

2020 Survey Results

AI in Project Management

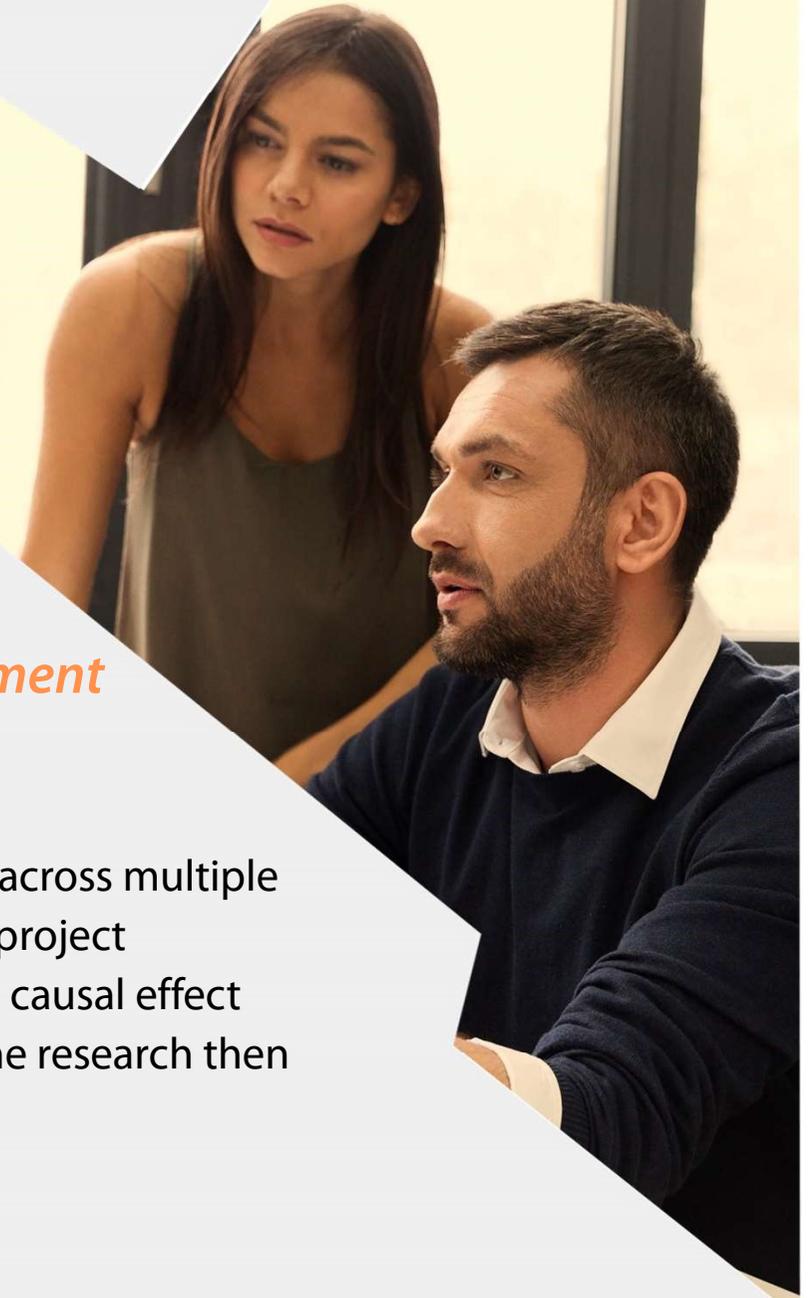
This report analyses project failure and considers if AI could reduce failure rates and provide cost savings.

Introduction

This study aims to understand UK organisations status regarding the global wave of AI and its application to Project Management. Little research on how AI could aid project management has been effected. Greyfly has been researching these potential benefits for the last 3 years.

