«Framework of Acting as a Professional Engineer - International Experience - Fee Scales / Remunerations»

Vassilis P. Economopoulos,

ECCE Immediate Past President

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ENGINEERS SERVING THE PUBLIC INTEREST AND THE HUMANITY NEEDS

- For 25 years participating actively in the European and the International Organisations of Engineers we seek to demonstrate synoptical definitions for our critical contribution serving the public interest and building the quality of life.

- An **Engineer** is considered to be a person possessing the skills and the knowledge to combine analytical and synthetic approaches for detecting problems in order to find and to apply reliable, safe, economical and environmentally, socially acceptable solutions. From this point of view the **Engineer** is a producer, as well as a decision maker.
- The **Engineer** is the Designer, the Constructor; the Producer the Supervisor, the LEADER of the integrated projects those that build the QUALITY OF LIFE OF THE HUMANITY.
- The **Engineer** must act as a professional within a framework of high morale and ethical standards seeking the sustainable development and the protection of the natural environment, with compatible construction activities for a modern and a viable urban environment.

Recent Common Initiative ECEC and ECCE for the Code of Quality

Quality in the domain of civil engineering

Definition

'Quality in the domain of civil engineering is a multi-component term concerning planning, design, execution, utilization and maintenance of any building objects and characterizing a grade of excellence of these objects during whole period of their service life'

Comments

Quality concerns both any engineers actions and any building materials or devices used for construction and maintenance of any building objects.

One of the quality measures can be the accordance of any engineering actions as well as material solutions with the relevant codes and official regulations. However, it is important but not enough measure [cf. comments (c), (d), and (e)].

Quality can be also measured as the grade of meeting the expected social conditions and profits concerning the building objects and formulated by their owners, users or the relevant administration both during design, execution and utilization of these objects.

Quality can be also measured as the grade of safety and reliability at the all processes of execution and utilization of the building objects.

Quality can be also measured as the grade of desired durability for the building objects. The desired more or less long durability of them is in many cases contradictory to the required period of guaranty for contractors. Therefore, quality control should not be based on the guarantee system only.

Quality is in many cases contradictory to the economic conditions for design, execution and utilization of the building objects. As a rule, low financing leads to the low quality, and next to the decrease of the grade of the objects excellence and – in many cases – their safety. This situation should be not accepted by engineers because of their professional responsibility (cf. ECEC "Code of Conduct"). On the other hand, however, quality should be technically and economically justified in accordance to the type and importance of the given building object.

Final remarks

Implemented ECEC 'Code of Conduct' is of more ethic nature while the expected ECEC 'Code of Quality' is more of technical and economic character. Both of above Codes seem to be of fundamental importance for the professional activity of civil engineers.

Good understanding what is quality in civil engineering domain requires to define the term 'quality' itself taking into account all its technical and economic as well as social aspects.

Two Meetings of Presidents of major European Engineering organizations (ECCE, ECEC, EFCA, FEANI, SEFI) – Brussels 2009, 2010

Among the main conclusions were the following:

1. The emergence and recognition (visibility) of the engineering profession and its contribution to the Public Interest, to the society, to the National Governments and to the Institutions of the European Union.
2. The strong criticism on the Agreement of Bologna – A revision and redefinition of the European Area regarding Higher Education with qualitative and quantitative improvement of Engineering Studies is needed.

We have worked on presenting and demonstrating the contribution of all engineering specialties for the serving of public interest and upgrading the quality of life.

