



FEANI News

Fédération Européenne d'Associations Nationales d'Ingénieurs
European Federation of National Engineering Associations
Europäischer Verband nationaler Ingenieurvereinigungen

1/1999

New FEANI Handbook

FEANI's yearbook 1999 brings a new, vital information source for European engineers – and their professional organisations.

The FEANI Handbook 1999 contains all up-to-date information on FEANI, its policies and activities, national members, as well as contact details for an extensive range of engineering and related organisations worldwide.

Articles highlight the diversity of engineering education and the regulation of the profession in Europe and competence and employability issues for engineers. See page 7.

Ingénieurs, êtes-vous prêts pour Europe?

Engineers, are you ready for Europe? This is the question asked by an Internet survey organised for the European Technology Symposium 1999.

See page 5 and FEANI's web site www.feani.com.

EU funding for FEANI CPD project

FEANI has won funding from the European Union's LEONARDO programme for a two-year project. The EDWIN – Education with Industry project will benchmark continuing professional development practices in European industry. See page 4.

FEANI News
ISSN 1374-1187

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A Single Voice of European Engineers – does it exist?

Eur Ing Sirkka Pöyry, FEANI Secretary General

FEANI has defined two strategic targets: Its aim is to unify the profession and to represent a single voice of the engineering profession.

Being an engineer I strongly believe that engineering has an important role to play in a society with an increased complexity of technical systems. Technology has a deep impact on the life of people throughout the world. This offers the developers and adapters of technology – engineers and their customers – responsibilities and challenges. The crucial question to the engineering profession is: are we able to take the role of a powerful, but responsible actor or do we accept the role of a reactor; are we willing to interact with society or are we looking inwards, discussing only engineer to engineer, and dealing with our own internal matters?

Strength of the profession

The profession is as strong as it wants to be. It is clear that in an increasingly complicated world the importance of engineers is increasing, but it is not as clear that the profession and its organisations can benefit from the situation. Is the profession able to unify in its targets and willing to strengthen its own organisations, to look forward towards future, not only to the past? What are the visions of FEANI for the future?

FEANI has been talking about the mobility of engineers for nearly fifty years. However, recent investigations show that the problems in that area are rather limited. Private companies hire whomever they want, they do not need any accreditation: the competence that they can recognise themselves is sufficient.

In certain countries in public offices and as independent consultants engineers need the approval of national authorities or engineering associations. In many European countries the engineering profession is **not** regulated. Thus, among European engineering associations, there is not a single voice asking the European Union to regulate through a specific engineering directive. Quality assurance of engineering education, recognition and accreditation of engineering schools and courses are more often in the focus of international interest when considering mobility.

FEANI can support mobility

Immediate improvements to facilitate the mobility of professional engineers in Europe does not necessarily need any outsiders' initiative: if the national member organisations of FEANI would be willing to support members from other member organisations seeking recognition in another country, it would already be a concrete – and remarkable – step forward. And in most cases a sufficient step. If the member organisations do not recognise the value of FEANI's structures, and are not able or willing to benefit from them, how can we expect anybody else to support and believe in them? The role and image of FEANI products, such as the Eur Ing designation, is exactly as strong as FEANI, i.e. its members want it to be!

New visions needed

When FEANI moved from Paris to Brussels in 1997, one of the arguments was to be close to the European decision-makers and to have more influence on European affairs. What are those issues that our members want to put forward? What are the issues where we are able and willing to speak with a single voice?

My experience shows that any door in Brussels can easily be opened if one has something to offer, if one is able to contribute and give expertise. But if the message is a diversity of controversial interests from an organisation which is more interested in its own structures than in the matters concerning engineers and technology and its impacts when building the future of Europe, there are very few who are interested.

It is a great challenge for the members of FEANI to present their ideas and proposals on what the important issues are which FEANI should emphasise. What are the concrete measures FEANI should take? The future direction and targets of the organisation should be the first and most important topic to be discussed in the next General Assembly. I hope that FEANI in the future really could find the single voice of its members, and I hope that there is also a clear message and future visions to be heard.



FEANI national members meet in Lisbon

Summary of the decisions of FEANI's 12th General Assembly in Lisbon, 25 September 1998

Concern about finances

FEANI's finances were one of the main topics at the 1998 General Assembly, held in Lisbon on 25 September.

The costs of moving from Paris to Brussels used up all of FEANI's reserves, leaving the balance for year 1997 in the negative. In addition, the external audit, implemented by Ernst & Young International, concluded that FEANI could only partially reclaim VAT paid, and the Executive Board decided to amend the financial statements for 1997 accordingly.

To compensate for the moving costs of approximately 2.4 million Belgian francs, the General Assembly decided to raise an additional membership fee for 1998 of 23 500 BEF/share (The annual fee of FEANI's National Members is based on the number of shares they have in FEANI). This additional resource will enable FEANI to start to rebuild its reserves, the target for which is at least the amount of one year's salaries.

The budget for 1999 was approved with a 2 per cent increase in subscriptions and a 300 BEF increase in the Eur Ing register fee.

To improve its insight into FEANI's finances, the General Assembly appointed three internal auditors: Mr **F. Crépain** (Belgium), Mr **A. Nilsen** (Norway) and Mr **A. Ramsey** (UK).

