

Capacity Planning in Project Management – 4 Important Success Factors

PMO, RESOURCE MANAGEMENT

+++ These 4 Steps Will Increase Your Success in Strategic Resource Planning +++

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Is your company undergoing constant change, too? In this case, you will be familiar with the resource problem.

Capacity planning in project management means obtaining or creating the necessary capacities in the form of suitable employees. In doing this, you have to constantly look ahead. At the same time, you have to consider the company's strategic goals – the basis for corporate success.

Tactical resource planning is the coordination between project and line managers. By contrast, strategic resource or capacity planning is concerned with:

- The predictive provision of employees with the necessary skills
- Ensuring that appropriate employees can implement strategically relevant projects at the right time

Note: In this article, the terms strategic resource planning and capacity planning are synonymous.

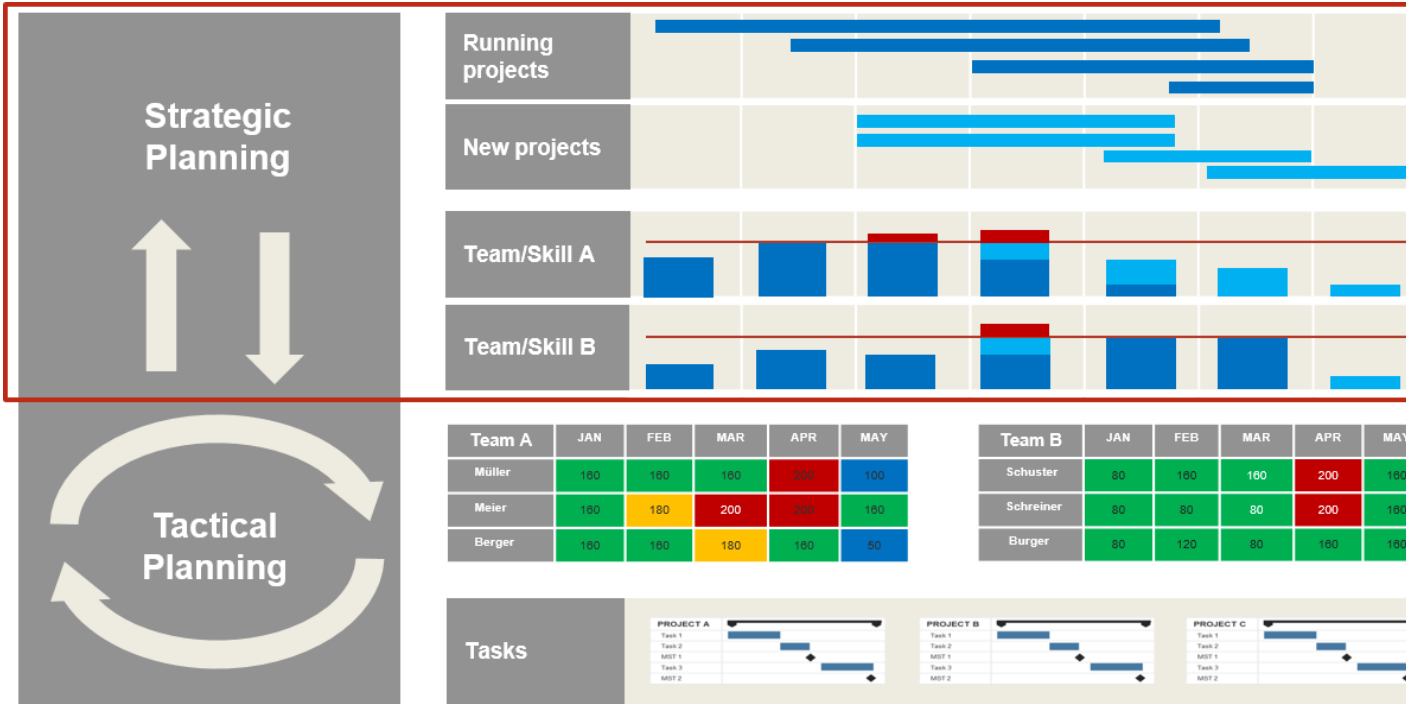


Figure 1: Strategic vs. tactical – Predictive planning of new projects and required resources

Benefits of Strategic Resource Planning

Strategic resource planning can yield multiple benefits:

- Making sure to reserve the most resources for the most important projects – rather than for unimportant ones
- Having a complete overview of all resources and their assignments to projects and basic load; this will keep you informed about the overall resource utilization at all times
- Knowing which additional projects you can start and carry out
- Identifying resource bottlenecks in good time and being able to react to them according to corporate strategy
- Avoiding resource conflicts, as they do not even arise

Inadequate planning, on the other hand, carries numerous risks:

- Due to inadequate resource allocation, projects are not finished on time
- Project costs rise, as there are too few appropriate resources
- Some business opportunities you cannot exploit, as you cannot obtain the required skills in good time
- Your coordination efforts for resolving resource conflicts are strikingly increased

All of this can result in dissatisfied customers!