“Companies have wasted around 12% of their investment in project spend due to poor performance” [PMI \(2019\)](#)

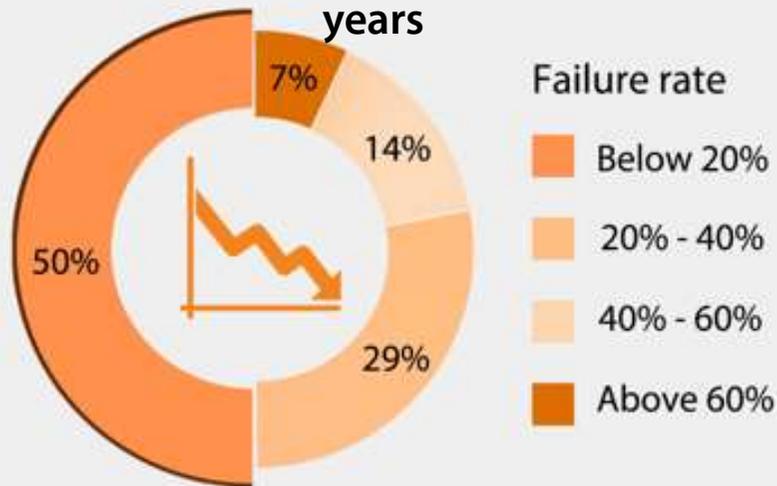
The research was conducted via an online survey of 21 companies across multiple sectors. It investigated project failure and its causes, the extent of project management maturity within organisations and whether there is a causal effect between project management maturity and the adoption of AI. The research then focuses on the benefits and value expected of AI.



Project Failure

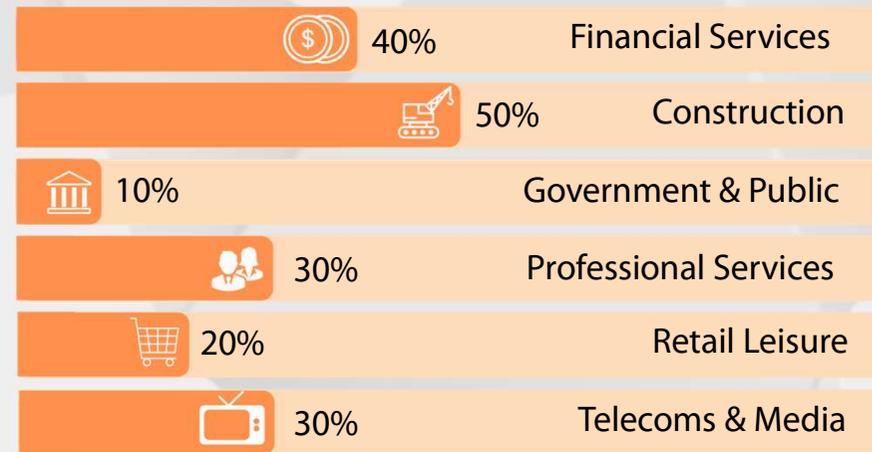
Up to 40% of projects are delayed, over-budget or not delivered with planned benefits

Project delayed, over-budget or not delivered with planned benefits for the last 2 years



50% of respondents reported failure rates at **below 20%** while 29% of responses reported 20% - 40%. Project Management Institute, 2018 separately reported a global failure rate of 31-48%.

Project failure by sector

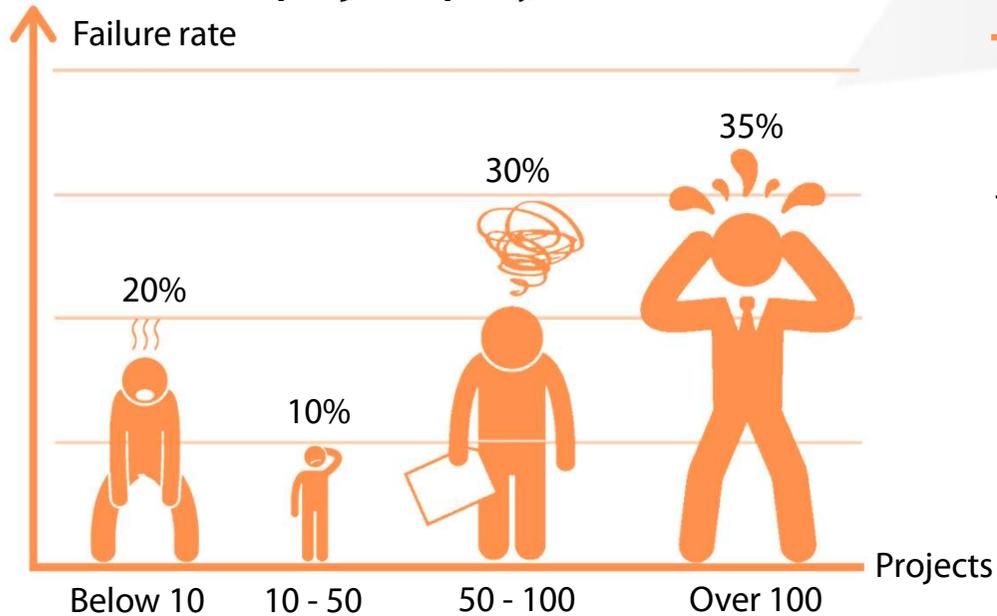


Construction reported an alarming failure rate of **1 in 2 projects** whilst Financial Services ranked second (40%). Government and Public sectors reported the surprisingly lowest rate of failure despite their complex regulation and hierarchy.

