

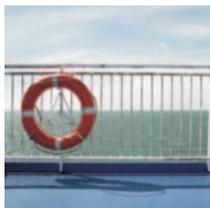
# Boosting Business Performance through Programme and Project Management\*



A first global survey on the current state of project management maturity in organisations across the world

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# Executive Summary

Today, no matter which sector you look at, organisations are constantly faced with the challenges of a fiercely competitive and changing environment. Environmental forces - competitive, economic, technological, political, legal, demographic, cultural and ecosystem - create challenges and opportunities for organisations. They must therefore continuously adapt to the environment if they are to survive and prosper. Top Management are thus confronted with the critical task of analysing and improving the ability of an organisation to survive and grow in this complex and changing world.

The successful organisation employs project management as a strategic tool to respond to this changing environment and to outperform those that do not adapt. An organisation that excels at project management becomes an agile organisation that knows how to deal with and drive change. As we see from the survey results, these leading organisations use project management to consistently position themselves 'ahead of the wave' of change.

The survey's main objective was to investigate whether a higher maturity level would go hand in hand with a higher project performance level. Not only have we gathered information on their views on the degree to which they succeed in the field of project management but we have also analysed

how the subject companies are structured and how they operate in four areas: project management processes, their overall organisation, employees' education in project management and the project management systems used. The following conclusions can be drawn, based on the survey results and subsequent detailed analysis:

- A higher maturity level for an organisation enhances overall project performance (not in just one project, but in the overall portfolio of projects)
- Most organisations are not satisfied with their current maturity level
- Project failures are often a consequence of aspects that are organisational and over which project managers have little influence
- Organisational structure has a big influence in overall project performance
- Staff development and professional certification enhance overall project performance
- A systematic approach to change management in projects is fundamental for superior performance
- The extent to which project management software is used is correlated to maturity levels
- Staffing projects with a majority of internal resources as against external resources is a better guarantee of success.

Organisations should be aware that when talking about Strategic Planning, Investment Appraisal, Capital Budgeting, New Product Development, Organisational Change, Mergers and Acquisitions, Outsourcing, etc., they are in fact talking about initiatives that translate into, and are executed through, projects. Top and Senior Management should therefore understand that project management is a key strategic tool to drive these initiatives and to reap their business benefits. Those organisations that understand the vital importance of excelling at project management, and act upon it, will undoubtedly outperform the competition.

PricewaterhouseCoopers

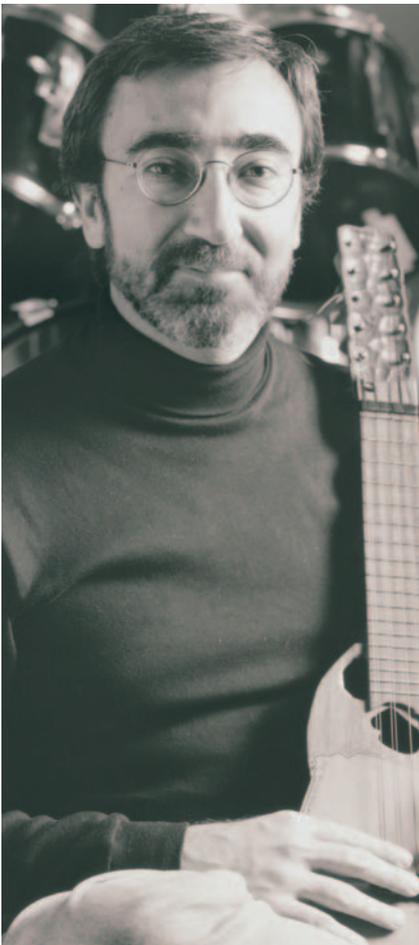


Throughout the survey, we observed differences according to geographical region and industry and also noticed that the majority of companies are still in the early stages and recognise the need to move to a higher level of project management maturity. Consequently, the efficiency, effectiveness, speed and quality with which companies manage and deliver projects will increasingly become a key competitive factor. The more mature organisations - those that fully understand and exploit all the project management elements described in this report - will undoubtedly outperform the competition and will be far better placed to achieve superior financial results.

# 04 Introduction

“We are what we repeatedly do. Excellence then, is not an act, but a habit.”

Aristotle  
(384-322 BC)



Nowadays, it is hard to imagine an organisation that is not engaged in some kind of project activity. Over the past decade, organisations have been turning from operations to project management as part of their competitive advantage strategy. The most successful organisations employ project management as a strategic tool to drive change and achieve their business objectives. New product development, organisational change, restructuring, post-deal integration, outsourcing and policy implementation are some of the initiatives, besides the traditional, but vital, systems development and implementation, which today are being managed as projects.

As one of the leading professional services firms, PricewaterhouseCoopers was confronted with multiple cases of project management in different types of organisations. Some of the organisations were delivering projects consistently better than others (i.e. projects on time, within budget, to scope and delivering business benefits). Our theoretical conclusion was that these organisations have a higher level of maturity and, therefore, the organisation as a whole performs better. However, PricewaterhouseCoopers decided to carry out a study to validate this hypothesis. At the beginning of 2004, PricewaterhouseCoopers conducted a survey to assess the current state of the level of project management maturity within organisations.

One of the main goals of the survey was to assess if these leading and best-performing organisations scored high in terms of project management maturity. In theory, the more mature an organisation is the better it should perform, maturity being regarded for the purposes of this survey as the consistency with which an organisation runs its business in a given manner. Over past years, many models have been developed as tools to assess organisational maturity, to identify their strengths and weaknesses and to provide benchmarking information. However, very few if any studies have demonstrated that a higher level of project management maturity is linked to better project performance.

When talking about an organisation's maturity, there are four core elements

that are taken into account: *processes, structure, people and systems*. The combination of the strengths of each of these individual elements, and the balance between them, determine the overall maturity level of the organisation. It is important to note that the maturity of an organisation is established by the lowest level of any of the four elements (and not by the highest). So, for instance, an organisation that has an excellent project management methodology in place but whose people lack project management competences will have a low maturity level. A brief description of each of these four core elements follows:

- **Processes**

Project management is essentially a systematic and organised set of processes that bring order and efficiency to the logistical details and team management of any size of project with a definable end. Therefore, the existence of well-defined project management processes - often grouped into a project management methodology - differentiates those companies that are able consistently to deliver high project results from the rest. Management should understand that a project management process, such as project plan definition, is just as important as a process that, for instance, describes the order-to-fulfil cycle within the finance department.

Aspects considered in this area: standardisation and institutionalisation of project management processes; integration with other corporate processes (i.e. procurement, strategic planning); prioritisation of projects and application of a standard project life cycle; utilisation of project portfolio techniques; and continuous improvement mentality.

- **Organisational structure**

The way an organisation is structured is fundamental to the outcome of their project management performance. The alignment of the organisational structure to the degree of importance of project management within the organisation is decisive in overall project performance. More often than not,



this element is underestimated or completely ignored by management, as organisations have not evolved (or adapted themselves) as quickly as the business has, and hence the large proportion of projects that fail.

Aspects considered in this area: resource ownership, mainly staff and budgets; definition of clear roles and responsibilities; support and involvement of senior and top management; and availability of a Project Support Office (or Programme Management Office).

- **People**

Project management is all about working in teams and, therefore, the people management skills of a project manager are essential. Special emphasis is placed on project or programme managers, but the people who are below or above (i.e. project sponsors) them also play a significant role in project success. Therefore overall competency building is fundamental to increase the maturity of an organisation.

Aspects considered in this area: project manager skills; development and training programmes; organisational culture; motivation and incentives; career opportunities for people working on projects.

- **Systems and tools**

Organisations use systems and tools to automate part of their project management processes and to support project managers in managing projects and allow top management to take key decisions. What we often see is that large amounts of money are spent on systems that are subsequently not actually used by project managers and the other levels involved in project implementation.

Aspects considered in this area: availability of company-wide

software; software used; areas reported on (i.e. programme and project management, capacity management, cost tracking, benefit realisation).

In addition to maturity level, we used the survey to find out more about current trends and best practices in project management.

## Methodology

The study was primarily carried out among top management, senior management and project managers. During the months of February, March and April 2004, two hundred responses were gathered from a balanced group of companies from thirty different countries across the globe, of various sizes and from various sectors, medium to small, and with differing business structures (subsidiaries, headquarters, etc.). The data were gathered via a web-based quantitative survey, which consisted of 50 closed questions and did not include any face-to-face interviews.

The survey gives us an insight into the collective opinions of these groups of key people on a wide range of key topics (project types, failure factors, tools, people aspects) and into 'best practices' (organisational structure, maturity level, project performance).

In addition to group opinions and key trends, we have calculated two essential indexes that have been used for the analysis: *maturity level* and *project management performance*. Maturity level has been calculated by combining the answers to 33 of the survey questions. The project management performance percentage was computed by aggregating elements of individual performance measured as a percentage of projects delivered on time, within budget, to scope and that deliver business benefits. The outcome is a percentage that tells us when

performance is highest - closer to 100% - and lowest, closer to 0%. It is important to highlight that, in order to make the results more relevant, we have decided not to link the formulas of these two indexes.