Strategic plan and activities 1999

The President, **Sir John Cullen**, presented his activity report emphasising that FEANI's focus over the past year had been on developing internal procedures following the move to Brussels.



FEANI's President, Sir John Cullen (right) and Vice-President, Professor Mogens Kümmel chairing the 12th General Assembly.

Now it is time to look outward to respond to the challenges and demands on FEANI from members and society. He invited all national members to actively contribute to FEANI's mission of promoting the engineering profession in Europe.

The Strategic Plan and Activity Plan 1999 were approved as proposed by the Execu-

tive Board, emphasising new project initiatives and further improved communication.

Task force and workshop reports

At the 1997 General Assembly, two task forces were appointed: one on geographical balance and electoral structure, and another on Eur Ing reform.



All 27 member countries were represented at FEANI's 12th General Assembly in Lisbon on 25 September 1998.

Geographical Balance and Electoral Structure

Geographical balance and electoral structures were discussed in a workshop, chaired by Mr **Matti Hirvikallio** (Finland). Opinions in the workshop were divided. Southern member countries strongly supported a formal grouping as a basis for elections to FEANI offices.

Other participants and the Task Force report emphasised a geographical balance based on the present system and informal considerations. The Task Force also proposed policy workshops to be organised in connection with General Assemblies, and more emphasis on communications.

After discussion, the General Assembly approved the report of the Task Force on Geographical Balance and Electoral Structure, advocating an informal approach to achieving an appropriate geographical balance in FEANI's decision making bodies.

If this system turns out not to be satisfactory, the General Assembly will reconsider the issue.

Eur Ing Reform

A workshop on Eur Ing reform, chaired by FEANI Vice-President Prof. **Mogens Kümmel** (Denmark) offered a very vivid discussion on this topic which is fundamental for the future of FEANI.

The workshop emphasised that the Eur Ing designation should offer added European value to its holders. As a new aspect, continuing professional development was suggested to be considered as an additional requirement. Also the criteria for "special cases", such as Eur Ing applicants with a degree from an engineering school which is not in the FEANI Index, were discussed.

FEANI's Aims and Objectives

As approved on 25 September 1998 in the Strategic Plan

The aims of FEANI are:

- To affirm the professional identity of the engineers of Europe, and to promote the mobility and employability of engineers.
- To strive for a single voice for the engineering professions of Europe, whilst acknowledging their diversity.

The objectives of FEANI are:

- To strengthen FEANI as the leading organisation in Europe within the engineering profession.
- To promote FEANI as the prime source of information on professional engineering issues for European politicians, the European Commission and other European authorities, institutions and officials, opinion formers, influential members of the media, industrialists, academics and students.
- To promote greater internal cohesion and understanding within FEANI's membership by increasing information, interaction and participation.
- To strengthen links and partnership with European industry, in order to ascertain the presence and influence of FEANI among employers and engineers.
- To seek active cooperation with other European organisations to promote European engineering issues.
- To seek active cooperation with non-European organisations, especially engineering organisations, and to act as the European voice for the engineering profession.
- To remove barriers preventing the mobility of engineers developing the Eur Ing register and its recognition and usefulness in Europe and outside.
- To promote the attractiveness of engineering as a career choice and to promote the status of the engineering profession.
- To have available suitable individuals, policy statements and technical information to provide opinions and arguments on issues of public concern.
- To strengthen the finances and funding of FEANI to ensure its long-term development.

The General Assembly approved the report of the Task Force on Eur Ing reform as a basis for further work by the European Monitoring Committee.

New proposals to be explored are the re-definition of special and normal cases of Eur Ing applications, and a new title of "Senior Eur Ing".



The Estonian delegation, Mr Kevallik and Mr Motus.

Policy Workshop on Special Directive and mobility of engineers

A very interesting workshop, chaired by Mr L. G. de Steur (the Netherlands), was organised to discuss the mobility of engineers and the need for a special engineering directive. The General Assembly agreed with the conclusions of the workshop.

The three main recommendations were:

- FEANI urgently needs valid information on the extent of the problems and the barriers to mobility of engineers, as well as the legal conditions and professional requirements for working in another member country. FEANI should develop its information services by collecting and making available detailed information on membership requirements, conditions of the professional bodies and individual engineering institutions and the procedures for recognition.

- The possibility of Eur Ings to gain the right to become members of the engineering bodies of another country without fulfilling any additional requirements should be explored.

- FEANI should explore the possibility of getting official recognition for the FEANI Index from the European Commission.

SEFI celebrates 25th anniversary

The European Society for Engineering Education (SEFI), FEANI's sister organisation in Brussels, celebrated its 25th anniversary with an Annual Conference 4–6 September 1998, hosted by Helsinki University of Technology. FEANI's greetings to the conference were presented by the Secretary General Sirkka Pöyry. SEFI published a 25th anniversary publication, to which FEANI President **Sir John Cullen** had contributed a greeting.

The theme of the conference was "Entrepreneurship in Engineering Education". The need for interaction between the universities and the business world was emphasised.

In an overview of SEFI's past achievements and future challenges, Past-President Professor **Francesco Maffioli** called on European higher engineering education institutions to collaborate in concrete ways in the education and training of European engineers. Competence needs to be the goal.

