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AI IN PROJECT MANAGEMENT

2023 Survey Results

This report assesses project management and data maturity, explores the benefits and challenges of implementing AI, and examines how AI will influence the future of project management.

Introduction

This report presents survey responses from over 40 companies across various sectors. It offers a comprehensive overview of the evolving perception of AI in Project Management. As well as use cases about the transformative impact of AI on the future of project management, it examines project management and data maturity, and the benefits and challenges of AI implementation. We extend our gratitude to the project professionals who participated in the anonymous survey. All data is protected by greyfly.ai.

About greyfly.ai

greyfly.ai is a proven leader in delivering successful, multimillion-pound transformation projects driven by measurable benefits. As an approved Government Cloud supplier and preferred partners of the BBC for programme management, we bring a wealth of expertise. Our core focus lies in harnessing the power of AI in Project Management to enhance project success and drive cost efficiencies. With our Intelligent Project Prediction tool, powered by AI, we empower organizations to achieve greater project success and save billions of pounds.

Authors

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Lloyd is a project professional with 25 plus years of experience working in multiple sectors and on multiple projects in both support and delivery roles. For over 4 years, he has been investigating the use of AI in project management and developing greyfly.ai.

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Marcia is a Certified Information Systems Auditor (CISA) with over 20 years of experience. Marcia's career began at the Audit Commission where she dealt with public sector clients and then moved on to the Big 4, where she spent 15 years in both the UK and overseas.

Key Findings

Despite slight improvements in project performance, high failure rates persist across sectors due to limited resources, weak governance, and inaccurate requirements. Companies do however express a need for enhancing project and data maturity, while acknowledging the transformative potential of AI in project management. They envision a future where project management becomes data-driven, predictive, and agile, leading to cost reductions and mitigating failure risks.

There is an increasing trend in project failure rate for larger project portfolios

The top reasons for project failure: Limited resources, Weak governance, Inaccurate requirements/scoping

There is concern in lack of PMO establishment with one in three companies without a PMO

In terms of project maturity, the majority of companies are at level 2 or lower

Only 13% of PMOs viewed as strategic planning units aligned with corporate strategy

There is a reliance on manual data collection [through Excel spreadsheets] within one in three companies

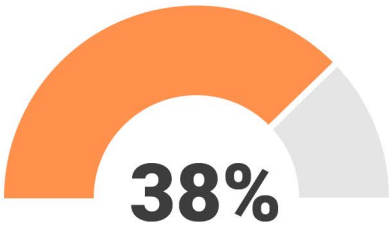
Absence of datasets hinders Business Intelligence, real-time metrics, decision-making, resource allocation, and risk management

There has been limited progress in utilising datasets to improve project performance in 2 in 3 companies

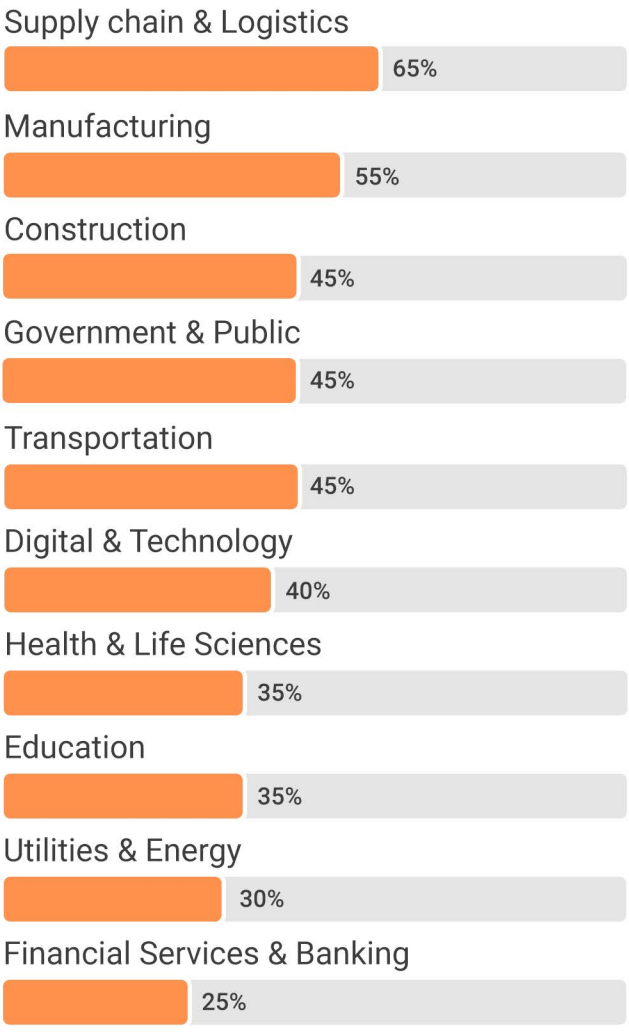

PROJECT
FAILURE

General Finding

- The overall rate of project delays, budget overruns, and failure to deliver planned benefits is 38%, slightly lower than the previous year's 41%. This marks the third consecutive year of companies reporting a failure rate of approximately 1 in 3 projects, highlighting a capability gap in project delivery. The modest improvement in project performance can be attributed to the gradual recovery of the global economy after the pandemic. However, the future of project management performance remains uncertain due to ongoing economic struggles, including high inflation and interest rates.



