ProjectTurtle using Goalscape Enterprise

An integrative approach for
successful project work

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1   Need for action in project management?

In this publication, the classic definition of the term project will be used as a basis. It is a complex, extensive and unique task with a clear goal, a starting and ending date, and a defined budget[1]. The project work constitutes the entirety of the tasks which must be completed in order to achieve the project goals (see Illustration 1).
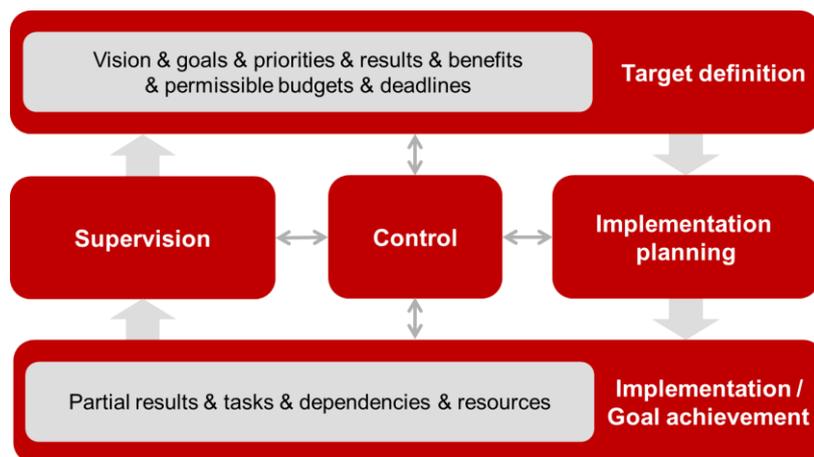

Illustration 1: The levels of project work

Since the structural organisation follows activities which are regularly repeated, companies are not prepared to carry out the special task of a "project", which is a central cause for the failure of projects. The special discipline of "project management" has applied itself to this problem for many years. Projects are always supposed to lead to success through the consistent use of knowledge and the IT tools.

Practical experience has shown, however, that projects often fail[2], which the representatives of methodology often consider to be the consequence of implementation problems. Experienced project managers see the more likely cause in inappropriate methods and tools, which do not adequately support the special project, as well as in the lack of coordination between the two organisational approaches when put into practice.[3] In addition to these organisational weaknesses, the following text will examine whether a key factor to the failure of projects is also the methodological weaknesses of classic project management, and how these can be overcome.

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[1] See e.g. B. Bernecker, M.; Eckrich, K. (2003), P. 59 f.
[2] See also Kotter, J.P. (2013), 24 ff.; Standish Group (2011); Standish Group 2013
[3] Hecker, W. (2013), P. 93 f.

According to a current study on IT projects, only 39% of the undertakings are successful, 18% must be classified as having failed and the remaining 43% have not achieved several goals.[4] The success of a project is thus measured using the three elements of the magic triangle (time, budget and content/result) of project work.

Based on the long-term studies of the Gesellschaft für Projektmanagement (Association for Project Management)[5] and the survey conducted by the GPM Deutsche Gesellschaft für Projektmanagement (GPM German Association for Project Management)[6] as well as other studies[7] and the experience gained through implemented projects, the following areas apply as the causes of project success or failure:

Unclear requirements and goals

If people cannot assess a situation and don't understand why something is to be done, there is no motivation for the task as it can be assigned no purpose. People want to recognise the purpose behind their actions and remain capable of acting. This will not succeed without transparent goals.

Too little communication

Dependencies will only become visible and be observed in a decentralised manner through means of intensive coordination in a team. Communication leads to mutual support and team spirit. Every hour of effective communication is valuable for the success of the project!

Unclear responsibilities

The project management assumes that employees feel responsible for "their" tasks. The employees, however, see the responsibility as exclusively belonging to the project management, since they were assigned the tasks by the "all-knowing" project manager without being consulted. The success of the project is at risk if neither of them feels responsible.

Mistakes in project management

Classic methods of project management often lead to project management overload, since they must take on the central position of planning, control and supervision. The project management is often unable to keep the important instrument of project planning up-to-date. Deadlines are no longer valid, tasks have changed and the plan is thus worthless - and the project can only be directed with difficulty.