New officers

The General Assembly elected the following new officers:

Treasurer (1998–2001): Mr **B. Lafitte** (France)

Executive Board: As no nominations submitted in time were available, Prof. Dr. **G. Wolf** (Switzerland) was co-opted to the Executive Board until the next General Assembly.

European Affairs Committee: Mr **L. G. de Steur** (Netherlands) was re-elected as chairman of the EAC. The members of the EAC for 1998–2001 are: Dott. **G. Angotti** (Italy), Mr **L. T. H. Arosenius** (Sweden), Mr **J. M. Fluxá Ceva** (Spain), Mr **E. Fossoul** (Belgium), Dr-Ing. **M. Grabert** (Germany), Mr **P. Jacques** (France), Mr **A. S. Sá Rodrigues Miguel** (Portugal), Prof. **E. Shannon** (UK), and Mr **C. Sinanis** (Greece).

European Monitoring Committee: Dr **K. Hernaut** (Germany) was re-elected as chairman of the EMC. New EMC members (1998–2001) are: Dott. Ing. **L. Fassina** (Italy), Mr **P. Martin** (Ireland) and Prof. Dr **W. Schaufelberger** (Switzerland). In addition Mr **J. A. B. Duarte Silva** (Portugal) was elected for a two-year mandate. A two-year mandate on the EMC is vacant, following Mr Lafitte's election as Treasurer.

Next General Assembly meetings

Due to time limitations, discussion on the proposed changes in FEANI's Statutes was postponed to next year's General Assembly, when also the guidelines for FEANI's membership policy will be discussed.

The 1999 General Assembly will be hosted by the Greek National Committee on Crete. Germany was confirmed as host country for General Assembly in 2000 and Luxembourg in 2001, FEANI's 50th anniversary year.

From the Committees

European Monitoring Committee

The European Monitoring Committee (EMC) approved 1,116 new European Engineers in 1998, bringing the total number of Eur Ings in the FEANI Register up to 23,898.

The EMC has approved a new Parchment for the Eur Ing designation, which will be introduced in 1999. The application form is also being renewed to streamline the registration procedure and adapt it to the modern technology, making the administration of the FEANI Register more efficient and cost-effective.



Following the work of the Task Force on "Eur Ing Reform" and the workshop organised during in Lisbon, the EMC is reviewing the criteria for "special cases" to make them better reflect the nature of the Eur Ing applications. The EMC is also looking at the changes needed in the Eur Ing criteria to achieve effective mutual recognition of the Eur Ing designation through the creation of a functional international section of the FEANI Index.

CPD Committee

The Committee for Continuing Professional Development (CPD) held its 14th meeting in Lisbon on 23 September.

The main topics discussed were the actions to implement FEANI's CPD policy. The committee decided to focus on promoting CPD by raising awareness and publicising the CPD Guidelines as widely as possible. The committee will also work with the FEANI staff to develop the CPD information of the FEANI web pages.

The CPD Committee also decided to suggest to the EMC that the FEANI CPD Guidelines should be sent to all new Eur Ings in English, French and German.

One of the Committee's major events in 1999 will be the 4th European Forum on Continuing Engineering Education 9–11 June 1999 in Trondheim, Norway. The theme of the conference will be "Development of the Engineer in the Knowledge Society: State of the Art".

For further details, please contact Ms Mari Sæterbakk, Norwegian University of Science and Technology, fax +47 7359 5150, e-mail mari.saterbakk@sevu.ntnu.no, or see the conference web pages at www.ntnu.no/sevu/4thforum/

FEANI receives EU funding for CPD project

FEANI has won funding from the European Union's vocational education and training programme LEONARDO DA VINCI for a new project. The project, "Education with Industry – EDWIN", which has been developed in co-operation between the FEANI CPD Committee and the Secretariat General, will run for two years with an EU funding of 157 000 euros.

The project will study continuing professional development needs and practices within European industry, to benchmark and analyse them and to develop new concepts, offering concrete recommendations for best practice for the professional development of engineers.

The results will be widely disseminated to engineering education institutions, CPD providers, professional bodies, and European companies, as well as governmental authorities, economists and policy makers.

Studying the CPD needs of engineers in European industry

There is a fundamental need for all organisations responsible for the continuing professional development (CPD) of engineers to continuously increase and deepen their understanding of the industrial demand in terms of engineering competences and employability.

By investigating practical needs as well as CPD best practices in industry the EDWIN project will respond to this need and help to establish closer links between educational or training establishments and enterprises. It will thus contribute to improving the quality and innovation capacity of the training systems and arrangements in the different countries.

Through a better understanding of the present needs for engineering competences in European industry, the project can help both individual engineers and their employers to consider lifelong learning and training schemes in a new realistic perspective. Better adaptation of engineering competences to the industrial demand will also help to combat unemployment both directly and indirectly.

Objectives

The detailed objectives of the project are to:

- develop a better awareness of the new engineering competences required by European industry
- promote improved competence and competitiveness in industry
- identify best training and development practices in industry to stimulate innovation and creation of new continuing professional development strategies
- help individual engineers to better manage and monitor their own professional learning
- create new permanent communication channels enabling a permanent and timely

adaptation of CPD to meet the demand of industry

- foster partnership between industry and education and training institutions in CPD action for engineers among European countries, including pre-accession countries
- contribute to the development of new CPD strategies in Europe.

