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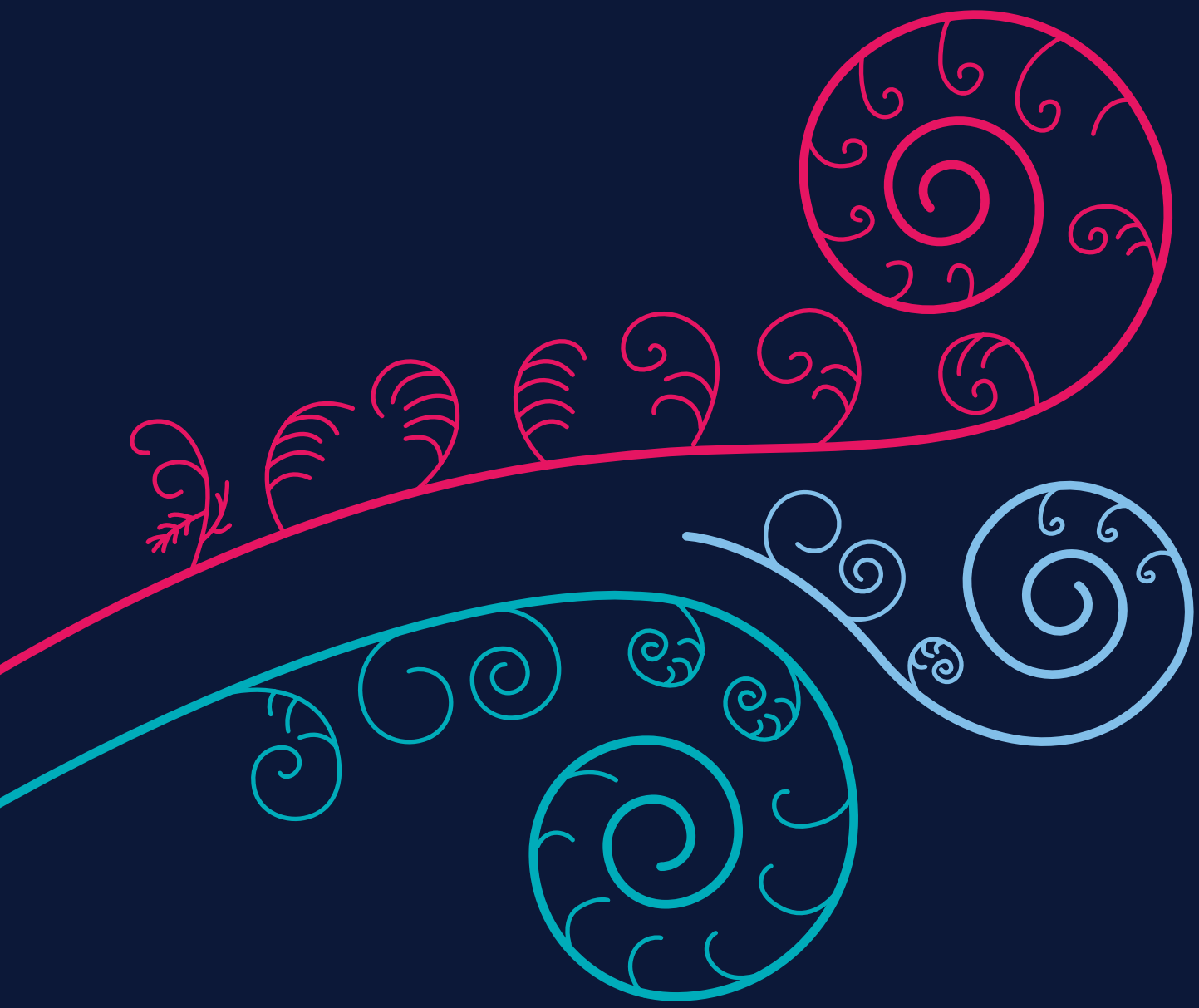

Preparing for agile success

A playbook for buyers and suppliers seeking greater value from agile-delivered solutions

Preparing for agile success
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Foreword

Agile frameworks and methods have swept the world of digital technology in the last two decades, and they are now at the heart of modern services around the globe. Evidence clearly shows that the authentic use of agile delivery enhances the success of initiatives with a focus on people, interactions, and rapid learning and delivery of value. It is not surprising then that agile approaches underpin key digital strategies and plans in the public sector and support private organisations in their drive to become ever more effective and customer centric.

