.

FEANI dedicates much of its attention to Continuous Professional Development and considers that much more relevance must be given to Lifelong Learning. Lifelong Learning is an important tool to achieve CPD and to sustain the competence of the Engineer. It is thus important that the student at a very early stage realises the importance of planning his further career and that CPD is vital in this process. As science and technology is continuously developing, the student must understand and accept the necessity for CPD. The academic higher education thus has to prepare the student for the systematic and adequate Lifelong Learning, which forms the basis of a practicing engineer.