

WHITE PAPER RESOURCE MANAGEMENT







IAPNA INTERNATIONAL ASSOCIATION OF PROJECT MANAGERS

In 1997 the IAPM was still a fledgling association. It started out as a loosely structured international network for project managers who shared the objectives of promoting and modernising project management and providing young project managers with the tools to work effectively and successfully. Since this time, the IAPM has held annual International Project Manager Meetings (IPMM).

Back in 1998 the IAPM published the precursor to the PM Guide 2.0, the IAPM By-laws of Project Management. These by-laws were completely revised and adapted to modern requirements and real-life project management scenarios in the PM Guide 2.0, which was published in 2010. In the same year, the IAPM was completely relaunched. The Scrum Guide 1.0, the current Agile PM Guide 2.0's predecessor, was published in March 2011. The Agile PM Guide 2.0 was completely relaunched in 2016. In 2017 the White Paper Hybrid Project Management was published.

The IAPM launched two awards in 2012, the Project Manager of the Year award and the Book of the Year award.

The IAPM is an independent certification body which examines the knowledge and competence of the certification candidates with a comprehensive, fair and neutral online examination system. The certification system is therefore tailored to the challenging world of project management in the 21st century.

TABLE OF CONTENTS

06 Acknowledgments

- 07 Introduction: Resource management as the supreme discipline in project management
- **10** 2. Operational benefit: Optimal staff deployment: Who takes responsibility?
- **10** 2.1 Identifying suitable project participants
- **14** 2.2 Assigning project participants
- **15** 2.3 Employing project participants as efficiently as possible
- 17 2.4 Continuously managing and monitoring project participants

19 3. Strategic benefits of efficient resource management

- **20** 3.1 Optimal mix of projects finding the right projects
- **21** 3.2 Current projects, project ideas and future plans
- 22 3.3 Probability of occurrence of Projects in the portfolio
- **23** 3.4 Portfolio monitoring: Risk in portfolios

25 4. Skill management

- **25** 4.1 Capacity planning in transition
- **27** 4.2 Organisational change
- 28 4.3 Competitive advantages through skill management

ACKNOWLEDGMENTS

In project-related resource management (the term Enterprise Resource Planning (ERP), commonly used in the line organisation), the objective is to determine the required resources and their allocation for the entire project and the individual processes, their effective deployment management and control.

Skill management is interlinked with resource management, which means that not only the temporal and spatial availability of employees, but also a detailed examination of their skills and qualifications plays an important role. On the one hand, this is absolutely necessary for large projects in order to find the right employees for the project tasks, but on the other hand it is also a point of conflict between the employer and employee representatives, since this is where an explicit evaluation of the employee qualification shown in the company is carried out by the employer - a basic tension that resource management has to face up to and provide suitable solutions.

Can Do is a solution provider for people management in the sense of planning resources and skills. Founded in 2000, the owner-managed software company supports project managers of mediumsized companies and corporations in the planning of projects across all sectors of industry, while at the same time taking into account the availability and skills of employees. The standard software of Can Do is used from the vacation planning over the co-worker employment and basic load planning up to the resource planning in the multi project management. This interlocks corporate strategy and human resources management with special attention to personnel development.

The IAPM International Association of Project Managers would like to thank Thomas Schlereth and his team from Can Do GmbH, Munich (www.can-do.de) for submitting this white paper. This makes an important contribution to a core area of project management and significantly supports the work of project managers.

1. INTRODUCTION

RESOURCE MANAGEMENT AS THE SUPREME DISCIPLINE IN PROJECT MANAGEMENT

"Resource management as part of project management serves to identify, allocate and use project participants (resources) as efficiently as possible." (Wikipedia.de¹)

The correct use of resources is listed in almost all project management studies as a central success factor for well worked out projects. Conversely, the wrong use of resources - insufficient or even incorrect resources - is one of the most common reasons why projects fail. **Good resource management is therefore one fundamental part for successful project work**, which in turn is essential for the company's overall success. In many studies and textbooks, resource management is rightly referred to as a supreme discipline in project management.

Good resource management is not only reflected in the **efficient deployment of personnel** in projects. Rather, it must not limit itself to project work, but must involve the entire organisation – due to the mixed employment of the employees in projects as well as in their departments.

The benefit of this requirement is that the company gains an **overview and control over the entire use of resources**.

