



CONTENTS PAGE

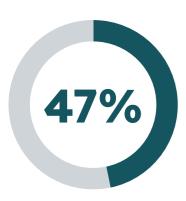
Foreword	4 – 5
Survey at a glance	6 – 7
Sucess around the world	8 – 9
Digital technology and innovation	10 - 17
- Building Information Modelling (BIM)	
- Data Analytics and Business Intelligence	
- Digital Project Management Office (PMO)	
Skills and capabilities	18 – 19
Diversity and inclusion	20 – 21
About Assystem	22 – 23





SURVEY AT A GLANCE





of projects and portfolios are successful *calculated by meeting time, cost and quality objectives

The data shows that better project controls and PMO setups will increase confidence in achieving successful delivery

more client confidence in successful delivery of projects and portfolios with full system integration. more likely to achieve their objectives with fully integrated systems and processes. 6 • ASSYSTEM | The future of PMC

When looking at the success of projects and portfolios, the data indicates that there is significant room for improvement, especially within enhanced project controls and PMO strategies, to obtain greater value from systems and processes and improve efficiency.

Enhancing project efficiency and value through improved project management and PMO practices is crucial to meeting our sustainability goals.

Countering time and cost overruns on projects and portfolios is vital for advancing the energy transition, including:

- nuclear,
- · low-carbon transport,
- · smart cities,
- · and other infrastructure.

The data shows overruns on cost are a common occurrence on projects and portfolios, so how can this risk be mitigated while achieving maximum value, especially from digital technology within the PMO?

See page 16 for more about digital PMO.



SUCCESS AROUND THE WORLD

Success is defined by projects and portfolios meeting all or most time, cost, and quality objectives.



Challenges and areas of investment:

Our research shows the future for projects and portfolios is digital. This has been a steady trend over the last five years, with an increasing focus on how digital technology can optimise performance and enhance productivity of projects.

NORTH AMERICA

MIDDLE EAST

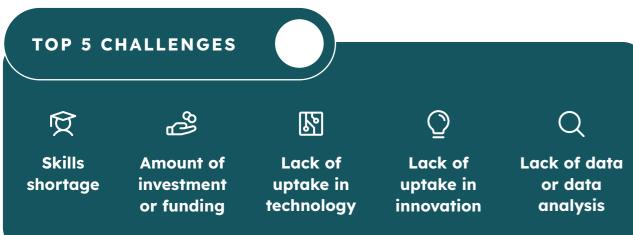
47%

CENTRAL/SOUTH
AMERICA

AUSTRALASIA

AUSTRALASIA

52%



The challenge around skills shortages has been a recurring theme over the last several years, which presents a series of related challenges for projects and portfolios. However, with the industry becoming more technologically advanced, (e.g. digitalisation of PMO), we can see a streamlining of some of the more repetitive tasks involved in project monitoring and control. This may indicate a shift in skills required to manage this technology or it may

reduce the demand on the existing skills and therefore partially address this industry challenge.

This finding also indicates that organisations need to attract and retain talent with training programmes and develop partnerships to address this skills gap.

The challenges around data, technology and innovation show the appetite in the industry to keep progressing with digital advancements, even within the traditionally slow-moving construction industry. This presents an opportunity to learn from other industries and to enhance project performance with the use of digital enablers. The pivotal role of digital tools and innovative solutions in boosting efficiency is instrumental in facilitating the global transition from carbon-based energy to sustainable alternatives, such as nuclear power.



DIGITAL TECHNOLOGY AND INNOVATION

The adoption of digital technology has emerged as a cornerstone of the construction, engineering, and infrastructure industries. The presence of a well-structured digital delivery plan is vital and directly influences project outcomes. The data shows the importance of incorporating digital strategies into project management practices.

THE INFLUENCE OF DIGITAL



more confident in project outcomes with a digital delivery plan in place.

2.7_x

more client confidence in the successful delivery of project and portfolios when benchmarking their project controls.

These facts emphasise how digital integration significantly enhances project and portfolio performance.



of projects and portfolios have a digital delivery plan in place.

DIGITAL TRANSFORMATION WITHIN A PMO



The role of digital within a PMO is also becoming increasingly important. In this global shift from traditional, fossil-fuel energy sources to renewable and sustainable alternatives, the PMO can play a crucial role in facilitating this energy transition.



A digital PMO will enhance the management of these complex and time-critical projects.

It will help manage risk, stakeholder engagement and performance monitoring with data analytics and reporting.

