



Common Training Principles for Engineers

ECEC Project
conducted on behalf of the European Commission

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Project Basics (1)

- **Call for tenders** released by the European Commission November 2015 (three organisations invited to submit offers)
- **Contract awarded** to the ECEC in April 2016 (Project duration April 2016 - November 2016)

Defined project tasks

1. Survey on the **national regulatory situations of engineering education and engineering profession** in all EEA countries + Switzerland with a focus on the professional groups of Civil Engineers, Electrotechnology Engineers, Mechanical and Industrial Engineers, Geodetic Surveyors and Mining Engineers
2. **Analysis of the positions of competent authorities and engineering organizations** for the implementation of common training principles for engineers
3. Development of **possible approaches for a proposal for common training principles for engineers**: Based on the survey results, a written consultation period and two European stakeholder discussions on 30 June 2016 and 27 October 2016 in Vienna

Project Milestones

- Presentation of **draft survey results + first draft CTP proposal** based on these results at **stakeholder workshop** on 30 June 2016
- Distribution of country factsheets for correction on 11 July 2016
- **Stakeholder consultation** on 15 September 2016: Distribution of draft survey report **for corrections** + revised CTP proposal (based on the results of the stakeholder workshop on 30 June 2016) **for feedback**
- **Final Stakeholder Conference** on 27 October 2016
- **Final survey report + final project report** to EC December 2016

Concept of CTP for Engineers (1)

Current recognition system for Engineers in Europe:

General System of Recognition with assessment of equivalence of qualifications - compensation measures can be applied if necessary

The idea behind the Common Training Principles:

More mobility through implementation of automatic recognition for Engineers in Europe.

No more individual assessment of equivalence **but** fulfillment of a commonly defined minimum set of qualification requirements .



Concept of CTP for Engineers (2)

Legal basis:

Article 49a and 49b Professional Qualifications Directive (new)

Possible forms of CTP:

Common Training Framework (CTF): Fulfillment of defined qualification criteria (outputorientated: knowledge / skills / competences)

Common Training Test (CTT): Uniform test for professional access in another Member state

Conclusions from survey results (1)

- Preferred CTP approach of a majority of stakeholders is that of a Common Training Framework.
- Many countries have different forms / levels of the profession within one engineering branch.
- Overall level of academic requirements for access to the profession is quite high throughout the professional groups
- Broad majority requires at least the EQF Levels 6 and 7 for academic education requirements)
- In a majority of countries it is not possible to compensate academic education in all the professional groups.

Conclusions from survey results (2)

- For most of the professional groups a majority of countries requires professional experience and / or a professional exam/interview for the access to the profession / use of the professional title.
- Broad variety of scopes of authorizations in all professions
- Requirements of training programmes quite equivalent within the different professional groups throughout Europe

Main features of the suggested proposal

- CTF currently applicable only for **Civil Engineers**
but: easily transferable to other engineering professions
- Based on **2 Level-System**: Qualification on Master Level (Minimum 300 ECTS) / Bachelor Level (Minimum 180 ECTS) required
- Definition of necessary knowledge, skills and competences based on EUR-ACE® Framework Standards and Guidelines for engineering curricula on Master / Bachelor level
- Requirement of 2 years of **practical experience** or **national professional access test**

EAFSG as assessment basis

EUR-ACE® Framework Standards and Guidelines for engineering curricula on Master / Bachelor level as a basis for the assessment if a CTF is fulfilled

- EAFSG provide commonly accepted basis
- EAFSG are supported by many countries
- EAFSG are already widely used
- EAFSG provide output-oriented approach
- EAFSG could provide basis for all engineering professions

Results of stakeholder consultation / workshops

- A vast majority of stakeholders fully **supports the establishment of a CTF for (Civil) Engineers** and a high majority supports the **2-level-system**
- The positions on the detailed content of a CTF for (Civil) Engineers **vary considerably** in the different EEA Member States.
- The suggested **academic requirements (minimum ECTS requirements)** are supported by a high majority of stakeholders
- A majority of stakeholder agree with the application of the **EUR-ACE Framework standards and guidelines** for assessment of knowledge, skills and services (with additions)

Main topics of controversy (1)

Possibility of compensation of academic education

Number of stakeholder strictly rejecting this possibility is about the same as the number of those for which it is an essential aspect of a CTF.

Those who are in favour of compensation have considerably varying approaches of how to evaluate the “equivalence” of other forms of education.

Professional experience requirement

Approaches vary between 0 and 3 years

Main topics of controversy (2)

Individual assessment on host country level

Almost half of the stakeholders that have declared to fully support a CTF have at the same time expressed the need for an individual assessment on host country level.

This is not compatible with the main features of automatic recognition

Main topics of controversy (3)

Common scope of authorization

A majority of stakeholder at the WS on 27 October supported the development of such a common scope of authorization. A considerable number of stakeholders did not comment on this at all.

The project team believes that the idea of a “common scope of authorization” and the related implications on national legislations are currently perceived in very different way by different stakeholder. Following such an approach would therefore need a lot of prior clarification.

How to overcome the stalemate? (1) (!approaches still in discussion in the project team!)

Possible suggestion of a twofold approach:

Shortterm:

Implementation of a **pilot project** with a limited number of participating countries (fullfilling the required minimum number) **very closely based on the already existing automatic recognition system for architects**

- Minimum ECTS requirements (+ minimum duration of study requirement as alternative) and if not fulfilled: lower minimum ECTS requirement (+ duration of study requirement as alternative) + professional experience
- Minimum requirements for curricula (based on EAFSG + main minimum contents of Civil Engineering curricula) fulfilling the CTF
- Notification system

(Details to be further defined)

How to overcome the stalemate? (2) (!approaches still in discussion in the project team!)

Possible suggestion of a twofold approach:

Longterm:

Continue trying to find a common agreement of a broader number of Member states by working on

- common outcome definitions for all forms of training (theoretical/practical);
- a definition of a common scope of authorization and
- a definition and evaluation procedure for “equivalence”

-Details to be further defined

After the project

- European Commission is **not bound** by any outcomes arising from the project
- Next possible steps of the EC: Using the project results as a basis for policy discussion in the competent groups (Group of coordinators PQD) on EU level
- Implementation of a CTF requires a delegated act from the European Commission

What we have learned:

Forecasting and optimization are complex