In addition to this operational benefit, comprehensive resource management also has a strategic dimension: if available and required capacities are already taken into account at portfolio level, a realistic picture of what a company is capable of achieving in addition to current projects and day-to-day business. Resource management at portfolio level helps to decide which projects can still be realised and how it effects a mandatory project (e.g. the implementation of a change in legislation) if it has to be implemented at short notice. Resource management must therefore be considered and operated holistically in order to achieve its full effect.

¹⁾ http://de.wikipedia.org/wiki/Ressourcenmanagement (February 2018)

Liechtenstein in January 2018

Dr. Roland Ottmann Vice-President of the IAPM Chairman of the IAPM Council of Expert on "Project Management" If, in a further step, it is not only related to people but also to their abilities (skills), the benefits of resource management are increased - and not only in operations by further optimising the deployment of personnel. Particularly in the strategic view of a company's project portfolios, skill management (resource management based on skills) defines future requirements for skills that can then be covered by training and further education measures. The two buzzwords "lack of skilled workers" and "use of external service providers" indicate the benefits and are explained in more detail in chapter 4 skill management.

Contrary to some textbooks, this whitepaper understands resources as people only, i.e. neither materials nor infrastructure. Accordingly, resource management, to put it succinctly, provides the answer to the question "Who takes responsibility?"



2. OPERATIONAL BENEFIT

OPTIMAL STAFF DEPLOYMENT: WHO TAKES RESPONSIBILITY?

Following the definitions given above, resource management is essentially about four things:

- S Identifying suitable project participants
- S Assigning project participants to a work package
- Using project participants as efficiently as possible
- Continuously managing and monitoring project participants

2.1 IDENTIFYING SUITABLE PROJECT PARTICIPANTS

Project participants can be those **who** have the necessary skills, the tasks assigned to them and their availability, i.e. free capacities.

The suitability of an employee to participate in the project is determined either by the project manager himself by requesting a certain employee during the planning phase, with whom he may have already worked successfully in the past, or by the employee's mere affiliation to his department. For example, in a software rollout project, any person from the IT administration department could be required to complete the "installation on the internal server" work package. It is assumed that all employees of this department are able to perform the installation. For this reason, the project manager selects any person from this department, even if he or she does not know them.

The larger a company, the more likely it is that the project manager no longer selects certain people for his project but reduces his or her request to a certain capacity contingent. This contingent is addressed to the line manager. In order to stick to the example of the software installation, the project manager only requests a certain capacity from the IT administration department. The line manager receives this request and decides who can take over the task from his team and then assigns this employee to the project.

A third way to identify suitable employees is resource planning based on skills. In this case, the project manager only requests the required skills and the required time allocation (see also *4. skill management*).

Once a suitable project team member has been found, it is not vet certain whether he or she will be available in the required period of time. The answer to this problem is usually not trivial, unless there is a pool of employees who work exclusively in a single project. However, the reality of the company is different: Employees are usually structured in a line or matrix organisation. The "world of projects" exists in parallel. Maybe there is also a Project Management Office (PMO), whose employees support the project work. Ultimately, however, individual employees are subtracted or provided for the projects from the specialist departments, who then take over tasks in several projects in addition to their specialist work.

Their capacity utilisation therefore consists of their activities in their departments and their work in projects. Finally, holidays, sick days, part-time models and other absences are also included in a capacity analysis. And then there are also basic workloads such as answering e-mails that cannot be assigned to the department or project in terms of capacity. However, even if the individual employee is available for a certain period of time, the capacity situation of his or her department and, of course, requests from other projects still have to be taken into consideration.

COMPUTER-BASED RESOURCE PLANNING

Starting from a certain company size and number of projects, resource planning can no longer be carried out with conventional spreadsheet programs such as Excel. Here, a specialised software solution should be used that takes the previous mentioned facts into account:

- Capacity utilisation of the individual departments and their employees
- Capacity utilisation and requirements from all projects (multi-project management)
- Consideration of basic loads, holidays and other absences

In addition to these requirements, which are essential for finding free capacities, the tool should offer the following additional functions:

S Working with inaccurate data and

values: realistic planning means planning with inaccuracies: "Project end: 3rd quarter" is more realistic than "Project end: September 5, at 5.30 p.m.", the estimated expenditure "40-50 man-days" is more realistic than "45 man-days". A spurious accuracy in planning can have devastating effects.

