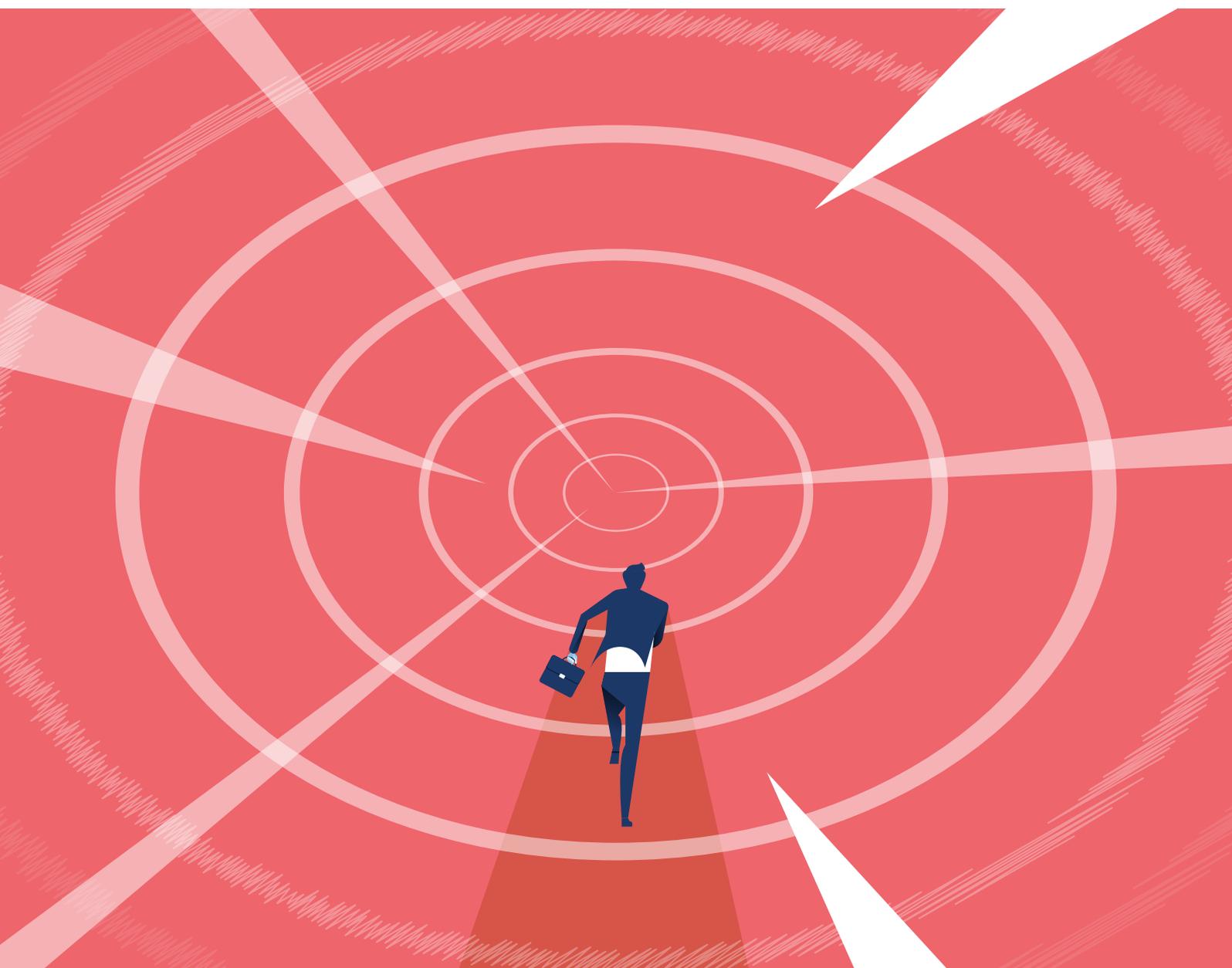


Agile project management

A PANACEA OR PLACEBO FOR PROJECT DELIVERY?



About this report

On 7 July 2017, the Association for Project Management (APM), the Chartered body for the project profession, held an Agile Summit with its corporate partners, government bodies and key stakeholders to start the process of shaping the APM's position on agile project management in the wider context of professional project delivery.