We have used the PricewaterhouseCoopers maturity model to assess the maturity levels of the respondents. It consists of the following 5 levels:

Maturity level	Brief description
1. Unreliable processes	Sporadic use of project management. Formal documentation and the knowledge of the standards of project management are lacking. No training. Little organisational support.
2. Informal processes	A formally approved project management methodology is lacking. Basic processes; not standard on all projects. Project participants are informed about project management standards, but do not apply these standards appropriately. Lessons learned are not gathered.
3. Standardised processes	A project management methodology is developed, approved and used. Project participants are informed about project management standards. Most projects are implemented using these standards. Management supports the use of standards. Focus on individual projects.
4. Monitored processes	An integrated project life cycle methodology is used. Application of the standard set is monitored and fixed for all projects. Projects support the strategic plan. Project benefits are tracked. Internal training is in place. Project Office is established.
5. Optimised processes	A regular analysis and renewal of the existing project management methodology is conducted. Lessons learned files are created. Knowledge transferred. Process in place to improve project performance. Management focuses on continuous improvement.

To the results have been added research on project management theories and economic studies carried out previously by PricewaterhouseCoopers. In addition, the analysis has been complemented by PricewaterhouseCoopers's decades of experience in project and programme management activities.

- **Balanced representation of all levels in the organisation.**  
This is an important aspect to be remembered throughout the survey - out of 200 participants who completed the survey, 33% (68) are top managers (i.e. Managing Director, CFO, Finance Director, IT Director, Vice-president, etc.). 32% (64) are senior managers (i.e. Line Manager, Quality Manager, Corporate Project Management Office, etc.) and 28% (55) are project managers (i.e. Programme Manager, Chief Project Manager, etc.).

## Company profiles

The project management survey was completed by 200 different organisations. The relevance and impact of the study can be established by looking into the profiles of the respondents.

Figure 1

### Participation overview by position in the company - Positions represented

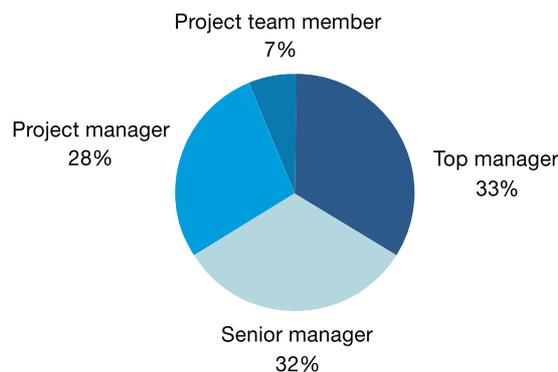
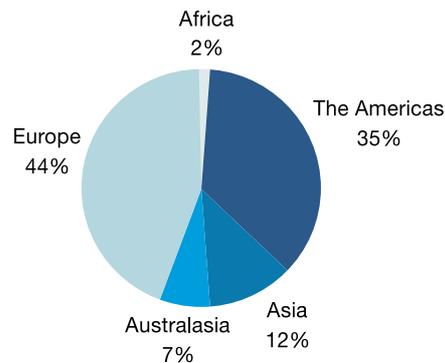


Figure 2  
Participation overview by continent



- **Europe has the most companies participating.**

Companies in a total of 30 different countries completed the survey: Australia, Austria, Belgium, Brazil, Canada, Cyprus, the Czech Republic, El Salvador, Estonia, France, Germany, Great Britain, Greece, Indonesia, Jordan, Kuwait, Luxembourg, Mexico, the Netherlands, Norway, Russia, Singapore, Slovakia, South Africa, Spain, Switzerland, Taiwan, Thailand, Trinidad and Tobago, and the United States.

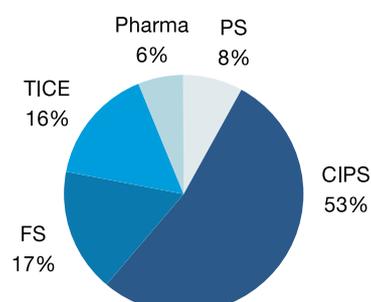
To facilitate the analysis, the countries represented have been grouped under the 5 continents: Africa, the Americas (North, Central and South), Asia (incl. the Middle East), Australasia and Europe. As

shown in figure 3, the largest representation comes from Europe with 44% (89), followed by America with 35% (71).

- **Major sectors well represented.**

The key industry sectors are well represented and give a fair picture of the current composition of the economy. Consumer and Industrial Products and Services (CIPS), which includes Automotive, Energy, Manufacturing, Professional Services, Retail, etc., is the highest represented with 53% (107), followed by Financial Services (FS) with 17% (33) and Technology, Information, Communication and Entertainment (TICE) with 16% (32). Public Sector (PS) and Pharma (including Healthcare) are also represented.

Figure 3  
Participation overview by industry sector



- **Estimated 75 bn in total annual turnover<sup>1</sup>.**  
If we added up the turnover of all 200 participating companies, the resulting amount would put the group in 42nd place in the national GDP rankings, right after the Philippines (77 bn) and ahead of Colombia (71.2 bn) and the Czech Republic (70.1 bn).
- **A total of 10,640 projects run on a yearly basis.**  
The 200 companies run a total of 10,640 projects per year. 42% of the respondents run more than 50 projects, out of which 26% (54 companies) run more than 100 projects on a yearly basis. Only 10% (20) of the companies run fewer than 5 projects.
- **4.5 bn worth in projects.**  
Extrapolating and aggregating the spend of the 200 companies on projects, we arrive at an estimated total budget of more than 4.5 bn for projects. To give you an idea of the relevance of this amount, Microsoft Corporation's net profit in 1998 was \$4.5 bn.
- **3,488 project managers in total.**  
The 200 companies have a total of 3,488 project managers. 48% (96) of respondents said they had fewer than 5 project managers. 12% (24) companies have more than 50 project managers. The survey shows that, on average, a project manager runs 3.1 projects annually.
- **IT Change and Performance Improvement, two main reasons why projects are used.**  
In 73% of cases, projects are used to implement IT Change initiatives (i.e. package implementation, new technologies, major upgrades, outsourcing). Projects are used for Performance Improvement initiatives in 57% of cases, followed by Software Development (49%), New Product Development (45%), Strategy Deployment (43%), Construction (31%) and Research (15%). It is interesting to notice that 43% of the companies already use project management as a tool to achieve their business objectives.
- **Only 2.5% of the companies had 100% of their projects on time, within budget, to scope and delivering the right business benefits.**  
This accounts for approximately 254 projects out of the estimated 10,640. On the other hand, 71 of the companies have 100% (2,862 projects) delivering business benefits.

## Acknowledgements

PricewaterhouseCoopers would like to especially thank all 200 organisations and individuals who took time to contribute to this study by completing the survey.



<sup>1</sup> For simplification purposes, consider USD=EUR.

# 09

## Key findings



### 1. Positive correlation between maturity level and project performance

A higher project management maturity level will in most cases deliver superior performance in terms of overall project delivery and business benefits.

### 2. Current overall maturity level is 2.5 - informal processes

The total average maturity level of 2.5 denotes that the current state of project management in organisations is at the level of informal processes and it is not yet institutionalised. This is one of the main reasons why so many projects are unsuccessful today.

### 3. Most organisations want to reach a higher maturity level

More than half of the companies (60%) are not satisfied with their current maturity level and wish to achieve a higher maturity level. More than 36% (71) of them, however, want to increase their maturity by more than 1 level.

### 4. Many of the project failures are due to an imbalanced organisation

Top and senior management frequently blame project managers for bad project management and poor project results. And yet, we can see from the survey, in which all levels of management were fairly equally represented, that many of the reasons for project failure are organisationally related and are outside the direct range of influence of project managers.

### 5. Organisational structure has a big influence in overall project performance

Organisational structure influences the performance and outcome of projects. The higher the alignment between structure and business requirements, the higher the overall project performance of the organisation. Finding the right balance is not a simple task, especially for those companies operating in highly dynamic and competitive sectors.

### 6. Industry, location and business objectives are key to determining the optimal organisational structure

The optimal organisational structure is determined by the business objectives of an organisation and influenced by the industry and the geographical region in which it operates.

### 7. Investing in staff development increases project performance

Having a staff development programme has a positive effect on the overall performance of the organisation. The current situation does not look very promising, however, as more than 60% of the companies do not regularly offer a development programme to their staff.

### 8. Project management certification of staff pays off

Certification does actually matter. Organisations should not be afraid of investing in their people via certification. The benefits organisations can receive from this are significantly higher than the risks they take.

### 9. Organisations that apply change management outperform the rest

The survey reveals an undeniable correlation between project performance, maturity level and change management. The majority of the best performing and most mature organisations always or frequently apply change management to their projects.

### 10. External resources add value when employed in smaller scales

External resources used, if employed with moderation, will add value and increase the performance of your project activities. In addition, the proportion of external resources employed varies depending on the organisation's maturity level.



Excelling in project management has allowed us not only to increase the quality of our services, reduce our time-to-market, decrease reworking costs and increase staff motivation, but also to create a more integrated and agile organisation.

Survey participant

11. Implementing project management software successfully is significantly influenced by the organisation's maturity level

Specialised project management software can create or destroy value, depending on when you decide to buy and implement it. We observed that the lower the maturity level, the more difficulties an organisation will have to implement the software.

12. Software is not used to its full potential, several reporting aspects are still performed manually

Reporting is an essential part of project management, but it is often time-consuming and gives low added value. Software tools are used to facilitate and automate the reporting process, but the survey shows that there is still a gap, and the software is not always used to do all the reporting.