- $ot \sim$ Data analytics and visualisation
- Process automation/workflow
- Business intelligence

Our survey showed that digital elements are the focal point for businesses operating within the PMO landscape, with data visualisation ranking as the top priority. It demonstrated the transformative role digital technology plays in facilitating innovation and efficiency.

For more information on data management and visualisation, see page 15.

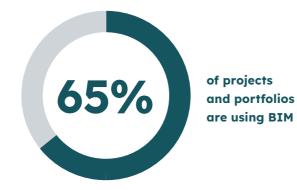
BUILDING INFORMATION MODELLING (BIM)

Defining BIM

BIM is a coordinated process for developing, managing, and maintaining an asset throughout its lifecycle. A BIM model incorporates graphical, commercial, and operational data fully integrated.

BIM is a common term in the construction and engineering industries – the use of this for project delivery is becoming increasingly popular. Since first asking about BIM in this survey five years ago, the number of our respondents with BIM capabilities has more than doubled. The value of this technology has now been recognised, with BIM as a key component for managing complex projects and programmes.

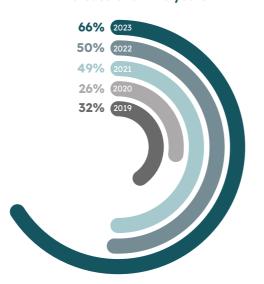
Organisations using BIM are more likely to meet overall cost, time, and quality objectives than those that don't.



1.7_x

more client confidence in the successful delivery of projects and portfolios when BIM maturity is at stage 2.

% of projects using BIM
- Increase over five years







BENEFITS OF BIM





Greater collaboration

BIM utilisation presents a range of benefits that support projects and portfolios to achieve enhanced performance management. It highlights the significance of integrating BIM early in the project lifecycle, as it contributes to better project performance, aligns design intent and project elements, and enhances visualisation and coordination throughout the project lifecycle.

MAIN 3 BLOCKERS TO INCREASING BIM MATURITY





Resistance to change

It is worth noting that the skills shortage, previously identified as a key industry challenge, is a significant blocker to advancing BIM maturity. This highlights the importance of addressing BIM maturity holistically.

DATA ANALYTICS AND BUSINESS INTELLIGENCE

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A data-driven approach

Data visualisation is a hot topic in the construction and built environment industries. Advancements and ease of accessibility of programmes like Microsoft Power BI and other tools have played a pivotal role in this.

The incorporation of BI tools has emerged as a key driver of success for projects and portfolios. Integrating these tools into project management processes significantly enhances performance. With the evolution of this technology and its accessibility at a relatively low cost, projects and portfolios can ensure the right data is shown to the right people at the right time. This technology transforms the way

organisations can manage and view data, adding value to the project, saving time and keeping relevant stakeholders informed. A data-driven and analytical approach to project and portfolio management enables teams to analyse data, identify patterns and trends, as well as predicting behaviours and outcomes.

of projects and portfolios use business intelligence tools to visualise data. more client confidence in the successful delivery of projects and portfolios when business intelligence (BI) tools are used.

DATA MANAGEMENT

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It is important to remember that a tool to present data is only one half of the equation. The data we receive is the most vital component. If data is manually handled and liable to human error, or not integrated in a timely way, it can erode stakeholder trust. It can also lead to important information being missed as it is not captured in time to action.

It can also lead to important information being missed as it does not get captured in time to action. The survey data showed that more than half of projects spend 60% or more of their time collecting data to feed into a report, limiting an organisation's ability to analyse results effectively and on time.



The ideal setup is to minimise the amount of time spent gathering data, so more time can be spent analysing the results and making data-driven and timely decisions. Most projects and portfolios are still spending too much time gathering data, and therefore there is still a lot of untapped potential value from business intelligence tools once data is integrated and automatically

fed into a dashboard. Too much time on data collection prevents real-time reporting, which can delay issue identification. This delay often means decisions are made after an issue has become problematic because it has worsened by the time information is shared. Early issue identification empowers organisations to proactively mitigate risks.

1.2_x

© Colin Matthieu, TOMA, 2013

more client confidence in the successful delivery of projects and portfolios when data feeds directly from a source system or database into a report.

DIGITAL PMO

The use of digital tools to enhance a PMO is a key area of development for the industry and will continue over the next few years.



DEFINITION:

A Digital Project Management Office (PMO) leverages digital tools, software, and data analytics to streamline project management processes. It is responsible for overseeing project planning, scheduling, cost control, risk management, and communication using cutting-edge technology.