Drawing on previous work

"The initiative to the project came from the CPD seminar we organised in Lillehammer in 1997", said Mr **Ivan Brikké**, Vice-Chair of the CPD Committee and the initiator of the project. "We felt that FEANI needs to understand the reality of the work place of engineers better so that we can make a valuable contribution to development in Europe".



CPD Committee Vice-Chair Ivan Brikké rejoices over the boost the new project will give to FEANI's CPD activities.

The committee has thus already begun preparing for the project by starting to review and analyse existing data.

After defining the structure of the desired information, data will be collected from industry using both questionnaires and structured interviews. After analysis, the results will be evaluated in workshops and seminars, and complementary information will be sought as necessary.

A second analysis and evaluation will be carried out and the concluding results, with recommendations and descriptions of new concepts will be published in a final report, which will be widely disseminated.

Both immediate and more permanent benefits

Through articles in professional publications, seminars, and reports the project will produce descriptions of new occupational profiles and new, innovative training concepts with recommendations for best practice.

As a more permanent outcome, the project should enable FEANI to establish a network of industry and training providers to continue to monitor CPD needs in industry.

"The main benefit of the project will be its contribution toward strengthening the competitiveness of European industry by emphasising skills and continuous professional

development of the work force", said Mr Brikké. This is especially important for those in key positions of technical development and performance, who are key assets for the undertakings.

The project results are expected to have a long-term impact in developing new training schemes and practices and clarifying engineering competences needed. This it is hoped will stimulate the implementation of innovative CPD programmes, revitalising relationships between universities and industry, and bringing together EU and Central European partners in a joint project.

North and south, east and west

The scientific coordinator of the EDWIN project is Dr **Christine Somers**, Chair of the CPD Committee, and the Secretariat General takes care of the administrative and financial project coordination.

The survey field work will be coordinated by four main partners: France, Hungary, Sweden and the United Kingdom, each being responsible for one region (Mediterranean Europe, Central and Eastern Europe, Scandinavia-Baltic Region, and Northern Europe).

Although not all national members are partners in the project, the CPD Committee will try to make sure that the FEANI member countries are covered as well as possible by the EDWIN survey. ■

Further information about the EDWIN project is available from the FEANI Secretariat General.

New application round – and more money – for Leonardo

The European Commission has launched the 1999 application round for the EU vocational education and training programme Leonardo da Vinci.

This is the last call for proposals of current five-year programme, focusing on disseminating and transferring the results of previously developed projects within the Leonardo programme and other EU training actions.

The deadlines for applications are 1 February 1999 (mobility projects) and 23 March 1999 (pilot and multiplier projects).

Meanwhile preparations for the next phase of the LEONARDO programme are under way. The European Council reached political agreement on the Leonardo II programme on 4 December 1998. It will be a seven-year programme, starting 2000, with a total budget of 1150 million euros, compared with 620 million for the five-year first phase.

For further information, see the European Commission web pages at europa.eu.int/en/comm/dg22/dg22.html ■

Engineers, are you ready for Europe?

The European Technology Symposium – Entretiens Européens de la Technologie 1999 will be organised in Brussels on 9–10 April 1999. The symposium is organised by the French Association des Centraliens in co-operation with the European Commission.

In a lead-up to the symposium the organisers will carry out a European survey, jointly with French magazine *l'Usine Nouvelle*. The survey, "Ingénieurs, êtes-vous prêts pour l'Europe? – Engineers, are you ready for Europe?" will be carried out on the Internet.

The survey is interesting for several reasons. The results will give a quantitative insight into the trends and attitudes of engineers in Europe, which will benefit FEANI and all its members. The results of the survey will be published in next issue of FEANI News.

Also the form is novel: using the Internet, which is perhaps the most "European" of communication tools, allowing direct access to information while preserving linguistic diversity.

Thanks to this, the survey is available in both French and English.

The format and technology used in the survey has been developed and widely tested by the company Formitel. It gives the users immediate diagnostic feedback in relation to the general trends identified by the survey. The interactivity through this real-time personalised feedback is an essential factor of motivation.

By restricting itself to the Internet, the survey cannot, of course, be an exhaustive and representative study. It will, however, give an interesting insight into the differences and similarities among engineers in different European countries.

Surf to FEANI's web site at www.feani.com and test your readiness in terms of knowledge and attitudes for an international engineering career!

A high-tech symposium



The European Technology Symposium 1999, "Fostering innovation, the key to improved competitiveness" will take place in Brussels on 9th and 10th April 1999.

The symposium will use a novel form of lively activity during the plenary sessions. Remote-control voting switches will allow participants to express their opinion. The results will be displayed immediately, which will encourage reaction and greater awareness.

For further information, see the symposium web site www.centraliens.fr, or contact Network Communication, 25 rue de Ponthieu, F-75008 Paris, fax +33 1 5353 0779, e-mail m.elzore@infonie.fr

European Affairs Committee celebrates third anniversary

by M. Guérin

Created by in February 1995, the European Affairs Committee (EAC) held its first meeting on 6th January 1996. The present issue of FEANI News provides therefore a fair opportunity for celebrating its third anniversary.