# 11

## Current maturity levels - a long way to go?

### Conclusion No. 1

A higher maturity level will in most cases deliver superior performance in terms of project delivery and business benefits.

### Maturity level and its link to project performance

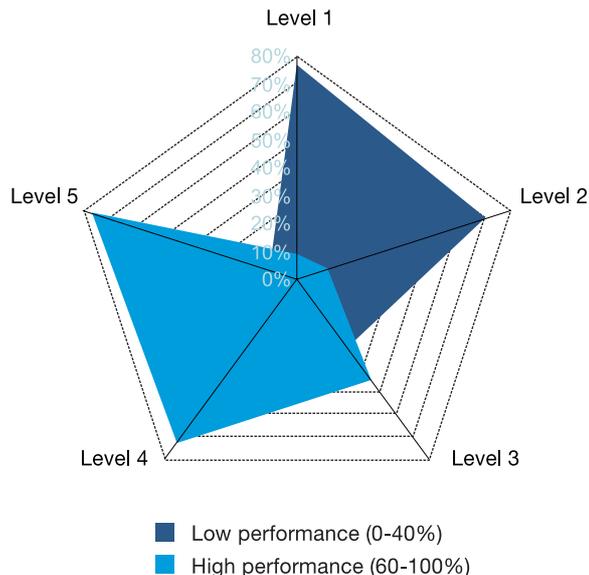
One of the underlying assumptions that sustain our entire analysis is that a higher maturity level will bring a higher level of performance in the organisation's projects, not just to one but to the overall portfolio of projects. This is a fundamental hypothesis, which has not been directly addressed in any similar study of the topic in the past. We asked ourselves: "It is fine to try and reach a higher level of maturity, but what if a higher level of maturity doesn't carry a higher performance level?"

To answer this question, we had to determine the overall project management performance of each respondent. We asked participants to tell us their overall performance in terms of percentage of projects delivered on time, within budget, to scope and that deliver business benefits. Aggregating these four elements - having assigned a higher weighting to business benefits - we developed a weighted average performance index for each participating company.

Once we had calculated the performance levels, we assessed whether there was any positive correlation with the maturity levels of the participants. Figure 4 shows the results of this analysis, which confirms our initial assumption. For the majority of cases, the higher the maturity level, the higher the project performance<sup>2</sup>. Those few cases where a higher maturity level does not represent high performance are mainly due to the fact that the organisational structure neither is suited to nor supports the capacity of projects required by the company's business. And, therefore, the organisation is not aligned and does not fulfil its project requirements, and hence is unable to maximise its performance. We will look again into organisational structure aspects in the following chapter.

*Note: After having identified this positive correlation between maturity level and project performance, we started considering the likelihood of a correlation between project performance and the financial performance of the business and vice versa. We asked ourselves: "Does superior project performance generate an increase in financial performance and shareholder value?" We looked into the financial data, annual reports and stock market evolution of those companies that scored highest in the area of project performance. Although the analysis seemed to provide us with some kind of a slim correlation, we felt that we had neither enough data nor sufficient cases to draw that conclusion in this report. Our intention, however, is to continue our research on this topic in the near future.*

Figure 4  
Maturity versus performance



<sup>2</sup> How to read this chart: the percentage on the axis indicates the number of cases of organisations at that level with high performance and those with low performance. For example, of the 64 organisations that are at level 1, 75% have low project performance while 10% have high performance. The remaining 15% have medium performance (40-60).

## Conclusion No. 2

The total average maturity level of 2.5 denotes that the current state of project management in organisations is at the level of informal processes and is not yet institutionalised. This explains the high percentage of unsuccessful projects.

## Current maturity levels - far from excellent

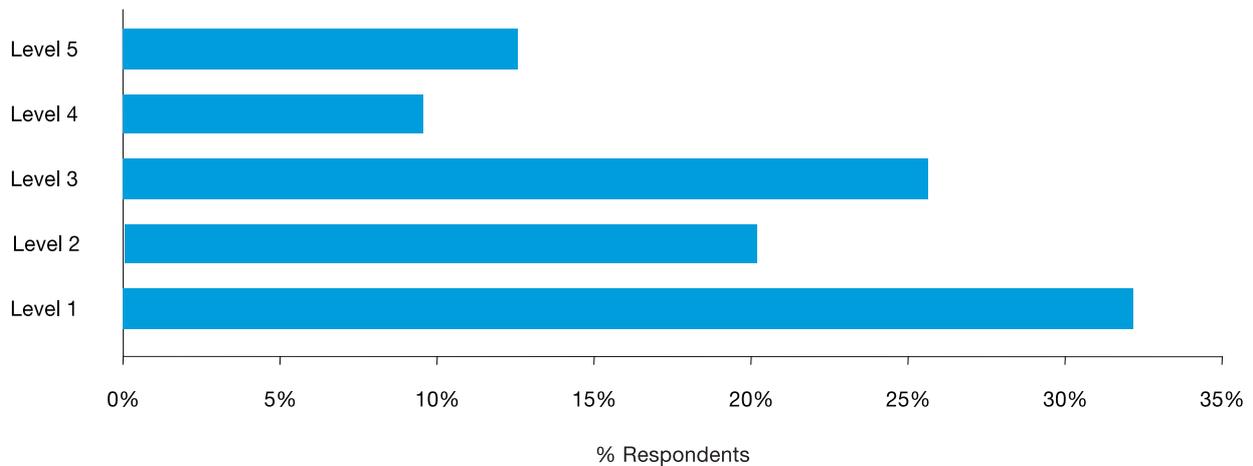
We have assessed the maturity levels of the 200 participating companies. The results are shown in figure 5. 51% of the companies are today on level 1 (64) and level 2 (41). Of the 200 companies, only 13% (25) have reached level 5. *The average for all 200 companies is 2.5 and stands for "Informal Processes".*

Sector-wise, the TICE companies reach the highest maturity levels, with 30% of their companies above level 3. This can be explained by the fact that the TICE sector is the youngest of all the sectors and is highly related to IT and Technology, which require intensive investment in project management. The lowest maturity levels can be found in

the Public Sector, where the majority of organisations (56.3%) only reached maturity level 1. The Public Sector is closely followed by the Pharma sector. Financial Services and Consumer and Industrial Products and Services are fairly equal, with maturity levels from 1 to 3.

Location-wise, the highest maturity level can be found in Asia, with an average of 3.1, followed by the Americas, with an average of 2.8 and Europe with 2.5. This is also reflected when we look into project performance in these three areas, where Asia has a 53% performance rate, followed by the Americas with 50% and Europe with 46%.

Figure 5  
Project management maturity levels



## Desired maturity levels - senior management aims high, project managers are more pragmatic

### Conclusion No. 3

More than half of the companies (60%) are not satisfied with their current maturity level and wish to achieve a higher maturity level. More than 36% (71) of them, however, want to increase their maturity by more than one level.

The targeted maturity level is the level that, the respondents believe, best fits their organisation according to the project management requirements of their business. For example, a retail company that uses projects on an ad hoc basis and only in order to maintain its sales system will need a lower maturity to reach its optimum level than a telecom company that uses projects to deploy its strategy, and runs more than 200 projects on a yearly basis.

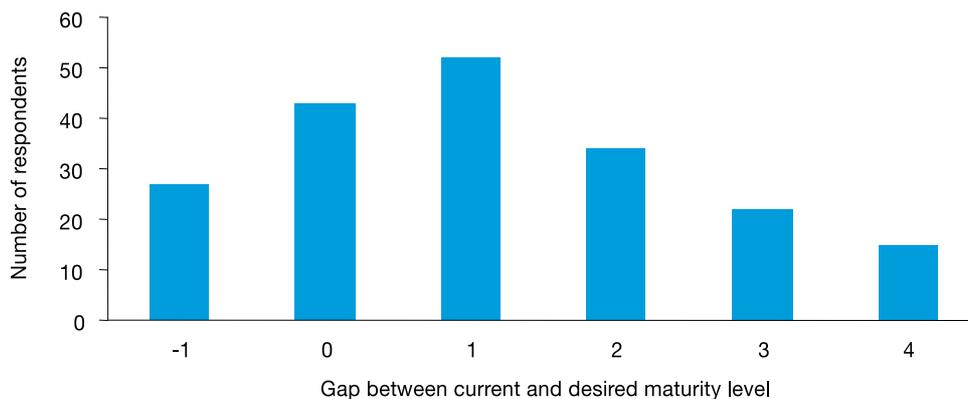
The survey shows that more than half of the companies are not satisfied with their current maturity level. More than 50% of the companies want to reach a maturity level of 4 to 5. On the other hand, 22% (42) of them are happy to stay at the level they are currently at. There are 9 companies (4%) that are happy to stay at level 1. As explained previously, this is of course possible if the company operates in a sector where operations are the main driver of the

business (6 of the companies belong to the CIPS sector).

Regarding the number of levels by which companies want to increase (see figure 6), 26% (53) of the respondents said they are happy to raise their maturity by 1 level. Likewise, 34% (71) of the organisations would like to increase by more than 2 levels (up to 4 in some instances).

