



## **2015 meeting of European engineers in Central Switzerland (Lucerne, 13-15 August, 2015)**

At the invitation of the Swiss National Committee for FEANI (FEANI NK CH), comprising Swiss Engineering and the Swiss Society of Engineers and Architects (SIA), 2015, FEANI's Central European members met up in Lucerne from 13 to 15 August for an annual exchange of news and views. There were around 30 participants in all, including delegations from Austria, Belgium, the Czech Republic, Germany, the Netherlands, Slovakia, Slovenia and Switzerland. The focus of their discussions, chaired by FEANI NK CH Chairman Dr Martin Hohberg, was education in the engineering sector. One key objective of the Bologna reform and also of FEANI is to ensure the international comparability of qualifications with a view to facilitating cross-border mobility for students and employees alike. To this end, FEANI maintains an index of higher education institutions that meet its quality requirements and awards the EUR ING title. In addition, there was a preliminary discussion of the agenda items for FEANI's General Assembly in Lisbon on 9 October 2016. This was followed by a visit to Lucerne University of Applied Sciences and Arts (HSLU) in Horw, including a tour of its iHomeLab and a presentation by Professor Viktor Sigrist, the new director of the Department of Technology and Architecture, of the HSLU and the wide range of courses it offers. A main feature of this annual get-together is always informal discussions and networking. On Saturday, the group went on an excursion, riding the steepest rack railway in the world up Mount Pilatus.

*See the registration list*

### **Minutes of the meeting of FEANI's Central European countries in Lucerne on 14 August 2015**

Present:

Participants: see the attached list

#### ***Welcome***

Martin Hohberg, Chairman of the National Committee of FEANI Switzerland, welcomed the participants and looked forward to the proceedings. The purpose of the meeting was to exchange experience regarding training for engineers and to discuss the agenda items of the forthcoming FEANI General Assembly in October.

Mr Hohberg welcomed some special guests: From FEANI's Executive Board: Micaela dos Ramos, Ralf Appel, Daniel Hanus, FEANI Secretary-General Dirk Bochar, former President Herbert Hediger, and former Secretary of FEANI NK CH Santiago Schuppisser. Introductions of the participants followed.

Mr Hohberg presented for discussion the list of agenda items, which was duly adopted:

- Training and continuing training
- Exchanging news
- Presentation by Dirk Bochar
- Agenda items for the FEANI General Assembly in Portugal on 15 October
- Which venue for the meeting of the Central European group in 2016?



### ***Index update***

At the Chairman's request, Lars Funk, Chairman of FEANI's European Monitoring Committee (EMC), briefed the participants on the results of the survey and further procedure. A letter from the President of FEANI dated 10 February 2015 informed the members about future changes, requesting feedback by 31 May.

Following the Executive Board Meeting of 12 January 2015, it was acknowledged that the FEANI INDEX urgently requires an accurate update, especially with regard to the further development and monitoring of FEANI products such as the EUR ING title and the Engineering Card. An up-to-date INDEX was a basic prerequisite for their success. The new system for INDEX updates was in line with the general desire for a more automated procedure. It exploited the knowledge and expertise of National Monitoring Committees (NMCs) regarding engineering programmes in specific countries and was based on the following principles:

- describing the procedure for regular updates by the NMC, rather than providing a template;
- defining an 'engineering programme' based on the EUR ACE criteria for 'programme outcomes' as well as the inclusion of EQF criteria;
- defining the tasks of the EMC, in particular related to quality assurance, auditing and annual reporting.

A more detailed description of the underlying principles and procedures was attached. An automatic update was proposed. Most countries welcomed the procedure. In a year's time the situation would be clearer.

### **Updating procedure**

(Annex: Procedure for an additional INDEX updating method approved by FEANI's Executive Board on 12 January 2015)

National Monitoring Committees (NMCs) were responsible for keeping the INDEX up to date for their country. The European Monitoring Committee (EMC) was responsible for monitoring the system and for quality assurance. Every five years, a working group consisting of 2 or 3 EMC members would evaluate the educational system in their country and the working procedures of the NMC. This evaluation would include an audit in the country in question and a written report including:

- a brief description of the educational system there;
- a description of the quality assurance system and accreditation procedures in place;
- a description of the workflow used in NMCs to update the INDEX;
- a recommendation to the EMC.

ENAE audits would be considered by the EMC to reduce effort and avoid double audits.

After the report's adoption by the EMC, the NMC would be permitted to update the INDEX automatically (using an online submission tool) for five years. These updates would be monitored by FEANI's Secretariat. The EMC would submit an annual report to the General Assembly on the current status of FEANI's INDEX.

Continuing Professional Development (CPD) was also an important subject for engineers as well as for FEANI and its member associations. FEANI had arranged a survey to gain a better understanding of what already existed, what the obstacles to engineers' training and development were and to find out what was happening in each respective country and across Europe.