Projects are characterised by a special kind of management task. While standard tasks and primarily repetitive decisions are present in line activities, projects - due to their uniqueness - are characterised by events with no pre-existing analytical statistic empirical values. The project manager must not only clearly analyse his project, he must also come to the correct conclusions and reflect upon these using his own experience and that of his team. In order to better understand this process, a look at the findings in brain research is helpful.

Widespread and illustrative, although controversial amongst experts, is the model that the left and right halves of our brain are dedicated to different functions. The analytical and detail-oriented skills are assigned to the left hemisphere, whereas the right hemisphere is said to process holistic information on the basis of an emotional and visual point of view. In creative thinking and decision-making processes, a switch between the holistic view and the analytical dissection must take place; both halves of the brain must be activated[8]. The purely analytical observation of the project status is not sufficient; it must be embedded in the holistic target system. But only seeing the big picture without taking care of the details is just as negligent.

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[4] See Standish Group (2013), P. 1
[5] See Engel, C.; Quadejacob, N. (2008), P. 3
[6] See GPM (2013), P. 9 f.
[7] See also Standish Group (2011), Standish Group (2013)
[8] See hereto Pöppel (2007) Page 215ff.

Herein lies a further cause of the "failure" of projects and the corresponding methods. The classic instruments of project management primarily focus solely on the analysis of facts and conditions, thus only addressing the left half of the brain. The combination of detail analysis and the visual synthesis of the target condition is not pronounced enough in the current project management methodology. Normally only one aspect is supported (e.g. MindMaps -> right brain half; Gantt chart -> left brain half).

It is therefore no wonder when intellectual vacuity and decision-making lethargy are predominant when looking at the Gantt chart or an Excel spreadsheet. Because, based on complicated charts and Excel spreadsheets with deviation analyses alone, no decisions can be made. Our brain cannot be activated if the instruments do not also support visual and emotional aspects. As a result, actionism and an increasingly formalised communication via project management offices can usually be observed. The activation of the right half of the brain must accompany the analysis. This takes place through interaction and good visualisation of the central project report and the goals. This project management experience can be proven with findings from brain and decision-making research.

2 Classic and agile project management in comparison

In the classic approach, the tasks of project work are assigned three management levels. The project contractor takes over the definition of goals, the planning, control and supervision are assigned to the project management, and the project staff members are responsible for the project's implementation (see Illustration 2).

In this approach,[9] the central project manager has the entire responsibility. At the beginning of the project, he plans all tasks and sequences as well as the time expenditure and corresponding costs in great detail. He "distributes" the project activities amongst the project staff in regard to goal achievement on the basis of optimum resource utilisation. The plan is only corrected if deadlines are not met, thus causing mistakes in the project plan. The planning and supervision with subsequent centralised supervision is the focus of this project work. This method is also described as the waterfall method[10].
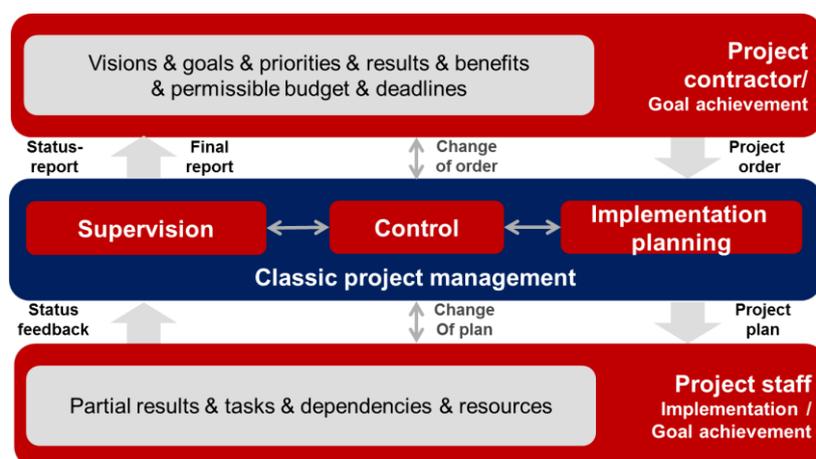

Illustration 2: Distribution of tasks in classic project management

The classic methods are characterised by the separation of project tasks according to the roles in the project. Contractor and team do not directly communicate. The PM primarily communicates with the team about the project plan. Most IT systems support this methodological approach. A rather mechanistic view of the project work underlies this approach, which means that the conduct of the stakeholders in the project and all other factors of influence can be predicted. Moreover, it is strongly

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[9] See e.g.: also Geiger I. K. (2009) P.160 ff.
[10] See also Geiger I. K. (2009), P. 163 f.

centralistic. The project manager and/or the project management office assign tasks to the project staff and supervise their work results.