% Projects delayed, over budget or not delivering planned benefits



*Mean average failure rate by sector

By Sector

- In the Supply Chain & Logistics industry, a staggering 65% of projects experienced delays, exceeded budgets, and failed to deliver planned benefits. This industry was severely impacted by the Pandemic and Brexit, disrupting global and European supply chain flows, which adversely affected project performance.

- Manufacturing faced significant failures at 55%, whilst Construction, Government & Public and Transportation all had a 45% failure rate.

- Notably, the construction sector experienced a substantial decline in project success compared to the previous year, where the failure rate was only 25%.

- Despite the slight improvement compared to last year, Digital & Technology still suffer 40% project failure rate.

- Financial Services and Banking appears to have the lowest failure rate at 25%.

By Portfolio Size and Budget

Key findings were:

- Among the surveyed companies, 62% undertake over 50 projects annually with a budget of at least £1m. Approximately 37% of participants acknowledge that projects with budgets exceeding £1m are more susceptible to failure, while 35% believe medium-sized projects (£100k - £1m) are more likely to fail. These findings align with the results observed over the past three years.

- The project failure rate shows an increasing trend, rising from 30% for companies managing less than 10 projects to 40% for those handling over 50 projects per year.

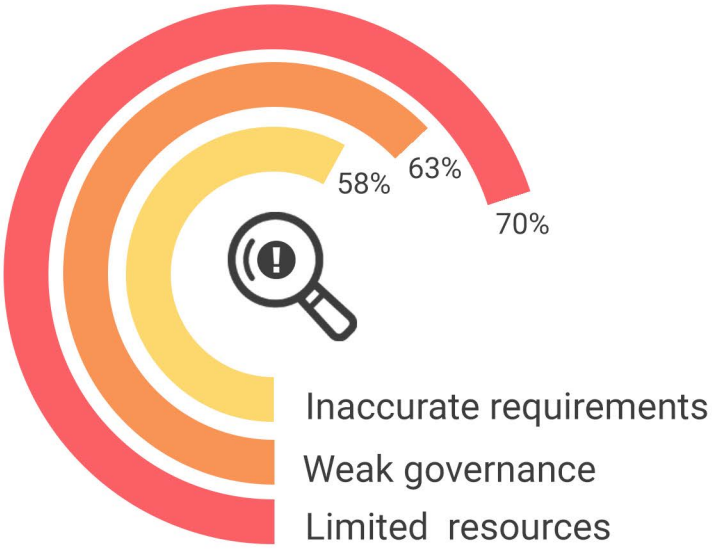
- The Oxford Global Project Database (OGDB), which includes data on nearly 12,000 mega projects, reveals that almost every megaproject failed to meet planned budget or schedule. Specifically, 40% of rail projects experienced such difficulties.

> There is an increasing trend in the project failure rate for larger project portfolios

Causes of Project Failure

Key findings were:

- Limited / inappropriate resources, weak governance and inaccurate requirements/scoping continue to be the top three reasons for project failure, aligning with last year's results.