The need for enlarging the activities of FEANI which for more than forty years have been focused on "mutual recognition and free circulation" was felt long ago. It inspired the Strategic Plan with a twofold structure – internal affairs, external affairs – presented in 1993 and eventually approved in 1995.

The setting up of EAC logically followed in 1995 the adoption of the Strategic Plan: the new Committee was given the mission of developing and activating the European dimension of FEANI.

After three years, two questions stand out: what are the achievements, and what are prospect for the future?

Achievements so far

Regarding the first question, indeed, the achievements are modest and, on the whole, the European image of FEANI was not significantly improved during the period.

Of course, the Committee, which met thirteen times identified some major topics to be possibly listed in a working programme. The existing contacts with the European Commission were confirmed, especially with DG XV: FEANI officially participated in the Commission's "Simpler Legislation for the Internal Market" (SLIM) exercise. Some new approaches were made with other various DGs, hopefully useful for the future, but without immediate outcome because no references existed about the actual working potential of FEANI.

The Committee, however, considering that in an emergent Europe, mobility would take an increasing importance, decided to launch a survey about the current legal and practical situation in this field. The findings are presented in a report which will be circulated among National Members before the end of this year.

Also convinced that a Strategic Plan widely supported by the Member Associations was an essential condition of success, but that the existing 1993/95 Plan should be updated, the Committee presented a draft for this purpose.

A conclusion of this short overview on the last three years period, could be that the EAC team – of a new type in FEANI, as it brings together not only engineers but experts from different backgrounds, some of them being involved in professional life – proved to be able to work in mutual understanding and cross fertilising ambience.

Yet, it is rather an understatement to say that its action was not strongly echoed by the staff and National Members, an attitude probably due to the troubles of various kinds which set upon FEANI during the same period, and also to the innovative and unfamiliar aspect of the proposed activities and working method.

Future prospects

As for the second question "What prospect for the future" the answer may be reasonably optimistic.

The new team, as it is composed after the elections in Lisbon, met for the first time on 9 November: the lively discussions which took place on this occasion and the decisions for further immediate action which were taken clearly demonstrated that the Committee was well united, and was confident in the success though it fully realised the difficulties ahead. (According to the usual practice, the minutes of this meeting will be circulated among National Members).

This optimism is built upon the certainty that a broad agreement can be reached upon the following points:

Firstly, all the Member Associations must fully subscribe to FEANI's second statutory aim "to strive for a single voice for the engineering profession of Europe whilst acknowledging its diversity" and support the subsequent strategy. It is clear that FEANI can claim to participate in the decision making processes **only** if its representativeness is recognised and well established.

Secondly, any approach to the European Commission must start with a reliable and precise description of how FEANI's contribution could be beneficial for them and not by a request for financial support. This means that at any moment the current Framework Programme of EC and its degree of implementation should be carefully monitored by the EAC before deciding upon its own working programme and its time schedule.

Thirdly, it is essential to make understood that EAC, as it is composed, can just "pilot" studies. Their full implementation need to be the task, in each particular case, of an ad hoc Working Party, supported by some National Members, having access to the huge potential of expertise which exists in the seventy five Member Associations and their individual members. In this line, the role of the Secretariat General and the charges of the central budget must be reconsidered, the key word being "decentralisation".

Of course, such a "decentralisation" would require significant changes in the organisation and procedures now in force in FEANI.

Is FEANI prepared to take on the challenge?

Reactions to the present article will be welcome by mail or fax to the FEANI Secretariat General or e-mail to cathy.varin@feani.com.

Mr Marcel Guérin is advisor to the European Affairs Committee and former Secretary General of FEANI.

Small companies need CPD, too!

FEANI seminar investigates continuing professional development in small companies

by Anders Hagström

The FEANI Committee for Continuing Professional Development (CPD) organised a one-day seminar in connection with the FEANI annual business meetings in Lisbon in September.

The seminar under the theme "CPD, Innovation and Business Success in SMEs", presented experiences and practical CPD applications from industry, professional bodies, universities and private continuing education providers, the main partners in the CPD process.

In his welcoming address FEANI President **Sir John Cullen** stressed that continuing professional development has a central role in helping industry and individual engineers to meet the challenges of an increasingly global economy, technological change, and demands for interdisciplinarity.

Sir John emphasized the importance FEANI places on CPD as a key part of the professionalism of engineers. This is enshrined in FEANI's own CPD Policy and Guidelines for engineers and member countries.

New partnerships needed

Dr **Hans-Dieter Höpfner**, from the Büro für Organisations- und Berufsbildung (BOBB), a private institute based in Berlin, Germany called for a new role for regional training centres, away from the traditional supply-led approach to offering continuing education courses. By working closely with local industry and innovation centres they can develop into "competence stores" as a useful ground for various CPD instruments.

One tool which supports such an approach is the Passport Career Record which has been introduced in the construction industry in Germany. It contains data about the qualifications of the professional, his or her previous employers, job details, duties and responsibilities. Special focus is given to competences gained on the job, eg. in service functions through communication with customers.