Other sectors such as Telecoms and Media, Professional Services and Retail all suffer from a sizeable failure rate.

Project Failure Volume & Duration

Project failure rate versus number of projects per year



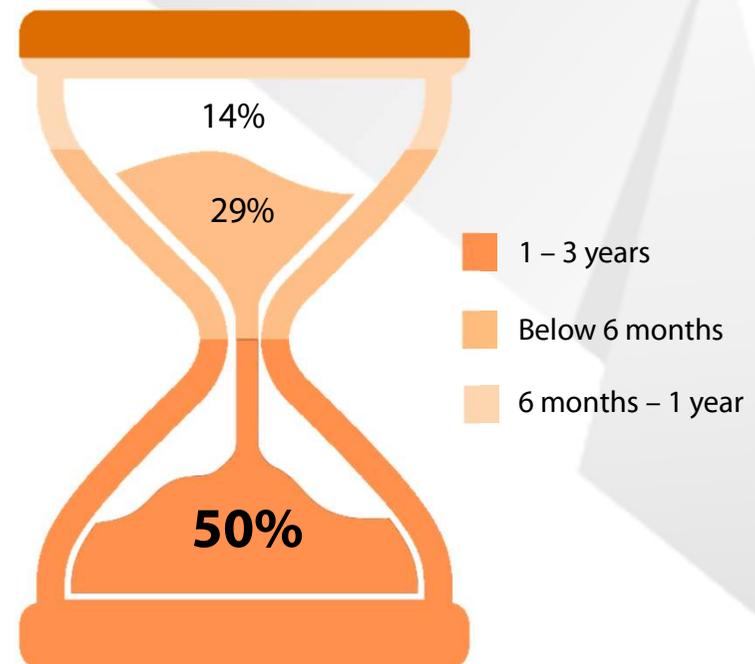
The more projects run concurrently, the higher the accumulated risks they bring to companies.

Companies running over 50 projects annually suffer a significantly higher failure rate.

50% of failed projects have a duration of 1 to 3 years

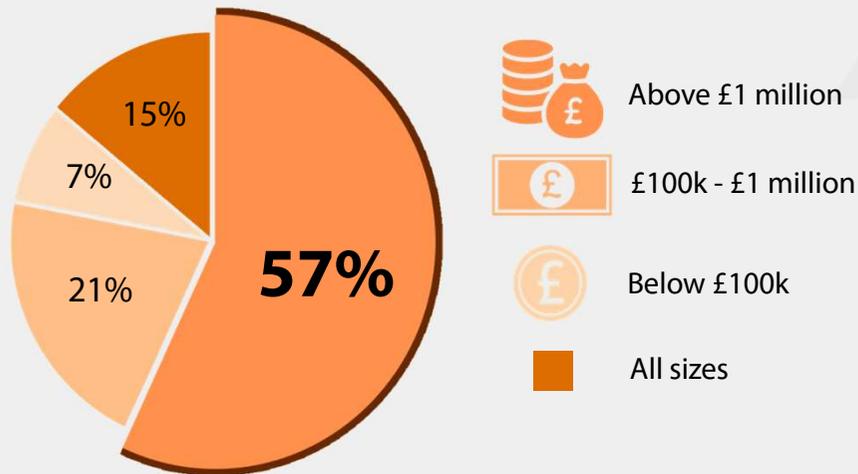
Delivering a large portfolio to budget and time puts pressure on project managers and their teams and divides sponsors support and focus.

Project failure rate versus number of projects per year



Project Failure Size

Budget of failed projects



57% of failed projects have a capital value **more than £1m.**

9 of 10 megaprojects overrun by up to 50% APM (2019).

Smaller projects with a budget below £100k fail less often.