Top 3 causes of project failure

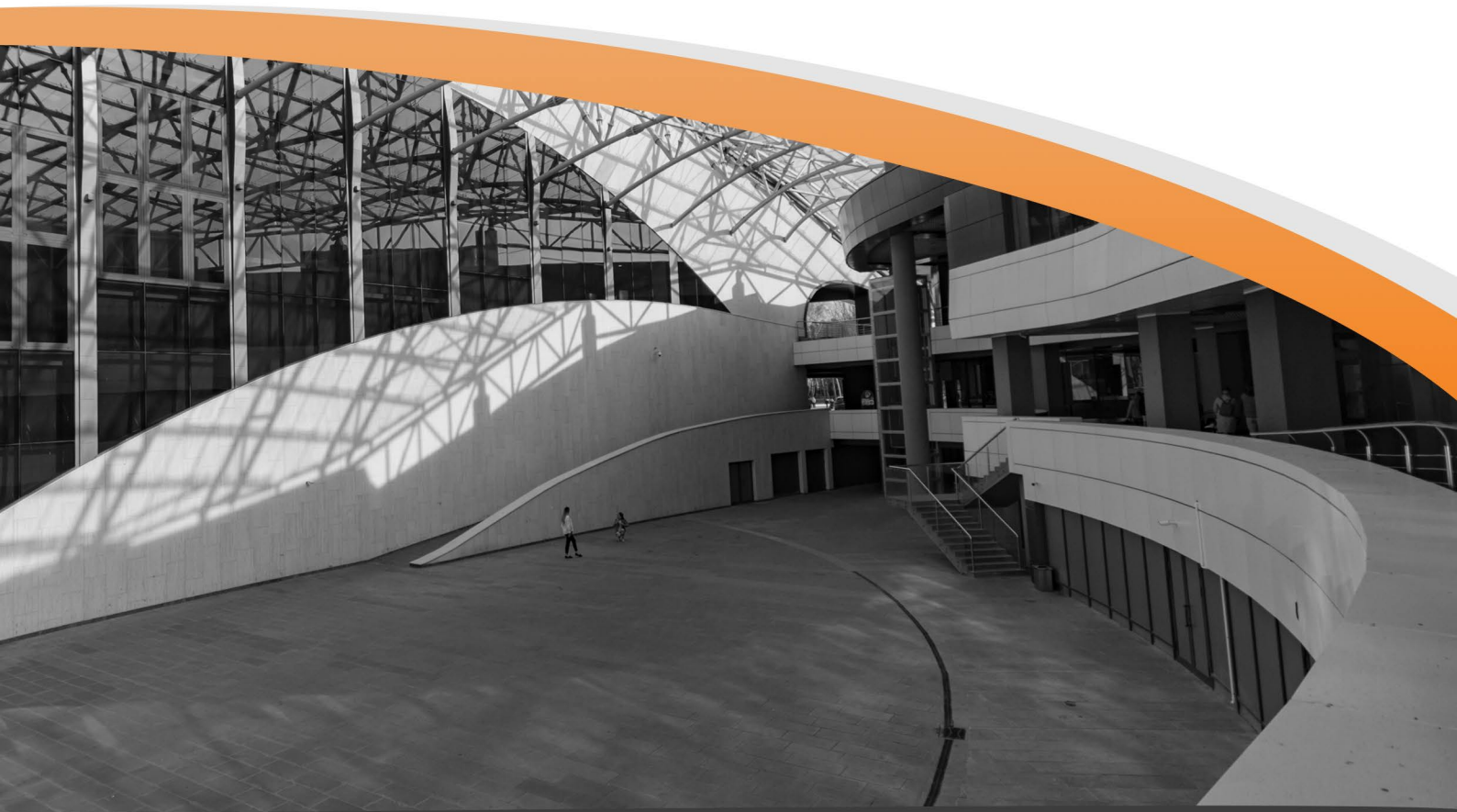
- Limited / inappropriate resources remains the significant challenge, with 70% of participants identifying it as a primary issue. Insufficient funding, skilled personnel, and necessary tools hinder project teams from adhering to schedules, leading to delays, compromised quality, and ultimately, failure.

- Weak governance, mentioned by 63% of participants, hampers project managers' ability to deliver successful projects. Ineffective oversight, time-consuming decision-making processes, and a lack of prioritization from top sponsors lead to chaos and inefficiency. Without clear roles, responsibilities, or prepared risk management, it becomes challenging to keep projects on track and address unexpected issues.

- Inaccurate requirement/scoping is cited by 58% of respondents as a recurring pitfall. Unclear or changing project requirements create confusion, misalignment, and the need for redesigning. Under-scoping for approval and a lack of clarity result in underestimated resource needs, unmet objectives, missed deadlines, and dissatisfied stakeholders.

> Limited / inappropriate resources, weak governance and inaccurate requirements/scoping continue to be the top three reasons for project failure, aligning with last year's results.

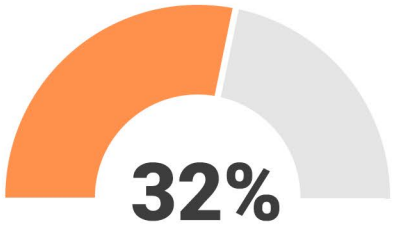
- Early identification and preparation for these challenges are crucial for both project managers and stakeholders. Acquiring sufficient resources, clarifying requirements/scope, and establishing robust governance support are vital steps to mitigate risks and increase the likelihood of project success.



Project Management Offices (PMOs)

Key findings were:

- A concerning trend is observed in PMO establishment, with one in three companies reporting the absence of a PMO. This indicates a downward trend in PMO adoption.