This method presupposes the most stable project environment possible. With the increasing dynamics of the project environment, the chances of success decrease with the execution of a previously determined plan of activity. In dynamic and complex projects, the centralised project management often cannot ensure the overall coordination, or only with a great amount of effort. The method is in danger of failing here.

Through agile project management, an attempt is made to get by with a small amount of bureaucratic effort, few rules and a repetitive approach. At the beginning, the goal of the project is defined as a target area, the exact specification of which will not be revealed until the project is underway and based on initial experiences. An integral component is the fast reaction to unplanned situations and new findings while keeping the goals to be reached in mind. Activities or result types are subject to on-going new prioritisation.
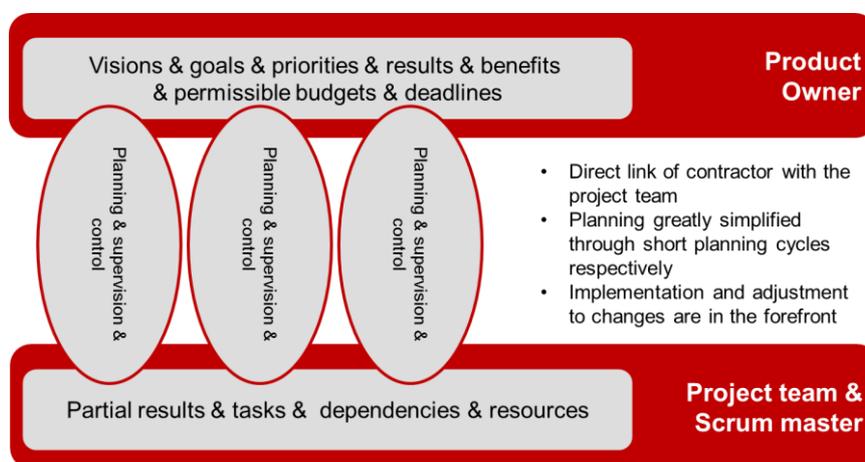

Illustration 3: Agile project management

A considerably higher amount of responsibility and flexibility is needed from each individual project member in this form. This approach is decentralised, employee-orientated and primarily aimed at implementation. The team supervises itself internally and the project manager becomes the team's supporter and motivator. Planning and supervision does of course also take place in the agile methods, but only repetitively over a short period of time, decentrally and only as much as is needed.

The agile methods have significant disadvantages which prevent their use in large projects or if outside of the IT area. One weakness is the intensive strain put on the contractor (product owner). If this person is active in top management, he cannot take on the role in agile projects due to time constraints and must delegate the task. This means that there is no direct contact. In major projects, a centralised overview of status, budget use, etc. is missing for the management. The decentralised teams primarily supervise themselves. Stakeholders outside of the projects are not well-integrated. With expanding size, the decentralised implementation in repetitive sprints becomes increasingly more difficult, as the coordination through permanent communication alone is no longer sufficient. Furthermore, top management often does not have confidence in the implementation skills of the project staff in truly strategic projects. In this case, a centralised view of the project is necessary.

In IT projects, the higher probability of success of agile methods in comparison to conventional methods has been proven[11]. Despite the success of agile project methods, this approach is seldom used in large projects with large teams. One reason is the strong focus on the direct interaction amongst project staff and, at best, daily coordination. This approach is scarcely applicable for large projects with dispersed teams. Moreover, acceptance in the higher management levels is low, as the decentralised

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[11]In agile methods, the success rate is 42% compared to 16% using conventional approaches; the failure rate is only 9% in relation to 29% - Standisch Group (2011), P. 25

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implementation demands a high level of confidence in the teams and centralised reporting to top management is needed in large projects.

Both methodological approaches have their justification and fields of application. Ultimately, it depends on the project category[12] to which the concrete approach is to be assigned. Classic methods are less suitable for high complexity, degree of innovation and technical risks, while agile methods are difficult to implement in large projects with extremely high strategic relevance (see Illustration 4).

