GUIDE
TO THE FEANI
REGISTER

EUR ING

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Supersedes all previous editions of the Guide to the FEANI Register and EUR ING title.

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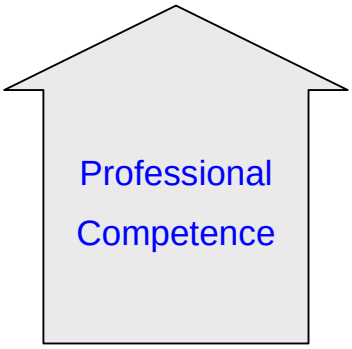
TERMINOLOGY USED IN THE GUIDE

Education:	Learning in an engineering programme, provided by a university or another establishment of higher education, accepted by FEANI. Education might contain two complementary parts: the more theory based University Program, normally offered in a learning environment and a more practical Training, normally offered in a working environment.
University Program:	The "intrinsic" part of the engineering programme, i.e. learning in engineering through lectures, discussions, reading, exercises, laboratory work, research, engineering project etc., provided by a university or another establishment of higher education, accepted by FEANI, as being of university level.
Training:	The "extrinsic" part of the engineering programme, i.e. learning through a programme - the aim of which is to increase knowledge through work within technical fields, for instance on a construction site, in a factory, laboratory, office or other working environment, defined, supervised and approved by a university or another establishment of higher education - as being a "practical" part of engineering programme.
Professional Engineering Experience:	Continuous Learning gained during working life after the completion of Education (as defined above).
Professional Review:	A review of an applicant's Professional Engineering Experience. To determine how he has developed professionally by further learning in his engineering speciality and by taking increasing responsibility. The Review will be based on a report and supplemented if appropriate by an interview with experienced senior engineers.
Formation:	The totality of learning through Education and Professional Engineering Experience including the Professional Review (as defined above).
Continuous Professional Development (CPD):	A process by which Professional Engineers maintain their Professional Competence, being aware of current development in engineering and particularly in their chosen specialism. CPD can be acquired in a variety of ways – e.g. reading, seminars, meetings, discussions, further study etc.



Continuous Professional Development (CPD)		
Formation	Professional Review	
	Professional Engineering Experience	
	Education	Training
		University Programme

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N. B.: In this text, "he" and "his" are taken respectively for "he/she" and "his/her".

INTRODUCTION

1.0 FEANI

The FÉDÉRATION EUROPÉENNE D'ASSOCIATIONS NATIONALES D'INGÉNIEURS (short title FEANI) brings together national engineering associations from 25 European countries as National Members. It was founded in 1951. The headquarters are located in Brussels.

FEANI's aims include the following :

- To secure the recognition of European engineering titles and to protect those titles, in order to facilitate the freedom of engineers to move and practise within and outside Europe.
- To safeguard and promote the professional interests of engineers.
- To foster high standards of formation and professional practice and regularly review them.
- To promote cultural and professional links within the engineering profession, especially in Europe.

In pursuit of these aims FEANI maintains a register to which individuals may be admitted provided they meet the specified minimum requirements.

THE FEANI REGISTER

2.0 Purpose

The purpose of the Register is:

a. To facilitate the movement of practising engineers inside and outside the FEANI ambit and to establish a framework of mutual recognition of qualifications in order that engineers who wish to practice outside their country can carry with them a guarantee of ability.

b. To give sufficient data about the formation of the individual engineer for the benefit of a prospective employer.

c. To encourage a continuous updating of the quality of engineers by setting, monitoring and reviewing standards.

d. To provide a source of information about the great variety of formation systems in Member Countries.

3.0 Concept

Educational and professional systems in Europe vary considerably. Their value is judged by FEANI by the professional competence of the engineer who emerges from them. Differing systems can coexist.

A description of the professional competence expected by FEANI is given in article 3.1 below.

3.1 Professional competence

Engineers aware of their professional responsibilities should strive to achieve competence such as:

a. An understanding of the engineering profession and an obligation to serve society, the profession and environment, through commitment to apply the appropriate code of professional conduct.

b. A thorough knowledge of the principles of engineering, based on mathematics and a combination of scientific subjects appropriate to their discipline.

c. A general knowledge of good engineering practice, in their field of engineering and the properties, behavior, fabrication and use of materials, components and software.

d. An ability to apply appropriate theoretical and practical methods to the analysis and solution of engineering problems.

e. Knowledge of the use of existing and emerging technologies relevant to their field of specialization.

f. An ability in engineering economics, quality assurance, maintainability, and use of technical information and statistics.

g. An ability to work with others on multidisciplinary projects.

h. An ability to provide leadership embracing managerial, technical, financial, and human considerations.

i. Communication skills and an obligation to maintain competence by continuous professional development (CPD).

j. Knowledge of standards and regulations appropriate to their field of specialization.

k. An awareness of continuous technical change and the cultivation of an attitude to seek innovation and creativity within the engineering profession.

l. Fluency in European languages sufficient to facilitate communication when working throughout Europe.

