OVERVIEW OF REGULATION IN EUROPE

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ECCE President
i) Internationally Civil Engineers provide a wide range of activities (e.g. P.E. exam – USA, C.Eng. disciplines - U.K., etc)


iii) Certain EU Member States regulate the profession by way of 'reserves of activities'

Other EU Member States regulate the profession with regard to the title

iv) In Seismic Regions certain fundamental principles must be taken into account in order to arrive at a structural concept that is considered sound for the earthquake resistance (e.g. EN1998)
Internationally Civil Engineers provide a wide range of activities

**PE exam specifications and design standards**

- Exam specifications and design standards are posted 6 months before the exam administration. Updates for April exams are posted in November, and updates for October exams are posted in May.

- Agricultural and Biological Engineering
- Architectural
- Chemical
- Civil: Construction (with design standards for the 2015 exams)
- Civil: Geotechnical (with design standards for the 2015 exams)
- Civil: Structural (with revised design standards for the October 2015 exams)
- Civil: Transportation (with revised design standards for the October 2015 exams)
- Civil: Water Resources and Environmental Control Systems
- Electrical and Computer: Computer Engineering
- Electrical and Computer: Electrical and Electronics
- Electrical and Computer: Power
- Environmental
- Fire Protection
- Industrial
- Mechanical: HVAC and Refrigeration
- Mechanical: Mechanical Systems and Materials
- Mechanical: Thermal and Fluids Systems
- Metallurgical and Materials (new specifications for the 2015 exam)
- Mining and Mineral Processing
- Naval Architecture and Marine (new specifications for the 2016 exam)
- Nuclear
- Petroleum
- Software
- Structural (with design standards for the 2015 exams)

*(P.E. exams - U.S.A.)*

**ice by discipline**

- Buildings and structures
- Coastal and offshore engineering
- Development, planning and urban engineering
- Energy
- Geology, geotechnical and ground engineering
- Professional practice
- Transportation
- Water engineering and wastewater management

**ice by theme**

- BIM
- Historical engineering
- Low carbon
- Sustainability

*(Institute of Civil Engineers - U.K.)*

E.C.C.E (1985)

www.ecceengineers.eu
E.C.C.E. Civil Engineering Charter

- Structural Design
- Building & other structures planning/design
- Tunneling & ground solutions design
- Roads and other communication infrastructures planning/design
- Water & sanitary infrastructures planning/design
- River, coastal and offshore infrastructures planning/design
- Urban & environmental planning/design
- Safety planning
Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2014-15: «What Civil Engineers Do: Civil engineers design, construct, supervise, operate, and maintain large construction projects and systems, including roads, buildings, airports, tunnels, dams, bridges, and systems for water supply and sewage treatment»

International Standard Classification of Education (ISCED - UNESCO)

0732: «Building and civil engineering» (06.4 - 582)
582 of subcategory 58 «Architecture and building» of category 5 «Engineering, Manufacturing and Construction».
General Regulations and Directives

- Construction Products Regulation
- Public Procurement Directive
- Services Directive
- Directive on the provision of information in the field of technical standards and regulations

Policy Priorities

- Health and safety in construction
- Free movement of engineering/construction services and products
- Competitiveness of the Construction sector
- Sustainable Construction

E.C.C.E (1985)  
www.ecceengineers.eu
Types of Regulation in the EU

Certain EU Member States regulate by way of 'reserves of activities'

Ireland requires that a qualified professional, either an architect or engineer, sign compliance documentation at both design completion stage & build. In Austria drawing up of public documents are reserved to civil engineers, in Portugal, designing and construction activities in all areas of civil engineering are reserved to civil engineers. In Denmark, and Finland the only regulated activities are those related to the construction of (public and private) buildings. In Denmark the activity of designer is regulated to a very limited extent, namely only for the construction of buildings categorised as 'high hazard risk'. In Poland the activities of designing and construction are performed either by 2 different types of engineers or jointly by the same engineer depending on the qualification held.
Other EU Member States regulate with regard to the title

Belgium, France, Germany and the United Kingdom legally protect the use of the professional title, which means that while access to the profession is free, the service provider needs to hold the necessary qualification requirements (or a qualification considered equivalent) only if he wants to use the title. In practice and depending on the Member State, the use of the title may be necessary because of market expectations and acceptance by the public.

A small number of Member States, i.e. Croatia, Cyprus, Italy, Malta, Portugal, Ireland and Spain not only regulate the profession by way of reserved activity but also protect the use of the title. In Spain Ingeniero de Caminos, Canales y Puertos (Master of Engineering) have full professional competence in civil engineering and public works.
the submission of construction related documents to the building authorities, such as in
the application for building permits or design approval
Germany reports the sharing of these reserves with architects
Ireland requires that a qualified professional, either an architect or engineer, sign
compliance documentation at both the design and completion stage of the build.

In Austria drawing up of designs is shared activity
Italy reserves services related to land use and urban planning, including landscape
planning, to architects, engineers and other technicians

Management of building projects
Austria, and Lithuania shared with architects
In Ireland, anyone may manage a construction project however final compliance
certification must be signed off by either an architect or civil engineer.
In Italy shared with architects & environmental eng. - excluding artistic & restoration
Academic qualification beyond the Bachelor Degree

Czech Republic, Finland, Italy  Master of 5 years for section A
Poland  5 years for Master Civil Engineers
Spain  Ingeniero de Caminos, Canales y Puertos: either Bachelor + Masters' Degree (4+2) or Pre-Bologna integrated Masters Degree (5 or 6 years)
Netherlands, Norway  - Master 5 years
Sweden, France  - Master 5 years
In Denmark  5 years for civil engineer specialised in building

In the United Kingdom there is a specific regime in the way that qualifications of civil engineers (Chartered structural engineer or Chartered civil engineer) are classified at level e) of Article 11 of Directive 2005/36/EC
Duration of Professional experience: examples

Austria, Slovakia (at least 3 years)
Bulgaria (between 2 and 4 years)
the Czech Republic (3 years for section A)
Luxembourg (2 years)
Malta (1 or 2 years)
Poland (1.5 year after MSc)
Justification of Regulations

structural, fire and health safety risks
environmental damage (water contamination, disaster prevention and environmental protection, and energy efficiency)

optimisation of investments
impact of lawsuits on the business as well as insurance premiums fraud on prices and lack of control over legal provisions on public safety or risks raised from the exercise of the activity as self-employed
EN standardization ... Compliance with basic requirements to prove compliance of Building & Civil Engineering Works with the basic requirements of the Construction Products Regulation

- mechanical resistance and stability
- safety in case of fire
- hygiene, health and the environment
- safety in use
- protection against noise
- energy economy and heat retention

With the switchover to EN...
design, design supervision & inspection => more Qualified Persons (QPs)
Concrete effect of the measures

Germany & the UK  the value of the title on the labour market
Croatia and Spain construction works are safe with good design and well maintained
Croatia waters are not polluted and forests are preserved
Austria, Croatia, Spain, and Poland  low number of complaints against professionals
Portugal few accidents on site
Greece reported that due to the regulation of the profession, the number of deaths caused by earthquakes is very low compared to other countries

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www.ecceengineers.eu
Greek Civil Engineers plan/design/build in the most seismically active region in Europe (also 6th position on the global scale)

PGA
475-year Return Period
High Hazard
Source: ESC
The majority of Greek Civil Engineers act as Building Engineers, the Greek Society has directly recognized them as master builders & leaders in the construction sector.

*Civil engineers in Greece are entrusted by society to achieve a safe & sustainable world and raise the quality of life.*