The question was: how greatly did the various approaches differ? Representatives explained the training situation in their countries by giving presentations (see annexes).

- Switzerland: Overview of the education system in Switzerland (Hans-Georg Bächtold)
- Austria: Engineering education in Austria in 2015 (Wolfgang Scharl)
- Germany: Engineering education in Germany (Ralph Appel)
- Slovenia: A presentation of engineering education and continuing professional development in Slovenia (Karl Gotlih)
- Czech Republic: Engineering education in the Czech Republic (Daniel Hanus)
- The Netherlands: Engineering education in the Netherlands (Micaela dos Ramos).

### ***Discussion***

The presentations showed that in Europe big differences exist between how people qualify to become a practising engineer, and this was confirmed in the relevant discussion. For example, these days in Austria an HTL (Höhere Technische Anstalt, or Higher Technical Institute) qualification means that the individual in question qualified at a technical college which now issues Bachelor's degrees; as a result, those studying at a university of applied sciences (Fachhochschule) generally graduate with a Master's. Meanwhile, in the English-speaking world practical vocational experience is held in high regard as an alternative to studies, whereas in Switzerland, for instance, university of applied sciences Bachelor's degrees are not universally recognised as qualifying the relevant individual to work in the respective occupation. The demand for compulsory continuing professional development (CPD), which up to now has not been broadly welcomed in Switzerland – with a few exceptions – can be seen in this light. The European Commission has asked FEANI and the European Council of Engineers Chambers (ECEC) to help draw up a set of requirements for admission to an engineering degree (starting with civil engineering).

The discussion covered the challenge of transferring knowledge, know-how and skills (derived from competencies). What was the job of higher education institutions and universities? What did the professional association have to achieve? And what was being taught and learnt in practice? It turned out that the members of the northern countries affiliated to FEANI placed stronger emphasis on conveying skills at higher education institutions than their southern counterparts, which focussed more on conveying knowledge (in mathematics, physics or materials science, etc.). (See: Procedure for an additional INDEX updating method approved by FEANI's Executive Board on 12 January 2015, Annexes 1 and 2).

Another key point concerned the importance of the Bachelor's degree, the basis for a Master's degree (qualification for training) or professional qualification. This was a question of attitude, and judgements differed. The idea of the Bachelor's degree was to remain open to different training pathways.

Where the future was concerned, the term 'common training framework' would loom large in a training context. The common training framework was a new legal tool designed to enable the automatic recognition of professional qualifications across EU-countries. It was established during the latest revision of the European Union's Professional Qualifications Directive. Common Training Framework is just one example, which could be a promising change for the engineering profession in Europe, when the knowledge and experience of the European countries are joined.

The new tool reflected general moves in recent decades towards international qualification recognition systems that were based more on the outcomes of learning and the skills acquired rather than on strict agreements about the duration of training or modes of delivery.



The common training framework tool was described in the legal text of the 2013 amendments to the Professional Qualifications Directive (Article 49a) as...

"...a common set of minimum knowledge, skills and competences necessary for the pursuit of a specific profession."

A common training framework must meet the following conditions, as set out in the 2013 Directive amendments (Article 49a, paragraph 2):

- a) the common training framework enables more professionals to move across Member States;
- b) the profession to which the common training framework applies is regulated, or the education and training leading to the profession is regulated in at least one third of the Member States;
- c) the common set of knowledge, skills and competences combines the knowledge, skills and competences required in the systems of education and training applicable in at least one third of the Member States; it shall be irrelevant whether the knowledge, skills and competences have been acquired as part of a general training course at a university or higher education institution or as part of a vocational training course;
- d) the common training framework shall be based on levels of the EQF, as defined in Annex II of the Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning;
- e) the profession concerned is neither covered by another common training framework nor subject to automatic recognition under Chapter III of Title III;
- f) the common training framework has been prepared following a transparent due process, including the relevant stakeholders from Member States where the profession is not regulated;
- g) the common training framework permits nationals from any Member State to be eligible for acquiring the professional qualification under such framework without first being required to be a member of any professional organisation or to be registered with such organisation.

In relation to point e), article 49a, paragraph 7 of the Directive gave further clarification: "This Article also applies to specialties of a profession, provided such specialties concern professional activities the access to and the pursuit of which are regulated in Member States, where the profession is already subject to automatic recognition under Chapter III of Title III, but not the specialty concerned."

The framework could also be applied by participating countries from the European Economic Area (Iceland, Liechtenstein and Norway) and Switzerland, though they of course would not count towards the 10 countries (EU Member States) required to give the framework its legal form.

Dusan Petras suggested taking up the issue of PhDs at the next meeting.

