

DEFINING INSANITY: THE 2019 STATE OF PROJECT CONTROLS REPORT

WHY REPEATING 2018'S PROCESSES AND COMMERCIAL CONTRACTS OF 2018 COULD DESTROY YOUR PMO





Welcome to the **2019 State of Project Controls Study**.

We've encountered numerous customers who express concerns around identifying and addressing the root cause of budget and scheduling overrun. With each organisation's situation being distinctly unique, we find it difficult to pin down to a single common cause – however, some common motifs occur in organisations experiencing overrun and delays:

1. Siloed data and processes limit visibility.
2. Project controls are treated as supporting processes to project delivery.
3. There is lengthy reporting turnaround, from report creation to action.

Project controls plays one of the most critical roles in project and portfolio management (to which 93 percent of you agree!). It helps improve five key areas of project management, including scope delivery, quality and outcomes, improving business benefits, budget and schedule. Yet, project complexity is on the rise and accordingly, overrun and delay problems persist. This may mean current processes have fallen behind the pace of change in the industry. There are two key questions that will burn throughout 2019: are project management experts ready to adapt to the rapidly evolving technological landscape? And do executives have the visibility they need to properly deliver projects on-time and on-budget?

What I found most interesting through this survey is that a majority of the project manager respondents are satisfied with their project controls processes, tools and delivery systems – yet almost half say their projects aren't predictable and encounter last-minute surprises.

This is rather alarming: satisfaction with process and technology that continually encounters surprises either means a diminishing body of knowledge in project management offices or project managers are inherently masochistic! It may mean that senior management or an internal champion takes on the mantle of change in the organisation to realign processes, adopt cutting-edge technology and increase visibility across all projects.

We surveyed a wide range of industry professionals and collated their responses, correlated the data and have presented a range of statistics that reinforce what the wider industry is experiencing, corroborating what we find with our customers.

I hope this survey provides you with the insights you need to make more informed decisions about the future of your PMO.

Franz Kufner

Executive Vice President, Asia Pacific
Hexagon PPM



Introduction

This report addresses:

- Overview of general attitudes towards project controls
- Key challenges of project controls
- The relationship between data access, reporting and project success
- How digital transformation can help implement effective controls
- Understanding organisational project maturity

Executive Summary

In today's economic climate, project delivery stakeholders are being asked to do "more with less" as the business environment rapidly evolves and becomes fiercely competitive. The world's top engineering construction companies operate under frightfully skinny margins, which seem to decline as a percentage year-on-year.

Further, megaprojects continue to arrive off-schedule and/or tremendously overbudget, with the situation worsening despite advances in technology. For example, the Olympic Games is almost expected to experience cost blowout: Athens 2004, \$7 billion over budget; London 2008, \$11.9 billion over budget; and Sochi 2014, a staggering \$39 billion over budget.

The universal truth of project management holds: the project will be underestimated, delivered late and cost more.

Swift adaption to the current climate is crucial to short-term bottom-line performance and long-term survival. ring construction companies, for example, operate under frightfully skinny margins, which seem to decline as a percentage year-on-year, despite recovery in revenue.

Our aim with this report is to give you a sense of project performance maturity across APAC and gain insight into where the problem areas may be in your projects function.

Our survey found:

- 93 percent of respondents believe that project controls are important
- The biggest challenges associated with project controls occur during planning and scheduling, when forecasting and estimating, as well as when managing risks and issues
- Scope creep continues to be an issue with project controls, as 41 percent of respondents identified they often deal with last-minute surprises
- Strong budgeting and estimating skills have a correlation with project success
- The majority of PMOs in Asia Pacific experience challenges with project control processes related to issues and risks
- Real-time reporting is limited with only 12 percent of respondents updating data in real-time and 55 percent

making weekly/monthly updates; this poses a risk for project and portfolio managers who may have to make decisions based on out-of-date data

- The project management industry is slowly adopting more digital technology offering a range of better project control options
- With 42 percent of respondents aligning with the Project Management Book of Knowledge (PMBOK), it is clear that aligning with industry-accepted practices can provide the relevant tools and processes to implement effective project controls

Saeed Shalbafan is a senior project planning and controls consultant with a PhD in project portfolio management from the University of Technology Sydney. He says industry best-practice awareness among project management professionals is low, meaning personal expertise dictates process, even if this is detrimental to the project.

