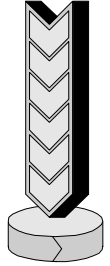


2 Project Management

Jörg Becker, Dieter Kahn, Clemens Wernsmann



Detailed reflections about how to manage any planned project are required to implement a project successfully. This is especially valid for modeling projects, because here the classical tasks of project coordination are completed by defining and stipulating methodologies. In general, projects represent tasks that limited as to time, complex and usually interdisciplinary.¹⁹ A successful implementation of a project requires individual partial tasks and the utilization of personnel and resources to be organized, planned, controlled and checked. These functions are tasks of the Project Management.²⁰

2.1 Project Goals

Goals are essential for planning, checking and controlling projects. These goals have to be made transparent to all project members so that they can act on a target-oriented basis in decision-making situations.

The project goal includes on the one hand the performance objective, i.e. the purpose of the project, such as product development, implementation of an IT infrastructure, or the creation of a corporate process model. In addition, formal parameters have to be defined for the project in terms of costs and schedules.

While the formal goals are identical in most cases (cost minimization, observance of project runtime), the performance objectives vary considerably. Process modeling processes serve superordinated projects to implement and/or to further develop the process management. At the top level, targets can be distinguished between organizational and IT-related goals.²¹ Typical applications of process models within an organization management are the documentation of existing and projected processes, the benchmarking of processes and certification in accordance with DIN ISO 9000 ff. With regard to the design of information systems they are used to document the system requirements (specifications), to customize

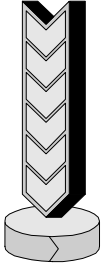
*Systemization
of project
goals*

*Performance
goals*

¹⁹ See Schulte-Zurhausen (1995), p. 343.

²⁰ See Krüger (1994a), p. 374.

²¹ A detailed discussion of the different purposes of process modeling is given in chapter 3.



*Modeling
purposes*

integrated standard software, as well as to specify workflows and to create simulation models.

Considering the magnitude of possible modeling purposes, it becomes clear that one single model is able to cope with all these purposes in very rare cases only. For example, models to be taken as a basis for workflow management systems are more detailed than models for describing organizations. The former take different real world objects (roles, data structures) to the latter (department members, process organization tasks).²² Therefore, the modeling project's performance objectives must be made clear from the very beginning of the project.

Time goals

Based on the project's performance objectives, benchmarks for dates and costs must be planned and determined. The desired completion date of the project must be determined for the time scheduling. Benchmark dates, so-called "milestones", have to be calculated in more detailed planning by means of the individual activities in the project plan and the available resources. Through detailed planning of individual milestones, the end date of the project can be verified and/or falsified. When planning the project, the most important item is the integrated consideration of dates and resources, because otherwise realistic parameters for these milestones and for the end of project cannot be set. A particular problem of modeling projects is the timely availability of experts. One possibility is to free these experts entirely from their operative tasks and to assign them exclusively to the modeling project. Unfortunately, however, in most cases these experts are indispensable for their operative tasks. The difficulty in balancing the availability of experts between operative tasks and project activities has to be considered in the project plan, and uncertain factors in the time schedule have to be compensated for by time buffers. In case of conflicts between the time periods in particular, the project and the project participants need a directive from management to know whether preference has to be given to the project or to the operational tasks.

*Cost
objectives*

Generally, the planning of costs is a very uncertain procedure. The types of costs in a project have to be identified and planned individually. In particular, when planning for personnel costs sufficient human resources must be available in order to meet the time schedule. Moreover, speeding up completion of the project has to be compared with the added costs of additional personnel.

*Situation of
DeTe-
Immobilien
prior to
project start*

The initial situation of DeTeImmobilien prior to project start was as follows:

Owing to the different origin of the departments within DeTeImmobilien, the processes were not realized uniformly, and this led to losses of efficiency. These efficiency losses were even greater since the interfaces between the departments and the operating sequences were not clearly defined. The descriptions of the workflows in the different departments of DeTeImmobilien were not uniform, the operating specifications had loopholes and different degrees of detailing and errors and were based on different documentation guidelines. The process orientation of the existing

²² See Chapter 6.2.1.

information systems was insufficient and it was not embedded in an integrated architecture. Finally, the responsibility was delegated as function-oriented, and not outcome-oriented.

Motivated by the recognized weaknesses, the project "Process Modeling" was initiated with a primarily organizational focus. Company-wide processes had to be created, i.e. consistent and integrated processes, from marketing through acquisition, quotations, contract conclusions, services, to billing and general ledger.

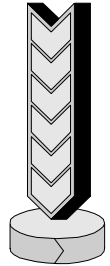
Organization structural assignments to the processes were to be based on the "logics of the process". Friction losses resulting from organization and interfaces were to be avoided, if possible. Ideally, the largest possible number of sequential working steps were to be consolidated in a single organizational unit, as long as other reasons did not conflict, such as different competency requirements for consecutive work steps or the loss of learning effects in case of a too large extension of tasks. This included the goal of improving the motivation of employees by a process-oriented aspect and by allowing them to take over more responsibility within the project. Every employee was therefore to be able to recognize his share of contribution to the overall performance of the company and in the end to the company's success.

The designation of process owners (i.e. designating positions with responsibility for certain processes) and the definition of clearly delineated process parameters is intended to support the total management of the company.

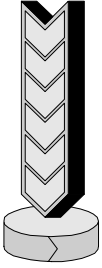
The project goals are summarized as follows:

- Giving all employees a process-oriented view of all services of the company,
- Improvement of the business processes in terms of increasing efficiency, avoiding redundancy, reducing the processing time, and finally, reducing process costs,
- Documentation of (improved) processes using business process models, and improvement of communication between different organizational units,
- Clear definition of competence,
- High motivation of employees,
- Increased capability of the company to respond to the market (flexibility).

The organizational changes towards more process orientation were intended to form the basis for developing process-oriented information systems. The created process models were to support future insourcing and outsourcing decisions. As additional indirect objectives the processes were to be used as the basis for workflow management systems (WFMS) and as source information for personnel requirement planning. Another focus of the process models was to support the certification of the company (e.g. in accordance with DIN ISO 9000 ff.).