• Live management: No check-in and check-out of project plans and resource planning. All information

must be immediately available as soon as it has been entered into the system, otherwise changes that occur during planning are ignored.

- Simulation mode: The project manager must be able to check and analyse the feasibility of the project during the planning phase and to think through various scenarios.
- Integrated time recording: Actual data is the basis for a realistic capacity calculation. Therefore, the software solution must offer time recording.
- Risk management: Overloads must be indicated immediately with the associated probability of occurrence. Only then the project or line manager can immediately initiate countermeasures.

SUMMARY (i

The identification of suitable project members takes place in two steps: The project manager knows which professional qualifications he needs for his project. He therefore addresses his enquiry to the appropriate line manager, who then assigns suitable employees to the project in a second step. The prerequisite for this is that there is sufficient capacity in his department at all. To determine this, it is necessary to know exactly how busy the department and its employees are. In a multi-project environment, all requests to the department must also be considered. After all, base loads, vacation days and days of absence must be included in the diagram. Only a holistic view of resources is able to make a reliable statement about capacity utilisation.

2.2 ASSIGNING PROJECT PARTICIPANTS

Assigning employees to a project is based on the procedure described in the previous section. The basic prerequisite for this is that sufficient capacities are available in the departments, i.e. that the employees have time for the project. In order to find out, it is advisable to use a company-wide software for resource planning, which creates a reliable data basis with regard to capacity utilisation.

Such a solution should also **support the coordination process between project and line** (matrix) itself. Already during portfolio and project planning - in simulation mode - the project manager must be able to see overloads in the departments. He can then draw up alternative scenarios so that a conflict-free or low-conflict (rough) planning can be created at the end. In his resource planning, he only requested capacities from the specialist departments.

Ideally, the inquiries are automatically addressed to the respective line manager. He sees the capacity utilisation of his department and of the individual employees. This presentation includes his departmental planning as well as all resource requests and utilisations from projects. A professional software solution is able to provide the line manager with this information in such a clear way that he can handle the inquiry from the project with a mouse click. He sees which of his employees are available for the requested period of time with the requested scope and assigns them to the corresponding project. Here we would like to emphasise that a professional software for resource planning makes the coordination process between project and line managers easier, more comfortable, clear and transparent, but communication between project and line managers cannot be replaced by this.

It seems almost redundant to stress that it is essential for this coordination process that all information on capacity utilisation should be available in real time. This is the only way to ensure that no obsolete data is used.



Resource allocation is usually a coordination process between project managers and line managers. The process can only be carried out successfully if a comprehensive real-time overview of resource utilisation is available. An integrated software solution can create this transparency and make the coordination process comfortable and efficient.

2.3 EMPLOYING PROJECT PARTICIPANTS AS EFFICIENTLY AS POSSIBLE

Efficient use of resources aims to generate the highest possible return on investment from existing resources. When applied to the project economy, this means that a company with its employees implements the maximum number of projects (as successfully as possible).

Overview and control of resource deployment are a first step towards efficient resource deployment. The larger the company and the more projects that are implemented in parallel with day-today business, the more complicated it becomes for people to plan an optimal deployment of employees independently. The situation becomes even more complicated if realistic planning methods are used, i.e. with inaccurate data and values. By then, the use of a software solution is essential for an efficient use of resources.

But what can such a software really do for an optimal deployment of personnel? Many solutions base their capacity calculations on a linear load distribution. However, this does not correspond to everyday work and the benefits of many software solutions are very limited.

To illustrate this, we assume a five-day week with 40 working hours per week. An employee is given the task of writing a concept within one week (5 working days). A total of 20 hours is available for this purpose. At the same time, he is to participate in a workshop on 2 days all day long (8 hours each). A software that works with a linear load distribution shows a warning: It distributes the task "Writing a concept" with 4 hours each to every 5 days and adds on two days a workload of 8 hours each for the workshop. On these two workshop days, the employee would therefore have an effort of 12 hours. This violates his eight-hour day and the software warns against an overload that does not exist in reality.

A self-organised employee has no problem fulfilling both tasks: The employee takes part in the workshop on two days and then has 3 days (= 24 working hours) to write the concept for 20 hours. No problem for the self-organised employee.