However, these are new ways of thinking and working, and buyers and suppliers are all on individual journeys to bring about the operational and cultural changes that agile requires. Unfortunately, this means that mismatches of interpretation and expectation can occur, challenging the effective acquisition and delivery of agile-based solutions. These conflicts are particularly apparent when traditional contract and project perspectives undermine the authentic use of agile and the realisation of its benefits.

This playbook makes an important contribution to positive outcomes by calling out the differences that must be navigated when acquiring an agile solution, and by encouraging the early engagement and conversations that are essential to align buyers and sellers. The development of this guidance has taken place in consultation with leading New Zealand law firm MinterEllisonRuddWatts - this shows what we can achieve when we work together.

I would encourage the use of this playbook's guidance in thinking about how agile-based solutions are acquired and supplied. By advancing the adoption of authentic agile principles, we can all enhance the value we deliver to the communities we serve.

Justin Gray
Managing Director New Zealand
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Introduction

Agile[1] is an increasingly important approach to delivering digital technology and other projects, including those using cloud-based platforms for rapid solution development. As the use of agile frameworks and methods has grown, evidence shows that authentic agile delivery is more successful and less challenged than deliveries using traditional approaches.

These new ways of working require new ways of thinking. Failure to reflect these during the acquisition of agile-based delivery can increase risks and undermine potential benefits for buyers and suppliers.

This playbook answers questions that are likely to arise while navigating the acquisition, execution, and transition to support of agile-delivered solutions. It is hoped this guide will assist buyers and suppliers to reduce cost, time, and friction while helping them to build effective collaborative relationships and deliver greater value.

[1]Agile is an overarching term for a diverse spectrum of frameworks and methods that includes Scrum, Kanban, lean, Scaled Agile Framework® (SAFe) and others. This playbook focuses on deliveries that leverage Scrum-based approaches, whether in a pure form, as a hybrid, or as part of a framework for scaling agile.

New to agile?

Agile was first formally proposed in 2001 as a set of values and principles to be used in software development. The key characteristics of the agile framework 'Scrum', which this playbook focuses on, are:

- Delivery takes place using a series of short, fixed-length iterations or cycles (typically two weeks long and called a sprint). Each sprint aims to deliver a working version of the solution that has been designed, developed, and tested, that can generate feedback on the solution's direction.

- The work taken into each iteration comes from a backlog (or list) of lightweight placeholders for solution requirements, called backlog items. These items are prioritised by the product owner who is empowered to make decisions about the solution for the buyer, based on the value the backlog items will deliver and the effort and risk they will involve.

- Self-organising, cross-functional technical and business teams use extremely close collaboration to achieve effective communication and efficient delivery.

For a more detailed description of Scrum, see the *Scrum Guide* (www.scrum.org/resources/scrum-guide).

Note that agile is a way of thinking and working but it is not the solution or service itself. In this playbook, a reference to 'agile delivery', 'agile-based project', or similar is a shorthand way of describing a solution delivered using an agile framework or method. The term 'project' is intended to include all kinds of initiatives, including those that aim to rapidly develop capabilities and continuously enhance them in response to the needs of end-customers and the business.

Are we on the same page?

Buyers, suppliers, and their advisors have varying degrees of experience with agile thinking and its effective application, so it is not surprising that different interpretations are common and misconceptions can be evident.

Key stakeholders should acquaint themselves with the Manifesto for Agile Software Development [2] and the principles behind it [3]. These simple materials embody the heart of agile thinking and are ultimately more important to success with agile-based delivery than specific practices and methods. Align your plans, approaches, contracts, and activities with these principles and you will have taken real steps towards gaining the benefits that agile has to offer.

Timely training and coaching are important aids to informed implementation of agile. Where possible, it is particularly beneficial for buyers and suppliers to receive this education together. In doing so, interpretation and understanding of agile is further harmonised through a common training experience.