Its benefits include enhanced project visibility through realtime data tracking, improved decision-making with datadriven insights, increased efficiency and accuracy in resource allocation, and the ability to proactively identify and mitigate potential issues, ultimately leading to improved project outcomes, reduced delays, and cost savings.

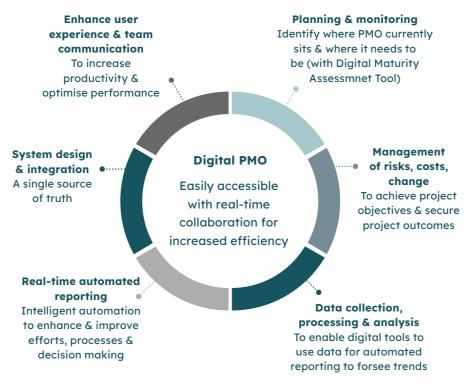
This can be achieved through implementing software packages, rapid development applications, well governed data storage, data integration and data models, process optimisation, as well as specifying or simplifying data transmission interfaces across the supply chain. The Digital PMO plays a pivotal role in modernising project

management practices and driving successful project execution. Organisations can have all or part of this set up to create a digital PMO reporting environment.

greater chance that projects fail to meet time, quality, or cost objectives when there is no project control system integration in place.

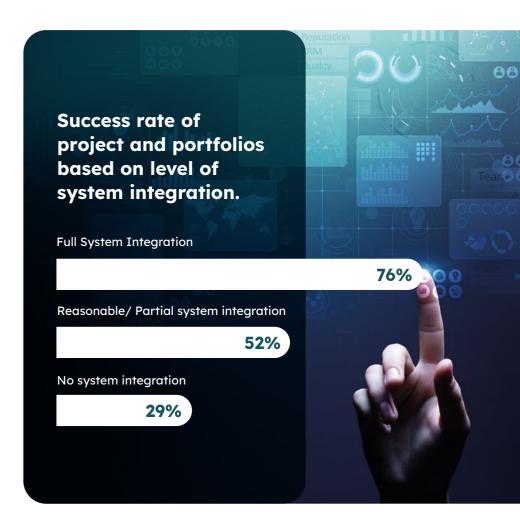
Benefits of an integrated project controls environment: Greater depth of insight and a better understanding of project performance Early warning of issues and the ability to resolve them Time and/or

cost savings

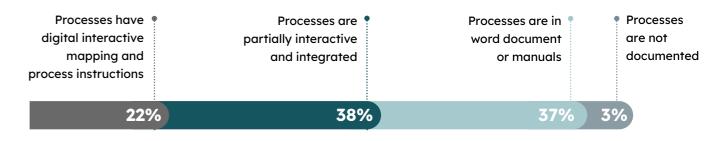


Automation and digitalising processes in a Digital PMO

A digital PMO encompasses more than just digital and integrated systems. The digitalisation of processes and automation of manual tasks is a key step. By automating key tasks, organisations can streamline processes and ensure critical information reaches stakeholders at key moments. The survey showed that only half of organisations use digital methods for documenting processes and only 52% integrate processes on a project or portfolio. As the digital PMO landscape continues to evolve, automation will play an increasingly vital role in streamlining processes, improving data accuracy, and ultimately driving project success.



Types of process documentation on projects and portfolios



SKILLS AND CAPABILITIES

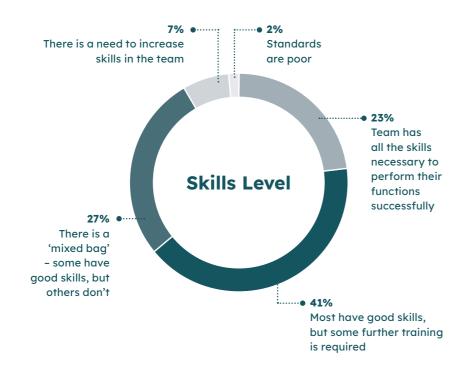
In an industry facing profound challenges in securing people with the right skills, the need to elevate capability has never been more pronounced. Organisations are increasingly recognising that investment in staff training is not just advantageous but absolutely essential to confront an industry-wide skills shortage of skilled professionals. The transition from a scenario where training is accessible only upon request to a proactive model where companies actively push comprehensive training for staff will be key to long-term success. The shift not only promotes greater technology adoption but also elevates the overall capability to manage project and portfolio performance.

It is critical that organisations tailor training to the needs of their business. This may be specific to the systems in use or adapted to the processes required for a specific project or portfolio.