Characteristic Mottos (messages) of International Engineering Organisations

- European Council of Civil Engineers (ECCE):

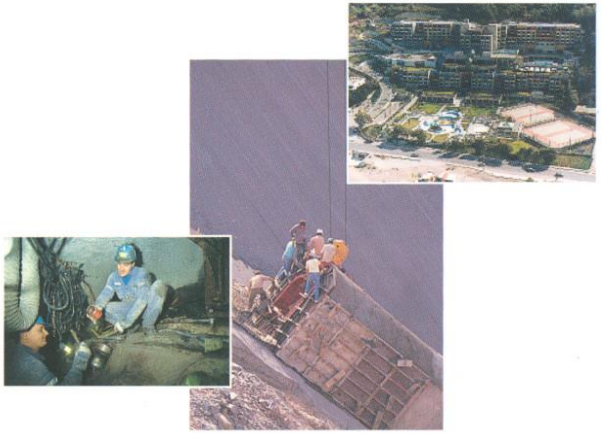
“Civil Engineers at the Heart of Society Building Life Quality and a Sustainable Environment”

- American Society of Civil Engineers (ASCE):

"ASCE a better world by design“, "Civil Engineers build the quality of life“ and the latest one “Trusted. Professional. Environmental stewards.A global network of civil engineers dedicated to improving society’s infrastructure.”

- Institution of Civil Engineers (ICE, UK):

“Civil engineers at the heart of society, delivering sustainable development through knowledge, skills and professional expertise.”



Membership

Membership is open to organisations from the EU and EFTA countries. A President & Vice Presidents are selected from the members. The Secretary General is located at the Institution of Civil Engineers, London.

The current membership is made up of members from DENMARK, FINLAND, FRANCE, GERMANY, GREECE, IRELAND, PORTUGAL, SPAIN and UNITED KINGDOM. A number of other countries send observers. Subscriptions are paid according to a scale based on population and G.D.P.

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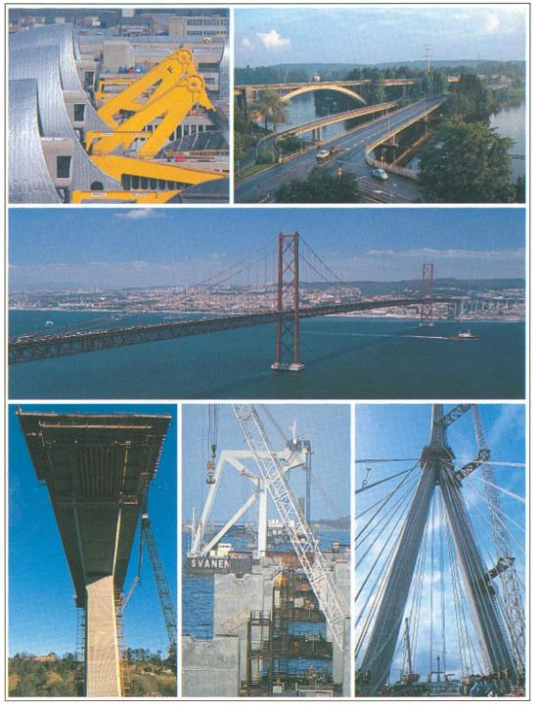
Photography: Grant Smith (New Civil Engineer), Athena, Jaakko Pöyry

European Council of Civil Engineers



Transport Systems

Ethics/Standards

The Environment

Liability

New Technology

Providing a **Civilised Life**

Offering
A focal point for Civil Engineering
Impartial Advice
Development of the professional Civil Engineer

REGULATORY FRAMEWORK GOVERNING THE PROFESSION

- Obvious is the need for global regulatory framework for the profession institutionalized in national laws and accepted by EU legislation (education, qualifications, license to practice, code of ethics, accountability, responsibilities, insurance, pay system)

- Meeting of Presidents and Secretaries General of ECCE, ECEC, TCG – Athens, July 2009: “The recent financial crisis showed that markets have a pressing need for regulation and supervision. European societies have to anticipate and prevent similar crisis phenomena regarding the deregulation of the operation and development of human resources and this is exactly where the skilled Engineers providing high quality services will play a particularly critical role.

