



Second European Engineers' Day

«Mobile Engineers build
an Innovative Europe»

Sofitel Brussels Europe
20 November 2014



SCOPE

Engineers' impact is visible in every aspect of human life: through increasingly more sophisticated inventions, techniques and equipment they enhance and irrevocably change society. Professional Engineers design and operate large projects and make society a better place to live: their solutions are always designed with economic, safety and functionality considerations in mind. Sustainability of the environment and aging infrastructures, deployment of innovative renewable sources of energy, increased quality of life and economic growth: they all await and expect engineering solutions. Therefore, in this globalized world, internationalization and cross-border recognition of engineering qualifications are important and vital to forge a better future for society.

The European Engineers' Federations ECEC, FEANI, ECCE, together with EFCA, ENAEE, CLGE and CLAIU wish to extend the public knowledge and appreciation of the engineering profession, their education and professional concerns and the capacity to solve the arising problems in a changing world, on this unique event. Public understanding of the engineering profession and its underlying science are important to support the calls for funding, as well as to enhance the prospect for successful adoption of innovative technical solutions. Meeting many of today's challenges associated to present society and environmental changes will also require unprecedented levels of public funding. As they have done throughout history, engineers will have to integrate their methods and solutions with the goals and desires of all society's members in Europe.

The "2nd European Engineers' Day" on 20 November 2014 will analyze those challenges and offer opinions and presentations of expert speakers. The European Engineers' Day will offer a forum for critical dialogue and participation and will focus amongst others on how engineers are educated and engaged in continuing professional development to better prepare them for the challenges ahead in building the coming new world. Students, researchers, entrepreneurs, scientists and policy decision makers are invited to take part in this unique event.

AGENDA

9.00 - 10.00	Registration
10.00 - 10.30	Welcome Greetings by the Presidents of ECEC, FEANI and ECCE
10.30 - 10.45	Welcome Speech by a Representative of the EU Institutions
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	Morning session “Mobility and Regulation”
10:45 - 11:00	Representative of the European Commission (DG Market on PQD), Mr. Martin Frohn
11:00 - 11:15	The public interest in professional regulation, Mr. Andreas Schwab, MEP
11:15 - 11:30	The status of the engineer in society and the importance of mobility, Ms. Katy Turff
11:30 - 11:45	Engineering Challenges for a future Europe, Prof. Dr. Fernando Branco
12.00	Round Table
13.00 - 14.00	Lunch + Networking
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	Afternoon Session “Delivering Client Value”
14:15 - 14:30	Representative of the European Commission (DG Market), Mr. Jaroslav Kračún
14:30 - 14:45	Accreditation of Continued Engineering Education, Prof. Dr. José Vieira
14:45 - 15:00	The Relationship between price and quality of engineering services, Prof. Dr. Hans Lechner
15:00 - 15:15	Internationalization of Engineering Activities, Mr. Vassilis Economopoulos
15.30	Round Table
16.30	Conclusions by the Presidents of ECEC, FEANI and ECCE
17.00	Wrap up and End



Mag. Martin Frohn

Since January 2014, Martin Frohn is Head of Unit in the unit “Free movement of Professionals” in DG Internal Market and Services. From September 2012 until December 2013 he was Deputy Head of Unit in the unit “Corporate Governance, Social Responsibility” with responsibility for company law, corporate governance and the prevention of money laundering. Before that, Martin Frohn worked on free movement of services and the Services Directive in DG Internal Market and Services. Experience prior to his career in the European Commission includes positions in the German government and private practice as an attorney. He studied Law in Germany and the United States.



Dr. Andreas Schwab, MEP

Andreas Schwab was born in Rottweil in 1973. He studied law at the University of Freiburg, the Institut d'Etudes Politiques in Paris (IEP), and the University of Wales (LLM.); doctorate in law from the University of Freiburg (2002); barrister-at-law since 2004.

He passed his legal clerkship in Rottweil (2001), worked on the European Convention at the Department of the Baden-Württemberg Prime Minister, European Affairs Division, Convention Section (2002-2003) and was Government assistant lawyer at the Ministry for Culture, Youth and Sport in Stuttgart and Personal Adviser to the Minister (2003-2004).