Principles are ultimately more important to success with agile-based delivery than specific practices and methods.

[2] www.agilemanifesto.org/
[3] www.agilemanifesto.org/principles

This is not the last word

This guide does not attempt to be an exhaustive treatment of agile-based delivery. It doesn't claim to have the right answers for every circumstance or provide formal advice for agile implementation and commercials. The authors hope the most important topics have been touched on, and that these will provide a springboard for thinking and constructive conversations between buyers, suppliers, and the expert advisors they engage.

The authors welcome further questions and suggestions you may have to improve this playbook:

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The value journey

This playbook is structured around five natural steps in the journey to value:

Before you start

Understanding what you are trying to achieve.

Do we understand the problem we are trying to solve?

All efforts to create a significant business outcome need a powerful vision of the desired future state, and why this matters (including alignment with organisational goals).

Your business case will require this to show the compelling reasons for the work and how it supports strategic objectives.

Agile methods rely on being able to trade or remove requirements, so what must be delivered can be realised in the best possible way.

Is this the right initiative to deliver using an agile framework?

The selection of a suitable delivery method depends on the nature of the initiative and the organisation's ability to implement the chosen approach. Sometimes this selection will be relatively simple, but at other times honest surfacing and consideration of potentially conflicting factors will be needed to guide the decision.

- Where there are clear, stable requirements and a clear solution to meet those requirements, an initiative may suit a more traditional plan-based type of delivery. Conversely, where the needs of the business and stakeholder community are complex or uncertain, an agile-based approach is likely to provide benefits.

- Implementing agile delivery in an authentic way involves new ways of working that may be challenging to some organisations. These ways of working include providing effective product ownership and breaking down boundaries between the buyer and supplier, for example, with combined and co-located teams. If the principles that underpin agile (www.agilemanifesto.org/principles) don't fit the relationship you're looking for or how your organisation works, then you might want to consider a different approach.

- Every organisation planning to use an agile framework should consider the investment in time and money that is required to introduce agile skills and allow for teams to be less productive while they are learning new ways of working. Are you willing to accommodate this investment?

- An initiative may wish to use practices from an agile framework for delivery but may also have a set of detailed requirements and designs that need to be formally accepted as being satisfied at completion. In these circumstances, it may be wise to recognise that important aspects of the project are not agile and that it should potentially be organised and managed in a traditional way (also see 'Can agile be used for delivery within a traditional project approach?' below).

- Many initiatives involve unknowns that cannot be predicted or controlled. Put bluntly, buyers who require arrangements that transfer the risk for outcomes to their supplier for these kinds of projects will struggle to find success with any delivery method. Such arrangements do not support the new responsibilities and ways of working for agile delivery, and nor do they lead to organisations getting what they truly need when used in traditional plan-based approaches.

- If your organisation is not ready to implement agile delivery in an authentic way, now is the time to prepare. Only by creating the capability to deliver agile initiatives will you achieve greater success by being able to use the right type of delivery, in the right way, for the right opportunity.

Will the business case process be more challenging for an agile-based project?

If agile is a sensible delivery approach for your project and does not introduce unique risks (see 'Is this the right project to deliver using an agile framework?' above), then the use of agile methods should aid the business case by allowing you to articulate how you will learn faster and deliver value more quickly.

How is the business case different for an agile-based project?

Ideally, funding for agile-delivered solutions should support the supply of capabilities that are iteratively enhanced through successive small, valuable initiatives. This requires a mind-shift from making large up-front investments, to creating a flow of funding over time that continually delivers new capabilities.

Business cases for projects that are intended to be delivered with agile methods should ensure time and money are sufficient for all requirements. However, benefits should only be linked to the must-have requirements as the non-essential requirements may not be delivered. (See 'Should we expect to get all our requirements from an agile-delivered solution?' below).

The schedule and funding should also include an allowance for factors that might adversely affect the rate of delivery of work or the amount of work to be done. Unlike traditional contingency, this time and funding should be expected to be consumed.

The business case should outline why you have chosen an agile delivery approach (especially if this is not common in your organisation), and how you expect to mitigate any risks that an agile approach might involve to achieve a successful implementation (see 'Is this the right project to deliver using an agile framework?' above).