% of organisation with a PMO establishment

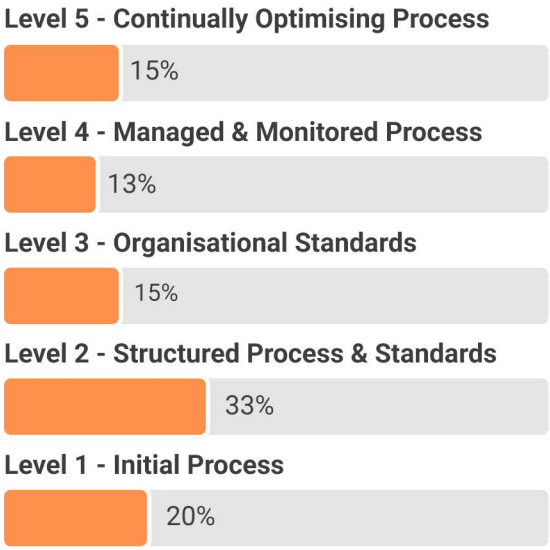
- The Wellington report of 2021 reveals a drop in companies' perceived value of PMOs, declining to 54% from 71% in 2020, partly influenced by the impact of Covid. This raises concerns about the adequacy of project management capabilities to handle increasingly complex projects.

- However, among companies with established PMOs, 46% have been operating for over five years and typically have more than 50 personnel. These companies demonstrate a slightly lower average failure rate of 32%, suggesting that project management capabilities and maturity do not strictly correlate with the size and age of PMOs.

> A concerning trend is observed in PMO establishment, with one in three companies reporting the absence of a PMO

PROJECT MANAGEMENT & DATA MATURITY

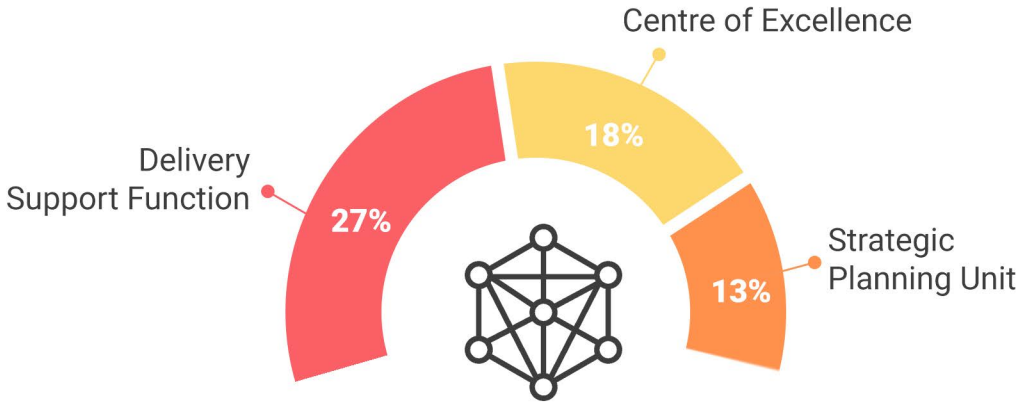
Project Management Maturity



> The majority of companies (53%) indicate that they are at level 2 or lower at project maturity

- This represents a 10% increase compared to the previous year, highlighting that while companies have structured processes for project delivery, organisational standards, managed process and continued improvement is lacking

- Among the respondents, 27% view their PMOs as playing a supportive role in facilitating change delivery, while 18% perceive their PMOs as centre's of excellence that document processes and methods to ensure consistent working practices.



Top 3 Functions of PMO

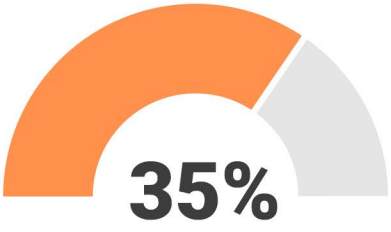
> Only 13% of the responses describe their PMOs as strategic planning units that communicate priorities to support project selection in alignment with corporate strategy and goals.

Data & Project Tool Maturity

- Despite 40% of companies using some form of Project Portfolio Management (PPM) tool, one in three companies still rely on manual data collection through Excel spreadsheets for project management.This reliance on manual methods is not surprising considering the low project maturity and capability observed.

> 1 in 3 companies still rely on manual data collection through Excel spreadsheets for project management

- Corporates with portfolios containing hundreds of projects face challenges in effectively allocating resources, managing risks, and addressing evolving requirements while delivering projects on time and within budget.
- According to the Wellington research of 2021, one in four project professionals spends over two days each month solely on collecting project status information.