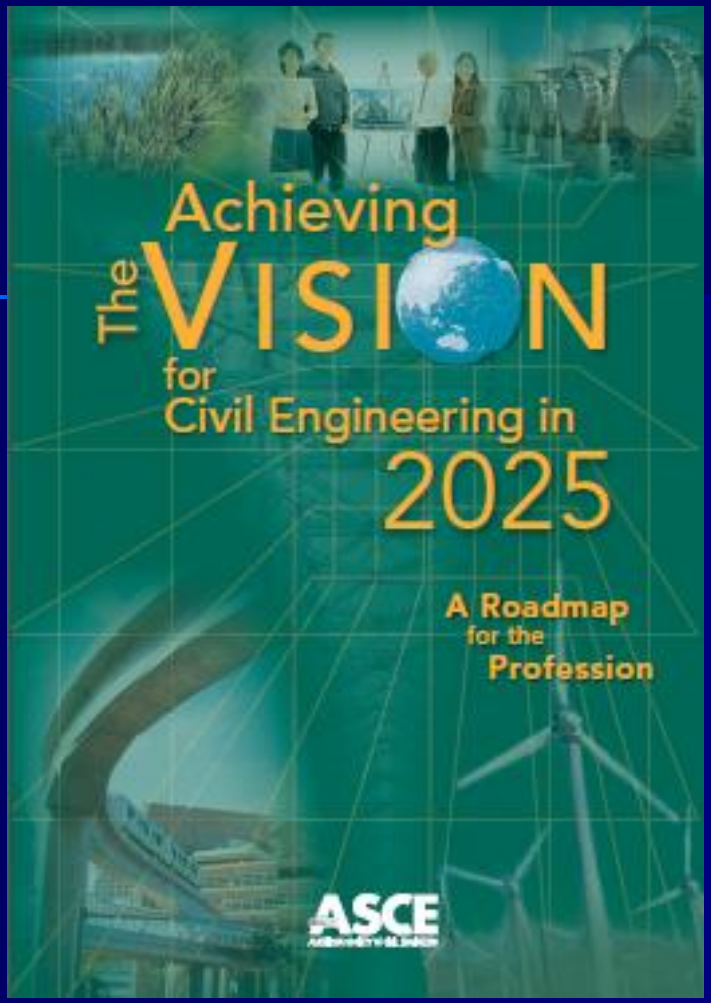
EXTENSIVE RESEARCH ON THE PROFESSION OF CIVIL ENGINEERING IN EUROPE - REGULATORY FRAMEWORK OF THE EUROPEAN COUNCIL OF CIVIL ENGINEERS (ECCE)

www.ecceengineers.eu/papers/files/ECCE_Book_011005-komplett.pdf

Two main systems:

- "Continental system" and Countries of the South. Under strict regulation of the profession particularly as regards access (5 + Higher Studies Engineering). Identified Remuneration System.

- “Anglo-Saxon system” liberal framework for the profession. Of particular importance to gain experience and CPD in the engineering profession (rather than on academic studies) with significant involvement and activity of sectoral Engineering Institutions. The CEng qualification (provided by Institutions) is regulated in custom market and is not required for exercising the profession in the U.K. However, it has been acquired as a regulated professional title in the EU Directive 2005/36.


Achieving
The VISION
for
Civil Engineering in
2025
A Roadmap
for the
Profession
ASCE


ASCE
BODY OF
KNOWLEDGE
for the 21st Century

ENGINEERS SERVE THE PUBLIC INTEREST AND THE HUMANITY NEEDS

In the USA a great dialogue and a proposed big transformation is held last years concerning the Civil Engineering Profession (needs of a challenging world in the future) and the correspondent educational and professional requirements for access and career evolution in the profession.

In that broad dialogue coordinated by the American Society of Civil Engineers (ASCE) they participated International Engineering Organizations, Universities, National Engineering Organizations, Technical Universities, the biggest multinational construction and design companies, senior professional Civil Engineers, futurists et al.