4 Steps to Successful Capacity Planning in Project Management

And this is how you reach your goal:

Step 1: Establish the Necessary Processes with the Right Staff

The **strategic planning of capacities** depends on the:

- Dynamics at your company
- Your Industry
- Number of projects
- Number of resources
- Duration of projects

Different companies tend to undergo the strategic planning process at different intervals:

- *One to four times a year* for companies developing and making products
- Possibly *monthly* for companies offering services
- Only *on occasion* for companies planning few major projects

Those involved in the **strategic planning process** are:

- Management with strategic targets
- Team leaders and heads of department who have to provide resource information
- Project managers who have to update running projects by the due date
- PMO preparing new projects properly and controlling the overall process

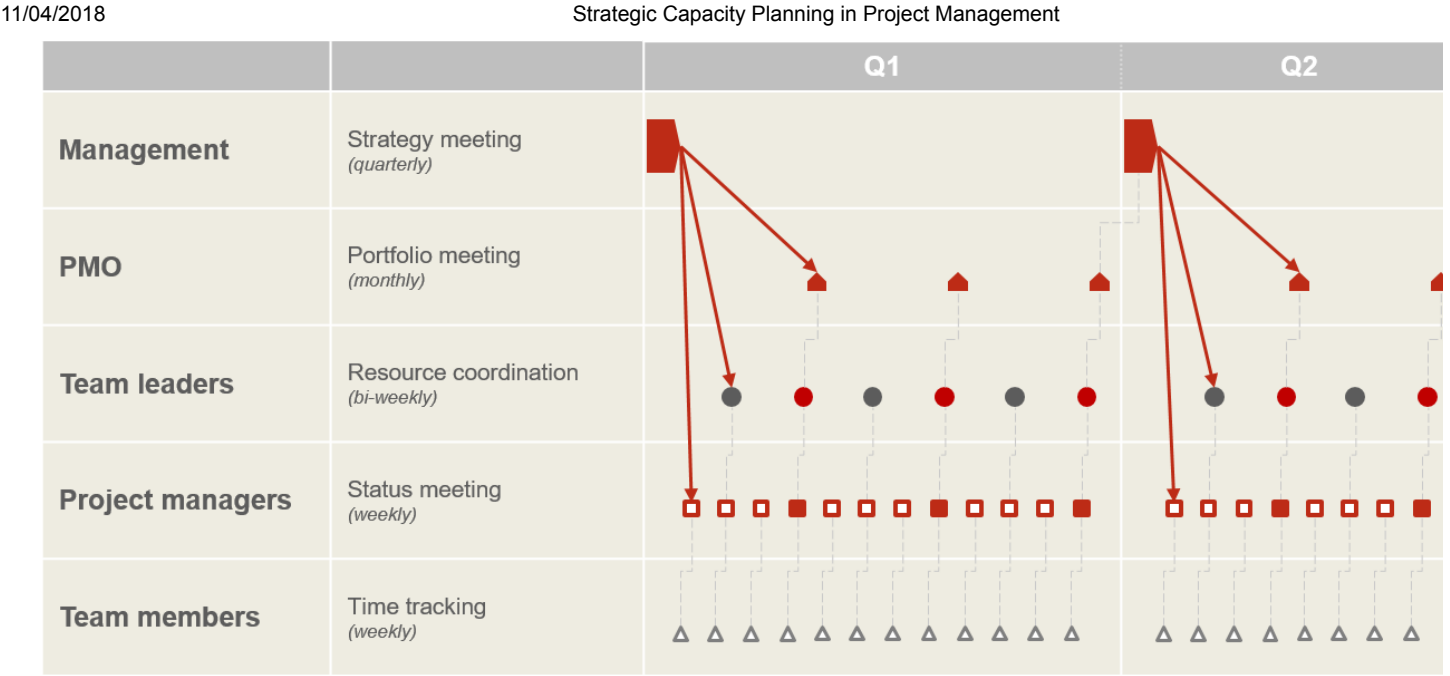


Figure 2: Intervals of coordination between the roles required in the strategic planning process

Make sure all **data** are **complete** and **up to date** by the due date. For this, all involved have to pull together in unison.