In this small example, no base loads have been considered and no inaccurate data and values have yet been taken into account: If the workshop lasts 2-3 days, are both jobs still feasible? The software should now indicate that 50% overload occurs when the workshop lasts 3 days. If the employee is scheduled in one or more other projects at the same time and also has to fill out his or her function in his or her department, it is hardly possible to continue to calculate the capacity utilisation independently.

A dynamic adjustment procedure is therefore required for calculating the capacity utilisation. When calculating the capacity utilisation, no fixed time slots may be used, but the entire work packages must be considered in their interaction. Unproblematic, selective overloads are detected and levelled by an algorithm, for example, or all scenarios are calculated and a corresponding risk profile is displayed. A dynamic adjustment procedure makes an efficient use of resources possible in the first place. This requires a software solution because this task can no longer be performed manually.



Efficient resource planning is based on a comprehensive and realistic overview of the capacity utilisation of the company's employees and departments. Due to the multi-dimensionality - projects, line work, absence days and other availability reductions must be taken into account and inaccurate planning data have to be processed - the use of a professional software solution is recommended. This solution must have

a dynamic capacity adjustment procedure that recognises and levels unproblematic and selective overloads. Such a dynamic adjustment procedure corresponds to the principle of project management, i.e. the self-organisation and independence of the employees within a given framework. It reduces the planning effort and makes planning more realistic and simpler at the same time.



2.4 CONTINUOUSLY MANAGING AND MONITORING PROJECT PARTICIPANTS

Suitable resources were found and allocated in the context of a project planning and now they can be used efficiently according to the planning. This condition is usually reached shortly before the start of the project. But as soon as the project starts, changes and deviations are likely to occur. Continuous monitoring of the project is therefore essential and the basis for effective control. In order to properly monitor and control the project, certain information is essential.

Actual data: Quick and easy

It is not possible to monitor the project without the feedback of the project participants on the progress of the project, e.g. on completed activities or the feedback of their working hours. It must therefore be possible to enter the actual data into the planning system as quickly and easily as possible - either in the system itself or via interfaces to external systems. The software must have an open architecture in order to be easily integrated into the existing IT landscape (e. g. via XML interfaces or SharePoint). If the actual data are entered into the software solution by the project participants themselves, it is important to attach importance to the tool's modern ergonomics. Only easy-touse applications are accepted and used by users.

Live management: real-time information

The fact that information is made available immediately as soon as it is entered has become a basic requirement for any modern software. No check-out and check-in of plans, no tedious information retrieval - all information and the associated effects must be immediately displayed by the application: A permanent target/ actual comparison in real time. Only in this way can the project manager identify risks, problems and delays at an early stage and take appropriate measures. A note at this point: It should be ensured that the project manager himself has control over the project plan and is not subject to any automatisms of the planning software. The software shows, warns and points out problems, but it is up to the project manager to intervene accordingly.

Overview and transparency: dashboards and rights model

During the course of a project, a wide variety of information of different types and relevance emerges. PM software must fulfil this fact and provide a suitable information hierarchy that also summarises and combines information in a meaningful way. At the same time, different views should be available for the different user groups on the basis of a rights & role model. In this way, the handling of personal data can also be sensibly regulated.

Basic plans, history and project reports

Basic plans are a monitoring tool that should not be underestimated. These should be able to be created and stored in any number. Based on a basic plan, deviations can be made easily visible and undesired planning changes can be reversed, ideally with a mouse click.

In this context, a revision-proof history should be attached to the planning software. In addition to the rights system, which regulates, i.e. who can make which changes, the history ensures that it is possible to trace who has made which planning and changes.

Project reports as part of the project documentation can be used to create a whitepaper. There are numerous standards and recommendations which reports are necessary for project management and controlling. In addition to standard reports such as milestone trend analysis or project status reports, it makes sense to have a variable reporting system that allows users to create their own reports, depending on the type of project and situation.



Overview and control over the project participants - and thus over the project itself - is facilitated by transparency and usefully condensed information. The planning tool used for this has to be much more useful than the time and effort required to operate it.

Real-time behaviour, an intelligent information hierarchy, different monitoring functions and reporting must be provided. Another key factor is the simple integration of the system into the existing IT landscape.