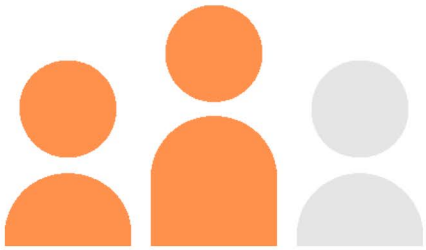


35%

% of companies do not have recorded dataset

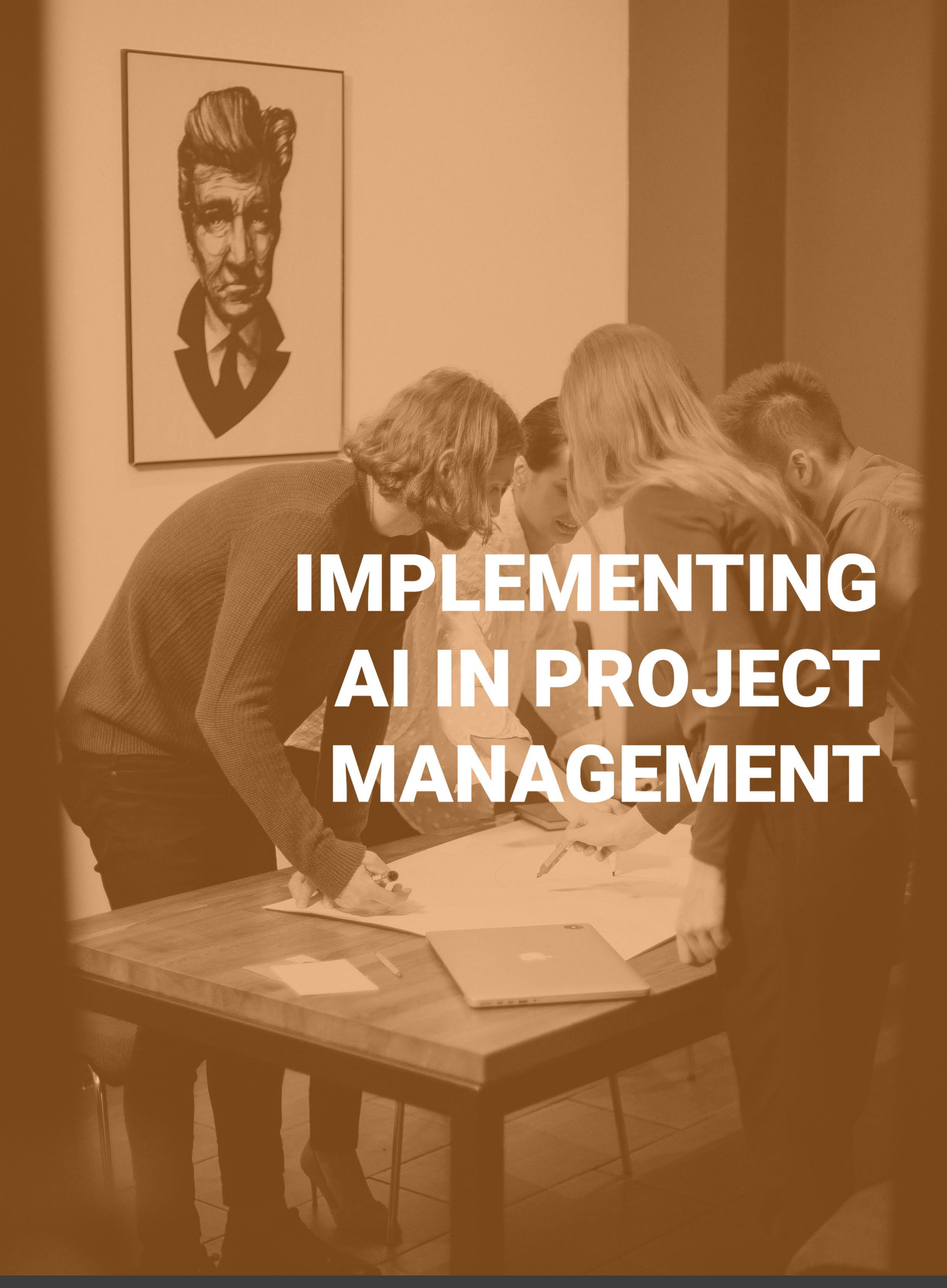
- 35% of companies do not have any recorded datasets, indicating a lack of data infrastructure. 80% of companies currently do not have, nor have plans to recruit, data scientists to support project delivery.
- The benefits of data analytics in project management extend beyond these aspects, as highlighted by Harvard Business Review, with 69% of companies reporting a lack of data-driven organizational practices.
- As the volume of data continues to increase, so does the need for analytical decisions and actions, surpassing those based solely on intuition and experiences.

