



ECEC declaration:

Independence of engineering services saves people's money

Performance profiles for Engineering Services: Cost optimization and quality assurance

adopted by the ECEC General Assembly on 26 September 2015

THE EXPERIENCE

What happens everyday:

- **Increases in construction costs of 30 - 40% on average** for public building projects based on plan adjustments and claims to supplementary remuneration, where structures whose executive planning is carried out internally by the administration or taken over by the construction company are at the top (+40%) of this list¹;
- **A rising number of constructions carried out in an imperfect manner**, where bridge constructions alone accounted for 35% – 55% of problem cases in the objects investigated²;
- Bridges and road embankments that, with increasing frequency, **collapse shortly after their completion**; in the past years alone an alarming number of such cases in Europe with lethal consequences occurred³;
- Planned constructions that **generally go 15 - 20% over scheduled time**.

¹ Data based on a study by Centro Studi CNI from 2015 on strategically important infrastructure projects

² Data based on the analyses in one of the German countries about the execution quality of newly built bridges from 2007 to 2013; after local site supervision was taken out of the HOAI (German pricing regulation for Architects and Engineers) the number of bridges in need of renovation directly after construction increased from about 20% to 35% and 55 %

³ Examples: 8.8.2008 – Studenka (CZ): 8 persons dead, 95 injured; 8.11.2009 – Andorra: 5 persons dead, 6 injured; 2.11.2012 - Kurimany (SK): 4 persons dead, 14 injured; 8.5.2013 – Trondheim (Norway): 2 people dead, 6 people injured; 4.9.2014 - Vilemov (CZ): 4 people dead, 2 injured; 23.2.2015 (Frohnleiten): Full Intercity passed under a bridge one minute before the bridge collapsed; etc.

All these developments do not occur by chance and seem to provide sufficient grounds for questioning current systems of planning, awarding contracts and local construction supervision.

THE PROBLEM

Consumers/clients are faced with engineering services that are highly complex with fast-changing and innovative technologies. The non-describable planning services of State Authorized Engineers cannot be fully defined in advance which is often a huge challenge for clients and consumers. It is difficult and in some cases impossible for them to compare the content of offers. Often they don't have the possibility to evaluate the different quality of offers.

Although the new Public Procurement Directives (2014) gratifyingly put an emphasis on the use of the most economically advantageous tender (MEAT) as award criterion in order to avoid pure price competition where it is not appropriate. In practice many public clients have difficulties to decide about the question of advantageousness.

Due to the diversity of the engineering services it is often necessary to define detailed specifications before awarding a contract, which is also very often beyond the possibilities of a consumer and often even of a specialised public procurement authority.

At the end all this leads very often to decisions based on the lowest price only. Contrary to the interests and intentions of the consumer/client this results in a lack of quality in the project, unfulfilled expectations in design and exploding unforeseen costs. Dumping prices are very often based on the fact that (essential) parts of services that would be necessary for a project are simply left out or that the engineering service is done by less educated, less experienced and poorly paid staff. They lead to the problems described above.

The described information asymmetries between consumer/client and engineer can be huge. Thus to efficiently safeguard the consumers/clients interest – which is the public interest - there is a need of tools to bridge that information gap. Experience has shown that clients are very aware of this problem and many of them urgently demand official guidelines. They need information about the engineering services required for a project and make comparisons possible. And they need information about the fair price of engineering services.

THE SOLUTION

Professionally performed, flawless constructions and cost certainty must be of primary importance and vital for both public and private clients.

The way towards this may only proceed by means of centralised planning, understood as project planning that is independent of economic interests and focused only on quality, which puts the interests of the client foremost; this, together with high quality and competent construction supervision, which, likewise entirely free of vested interests, may operate for the purpose of achieving good results.

Professional, highly qualified, independent and quality-focused executive planning is an indispensable condition for a complete cost calculation in line with real market conditions, and consequently acts as a guarantee of construction time reliability and cost certainty!

A clearly defined description of the professional services promised is just as important in this context as uniform and therefore predictable remuneration criteria which mainly benefit the client in the commissioning phase.

The independent engineer exclusively represents the interests of the client and therefore also gets his remuneration exclusively from the client: The independent engineering service starts at the development of the project and continues until finishing and handing it over. It guarantees that what is realized is exactly what was planned by the engineer, permitted by the authorities and contracted by the construction company. Individual responsibilities of all parties taking part in the execution of the project are easy to define.

THE EXAMPLES

There are varying approaches in different member states to solve the problems defined above. The common basis of all these approaches is the definition of a standard performance profile / scope for each engineering service that transparently shows the required services for a project and a fair contract.

Such fixed specifications have proved to be the most transparent and cost-efficient way to come to a contract for knowledge-based engineering services as they avoid the above mentioned problems. Fair remuneration is the basis for high quality engineering.

- **Germany:** The HOAI provides full transparency about the engineering services and tariffs required for a project and makes comparisons possible.
- **Italy:** The parameters for defining the project sum announced in a public procurement tender for architectural and engineering services are regulated by law. This calculation is based on the performance profiles of these professions.

- **Austria:** An expert institute at the Technical University Graz has defined performance models for engineering services which can be used as an orientation for clients / consumers and shows them the engineering services required for a project. This also contains calculation procedures for the costs of these required engineering services.
- **Hungary:** The Hungarian Parliament adopted a new Act on Public Procurements on 21st September 2015. According to this regulation "in case of tenders for construction projects, engineering and design it is prohibited to make decisions based on price only", MEAT has to be used. Details of requirements of decision based on MEAT will be regulated in a government edict. According to the new Act, procurements on construction projects have to be based on detailed execution plans. The new regulation will come into force on 1st November 2015.

THE RECOMMENDATION

While considering all relevant legislation in regard to free competition, free provision of services and free establishment the ECEC recommends the definition of standard performance profiles and calculation procedures for Engineering Services as a very important step towards

- independence of design from construction,
- independent supervision on construction site to safeguard clients interests,
- a decline of information asymmetries between client/consumer and engineer
- less damages / hazards to life and health due to non-fulfilment of the required performance profile and awards based on dumping prices
- more cost efficiency with better performance in life-cycle costs
- optimized project performance for the client/consumer