4.0 Structure

FEANI considers that a minimum level of initial engineering education is required.

However, in order to achieve a minimum acceptable level of professional competence, Professional Engineering Experience is additionally necessary. Both, Engineering Education and Professional Engineering Experience combine to a required level of Engineering Formation.

Therefore, FEANI lays down minimum standards for required Education, Experience and Formation. These standards are the threshold which opens the right to registration. They are defined in articles 5.2 and 5.3 below.

Accordingly the register comprises:

- Registration on the basis of education (see 5.2). The registration takes place on national level in responsibility of the National Monitoring Committee (see 6.2)

- Registration on the basis of formation, as European Engineer, EUR ING (see 5.3). The registration takes place on FEANI European level in responsibility of the European Monitoring Committee (see 6.1)

Registration as "European Engineer" gives the right to be called European Engineer in the language of the National Member and to use the professional title EUR ING (invariable in all member countries) with the national title, if lawful.

5.0 Minimum standards

The standards stipulated below are the minimum required for admission to the register and represent stages towards the professional competence described in Article 3.1.

5.1 FEANI INDEX - List of Schools and Programmes

FEANI has set up and maintains a List of Schools and Programmes - the FEANI INDEX - from FEANI Member Countries which meet the FEANI education standard (see 5.2) and are accredited or officially recognized at national level. They must have curricula making it possible for candidates to develop towards professional competence as described in 3.1. In this list the official duration of the education in FEANI terms, the academic title and the characteristics of each programme are specified.

In an International Section, the FEANI INDEX furthermore lists countries outside the FEANI area having special agreements with FEANI about mutual recognition of accreditation systems. The listing comprises, country by country, information about the national body responsible for the accreditation system and about the national list of accredited schools and/or programmes. The listing may also include lists of individual schools and/or programmes in countries outside FEANI area, but which have been accredited by FEANI country as meeting their standards.

5.2 Minimum standards for registration on the basis of engineering education

In FEANI terms, the elements of engineering education are B, U and T, where:

B	represents a high level of secondary education validated by one or more official certificates awarded at about the age of 18 years.
U	represents a year (full-time or equivalent) of approved University Programme either given by a university or other recognized body at the university level, accredited by FEANI and included in the FEANI INDEX - the "List of Schools and Programmes".
T	represents a year (full-time or equivalent) of Training through a program- the aim of which is to increase knowledge through work within technical fields, for instance in a construction site, in a factory, laboratory, office or other working environment, defined, supervised and approved by a university - as part of engineering programme.

The minimum standard for registration on the basis of education is:

B + 3 U

i.e. the completion of an engineering programme, containing at least a three year university programme, based on entrance condition B.

5.3 Minimum standards for registration on the basis of engineering formation, as European Engineer, EUR ING

The elements of engineering formation are the completed engineering Education with the elements B, U, T (see the definition in 5.2) and Professional Engineering Experience E, where:

E	represents a year (full-time or equivalent) of relevant Engineering Experience (see 7.2 b) assessed and approved by a body accepted by FEANI.

For different categories of Education FEANI considers different formation standards:

5.3a Education (Schools and Programmes) is listed in FEANI INDEX

The minimum standard for engineering formation is the balance of

7 years

comprising a minimum for engineering education of **B + 3 U** and a minimum for Professional Engineering Experience of **2 E**.

However, FEANI considers the individual official programme duration (the number of U and T years). The balance up to 7 years can be covered by an appropriate number of E years

B + 3 U + 2 (U / T / E) + 2 E

5.3b Education outside of FEANI area

For applicants whose engineering education took place outside of FEANI area the School and Course must be officially recognized in a FEANI Country as equivalent to one listed in the INDEX. In such a case the minimum formation standard is

B + Education + 4E

5.4 Minimum standards for other cases

Other cases are applicants who have gained the status of a professional engineer in a FEANI Member Country without having had an engineering education covered by 5.3.

Such applicants must be at least 35 years of age.