Stimulated by input from practitioners and interested parties from the wide range of sectors who attended the event, this report aims to lay out key themes that drew a consensus. The event sought to focus on agile project management applied other than to 'pure' software development, and this discussion paper deliberately avoids the use of agile taxonomy. As the event was carried out under terms of full confidentiality, the specific detail of contributions is not being disclosed. All the examples shared at the event were of cases where agile project teams were assembled from inside the organisation concerned with internal clients.

We encourage all those interested in how agile might impact their work and business to use this document to help inform debate within their organisations and networks. If you would like to contribute further to evolving this area of interest, please contact knowledge@apm.org.uk

“In an agile environment, teams work together to develop the product they are working on; what they will deliver and how they will deliver it”

1. What is agile?

There are four principles that are typically used to highlight the difference between agile and waterfall approaches to project management:

- Customer collaboration over contract negotiation.
- Individuals and interaction over process and tools.
- Responding to change over following a structured plan.
- Prototyping/working solutions over comprehensive documentation.

The result is a rather different balance of the 'Iron Triangle': 'waterfall' will tend to treat scope as the driver and calculate the consequential time and cost; 'agile' commits set resources over limited periods to deliver products that are developed over successive cycles.

Fixed



Estimated

In an agile environment, focus is on establishing a minimum viable product (MVP) that represents the core project deliverable. However, this is not necessarily an end point for the project, but a definition to trigger the start of a delivery. Frequently, the MVP will change as the delivery progresses. This allows the project team to realise other opportunities or benefits if time becomes available or in subsequent phases. Frequently, these will sit within an overriding roadmap using traditional project management planning and control techniques. These roadmaps also tend to be quite flexible, with the order of the elements being subject to change and timescales only being firm for the near horizon.

In an agile environment, teams work together to develop the product they are working on; what they will deliver and how they will deliver it. In this context, the traditional project manager focuses on managing the overarching budget and timeline, as well as managing stakeholders in order to allow the delivery team to be 'cocooned' to focus on the solution to the problem they are dealing with. The team will make constant adjustments to the scope of the product, while the project manager will ensure those iterations don't adversely affect the MVP or overarching business case.

2. Agile maturity

There was a very clear consensus that a distinction can be made between 'agile' methods and tools, and the philosophies and mindsets that enable effective delivery of change 'with agility'.

While these concepts often coexist, an agile philosophy is not reliant on agile tools, but agile tools are not effective unless accompanied by an agile philosophy and a supportive organisational culture.

Developing agile maturity

Developing 'agile maturity' was viewed to be characterised as developing a common culture that spreads throughout the project team, the hierarchy of the project's wider organisation and into its supply chain. This culture will embrace the four agile principles and provide the top cover in the organisation to accept uncertainty and unpredictability within wider organisational business plans, and deterministic business cases. The further this common culture is developed, the more agile mature the organisation can be seen to be.

This mindset and maturity can challenge many common practices and norms seen in more traditional projects. In agile project management, objective setting is both top-down and bottom-up, delivery teams are self-directing and leaders develop a 'servant leader' approach. Significant effort may be required to gain consensus and agreement, but this creates advocacy and a sense of qualified predictability within the team about what is, and can be, achieved. In the agile environment, it is the product owners and delivery managers who own the change rather than project managers, whose role is to facilitate.

Tensions

Developing mutual respect and common goals can be hard as a working culture must be established. Agile maturity is reflected in the ability to both establish and sustain these practices.

Developing maturity creates tensions: in particular, the confidence of long-term benefits when working in short time frames. Managing change when the change itself is constant, judging the point when iterations change the business case, and defining parameters around which a formal change request may be required. These are all part of the consensus-building process. The mindset of never having a 'finished product' is also different to traditional approaches: perfection is viewed as being the enemy of the good and the teams are focused on continuous increments and improvements.

Formality and flexibility

While agile projects can exist within a framework of gate reviews, approval processes are frequently at odds with agile philosophies; decision-making can move more slowly than the agile delivery team want to work, which can create downtime and a cultural split in the organisation. Heavy control of projects can create an 'illusion of certainty', which can serve to stifle agile delivery.

Developing agile maturity is therefore an evolving process; it requires a broad acceptance of ambiguity and unknowns, as well as a devolution of power and responsibility as the culture shifts from a supplier/customer relationship to one of 'partnerships'.