To achieve this, you need a PMO that has the relevant competencies.

The PMO:

- defines processes
- trains the persons involved
- motivates them to perform their tasks in good time

The PMO may also support the project managers and team leaders in executing their tasks. This depends on its nature.

“ Important note: For successful strategic capacity planning, it is vital to have the support of a strong PMO with backing from top management.

Read this to find out more: [How to Set Up a PMO and Be Successful](#)

Promote the benefits of coordination at set intervals to all involved. This will motivate them to get involved. It is crucial to fix the intervals individually. They depend on your company's possibilities and necessities.

Moreover, you have to be minute in defining how to prepare as well as conduct planning and decision meetings.

You have to manage to make all relevant decisions in only few hours. At the same time, the decisions on project starts and resource availability need to be well founded. This v only work out if you have a **clear agenda** and **stringent moderation**.

Tip: See to the publication of the results of these planning sessions. Employees tend to expect a lot from the PMO's work and its controlling influence in the interest of better resource planning. This is where there is a lot of potential for good news. If you sell them well.

Step 2: Ensure Complete and Up-to-Date Project Data

First, you **register all projects** with the essential information in a central database. This requires details such as:

- name
- project manager
- sponsor
- start

- finish
- traffic light indicators for status and resource requirements

For running projects, the realistic **remaining effort** is most relevant – based on the current situation.

For new projects, it is necessary to meet the **minimum requirement** for resource planning. This means you have to plan all required skills – not necessarily persons – per month or quarter.

It is definitely not enough to look only at the total work without the distribution over time.

You might also like our 7 Steps to Optimal Project Portfolio Management – Read now!

This is exactly where it starts to get complex.

Find out your optimum specificity by beginning with the **roughest possible but still complete planning**.

Everyone asks for detailed planning, as it appears to be the better basis. But consider that this requires a higher planning effort. This effort will have to be made again and again in the future.

“ Find out your optimum specificity. What is important above all is complete planning.

If there are more project proposals than the company can carry out, you need to **prioritize** them. This allows you to decide which new projects to start.

There are various methods of prioritizing. They can be suitable to a greater or lesser extent – depending on the number of projects and decision-makers.

Eisenhower's rating according to importance and urgency is one way. It will help you to get good results quickly.

But the easiest way is to make the decision-makers prioritize the list of new projects.

“ Our tip: Turn to the decision-makers when determining weight and urgency of the projects.

If there are many decision-makers as well as many projects, you might have to consider a different course. You might need to create **strategic drivers**. These have to be prioritized and weighted and assigned to the projects accordingly. This will allow the system to calculate the prioritization.

Check on all accounts if the most effort is going towards the most important projects.

Here is how you do it: You align the importance of the drivers with the corresponding efforts of the assigned projects.

	Priority	Driver A	Driver B	Driver C
Project	1	3		1
Project	2	2	3	
Project	3		3	2
Project	4	1	2	1
Project	5	1	2	
Project	6		1	2

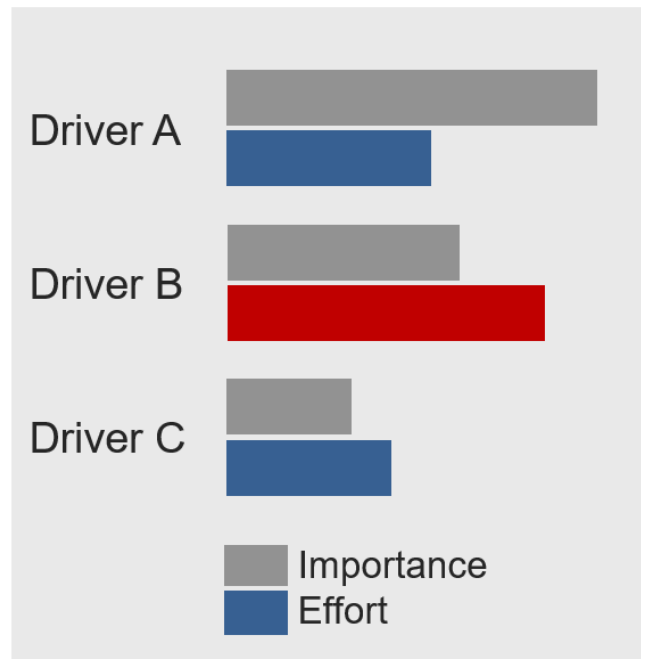


Figure 3: Always check: Does the most effort actually go towards the most important projects? (in the case of B the effort does not match the priority)

Identify unimportant projects it might be best to stop. This can liberate resources for more important new projects.