3. STRATEGIC BENEFITS OF EFFICIENT RESOURCE MANAGEMENT

In addition to the improvement in project work itself, professional resource management also offers numerous advantages on a strategic level. This whitepaper refers to the strategic benefits of an existing project portfolio management as a tool for implementing the corporate strategy.

The goal of portfolio management is to *"find the optimal mix of projects within the given conditions (such as client needs, strategic goals or available resources) that can best contribute to the fulfilment of the organisation's goals".*²

By project portfolio management, projects are increasingly seen as business areas or products of the company. Projects and project ideas are collected in a portfolio, evaluated, prioritised and then released or rejected. Of course, only those projects can be realised for which there are sufficient financial resources and sufficient free professional resources available. It is therefore one of the tasks of project portfolio management to coordinate current and planned projects in terms of resources, synergies and conflicts.³ In this whitepaper, all resources mentioned are people. At least, this is due to the fact that projects are planned and implemented by people. In view of the shortage of skilled workers, which is already noticeable in some countries, sectors and companies, the topic of "efficient use of resources" is an essential criterion that can significantly influence the competitiveness of a company and. in the negative case, threaten its existence. Furthermore, organisations from countries with a relatively high wage level are very interested in the efficient deployment of their employees for financial reasons and therefore consider this issue to be of great strategic relevance.

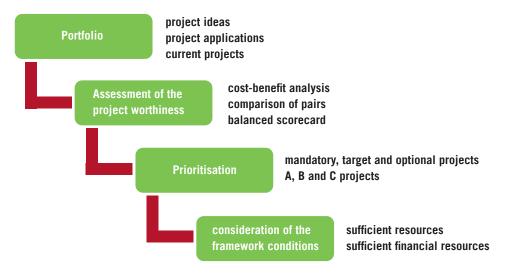
² http://de.wikipedia.org/wiki/Projektportfoliomanagement (February 2018)

³ https://www.projektmagazin.de/glossarterm/projektportfoliomanagement (fee-bases section; April 2015)

3.1 OPTIMAL MIX OF PROJECTS -FINDING THE RIGHT PROJECTS

A fundamental goal of portfolio management is to implement the right projects. In addition to mandatory projects such as the implementation of legislative changes, it is also a matter of examining which projects will bring the greatest benefit to the company. There are various methods such as cost-benefit analysis, comparison of pairs or working with balanced scorecards. There are a series of tools to help you find the right projects. However, the result of prioritisation will miss the mark if the company's further framework conditions - limited resources and financial resources - are not sufficiently taken into account.

It has proven useful to check the capacity feasibility of projects in a portfolio in the order of priority. In this way, the most important projects (A-projects / mandatory projects) can be planned firmly and depending on them, the optional projects (B- and C-projects / target and optional projects) can be set. A portfolio thus presents itself as a living structure that changes every day: Current projects are modified or completed, new projects are released and started, other projects are abandoned.



3.2 CURRENT PROJECTS, PROJECT IDEAS AND FUTURE PLANS

Current projects are represented in a project portfolio, as well as project ideas and future projects that have already been approved. The projects are released, planned in detail and implemented according to their prioritisation. It is important that the current development of all current projects is immediately incorporated into the portfolio. Changes (e.g. longer duration, higher effort) in a project often have an influence on parallel running or subsequent projects. A project delay can result in a subsequent project no longer being feasible because the resources (employees) are involved in the project.

A realistic view of capacity should include not only all actual and planned project data, but also the workloads from the departments' functional activities and the basic workloads. This is necessary because normally there is no resource exclusivity for projects, i.e. the project teams consist of skilled workers from the individual departments (matrix organisation). It is necessary to consider the availability of resources in the portfolio and to store the expected requirements of employees for the projects. Since it is not yet possible to predict the exact resource requirements of project ideas during the development phase, it should be possible to work with inaccurate data and values. At the same time, it is also expedient that the project ideas can either be based on a workload model or that it is possible to plan in detail in the portfolio. The distribution of resources in a project is not uniform, which must be reflected in portfolio planning. This is the only way to achieve a realistic utilisation simulation and a reliable resource prediction.

resource management in project portfolio								
project ideas and planned projects			current projects			base loads		
anticipated	capacity utilisation	occurrence probability	rough planning vs. load curves	actual times	project progress	delays and extra costs	line and ad hoc activities	holidays and other days of absence