In addition to the effectiveness of the methods, the efficiency of the project work should be assessed in conclusion, which provides an additional argument for the agile methods. The classic methods cause a high level of dissipation due to escalated planning and supervision. In most cases, approx. 10% of the project sum is used solely for management. In agile methods, planning and controlling is planned only to the extent that it is absolutely necessary, and reports are created more or less by themselves during the project work. Centralised project offices are done without. Agile methods are lean and streamlined - and this should apply to the project work in general.
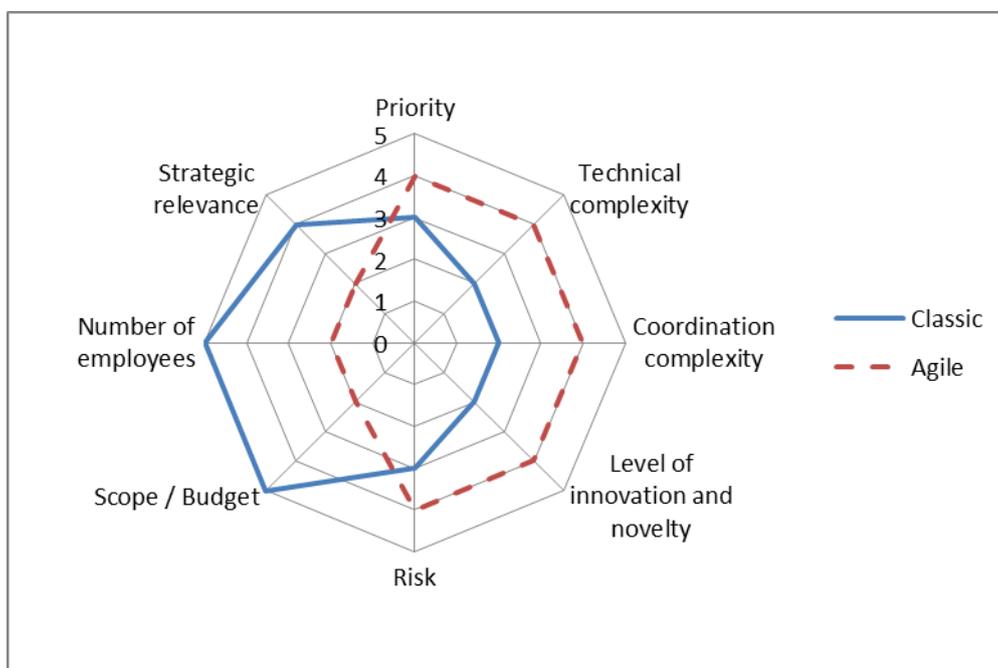

Illustration 4: Field of application for the methods

An integrative approach which makes the strengths of agile methods usable for large projects and also makes a centralised view over the entire project possible despite decentralised supervision could make project work[13] more successful. To implement this approach, elements from classic project management are needed, as large projects must bundle some tasks centrally in order to keep the complexity under control. In addition, the integrative approach in large projects needs a tool support, since the numerous decentralised teams require centralised coordination. The integrative approach is meant to cover the "blind spots" of both approaches (see Illustration 4). Since large and strategically important projects are in practice characterised by a high level of complexity and innovation, the need for such an approach has been observed.

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[12]Aschoff and others have worked out the criteria according to Illustration 4 based on the approaches of Crawford and Sapper, see Aschoff T. (2013) P.128-134
[13]Successful project work is the focus of the article. The actual added value in the project is created by the project staff who achieve their results decentrally on the implementation level and not in project management

3 Attributes of the integrative approach for successful project work and the use of Goalscape Enterprise

In order to increase the probability of a project's success, measures need to be taken to get around the above-mentioned failure factors. In doing so, the basic idea of agile project work should be combined with classic centralised methods of project management, so that the proven tools of agile projects can also be used in large projects.

Since the "target" is at the centre of the method and the starting situation is tied to the target state after project completion, and the method is characterised by four central attributes, the visualisation led to the term ProjectTurtle (see Illustration 5).