> This absence of datasets deprives companies of valuable Business Intelligence, preventing them from understanding their performance, accessing real-time metrics, making faster decisions, allocating resources efficiently, and managing risks effectively.



> 2 in 3 companies having collected data confirm that they either don't know how to utilise the dataset or have made no progress in leveraging it to improve project performance

- These challenges are prevalent among organizations lacking a clear data strategy and foundation, as well as the necessary infrastructure, before venturing into the realm of big data.
- The exponential rise in the need for implementing AI to process large datasets, improve performance, and stay competitive has caused companies to lose sight of where to begin, leading to blind jumps into big data or complete neglect until it becomes too late.
- Companies using project tools express dissatisfaction with the current level of tool maturity, primarily in planning/scheduling and team collaboration. Approximately 60% of respondents are seeking more advanced features in project/portfolio tools.
- This suggests that companies have recognized the underutilization of their valuable databases and the overwhelming potential benefits offered by advanced features and the application of AI/machine learning, making it difficult to ignore.



IMPLEMENTING AI IN PROJECT MANAGEMENT

Adoption Levels

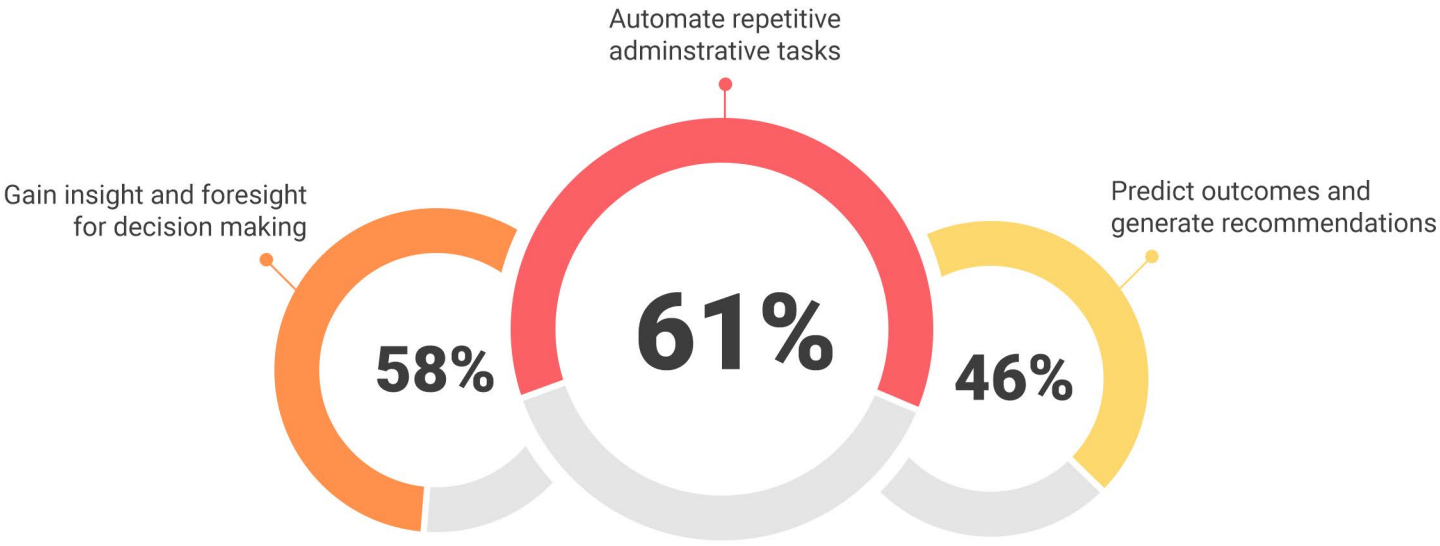
Key findings were:

- The remarkable emergence of ChatGPT has drawn global attention to the implementation of AI, particularly in the field of Project Management.

> 59% of companies are either interested in or already working on an adaptation plan for AI in Project Management

- The Covid crisis has further accelerated AI adoption, with 52% of companies expediting their AI adoption plans (PwC, 2022) A substantial majority, 86%, view AI as a "mainstream technology" within their company (Harvard Business Review, 2021).

- Early AI adoption is crucial for companies to remain competitive in the fast-evolving business landscape. Delayed AI adoption can result in falling behind competitors, missing out on valuable insights, operational inefficiencies, struggling to meet customer expectations, and losing market share. Late adopters may find it challenging to catch up, as early AI adopters would have already gained a significant advantage in terms of innovation, cost savings, and business growth.