"Not all the blame can be given to practitioners ... when you look at the evolution of the body of knowledge across best practice since the 1980s and 1990s, the core business is the same," he says.

"If you look at it from a product lifecycle perspective, the whole world is going much faster. It used to take 10 years to bring a complex project to maturity and drop it, then move to the next version – now it's a matter of two to three years. This faster pace needs a more flexible approach."

Compounding this, project management digitization is set to change the way we work. According to Gartner, by 2030 project managers' skillset will need to shift toward managing and collaborating with smart machines. And PMOs need to start building a plan to become the centers of change and innovation, focusing on the Internet of Things (IoT) and Artificial Intelligence (AI).

Best-practice processes realize the value of information transparency and machine-to-machine communication to improve forecasting and predictable costs. The hunt for more clarity, better preparation and increased value is very much on.

Accordingly, predictable cost is becoming a major issue for most segments. The primary concern for most organizations is knowing where, when and how cost will impact a project, meaning wholesale audits of current solutions are underway. Are Excel and other similar platforms adding to or detracting from understanding overrun problems as they occur?

Methodology and Respondents

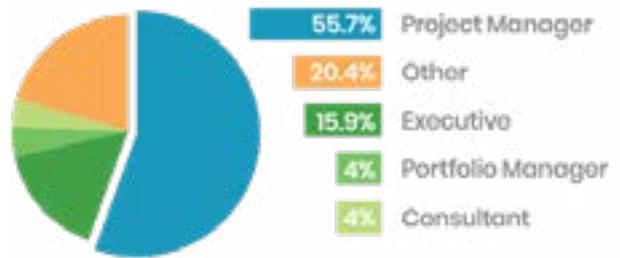
Respondents were limited to the Asia Pacific region, with the majority from South Asia, Southeast Asia and Australia.

More than half of respondents held the job title project manager (55 percent), while a range of executives, portfolio managers, consultants, and other manager types made up the rest of the survey. Professionals represented a wide variety of industries, including construction, architecture, and engineering, while government, education, healthcare, finance and manufacturing also responded.

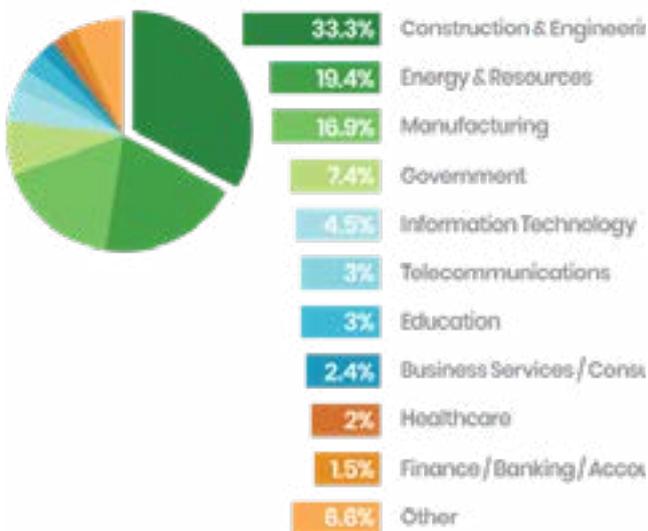
Company size was evenly spread with organizations under \$10M in revenue making up 21 percent of those surveyed, while businesses with over \$10B in turnover represented 14 percent of respondents. Nearly a fifth (19 percent) of those surveyed were from companies with more than 15,000 employees, while 31 percent had 500 employees or less. This data was used to further identify if there were any trends specific to organizations with revenue and staff.

While there were subtle differences between respondents based on geographical location and industry, there were few identifiable trends based on other demographic data, such as revenue and number of employees.

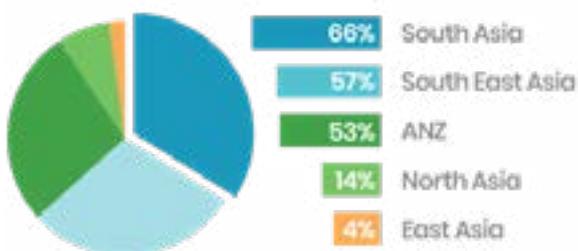
Respondents by Job Titles



Respondents by Industry



Respondents by Sub-regions



Attitudes Towards Project Controls

Key Findings:

93 percent of respondents believe that project controls are important.