3.3 PROBABILITY OF OCCURRENCE OF PROJECTS IN THE PORTFOLIO

Portfolio management becomes even more practicable if there is an option to include probability of project occurrence in the portfolio analysis. This is recommended, for example, in the case of "externally controlled projects", where third parties decide on the release of a project, e.g. in the case of customer projects. Since not every offered project (offer) is also released (order), companies often offer considerably more projects than they can handle at all. They do this in the knowledge that not all projects are realised. Here it useful to work with probabilities of occurrence to simulate the probable expected reality. Resource loads are offset against the probability of occurrence assigned to the project. In this way, it is not only possible to find out whether and when a sales order can be converted, but a specific risk assessment is also possible.

3.4 PORTFOLIO MONITORING: RISK IN PORTFOLIOS

Bubble charts have proven themselves for efficient portfolio monitoring. The projects are represented by bubbles which are located in a coordinate system. One axis often stands for the benefit, the other for the risk of the projects. The size of the bubble can e.g. symbolise the size (expense/cost) of a project, the project progress can be represented by coloring the shape of the bubble.

This white paper focuses on the risks of overloading (resources and departments). The portfolio risk expresses the probability that portfolio planning will not work. If the average risk is 25%, there is a 25% probability that the portfolio will not proceed as planned or fail. This is to be understood as a recommendation for action: This portfolio should be converted. A risk of 75% means that the present planning is not realistic and should be substantially modified. This also has the advantage that the steering committee can focus on projects where problems have arisen or are foreseeable. This reduces the amount of information to be viewed and gives decision-makers more time to concentrate on the essentials.

It is important that both departments and the employees themselves are taken into account when calculating overload risks. An algorithm that detects uncritical overload peaks and compensates them automatically forms the basis for an intelligent capacity analysis.

> total risk of the portfolio total risk of the project in the portfolio

specific risks in the project



Holistic resource management is already part of the project portfolio and forms its basis. Realistic strategic planning is only possible if the existing capacities are adequately observed in the project portfolio. **Competent resource management presents itself as a key discipline for a successful project portfolio.** This involves assigning the most suitable employees to the most important projects and identifying resource bottlenecks and overload situations at an early stage in a comprehensive analysis.





4. SKILL MANAGEMENT

This whitepaper understands skill management, a capacity planning based on skills, as a significant advancement in resource management, which has a strategic benefit that is not yet sufficiently appreciated.

Capacity planning based on the skills of the employees has the potential to change the entire resource management. Almost every area of a company will be affected. In particular, employees in the departments in a line or matrix organisation will be affected by the changes and - after the expansion of project work - will have to adapt again.

Skill planning for projects and all other work is a logical consequence of the transformation process in capacity planning.

4.1 CAPACITY PLANNING IN TRANSITION

Project management is becoming more and more important in day-to-day business. The first step is usually the planning of individual projects. Resources are usually planned by name. This means that the planner knows both the people and their abilities. However, projects are increasingly taking place across departments, locations and companies. In addition, more and more divisions are working project-oriented. As a result, isolated individual project planning is no longer effective. In an increasing number of companies, it is being replaced by strategic project portfolio management. Resources in the portfolio are usually planned generically, i.e. it is not planned on the basis of individual employees, but on the basis of teams and departments. Only after the release of the project, in detailed planning, will the generic planning be broken down into certain persons in the interaction of project and line.

However, it is still problematic that a certain profile of the associated employees is assumed by the mere affiliation to a department. It should also be borne in mind that certain skills cannot be clearly assigned to individual departments. Finally, the advancing internationalisation of the project economy makes planning, even at departmental level, increasingly problematic. The solution is skill management. An employee usually has several skills, of course. For example, he can use a certain software and speak English. However, it should also be possible to define other attributes as skills, such as the location at which an employee usually works or certifications required by a project.

In skill management, the project manager plans on the basis of skills, which he also combines with each other. It is supported by software in which a corresponding pool of skills is created, from which the planner selects the required skills. It involves a certain amount of effort, so that in addition to the skill combination, there is also a capacity requirement. The tool now checks whether there are people in the organisation who have the required skills and whether they have sufficient free capacity. Such software should be able to calculate possible overloads in real time with the highest probability. Speed is essential, because the planner deals with the system in a playful way. This means that he tries out different constellations until he has found his optimal planning. The software analyses the selected scenario in a few milliseconds.