Since 2004 Andreas Schwab is Member of the European Parliament : He is serving on the Committee on the Internal Market and Consumer Protection and is speaker of the Committee in the Group of the European People's Party (Christian Democrats) and substitute member of the Committee on Economic and Monetary Affairs.

Additionally he holds a number of Memberships & Honorary Posts such as Chair of the Schwarzwald-Baar CDU District Association; Vice-Chair, CDU South Baden, Member of the Advisory Committee, Albert-Ludwigs-Universität Freiburg; Chair of the Board of Governors of the European Consumer Centre in Kehl; Board member of the Association of Children with Cancer, Freiburg, and Board member of the Tannheim Aftercare Clinic.

The Public Interest in Professional Regulation by Dr. Andreas Schwab, MEP

Coordinator in the Internal Market and Consumer Protection Committee, EPP Group

The full implementation of the internal market and its rules is of great importance for the functioning of the European Union and a competitive European economy. Therefore the EC makes assiduous efforts to ensure the full implementation of European legislation such as the Services Directive (2006/123/EC) and the Professional Qualifications Directive (2013/55/EU) and to abolish unjustified barriers for professional access on national level. For this the Commission has the full support of the European Parliament. The Peer-reviews of the Services Directive as well as the Transparency Exercise according to Article 59 of the new Professional Qualifications Directive are part of these efforts.

Despite the fact that the review should be open, unbiased and done on a case-by-case basis, it is necessary to carefully examine whether unjustified burdens exist. In the long run, the whole internal market and in particular the professionals would benefit from a European labour market – also in the light of the skilled labour shortage to be expected even in Member States like Germany. However, there should be no ‘one size fits all’ system and well working structures should not be questioned unnecessarily.

In particular, liberal Professions stand for a high level of quality and trustworthiness and it is necessary to sensitize the European institutions for the importance of safe-guarding this trust.

Thus, especially for Liberal Professions national professional regulation that is not un-proportional and protective is justified by public interest. It is necessary to interpret public interest wide enough to guarantee the possibility to keep up well-working professional self-administration systems on the national level. Good professional regulation can safeguard quality, safety and sustainability of services and therefore improve the quality of life and of the built environment. It can protect consumers and compensate information asymmetries and it can even minimize the costs of a project.



Ms. Katy Turff, CMgr MCCI

Katy Turff is Head of International at the Engineering Council in the United Kingdom.

As the regulatory body for the UK engineering profession, the Engineering Council holds the registers of Engineering Technicians, Information and Communications Technology Technicians, Incorporated Engineers and Chartered Engineers.

Katy leads on all aspects of the activity to facilitate mobility of Engineering Council registrants worldwide. This includes delivering the Engineering Council's functions as a Competent Authority in respect of European Directives 2005/36 and now 2013/55, as an authorised agency of the European Network for Accreditation of Engineering Education (ENAE) and engaging with the European Federation of National Engineers Associations (FEANI). She represents the Engineering Council in the International Engineering Alliance where she is actively involved in a variety of working groups.

The Engineering Council works with employers, educators and professional engineering institutions to set and maintain the competence standards for registration of engineering professionals in the UK. Prior to joining the Engineering Council, Katy worked for several professional engineering institutions, where she led teams responsible for competence-based assessment and programme accreditation.

The Status of the Engineer in Society and the Importance of Mobility by Ms. Katy Turff, Engineering Council UK

Engineering is an international profession. Many engineering projects involve multinational teams, often working from different locations to deliver buildings, infrastructure, products, systems and services outside the country of establishment.

Press and government reports suggest there are engineering skills shortages in many European countries. There are opportunities for well-trained engineers and engineering technicians to work outside their home Member State if they wish to do so. This can be a selling point for the profession, whether to mature engineers looking for new challenges, those suffering the impacts of economic crises, or young people from diverse backgrounds who want an exciting international career.