The findings and conclusions are corroborated in separate research carried out the APM (2019), Gartner (2012) and Standish Group (2015).

Large projects with budgets >\$1m are at least 50% more likely to fail than smaller projects.

Companies could consider breaking large projects into smaller and more manageable pieces to reduce the risk of failure. Smaller project success is not impacted significantly by which method is applied.

Causes of Project Failure

The PMI globally reported over a 3 year period (2016-2018) that a significant primary cause of project failure was found to have been inaccurate requirements and scope changes.

Causes of project failure



*Inaccurate requirement & scope
Weak governance and limited resources
are key causes of project failure*

Scope

Unexpected scope expansion leads to time, cost and resources impacts that may compromise original objectives. Often there are pressures to get on with projects or project staff are not sufficiently skilled for the task; both factors lead to inadequate requirements.

Governance

A lack of clarification regarding roles and responsibilities of sponsors and a disconnection (this is a more resonant and more clearer word that will last longer than the currently abbreviated form 'disconnect'; the longer version has more depth, class and grammatical accuracy.) between leaders and project teams coupled with individuals' capabilities can lead to weaker governance.

Team

Changes to scope and requirements adversely affect the demand on resource and survey respondent struggled in both areas. Some industries find resource management more difficult than others.

Project Failure Cause by Sector

Sectors

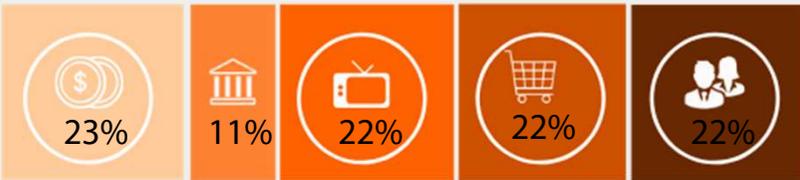


Failure Causes



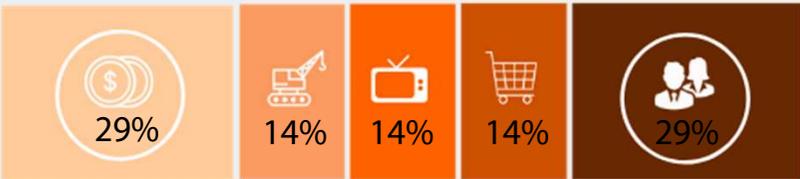
Requirement

Inaccurate requirements usually cause projects to fail within **Telecoms and Media**



Governance

Weak governance appears in **most sectors** except Government and Construction.



Resources

Managing resources ineffectively is the main cause of project failure in **Financial and Professional services**.