More participation, less time

Professor **Wilfried Bartz**, Director of the Technical Academy of Esslingen, presented results of a recent survey by the Institut der Deutschen Wirtschaft, which shows that 75% of employees took part in a continuing education measure in Germany in 1995. This figure represents an increase of nearly 10% points over the 1992 level.

The trend is towards more in-house training and less external courses. At the same time the average time devoted to continuing education fell from 30 hours in 1992 to only 18.5 hours in 1995.

Another trend reported was a decreasing demand for short courses whereas longer target-oriented educational programs are becoming more popular.

Individuals need flexible solutions

Ms **Helen Connor**, from the Institute for Employment Studies, based at the University of Sussex in the UK, presented research carried out to facilitate the uptake of CPD in smaller and medium-sized companies.



Developed as an outcome of the research, a framework for improving CPD take-up and effectiveness focuses on the need to provide infrastructure support within universities to improve access and delivery to individuals.

Universities need to work with bodies providing appropriate links between employers, education and training providers and professional bodies to help stimulate demand and ensure that needs are being effectively met on a local level.

Ms Connor pointed out that small companies tend to be less committed to formal training, either because they are not aware of what is available or for reasons of "market forces"—wanting to avoid the cost involved or fear that the employee will be recruited by a competitor after training. Instead, SMEs rely on learning at work which tends to be less formal, more *ad hoc*.

Also professional bodies tend to neglect the special needs of engineers employed by SMEs, so they get less attention in the development of CPD policy.

The research identified four main areas and recommendations:

- It is necessary to raise awareness of the need for CPD: not only through marketing and selling CPD services, but by stimulating demand within companies.
- Individual employees need to be offered opportunities to assess their development needs.
- Any program responding to these needs must be flexible to allow individual professionals to choose according to their own specific needs.
- Accreditation needs to be considered: companies may not be looking for formal qualifications, but working towards a recognised qualification can be a powerful motivator for the individual.

CPD in Portugal

A number of presentations offered a fascinating insight into how small companies in Portugal take care of the professional development of their staff.

Mr **Henrique Neto**, industrialist and member of the Portuguese Parliament, looked at engineering and product development in SMEs in the lights of his own experience. CPD in small companies is by necessity tightly integrated with the development of the technology. Mr Neto emphasised



the need for SMEs to have engineering facilities for product development to improve their competitive edge. New organisational methods also need to be adopted that allow for better productivity. Close customer contact help them to sense new needs for services and products.

Another case study approach was presented by Mr **José António Costa**, managing director of MOLDIT, a small engineering company, manufacturing metallic tools for the injection of plastic parts.

For MOLDIT, continuing vocational education is a systematic addition to basic education which makes a crucial contribution to the success of his highly specialised company. The company cooperates closely with local schools, training centres, research establishments and universities.

Professor **Luís Valente de Oliveira**, president of the Scientific-Entrepreneurial Board of the



Industrial Association of Porto and former Portuguese minister of planning and territorial administration took a broader approach to the collaboration between universities and industry.

He made 30 concrete recommendations for universities and other organisations by which interaction can be enhanced. For universities these included the transformation of their scientific boards into scientific-entrepreneurial boards with representatives of the business community.

Open days, technology transfer centres and proper marketing activities can also help universities, polytechnics and research centres establish closer links with industry. Degree requirements should include real work experience and the employability of graduates should be used as one of the quality criteria when assessing institutions.

Conclusions

Summarising the seminar, Mr **Chris Senior** from the Engineering Council in the UK, concluded that CPD is a necessity for survival of companies. However, SMEs and the engineers working in them have very specialised needs. New and different ways to recognise and encourage learning at work are needed to help engineers in SMEs to fulfil their development needs.



Interesting presentations lead to interesting discussions. FEANI Secretary General Sirkka Pöyry, in discussion with seminar speaker Mr Henrique Neto and Mr Claes Trolle (right), Member of the CPD Committee.

He identified the key issues raised by the seminar as:

- Partnerships are needed: between the individual and the company, among companies, and between universities and companies.

Knowledge society requires new skills and attitudes

Modern information technology and telecommunications offer new and challenging possibilities for democratic participation in the activities and decision making of international associations. They break the barriers of time and distance – and the costs of communication. They also offer access to an enormous information flow and make the association more visible. It is fascinating and extremely useful.

Speaking about the knowledge society as a new working environment for an international NGO at the “**Politics and Internet**” conference, held 6–8 January 1999 in Helsinki, FEANI's Secretary General Eur Ing **Sirkka Pöyry** emphasised that there are, however, many problems when establishing well functioning networks and facilities in international organisations.

The decision makers often belong to the generation which has not grown up with computers. They are often not realistic in assessing the needs or in evaluating the workload or the skills necessary.

The technical level is very diverse in different countries: many associations financial resources are very limited. They cannot always afford the necessary investments, and even more often, cannot hire competent workforce to develop and maintain the systems.

Telecommunication has already thoroughly changed many practices and the development is accelerating, Ms Pöyry said. “Today the real challenge is to connect together the different working methods in different technical and mental cultures and open the benefits of the knowledge society to all members.”

- The drivers for CPD are different for different stakeholders: business needs flexibility, speed of response, customer focus, and quality; individuals need professionalism, competence, and ensured employability.

- There are very strong external driving forces for CPD: the global economy, growing needs for interdisciplinarity, innovation, management and leadership, and an increased awareness and readiness for change.