Project goals



2.2 Project Plan

The project manager has the task of creating a project plan that includes the tasks to be executed, the planned throughput times of these tasks and their completion dates. In addition, he has to determine the approximate need for resources. Strategic parameters (“the new organizational structure has to be introduced on October 1 next year”) have to be synchronized with the time schedule of the project. If required, the project team has to be extended in order to be able to keep the defined deadlines.

Preparation of modeling

As with nearly all projects, a modeling project consists typically of phases. The modeling subject (‘what’ is to be modeled, e.g. the total enterprise or just a department, such as logistics), the perspectives (‘why’ modeling is to be carried out, e.g. certification, software selection, organizational re-design) and the modeling methods and tools (‘how’ to model) are determined in the prestudy phase. In this phase, a technical terminology model is designed that will then be updated continuously in all subsequent project phases. In addition, the degree of detailing that is adequate for the modeling purpose has to be determined.

Strategy and arrangement system

The starting point of the top-down approach in process modeling is derived from corporate strategy. At this point, a business process framework is created that includes the major functions of the enterprise on the highest level. This business process framework will then form the basis that supports navigation through the models and their retrieval.

As-is modeling

Within the scope of as-is modeling/as-is analysis, the current states of the processes are collected and modeled. The as-is modeling serves not only to record the actual situation, but also to make the project team and the members of the involved business departments that belong (or will belong) to the extended project team familiar with the modeling methods and modeling tools. The as-is analysis will reveal weaknesses and enable a description of potential improvements.

To-be modeling

To-be modeling exploits the potential for process improvement that has been recognized in the as-is analysis. New processes will be developed and modeled. If applicable, multiple steps have to be executed in order to migrate from the actual state to the to-be state, or it will explicitly be distinguished between the to-be model (what is possible under restrictions that cannot be eliminated within a short time) and the ideal model (theoretically the best model but can only be realized on a medium or long-term basis).

Organizational structure

An important step in the process-oriented organization is deriving the organizational structure from the prepared to-be process models. A logical process-oriented restructuring also includes a redesign of the organizational structure. This phase has a certain volatile effect because it deals with the assignment of tasks to the organizational units, and this with power and influence.

Implementation

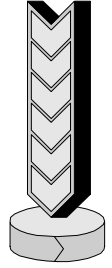
The implementation phase involves the implementation of the process improvements that were drawn up, i.e. in the case of an organizational project a change in the processes that is often accompanied by a change in the organization structure; in the case of a workflow project the installation of the workflow management system in the projects to be

supported; in the case of a software development project, programming and installation of the software (as far as it is developed individually) and/or an adaptation (customizing) of the software and its implementation (as far as standard software is used).

Even if the main restructuring project is terminated, the consideration of the process still has to remain the focal point. A continuous process management that is to be employed has to understand the process improvement as a process as well, which becomes an integral task of the operative management and which has to ensure the competitive position on a lasting basis.

The procedure for a process-oriented organizational design is summarized in [Fig. 2.1](#).

*Continuous
process
management*



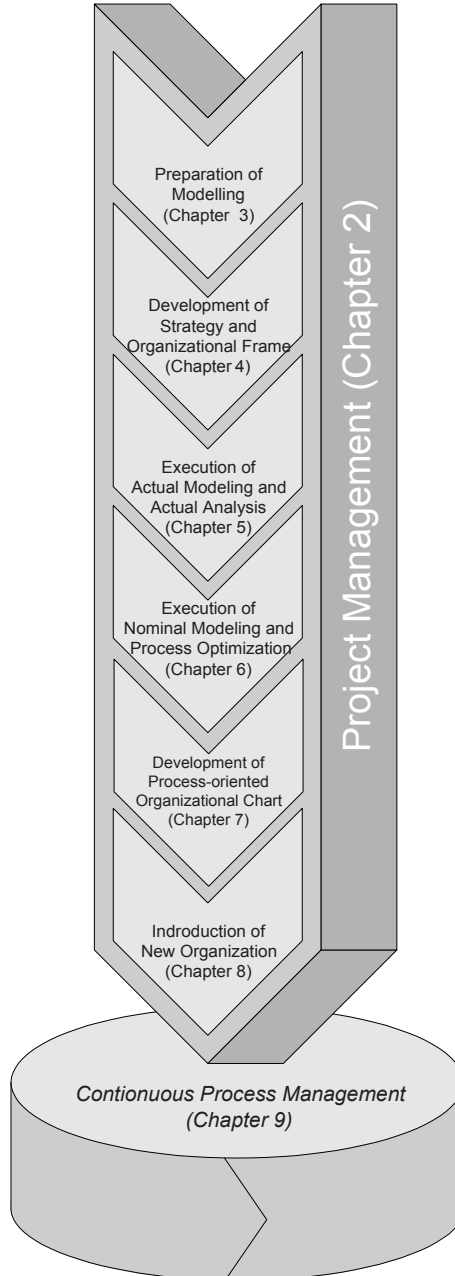
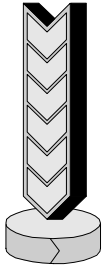


Fig. 2.1. Procedure of a process-oriented reorganization project

2.3 Project Organization

As with all projects, the process modeling project requires its own temporary organizational form to intersect with the company's "actual" (primary) organization. Skills (knowledge of the operational services, the required tasks, the currently valid process design and possible improvements) and the methodological know-how (knowledge of modeling conventions and their application in the projects) have to be united in a project of this nature. Skills are found in the departments, and methodological know-how in the organization department. Furthermore, external consulting companies or research institutes can be called upon to assist in the application of methods and in the execution of projects.

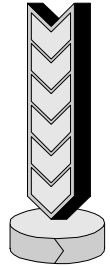
The management appoints a project manager. It is advantageous to select a person from the organization department, since this would eliminate a possible accusation that the project manager is representing his own interests in the project. The role of the project manager in a process modeling project is extremely versatile.

The results of the project will usually have a direct influence on the future work processes of the project participants, especially if a reorganization project is concerned. In this respect, the project manager must have a certain empathy for the people involved. If the project is not to become snarled up at a standstill - everything remains as it was, the slightest resistance from individual groups can be expected - it will be necessary to make decisions against the wishes of specific groups. In order to counteract a defensive attitude by these groups, which may even go so far as a complete boycott of new procedures, a great deal of explanatory work is required. The involvement of these groups in the project work is absolutely essential. The project manager has to act in an integrating manner and may not polarize; at the same time he must hold clear views.