The integrative approach has the following essential attributes:

1. Goals and results are always the focus and are visible to everyone
2. Centralised goal planning is combined with decentralised implementation
3. Visual management - transparency about goals and the status of the project from everyone, for everyone and at all times
4. Implementation is more important than planning and supervision
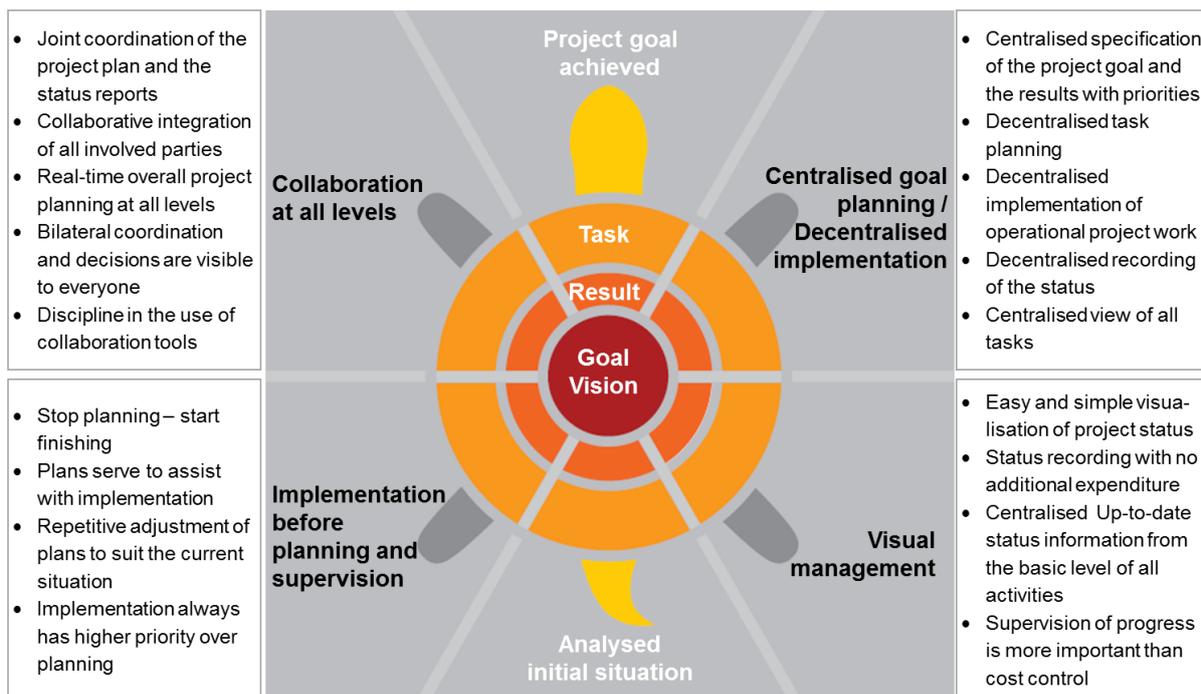5. Collaboration of all employees in the project team at all levels

Illustration 5: ProjectTurtle - framework of the integrative approach

3.1 Goals and results are always the focus and are visible to everyone

In classic project management, the focus is placed too strongly on the tasks described in the project order. The actual goal and the vision of the contractor are found in the preamble and are quickly forgotten during the project. With the waterfall method, the goals are derived from the tasks and then only these are processed without any reference to the goal. The project staff and teams should not process the tasks set out from above, but should achieve the goals and determined results independently[14].

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[14] See Hedeman, B./ Seegers R. (Prince2 2010), P. 28ff.

In the integrative approach, it is necessary that all members of the project always keep the "target" in sight. Furthermore, it is important to clearly define the priorities of the demanded results.

The integrative approach therefore has the following attributes:

- Project goal and vision are clearly described
- Goal and vision are made visible to everyone at all times
- Products / results of the project are clearly defined
- Priorities are set and can be adjusted at any time
- Priorities are made visible to everyone at all times

At its root, Goalscape is an IT system for goal management. Focus is placed on goals and priorities, the tasks are assigned, and this is visible to everyone at all times. The widespread project management tools cannot do this as a rule.