5.4a University graduates with Education in non-engineering areas

Applicants holding a university degree in Mathematics or Natural Science from a School listed in INDEX or, if outside of FEANI area, officially recognized in a FEANI Country as equivalent to one listed in the INDEX are also eligible for registration if they can prove a minimum of 8 years of Professional Engineering Experience and therefore meet the standard

B + Education + 8E (at least 35 years old)

In such a case a very strict evaluation of the Professional Engineering Experience (E) has to be followed in order to ascertain that the nature of the 8E meets the requirements described in 7.2.

5.4b Special cases

There are cases where the professional engineering performance required for registration has been developed on the basis of a type of education not covered by 5.3 and 5.4a).

Nevertheless it is possible to consider such alternative routes. Very strict procedures, however, have then to be followed, (see 7.3), and the applicant must have at least 15 years of Professional Engineering Experience recognized by FEANI and be at least 35 years of age:

15E (at least 35 years old)

OPERATION OF THE REGISTER

6.0 FEANI bodies

The European Monitoring Committee, EMC, of FEANI (see 6.1) is responsible for the EUR ING register and for modification of the standards in the light of changing technology or other developments. Standards are accordingly reviewed at regular intervals of not more than 5 years.

The register is maintained by The European Monitoring Committee, EMC, assisted by National Monitoring Committees, NMCs (see 6.2) and is administered by the FEANI Secretariat General which keeps records of the registrations.

6.1 The European Monitoring Committee, EMC

The European Monitoring Committee, EMC, is a European body consisting of independent experts coming from but not representing the various parts of Europe.

The EMC decides on registration as EUR ING and scrutinizes the work of the NMCs in order to maintain a European-wide standard.

The EMC approves the accreditation of Schools and Programmes in already recognized systems and advises the Executive Board on the approval of educational systems not previously recognized by FEANI.

The detailed procedures for the work of the EMC are laid down in the “Handbook for the EMC”.

6.2 The National Monitoring Committee, NMC

The National Monitoring Committee, NMC, is a national body, established in every FEANI country, composed of representatives from national engineering associations, industry and education.

It is the task of a NMC:

- To maintain the registration on the basis of education (see 5.2).
- To keep the EMC well informed on the structure of engineering education and the standard of the individual Schools and/or Programmes.
- To check and review the Professional Engineering Experience of an applicant before proposing registration as EUR ING to the EMC.
- To review any changes and/or additions to the approved list of Schools and Programmes and notify the secretariat general on the 1st of January each year.

The detailed procedures for the work of the NMCs are laid down in the “Handbook for the NMCs”.

PROCEDURES

7.0 Application

Application is open only to individuals if they are members of an engineering association represented in FEANI. Applications must be made to National Members, not directly to FEANI.

Individuals can apply to be registered on the basis of education and formation at the same time or separately on the basis of education first (and later on the basis of formation).

Application of individuals having followed alternative routes (see 5.4) is possible only on the basis of formation, for the EUR ING title.

The appropriate form in one of the three official FEANI languages must be completed, the required documentation must be attached and a fee determined by the National Member must be paid.

A National Member is not obliged to support an application involving a School or Programme from another Member Country.

7.1 Candidates from outside the FEANI area

Applicants whose formation took place outside the FEANI area cannot be considered for admission to the Register or for the award of the European Title unless they are sponsored by a FEANI National Member and have undergone a formation which meets FEANI criteria. FEANI does not give general decisions about whether a particular local diploma or degree is regarded as equivalent to those accepted in FEANI countries, except for accreditation systems accepted by FEANI and listed in the International Section of the FEANI INDEX (see 5.1).

7.2 Checking of applications, normal cases

a. Education

The NMC concerned checks whether the school or programme successfully completed by the candidate appear in the FEANI INDEX or are officially recognized in the country as equivalent to those listed in the INDEX.

b. Professional Engineering Experience

The NMC checks that the duration of the Professional Engineering Experience meets the minimum requirement and is of such a nature that one may expect the applicant to achieve the professional engineering competence as portrayed in 3.1.

FEANI expects that such Professional Engineering Experience will include the following:

1 . The solution of problems requiring the application of engineering science in the fields such as research, development, design, production, construction, installation, maintenance, engineering sales and marketing, and

2. management or guiding of technical staff, or

3. the financial, economic, statutory or legal aspects of the engineering task, or

4. industrial and/or environmental problems.

c. Professional Review

In order to enable the NMCs to review the applicant's Professional Engineering Experience, the application should be accompanied by a report (not more than one side A4). The purpose of the report is to set out the applicant's engineering experience since graduation, and to show how he has broadened his engineering competence in the engineering profession and his chosen specialism (see 7.2.b). It should demonstrate how his increasing responsibility and CPD has enabled him to reach the standard of Professional Competence required of a EUR ING (see 3.1). Where this cannot be concluded, the Review should include an Interview with experienced senior engineers.