Respondents stated that the biggest challenges associated with project controls occur during planning and scheduling, when forecasting and estimating, as well as when managing risks and issues.

Our research supports the importance of project controls as a discipline with 93 percent of respondents identifying project controls as important and 63 percent stating they strongly agree that controls are critical to success. Despite most project management professionals (PMPs) understanding the importance of project controls, many professionals, organizations, and industries face a wide variety of challenges in creating and implementing effective project controls.

For example, the Project Management Institute's Pulse of the Profession Survey says scope creep - or the uncontrolled expansion of product or project scope without adjustments to time, cost and resources - affected 52 percent of projects in 2018, which is an increase from 43 percent in 2013. This is likely due to an increase in project complexity. Accordingly, the value of effective project controls is increasing.

How do PMPs overcome the problem of rising complexity and increasing instances of overrun? Shalbafan suggests subjective and inconsistent practices mean little attention is paid to governance and transparency. In his experience, almost all projects fail to get executive sponsorship, which is critical to project success.

"99.9 percent of project-based organizations are failing to realize the necessity of connecting the executive and project managers," he says.

"We need to bring some awareness to PM practitioners best-practice and maturity-level across each organizations project management function.

"The executive needs to appreciate transparency of governance. People need to understand the executive's approval process."

Shalbafan says that in his experience, it can take up to three years or more for organizations to improve transparency to the point of effective collaboration. It is vital for executives to take transparency seriously as they are accountable for all key decisions - and making decisions off poor or opaque data, processes and reporting will only increase the likelihood of project failure.

PMI shows that organizations with an actively engaged executive (in more than 80 percent of their projects)

report 40 percent more successful projects than those with lower engagement rates among executives. Actively engaged executives help bridge communication gaps between influencers and implementers, which increases collaboration and reduces risk. This communication comes in the form of showing stakeholders the link between activity and strategy, removing roadblocks and driving organizational change.

To start the shift toward strong project leadership and success, organizations can focus on the three following activities:

1. Fostering a culture that encourages and develops relationships between project managers and the executive
2. Developing a roadmap for executive sponsors that includes skills and actions the organization needs for project success
3. Allocating budget for executive training

Our data revealed the top three challenges when implementing project controls relate to the practices of planning and scheduling (55 percent), estimating and budgeting (54 percent), and risk and issue management (54 percent).

Top Challenges of Project Controls



Top Challenge One: Planning & Scheduling

Key Finding:

Scope creep continues to be an issue with project controls as 41 percent of respondents identified they often deal with last minute surprises

The survey showed that over 40 percent of respondents experience last-minute surprises and disagree that their Project Management Office (PMO) had the ability to create highly predictable project forecasts. The data also shows scope creep in 52 percent of surveyed projects.

Mark Lowy, President of the PMI Institute Melbourne Chapter, supplements the findings by referring to PMI research on how strategic alignment between Enterprise Project Management Offices (EPMOs) and organizational strategy generally reduces scope creep.

“Many organizations struggle to define the PMO role in order to position it for long-term success and to leverage the office to help achieve strategic objectives,” he says.

“Organizations that align their EPMO to strategy report 27 percent more projects completed successfully and 42 percent fewer projects with scope creep.”

This may indicate a need for more flexible approaches to project requirements and a long-term view to technology implementation. New technology and systems can impact scope creep in the short-term, as technological evolution outpaces the static requirements of the project. As such, organizations may find value in flexible requirements that evolve with throughout the acquisition and design process.

New methodologies, such as Agile, can help mitigate scope creep. Agile allows scope to be strictly controlled in each sprint, while the team makes requirement tradeoffs and rescopes work at the start of each iteration. This keeps the team tightly aligned on expectations and gives a certain amount of flexibility to deal with issues as they arise.

Agile is traditionally associated with the software industry, however more construction and engineering teams are adopting the methodology. For example, Centrus Energy Corp in the US applied Agile methodologies to a \$350 million RD7D program, which involved building, installing, operating and testing commercial plant support systems. Centrus created procedures for engineering, design and construction labor which was managed via time and material contracts. This led to informal adoption of agile principles to deliver contract outcomes, which became critical to the project’s success.