*Note: In this respect, it is worthwhile mentioning that organisations should understand that it is not possible to increase maturity by more than one level at a time (i.e. companies cannot jump from level 1 to level 3 in one go). This is consistent with the concept of maturity. Each improvement towards a higher level requires all persons involved directly or indirectly in project activities to change not only the way they work but also their mentality. This transformation of culture should be led and followed by top and senior management by means of incentives and firm discipline. Depending on the size of the company, reaching a higher level will require an enormous effort and could take several years.*

Figure 6  
Maturity level gap

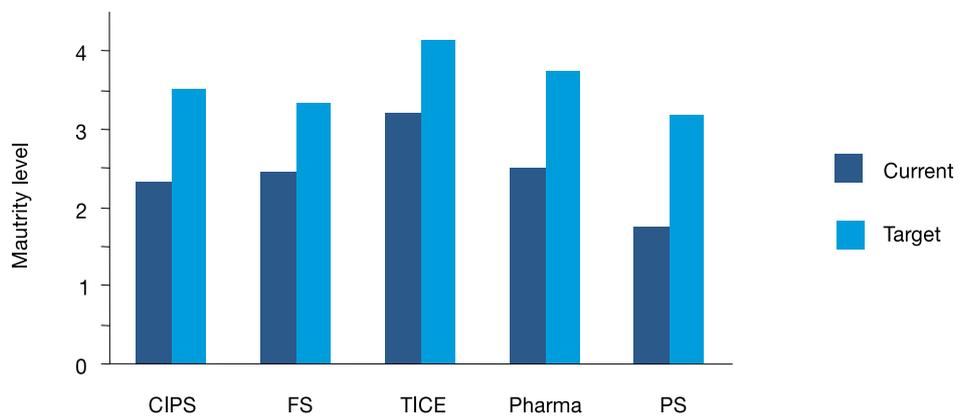




If we look at the gap between current and target maturity levels from an industry perspective, we can clearly see that the TICE sector is the one that is looking for the highest level (4.2), while the Public Sector is aiming for the largest increase (+1.4), followed by the Pharma (+1.3) sector. This is in line with the increase in importance of project management in these two industries.

To conclude the maturity analysis section, one final observation seems pertinent. When asked for their target maturity level, senior and top management have greater expectations than project managers. Their aim is to achieve around level 4 or 5, while project managers are happier to reach a more modest level of 2 or 3.

Figure 7  
Industry maturity gap



# 15

## Organisational alignment - why does it matter?

### Conclusion No. 4

Project managers are frequently blamed for bad project management and poor project results. And, yet, we can see from the analysis that many of the reasons for project failure are organisationally related, thus outside the direct range of influence of project managers.

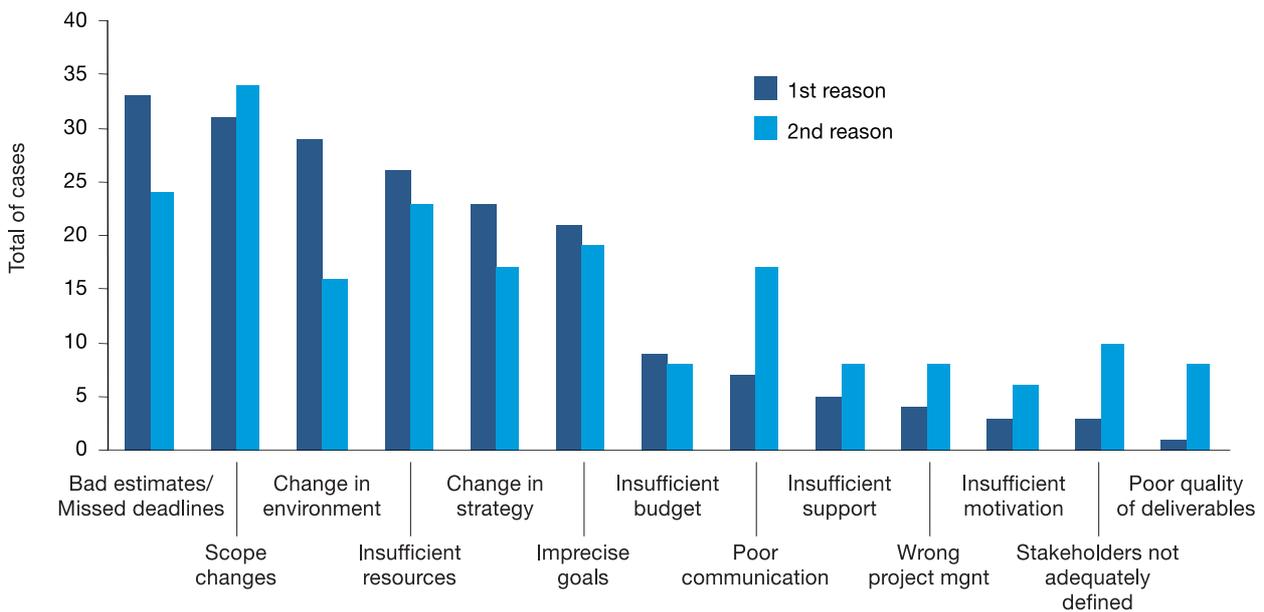
### Organisational aspects represent 59% of project failures

Project managers are often blamed whenever there are delays, budget overruns or poor quality deliverables in their projects. There seems to be a belief amongst most organisations that *“no matter what happens, if the project fails, the project manager is always guilty.”* With this study, we wanted to look into this common belief in more detail,

assess whether or not it is true, and identify the actual root causes of the numerous project failures.

First, we looked at the main reasons for project failure. As can be seen in figure 8, bad estimates, missed deadlines and scope changes rank amongst the most frequent reasons for project failure. It is interesting to note that poor quality of the deliverables and stakeholders not adequately being defined are among the least prevalent reasons for project failures.

Figure 8  
Reasons for project failure



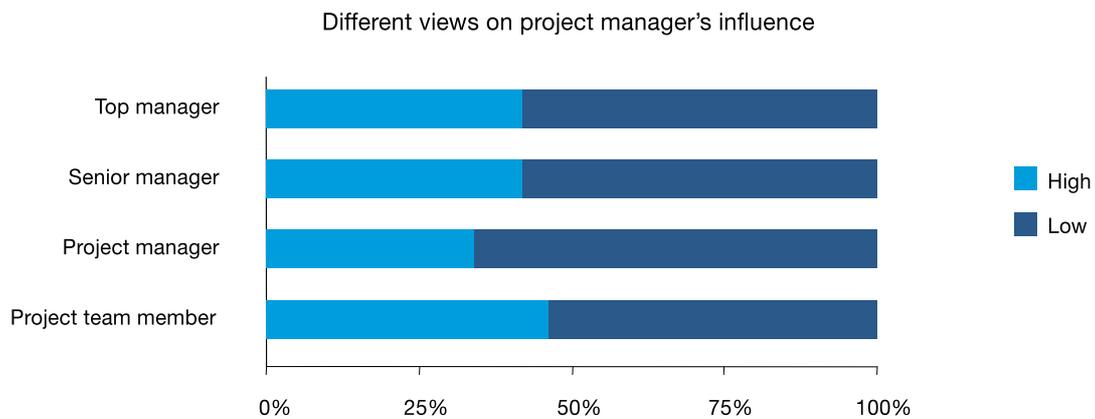
Following this first analysis, we wanted to study whether it is true that project managers are the culprits. We looked at the reasons for failure given by each of the positions in the organisation of the respondents. For example, for top management, the main causes of failure are bad estimates and insufficient resources, while for senior management, the problem lies primarily in scope changes. We then categorised all causes for failure according to the degree of influence, whether high or low, that the project manager has in order to avoid the failure occurring. Hence, for example, changes in environment cannot be greatly influenced by a project manager. This does not mean that, if there is little influence over the reason for failure, the project manager is not responsible for monitoring and taking corrective action to mitigate the impact

on the overall project. Figure 9 shows the results of this new classification.

It is interesting to see that there is very little difference in opinion between project managers and senior and top management on the overall question as to whether project managers are to be blamed for project failure. On average, 59% of the reasons for failure occur under low influence of the project manager, confirming that the organisational aspects have an important influence in project failure.

As we will see further in this section, the importance of understanding the influence of the organisation on overall project performance is crucial to achieving a better performing organisation.

**Figure 9**  
**Management's view of project manager's influence over reason for failure**



## Conclusion No. 5

Organisational structure influences the performance and outcome of projects. The higher the alignment between organisational structure and business needs, the higher the overall project performance of the organisation. Finding the right balance is not a simple task, especially for those companies operating in highly competitive and dynamic sectors.

## Organisational structure and its link to project performance

Based on the previous conclusion and in order to emphasise the importance and influence of the organisation in overall performance, we looked for positive correlations between project performance and types of organisational structure. To perform the analysis, we drew on the 5 organisational types as defined by the Project Management Institute (PMI ®): Functional, Weak Matrix, Balanced Matrix, Strong Matrix, and Projectised. We calculated each individual organisational structure by looking into several organisational aspects, such as who owns the resources? who owns the budget? is there a dedicated group of project managers? etc.