- The forms of CPD need to be matched to the individuals' and organisations' needs: learning at work is the most effective way to enhance continuous improvement and innovation. New concepts are needed, where formal training plays a smaller role.

- CPD is a tool, a means to an end, and it must fit into the culture and serve the strategy of SMEs.

- Tailored CPD for SMEs can help them to recognise the development and learning process as integral to their business processes. In fact, in many small organisations continuous learning is a natural part of the organisational culture.

Anders Hagström is Assistant Secretary General of IACEE and secretary of the FEANI Committee for Continuing Professional Development.

Gelungener Eur Ing Tag in der Schweiz

Der Eur Ing Club Schweiz hat am 13. September 1998 den “**Eur Ing Tag 1998**” durchgeführt. Das Ziel des Clubs ist, seine Mitglieder in ihrer beruflichen Tätigkeit durch Information und Weiterbildung zu unterstützen, aber auch die gegenseitige Kontakte zu fördern.

In diesem Sinne wurde der erste Eur Ing Tag durchgeführt.

Die rund 60 Teilnehmer besichtigten zuerst das neue Kultur- und Kongresszentrum Luzern um anschliessend den Tag auf einem Schiff auf dem Vierwaldstättersee zu verbringen.

Nach der Begrüssung durch den Präsidenten Prof. Hans Hauri hörten die Teilnehmer zwei Referate zum Thema “die Schweiz und Europa”. In zwei Workshops zum Thema “Innovation und Durchsetzung” als Ingenieur wurde rege diskutiert.

Der Anlass darf als sehr gelungener Mix von Geselligkeit, Information und Weiterbildung betrachtet werden. Leider wurde er von Eur Ing's aus Deutschland und Österreich nicht besucht. Der Eur Ing Club Schweiz strebt solche regionale Kontakte an.

Der Eur Ing Tag 1999 wird in der französischen Schweiz wiederum im September durchgeführt. Es wird vor allem den Kontakt zu den französischen Eur Ing's aus den Regionen Rhôneal, Burgund und Jura angestrebt.

Für weitere Auskunft, nehmen Sie bitte Kontakt mit: Eur Ing Santiago Schuppisser, Arch., CH-8353 Elgg, Tel/Fax +41 52 364 2255.

New FEANI Handbook collects vital information



FEANI's new yearbook, the **FEANI Handbook 1999**, brings a new, vital information source for European engineers and their professional organisations.

The yearbook has belonged to FEANI publications since 1994. The 1999

yearbook is the first one produced in-house by the Secretariat General! It means that we have been able to define the targets and contents according to the needs of our members. We hope that the new yearbook will provide you support and practical help in your international activities. It contains all up-to-date information on FEANI, its policies and activities, and national members, as well as contact details for an extensive range of engineering and related organisations worldwide.

One section of articles in the publication gives an insight into the diversity of engineering education and the regulation of the profession in Europe. Another section explores competence and employability issues for engineers, and future expectations regarding engineering and the skills needed.

FEANI is grateful to the advertisers whose financial support made the publication of the handbook possible.

Copies of the FEANI Handbook 1999 are available at the price of 1000 BEF (24.79 EUR) per copy. Orders of 10 copies or more receive a 15% discount. Postage and handling costs are charged at BEF 300 (7.44 EUR) per mailing.

Please send your order to: FEANI, 21 rue due Beau Site, B-1000 Brussels, Belgium, Fax +32 2 639 0399, e-mail sirkka.poyry@feani.com

Aus Deutschland:

Technik in der Schule

Der Deutsche Verband Technisch-Wissenschaftlicher Vereine (DVT) hat gemeinsam mit dem Bundesverband der Deutschen Industrie und der Zeitschrift FOCUS einen Preis “**Schule macht Zukunft**” ausgeschrieben.

Mit diesem Preis werden technisch-naturwissenschaftliche Projektarbeiten in allgemeinbildenden Schulen ausgezeichnet. Im laufenden Jahr ist das Thema dem sparsamen Umgang mit Energieresourcen und innovativen Konzepten gewidmet.

Erster Preis ist eine Reise nach New York, gespendet von einem großen deutschen Energieunternehmen, weitere Preise betreffen Exkursionen in Europa.

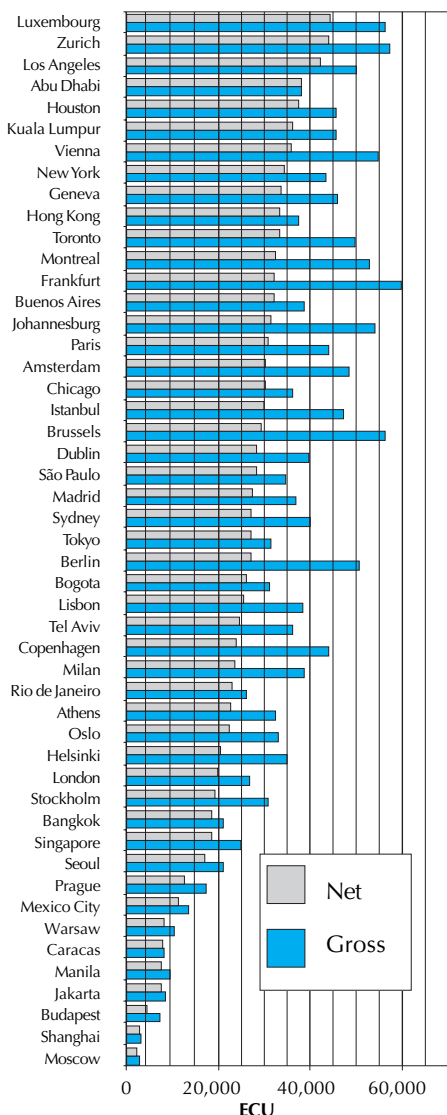
FEANI statistics

In an effort to improve its information services FEANI is collecting statistics on the working conditions and other aspects of the engineering profession on a European level.