Project control teams can implement several ways to control scope, regardless of methodology. These include creating awareness of the business benefits to the executive, establishing an ongoing feedback loop with the customer and taking an iterative approach which allows for midstream delivery shifts. Scope will then be more likely to shift based on informed business decisions, rather than uncontrolled swings.

Further, the Project Management Institute (PMI) encourages portfolio and project managers to make ensure initial requirements are clearly stated and recorded and that all staff have a complete understanding of the original specifications and/or business case. This can be difficult, especially with staff turnover. However, when everyone is on the same page, scope creep can be reduced.

Note: The PMI explains that while it is important to try and reduce scope creep, it is almost impossible to totally control it. In such cases, a strong change management process is imperative.*

*Project Management Institute 2018, *Pulse of the professional 2018* <https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pulse-of-the-profession-2018.pdf>

Top Challenge Two: Estimating & Budgeting

Key Finding:

Strong budgeting and estimating skills have a correlation with project success

Accurate estimates and budgets during project initiation phase play a critical role in implementing and maintaining adequate controls. When it comes to estimating and budgeting, it was agreed by most respondents that there is a relationship between estimating and overall project outcomes. In fact, 75 percent of respondents who self-identified ‘strong’ estimating practices recorded project success, and 34 percent who self-identified as having ‘poor’ cost control failed to meet all the required project objectives. When comparing this figure to the wider industry, this is consistent with researchers noting there is at least a 51 percent correlation between a successful project and meeting time and budget constraints.* Adding to this, our research indicates that, compared to Australia and New Zealand, Asian regions have ‘good’ project estimates practices. Other recent research notes that in 2018, 42 percent of government construction organizations cite inaccurate cost estimates being the main reason for project failure.**

Shalbfafan says the number of PMPs that can estimate well as project complexity increases is limited, and accordingly the price for this service is very high. Further, most project officers don’t get the budget or time to estimate in detail and instead must provide high-level benchmark estimates upon which all key delivery decisions are made – which dramatically increases risk.

Not only do people face challenges in creating accurate estimates and budgets but most professionals are aware of these challenges and want change. A study performed on a wide range of professionals, including project managers, saw that over 80 percent of organizations were unhappy with the budgeting process with it being ranked No. 1 by financial directors for reform (Player, 2003, p.3).***

Estimation may remain a major delivery pain point until the issue between client and contractor debating over time and cost is resolved. This may mean the contractor invests in new technological solutions that allows for accurate, detailed estimation in a timely fashion – which may take years to effectively deploy, or the client promotes more collaborative contracts that share information and risk freely during the design and estimation phase before handing over all responsibility.

*Serrador, P & Turner, R 2015, ‘The relationship between project success and project efficiency’, *Project Management Journal*, vol. 46, pp. 30-39

**Project Management Institute 2018, *Pulse of the professional 2018* <https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pulse-of-the-profession-2018.pdf>

Top Challenge Three: Risk & Issue Management

Key Finding:

The majority of PMOs in Asia Pacific experience challenges with project control processes related to issues and risks

Risks and issues in projects are inevitable. Our data reveals that 54 percent of respondents have project control process-related issues and risks.

The root causes of many breakdowns on large capital projects are often in the project owner's control. The following contribute to cost overrun, schedule delays, uncontrolled scope, quality issues and more:

- Inadequate risk planning and monitoring
- Lack of clear governance structure and accountability
- Poorly developed project team
- Insufficient resources, often due to a lack of accountability
- Limited or immature project controls
- Inadequate project reporting
- Inability to accurately estimate and measure productivity
- Late scope changes

The first two on that list relate to risk management and project management maturity. More mature project teams deploy a best-practice governance structure, such as a project risk management framework, and they assign accountability to key stakeholders during implementation.

A solid governance structure will allow for project risk process and procedures to be implemented, including initiation, planning, and assessment, while procedure for risk response, monitoring and control are also delivered.

Risk intelligent project managers then enable this governance structure through three key areas:

1. Clearly articulated risk breakdown structure, which outlines risk classes, individual roles and specific responsibilities
2. Operation of a central governing body that receives timely and accurate risk information to better enable response and mitigation
3. Independent and objective reviews to evaluate risk data and controls

The path to better risk management for project controls is through a cleanup of systems and tools. Governance structure must be aligned to data management, metrics, reporting and tools.