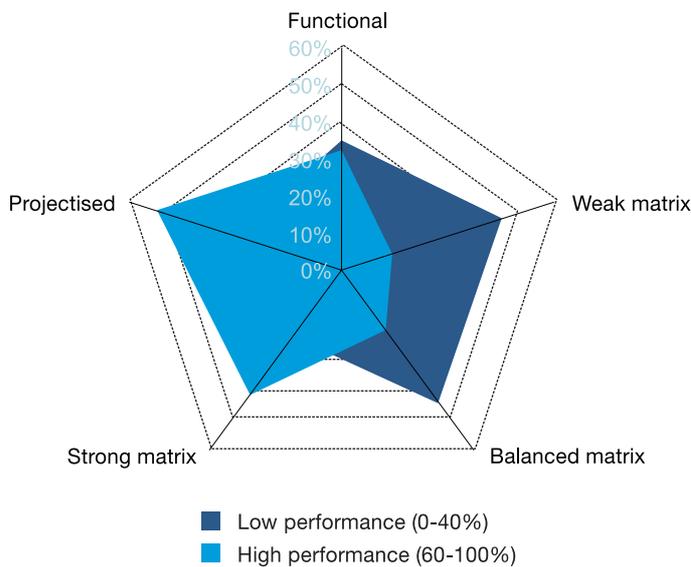
*The study shows that the highest performing companies in terms of project results are those that have a “projectised” or “strong matrix” structure (see figure 10)<sup>3</sup>. This is no real surprise: with these types of structures, a project manager has significantly more influence over the different elements that influence a*

project. In addition, project management is mostly widely recognised at all levels of an organisation as a core aspect and key driver of the company’s business.

Alternatively, the “balanced matrix” and “weak matrix” are the worst performing ones. This can also be explained by the fact that, in these types of structures, the role of the project manager is in many instances that of a negotiator. He/she needs constantly to negotiate and bargain the project resources with the owners of the staff and budget (i.e. line management and functional directors). Every time the priorities of the department change and its resources are reallocated, the project manager has to look for new people to fill the gaps. It comes as no surprise that most of the companies we know with these two structures have the most frustrated project managers.

*Note: It is important, however, to highlight the fact that not every organisation needs to aim for a “projectised” structure. Each organisation has its own project requirements, which are determined by different factors, such as the industry they operate in, the nature of their business, their strategy, the product/service they sell, their size, their maturity, etc. For instance, some organisations rely heavily on operations and do not require lots of project management. This could be the case for a medium-sized logistics company that operates in the warehousing sector and runs fewer than 5 projects per year involving less than 5% of its total workforce. This company will probably perform better with a “functional” structure than with a “projectised” one. The key to success is to find the right balance and the optimum structure. Unfortunately, this is often not a simple task. Businesses, as well as the industries they operate in, are constantly evolving, which makes finding the right balance a very complex task.*

Figure 10  
Organisational structure versus project management performance



<sup>3</sup> How to read this chart: the percentage on the axis indicates the number of cases of organisations at that level with high performance and those with low performance. For example, of the 42 “weak matrix” organisations, 45% have low project performance while 14% have high performance. The remaining 41% have medium performance (40-60%).

## Conclusion No. 6

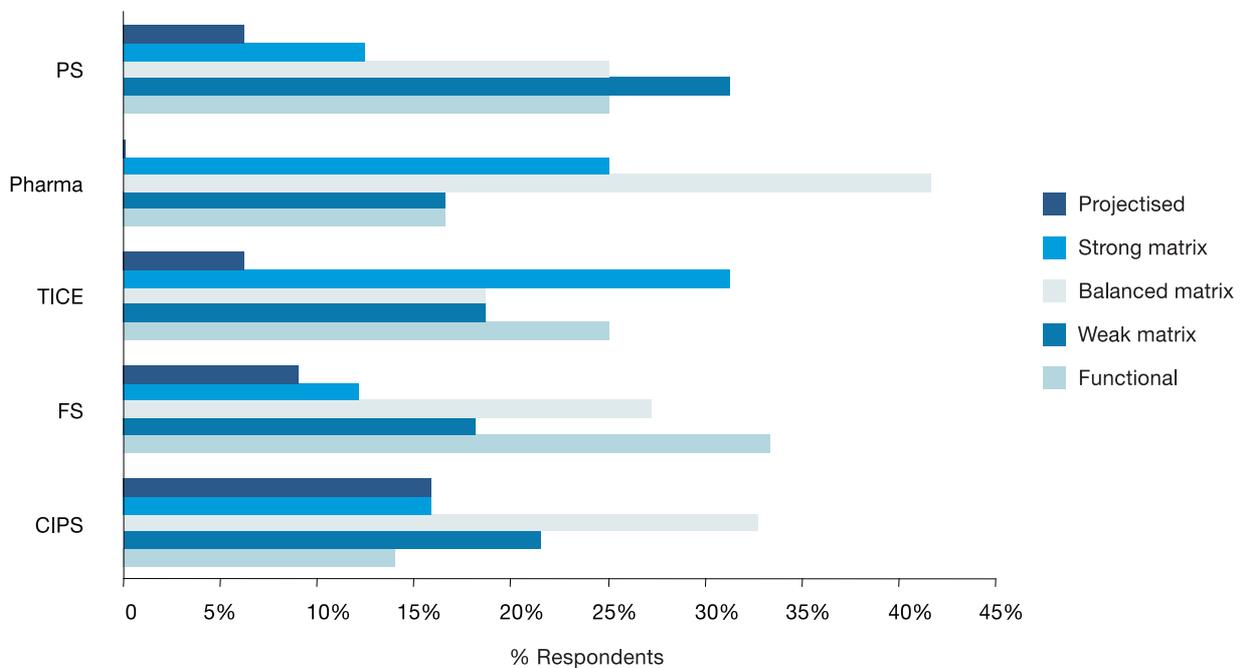
Depending on which industry your company operates in, its organisational structure needs might be different. This is also applicable to the geographical region your company is located in.

### Additional organisational findings

If we look into the organisational structure per industry, we find that, in the Public Sector, the most widely used structure is the “weak matrix” (hence its lower maturity level and weaker project performance). In the Pharma sector, the “balanced matrix” is the most common structure (40% of Pharma respondents). It is interesting to note that, in this sector, there are no companies under the “projectised” structure. TICE, which has the highest maturity level, also has a

majority of “strong matrix” structures. In the FS sector, one-third of the companies have a “functional” structure, which denotes that they are still organised on the basis of the traditional departmental structure. Finally, the CIPS industry also has a large group of companies in the “balanced matrix” structure. It can also be observed that this sector has the largest number of “projectised” companies, which is to a large extent due to the fact that professional services firms are included in this group.

Figure 11  
Organisational structures per sector



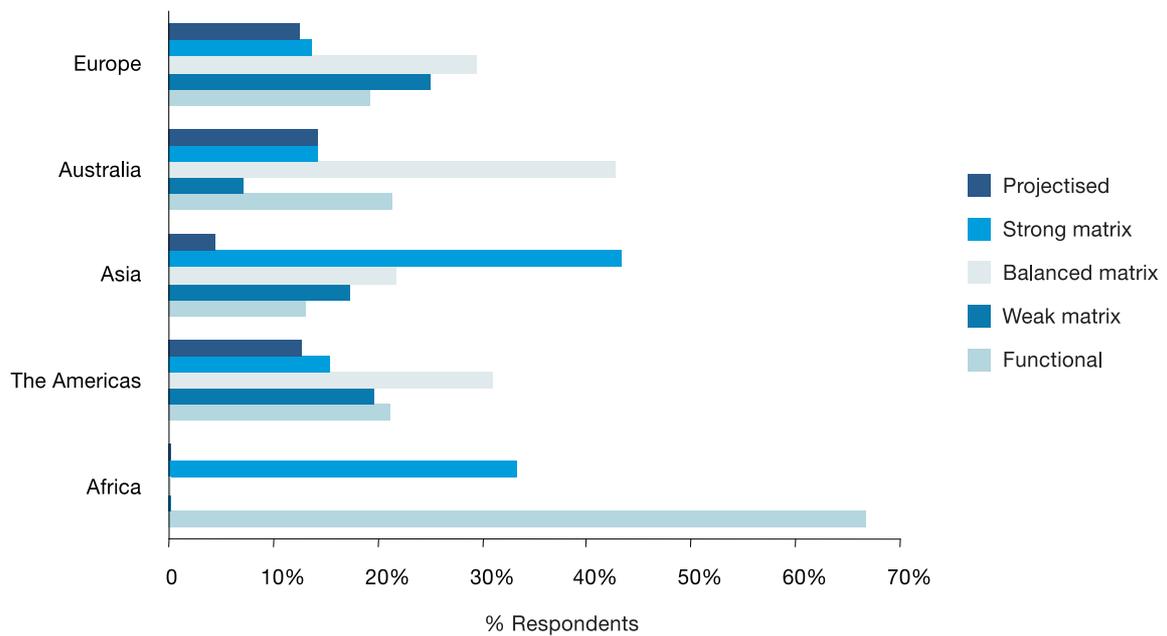
We also looked at organisational structure from a geographical perspective. As shown in figure 12, the main findings are that: in Africa, organisations mainly have a “functional” structure; Europe and the Americas have similar structural spread; and Asian companies primarily adopt a “strong matrix”, which could explain higher maturity levels.

The fact that I don't have any decision on the resources, neither staff nor budgets, of the projects I manage means that I spend a lot of time negotiating with the directors of each department every time their priorities change.

