Management Summary

In many current industrial construction processes, a large number of different stakeholders have significant effects on the target variables of costs, quality and time of the planning and realization processes and on the following operation. This is proven, among other findings, by studies conducted within the framework of this guideline. The results show that stakeholders are demanding more intensive participation in future construction projects, for which the majority of them initially have positive expectations. This attitude is based, for example, on expectations that industrial construction will create new jobs and that there will be further potential for urban and regional development. The largest deficit lies in a target-oriented and standardised process for the involvement of the stakactors and the associated necessary methodological competence and professional competence on the part of the entrepreneurs. The biggest deficit lies in a targetoriented and standardised process for involving the stakeholders. In addition, there is a lack of methodological competence and technical expertise on the part of entrepreneurs. This deficit often leads to a negative attitude on the part of stakeholders towards the construction project during the project because initial concerns are insufficiently taken into account in the planning process. These include, for example, fears that the construction project could result in an increased volume of road traffic, additional noise and increasing sealing of existing green areas close to cities. As a consequence, this development leads to an increased willingness to engage in conflict on the part of the stakeholders, which usually results in a time delay and increased costs for the construction projects on the part of the entrepreneurs.

In order to ensure the highest possible level of acceptance among stakeholders, it is necessary to ensure that relevant interest groups are suitably integrated into the construction project on a project-specific level. The existing approaches to public involvement (e.g. VDI 7000) are very wide-ranging, but offer only limited help in selecting the right degree of participation, which has a direct influence on acceptance. The underlying problem is that the right level of participation must be chosen in order to maximise acceptance. For example, too much participation may require a large increase in coordination effort, which also has a delaying effect. In addition, there are not yet sufficient resources available, mostly for smaller construction projects

or small and medium-sized enterprises (SMEs), to guarantee participation in the sense of VDI 7000.

This action guideline deals with the overarching question of how relevant stakeholders can be identified and systematically integrated into the process with the support of a defined process. Current results were collected over two years as part of a funded research project entitled "Integration of Stakeholders to Increase Acceptance and Prevent Disruptions in Planning and Construction" and subsequently prepared in an application-oriented manner. The aim of the guideline is to improve construction and planning processes through project-specific stakeholder involvement. This is intended to proactively identify and prevent possible delays or cost increases resulting from unforeseen objections caused by stakeholders. This can be caused, for example, by increasing official requirements, decreasing acceptance of technology by the population in the immediate vicinity and a growing willingness on the part of residents to sue and appeal ("Not-In-My-Backyard"). Based on new findings, the action guide presents a structured approach with four different design principles inspired by the structure of Holistic Production Systems. In concrete terms, the four principles "sustainable planning", "frontloading", "transparency and visualisation" and "stakeholder orientation" are available to interested parties for structuring participation. The design principles are supplemented by more than 28 tools and methods that have been identified and developed by experts in various workshops over a period of two years. In particular, the methods and tools address the key issues of "approval procedures" and "public relations work", which experts from research, industry and public authorities have identified as essential components of successful participation. A quick check resulting from this project makes it possible to evaluate the company- and project-specific relevance of different stakeholders to the construction project and to prioritise individual recommendations for action.

Initial validation results show that systematic integration not only increases acceptance and avoids potential disruptions, but also has a significant positive influence on the overall planning result in terms of the quality of the project results. Selected core results of the action guide are summarised on the right.

Key findings of the studies

- The majority of stakeholders demand higher participation in planning processes and prefer direct information from companies.
- The participation paradox poses a major challenge for companies: To ensure the positive course of numerous construction projects, stakeholders would have to be involved in the early project phases, although the actual interest in participation on both sides is rather low in these phases and a clearly defined process for involvement is lacking.
- Companies see a great need for action not only in the design of clear processes for involving stakeholders, but also in the area of the necessary methodological and professional competence, the definition of clear goals and the choice of the right time for participation.
- Basically, the majority of stakeholders have a positive attitude towards the construction project at the beginning of the planning process.
- The tools "information event", "neighbourhood dialogue", "press release" and "public inspections" are favoured by stakeholders.
- Experts assess the areas of "approval procedures" and "public relations work" as essential components of a successful participation process.
- The approval procedures focus on the early establishment of contacts, the star-shaped distribution of documents, the consideration of species protection and the use of neutral experts.
- In their public relations work, the experts cite the early involvement of interested parties, expert consultation and consideration of the increased willingness to file suit and possible emissions from construction projects as important success factors.

The action guide at a glance

- The areas of people, organization and technology that result from a detailed requirements analysis are equally considered in the action guide.
- Structurally, the guideline is based on the concept of the Holistic Production System and can therefore be easily integrated into existing processes.
- A quick check enables an early evaluation of the individual participation needs of the company and the project.
- The design principles (1) sustainable planning, (2) frontloading, (3) transparency and visualisation and (4) stakeholder orientation provide the basis for structuring participation.
- Sustainable planning (1) addresses the sustainable planning and implementation of the construction project, with which, for example, compensatory measures can be identified and projected.
- The frontloading principle (2) deals with the early start and target-oriented approach of necessary approval procedures.
- The principle of transparency and visualisation (3) subsumes topics of public relations and the external image of a company.
- The fourth principle of stakeholder orientation (4) deals with the integration of interest groups into the factory planning process of companies.
- A total of 28 tools and methods were identified, designed and assigned to the respective design principles by experts during two years of project work.