Project delivery organizations with three firmly implemented risk foundations – governance, response and controls, and systems and tools – will be better able to deal with “last-minute” surprises, and potentially able to ward them off. This means less uncontrolled scope creep and more timely corrective action that helps mitigate large overrun – making the project team more predictable long-term.

Research conducted in Europe also found that the number one way for controlling risks and issues was to implement strong planning activities. In fact, when assessing ways of dealing with environmental uncertainty, organizational and complex uncertainty and single-project uncertainty, implementing stronger planning activities was almost always the number one response (Korhonen, Laine & Martinsuo, 2014).

Again, project teams must work toward a single platform, where risk and planning activity are managed together, which will minimize risk and enhance long-term operations of the product.

Thamhain, H. J. (2013). Managing risks in complex projects. Project Management Journal, 44(2), 20–35

Bonnie, E 2015, Complete collection of project management statistics 2015, Wrike <https://www.wrike.com/blog/complete-collection-project-management-statistics-2015/>

Korhonen, T, Laine, T & Martinsuo, M 2014, Management control of project portfolio uncertainty: a managerial role perspective, Project Management Journal, vol. 45, pp. 21-37

Thamhain, HJ 2013, Managing risks in complex projects, Conference Paper, Project Management Institute <https://www.pmi.org/learning/library/managing-risks-complex-projects-5946>

Data Access & Reporting

Key Finding:

Real-time reporting is limited with only 12 percent of respondents updating data in real-time and 58 percent doing weekly or /monthly updates; this poses a risk for project and portfolio managers who may have to make decisions based on out-of-date data

The crux of most project control processes comes down to data and reporting. Project team members can make more informed and successful decisions when data is accurate. Our study shows 64 percent of respondents using Excel; 35 percent use an internal system, and only 17 percent use a dedicated commercial system. Excel has strong individual functionality but may promote a culture of manual data input, encouraging siloed processes and reporting.

It is important to update data as often as possible, as this provides accurate data to base decisions on, but with only 12 percent of respondents doing this in real time, doubt is cast over how well project controls are being implemented.

Shalbafan says that every report an executive reads is typically at least five weeks old. This increases risk on a range of issues, including safety, because leaders do not have the information required to act effectively. He says the oldest a report should be is one week.

What's worse, a bad relationship between the client and the tier-one contractor can lead to data manipulation – a situation that's happens on megaprojects all the time, says Shalbafan.

"The [tier-one contractor] intentionally doesn't pass the data along or they start manipulating data and when it happens, the client goes blind for five or six months, and they cannot rely on any information they receive," he says.

This situation is occurring on the Australian Westconnex project, which is running into regular safety issues and poor communication between client and contractor.

Shalbafan says the root cause of this is the commercial contract, which is inherently adversarial. Clients and contractors must engage in more collaborative commercial arrangements.

"From the day the contract is signed, the contractor assumes all the risk. Anything happens, it's their problem. We don't have many examples of successful, collaborative arrangements," he says.

Shalbafan says organizations may agree to be collaborative in principal, however when it comes to implementation – everything falls apart.

"If you don't remove the wall of distrust and you don't have that collaborative environment, then you don't get the easy

flow of data between both sides. Both IT systems have a firewall and immediately you can't exchange information and it's fully isolated."

"If we can rectify this paradigm then we can start to see how we can use technological solutions to create a single platform during the project lifecycle. From design to construction and delivery, we need to collaboratively accumulate data in a single point of truth."

While a strong portion of respondents (49 percent) agreed they were aligned to PMI's best practice handbook, most organizations are still using Excel (64 percent) for reporting, including earned value management, forecasting, budgeting, change management and more. This may indicate a low-level of reporting maturity across APAC.