Survey participant



Figure 12  
Organisational structures per continent



# 20

## People are the most important asset in projects - do we really mean that?

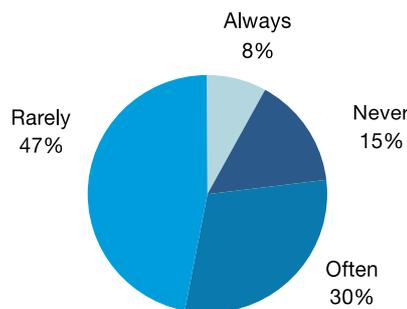
### Conclusion No. 7

Having a staff development programme has a positive effect on the overall performance of the organisation. The current situation does not, however, look very promising, as more than 60% of the companies do not regularly offer a development programme to their staff.

### Does the investment in capability-building pay off?

We asked the participants whether they had an institutionalised development programme so that their project managers and other project resources can build up their capabilities on a continuous basis. The answers, which are shown in figure 13, are quite surprising: only 8% (16) of the companies have a standard development programme. 15%, on the other hand, do not have any type of development for their staff.

Figure 13  
Staff development programme



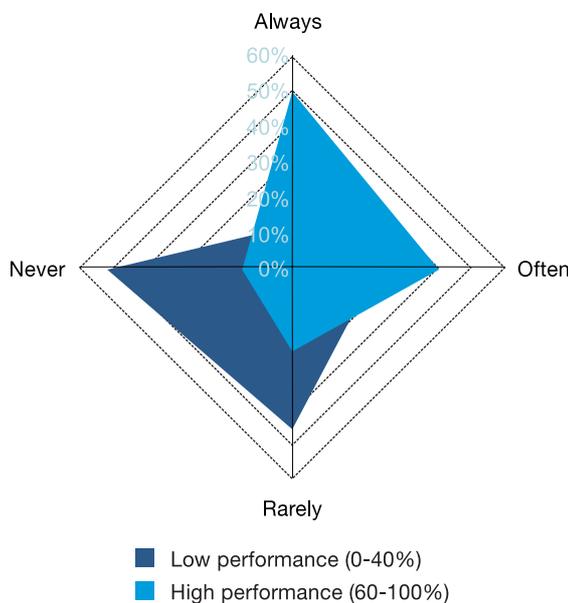
Industry-wise, TICE and CIPS, with 55% and 40% of “always” or “often” cases, are the two sectors with the highest concerns in building up the capabilities of their staff. At the lower end, both PS and FS score lowest in terms of staff development (with 19% and 21%, respectively). If these two sectors want to increase their project performance, they should seriously consider also investing in the area of staff development.



We have crossed this question with project management performance. As can be seen in figure 14, there is a positive correlation between these two areas. For instance, of the 16 organisations that always have a development programme, 50% score high in terms of project performance while 12% score low. *Organisations that have a development programme should expect to have higher performance in terms of project management.* The survey did not, however, look into the content and quality of the development programmes.

*Note: It is worthwhile mentioning that we found a link between those companies that want to achieve the highest level of maturity and those that score the highest in terms of development programmes. This is a clear signal that management is committed to investing time and effort in this area.*

**Figure 14**  
Development programme versus performance



## Conclusion No. 8

Project management certification does actually matter. As between whether or not companies should certify staff, our view is that organisations should not be afraid of investing in their people via certification. The benefits organisations can receive from this are significantly higher than the risks run.

## Does project management certification matter?

A lot has been written about the value of certifying staff. *Some opinions claim that certifying staff does not add any value to the company, but just to the individual, who will afterwards be more inclined to change companies. Other opinions, closer to the "learning organisation", maintain that certifying staff adds value to the company in three ways: first, it gives additional motivation and incentive to the staff; second, the company benefits from the additional capabilities the staff acquire in the certification process; and, third, it creates a company culture of continuous learning and improving the status quo.*

The survey results show that only 27% of the companies do not have any type of certification. Company internal and PMI's Project Management Professionals

(PMP®) certifications are the most widely used. Industry-wise, CIPS and TICE are those sectors with the highest certification levels. The Public Sector and Pharma have the lowest certification level. In the PS, 57% of companies have certified staff - 59% in Pharma - compared to 82% in TICE. Continent-wise, both America and Europe have the highest levels of organisations with certified staff.

If we look at certification from a maturity level perspective (see figure 16), we can observe that having certification does influence the maturity level of the organisation and, subsequently, project performance is also positively influenced. Those companies that score high in terms of maturity level do have certified staff - more than 80% for level 5 - those companies that have a lower maturity level frequently do not always have certified staff.

Figure 15  
Project management certification

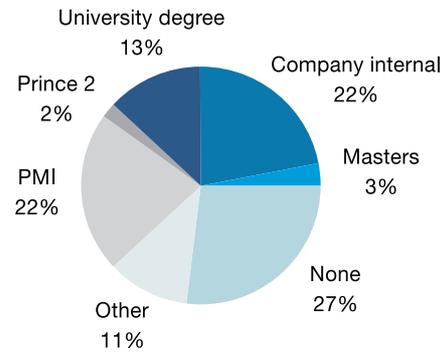
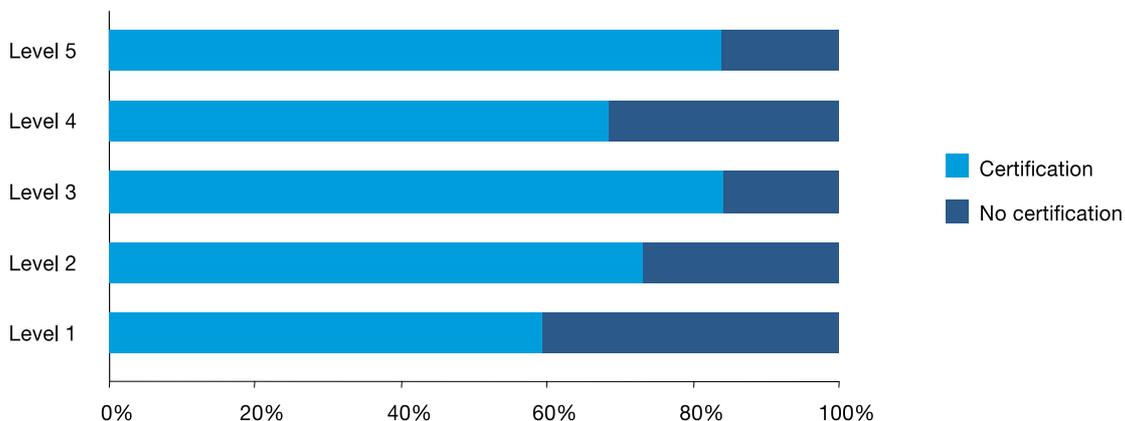


Figure 16  
Certification versus maturity level



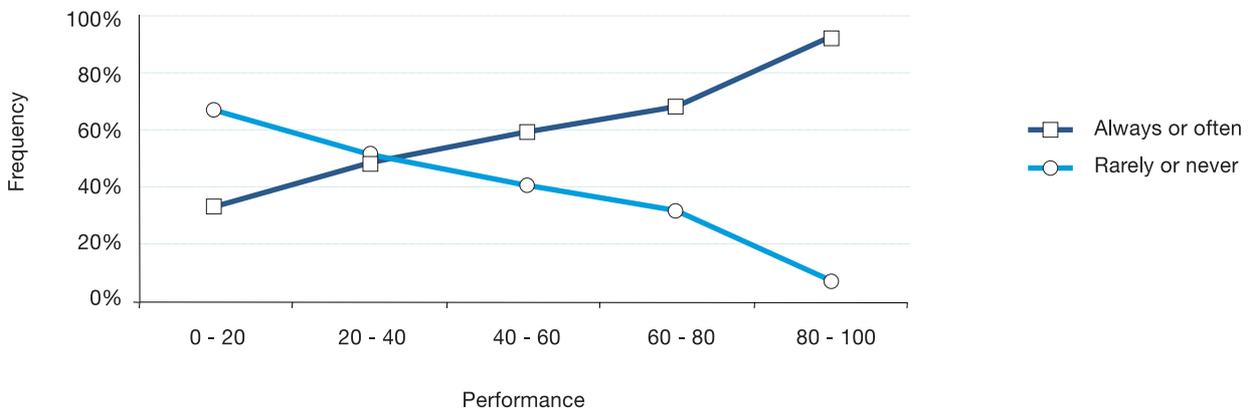
## Conclusion No. 9

The survey reveals an undeniable correlation between project performance, maturity level and change management. The majority of the best performing and most mature organisations always or often apply change management to their projects.