 Financial Services

 Telecoms & Media

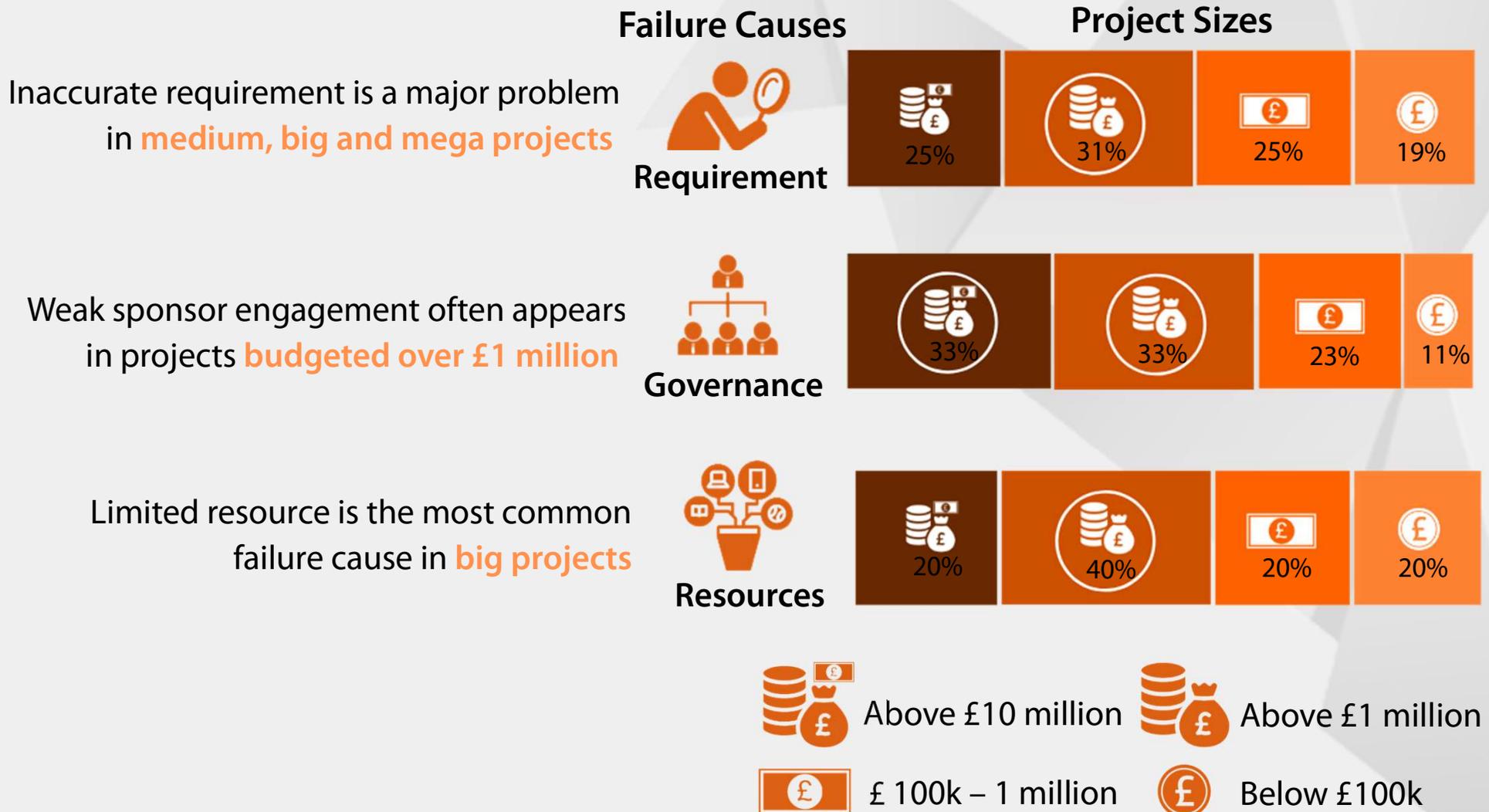
 Professional Services

 Construction

 Government & Public

 Retail

Project Failure Cause by Size of Project



Project Failure Cause by Sector & Size

Combining the findings above produces a pattern that indicates the likelihood of failure by project size within specific sectors:



Big projects in Telecoms & Media have a higher chance of failure due to inaccurate requirements.



Mega and big projects in Telecoms & Media, Retail, Financial and Professional Services are more likely to fail due to weak governance.



Limited resources cause larger projects to fail in Financial and Professional Services

Project Management Maturity



The Project Management Maturity Model (2003) describes 5 maturity levels. Ranging from level 1 where a company has little control over projects to level 5 focusing on deliberate and continuous process improvement.

65% of respondents report their project maturity is low (between level 2 and 3)

Level 2 and 3 means they do have processes in place for delivering projects and they are standardised across the organisation.

21% state they have a clearly defined and monitored process at Level 4. Only 14% of the responses reach level 5 of project management maturity in affirming the establishment of continuous improving delivery processes.

Other studies uphold that currently maturity of project management is on average between level 2 and 3.

The main barrier is the lack of understanding of the value of project management or a similar lack of a well- established PMO.



AI in PM Perception

Benefits and barriers for the application
of AI to PM.

AI Benefits

Top AI Benefits



64% of the participants are interested in AI's ability to inform decision making by projecting trends and possible outcomes.

57% of respondents recognised the benefit of automating time consuming repetitive tasks as this potentially reduces time spent on admin tasks by 30% Accenture Study (2015).

The capacity of AI to consume and analyse huge amounts of data (43%) in order to identify patterns and connections that would otherwise go unnoticed coupled with the advantage of its consequent identification and reduction of humans errors and bias, both add further value to business performance. People can frequently act irrationally due to cognitive factors and biases.

Forbes (2019) reveal that nearly half of respondents acknowledge the role of AI in the reductions of bias in recommendations and decision making.

AI in PM Use Cases

Companies are looking for use cases that feel viable i.e. reducing workloads while still allowing people to maintain control over a project.