The project manager reports to the project steering committee (PSC), which uses these reports to make decisions. On the one hand, the project steering committee is composed of members of the board of directors and it is particularly expedient to appoint employees who will later be the project owners. Of similar importance is the early involvement of representatives of the staff council in the PSC in order to take account of the interests of the workforce in the project. The PSC meets periodically, checks the progress of the project by means of the defined milestones, decides on the "stop or go" alternatives and makes the substantive decisions that are relevant to the project.

The project manager selects the members of the project team. On the one hand, this project team should be as large as possible in order to involve as many members of the company as possible; on the other hand, the project team should be as small as possible in order to create an effective working environment and to avoid the project team turning into a 'debating society'. Finding a balance between 'too large' and 'too small' and creating the right mixture of special experts and method experts are the most important tasks of the project manager when putting together the

*Features of
project
organization*

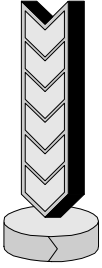


*Project
manager*

*Tasks of the
project
manager*

*Project
steering
committee*

Project team



*Project
organization
of DeTe-
Immobilien...*

*... during
actual
modeling*

project team. Even in very large enterprises it seems to be reasonable to create a relatively small core team, which is then completed by additional employees (extended team) depending on the process. It has proven to be advantageous to nominate the process owners at an early stage, who can then act as specialized promoters of projected changes. They take over the role of gurus and pioneers and are responsible for the enforcement of the process changes. In enterprises with multiple structures of equal type (e.g. multiple similar branches), they act as responsible multipliers of new processes.²³

The project organization of DeTeImmobilien was not constant over the total project time but changed with the individual project phases. The only constant was the project steering committee (PSC), which was composed of members of management and of the general works council and accompanied the project over the total runtime with critical and constructive comments, and the project manager, who was a member of the organization department.

In the as-is analysis, three modeling teams were created who collected the processes on the basis of the existing organizational chart. These processes did not always match the processes of the business process framework,²⁴ because the existing structures of the processes and organization did not conform to this new framework. The modeling teams consisted of method experts, who surveyed the members of the departments in semi-structured interviews. The three modeling teams were assisted by a consolidation team, which supported the consistency of the models with the stipulation of the modeling conventions. One manager from each department was named as steering coordinator. Consequently, there was one coordinator for each of the problem divisions “Facility Management”, “Planning and Construction”, “Portfolio Management and Sales” as well as “HR and Social Affairs” and “Administration and Finance”.

The as-is modeling of the project organization was accompanied by the division “Strategy and Central Quality Management” (see Fig. 2.2).

²³ For additional tasks of the process owner see chapter 9.4.1.

²⁴ See chapter 14.

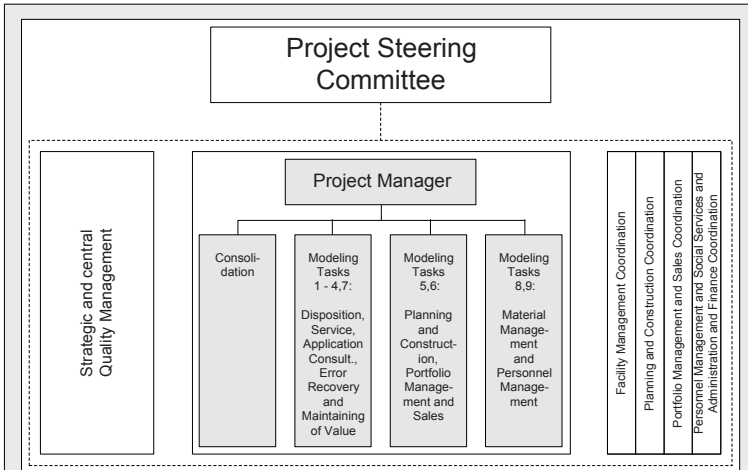


Fig. 2.2. Project organization of as-is modeling

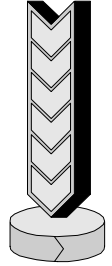
The division into two parts that has already been indicated was demonstrated in the organization of the to-be modeling phase. The project manager coordinated the method modeling experts. Two method experts were assigned to a specialist team in order to cope with the great number of tasks within a short time, and to guarantee the continuity of the modeling activities in case one of the method experts was not available.

Every process-specific subject matter team was headed by a process godfather who had the authority for decisions. This process godfather was nominated by the management and selected from the branch managers. The process godfather had to fulfill the following tasks:

- Naming of competent specialists for the interdisciplinary teams from different branches and from the head office.
- Guaranteed technical implementation of strategic directives.
- Technical quality assurance and decisions on process design.
- Guaranteeing deadlines.
- Attending the consolidation meetings of all process godfathers and carrying out acceptance inspections to guarantee technical correctness.
- Agreement on alternative solutions and processes (including interfaces) with other process godfathers.
- Regulation of conflicts.

The tasks of the technical experts nominated by the process godfather can be described as follows:

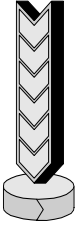
- Participation in workshops and interviews.
- Creation of team-specific approaches.
- Design of alternative solutions for to-be processes.
- Description of to-be processes on levels 2-n.
- Definition and/or editing of technical terms and creation of technical term models.
- Implementation of technical quality assurance.



*... during
design
modeling*

*Tasks of the
process
godfather*

*Tasks of
technical
experts*



Kick-off

- Agreement with other modeling teams on alternative solutions and processes, including interfaces.

At the start of the modeling activities (the so-called ‘kick-off’), each team held a 2-day workshop with all subject matter experts, method experts, and the process godfather, in order to find a consensus regarding the targets, the methods and the procedures.

The kick-off events included individual actions as follows:

- Emphasizing the importance of process orientation by a member of the management.
- Questioning the project members about their ideas and expectations, and recording their answers.
- Presenting the project “Process Modeling” together with the related goals and approaches.
- Presenting the recorded as-is processes to the modeling team.
- Explaining and discussing the to-be processes of levels zero and one.
- Defining additional team-specific procedures.