Statutory regulations that are designed to protect the public interest are sometimes perceived as a barrier to the mobility of engineering professionals. Regulation may take different forms in different member states; the sets of activities reserved to qualified professionals may also vary, making it difficult for professionals to be confident of their right to practice.

Within Europe the Directive on Recognition of Professional Qualifications is designed to promote the mobility of professionals, including engineers and engineering technicians. This presentation will introduce different forms of regulation and professional qualifications that may affect engineers and the tools that are available to support mobility.



Prof. Fernando Branco

Full Professor of Civil Engineering at the University of Lisbon, where he is the Head the Construction Sector.

Fernando Branco is Vice-President of the International Association for Bridge and Structural Engineering (IABSE) and President of the Portuguese Association for Structural Engineering (APEE).

He was former President of the European Council of Civil Engineers (ECCE), of the Department of Civil Engineering at the University of Lisbon and of the College of Civil Engineers at the National Chamber (OE). He is partner of SACIV Lda (engineering consulting) and GATEWIT Sa (information technologies).

Fernando Branco is author of 5 books, 7 patents, 300 scientific papers and 700 technical reports.

He has been consultant for major public works like the S. João Rail Bridge (world longest railway span), International Guadiana Bridge (Spain), Macau-Taipa Bridge (China) and Vasco da Gama Bridge (the longest one in Europe).

Engineering Challenges for a Future Europe by Professor Fernando Branco

The evolution of Civil Engineering has been always associated to the paradigm of the 3 “Is”: Investment, Innovation and Internationalization: public and private investments are necessary to develop public works and housing. As in any other science, innovation associated to new materials and technologies is paramount to the success of the construction companies. The specific characteristics of construction lead to a significant internationalization, as civil engineers need to be close to the construction site, anywhere in the world.

The recent economic crisis in the world led to a high reduction in public investments in the “Old continent”. With this economy decrease, private investments also decreased (housing), leading to a high unemployment rate in several countries. Nevertheless, during this period, the world changes did not stop and looking to the future, previsions indicate that in a few decades 75% of the world population will live in cities, the energy consumption will be much higher, the public transportations will be the major ones, the global warming will increase the sea level and will bring more hurricanes and more draught to Europe, waste dumps will become a major problem, etc.

And here applies the famous sentence “If the external change rate is higher than the internal one, the organization collapses”. So we urgently need to prepare Europe for these changes and this means urgent Investment in Public Works to prepare Europe for the coming planet changes.

Examples of needed investments are being discussed in the EU High Level Tripartite Strategic Forum, where ECCE participates, and can be described as follows: thermal rehabilitation of buildings and the implementation of a global European network of energy pipelines to make Europe more energy independent; major works in coastal protection and in water reservoirs to protect Europe from global warming effects; implementation of life cycle analysis and use of recycling plants to reduce construction debris; to invest in the maintenance of European infrastructures, reducing the need of building new ones in short time; to protect European buildings and patrimony from natural disasters with investments in seismic and flooding protection; to make European cities a better place to live, investing in public urban transportation systems, with good intermodal connections, and reducing the environment impacts.

Investments are needed in many fields such as thermal rehabilitation of buildings, a network of energy pipelines, coastal protection, water reservoirs, life cycle analysis, new public transportation systems and many more. In conclusion, Civil Engineering, as in the past, will go on in the future, finding solutions for a better life of the society, fighting the problems of a permanent changing world.



Jaroslav Kračún

- 2002 Master's Degree in International Business Law at Université Paris 1, Panthéon- Sorbonne, Paris, France
- 2005 Postgraduate Degree in International Business Law and Management, ESSEC Business School, France
- 2006-2008 Gide Loyrette Nouel, International Law Firm, Prague
- since 2008 European Commission, Directorate General Internal Market and Services, Unit C3 - Public Procurement Legislation and Enforcement, responsible for the Czech Republic, Slovakia and Slovenia + Innovation Policy

The New Public Procurement Directive 2014/24/EU

By Jaroslav Kračún

The presentation will focus on the clarification of certain aspects of the new public procurement Directive 2014/24/EU that are relevant for engineering practice. First, the new terminology used for award criteria will be explained together with some practical consequences on the conduct of public procurement procedures (e.g. Economically Most Advantageous Tender, Price, Cost, Best-Price Quality ratio concepts will be clarified). Secondly, essential novelties concerning the technical specifications and the use of labels will be mentioned. Thirdly, innovation aspects of public procurement will be presented, with focus on intellectual property rights considerations in the specific innovation oriented public procurement procedures, such as Competitive Dialogue, Innovation Partnership or Pre-Commercial Procurement.