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3. Agile and waterfall

There was a view that there is nothing within the agile philosophy that is fundamentally new to project management. Where waterfall 'purists' can tend to emphasise process and the primacy of project scope, schedule and transactional relationships, agile favours the benefits and innovation that can be realised through human collaboration. All projects and change have common characteristics, including a focus on customer satisfaction, quality, teamwork and effective management. Agile and waterfall approaches to project management exist on a continuum of techniques that should be adopted as appropriate to the goals of the project and the organisational culture of the delivery environment.

The scope of agile in delivery

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An agile management philosophy and techniques can exist as work packages within projects, projects within programmes and programmes in portfolios. They can constitute part or all of a delivery and can be delivered with an intensity appropriate to the project, objective and organisational context and its maturity. For example, projects that are complex and require high levels of control may adopt agile approaches for scoping before adopting a more traditional project management model during the delivery phase.

Viewing them as binary alternatives risks creating an unnecessary schism: what is required is a consensus as to where on the continuum the organisation is comfortable operating. Where there are gaps in agile maturity, or consensus cannot be reached, traditional project management techniques can offer a valuable 'wrapper' that ensures change is being delivered in a controlled way, while still gaining the benefits of agile delivery.

The boundary between the formal controlled environment and the agile delivery is, itself, dynamic. Projects can come under extreme pressure to drive ever more detail into their plans, with hard milestone forecasting well into the future. Where organisations do not use agile approaches as a norm, there needs to be a recognition that agile environments are intrinsically unstable. It can require sustained effort on the part of project leaders to protect the environment necessary to make an agile approach successful.

People focused

"Traditional project management techniques can make a valuable contribution in an agile environment"

Agile is more explicit about the people elements and achieving desired outcomes by establishing high-performing teams to realise benefits. Traditional project management techniques can make a valuable contribution in an agile environment in areas such as managing budgets, having an overarching prioritised plan, developing requirements and scheduling meetings and reviews. Traditional project management may determine 'what' the project should deliver, while agile techniques may determine 'how' it is delivered. However, even principles such as sharing data, openness, team communication and learning from feedback, although sharper and quicker in agile, may need to be managed more formally if the environmental situation demands.

“In an agile environment, how a project is delivered is driven by the delivery team working with end users”

The distinction between control and consensus characterises the difference between traditional views of project management and those adopting an agile philosophy. This requires changes in behaviours to reach an effective level of agile maturity; those playing the facilitating roles become in and of the team both serving and leading to create commitment and accountability to an end goal.

As such, agile project teams tend to be smaller, no greater than 10 to 15 people, and the delivery timescales are much shorter than in traditional project environments. This allows information to be shared and decisions to be agreed at pace.

In an agile environment, how a project is delivered is driven by the delivery team working with end users, focusing on a core delivery and iterating over time. Allowing the user to drive the design of a project can make a significant difference to project outcomes.

Environment and context

While typically associated with IT-enabled change, agile philosophies can be applied to a broad range of change. Increasingly, infrastructure projects have significant transformational and technology components that can benefit from agile approaches. The limiting factor may well be the level of trust, engagement and contractual relationships between the parties seeking to adopt an agile approach.

Overall, agile and waterfall approaches to project management both bring strengths and weaknesses to project delivery, and professionals should adopt a 'golf-bag' approach to selecting the right techniques that best suit the project, the project environment and the contracting parties with an emphasis on the behaviours, leadership and governance, rather than methods, that create the best opportunities for successful project delivery.

4. Does agile work?

There was little doubt that the 'agile' has enduring appeal and has 'proved' itself in software development. As the unpredictable nature of project environments becomes more complex and stakeholder demands for faster delivery and greater benefits continue to grow, so the appeal of 'agile' will remain strong. However, although the arguments are compelling, evidence that it is more beneficial than other approaches in conventional project delivery (beyond software development) remains largely anecdotal.

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It is quite possible that agile offers a 'placebo' in project delivery – it works because those involved want it to, not least through restoring a focus on the human dimension. This is not to deny its value in this role, but empirical evidence as to its benefits in the round in terms of performance, cost and time of conventional deliverables remains limited. There is evidence that agile approaches appear to deliver some very big wins in the right environments, but these need to be balanced against the inherent risks of an iterative approach – especially where there are critical dependencies on the nature of the deliverables.

Benefits of agile

At its best, agile approaches: empower those involved; build accountability; and encourage diversity of ideas, allowing the early release of benefits and promotion of continuous improvement. Agile allows decision 'gremlins' to be tested and rejected early: the tight feedback loops provide benefits in agile that are not as evident in waterfall.