Since the subject matter teams were relatively large (up to 15 employees), the efficiency of the modeling work would have deteriorated if the entire subject matter team had participated in the modeling work. Instead, so-called “power teams” were created composed of two members of the subject matter team and one method expert. Multiple power teams serviced one subject matter team each. The complete subject matter team only met in coordination sessions in order to discuss the to-be processes presented by the power teams and to vote on them.

The Staff Committee and the departments Quality Management and Controlling were involved in all decisions on the to-be processes.

Figure 2.3 summarizes the project organization during to-be modeling.

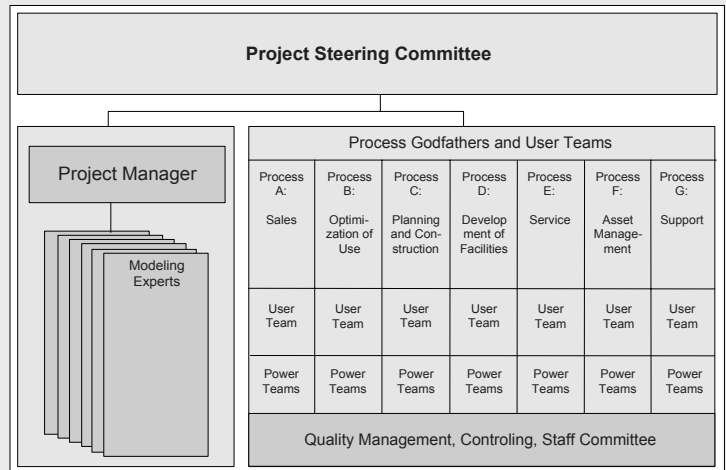


Fig. 2.3. Project organization during to-be modeling

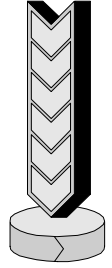
In DeTeImmobilien the new process structure was followed by a change to the organizational structure. The stipulation and installation of this new organizational structure required the highest degree of implementation and integration competence.²⁵ In order to prevent each and every difficulty during decision finding (and there were indeed quite a few problems) from being reported to the PSC, a decision level was inserted between the subject matter teams that were created in accordance with the new organizational structure and the Project Steering Committee. This Project Decision Team was composed of the leaders of the six subject matter teams, all of whom were representatives of a director, and of the Organization & DP manager, who acted as leader of this project decision team.

The subject matter teams consisted of subject matter experts from head office, subject matter experts from the branch offices, a modeling method expert, an executive in charge of the organization and one representative of the corporate staff council. Every team was steered by the representative of one member of management.

The idea of installing a project decision team proved on the whole to be right. However, the subject matter teams did not transfer all disputed decisions to this committee, but rather tried to solve the discrepancies in bilateral discussions between the subject matter teams involved, because of their greater subject know-how and their smaller team sizes, which made decision procedures more effective. As the work on the new organizational structure progressed, this direct decision finding, which followed the subsidiary principle, improved more and more so that the Project Decision Team only needed to sign the prepared decisions and was able to concentrate exclusively on critical questions.

Figure 2.4 shows the project organization during the definition phase of the new organization.

*... during
organizational
re-design*



*Project
Decision
Team*

²⁵ See "Syndromes" in Chap. 2.5.

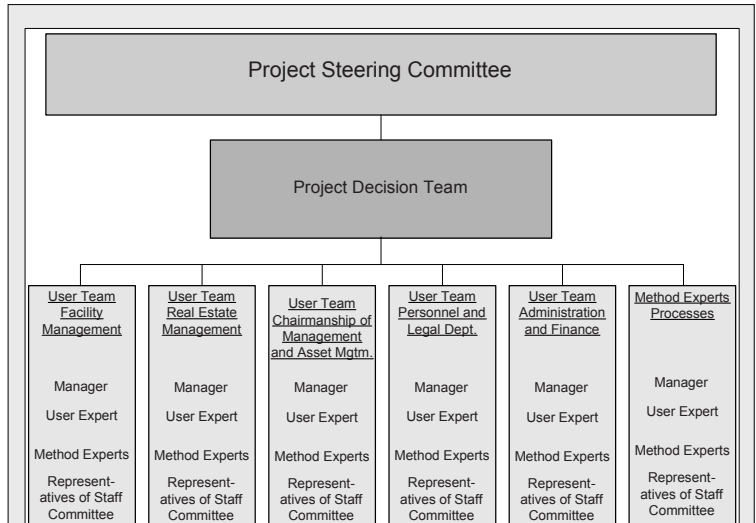
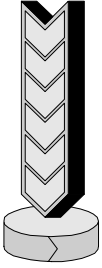


Fig. 2.4. Project organization during organizational structure design

*... during
implementation*

Finally, the conversion phase itself had its own organizational form. In accordance with the decisive role of communicating the goals and measures in the success of the complete project, a structure for the implementation phase is required that enables rapid distribution of information and a quick response to questions without overloading the central units. This requires observance of the geographical aspects as well as the integration of all management levels.

Conversion

In order to support the implementation of the new organization, special implementation teams were created for every branch, as shown in [Figure 2.5](#). These branch implementation teams were responsible for the regional implementation and for maintaining regular contact with head office. These teams were steered by the respective branch manager and included three major groups of members: the implementation team for organization, the implementation team for communication and the implementation team for personnel. The implementation team for the organization defined the developed process parameters based on the individual regional situations. Simultaneously, the implementation team for communication took care of the provisions for technical and organizational information. The implementation team for personnel dealt with questions regarding the changed assignment of personnel and positions for personnel.

