



Improving infrastructure – saving of resources as a criterion for the award of public works contracts?

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Summary

Continous beneficial development is only possible in consideration of the principles of sustainability. This means that the true profitability of a quotation can only be assessed when the aspect of sustainability is included. The legal framework in the EU nowadays means that, in addition to the familiar criteria, determining the most economical quotation for building projects requires that environmental properties, in the sense of sustainability, are also assessed. A financial assessment of the CO₂ emissions over the entire life cycle of a building is quite suitable for this purpose. Short-term and medium-term approaches to solutions that implement the political will are indicated.

Keywords: Sustainability, CO₂-Emission, Innovation, Responsibility, Multidisciplinary, Profitability

1. Introduction

„Bringing people closer together“ is the beneficial socio-cultural aspect of improving infrastructure by the work of engineers. Furthermore building activity has both an economic aspect and an ecological aspect.

Further development of the national economy is necessary for the continued existence of our society on a current high level of living. Essentially for this further development are innovations, provided by structural engineers and basic conditions given by the contracting authorities that allow an implementation of these innovations. Hence engineers in structural design offices and in authorities have to bear a great responsibility for society. Continuous beneficial development is only possible in consideration of the principles of sustainability. Therefore a holistic approach to the valuation of economic aspects and ecological impacts of building activities is necessary, with the focus on saving of resources. Saving of resources means the keeping to a minimum the release of emissions and the consumption of resources in production and transport of materials, in erection of a building, in maintenance during its service life as well as in the removal at the end of its life-cycle. Valuation criterion can be CO₂-equivalent emissions for the energy consumed, and the direct and indirect emissions during the building process and the service life of the building. A financial valuation of the CO₂-equivalent emissions is possible based on international anerkannten Referenzwert oder international emissions trading.

In respect of the responsibility of the contracting authorities it is necessary to open up the procedures for the award of public works contracts for competition, which allow a positive valuation of building methods and constructions saving resources.

The existing legal regulations for the award of public works contracts would already make this possible today – by the obligatory directive 2004/18/EC [1] and its national conversion [2].