

# Supervision of tunnelling constructions and software used for their evaluation

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**Abstract.** Supervision is a common instrument for controlling constructions of tunnels. In order to suit relevant project's purposes a supervision procedure is modified by local conditions, habits, codes and ways of allocating of a particular tunnelling project. The duties of tunnel supervision are specified in an agreement with the client and they can include a wide range of activities. On large scale tunnelling projects the supervision tasks are performed by a high number of people of different professions. Teamwork, smooth communication and coordination are required in order to successfully fulfil supervision tasks. The efficiency and quality of tunnel supervision work are enhanced when specialized software applications are used. Such applications should allow on-line data management and the prompt evaluation, reporting and sharing of relevant construction information and other aspects. The client is provided with an as-built database that contains all the relevant information related to a construction process, which is a valuable tool for the claim management as well as for the evaluation of structure defects that can occur in the future. As a result, the level of risks related to tunnel constructions is decreased.