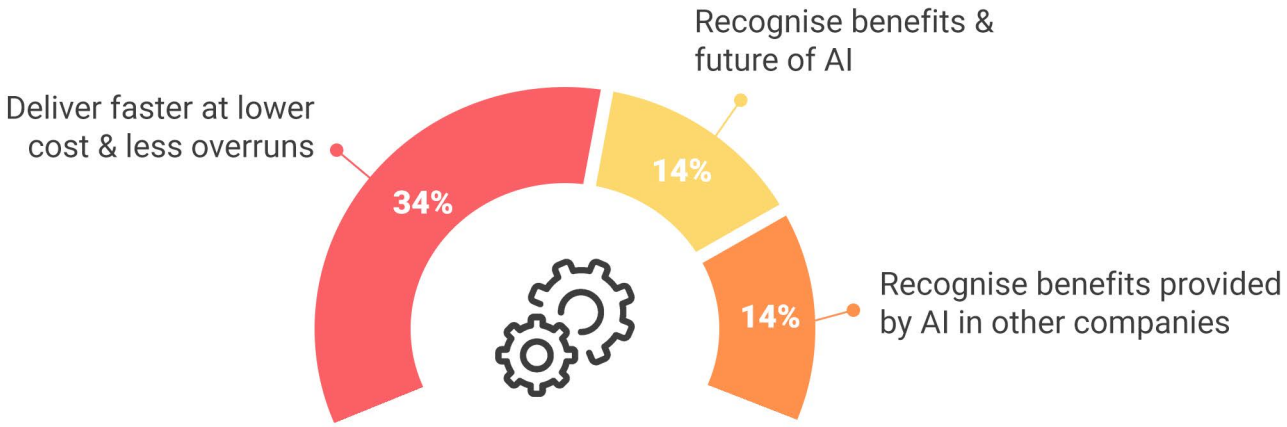
Top 3 Benefits of AI in Project Management

- There has been a significant shift in the preferred benefits of AI implementation. Automating repetitive and tedious tasks has emerged as the top benefit, with 61% of respondents expressing interest, a 30% increase compared to the previous year.

- AI implementation, exemplified by technologies like ChatGPT, can streamline project management tasks, automate scheduling, and free up time for project executives to focus on higher-value activities.

- Gaining insights/foresight (58%) and generating recommendations (46%) remains a highly favourable benefits where AI/machine learning can excel. AI can analyze historical data, identify patterns, and apply machine learning algorithms to predict project outcomes, including risks, delays, and budget overruns.
- AI can generate recommendations based on these predictions, suggesting alternative approaches, resource allocations, or mitigation strategies to enhance project success. AI's ability to process large amounts of data quickly empowers project managers to make more informed decisions, proactively address issues, and optimize project planning and execution for improved outcomes.

