



Cost effectiveness

The optimization of effectiveness accompanying the development of an innovative product requires the consideration and analysis of different influencing parameters. The principles, methodology and implementation in the project are described below.



Innovation management: The innovation has to succeed in the market. Specification, especially in consideration of needs and requirements, is a basic prerequisite for sustainable success and effectiveness.

Development: It is in the nature of innovation that the desired and corresponding product is not yet available on the market. Developments of new elements are therefore needed to achieve the specified objectives. These steps generate direct costs. Minimizing direct development costs is a partial step in the optimization process. The integration of suitable, available partial solutions can be reasonable and target-oriented in order to avoid costs.

Risk management: Development projects are affected by various risks. Not all influencing factors are known at the beginning of the work. The complexity of innovative projects generates challenges. Suitable processes for project tracking and also corrective action if necessary are part of the project.

Effectiveness is achieved through the measures described in the following for market-oriented specification and the targeted minimization of costs and risks.

The key elements of project controlling to optimize effectiveness are described in the following lists. To improve and simplify the assessment of the individual steps and the results achieved, suitable and standardized forms are used.

Specification of the innovation

- Market analysis, determination of requirements - only with market knowledge
- Objectives, specifications, use cases - together with the user, pilot customer
- Preliminary business planning, time to market - with management experience
- Evaluation and coordination - provides product features, budget, timeline.

Optimization of development costs, economical use of resources

- Cost avoidance
 - Avoidance of the development of what already exists
 - Use of available findings, research results and products also in co-operations with partners
 - Consideration of IP, patents and know-how, knowledge management.
- Cost minimization
 - Interdisciplinary high-performance and experienced teams
 - Linking of specialist knowledge also across individual organisations
 - Specialists and experts from science - technology - application
 - Creation and maintenance of a high motivation in the team, constructive co-operation, communication, documentation
 - Professional, goal-oriented management, controlling - with empathy
 - Low direct personnel costs through young employees with scientific goals
 - Advisor activity of dedicated experienced persons, partly in voluntary work
 - non-profit organisations (FHG, DITS).

Minimization of additional costs

- Low overhead costs in the organizations
- Cost-effective travel
- Use of standard IT products (servers, clients, operating systems, etc.)
- Target-oriented purchasing, little influence through materials and purchased parts in the IT project.

Quality and risk management

- Systematic compilation and adjustment of the risk scenario (closed-loop)
- Review of objectives and specifications for clarity and verifiability
- Method of small or manageable sub-steps with evaluation of results (monitoring, evaluation, audit)
- Review of schedules - Delay always causes costs
- target tracking, management of change requirements
- Controlling, transparency and project management are carried out by independent experts and moderators.

A comprehensive catalogue of measures and process steps provides a good basis for sustainable effectiveness in the project. The implementation and monitoring of all measures is the task of the interdisciplinary team with young, motivated researchers and developers in direct cooperation with experienced advisors and moderators.