In addition, agile helps build client and user engagement because changes are incremental and evolutionary, rather than revolutionary: it can therefore be effective in supporting cultural change that is critical to the success of most transformation projects. Agile can help with decision-making at a portfolio level, because feedback loops allow organisations to save money, re-plan or reinvest and realise quick wins. The quality of the journey is also a benefit not normally experienced in waterfall and it offers the opportunity to achieve change while existing services are being delivered.



“Building consensus can take time and agile challenges many norms and expectations”

Challenges of agile

Agile focuses on small incremental changes and the bigger picture can become lost. Building consensus can take time and agile challenges many norms and expectations. Resource cost can be higher; not least to meet the imperative to co-locate teams or invest in infrastructure for teams to work together remotely. The onus can be perceived to shift from the empowered end user to the empowered project team with a risk that benefits are lost because the project team is focused on the wrong things. Agile can help achieve a higher rate of return on investment in terms of releasing benefits early, but the culture of 'small projects' in 'big project environments' can create challenges.

Do projects get delivered better through agile methods? Organisations have to be realistic: the objective is not agile, but good delivery and a measured assessment of the preferred approach is essential to achieve good delivery, and this is dependent on the project type, its objectives and its environment.

The optimum environment

It was viewed that few organisations have high levels of agile maturity – most are on a journey, and understanding where they are on that journey is the key to success. Failure comes from the wrong environment rather than the wrong process – the optimum environment is analogous with children in a playground – create the boundaries, but don't tell them how to play.

Agile is not a panacea – many are practising its principles without knowing. Driving a project through to benefits realisation is an agile principle, which should also exist under traditional methodologies. Collaborative ways of working will always: improve benefits; speed up delivery, improve quality, satisfy stakeholders; and realise efficiencies. Agile can help realise these benefits – even if it should not be necessary of high-performing teams that are employing sound project management approaches.

5. How to make it a success

The consensus view was that there is little doubt that engaged stakeholders with a shared vision and commitment to success will benefit all projects. No project will be a success unless it is designed with engaged stakeholders. Establishing those relationships and common understandings can be a challenging process. As the environment becomes more complex, gaining this consensus becomes harder. Agile projects frequently benefit from small, focused teams with specific objectives. However, these projects are more likely to be successful if the consensus can be extended both throughout the hierarchy of the organisation in which they are working and into the supply chain.

“Commitment and trust throughout an organisational structure will increase the likelihood of successful agile delivery”

Start small and grow

Commitment and trust throughout an organisational structure will increase the likelihood of successful agile delivery, and support from the top is essential to achieving that.

The key to establishing more agile ways of working is to start small and grow, respect existing roles and processes, and work to find common ground by talking in a language that others understand – avoid jargon. A focus on results and what you’re trying to achieve is an effective way of establishing a common culture.

Even then, buy-in may be a slow process, so it is essential to be proactive, visualise the work and open a debate as to the preferred ways of working, adapting and reflecting on feedback all along – don’t expect always to be right.

Evolution, not revolution

Be open, share knowledge, ask people if they want to be involved and what they are prepared to commit to.

Don’t throw the baby out with the bathwater; planning is needed in agile, but it is reviewed constantly: phases or missions are time-boxed and deadlines immovable; outputs must be clear; and agreement is needed on what can be delivered in the time available.

Speak truth to power

Trust teams to set their goals, get ahead of policy decision-makers to consider the implications of decisions from a delivery perspective and be ready to speak truth to power.

Sponsors, programme directors and boards need to tolerate uncertainty; they need to be ready to ask the right questions and, while they hold the business case and the benefits, they need to understand that these move constantly. A prerequisite for the success of agile is the creation of an environment supportive of agile principles.

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6. Next steps

The Agile Summit provided a firm foundation that will allow APM to develop its position on the benefits of agile approaches to project management to benefit both the profession and improve project outcomes.

We have identified a number of areas for further development, but welcome further debate and ideas related to the subject. These include:

- further discussion stimulated by this report;
- development of guidance to benefit individuals and corporate organisations;
- formal research into the efficacy of agile approaches in project delivery;
- a review of agile in the context of the *APM Body of Knowledge*;
- research into scalable agile methods through the APM Research Fund;
- ensuring agile practices are suitably reflected in the APM Competence Framework.



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- Alan Macklin, deputy chair of APM
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