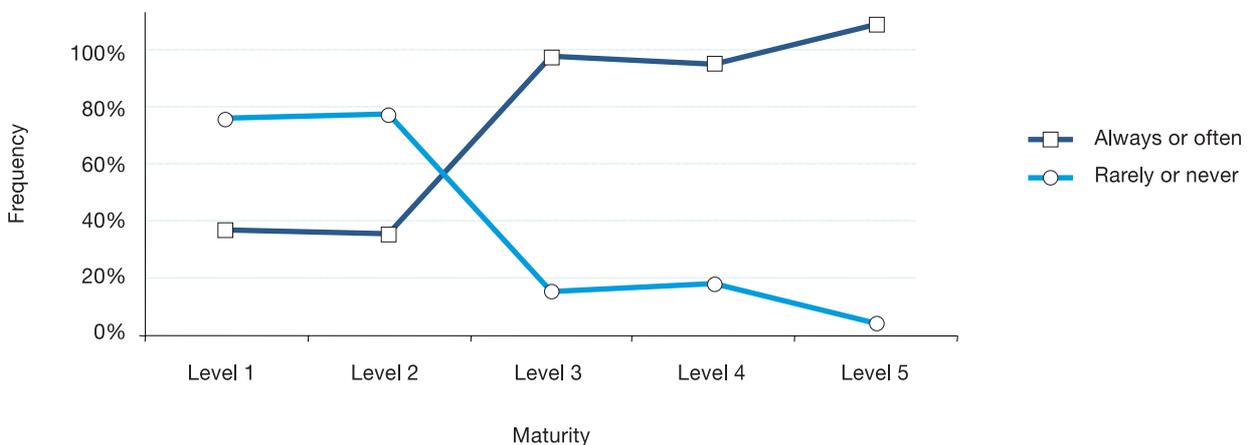
## Is it worthwhile to spend time and effort on change management and communication?

Often we have seen that companies do not place a high priority on the change management aspects of their projects. In some cases, they are not even considered. We were therefore curious to find out whether change management aspects (in the broader sense of the term, including communication, stakeholder engagement, organisational culture, leadership, etc.) influenced project performance and maturity level. The results of this analysis can be seen in figures 17 and 18<sup>4</sup>.

**Figure 17**  
Change management versus project performance



**Figure 18**  
Change management versus maturity level



<sup>4</sup> These graphs should be read by looking into the performance/maturity range shown on the x-axis and deriving the number of cases from each individual category. For instance, if we look into the performance range 80-100, we see that, of the 26 organisations in that range, 90% always or often use change management in their projects. The same applies if we look at the maturity level 5.



Knowing that our people consistently apply a standard project management methodology gives our management the comfort of knowing that projects are being done right, which allows us to spend more time strengthening the relationships with our customers.

Survey participant

*The analysis shows that there is a clear link between change management and the best performing organisations. Out of the 27 companies that score the highest in performance, 26 always or often use a standard change management and communication approach for their projects. The same goes for those companies that reached the highest maturity levels. Out of 25 companies that reached maturity level 5, 24 always or often use change management in their projects.*

## Conclusion No. 10

External resources, if employed with moderation, will add value and increase the performance of your project activities. In addition, the proportion of external resources varies depending on the company's maturity level.

## Do external resources add value?

We asked participants whether they employed external resources to give them advice and support their projects. 56% of the respondents said that they hire external resources on a 3-to-1 ratio (3 internal staff to 1 external resource - i.e. 25% externals). On the other hand, 23% of the respondents say that they work by themselves and never use external resources on their projects. It is interesting as well to see that 2% of the respondents completely outsource and staff their projects to and with external resources.

Geographically, all of the regions are closer to the 3-to-1 ratio. On the other hand, the Americas is the region where external resources are more often

worked with, with 83% of the companies there hiring external resources (17% of the companies work on their own). They are followed by Asia, with 79%, Europe with 74% and Australasia, which, with 64%, is the region that uses least external resources in its projects. From an industry perspective, the 3-to-1 ratio is also the most common. In terms of the use of external resources, the ranking is as follows: Financial Services hire external resources for their projects in 84% of cases; Pharma 83%; TICE 78%; and CIPS 74%.

We examined if there was a correlation between performance rate and the presence of external resources in the organisation's projects, and, if so, what combination guaranteed the highest performance. The outcome is purely based on the replies of the survey and is shown in figure 20<sup>5</sup>.

It can be seen that the highest performance is achieved with a rate of 25% of external resources. It is interesting to note that a ratio higher than 25% does not guarantee higher performance. When looking at a 100% ratio, for example, we can clearly see that, at this level, performance reaches its lowest levels. This can be explained by the fact that companies that only work with external resources have difficulties in keeping and building knowledge in house as well as acceptance problems by the organisation's staff. Often, the consultants are not the same, and thus

Figure 19  
External versus internal resources

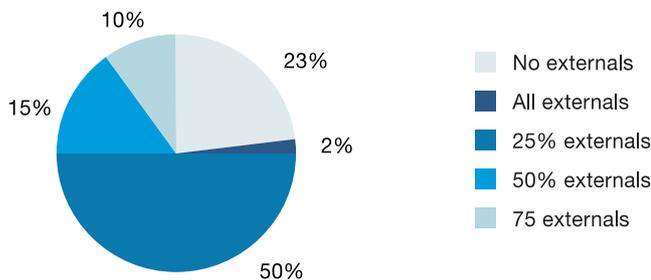
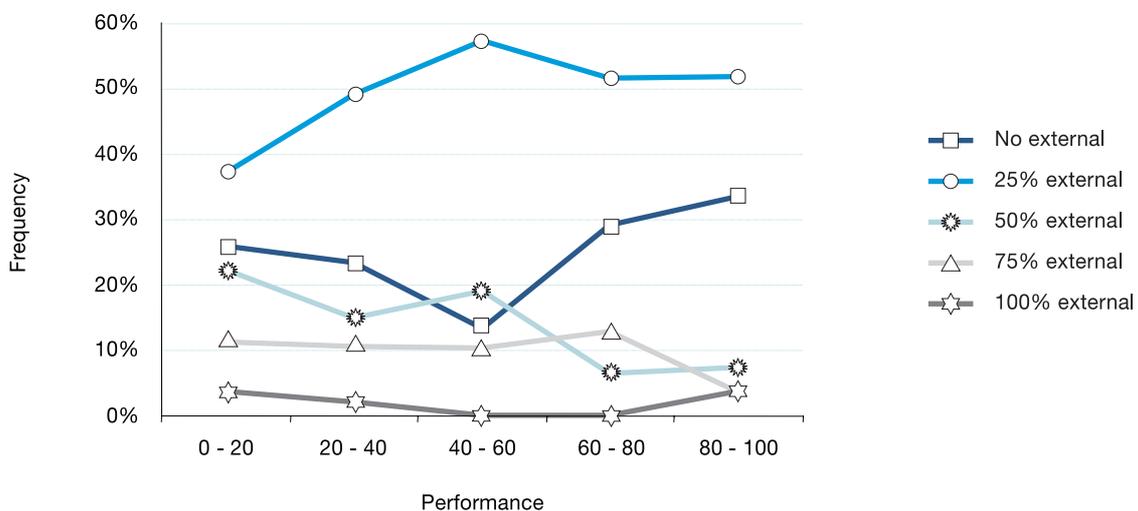


Figure 20  
External resources versus performance



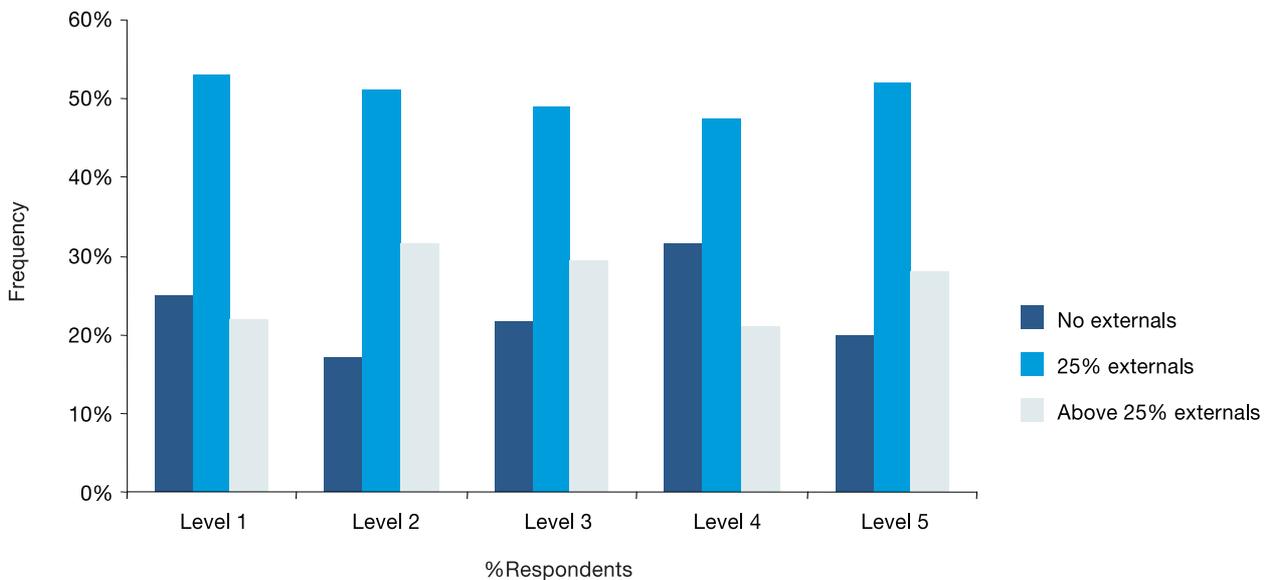
<sup>5</sup> This graph should be read by looking at the performance range shown on the x-axis and deriving the number of cases from each individual category. So, for example, if we look at the performance range 80-100, we see that, in that section, the majority of organisations (above 50%) employ 25% external resources, which are followed by 32% of the organisations, which do not employ any external resources in their projects.



have to go through a learning process, which costs time and money and influences overall performance.

