Project Phases and Milestones

Projects can be of varying duration, depending on the size and complexity. But generally speaking, every project follows a certain cycle: the project life cycle. Whether you are building a house, developing new software, or erecting a complete industrial plant, you will see that every project develops in phases.

Based on its complexity and newness, a project should be processed according to a systematic procedure. This procedure is determined by the following three basic principles:

1. Structuring in phases
2. Moving from general to detailed
3. Problem solving cycle.

Breaking the project down into individual phases depends on the emphasis of the project, the milestones and the complexity of the tasks. Practical experience has shown that there are four basic phases:

<table>
<thead>
<tr>
<th>Initiating</th>
<th>Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing</td>
<td>Executing</td>
</tr>
</tbody>
</table>

In addition to these classical project phases it is possible to add a pre-development and pilot phase - for very innovative projects, for example.

The phases are accompanied by project control. This will be discussed in more detail in the chapter "Project Control".

Solutions are often thought of at the beginning of a project, and everything is planned to the most detail. Later, this planning may turn out to be a disappointment: much has changed in the course of the project and updating the plans may prove to be too expensive. That is why it is a part of Project Management to approach details step-by-step. This approach is often called the "Top-Down Procedure".

Processing projects means carrying out a comparison between the TARGET status and the ACTUAL status. The problem solving cycle describes the sequence of steps which are required to achieve the project goal.

Stage 1  Situation analysis
  What is happening now?

Stage 2  Setting the goal
  What should be achieved?

Stage 3  Conceptual draft
  Which solutions are possible?

Stage 4  Assessment
  Which solutions are practical?

Stage 5  Decision
  Which solution should be implemented?
Stage 6 Implementation of the solution.

Each phase is characterized by very different tasks with special problems.

The Initiating phase is the prerequisite for the start of the project. At this point the project manager clarifies the goals with the customer.

The result of this phase is the project order.

The individual activities and the time schedule are established in the Planning phase. This phase is the basis for the successful execution of the subsequent Executing phase.

The Execution phase encompasses more than purely the realization of the plan. The continuous review of the project progress on the basis of milestones (defined below) ensures that the project remains within the scope of the planning. If the course of the project deviates from the plan, corrective actions must be introduced.

After the customer has accepted the results of the project, the project goes into the Closing phase. Since it is not possible to ensure in most projects that the same group of people will be working again on the next project. The priorities during this phase include the security of know-how and the re-integration of the project stakeholders.
Each phase is constructed on the preceding phase. For this reason the possibility of influencing the final result lessens continually in the course of the project, while the project costs increase more steeply.

Possibilities of influencing the project and project costs are inversely proportional to each other. Therefore, ideally the most possible attention should be given at the beginning.

**Prevention is better and less expensive than repair!**

So, always take a close look, even at the beginning of the project!

There are important events within the project which can be established as milestones. Therefore it is possible to structure the project within milestones.

Every milestone can only be passed when the previously formulated requirements have actually been fulfilled. It is possible to make an exception only in the case of non-critical, open points, and when subsequent completion can be assured.

The most important milestones are the transitions from one project phase to the next.
Understood everything so far? Talk to experienced project managers, seek out and find a way to exchange experiences.
The next chapter discusses setting the goal.