Observe the **dependencies among the projects**, too. Some development projects can only start once the results of basic projects are available. Maybe, you have also planned several alternative scenarios. Naturally, only one of these needs to be implemented.

Simple Excel lists soon prove to be inadequate when it comes to prioritization and dependencies. Professional tools provide excellent support for these challenges.

Tip: When implementing **new kinds of projects, e.g. in the R&D area**, you often face unknowns or various approaches to a solution. Resource requirements tend to be relatively uncertain or rather different from case to case.

We recommend you to **divide** such **projects into research and implementation**. This allows you to limit the uncertainty in the research part via a time budget. Based on the results of the research you will be able to plan the implementation part anew and in a more precise way.

Step 3: Identify the Actually Available Capacities

It does not make sense to analyze each person individually. While this would be desirable, it would be too much effort. It would be confusing, too.

Displaying the total capacity of all employees in one chart is not wise either. Employees have different skills which you have to deploy as required.

A clear and sensible level of detail can be obtained by **consolidation at skill level**. Some companies also form teams according to skills. In some circumstances, this permits planning at the level of these teams. In most cases, this is easy to implement.

The level of detail regarding the skills should bear relation to the effort. The planning must remain easy to understand at all times. The above principle also applies here: **as far as possible, as detailed as necessary**.

Moreover, you have to use the **actual availability for projects in** your calculations. There are two options to achieve this:

1. You deduct basic load or absences and operations from the total capacity
2. You compare the basic load and the projects with the full capacity

This is ultimately a matter of tools or the decision-makers' taste.

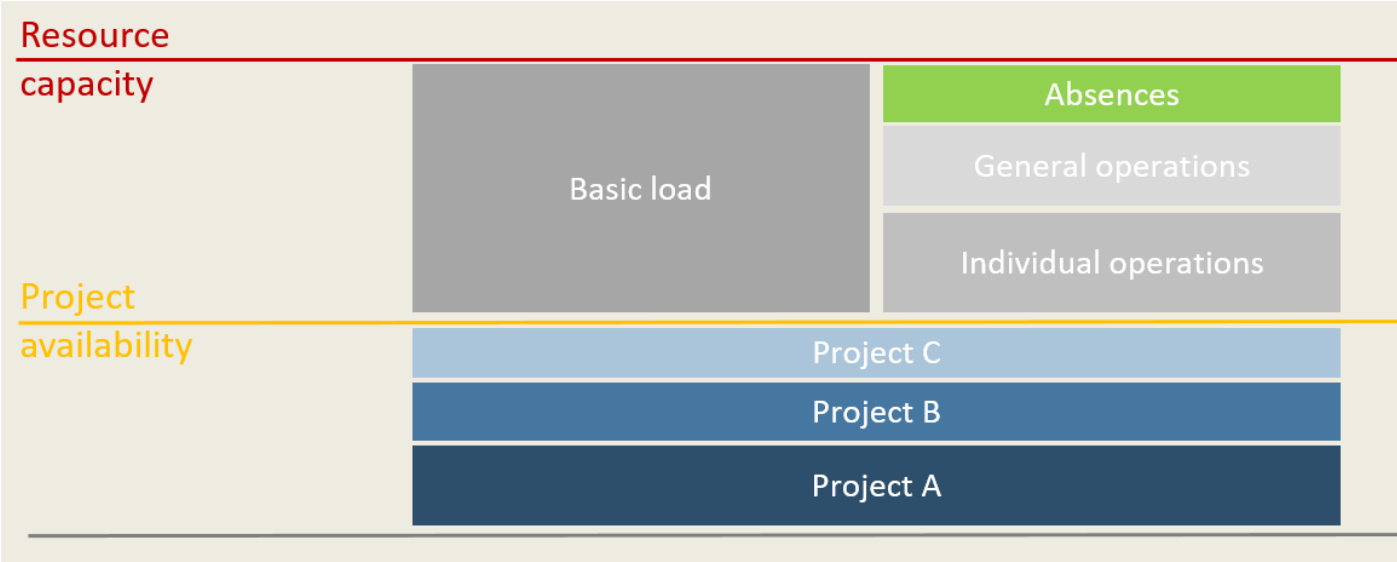


Figure 4: Determining the actual project availability is crucial for realistic planning

How the basic load or operations are dealt with is an important factor for planning precision. To keep it simple, you can use a flat estimate across the entire year.