Organizations should assess the "right-sized" solution for their companies, particularly when considering the perceived complexity around reporting in project controls. To start toward mature reporting, organizations can work on the following:

- Build a solid platform for budgeting, forecasting, and change management
- Use templates for Work Breakdown Structure and progress measurement rules
- Standardize reports and views for periodic and cumulative trends
- Match earned value (EV) terminology to the culture of an organization to make it accessible, user-friendly and better understood; CPI can instead be named "Earned/Burned" or "Productivity"
- Avoid the burden of using stringent but not contractually required government standards when an organization has already developed its own processes and expertise
- Create a full project performance picture; this means monitoring non-EV key performance indicators (KPIs) in conjunction with EV metrics
- Develop EV metrics on a cross-section of data as appropriate – not just costs, but also hours or quantities; then be able to roll up EV accordingly
- Document variance analysis and justification. Reporting on trends and variances alone is insufficient; having a central record of why variances are occurring provides a stronger tool for current and future performance improvements

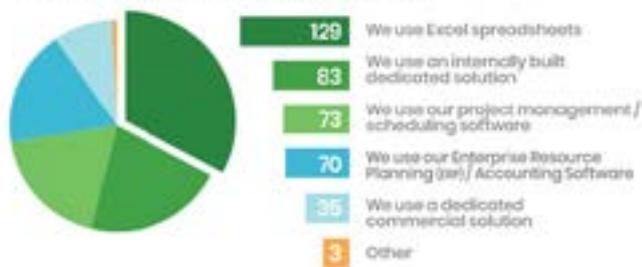
At the same time, less than half (48 percent) of respondents agreed with the statement that their project reporting methods are consistent.

Ultimately, reporting is too siloed and not standardized. Without these two features, project controls can't begin to move toward predictable outcomes. More frequent and accurate reporting leads to more accurate forecasting. More accurate forecasting grants more time for issue mitigation and corrective action.

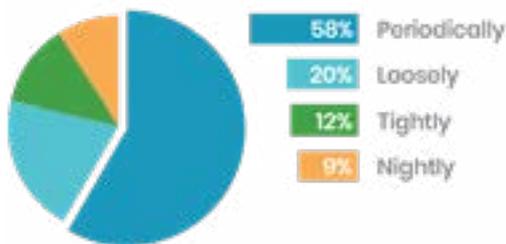
This data provides an interesting insight into project reporting trends in the Asia Pacific region. When comparing this to the entire project community, the data is similar, with 70 percent of respondents stating that they frequently use status reports and 62 percent stating they wanted to implement and enhance their reporting and analytic processes (second most reported). When tracking processes, only 21 percent use real-time dashboards, and only 53 percent use a project management-specific software (Bonnie, 2015).

Bonnie, E 2015, Complete collection of project management statistics 2015, Wrike <https://www.wrike.com/blog/complete-collection-project-management-statistics-2015/>

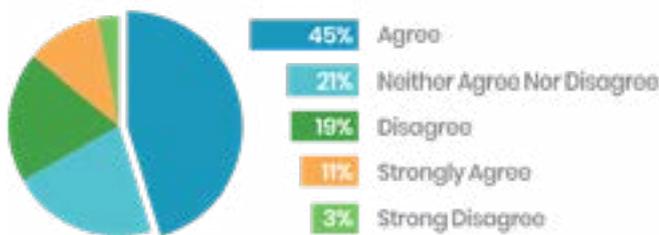
Use of Project Controls Tools



Frequency of Data Synchronisation



My organisation uses consistent methods and tools to analyse projects



Strategically Aligning the PMO

Key Finding:

The project management industry is slowly adopting more digital technology offering a range of better project control options

More than half (55 percent) of respondents in our survey stated their organization and project teams are readily embracing digital technology.

Industry research aligns with our survey in that the majority of project team members use spreadsheets (77 percent) or other traditional software such as Microsoft Project Management (72 percent). Other digital technologies, however, are on the rise with 58 percent using a collaboration platform (i.e. Slack) and 43 percent using agile planning tools. Furthermore, many project teams are using multiple technologies for implementing better project controls (Project Management Institute, 2018).

This shows project controls teams are digitizing their processes, but is this aligning with an overarching digital transformation strategy?

Gartner's Digitization's Impact on PPM Practices and the PMO by 2030 suggests that low-maturity, low-value PMOs will vanish by next year, while high-maturity functions will morph into Enterprise PMOs with more of a strategic change management office.

New systems are starting to reveal the possibilities of full-blown digital transformation. An Excel spreadsheet tracking earned value management on a project can be extrapolated into an enterprise wide project portfolio manager that predictively analyses which projects to undertake and how to accurately estimate their cost before launch.