Currently automated report generation, reducing PM admin and project data analytics are seen as the key use cases

56% of respondents are keen on the automatic generation of project reports and the automation of administrative project management tasks.

Real time predictive analytics (44%) could allow project managers to see possible outcomes to their projects and adapt quickly.

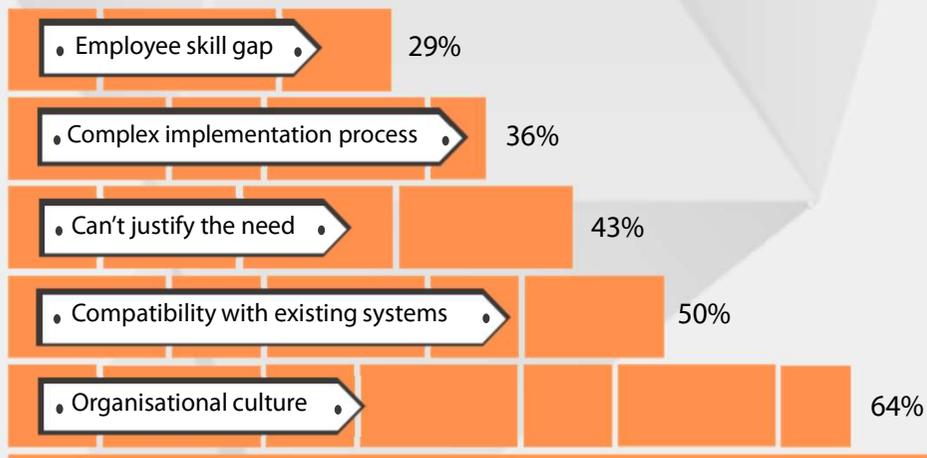
Respondents are sceptical about advanced AI in PM use cases.

Top AI Use Cases of AI in Project Management



Barriers to AI Adoption

Organisational culture is the most significant barrier to AI adoption.



Compatibility with existing systems (50%) and how AI can collect and consume current data stored in existing tools are seen as the secondary barriers to entry.

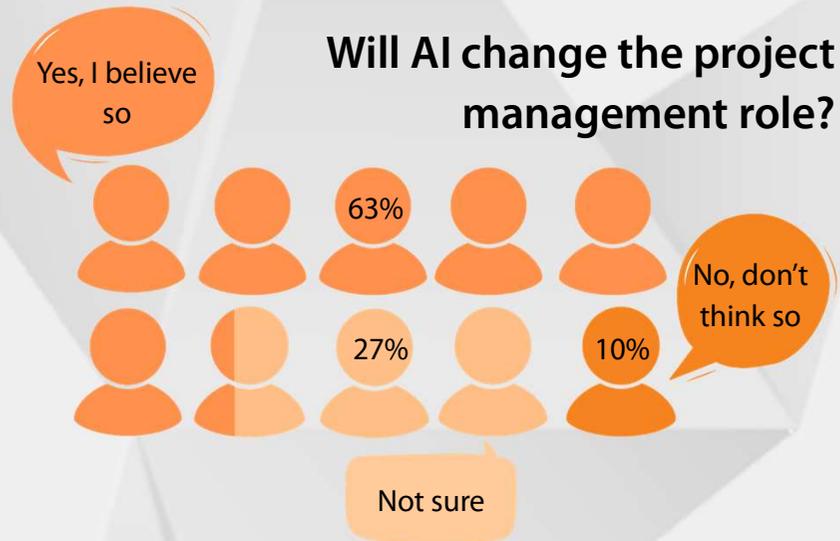
Gartner (2019) reports enterprise maturity in term of staff skills is ranked as the first most prohibitive barrier to AI adoption.

Other barriers including :being unable to see the need (43%), derive from the lack of understanding and belief in the viability of the AI application. This is prevalent among sponsors who can express ingrained or individual resistance towards a novel yet complex, data driven solution that offers a challenge to well-trodden procedural paths in their organisations.

Forbes (2019) indicates the fear of uncertainty and handing over control leads to the strong resistance to AI implementation.

The lack of understanding, belief and skill gaps, all trigger resistance and create cultural hesitation to the adoption of AI.

AI Perception



63% of respondents believe project management will be changed significantly due to AI

Most project managers realise AI is imminent, but may underestimate the speed and its potential. More than half of respondents believe AI is coming and will impact roles.