Prof. Dr. José Manuel Pereira Vieira

José M.P. Vieira is a Civil Engineer who graduated from the Faculty of Engineering of the University of Porto-Portugal in 1977. He obtained a Master of Science in Sanitary Engineering at IHE, in Delft-Netherlands (1982) and then finished his Ph.D. in Civil Engineering at University of Minho-Portugal (UMinho) in 1986. In 1997 he was granted the Title of Agregado in Civil Engineering at UMinho.

At the time being he is Full Professor and Head of the Hydraulics Division at the Civil Engineering Department of UMinho, Vice-President of the Portuguese Engineers Association, President of FEANI, President of the Portuguese FEANI National Member Committee, and President of the Council for Professional Admission and Qualification of the Portuguese Engineers Association.

In UMinho, he is also former Vice-Rector and Pro-Rector, Head of the Civil Engineering Department, Director of the Civil Engineering Research Centre, and Director of the Civil Engineering PhD Programme. He has been an active member of several professional national and international societies.

He has participated as coordinator of a large number of research and development projects in the fields of water resources planning and management, hydroinformatics, hydrodynamics and dispersion of pollutants in estuaries and coastal zones, and drinking water supply and public health.

Currently, José M.P. Vieira has the responsibility for coordinating the implementation of three key projects for engineering professional development in Portugal: EUR-ACE, Engineering Card, and AcCEdE® (accreditation of continuing education).

AcCEdE® – A new Accreditation System for Continuing Professional Development by Prof.Dr. José Vieira

*Vice-President of the Portuguese Engineers Association
FEANI President*

The social and economic progress of the knowledge society is increasingly closely related to individual's professional development throughout their lives. The rhythm of new developments in science and technology implies, for engineers, the need for updated life-long-learning in order to acquire new technologic knowledge and skills, and to maintain high professional standards.

Recognizing the importance of continuing education quality assessment, Ordem dos Engenheiros (OE), the Portuguese Engineers Association, launched a new system, AcCEdE®, for accreditation of training courses and post graduate academic courses for engineers. In this way, a response to the challenges of new training and new requirements of competitiveness throughout the professional career of engineers is assumed by this professional association. Ultimately, with this accreditation system OE intends to ensure, in a permanent and structured way, the quality of life-long-learning to its members.

The system has the technical support of a pool of experts and independent auditors, whose recruitment is open to engineers with expertise in assessment of training and academic programmes and processes. The accreditation process (submission, assessment, and approval) runs from May to December in the year prior to the effective implementation of an accredited programme, and it concerns institutional (engineering schools and companies) accreditation as well.

The continuing accreditation credits for each engineer should be reported within the continuing professional development national system or within other official recording systems, like the FEANI Engineering Card.



Univ. -Prof. Dipl.- Ing. Architekt Hans Lechner

Hans Lechner was born in 1947. He studied Architecture at the Technical University of Vienna, where he graduated in 1973. In 2003, he became Mediator in the field of architecture and engineering.

He started his own practice in 1979 in Vienna and in 1980 in Munich.

Since 1991, he has been a member of the German Federation for Project Management (DVP).

Between 1995 and 2004, Hans Lechner was Chairman of the interdisciplinary fees Board of the Chamber of Architects and Engineering Consultants of Vienna, Lower Austria and Burgenland.

In 1995, Hans Lechner was nominated for the Austrian State prize for Consulting.

From 2002 to 2013 he held a professorship in project development and project management at the Graz University of Technology.

Since 2004, he has been a publicly appointed and sworn expert.