The ASCE announced on 2006-2007 the "Aspirational Vision for Civil Engineering for 2025" the basic outcomes of that great continuing elaboration for the big transformation in the education pre-required for the profession are the following:

- In a world of 6,5+ billion people
  - 1,6 billion do not have safe drinking water
  - 2,6 billion do not have basic sanitation
  - 1,6 billion do not have adequate shelter
  - 1,6 billion do not have reliable power
  - 3,4 billion do not have adequate access to information or communication

- In an increasingly demand and conflict competitive world we need
  - Sustainability
  - Research and Development Expected Benefits
  - Managing Risk
  - Innovation and Integration
  - Reform in the preparation of Engineers

Civil Engineers entrusted by the Society to create a sustainable world and enhance the global quality of life. The Engineers are and will be:

- Master planners, designers, constructors and operators of society's economic and social engine-the built environment
- Master innovators and integrators of ideas and technology
- Master stewards of the natural environment and its resources
- Managers of risk and uncertainty cause by natural events, accidents and other threats
- Leaders in discussions and decision making and shaping public environmental and infrastructure policy

The profile of the Engineer needs:

- **Knowledge**
- **Skills**
- **Attitudes**

The Engineer should be Knowledgeable:

- **Mathematics, physics, chemistry, biology, mechanics and materials**
- **Design**
- **Sustainability**
- **Public Policy and Administration**
- **Business Basics**
- **Social Sciences**
- **Ethic Behavior**

The Engineer should be Skillful:

- **Apply Basic Engineering Tools**
- **Learnt about, Assess and Master New Technology**
- **Communicate**
- **Collaborate**
- **Manage**
- **Lead**

The Engineer should Embrace Attitudes:

- **Creativity and Entrepreneurship**
- **Commitment**
- **Curiosity**
- **Honesty and Integrity**
- **Optimism**
- **Respect and Tolerance**
- **Thoroughness and Self-Discipline**

All the above lead the Future Vision of Civil Engineers to a new long and strong educational background required for acting as a professional called the BODY OF KNOWLEDGE (BOK). The BOK needs absolutely three categories of knowledge (foundational, technical and professional). For that the Technical Depth and the Technical & Professional Breadth of the BOK should be surely founded on Basic Sciences, Mathematics, Humanities and Social Sciences. ASCE's great proposals for the big transformation underline also the LEADERSHIP IN ENGINEERING.

FOR ALL THE ABOVE THE WELL PREPARING OUR CIVIL ENGINEERING PROFESSION IS NEEDED. It is underlined: "ASCE's Vision includes preparing our profession for the future. ASCE has long been an advocate for elevating standards for a career in civil engineering. Future Civil Engineers will face an increasingly demand world requiring more professional specialization. At the 2006 Annual Meeting of the National Council of Examiners for Engineering and Surveying (NCEES) delegates voted to encourage States to strengthen educational requirements for licensure. The change strongly backed by ASCE calls on States to increase their educational requirements"