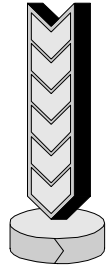
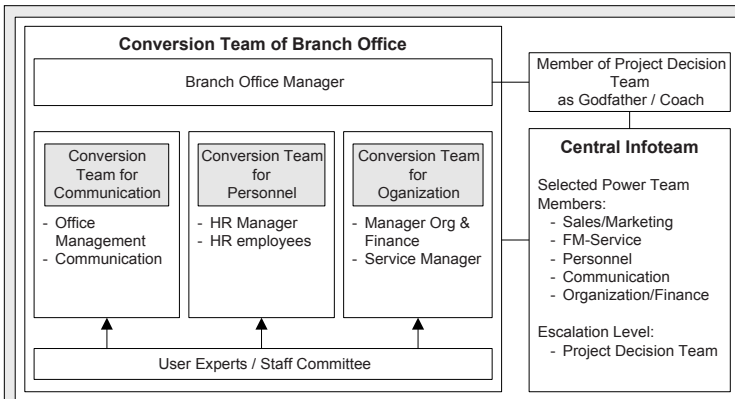


Fig. 2.5. Project organization during implementation

All teams were composed of subject matter experts from different business areas, as well as members of the staff council. A member of the project decision team was assigned to each regional implementation team as godfather/coach. This coach was to support the implementation and represent the team as the personnel contact to the central information team. This information team consisted of selected members from the power teams who had created the new processes and who were therefore competent to answer subject-related questions. In case of major problems, the project decision team could be approached as escalation level. The interaction of the individual teams is shown in [Figure 2.6](#).

Coach and central information team

The effects of the project work normally lead to interventions into the daily operations of corporate procedures and therefore often trigger open or covert resistance. Those responsible for operations have to be convinced of the targets of the project and of the advantages that will occur for them.

During the project period project controlling is an important link to management, to the process owners, and to the support functions of the company. In addition, it has a coordinating function for other current projects in the organization, in order to counteract redundant developments. A continuous comparison of the objectives of the project is vital, especially where projects with a major impact or long-term projects are concerned. In this way, the effectiveness of the project is permanently verified and corrective measures can be taken, if required.

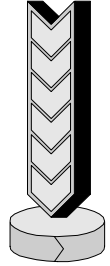
A controlling of the performance goals can often be carried out only after completion of a project task. In the case of process models, it is not possible to state whether or not the models are syntactically correct according to the modeling conventions, and whether or not the desired degree of detailing has been reached, until after the modeling complex has been presented completely. Process improvements in particular only become measurable in a 'real operation'. Because of the relatively late practical trial, special demands have to be made on project controlling in an early phase of the modeling project. The created business process framework or the modeling conventions should be examined thoroughly early on, because they have a material effect on the quality of the models to be created.

Practical and high quality models require thorough, continuous, and professionally conducted discussions and coordination among the operative users in the creation phase, as well discussions of their concepts of how to optimize the process flows. In the absence of a consensus or deviations from defined goals and standards a process for reaching an agreement must be implemented before the work is continued. Adjustments, reworking, calling on additional specialists or even a basic reorganization of the project may be required as well.

The ideas and concepts that are brought into the project have to be made compatible with the strategic corporate goals, especially with the organizational strategy or organizational principles of the enterprise. In addition, the increasing integration with the value chains of the customers and suppliers demand a high degree of attention at the corresponding interfaces.

The time and cost control is done by a periodical comparison of planned target parameters with the actual parameters. For the parameters to be valid for controlling they have to be thoroughly reconciled beforehand by the participants. In a "Feed-back - Feed-forward" procedure, any deviations in the parameters have to be brought back in line with the defined goals.

The comparison of parameters can be supported and secured by project management software. These tools are also efficient in supporting the planning of deadlines, the direct and indirect project costs, the utilization of necessary resources, the entry and tracing of other project-related data, as well as the identification and visualization of deviations between target and actual values. The methodological continuity is reached preferably by

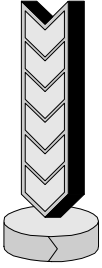


*Project
controlling as
link*

*Collection of
process
models and
agreement*

*Processes and
strategy*

*Time and cost
control*



*Project
management
software*

*Methodic
continuity*

describing the essential project steps in a modeling technology that is in conformity with the process models. The use of the same modeling tool will enable branching out from the individual project steps directly to the process models. In particular, it is particularly advantageous if these process models can be exported into the project management software for project description without major manual intervention. The project management software could then carry out more clearly differentiated evaluations (e.g. calculation of the critical path, capacity use of resources) than would be possible with modeling software. [Figure 2.7](#) gives an example for the interaction between the ARIS Toolset and MS Project.

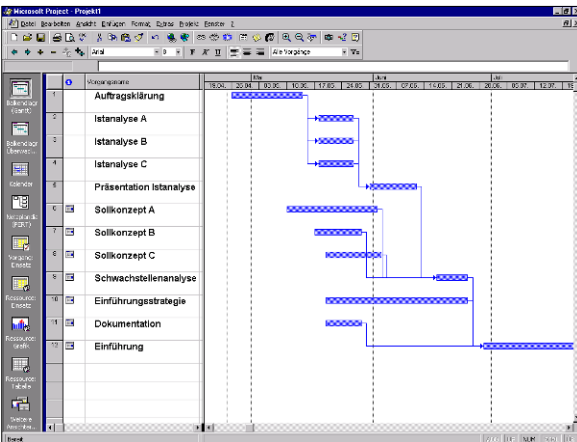
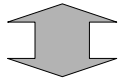
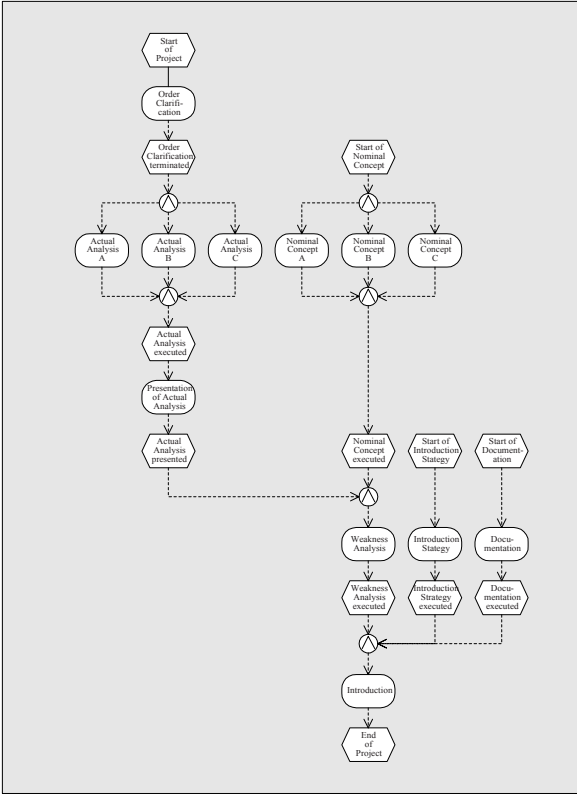
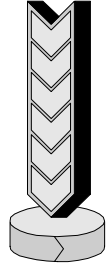
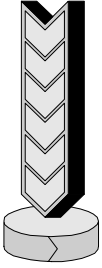


Fig. 2.7. Interaction between ARIS Toolset and MS Project (source: Scheer (1999), p. 15)



*Deviation
from project
goals*

*Temporary
availability of
specialized
departments*

*Adaptation of
capacities*

*Identification
of moveable
activities*

*Critical
path*

*Time
buffers*

Project controlling within a project minimizes the friction losses, decreases the costs, and supports the orientation toward the targets.