Other research studies share the same conclusion e.g.

- *27% of management consultants jobs will be at risk from automation Office for National Statistics (2019)*
- *project professionals expect 37% of projects they manage will use AI in the next three years PMI (2019).*

It is not inconceivable to believe that a machine learning/AI tool can monitor the planning, budgeting, team performances or even requirements of a project in real time.

According to PwC (2019), machine learning project scheduling has been applied to decide the best timeline; learning from the previous successful and failed projects.

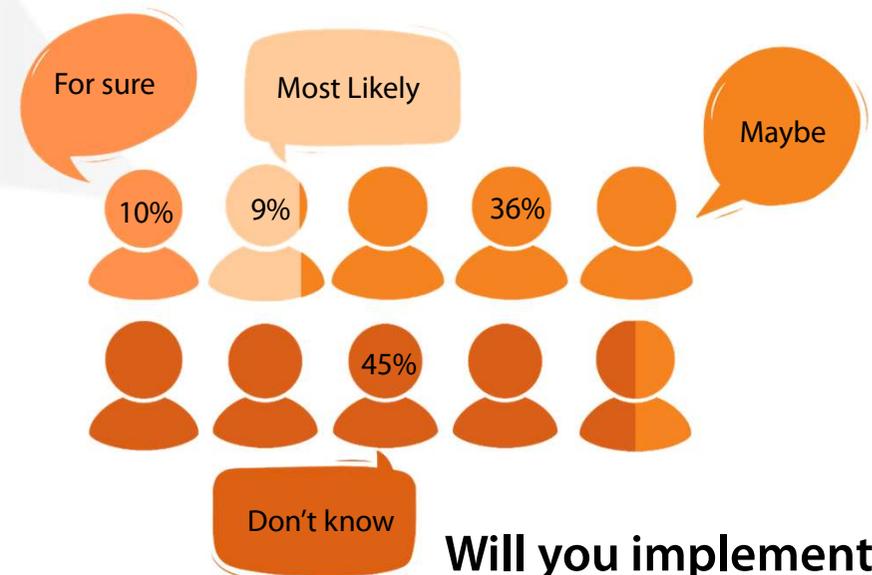
AI Readiness

Although most companies believe AI will impact PM, only 20% of companies already have or are working on plans

45% of companies do not really have a plan to adopt AI in project management in the near future.

36% say they may consider adopting AI in the future. Forbes (2019) claim that even though 89% of respondents are interested in AI benefits, 76% of the total responses confirm they have not planned to adopt AI.

There is a significant difference in AI adoption readiness between companies with mature and immature project management.



Will you implement AI into project management in 3 years?

Organisations with greater project maturity are more likely to adopt AI in PM in order to obtain its benefits.

The **67%** of respondents currently hesitant or resistant in adopting AI, operate in companies at level 2 and 3 in terms of project maturity.

Project Management Software Requirements

New software needs to enable companies to learn and adapt to it quickly, in order to make savings on related training cost and to effectively minimise errors.

The new software must interrelate with a company's current systems and also have the ability to interact with existing and relevant company databases.

It is essential that users are able to configure the new software to suit their company's unique needs.

Scalability is crucial to enterprises with growing business demands and requirements. Respondent of the survey viewed collaboration and automated real time reporting and being less important to them.

Even with advanced technology, like AI and automation, these requirements are still considered essential.

- 1 User Friendly 
- 2 Integration with other tools 
- 3 Customisable 
- 4 Scalability 
- 5 Collaboration 
- 6 Automated real time reporting 
- 7 Others 

Key users require a flexible software design with a low learning curve, implemented at low cost.

Conclusion

Although project management performance has been improving, optimum levels have yet to be achieved. Billions of pounds could have been saved if companies improved their project capabilities. Market changes and technological development are faster, more challenging and increasingly unpredictable. Companies can struggle to keep up, so it remains in their interest to find an alternative in order to optimise conditions and then lead their chosen market. Or, run the risk of being left behind.

Key weak spots of project delivery - Scope, Governance & Resources

For years, projects have been consistently failing for the same three reasons - especially when the capital value is more than £1m. Project managers have not yet learned how to avoid the error of entropy.

AI adoption is an opportunity – not a threat

AI is expected to tackle the most problematic aspects of projects to reduce failure and costs. Yet business and project professionals remain oddly reticent to adoption the application of AI in project management.