But it is preferable to retrieve the team leaders' planning on a monthly basis.

Tip: Be sure to involve the team leaders in your capacity planning. Provide them with a suitable tool to this end. The tool should be able to transfer the team leaders' data to the project and portfolio management system.

Team leaders have an interest in planning all activities outside of projects anyway. It can be simple to transfer their data from Excel into a professional tool.

Step 4: Consolidate Capacities and Requirements

Both the capacities of the skills and the requirements from the projects are at hand. Now, you have to examine how these fit together.

In order to control them, all skills and their utilization have to be viewable on one page in an appropriate way. After all, a project usually involves various skills.

With every change you make, the effect on all skills should be visible at once. This requires the appropriate resource diagrams showing multiple skills on one screen.



Figure 5: Several resource histograms on one screen enable a good overview in the case of changes

When you add new projects to the portfolio, this has to be in line with the **priority** and the **remaining availability**.

Your approach has to be similar to filling a glass with stones and sand. You add the large stones first, then the pebbles and at last the sand. Shaking and rattling helps the sand fill all the gaps.

You may have **excess capacity** for some skills. In this case, identify tasks for the sales department or product management. Or you might identify potential for retraining. In times of ever-changing environments, this is a valuable insight – if it comes at the right time.

A more common problem will be resource or skill overload. There are some simple and logical ways of resolving these:

- Compensate for the missing capacities with the aid of internal or even external resources
- Change the priority of the projects or drop some projects altogether
- Postpone the projects far enough into the future that they fit into the given resource situation

For all three options, you will need an **optimum database** at any rate.

But always be aware that the database is based on **personal estimates**. And that it is exposed to political currents.

One difficulty you will face time and again when **communicating** about the workload of the teams. You have to make it clear to all involved that the glass is full and nothing new can be taken on.

One trick:

Ask this simple question: What can we remove to make room for the new? This will create the necessary awareness in all stakeholders.

You could also ask what part of no they did not understand.

But it can also help to enjoy a drink together. This will relieve pressure and improve the atmosphere. After all, there is always room for this in a glass filled with stones, pebbles and sand.

Reliable Data are the Basis of Successful Capacity Management

No matter whether they are about bringing in external resources or postponing projects: The decisions remain human decisions. But you should always make them based on the best possible data.

To obtain this data, you need **suitable software tools**. Without the **appropriate tool support for strategic resource planning**, you will find the tasks involved hard to master.

Are you working with tables in Excel or something similar? Are you dealing with a certain degree of complexity and amount of data? In this case, you will only achieve the best outcome in capacity planning and decision-making with a lot of effort – or not at all.

Our tip: Define your precise objective and requirements before investing in a tool. Plan a phased introduction of the tool to avoid overwhelming those involved. Only then does the purchase make sense. And you are on the right path to higher resource efficiency.

Conclusion – Capacity Planning in Project Management

This article has introduced **four important steps** to successful strategic capacity planning:

- **Step 1:** Establish all necessary processes with the appropriate staff – from top management to team leaders, department heads and project managers through to the PMO
- **Step 2:** Provide for complete and up-to-date project data and prioritize your projects.
- **Step 3:** Identify the capacities that are actually available at skill level. To do this, define the basic load and confer with the team leaders at regular intervals.
- **Step 4:** Consolidate the requirements (step 2) and the capacities (step 3). Identify underload as well as overload and try to balance them.

In addition, you have learned about **two further important parameters**. These can make for successful capacity planning in project management:

- An efficient PMO with backing from top management
- A suitable software tool to provide a solid database

Find the most important points summed up in the following checklist:

Your Checklist at a Glance:

- + Appoint a PMO with the appropriate competencies
- + Identify the roles and persons involved
- + Promote the benefits of strategic resource management
- + Warn stakeholders of the risks of going without capacity planning
- + Ensure a coordination process with meetings at set intervals
- + Keep all running and new projects up to date
- + Control the priorities of the projects
- + Consider the dependencies between the projects
- + See to complete planning by the team leaders
- + Be exact in preparing and conducting planning sessions
- + Create a clear overview by means of a dynamic chart with project lines and resource diagrams
- + Introduce the topic step by step to avoid overwhelming those involved
- + Provide each role with the appropriate IT tool

Is there anything you have to add regarding capacity planning? What gives you a headache? We'll be happy to respond to your comment below.

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