This approach moves beyond theory, delivering value by empowering staff with practical skills that drive efficiency and innovation.

Only 23% of project and portfolio teams have all the necessary skills to perform their function successfully.





IDENTIFYING SKILLS GAPS



To address these skill gaps, it's crucial to pinpoint the areas in which teams require upskilling. Our survey revealed the following areas as priorities:



In an era marked by increasing digitalisation across all elements of project and portfolio management, the demand for technical upskilling is on the rise. Notably, the data in 2020 showed that the key areas for upskilling fell under the category of project controls and project management fundamentals, encompassing aspects like cost and schedule integration and planning. This means over the last several years, despite the industry's adoption of digital technology, skills gaps continue to prevent the industry from fully harnessing its potential.

Training in technology adoption

With software and digital tools identified as the primary area for upskilling, a comprehensive system adoption plan is imperative. Achieving successful technology adoption hinges on training and capability enhancements for teams. This stands as one of the pivotal factors in ensuring a solution not only fits but thrives within an organisation.

By integrating training into the fabric of operations, organisations can bridge the skills gap, improve team capabilities, and ensure they are well-equipped to harness the full power of technology. This proactive approach is necessary to overcome industry challenges and remain at the forefront of innovation.

This finding may also suggest an increase in 'citizen developers' within an organisation – employees who create application capabilities using tools that are not forbidden/restricted by IT or business units. This will compel organisations to identify strategies to control the proliferation of high-quality apps and data. Failure to do so risks chaotic development. In fact, there may be a growing need for embedded, agile development teams within organisations to respond more effectively to rapidly evolving reporting and information management requirements.

DIVERSITY AND INCLUSION

Gender balance is a key concern for the construction and engineering industry.

However, diversity is far greater than just gender, and Assystem's mission in diversity, equity, and inclusion looks at many different areas. Assystem believes that a diverse and collective talent pool brings agility, collective intelligence and innovation. The survey looked at the wider role of diversity in the workplace which contributes to a positive culture and productive work environment.

The top three benefits of a diverse workplace



Variety of perspectives



Better business culture



(Y) Innovation

For businesses to better embrace diversity and create a welcoming and inclusive environment, there is an opportunity to dispel the myth that the construction and engineering sector is a 'male' or 'traditional' industry. For businesses to better embrace diversity and attract, recruit, and retain diverse talent, having a culture that encourages people to bring their true selves to work is crucial. Recognising prejudice and challenging improper behaviour is the most crucial part of building a safe workplace. These could be included in regular working procedures to start creating a safe atmosphere where employees feel respected and heard for their differences. This is true for fostering diversity in general, not only in terms of gender in the workplace.

This variety of perspectives that diversity brings, as highlighted by respondents, is typically a catalyst for creativity. There are some encouraging views on diversity highlighted in the study, but there is still considerable opportunity for improvement.

Importance placed on diversity in the workplace

The team is diverse, and everyone listened to and valued

63%

The team could be more diverse but generally, everyone's opinion is valued



Policies are in place, but not diverse and no changes are made



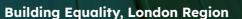
Diversity is a topic of conversation but no action



No diversity in the team and no effort to improve diversity

1%

There is much to be done in building a diverse, inclusive, and welcoming environment across the construction industry. For us to achieve this as an industry, we need to work together and harness our collective power to drive LGBTQ+ inclusion.





ABOUT ASSYSTEM



Assystem is an independent, international company with one key mission: to accelerate the energy transition throughout the world.

Drawing on more than 55 years' experience in highly regulated sectors subject to strict security and safety requirements, we provide our customers with engineering and project management services, as well as digital services and solutions to optimise the performance of complex infrastructure projects throughout their life cycle. Assystem is currently ranked as one of the top three in the world for nuclear engineering.

Our global offering in Project Management Consulting and PMO is designed to meet the challenges of our customers at every stage of their projects and programmes, by leveraging proven digital tools tailored to the needs of our clients.



Assystem provides multidisciplinary teams, tools, and processes to optimise client productivity, implementing disruptive digital technologies and leading industry best practice for client success.

Energy

Accelerating the energy transition

55

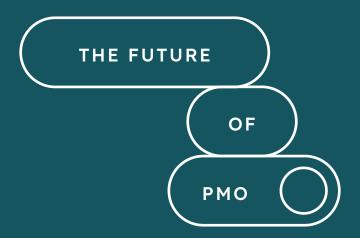
More than 55 years of experience

7,500

More than 7,000 switchers

12

12 countries around the world



2023/24
GLOBAL PMO INSIGHTS REPORT













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