

AUSTRIA¹ - ASFINAG

Context

At the beginning of 2010 the Austrian road financing agency (ASFINAG), the Austrian Touring Club and the Technical University of Vienna established a working group to find ways to encourage construction firms in the area of road reconstruction while traffic is maintained, to be creative and present alternative solutions when they participate in open procurement procedures. Starting points were the necessity to shorten construction periods, enhance the safety of drivers and reduce the impact on the environment. The working group worked on the assumption that bidders have a stronger motivation to submit alternative offers in a procurement procedure if they get partial remuneration.

The project is part of the compliance management system of ASFINAG.

Objectives

The essential tasks of the working group were the development of recommendations concerning the choice of procedure and the creation of a framework for general and concrete measures to achieve:

- The establishment of an incentive system for submitting alternative offers, which grants partial remuneration for economically sound alternative offers, even when these are not selected.
- The development of additional award criteria for the reduction of the construction period, the availability of road sections, the safety for road users and the impact on the environment.
- The establishment of an additional phase for optimising the project between the award of the contract and the actual execution of the works.
- The development of a bonus system for construction firms, which optimises the design/planning of the project, in order to transfer a share of the economic benefits generated by their design.
- Based on these conditions, the establishment of practical measures to promote the creativity of bidders for the reconstruction of the “Kaisermühlen” tunnel in Vienna.

Implementation process

Between February and December 2011 the working group developed a four-pillar model. Since the beginning of 2012, a project team (1.5 full-time equivalents) formed by experts from different departments of the company, like engineering and procurement management, has been working on the first pilot project, a tunnel reconstruction on a city highway. The project value is approximately EUR 80 million annually.

The first pillar is an incentive system based on the assumption that bidders are more willing to develop alternatives during the competition phase if the additional calculation costs are partly covered. Thus, the calculation costs of the two cheapest suitable alternative offers (one per bidder) which required additional calculations are remunerated according to a model calculation scheme. The model calculation also allows exceptional remuneration (with a capped amount) of especially innovative alternative offers.

The second pillar concerns the establishment of award criteria, which display the availability of traffic zones, the safety of road users and the impact on the close environment. The criteria are based on the assumption that the combination of the targets of the contracting authority (satisfaction of the

1. Case study submitted by the Austrian Federal Chancellery.

clients, quality, economically sound results) with those of the clients (availability and safety) and those of the bidders (rentability and safety of employees) should optimally contribute to achieving the criteria. The weighting of the criteria follows a model calculation scheme (matrix) and a recommendation to integrate different stakeholder representatives (from public authorities, traffic associations and business associations) into the bid evaluation board.

The bonus system for design optimising is the third pillar and aims at improving the economic efficiency of the design/planning of the project during the preparation of the execution phase or the construction phase under the condition that the quality is equal to the originally awarded contract. The system is based on the hypothesis that if economic efficiency is a common target of the contracting authority and the contractor, construction firms will be motivated to work in this direction. The contractor is therefore obliged to technically optimise the execution of the works while respecting the economic interest of the contracting authority. The contracting authority has, however, to transfer 50% of the savings achieved through the optimised planning in comparison to the original offer.

Value engineering (additional project improvement phase) constitutes the fourth pillar. Whereas the third pillar focuses on fine-tuning the design and planning of a project, the additional project improvement phase aims at optimising the planning of working routines and methods on the construction site, including scaffoldings, transport of construction materials, etc., while maintaining the quality and agreed volume of work. There is no remuneration scheme foreseen for this phase, it serves to benefit from the time between the award of the contract and the actual start of the construction works.

Impact and monitoring

So far, there are no figures or preliminary experiences available, because the first project (A 23 highway Inzersdorf) of this new model is in the planning phase.

Challenges and risks

Introducing new aspects into procurement procedures is often met initially with resistance from the part of the concerned businesses. It is therefore important to present the benefits of the new model to businesses to encourage the submission of innovative alternative offers. As past figures show, procurement procedures where alternative offers are admissible bear a higher risk of complaints, because it is difficult to define minimum requirements for the comparability with the official tender.

Another difficulty is achieving economic optimisation (value engineering) by accepting alternative offers while guaranteeing the technical equivalence of the suggested alternative solutions with the originally required level of quality.

Key lessons learnt

Economic necessity and unsatisfying experiences in practice (construction firms are reluctant to submit alternative offers in open procurement procedures) create the need to find innovative solutions, which require active participation of the concerned businesses and stakeholders.

It is important to respect the legal constraints and the principles of transparency and non-discrimination. Projects are carried out within the compliance management system, which requires close co-operation with all responsible departments.