This means the PMO, and by extension project controls, need to build a plan to become the center of change and innovation in an organization. Aggressive digitization focused on delivering the strategic vision of the project portfolio means the PMO will continuously providing value to the business; however, fixating purely on control and creating one-size-fits-all processes will prove to be a barrier to success.

Project leaders, in conjunction with the executive, must:

- Pilot initiatives, such as open collaboration, the exchange of ideas, skills and expressions of interest, to generation cross-functional insight; this must be normalized and culturally ingrained if an organization is ever to make full use of powerful digital transformation aspects, such as AI and IoT
- Understand new technology means new complexity and uncertainty as they change the way work is done and unsettle the status quo

- Focus on value contribution and strategic delivery, rather than the name of the and position of the PMO function
- Invest in establishing the core foundation for smart machines and start experimenting today; this means creating well-maintained data warehouses and considering the full view of your software stack

The benefits of digital transformation, once appropriately harnessed in project management platforms, will become quickly apparent to PMOs when implementing project controls. Some of the benefits of digital transformation include the following:

1. Real-time data:

The most direct outcome from this is the increased ability to make informed decisions. Instead of having multiple meetings, pulling multiple reports, and still not being certain that the data is correct, single-source integrated data platforms make the decision-making process much easier.

2. Increase project delivery speeds:

The 2017 PMI PULSE states they are seeing organizations implement products and features that did not exist 18 months ago. These improvements will increase project initiation speeds, complete projects easier and get products to market quicker.

3. Remain competitive:

The development of digital technology is constant. In order for a PMO to remain relevant and competitive in the industry, it needs to employ cutting-edge technology with real-time capabilities to monitor, control and manage costs across PMOs.

Project Management Institute 2018, Pulse of the professional 2018 <https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/pulse/pulse-of-the-profession-2018.pdf>



Conclusions

Key Conclusion 1:

Projects need to strategically align with the business.

Project estimation is unlikely to improve over the next 12 months due to two key factors: optimism bias and a lack of rich comparative data. This means estimation decisions will remain largely dependent on qualitative data and the experience of project leaders. As organizations shift toward digitization and put in strict governance around data management and encourage cross-functional collaboration, these companies will have access to more robust project datasets, which when enabled with the right software, will be able to predictively analyze the cost, schedule and likelihood of success of any given project. This will help curb “brain-drain” from exiting leadership but also help encourage next-generation technology such as machine learning, deep learning algorithms and eventually, artificial intelligence.

This method will rely on PMOs and project controls aligning itself to the business’ strategic vision and developing a plan for digital transformation that includes access to real-time reporting.

Key Conclusion 2:

Collaboration and standardization between Finance and Projects will be one of the key factors in successful PMO digital transformation

Our survey shows that the first steps toward successful digital transformation is collaboration and standardization of processes and data management. For project management professionals, this means opening dialogues with the finance team and looking for ways to work more openly and in an environment of experimentation and learning. These functions operate in distinct silos, which is demonstrated through their technology platforms. ERP Systems – and their associated project accounting tools – do not perform many of the functions that project controls require, yet project controls are almost fully reliant on these systems to do their jobs.

If projects are to become more predictable and strategic, a core focus for 2019 must be to align and collaborate more closely with finance.

Key Conclusion 3:

System convergence and integration are the first steps towards real-time reporting

Offline tools, such as Excel and Access, bottleneck a variety of projects’ functions, including project controls, schedule, project portfolio management, contract management and timesheets. The data from offline tools must be manual and quite often double-keyed back into

project accounting add-ons of the ERP. Further, finance and business managers must blindly trust underlying systems and processes are managed in accordance with corporate standards. This results in numerous problems, from inefficiencies to blind spots that cause uncontrolled scope creep.

Mature PMOs have, or are starting, to integrate their systems and move away from offline tools. Technology exists to take away the bottleneck and problems of platforms, such as Excel and Access, but more importantly, this new technology.