In practical project work, however, it will normally be seen that the planned goals cannot be reached completely in spite of all the sophisticated organizational and steering actions. The reasons, in addition to planning errors, are lack of understanding or lack of experience in the effects on current processes that result from the changes caused by the project. Objective doubts about the project are mixed with the personal fear of change. Normally, project management has to deal with a number of surprising smaller and larger interferences that are often hard to control. Often, overlapping projects suffer from the lack of the promised availability of subject matter experts by the operative departments. The reason is to be found in poor planning of the involved department and the lack of a “binding obligation” with regard to an employee’s own personal participation in the project. If overlapping projects are pending in a company that require the cooperation of the specialized departments, then the necessary cumulated resources have to be calculated separately in the specific cost center planning of the company, otherwise the inevitable consequence will be a falling behind in deadlines and deviations from the projected costs.

A good project organization must always be prepared either to adjust its personnel requirements in accordance with the altered capacity offer from the specialized departments or to vary its project activities to avoid interference with the project progress through a lack of capacity.

Possible adaptations are:

- Redistribution of planned activities and postponement of non-time critical tasks to the future (e.g., completion or detailing of process models).
- Temporary involvement of other internal or external project members (the additional “familiarization effort” and the missing special know-how will cause an increase in costs).
- More rational settlement of tasks (e.g., tighter moderation and implementation of project meetings).
- Reduction of the requirement for the settlement of tasks (e.g., only selective check of the syntax quality of process models that were created by experienced method experts).

The resource binding project activities should be identified in such a way that it is clearly recognizable whether or not they can be postponed. For these tasks a strict and agreed upon time schedule is reasonable. An approach that can often be seen in practice is the cancellation of project meetings in order to gain capacity. These meetings, however, serve the transfer of know-how that is necessary in critical phases in particular. They should be left untouched, if possible, but have to be carried out in an efficient way, of course, i.e. by involving only those employees who are absolutely necessary.

An essential feature of project controlling is the systematic monitoring of the milestones and of those activities that lie on the critical path. Tasks that are not on the critical path need a reasonable timely synchronization as well as an efficient handling of the time buffers that are allocated as precaution. The time buffers should be assigned where possible, and

should not be consumed by individual actions without coordination. A project progress report at short intervals, together with an early warning system, will help to recognize obstacles and to take countermeasures in time.

If the planned project costs are exceeded at any point, the remaining costs have to be examined for possible reductions, in order to keep the overall costs as planned. Measures have to be initiated to reduce costs, for example, through the use of more cost-effective resources or – in the extreme case – the waiver of partial tasks of the project. Project controlling has the task of guaranteeing the safeguarding of the total feasibility by a permanent “Stop-or-go procedure”.

In modeling projects it has proved worthwhile to have outsiders with appropriate basic training (in this case economic informatics students) carry out part of the preparatory modeling activities. Through the development of this type of "intelligent back office" it has been possible to reduce personnel costs for those tasks in modeling projects considerably.

However, project evaluation through project controlling must not concentrate solely on the costs. Additional options for improvements that result in the course of the project have to be examined for potential success and feasibility. For example, it has been possible to identify previously unknown weaknesses during thorough and comprehensive process modeling, whose elimination is of major value to the company. Such additive improvements justify higher project costs when the total cost-benefit ratio is positive. Generally, project controlling has the task of rating the effects resulting from a project from the aspect of economic feasibility. The related additional expenses should not be an obstacle insofar as they do not go beyond the financial budget completely.

Financial reserves for those additional activities have to be provided for in the financial plan for a project. However, they are only to be released in the course of the project progress if additional improvements actually occur that are also accepted by the operational managers.

The task of project controlling has to be carried out where possible in the scope of the project organization, taking account of the standard controlling functions in the company. In this scope, the project manager and his team should not take over the total controlling function of the project. Superordinated controlling tasks are carried out by the PSC. The PSC can nominate an independent controller as an additional entity that supervises the economic approach and the maintenance of monetary goals.

The project manager routinely checks the project progress at short intervals, sometimes even on a daily basis, and agrees on it with the workgroup; in contrast, the PSC is informed by the project manager at longer time intervals and is involved in the decision process. The PSC checks the milestones of the overlapping working packages as well as the development of costs and outcomes. The PSC makes the necessary decisions in regard to an adaptation to the project goals and to the configuration of the project.

Often, problems arise when the PSC has to verify as-is project contents since the members of the PSC are not able to check the performance and quality in detail. The PSC can only carry out spot checks. Therefore, the PSC needs a project manager who is experienced in this particular area as

*Cost
reduction*



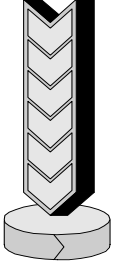
*Intelligent
Back-office*

*Value
added*

*Distribution
of controlling
tasks*

*Tasks of
project
manager*

*Tasks of
Project
Steering
Committee*



*Quantity
of projected
advantages*

*Financial
buffers*

*Project
controlling
at DeTe-
Immobilien*

*Project
Manager*

PSC

*Special
information
events*

well as in the leadership of people. In addition, the PSC has to be composed of members who are experienced, far seeing, and competent.

The potential conflict often lies in the fact that the PSC wants to obtain precise information about a change of important control indicators at an early stage (e.g. detailed cost saving statements, percentages of improvements in the as-is processing time or increased productivity parameters). This, however, can be realized by project management in the project runtime to a limited extent only. Providing excessive details will not lead to better results. More important is the understanding of necessary changes, the recognition of potential improvements and their subsequent consistent implementation. Therefore, in certain cases, it is better to prefer reporting on quality than to estimate the improvements by quantity where the anticipated results are subject to many uncertain variables.