7.3 Checking applications, other cases

The NMC must have evidence of the performance as a professional engineer and of the type of formation the candidates have followed and of the nature and the weight of the examinations they have sat to indicate a professional level similar to candidates having followed normal routes.

In checking other cases, the Professional Review is of increasing importance in assessing Professional Competence. In addition to the requirements to standard cases, the report should show how this has been acquired from an education base not included in the INDEX.

7.4 Registration on the basis of education

The NMC decides upon the registration and issues certificates to successful candidates.

Persons registered on the basis of education must abide by the FEANI Code of Conduct.

7.5 Registration on the basis of formation, as EUR ING

Every two months National Members forward applications recommended for registration. The EMC decides upon the registration. Successful candidates will be included in the EUR ING Register centrally maintained by the Secretariat General.

Persons registered as EUR ING must abide by the FEANI Code of Conduct.

Any application not approved will be returned to the National Member with reasons.

7.6 Certificates

The registration as EUR ING is attested by a certificate prepared by the Secretariat General and signed by the President of FEANI as well as the Chairman of the EMC. The certificate gives a readable and visible description of the duration and type of education. A parchment suitable for framing is also presented.

A special certificate is used for Special Cases. The formation gained will be clearly described.

7.7 Renewal of registration

The EUR ING title may be retained as long as the holder remains registered and observes the FEANI Code of Conduct.

However, for administrative reasons this registration should be renewed every five years through the relevant NMC.

7.8 Finances

FEANI and each National Member bear the cost of the administrative work involved in operating the Register and are entitled to recover this cost by charging fees to the applicants.

POINTS OF CONTENTION

8.0 Cases of doubt

All cases of doubt or difficulty, relating to individual applications, are referred to the European Monitoring Committee for decision. An individual may appeal in writing against this decision to the FEANI Executive Board, whose decision is final.

Brussels, October 2000

The FEANI Code of Conduct is additional to and does not take the place of any Code of Ethics to which the registrant might be subject in his own country.

All persons listed in the FEANI Register have the obligation to be conscious of the importance of science and technology for mankind and of their own social responsibilities when engaged in their professional activities.

They exercise their profession in accordance with the normal rules of good conduct of European societies, respecting particularly the professional rights and the dignity of all those with whom they work.

They thereby undertake to comply with and maintain the following code of ethics.

1 . Personal ethics

The Engineer shall maintain his competence at the highest level, with a view to providing excellence of services in accordance with what is regarded as a good practice in his profession and having regard to the laws of the country in which he is working.

His professional integrity and intellectual honesty shall be the guarantees of his impartiality of analysis, judgement and consequent decision.

He shall consider himself bound in conscience by any business confidentiality agreement into which he has freely entered.

He shall not accept any payment except those agreed with his relevant employer.

He shall display his commitment to the engineering profession by taking part in the activities of its Associations, notably those which promote the profession and contribute to the continuing training of their members.

He shall use only titles to which he has a right.

2. Professional ethics

The Engineer shall accept assignments only within the area of his competence. Beyond this limit, he shall seek the collaboration of appropriate experts.

He is responsible for organizing and executing his assignments.

He must obtain a clear definition of the services required of him.

Executing his assignments, he shall take all necessary steps to overcome any difficulties encountered whilst ensuring the safety of persons and property.

He shall take remuneration corresponding to the service rendered and the responsibilities assumed.

He shall try to ensure that the remuneration of each be consonant with the service rendered and the responsibilities assumed.

He strives for a high level of technical achievement which will also contribute to and promote a healthy and agreeable environment for his fellowmen.

3. Social responsibility

The Engineer shall:

Respect the personal rights of his superiors, colleagues and subordinates by taking due account of their requirements and aspirations, provided they conform to the laws and ethics of their professions.

Be conscious of nature, environment, safety and health and work to the benefit and welfare of mankind.

Provide the general public with clear information, only in his field of competence, to enable a proper understanding of technical matters of public interest.

Treat with the utmost respect the traditional and cultural values of the countries in which he exercises his profession.

N. B.: In this text, "he" and "his" are taken respectively for "he/she" and "his/her".

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