4.2 ORGANISATIONAL CHANGE

When planning with skills, the organisational structure of a company is becoming less relevant and the planner does not care which organisational unit an employee belongs to. He is satisfied with the statement as to whether the company has sufficient capacities for his requirements at present. It would be ideal if the software also suggests the ideal employees to him for his inquiry, i.e. employees in the company who have the required skills and the appropriate capacity at the desired time. The coordination process also changes from a skill request to an employee allocation. Until now, this coordination process has taken place between a project manager and a line manager. In skill management, the request is no longer directed at a specific department. Ultimately, any line manager who has suitable and available employees could serve the request. Here a completely new job description "project planner" or "resource manager" could be created.



4.3 COMPETITIVE ADVANTAGES THROUGH SKILL MANAGEMENT

Capacity planning based on skills can bring real competitive advantages to companies. Optimum deployment of personnel is per se relevant to competition.

In-service training of employees in projects

When deploying qualified personnel in projects, a rough distinction can be made between two strategies. Either the planner always uses the employees who best meet the requirements. This approach is most advantageous for the project because the employee can and will perform the task in the project most quickly and with the highest quality. Or the planner aims at an advantage for the organisation. It can proven to be a good idea to instate employees who do not yet have the required know-how. These employees will acquire the necessary knowledge within the framework of project activities. The employees will take longer for their tasks and the profit of the project will decrease slightly over the increased effort, but knowledge will be built up here. This creates disadvantages for the project, but benefits for the organisation. There are more people in the company after the completion of their work who have this know-how, which makes future personnel planning more flexible. The risk of exclusive knowledge is reduced and the

dependence of the organisation on individual persons is reduced. It can also have a positive effect on the motivation of employees if they are challenged and allowed to learn, instead of just doing routine work.

Sustainability in Human Resources Management

Particular in project portfolios, skill management can indicate whether and when there is not enough capacity of the required skills in the future. In this way, a need for know-how can be identified very precisely, which only comes up in the long term. This gives the company the opportunity to react at an early stage and take appropriate measures. The knowledge that there will be a future need for special knowledge is of enormous benefit. Continuing education and training can be determined in a much more targeted and precise manner based on future skill requirements.

This also applies to recruitment: When is who with which knowledge needed? This

demand can be determined with skill management. Processes for the further development of the workforce can be optimised accordingly.

Of course, this also applies to the reverse case: When do I no longer need which knowledge? In some industries, especially IT, technologies change quickly and therefore the need for special knowledge is high.

It is of fundamental strategic importance here to combine the procedures: The knowledge that in the future this or that ability will be needed less can be given to external service providers. The resources thus freed up can be used specifically for new fields of knowledge for which they can qualify.

SUMMARY

Capability-based capacity planning can lead to a paradigm shift in resource management. Skill management is a powerful tool that enables highly efficient use of resources and enables the company to identify future needs for expertise. This strategic dimension of skill management cannot be emphasised too much, as it improves the market position of companies in the long term.

IMPRINT

www.iapm.net

1. edition Copyright © IAPM 2018

photos: www.istockphoto.com

published by IAPM International Association of Project Managers™ in Liechtenstein

ISBN: 978-3-941739-35-2

Quality management system The IAPM International Association of Project Managers[™] quality management system meets the requirements of the ISO 9001.

Trademark Protection IAPM International Association of Project Managers ™ is a protected EU trademark – no. 9539354 –

The IAPM is a non-profit organization registered in the Principality of Liechtenstein. Nr. FL-0002.353.470-6



DIE VORTEILE EINER IAPM-ZERTIFIZIERUNG

Competitive advantages & career launching pad

- Proven competence/experience
- Competitive advantages for Companies and individuals
- Standardization of terms and practices
- External, objective confirmation of knowledge

Online examination

• No travel expenses

2

3

4

5

- No pressure of time to prepare
- Exams can be taken on any PC

No re-certification necessary

• No certificate expiry date

Ò

No new costs

Fair fees

° Q

• The fees depend on the GDP of the country in which the certificate candidate has citizenship.

-• Ò

 \mathbf{b}

•

Anonymous Certification

- No subjective evaluations
- No "fail quota"
- No discrimination