A further group of tasks for project controlling can be seen here. Communication and the work of convincing directed at the process owners²⁷ requires not only a comprehensible, targeted processing of information but at the same time support for decision-making among those responsible for operations to use the potentials that the project has made visible. In the end, success lies in the hands of the process owners, the project supplies the prerequisites for this.

A recommendation for the members of the PSC is to participate in the information and decision sessions during project work in order to update their knowledge, or to be permanently informed by using the project management software.

DeTeImmobilien carried out project controlling at the same as the total project management function. Under the control and decision-making of a dedicated PSC, the typical controlling tasks were transferred to the project manager, who carried them out. These included, for example, administration and control of the project budget, allocation of personnel in regard to time and costs, checking the progress of the project, safeguarding the economic objectives, as well as quality control of the modeled processes. Periodic PSC sessions were held at which the project manager reported on the project status to the members with the participation of the responsible management and staff council. At the same time, current problems were discussed and decisions were made on how to proceed with the project. In these target-oriented PSC sessions, the members of the committee carried out the desired auditing function in addition to their control function. Among others, important decisions were the modification of the project organization in the individual phases of the project, and the increase in subject matter experts for the project in order to be able to comply with the defined deadlines, but also approval of the financial means for a sufficient participation of external experts.

In addition, upon request, the PSC members received updated information about the modeled processes outside the normal PSC sessions via special information events. For this purpose, the process models were edited and presented in different ways for each recipient group according

²⁷ See chap. 9.4.1. for details of the process owners.

to the group's specific requirements because, for example, management had an information different to the staff council.

The comparison of projected costs with the projected profit at DeTeImmobilien during project work in the desired reporting format was not without problems. While the as-is modeling was able to clearly show the project benefit by preparing a list of the weak points and defects detected in a first approach and their rapid processing, monetary quantification during to-be modeling was mainly only possible with difficulties. Only the potential benefits could be made recognizable initially with the help of the to-be models. Approaches for improvement were outlined, but the pending problems on the way there remained unsolved. The theory was clear, but the practice of the new process-oriented organization was not yet fully in place. The transparency of the total process model that had been created for the first time represented a basis and incentive for a complete process-oriented reorganization and a customized new process communication in the company. DeTe-Immobilien was faced with the necessity of achieving a new quality of performance throughout the entire company. All employees were involved, from service engineers through to directors.

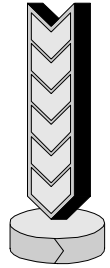
In addition, DeTeImmobilien had the chance to carry out process optimization using a theoretically founded, transparent, traceable and practicable basis. However, the achievable success could, not be proven in monetary terms, since success can only be visualized by controlling (and then with the attributes that were demanded throughout the course of the project) after a new organizational structure is implemented and the employees are familiar with the new processes and responsibilities and information processing provides its support at the right place and the right time.

In the to-be modeling phase, all participants were expected to persevere to the end. The business vision, the pressure of competition, and the expectations of the shareholder, however, were unable to cause a deviation from the selected way. After implementation of the completely restructuring of the company in the head office and in all twelve operative branch offices, the benefits of process modeling and process orientation have been obvious for DeTeImmobilien. The improved productivity freed personnel capacity in favor of other tasks. The process costs became more competitive because of shorter processing times and increased quality, and customer satisfaction increased. Now, all process levels in the company are transparent, and further improvements will be realized faster and with more security.

DeTeImmobilien has carried out a complete reorganization using the process modeling approach. It has received the DIN ISO 9001 certificate for the whole company, and continues to work on the process orientation. In the meantime, the improvements through the introduced process-oriented restructuring were obvious even without a prior exact quantification of the benefit, which led in the end to great success for the project in connection with other activities. The following improvements have been achieved:

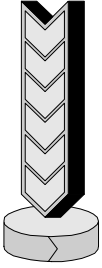
- Optimization of the disposition processes. This led to an improvement of the expediter : service engineer ratio from 1:6 to 1:20.

*Project profit
vs. project
costs*



*Qualitative
benefit*

*Quantitative
benefit*



*Achieved
improvements*

- Appreciable decrease in the share of outsourced services and replacement by internal services and therefore a better workload of own staff.
- Standardization of material procurement processes and clearly regulated and simplified competence. The new processes enable the employees to respond to quickly changing situations in a fast and flexible manner.
- Elimination of redundant work and faults through clear and unambiguous definition and documentation of organizational interfaces in the order management and invoicing process, making this process faster and, therefore, more cost-effective as well.
- Significant increase in customer satisfaction by clearly stipulating the contact partners and by providing them with the necessary information. Upon request, customers get the required information about the status of their orders quicker and more reliably.
- The first-time and structured determination of the total sales processes supports DeTeImmobilien in their strategic goal to develop the group-external market.

2.5 Critical Success Factors

*Employee
syndromes*

In spite of thorough planning and consideration of all organizational facts it may happen that a process modeling project does not lead to the desired success. Various syndromes with similar characteristics often cause this.

The “not with me” Syndrome

*Readiness for
changes*

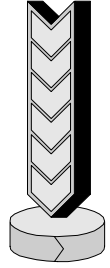
The inertia in some institutes is astonishing. Employees reject any changes and are skeptical about modifications. Since process modeling projects almost always lead to changes in the workplace – irrespective of the intended purpose – be it in the assignment of tasks, in the data processing support or process design, the employees regard the project in part with mistrust from the very beginning. They build an inner wall, refuse to give explanations, retain all information, point to others, do not pass on their own proposals for improvement, in short – they carry out a silent boycott. Their rejecting attitude makes it difficult for project teams to drive improvements and to accomplish them. The employees create a climate that is characterized by destruction, and often negatively influences the members of other specialized departments, who had a more neutral or even positive attitude up to that time.

What to do: Since the problem is of a psychological nature more so than a technical one, the project teams need a great deal of empathy and conviction. The positive aspects of the planned changes in particular with regard to these rejecting employees have to be highlighted, in some cases in individual discussions. Sometimes, a clarifying talk from management is required.