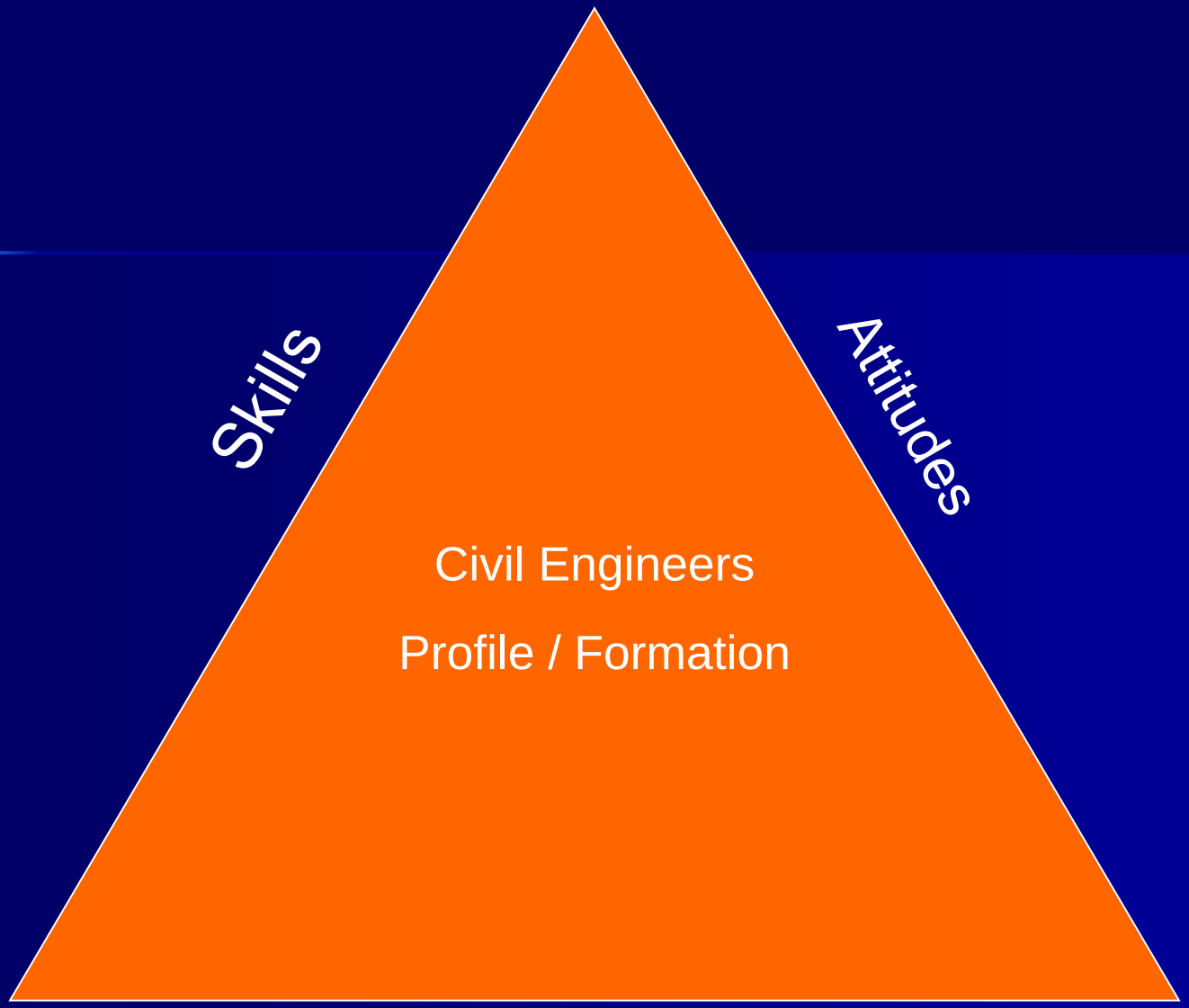
ASCE released in 2008 the second edition of the BODY OF KNOWLEDGE in a launch event at the National Academy of Engineers. This new report defines knowledge, skills and attitudes necessary to enter the profession. Implementation will lead to the revision of current undergraduate and postgraduate education.

In that strong educational background the Engineering Professional Recognition and the Access to the Profession should be strongly founded. The Engineers Chambers and the relevant organizations should control and keep strictly the quality of the provided Civil Engineering services for their Members in order to protect and upgrade the Public Interest and this can be achieved mainly with the exams for accessing to the profession and taking the professional license.

Within this framework the Mobility of Engineers could be easily and effectively be faced. The Mobility is not a self-target, the safety and quality in the provided services, in the built environment must be ensured for all European people. The Engineers Chambers should keep and upgrade their critical role of assessment of the access and the career evolution in the Engineering Profession. It is our mission to the Society; it is our duty for our Members.

Engineers Chambers should assert the above critical role in order to express and ensure it clearly in the European Legislation (the dialogue for the possible reform of 2005/36 EC Directive has already started in 2010). We must prepare on that and our strong alliance must present its strong arguments for the Engineering Profession serving the Public Interest under strong Educational and Professional Prerequisites.