The two first levels of the Goalscape system are meant to present the goals and results, and they remain visually at the centre of the project (see Illustration 6). The size of the segments reflects the priority of the results.
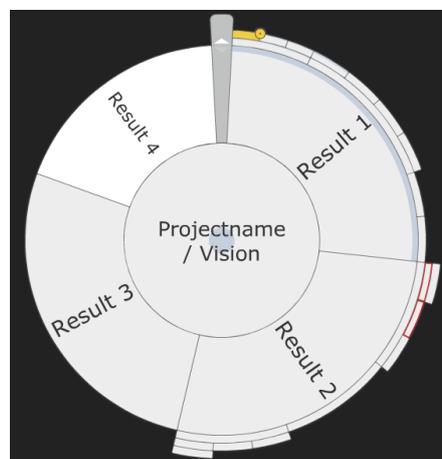

Illustration 6: Goals and results at the centre of the project work with Goalscape

3.2 Centralised goal planning combined with decentralised implementation

Centralised project management concentrates on clearly describing and prioritising the goals and results types as well as assigning teams fully responsible for the achievement of these results. Operational project work is decentrally planned and supervised in these teams. But in large projects, the project manager responsible for the overall result must be able to see the status of the individual result types at all times.

The role of project management is changing from the central knowledge and decision node that plans and supervises everything to being a support area that helps the decentralised team master the large project. The responsibility for the project result is perceived decentrally.

In the Goalscape tool, the additional details of project planning are undertaken on the outer levels. The teams can plan and carry out their measures decentrally per result type while still ensuring that the centrally responsible parties maintain their overall view. In the process, the basic deadlines per result are mandatory milestones for everyone. The deadlines and contents per partial result and task can be changed at any time.
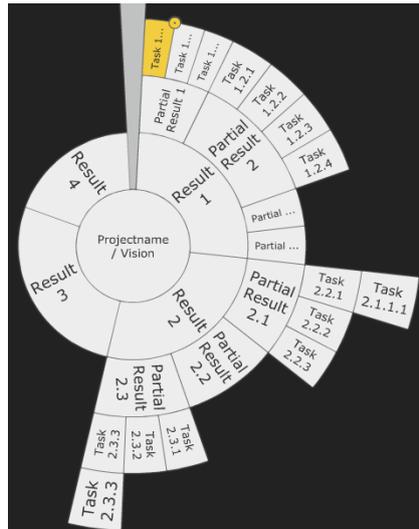
Illustration 7: Decentralised planning per result type

All elements in the IT tool are provided with starting and ending dates. Presentation in chronological order as a Gantt diagram is useful and possible for the purpose of checking the chronological plausibility of the overall planning.
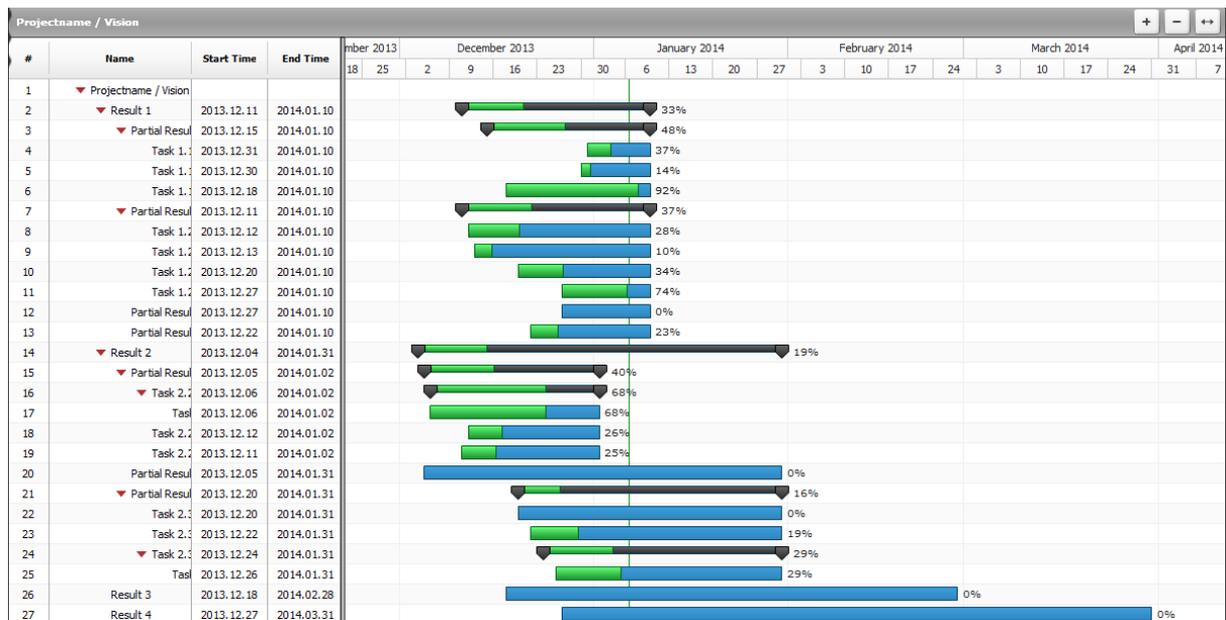