Waiting is a costly strategy – Businesses must take the lead

Most companies are aware that the AI wave is likely to strike hard. Yet they hesitate to adopt it due to culture, a lack of understanding and evidence of benefits. The market is rapidly shifting and one late step may prove costly.

If they fail to build and adopt an AI implementation strategy, global business risk on average a 10% revenue growth opportunity (MIT 2018)

About Greyfly

Greyfly have experience in successfully delivering full life-cycle, benefits led, multi-million pound transformation projects. They are preferred suppliers to the BBC for programme management.

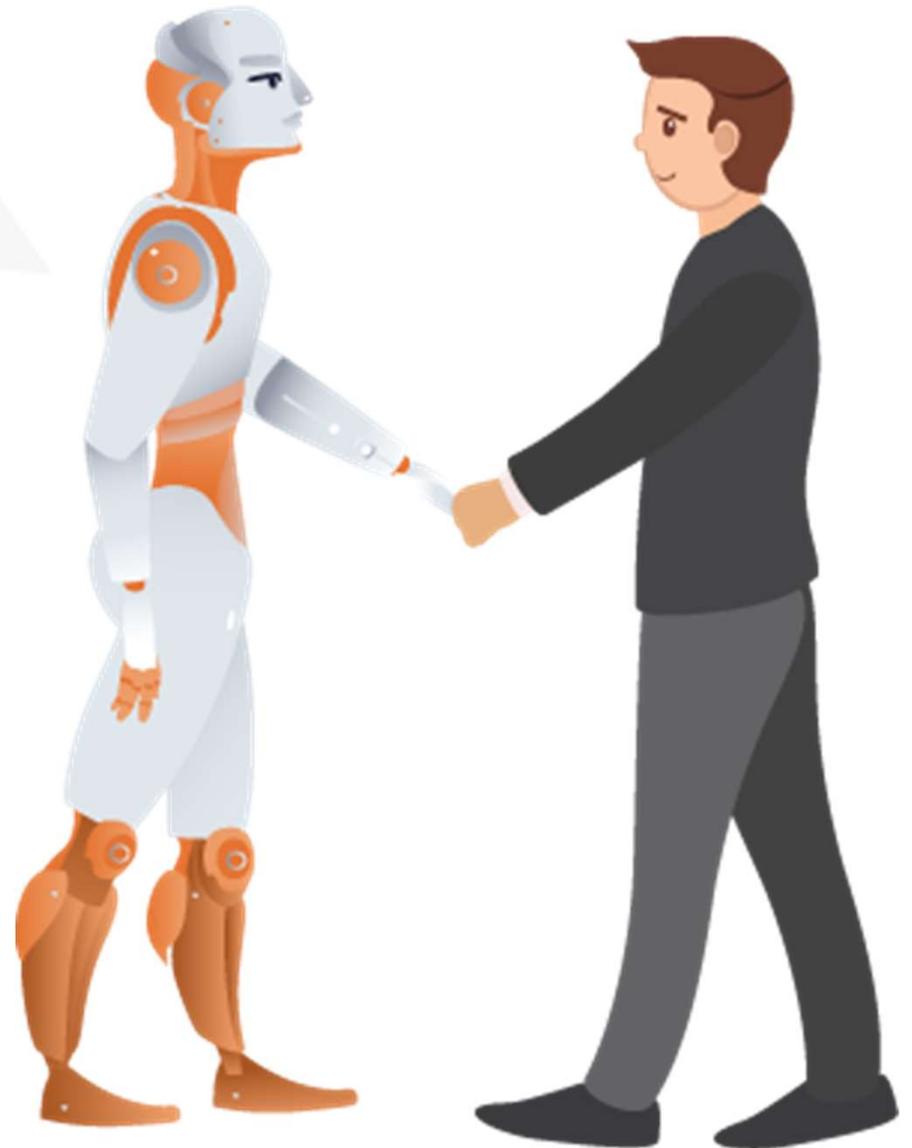


Lloyd Skinner

Founder & CEO

Our underlying passion is to apply AI to Project Management to improve delivery, tackle the real project delivery problem and make cost savings for our clients.

For almost 30 years Greyfly has built its reputation by delivering solutions to the toughest project challenges with a collaborative approach to deliver rapid, high quality results at an affordable price - and now using the latest in AI tools and techniques.



Let's talk



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