Finally, we looked at this topic from a third angle. We wanted to find out whether companies that are on a higher maturity level used more or fewer external resources. The results of this analysis are shown in figure 21. *The conclusion is that the number of external resources varies depending on the company's maturity level.* For example, when companies reach level 4, they seem to need fewer external resources than when they were at level 3 or below. This could be explained by the fact that each maturity level requires different concentrations of the four elements looked at in this survey.

**Figure 21**  
Employment of external support per maturity level



# 27

## Systems and tools - do they help to increase performance?

### Conclusion No. 11

Specialist project management software can create or destroy value, depending on when it is that an organisation decides to buy and implement it. At low maturity levels, software could well end up creating more problems than it solves. To reach a higher level of maturity, however, project management software becomes a prerequisite.

### Does project management software help to increase an organisation's level of maturity?

We asked the participants to tell us if they used company-wide project management software and, if so, what kinds of programs they used to manage and monitor their projects. 78.5% (157) of the 200 companies replied positively. Surprisingly, there are 43 companies that do not use any software. Industry-wise, TICE is the leading sector, where 9 out of 10 companies have project management software. The lowest is the Public Sector, where 68% of the organisations employ project management software.

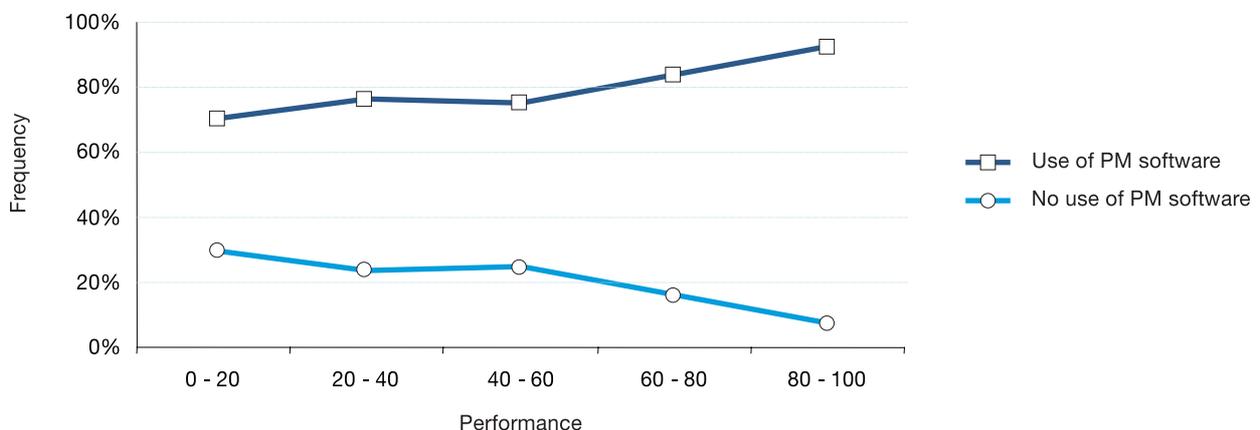
*Note: During the past 10 years, companies' major IT investment has been in ERP systems. The main focus has been on improving and automating organisations' operations, both core and supporting activities. Lately, however, we have noticed that organisations have increased their interest in specialised project management software. This confirms that organisations have turned to project management as a strategic*

*tool to run their businesses. In the near future, thus, it is probable that we will experience a new wave of company-wide software implementation, but this time in the area of improving and automating organisations' project management activities.*

Looking into the link to performance, we can clearly observe that the highest levels of performance (80-100) are reached using project management software. On the other hand, we can also see that lower levels of performance (0-20) can also be achieved by having software in place. To clarify this discrepancy, we looked into maturity levels. Here, we see that, without having software, you can reach level 1 or 2 in maturity, but to reach a higher level, you are better off investing in project management software. This explains the previous discrepancy: if the maturity level of the organisation is low, installing software will create problems and influence your project performance. Once the organisation reaches a certain maturity level, where the project management processes are institutionalised, the use of software will significantly increase overall project performance.

Figure 22

### Project management software versus project performance

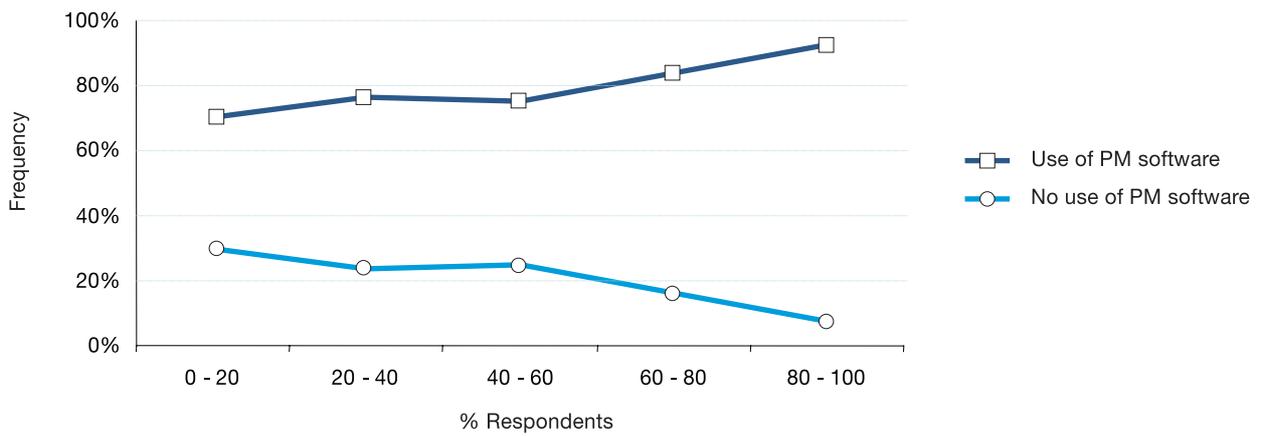




Project management is the discipline of getting things done.\*

PricewaterhouseCoopers

Figure 23  
Project management software versus maturity level



## Conclusion No. 12

Reporting is an essential part of project management, but it is often time-consuming and gives low added value. Software tools are used to facilitate and automate the reporting process, but the survey points out that there is still a gap, and the software is not always used to do all the reporting.

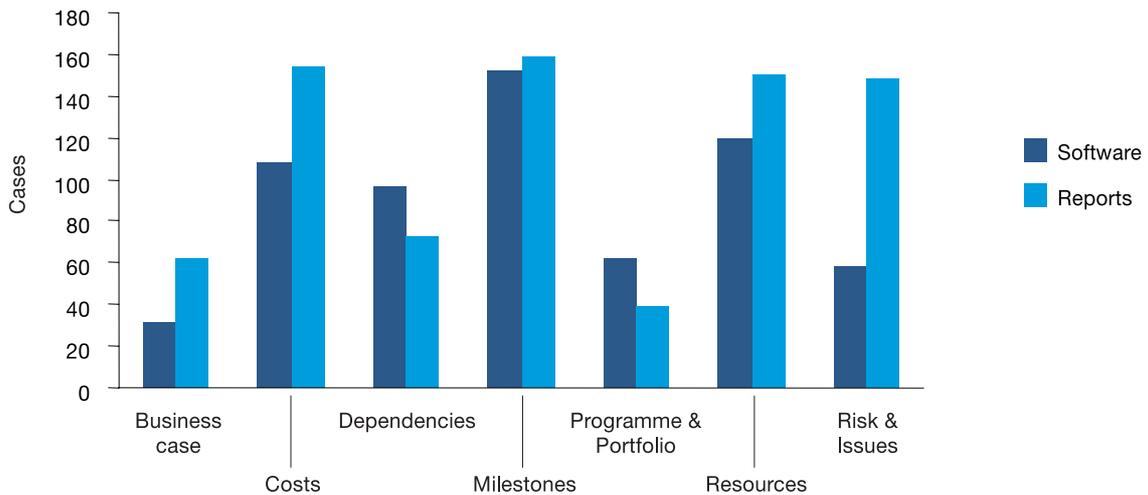
## Are companies using all the software's functionalities?

Another area we wanted to explore and shed some light on with the survey was functionality. The question was whether companies were using all the functions and the full potential of the project management software they purchase. We asked participants to tell us what sort of functionality they were using in the software and which areas they usually covered in their reports.

important in the areas of cost and business case management. On the other hand, we can see that dependency management and programme & portfolio management are primarily done through the system.

We crossed the two answers, and the outcome is shown in figure 24. Basically, software is not used to 100% of its capacity. A number of reports are still done without using the software<sup>6</sup>. The most significant variation is in managing and reporting risk and issues, which is mostly done outside the project management software. The gap is also

Figure 24  
Software functionality versus actual reporting



<sup>6</sup> In practice, we see that this reporting gap is filled with MS Excel® spreadsheets and/or MS Access® databases.

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# 31

## Abbreviations



### Industry groupings

- CIPS = Consumer and Industrial Products and Services
- FS = Financial Services
- TICE = Technology, Information, Communication and Entertainment
- PS = Public Sector
- Pharma = Healthcare and Pharma

### Other terms

- ERP = Enterprise Resource Planning
- PMI ® = Project Management Institute
- PMP ® = Project Management Professional



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