Illustration 8: Gantt view of the planning in Goalscape

Comparing both views of the project makes the central advantage of Goalscape clear. The transparency about the project with its priorities and tasks is considerably better in Goal View. Only experts will understand the Gantt view.

3.3 Visual management - transparency about goals and status

In addition to the content structure of the project according to goals and results, the form of visualisation is the central advantage in the integrative approach. It is not sufficient for the project contractor to determine results that the staff is not aware of at the beginning of the project. The goals and the status need to be visually present and comprehensible during the entire duration of the project, because the project team must be able to use this for orientation during their day-to-day work.

If no visual support of the results is provided for the day-to-day project work, the project teams lose themselves in the operational processing of tasks. Furthermore, a hasty breakdown of goals into tasks contained in diverse Excel lists or in MS Project leads to a lack of transparency for everyone involved. A view of the "big picture" gets lost through fragmented to-do lists and extensive status reports per task.

In visual management, goals and the current status are prepared in a manner that makes it transparent for everyone just how the situation should be evaluated and which measures are to be derived. This approach as a result leads to simple instruments such as "burn down charts", but is based on extensive analyses for the definition of just a few yet meaningful figures and presentation formats. Agile project management primarily supervises whether the work is progressing as planned. Classic project management relies too heavily on cost control. Furthermore, lean management is decentrally supervised. Information on project progress is recorded on-site by the employees and reported with no intervention from the management level. The integrative approach picks up on this and does without centralised project offices that receive status reports and consolidate them into reports for the management. The status needs to be visible to everyone at all times with simple methods on the basis of accurate data from the decentralised units.

It is possible in Goalscape for those responsible for the assignments and tasks to autonomously and truthfully specify the status of their task at the time of reporting. Progress is then projected on the higher levels (work packages, results and goals), whereby notice must be taken of the emphases. In addition, decentralised teams can mark critical project areas with the colour red (task cannot be carried out as planned) and yellow (task at risk) as well as with further coloured and miscellaneous tags. This makes it possible to display progress in a realistic and timely manner. The visualisation is intuitively comprehensible to everyone. Weak points are pointed out consequently and without manipulation. This simple and visual supervision is the basis of the regular status reports.
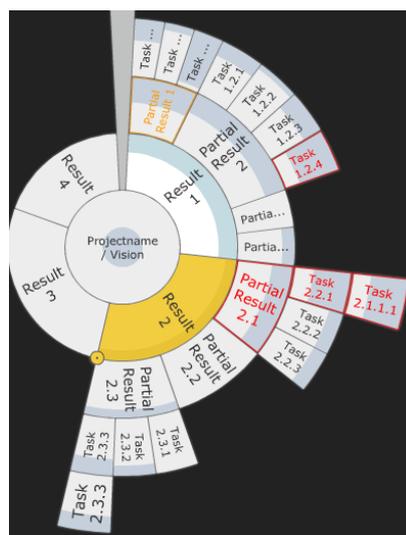

Illustration 9: Project status with progress and critical tasks

3.4 Implementation is more important than planning and supervision

"Plans are nothing, planning is everything!"[15] This is meant to show that it is valuable to plan possible paths to the goal before implementing measures, but it makes no sense to rigidly adhere to a plan during implementation. The implementation is the value-adding part of project work that is only readied through planning. Planning should take place there where the highest motivation and professional knowledge exists. This means that planning can be done better decentrally than it can in centralised project offices. The planning effort should be kept small and the subject of detailed planning should always be a demarcated and manageable area only.