The “not invented here” Syndrome

Frequently, the “not with me” and “not invented here” syndromes go hand in hand. Changes from outside often have less chance of being accepted (and therefore to of being implemented) than those initiated by the specialized department itself. Therefore, it is important to give the employees a feeling that the planned changes are not an imposition.

What to do: The employees of the specialized departments should be involved in the idea-finding process, and the planned changes should be worked out with them in workshops (as opposed to the “presentation” of ideas that have been worked out exclusively by the core project teams).



*Joint creation
of ideas*

The “you go and get on with it” Syndrome

It is difficult to achieve success in a process-modeling project when the management – after having initiated the project – is no longer sufficiently involved in the project. Delegation of the project to the project group must not be interpreted as management withdrawing from responsibility for the decisions to be made and for the implementation of the project. In order to increase the likelihood of success it is necessary for the management to maintain identification with the project, to provide a clear statement about the project to the employees, and to make dedicated decisions about changes. A delegation to the project group without the taking over responsibility and without clear factual decisions from management, makes it easy for the “preservers” and “skeptics”, for the “submariners”, and for the “we’ve never done it like that” brigade, as well as the “not-with-me” protesters, to gain dominance without representing the opinions of the majority of employees.

What to do: Management must be obviously committed, be personally involved in critical items and controversial opinions, support the project group, make material decisions and push through the set rules.

*Visual
engagement of
the management
of the company*

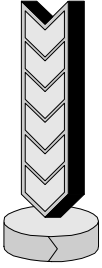
The “let’s get started” Syndrome

It is good when a project is started with commitment and conviction. But it is not good when over-eagerness leads to a shifting of essential points in the beginning without the necessary reflection and preparative work having been done. Preparatory work in establishing methodology and the structuring of the problematic areas helps to avoid later unnecessary work, which results from not thinking ahead.

What to do: The target has to be clearly defined, the scope of the project must be fixed, the method has to be selected, all project members have to master the method (training may be necessary for this), the process limits have to be determined (where does one process end and where does the next process begin?). An organizational frame is extremely helpful here.²⁸

*Thorough
preparation*

²⁸ See Chapter 4.7.



Precise defaults

The “let's see how far we get” Syndrome

As with many other projects, the process modeling project is also subject to unforeseeable factors in terms of the required time and capacities. This, however, must not lead to a “let's see how far we get” attitude. A defined time frame, as well as clear expectations for the achievement of goals, is necessary in order to give the project the required intensity. A project plan with milestones related to time and contents and subject to strict monitoring in the framework of project controlling is indispensable. Of course, it is very difficult to estimate times if the scope of work has not yet been defined, but, on the other hand, the deadlines can be kept by permanently adapting the time and intensity of the project team. It is a platitude that a project can only be implemented successfully if a certain amount of pressure is immanent.

What to do: Define clear deadlines, set milestones, create a realistic but challenging project plan, and carry out scrupulous project controlling.

The “no time” Syndrome

It is not unusual for the core project team, freed from other duties, to be heavily involved and commit a great deal of time to its work. This work, however, can only be successful if all employees who are outside the core team but still have to bring their knowledge in, also take enough time to supply their know-how to the project. Since this is not their primary task and, in addition, prevents them from carrying out “important” activities, the time budgeted for and assigned to the project by these employees is often extraordinarily limited. At the same time, an increase in information and ideas provided by employees with the corresponding know-how could save considerable time for core team (and thus for the project as a whole!).

What to do: The company's high performers have to bring in their good ideas; they have the know-how that enables them to suggest improvements (and have the influence to realize them). “No time” must be eliminated from the active vocabulary of these high performers. In order to achieve this, the necessary incentives have to be created for the additional and for a time great burdens on the high performers and they have to be freed, at least partially, from their everyday business.

The “I don't care” Syndrome

Project members have to contend with considerable resistance, whether because certain employees are afraid of losing their jobs, or because of simple opposition (“not with me”), or because of a lack of interest or commitment (“no time”). It would be fatal if the project members were to yield to this great pressure and ultimately turn away from their convictions and ideas for improvements. This would lead to a lack of motivation and in consequence to diminished powers of persuasiveness for the project members. Since they are the driving forces in the projects, a weakening of this “drive” would cause these key people to lose their power.

What to do: Support project members by management, select persons with strong self-motivation and high persuasive powers for the project group.

Active time management

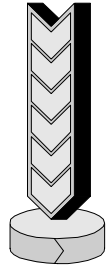
Motivated project team members

The “analysis/paralysis” Syndrome

Many companies do not lack good ideas, outstanding analyses, and excellent proposals for improvement, but they lack of competency for implementation. After presenting a proposal to reorganize the information system within the scope of a process modeling project, this proposal has to be realized in a specific (short) period of time. Even in the case of smaller changes of external variables, the implementation plan should be consistently processed. Nothing can paralyze a company more than an analysis that is followed by a new analysis and again by another analysis – for whatever reason.

What to do: Implementing 80 percent of an improvement (measured from the theoretical optimum) is always better than waiting for 100 percent fulfillment.

*Realization
competence*



2.6 Checklist

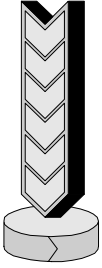
Project goals

- Set unambiguous and realizable operational goals in terms of performance, deadlines, and costs of the project. Plan thoroughly and realistically.
- Plan realistic milestones while considering resources available (especially human resources). Observe the effects on the costs when accelerating the project runtime.

*What to keep
in mind!*

Project organization

- Adapt the project organization to the requirements of the different phases of the project, and pay attention to continuity in the „core area“!
- Appoint highly qualified people to the Project Steering Committee, especially for a reorganization project!
- Find the know-how providers in your company and involve them in the project team! Make sure these employees are available since they are just the ones who are tightly bound by their operative business!
- Involve the staff council in the project team and in the Process Steering Committee at an early stage! This will allow potential conflicts to be identified and eliminated!
- Identify the syndromes of the employees as early as possible! Respond to different concerns in different ways in order to secure the success of the project!



Project controlling

- Do not give all controlling functions to the project manager! The PSC has to take over superordinated audit and control functions!
- Check the project status at periodic intervals for performance, deadlines and costs! Take efficient and effective corrective actions in case of deviations from the planned goals!
- Not all potential benefits can be calculated in monetary terms. Show potential benefits in early phases of the project qualitatively, and track their implementation consistently.