We must consider very seriously of any proposed approaches about “automatic and mechanistic” formulas of mutual professional recognition. These “automatic mechanisms” surely degrade the quality of provided Engineering services in Europe and inactive our Engineers Chambers. Apart of that, these systems seem fully unrealistic concerning the diversities in our Europe of 27.


Skills
Attitudes
Civil Engineers
Profile / Formation
Knowledge

FEES

Community Law and European Experience

The relatively recent decision (Judgment No 7732/11.06.2009 of the Supreme Administrative Court of Bulgaria) which essentially upheld the recommended Remuneration Code to the members of the Chamber of Engineers (KIIP), is the most typical rulings case stated emphatically in all the latest official EU texts about the establishment of mandatory minimum fees in the engineering profession.

Specifically, in the neighboring country, the Chamber of Engineers (KIIP-Chamber of Engineers in the Investment Design) had established a Remuneration Code applied by its members (Methodology for Determinating the Remunerations for Provision of Design Services by the Engineers) which was not regulated by a National Law, but simply arose as a liability to its members, in accordance with the Code of Conduct of the Chamber. It should be noted that the Chamber was not a Public Body, and in the statutes there were not broad developmental or environmental or scientific or general objectives of contributing to national development and economy, but the primary objective was defending and promoting the interests of its members. After appeals, the National Competition Commission of the Republic of Bulgaria with the Decision 651/24.07.2008 abolished the implementation of the Code of Remuneration of the chamber, relying on EU competition law (Articles 81 and 82 of the Treaty of Rome).

The KIIP consistent with preparations with the legal support of a large and well known law firm in Bulgaria and my own contribution as President of the European Council of Civil Engineers (ECCE) appealed to the Supreme Administrative Court of Bulgaria, which we ultimately vindicated by the aforementioned final decision and essentially confirmed the effect of the Remuneration Code of the Chamber negating the earlier decision of the National Competition Commission.

In our argument we found support in the OJEC V5-0247/2001 C21E/24.01.2002 "European Parliament resolution on the escalating and mandatory fees for certain professions, particularly lawyers based on the particular role and position of the professions in modern society".

- **We also referred to the Paragraph 47 of the Preamble of the European Directive 2004/18 on Public Procurement which permits the maintenance of Remuneration Codes (where previously established by national laws of Member States, the typical Greek case).**

Briefly we supported the following:

- The engineering profession serves, protects and promotes the public interest. We pointed out the issues of safety and quality of construction and the contribution of the engineering profession to the enhancement of the quality of life in modern and sustainable cities. We stressed the contribution of the engineering profession in addressing climate change and sustainable development of the built environment. We analyzed and presented how each category of professional engineering specialists contributes to the above objectives

- The mandatory minimum fees and the access and evolution control of the Profession by the Chambers ensures and guarantees the quality of services provided by trained and sufficient Engineers. We spelled out that the recent trends in U.S. and Europe lead to scrutiny of the profession and increased skills and not to bull market on qualifications and fees.

- The Engineering Chambers promote the objectives and actions of public interest and "business associations" do not coordinate concerted practices to circumvent the competition authorities of the Treaty of Rome.

- Above the threshold of the required minimum fee the free competition is developing.
- The system of mandatory minimum fees protects the state and the society from unfair competition and fraud.
- Codes build transparency and rationalism and enshrine the "minimum reasonable cost". We explained that a mandatory minimum fee is equivalent / equals to the cost of execution of the study and beyond this the competition grows freely on profit / public benefit (marginal / less or more) which is offered to a client by the engineers. This argument was particularly demonstrated by the KIIP and the legal office. We insisted particularly and persuaded the Supreme Court, that this way the free competition is not defeated.
- We emphasized that in the Services Directive 2006/123 the respect of the code of conduct for professions is obligatory and this is where the efforts of ECCE & ECEC have been focused in order to integrate and to guarantee the Remuneration Codes in the Codes of Conduct.
- We specified and interpreted all the provisions of this wonderful EP Resolution on the Profession of Engineering