We would appreciate your feedback as to what data us needed and where FEANI can provide the most added European value to its members.

Salaries of engineers¹ 1997

Adjusted by purchasing power parity (PPP)



¹ Salaries of graduate engineers, employed by an industrial firm in the machinery of electrical equipment industry, electric power station or similar; completed university studies with at least 5 years' practical experience.

Source: Union Bank of Switzerland: Prices and Earnings Around the Globe 1997 / Finnish Association of Graduate Engineers TEK

Have we got your correct address?

FEANI News is mailed to, among others, all Eur Ings, to the address in the FEANI Register.

If this issue has reached you at a changed address, or if the details on the mailing label are incomplete, please send your correct details to FEANI, Mrs Bärbel Hakimi, rue du Beau Site 21, B-1000 Brussels, fax +32 2 639 0399, e-mail barbel.hakimi@feani.com

Job opportunities in the information society

A new report by the European Commission's Directorate-General V (Employment and Social Affairs), examines the future employment views in the rapidly growing information sector.

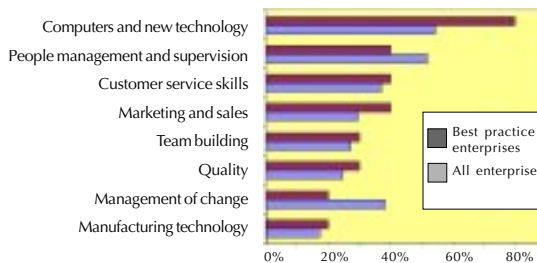
The report analyses the impact that Information Society is having on employment and training, and concludes that the prospects are, in general, bright. There is, however, a worry that European countries are not doing enough to make the most of the potential of the Information Society. Action is needed in three areas:

- Developing an enterprise culture to create an environment in which new ideas, new start-ups, new products and new services can flourish.
- Promoting organisational change and adaptability to exploit the full potential of new technology to improve efficiency, develop new products and services and unleash the creativity and innovation of the workforce.
- Boosting skills and levels of technical literacy, and promoting access for all to maximise the employment potential of the Information Society.

The problems are acute. According to Mr Luis Montoya-Moron from the European Com-

mission there are already 500 000 Information Technology job vacancies unfilled in Europe because of skills shortages, and this is estimated to grow by 2002 to 1.2 million – while at the same time most of Europe continues to suffer from high unemployment.

Training needs in the next three years



Source: Fundación Tomillo / European Commissions

Immediate solutions to the problem require a concerted investment in continuing professional development (CPD) and retraining to improve the IT literacy of the workforce. With more long-term effect, the whole education system needs to be rethought.

The report, "Job opportunities in the Information Society" is available on the European Commission web site europa.eu.int/comm/dg05/

EU boosts R & D with new 15 billion euro framework programme

Nearly 15 billion euros will be made available to fund EU research and development projects over the next four years.

This funding for the EU's Fifth Framework Programme for Research and Development was finally approved by the Council of Ministers just before Christmas following a breakthrough agreement between the EU governments and the European Parliament earlier in December, after long and difficult negotiations between the political decision makers.

The Parliament had been pushing for a budget of 16.3 billion euros, while EU governments said they were not prepared to sanction more than 14 billion euros. The two sides finally settled on 14.96 billion.

The new programme will run until the end of 2002. It represents a move away from research for its own sake and towards research focusing on current socio-economic problems, ie. research with the potential to accomplish the changes expected by the general public.

Funding will thus be provided for four broad areas of research: the quality of life and living resources; creating a user-friendly information society; promoting competitive and sustainable growth; and preserving the ecosystem.

Projects agreed under these headings should also foster the EU's international standing as a centre for research; encourage the growth of the Union's small business sector; and improve human research potential. EU governments and the Council are particularly keen to promote studies into the Union's ageing population and new ways of protecting the EU's coastlines.

The Commission intends to publish its first calls for tender for projects funded by the programme in February or March 1999. The Fifth Framework Programme will be formally launched with a conference in Essen, Germany, on 25–26 February 1999. The purpose of the conference is to present the new features of the programme, to explain to interested parties how to participate, and to give examples of particularly successful European research projects.

The Fifth Framework Programme will be managed by the Commission's Directorate-General for Research (DG XII). Another Directorate-General with a key role for the programme, DG XIII, is changing its name to "Information Society: Telecommunications, Markets, Technologies – Innovation and Exploitation of Research".

For further information, see the DG XII web pages at europa.eu.int/comm/dg12/