Take Action: Assess Your Maturity

Key Finding:

With 42 percent of respondents follow the Project Management Book of Knowledge (PMBOK), working in parallel with industry-accepted practices can provide the relevant tools and processes to implement effective project controls

While a range of information regarding attitudes and trends towards project controls has been presented here, what has not been discussed is how to create and implement project controls. An efficient way to do this is to align your PMO with industry best practice. This can be done by adopting the Project Management Book of Knowledge (PMBOK) guidelines. This book of knowledge - collated and maintained by the Project Management Institute (PMI) - constantly updates with current practices, conducts research to understand the market and provides constant reports to PMOs to ensure their practices reflect the best industry-wide practices. From our study, we can see 42 percent of respondents already do this. PMBOK contains an array of processes which can be followed by portfolio and project managers to ensure appropriate controls are being applied.

When interpreting this data and understanding how this information can improve your current project control practices, it is important to consider the level of maturity for your project control practices in your organization. "Maturity" in this context refers to an organization's development of an enterprise-wide project management approach, which outlines a clear methodology, strategy and decision-making procedures. To improve your project control capabilities, first use this self-assessment tool based on the PMBOK model to define the maturity of your current project practices. It will help you determine how a holistic, integrated approach to projects across your enterprise will improve performance.



Commentators at a Glance

Mark Lowy, President, Project Management Institute - Melbourne Chapter

Mark is passionate about all things project management and the possibilities the profession delivers to organizations. He has more than 25 years of program and project management experience across a broad range of industries including banking, gaming, utilities, energy, telecoms, education, government, mining, health and logistics. With significant experience managing the concurrent end-to-end delivery of multi-million-dollar programs of work, he has become a sought-after resource for recovering crippled programs and projects. Mark has an MBA, MPM; he is PMP and PRINCE2 certified, and he is a certified P3M3 consultant.

Saeed Shalbafan, Founder, Hooshmand - Intelligence Advisory

Saeed's project management and leadership experience span 21 years across construction, manufacturing and infrastructure development projects including facilities, railway, metro and power station. He has held senior executive roles in project controls for local rail and power infrastructure projects as well as international projects in D&C manufacturing complex projects in the Middle East. He has developed and mentored high performing project teams for the delivery of multiple projects.

As a senior manager at Jacobs Engineering, Saeed led schedule management teams for budget planning, performance of individuals, procedures and systems on over \$20 billion of mega projects in NSW. He founded Hooshmand-Intelligence Advisory, where he pursues his passion for design and use of simulations for research, organisation diagnostic and facilitated decision making. Saeed has deep knowledge of business simulation, strategic integration, project finance and analysis, project controls and portfolio management.

Iulia Amariei, Senior Industry Consultant, EcoSys

Iulia has more than 25 years' experience in technical sales, solution design, implementation and software support. Her comprehensive knowledge extends to Project Controls and Project Management Systems and procedures.

Iulia helped build solutions and add value to software processes and procedures for several blue-chip clients in industries, such as oil and gas, infrastructure, mining, engineering and construction.

Her current role focuses on consulting to organisations about project portfolio management, cost control, moving toward project predictability and real-time reporting. She helps project teams make the right decisions about process, governance and technological solutions based on their maturity level.

Contact

For more information about this study please contact:

Ljubica Radoicic

Marketing Director APAC
+61 2 9956 4000
ljubica.radoicic@hexagon.com

Iulia Amariei

Senior Sales Consultant - Enterprise Project Performance
+61 7 3510 8915
iulia.amariei@hexagon.com



About Hexagon

Hexagon is a global leader in digital solutions that create Autonomous Connected Ecosystems (ACE). Our industry-specific solutions create smart digital realities that improve productivity and quality across manufacturing, infrastructure, safety and mobility applications.

Hexagon's PPM division empowers its clients to transform unstructured information into a smart digital asset to visualize, build and manage structures and facilities of all complexities, ensuring safe and efficient operation throughout the entire lifecycle.

Hexagon (Nasdaq Stockholm: HEXA B) has approximately 20,000 employees in 50 countries and net sales of approximately 3.8bn EUR. Learn more at [hexagon.com](https://www.hexagon.com) and follow us @HexagonAB.

About Hexagon's OPM3 Maturity Assessment Tool

Hexagon has developed a [tool](#) in line with PMI standards allowing project and portfolio directors to give key business stakeholders, including executives, end-users, contractors and IT and insight into their project maturity. It also provides an overview of the project management challenges inside each business.

You can use the maturity report that comes from your assessment to benchmark your company and begin internal steps toward change.

© 2019 Hexagon AB and/or its subsidiaries and affiliates. All rights reserved