ENGINEERING FEES IN OTHER EUROPEAN COUNTRIES

- **CROATIA**
  The Chamber of Engineers and Architects of Croatia is actively involved with a particular initiative in the efforts of the European Council of Engineering Chambers (ECEC) and the European Council of Civil Engineers (ECCE) for connecting quality engineering services in design, supervision and the establishment of a Quality and Remuneration Code across Europe. The ECEC is trying to integrate the minimum remuneration in the European Code of Ethics of Engineers procedure laid down in EU Directive 2006/123 on services.

- **CYPRUS**
  There is a Remuneration Code, not-regulated. The Technical Chamber of Cyprus seeks through continued recent negotiations with the government to secure a legislative Remuneration System.

- **CZECH REPUBLIC**
  There is a recommended Remuneration Code whose implementation is promoted by the Chamber, but it is not regulated in the national legislation.

- **GERMANY**
  Fees are calculated based on an official Remuneration Code for the services of Architects and Engineers (Honorarordnung fur Architecten und Ingeneuire-HOAI), based on national legislation.

- **HUNGARY**
  There is a recommended Remuneration Code whose implementation is promoted by the Chamber, but it is not regulated in the national legislation.

- **ITALY**

  The minimum fee for the services of Civil and Environmental Engineers are determined by the Decree of the Ministry of Justice of April 4, 2001 and is mandatory. In the public projects and services, the discount given can not exceed 20% of the specified minimum fee determined by the legislation. With a new Law other regulations were introduced later.

- **LATVIA**

  For engineering services provided to the State and the Local Authorities there is no Remuneration Code. There is a Remuneration Code for providing engineering services to private clients, but it is not regulated in the national legislation.

- **POLAND**

  There is a recommended Remuneration Code whose implementation is promoted by the Chamber, but it is not regulated in the national legislation. The Chamber of Civil Engineers of Poland is the lead of ECEC's effort to establish a pan-European Quality - Remuneration Code for Engineers.

- **PORTUGAL**

  There is a Remuneration Code regulated in the national legislation, liable to discounts.

- **SPAIN**

  There is only an indicative Remuneration Code, used as information for clients, but it is not binding.

- **UNITED KINGDOM**

  There is not a regulated Remuneration Code. However, the Association of Engineering Consultants have recommended a Code of Remuneration for members without being mandatory.

- **BULGARIA**

  There is a methodology for determining the minimum wages which is mandatory for the members of the the Chamber of Engineers (KIIP), but it is not regulated legislatively. During 2009 the National Competition Commission of Bulgaria with an application to the Court at the first phase annulled this system of minimum fees, by referring to the articles on Competition of the founding treaties of the EU. The Chamber appealed to the Supreme Administrative Court of Bulgaria where it has developed a very strong argument (with the possibilities allowed by the Community law) and eventually the case was successful. KIIP's methodology for determining minimum fees is strong and legally applicable to its members. This case is referred at in the recent EU legislation to implement the CR 2006/123 on services, as typical for the legal implementation of the system of minimum fees.

- **AUSTRIA**

  There is a Remuneration Code, whose application is promoted by the Federal Chamber of Engineers and Architects (Arch + Ing) between its members informally without being regulated.

EU DIRECTIVE 2006/123 (Services Directive)

- The EU Directive 2006/123 does not oblige Member States to abolish the provisions on minimum rates of fees, especially for engineers, because according to Article 3 the professions regulated by another provision of Community law which shall prevail are expressly exempted (EC 2004 / 18, EC 2005 / 36).

- Also in our country there are no other nationality, or geographic or composition of companies restrictions about excercising the profession as applied in other countries and therefore the engineering profession is not a "closed profession.