### ***FEANI activities (PPT Central Group)***

Dirk Bochar gave an extensive presentation on the current work in progress and on challenges concerning:

1. administrative and financial matters
2. networking and membership matters
3. strategic matters
4. lobbying matters
5. General Assembly matters.

He then briefed the participants on the results of the survey regarding the priorities in FEANI's activities. FEANI's members were very interested in the National Member Forum (NMF). CPD was considered moderately important, whereas the FEANI Index was deemed important, and the



Engineering Card came bottom in the rankings. 30 members felt that FEANI's activities were bearing fruit. Mr Bochar also informed the participants about the Secretariat's forthcoming move: from April 2016 onwards, FEANI would have an office in Brussels at Rond Point Schuman 6.

Integration with ENAEE: The European Network for Accreditation of Engineering Education (ENAEE) authorises quality assurance and accreditation (educational) agencies within the European Higher Education Area (EHEA) and awards the EUR-ACE label to accredited engineering degree programmes. The EUR-ACE label is a certificate awarded by an authorised accreditation agency to an engineering degree programme which has reached certain educational standards.

ENAEE is an international association, registered as a non-profit organisation with the number 882.389.895 as governed by the provisions of Title III of the Belgian Law of 27 June 1921 on non-profit associations, non-profit foundations and international associations.

Mr Bochar also informed the participants about the planned 3% increase in membership fees, an agenda item for the General Assembly.

### ***History of FEANI***

Santiago Schuppisser gave a brief overview of the history of FEANI which he had written down and could be downloaded in French and German from [www.sia.ch/themen/international/FEANI](http://www.sia.ch/themen/international/FEANI).

### ***Meeting in Prague in 2016***

Daniel Hanus proposed that the 2016 meeting be held in Prague. The dates were fixed as 18 and 19 August 2016 and the Secretariat was thanked in advance for making the necessary arrangements.

Annexes:

- Registration list
- List of participants
- Procedure for an additional INDEX updating method approved by the FEANI Executive Board on 12 January 2015
- Overview of the education system in Switzerland
- Engineering education in Austria in 2015
- Engineering education in Germany
- Presentation of engineering education and continuing professional development in Slovenia
- Engineering education in the Czech Republic
- Engineering education in the Netherlands
- Central Group

Name	Vorname	Titel	Land	Sitzung	Treffen
Zoder	Dittmar	Dipl.-HTL-Ing.	AT	X	X
Zoder	Irene		AT		X
Krause	Ernst	Reg. R. Ing.	AT	X	X
Votter	Waltraud	Regierungsrätin	AT		X
Reichel	Peter	Dipl.-Ing.	AT	X	X
Reichel	Gerda	Dr.	AT		X
Scharl	Wolfgang		AT	X	X
Bochar	Dirk		BE	X	X
Bächtold	Hans-Georg	Geschäftsführer SIA	CH	X	X
Altenburger	Adrian	Vizepräsident SIA	CH	X	X
Barsuglia	Myriam	SIA-International	CH	X	X
Hohberg	Jörg-Martin	Dipl. Bau-Ing. SIA, Dr. sc. techn.	CH	X	X
Hohberg	Daniela		CH		X
Hediger	Herbert A.	Masch.-Ing. SIA	CH	X	X
Hediger	Ingrid		CH		X
Gemperle	Christoph	Prof. dipl. Bauing.ETH/SIA	CH	X	X
Gemperle	Vroni		CH		X
Treier	Hannes	Dipl. Ing. HTL STV	CH	X	X
Schuppisser	Santiago	Dipl. Arch. ETH/SIA, EUR Ing.	CH	X	X
Schuppisser	Marlen		CH		X
Arquint	Stefan	Generalsekretär SE-STV	CH	X	X
Schenk	Nicolas	Dipl. Ing. FH Raumplanung STV, MAS Wirtschaftsing.	CH	X	X
Iannino	Maria	IT-&Wirtschaftsing. FH/STV	CH	X	X
Zdenek	Trojan	Doc. Ing. C.Sc.	CZ	X	X
Dahinterova	Zdenka	Ing.	CZ	X	X
Hanus	Daniel	Doc, Ing. C.Sc.	CZ	X	X
Zimmer	Hans-Heinz	Dr.	DE	X	X
Heier-Zimmer	Angelika		DE		X
Funk	Lars		DE	X	X
Appel	Ralph		DE	X	X
Wenzel-Appel	Marisa		DE		X
dos Ramos	Micaela		NL	X	X
Golith	Karl		SI	X	X
Golith	Danica		SI		X
Jagodlic	Marko	Prof. Dr.	SI	X	X
Jagodlic	Mika		SI		X
Petras	Dusan	Prof.	SK	X	X
Petrasova	Zuzana	Ing.	SK		X