Hans Lechner was involved in the foundation of the Airport Project Management GmbH, Frankfurt, Germany and in the foundation of the Austrian Construction Project Management Association.

On the Relationship between Quality, The System of Awarding Contracts and Remuneration by Univ.-Prof.Dipl.Ing. Architekt Hans Lechner

Based on several previous versions (since 1871), the HOAI (scale of fees for architects and engineers) represents a business model with great effectiveness, with which it is possible to build up confidence and understanding between clients and planners.

In deciding upon the procedure for awarding contracts it is important to clarify those engineering and architectural services that can and those that cannot be described: describable planner services may be awarded by means of price competition, as all applicants must understand the task in the same way, planner services that cannot be described must be awarded by means of negotiation or fixed rates, applicants will not all understand the task in the same way or carry it out in the same manner.

Planning services must be considered as non-describable: this means that both partners who conclude a contract cannot know the solution to be planned, after the contract. This asymmetry of information may trigger problems on both sides.

The use of price competition leads to reduction of quality. A scale of fees defines services and establishes a foreseeable relationship between service and price used in calculating remuneration for such services. Such a regulation can never cover ultra difficult cases, but for the broad mass of projects the result is an adequate fee.

In cases where the planning business has not developed a comparable business model and clearly works in a less profound way, costs and profits of those executing the works clearly exceed comparable values in Germany.

The business model of the HOAI and LM.VM.2014 is a guarantee for quality and sustainability of real estate.



CivEng NTUA Vassilis P. Economopoulos

Vassilis P. Economopoulos (VE) holds a degree in Civil Engineering from the National Technical University of Athens and in Public Administration and Law from the National University of Athens.

He is currently working as independent, freelance consultant on infrastructure and other projects.

For six years, he has been Managing Director and General Director of Athens Metropolitan Railway and coordinator of the successful operation of Public Transport in Athens Olympic Games in 2004.

As President, Vice President and member of the Board of several companies, Vassilis P. Economopoulos was active in the topics of infrastructure, water and energy sector.

He has been co-operator of the Vice President of the European Parliament for three years. He has assigned as an advisor to the Ministries of Public Works, Development and external consultant to State Companies.

Vassilis P. Economopoulos has been President of the Association of Civil Engineers of Greece and Vice President of the Panhellenic Assembly of the Technical Chamber of Greece (TCG).

He is Ex President of the European Council of Civil Engineers (ECCE) and still actively involved.

He is Chairman of SC on Associate Membership and special advisor to the WFEO President and FEANI EMC member. He has been member of the Policy Board of the International Association of Public Transport (UITP) and Chairman of its SC on Transport Economics.

Vassilis P. Economopoulos is a Honorary Member of Cyprus Association of Civil Engineers, Lithuanian Society of Civil Engineers and Honorary Senator of the European Economic Forum (EWIF).

Internationalization of Engineering Activities by Civ Eng NTUA Vassilis P. Economopoulos

The international activities (activation outside EU) of engineering companies in Construction, Consulting, of SMEs and of Engineers Liberal Professionals is a main factor for the Sustainable Competitiveness of the Engineering Sector. It is one of the top priorities of the High Level Strategic Forum (HLF) for “Construction 2020”. In this presentation, financial, legislative, administrative and all proper measures for facilitating the international engineering activities will be proposed and reviewed. The EU-Africa partnership for transport infrastructure, the EU initiative “Small Business, Big World” and relevant financing opportunities by the ERDF, the EIB financial framework for internationalization as well as the developing cooperation with Latin America, EU Neighbourhood policy and Euro-Mediterranean Partnership, the UNESCO Engineering Activity will be presented together with proposals for improvement, strengthen and facilitation and establishment of new facilitation initiatives and frames of Engineering International Activities, sustainable construction perspectives, public procurement systems, use of the Eurocodes and construction regulations as well as facilitation tools for the mobility of Engineers providing services outside EU. The role of the European and International Engineering Organisations on the Internationalization of Engineering Activities will be stressed by two important initiatives: World Engineering Forum (WEEngF) and the Engineering Associations Mediterranean Cooperation (EAMC).

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