- During my participation as a member of the national delegation (participation of the TCG) in the Screening Group for the integration and implementation of the EC 2006/123 in the various National Laws of Member States no point was ever raised regarding the minimum fees of Engineers in Greece neither by the coordinator of the Screening Group (UK) nor by any other representatives from other EU Member States.

- Instead, the exclusion of the engineering profession in the access and mobility as defined by the EC 2005/36 (which has already been incorporated into the National Legislation) is founded in the Directive EC 2006/123. Also, our special reference (as ECCE President and representative of the TCG) on the specific prerequisites and the regulatory framework governing the exercise of our profession in Europe and internationally to ensure the Public and general interest, the critical role of engineers in safety and quality of buildings, in sustainable development, in facing natural disasters and in improving the life of the citizens was included in the minutes.

- The EC Directive 2006/123 has a clear provision and accepts the implementation of the Codes of Ethics for the professions and the relating provided services.

- A remarkable initiative of the European Council of Engineering Chambers is the effort of promotion and adoption of a European Code of Ethics for the Chartered Engineers defining the direct relationship of quality with the remunerations.

- In November of 2010 a common declaration of the Engineering Chambers of the Vishegrad Countries (Poland, Hungary, Czech Republic, Slovakia) by the initiative of the Chamber of Civil Engineers of Poland asks for the adoption of a general system of minimum fee scales for Engineers.

Code of Conduct for European Chartered Engineers
Issued by ECEC
(adopted by the GAM in Hamburg, 3rd Oct. 2008)

Preamble

"European Chartered Engineers" are Engineers in Europe, who are members of their national Chambers and legally authorized according to their national legislation. European Chartered Engineers safeguard quality of life and protect public interest as well as consumers' interests. They bear responsibility for the functioning of the complicated as well as the easy processes of daily life. With their professional intellectual services they contribute to secure prosperity, protection of environment, technical progress and sustainable development and therefore to the improvement of living conditions for present and future generations. They are promoters of culture and progress. Knowledge, experience and know-how together with a high standard of ethic and moral demands guarantee the highest level of quality of engineering services. This is warranted by legal authorization and the disciplinary regulations of their national Chambers.

Article 1
Introduction

1. According to article 37 of the Directive on Services in the Internal Market (2006/123/EC) ECEC issues this code of conduct to facilitate the cross border provision of engineering services and establishment in another country. The code takes into account the EC Working Paper “Enhancing the Quality of Services in the internal market: The role of European codes of conduct” published by the DG Internal Market and Services in 2007.

2. This code is intended to insure the highest standard of professional conduct among European Chartered Engineers. European Chartered Engineers are bound to respect this code of conduct wherever they provide their services temporarily or permanently.

Article 3
Behaviour towards clients

8. European Chartered Engineers must define, or cause to be defined, their services, terms, and remuneration as clearly, accurately and completely as possible. They guarantee that the means of calculating fees is transparent for the client in order to protect the information of the latter and to prohibit any competition deemed to be unfair.

- On Wednesday 8th December 2010, the Technical Chamber of Greece under the personal coordination of Mr. Christos Spirtzis organised an important International Conference concerning the subject of the systems of engineering fees / remunerations in Europe and worldwide.
- In that Conference distinguished speakers participated from International Engineering and National Engineering Organisations from Europe and USA and they made important presentations on the subject. This Conference has sent a strong clear message to the Greek Government and the society in general about the need of ensuring the safety and quality of urban environment through a well established regulated engineering system including minimum fees.
- On 8th December 2011 the European Council of Civil Engineers (ECCE) and the European Council of Engineering Chambers (ECEC) co-organise the 1st European Engineers' Day in Brussels demonstrating and emerging the critical role of engineering profession to the society and dealing with two basic subjects a) Professional Recognition and Mobility and b) Public Procurement relating also with the current negotiation process of the EU in these two subjects. Amongst the speakers EU Commissioners and high level staff, EU MEPs and other experts are invited to participate with special presentations.

THANK YOU FOR YOUR ATTENTION!

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