

# Common Training Framework for Civil Engineers

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# Common Training Framework for Civil Engineers

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## 1) A Common Training Framework for Civil Engineers: Why is it (absolutely) necessary?

In view to the ongoing efforts to enforce a European Union of Skills based on measures such as the Skills Portability Initiative the European Council of Civil Engineers (ECCE) and the European Council of Engineers Chambers (ECEC) would like to express again the urgent necessity for the implementation of a Common Training Framework for Civil Engineers and would like to initiate further steps and give a new impetus to the discussion.

A Common Training Framework for Civil Engineers will be a tool to enhance a variety of EU policy aims such as ...

- **... simplifying and accelerating professional recognition and market access:** Currently, Civil Engineers are covered by the general recognition system and need to undergo partly quite complex and lengthy equivalence evaluations. In non-professionally regulated countries strong burdens are created by regulations of the tasks (building laws etc). Especially, for SME and micro-sized professional companies such procedures are often too burdensome and hinder their mobility.
- **... abolishing hindrances of cross border activities:** Currently, as explained above, the general system recognition can provide burdens that are quite high, especially for SME and micro-sized enterprises.
- **...reaching the aims of the skills portability initiative by providing an automatic recognition system for Civil Engineers** compared to that already provided for the sectoral professions in Directive 2005/36/EC: Currently, recognition of planning and design services in the construction sector is divided. While architects benefit from automatic recognition, Civil Engineers have to undergo burdensome equivalency procedures.
- **... enhancing the mobility of professionals across the EU labor market and beyond** and enhancing a **European Union of skills:** The implementation of a CTF would provide all benefits of automatic recognition and by making recognition processes fast and easy – as can be seen for the profession of architects – contribute to enhancing mobility in the Civil Engineering profession, also for SME and micro-sized professional companies.

- ...tackling the issue of **labor shortages** in Civil Engineering / in the construction sector: A CTF provides comparability of qualifications and skills also for employers and makes it easier to hire professionals from other countries. It can also provide a basis for the recognition and / or for employment decisions regarding third country qualifications.
- ...guaranteeing the **quality of Civil Engineering education** across the Union and thus **ensuring transparency for consumers and clients and safety of citizens**: The European Union aims at becoming a Union of Skills, which is based on high quality education, training, and lifelong learning. This requires adequate qualification standards. Especially for Civil Engineering services that have a massive impact on the quality of the (built) environment, public space and infrastructure, the quality of life of people, their safety and well-being and the successful implementation of the green and digital transition this is extremely important. Civil Engineering services therefore require a certain minimum standard as defined in a Common Training Framework. As they are complex technical services that are difficult to understand and to evaluate for clients and consumers, defined minimum qualification requirements throughout Europe can enhance transparency and security for them.
- ...promoting **the competitiveness of the Single Market**: Mobile high quality service providers are an important basis of EU competitiveness; this is especially the case in key sectors such as construction and for Civil Engineering services that build the basis for construction.
- ...**simplifying third country recognition** by using Common Training Framework as evaluation basis: As explained, the CTF for Civil Engineers could build an important basis for easier and better third country recognition approaches for Civil Engineers but also enhance the integration of Civil Engineers in the employment market.

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In summary ECEC and ECCE would like to stress again that the quality and safety of the (built) environment, public space and infrastructure is a public interest and that in general meeting the challenges that our society currently faces urgently requires the expertise of mobile and well-educated Engineers throughout Europe. Therefore, a Common Training Framework for Civil Engineers that is based on common qualification requirements to successfully enhance their mobility and ensures that consumers/clients and public authorities can trust in the quality of Civil Engineering Services throughout Europe is of crucial importance.

## 2) A Common Training Framework for Civil Engineers: Why is it (easily) possible?

Already since 2016 the organisations of Chartered Civil Engineers have made efforts to reach a Common Training Framework for Civil Engineers. The argument that was often held against them was that there is no convergence between Member States' systems for qualifications and training in the engineering sector. This is valid for the engineering sector as a whole with its very wide range of

branches through all technical fields and means that which means that the fulfilment of requirements for the implementation of a CTF has to be evaluated separately for different fields of engineering .

But the argument can definitely in regard to the implementation of a Common Training Framework for Civil Engineers:

Based on an International Standard Classification of Occupations (ISCO) 2142 (Civil Engineer) and 2143 (Environmental Engineer) the Civil Engineering profession can shortly be defined by the following main tasks:

Design and Planning, construction supervision, professional expertise for the entire building and civil engineering sector (constructions/infrastructure and geotechnics);  
Infrastructure (roads, bridges, tunnels, canals, harbours, dams, railways, airports);  
Water supply, sewage and sewage treatment, drainage and watering, waste treatment plant including construction of landfill

Currently, the recognition of planning and design services in the construction sector is still divided. Architects benefit from simple automatic recognition procedures and Civil Engineers have to undergo burdensome equivalency procedures providing barriers for working in other countries, especially if organized as professional SME and microenterprises. This different treatment of Architects and Civil Engineers is very difficult to understand as the nature of their planning and design services, their roles in the construction sector and the degree of diversity of their scope of services and training and qualification requirements on national level throughout Europe is very similar.