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[15]This statement is credited to both Peter Drucker as well as Dwight Eisenhower and points out that a concretely prepared plan, especially in complex situations, is useless, since the course of action can only be determined on the short term and based on the present situation. Through this planning, a vital set of possible actions has been prepared, but their selection should take place as late as possible.

If the adjustment of project plans takes too much effort, then they will not be adjusted. The reality is this simple. We are all familiar with the initial effort of creating a project procedural plan, which then gathers dust because no one has the time to continuously adapt the details to real life. Hence, almost every project splitters into countless individual spreadsheets with tasks that no one has a clear overview of. In order to compensate for this, additional summaries and reports are created to somehow manage to coordinate the implementation. This is not integrated, consistent or lean in terms of procedure.

Successful project work means using simple, lean methods and tools in day-to-day project work without redundancies, overlaps and duplicated recording of project information.

Planning must remain simple and for a specific purpose and only be so far advanced and detailed as is necessary for the current processing of the tasks. Further tasks or result types are added when new knowledge is gained and priorities are adjusted directly in the IT tool. The plan is thus always up-to-date and complete in the IT system, but also changes almost every day. As is normal in agile projects, the tasks are only recorded for a short planning period and then consequently implemented. Most complex systems cannot fulfil this requirement.

With Goalscape, the project plan can be adjusted during the steering committee meeting and the view of the big picture can always be maintained. The high level of flexibility and the simplicity require limitations in other functions. Critical path analyses, automatic setting of deadlines and additional theoretically important, practical yet seldom used functions are missing from project management systems.

In return, task lists per employee with timescale objectives and priorities can be derived at any time through the use of simple filter functions. The tasks can be assigned to discussions, notes and documents. This makes genuine linking of the tasks with the planning and the goals possible. With this, Goalscape also encompasses functions from task management systems for integrative project work.

3.5 Collaboration of all employees in the project team at all levels

The combination of centralised and decentralised activities in the project requires close coordination amongst all involved. Not the centrally maintained plan, but rather intensive communication and true collaboration ensure the coordination of the individual tasks in terms of content and time. This takes place in frequent meetings of small groups in agile projects. IT systems are needed for this in large projects in order to communicate in a large and dispersed team in a structured manner. It is important that coordination as well as decisions not only take place via the project manager, but also directly within the team. This bears the risk that the project will end in chaos, since no sovereignty of information exists at a central point. But in practice, even project management offices in the classic methodology are overextended with centralised supervision in large, dynamic and complex projects. In the integrative approach, transparency is to be guaranteed by means of communication. Decisions and agreements must be apparent and comprehensible to everyone. This requires a large amount of discipline within the team as well as a suitable tool.

Collaboration in particular strengthens the motivation in a team. One can immediately address problems and get help from the team. One's own role and importance in the project is transparent and the information provided by an employee is put one-to-one into the reports and results. The responsibility for deadlines and costs as well as results are visible to each individual as well as to the entire team. Thus, group dynamic-related processes increase the motivation within the project and simultaneously the probability of success.

Since the plan is less important than the teamwork, the IT system needs to support this well for integrative project work. Goalscape offers functions such as chats, memos and data filing. Questions will always be asked and there is a need for coordination during the course of project implementation. The chat function makes it possible to address individuals or entire project teams, thus conducting topic-specific and concrete discussions within the tool. This has the important benefit of avoiding the use of

additional collaboration tools such as e-mail traffic, for example, and current discussions can be assigned directly to the topic within the project.

This functionality requires discipline and consistency in order to be sustainably useful. Instead of giving one's opinion of numerous aspects of the project in a long mail, project managers and staff should assign their questions and comments to the respective task or the result. This might be more effort for the sender, but makes its processing much easier for the recipient, since the reference to the project element is always maintained.

4 Summary - integrative project work with tool support

In a very large project as well as in several smaller projects, the methodological approach of ProjectTurtle in conjunction with Goalscape Enterprise is currently being used with success, and the exploratory questioning of experienced project managers and contractors shows that the success of the project is increased with this approach.

Use of the software for goal management (which stands out due to its unique visualisation and excellent support of the collaboration as well as task management), in conjunction with the lean approach of ProjectTurtle, is in these cases very successful.