Drivers to Implement

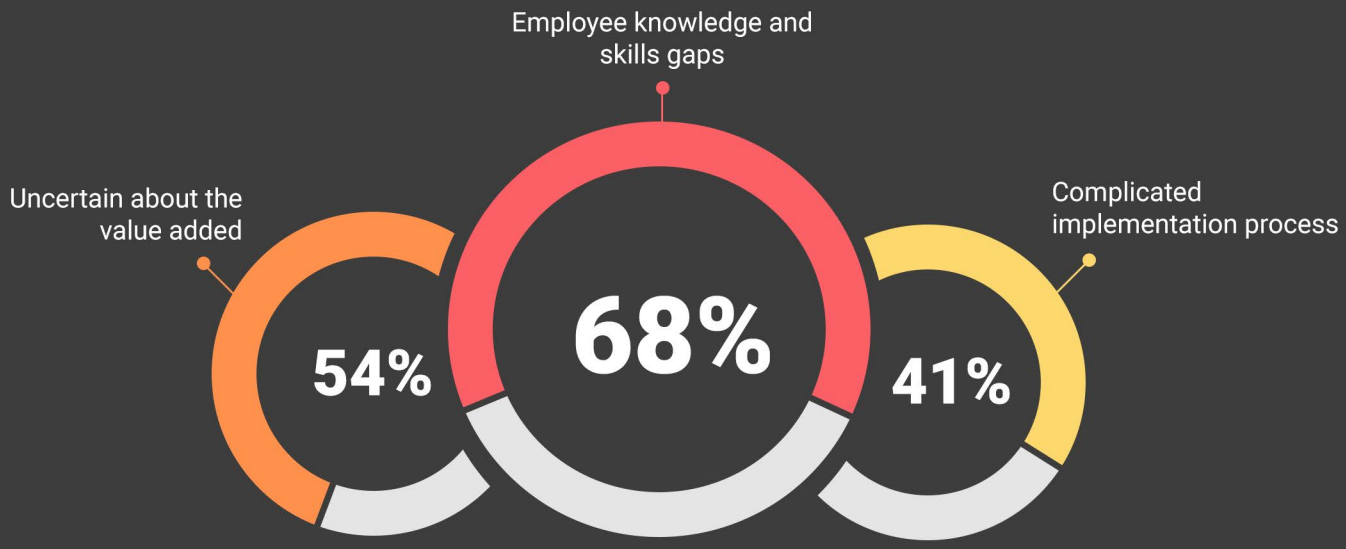


Top 3 drivers to implement AI in project management

- The pressure to deliver projects at lower costs and with fewer overruns (34%) is more significant than ever, particularly in a challenging global economy.
- In the early stages of the project cycle, AI's data analysis capabilities, identification of patterns, and actionable insights enable accurate budgeting, risk mitigation, and timely corrections to avoid costly errors.
- The competition and the demonstration of AI capabilities, including chat GPT, have influenced companies' strategies to assess their AI strategies and explore its implementation across various business aspects.

> AI and Machine Learning can be leveraged to optimize resource allocation, improve decision-making, enhance operational efficiency, and reduce project costs.

Barriers to Implementing



Top 3 barriers of implementing AI in project management

Key findings were:

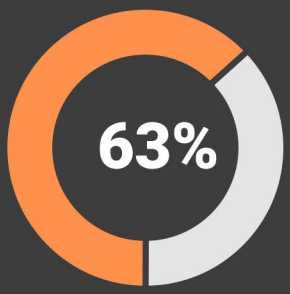
- The lack of appropriate technological skills (68%) is a major concern for implementing AI in project management. Training and upskilling employees are crucial to bridge the skills gap and enable effective integration of AI into project management processes. Medium (2022) identifies the shortage of AI experts and inadequate training as significant barriers to AI adoption.
- Uncertainty about the value added (54%) and the complicated implementation process (41%) remains top challenges for businesses. Companies may be unsure about the tangible benefits of AI, return on investment, or its impact on specific projects and processes.

> Uncertainty about the value added and the complicated implementation process are among top challenges

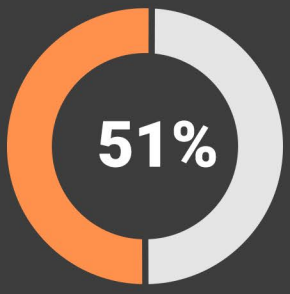
- Demonstrating clear use cases and showcasing the potential benefits of AI in improving project outcomes is essential to overcome hesitation and build confidence. Implementing AI processes can be challenging, requiring careful planning, technical expertise, and change management.
- Others challenges include data integration, algorithm development, infrastructure setup, and addressing ethical and privacy concerns. Without proper planning and support, companies may face delays, budget overruns, or suboptimal outcomes during AI implementation.

Use Cases

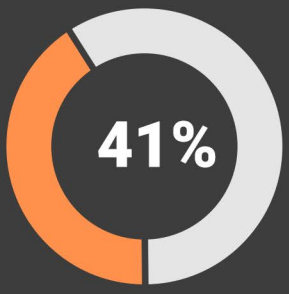
- Automating administrative tasks (63%) is the top preferred use case for AI in project management, eliminating the need for human involvement in repetitive tasks like data entry and report generation. Gartner predicts that by 2030, 80% of project management tasks will be automated by AI, leveraging big data, machine learning, and natural language processing.



Automating project adminstrative tasks



Project risk modelling, mitigation & management



Real time predictive analytics

- Executives prioritize using AI and machine learning for mundane tasks, saving project managers significant time on administrative work.
- Project risk modelling, mitigation, and management (51%) is another popular use case for AI in project management, allowing AI tools to anticipate risks, propose mitigation actions, and adjust plans automatically.
- Real-time predictive analytics (41%) is an advanced use case of AI in project management, enabling data-driven decision-making, resource allocation, and adjustment of project plans based on real-time data and historical information.

The Future

- Over the next five years, AI will assist project managers by automating routine tasks, providing real-time data analysis, and offering predictive insights for decision-making.
- AI enables resource optimization, data-driven risk assessment, streamlined communication, remote team collaboration, and dynamic project planning.

> By transitioning from traditional methods to AI-driven processes, project management becomes more automatic, predictive, and agile, resulting in increased productivity, cost reduction, and project success

> 63% of companies believe that AI will revolutionise project management, transforming the role of project managers

- The popularity of ChatGPT reinforces the belief in the future potential of AI project assistance.

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