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Experience shows that the automatic recognition of architects in Europe based on the definition of a common minimum of qualification standards in Directive 2005/36/EC has been functioning very well since decades. This can also be observed in the [ranking of the most mobile professions](#), in the European Commission's regulated professions' database in which the architects have a much better ranking. This clearly shows that differences in qualification requirements and scope of services on national level – that are still in existence in the architects' profession as well - do not hinder the implementation of an automatic recognition system as the Common Training Framework.

The experience with the well working automatic recognition for architects also shows that any fears for regulatory implications – especially in so called un-regulated member countries that do not regulate the profession but the task – are unfounded, even though legislative developments in Finland seem to show that regulating the task instead the professional access hinders automatic recognition. The implementation of a CTF that is based on academic qualification (as proposed in 3)) does not lead to any change in requirements in the different legislative systems. As is the case for architects, the competent authorities in so-called non-regulated professions only need to provide certificates of the fulfilment of the CTF for their national Civil Engineers that want to apply for automatic recognition in another country.

Even for those professionals that do not fulfil the qualification requirements of a CTF there is no negative impact as they remain in the general recognition system and have to undergo an

equivalency evaluation when moving to another country, meaning that for them the current situation does not change.

The [results of a European survey](#) (page 44ff) done by the ECEC in 2016 – contracted by the European Commission DG GROW - clearly show that the requirements for developing a Common Training Framework for Civil Engineers are definitely fulfilled:

- The Common Training Principles should enable more professionals to move across Member States.
- The profession, to which the Common Training Principles apply, is regulated, or the education and training leading to the profession is regulated in at least one third of the Member States.
- Regarding Common Training Frameworks, an additional condition is that the profession concerned should neither be covered by another Common Training Framework nor be a profession subject to automatic recognition under Chapter III of Title III of the 2005/36/EC directive, i.e., nurses, midwives, veterinary surgeons, doctors, pharmacists, architects, dentists.
- Common Training Principles should be prepared following a transparent due process including the relevant stakeholders for Member States not regulating the profession.

The [results of the European survey](#) in 2016 made clear that the profession of Civil Engineers is the engineering profession with the highest rate of regulation and the profession - quite comparable to that of architects - and that interest in a common Training Framework was already high among the participating competent authorities and other stakeholders.

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It is also still a good basic overview to see qualification and regulatory requirements in the different member states.

**In view to all these facts and taking into account the recommendations of the European Court of Auditors regarding the general recognition system and the Common Training Frameworks, ECEC and ECCE call on the European Commission to enhance the efforts to implement a Common Training Framework for Civil Engineers.**

**ECEC and ECCE would also like to stress that Civil Engineers are major actors in a key sector of the EU economy. Boosting their mobility by implementing a Common Training Framework for Civil engineers and thus considerably simplifying their recognition procedures is therefore a necessary, logic and long overdue political measure in the interest of economy and labour market.**

### **3) A Common Training Framework for Civil Engineers: Basis for discussion**

To give an impetus to the discussion with stakeholders and within the Group of Coordinators for Directive 2005/36/EC ECEC and ECCE would like to provide a basis for the discussion on details for the definition of a Common Training Framework for Civil Engineers that is – in structure and approach – very close to the definition of minimum requirements for Architects in Article 46 of

Directive 2005/36/EC and in accordance with the current European education systems/curricula for Civil Engineers:

### **DRAFT CONTENT - WORK IN PROGRESS**

A) *To be recognised as a component of professional recognition, Civil Engineering programmes delivered by university level institutions must have construction of buildings (= all forms of civil constructions) as the principal component.*

*The programmes shall maintain the balance between theoretical and practical aspects of training as the background for future implementation and must guarantee the following knowledge, skills and competences (text as discussion basis):*

- a) to have the ability to shape the urban, the rural space and the environment with buildings and infrastructure satisfying technical requirements, the proper level of safety and friendly for use by people and societies in the modern world;*
- b) to have knowledge of the history of civil engineering since the result of their work is to create a material layer of human culture;*
- c) to have knowledge of designing and sizing constructions, buildings and infrastructure according to the physical and mechanical principles of its nature, properties of used materials and technologies;*
- d) adequate knowledge how to organize and steer investment processes gaining benefit from economic, social and business sciences;*
- e) understanding relationships between people and buildings, infrastructure and the environment influencing human relations;*
- f) understanding the profession of civil engineers in serving the society especially preparing briefings that include social factors;*
- g) to have practical knowledge of structural and geotechnical design, constructional solutions, and implementation of modern technology,*
- h) to have adequate knowledge to provide the buildings, infrastructure and the environment with human comfort and respecting requirements of sustainable development and global climate changes;*
- i) to have adequate knowledge to comply with users' requirements of buildings, infrastructure and the environment imposed by cost factors and building regulations;*
- j) to have adequate knowledge of building and infrastructure industry, organizations, regulations and procedure integrating their job into over-all planning and design.*

***B) To meet the academic requirement for national and state recognition, the minimum duration of studies for Civil Engineers is a total of at least five years – or fulfilment of minimum 300 ECTS – study leading to successful completion of a university level examination***

*Similar to the system of the sectoral professions, curricula shall be notified in the IMI System and – if in compliance to the CTF - listed in an Annex*

**DRAFT CONTENT - WORK IN PROGRESS**