There is clear evidence from many years of solution delivery that the smaller you make your project, the more likely it is to be successful and the less likely it is to fail or be challenged.

Should we expect to get all our requirements from an agile-delivered solution?

Generally, a solution will have some essential requirements that must be delivered, and other requirements that should or could be supplied.

Agile methods rely on being able to trade or remove should and could requirements when needed, so requirements that must be delivered can be realised in the best possible way.

- More scope may be uncovered during the project (either as revealed complexity or new features), and without the ability to trade or remove requirements, your project will take longer and cost more to deliver than expected.

- A project may deliver value slower than planned (have a lower velocity) for a variety of reasons. Non-essential requirements may be sacrificed to accommodate this.

If the essential requirements form a significant majority of the total project scope, consider whether you have allowed for this necessary flexibility. It is essential to set expectations in the business case by clearly communicating how the scope of the delivered solution may vary under agile.

This is true whether you plan to use agile frameworks or traditional delivery approaches. It is worth emphasising that there is clear evidence from many years of solution delivery that the smaller you make your project, the more likely it is to be successful and the less likely it is to fail or be challenged.

Is minimum viable product (MVP) a useful concept for communicating the requirements the solution will deliver?

The term minimum viable product (MVP) is often used to describe solutions with the smallest set of must-have functional features. Unfortunately, MVPs are more correctly intended as learning vehicles, and this means they may not have all the quality attributes that an enterprise requires to safely and effectively deliver services to end customers, for example, security and performance.

In communicating with stakeholders, consider using the complementary concept of a minimum marketable release (MMR). MMRs are informed by MVPs and deliver all the must-have functional features for the business, as well as legal and statutory obligations and non-functional requirements such as security, auditability, performance, and support.

Stakeholders often imagine could and should requirements only as extensions to the breadth of the product when considering the minimum scope for a solution. For example, a whole area of business functionality might be considered as a nice to have, while other areas may consist almost entirely of must-have features. While this approach is one way to shape the MMR, better outcomes may be achieved if the breadth of the solution is maintained and flexibility is provided in terms of the depth of individual features. This means scope can vary within areas of a system during delivery without compromising the end-to-end nature of the solution.

Getting Started

Understanding your vision and finding the right supplier.

How can we get suppliers involved early on?

There are several modern procurement approaches to achieving early engagement with suppliers. The Government Procurement Rules [5], which apply to most New Zealand public sector agencies, recognise the importance of early engagement and continued open dialogue with suppliers.

There are many possible approaches you can consider.

- You may choose to assess the market, invite supplier proposals, and develop a shortlist of suppliers you would like to work with. It is important to clearly and concisely describe the problem or opportunity you are seeking to address and the benefits that are sought.

- Suppliers can be invited to create prototypes and/or proofs of concept. These activities provide opportunities to work with individual suppliers, to understand cultural fit and collaboration style, and to assess the supplier's agile capability and the skills of its staff.

- Idea-generation activities (for example, hackathons [6]) can be used to clarify the problems and/or potential solutions, and to enhance stakeholder engagement.

You might also choose to engage quickly through a more traditional request for proposal (RFP) process.

[5]https://www.procurement.govt.nz/procurement/principles-charter-and-rules/government-procurement-rules/
[6]www.wikipedia.org/wiki/Hackathon

Should we pay for suppliers for early engagement?

Generally, suppliers who are invited to provide professional services through workshops, prototypes, and proofs of concept should have their activities funded.

This approach is not only professionally sound, but it has distinct advantages for the buyer. Good-quality suppliers who are unable or unwilling to provide free services may choose to remain in the process if these activities are funded. It allows a buyer to set specific expectations for services and deliverables and it creates the opportunity to see suppliers working at delivery — not just at selling.

What should we look for when choosing a supplier for agile-based delivery?

In choosing a supplier, consider their culture (and how well it aligns with your own), collaboration style, technical and domain capability, agile experience, and connection with your goals. Find a supplier who you trust to deliver your vision and who you think will work well with you.

While discovery may be considered as an early phase of a large delivery, consider undertaking this separately at the outset.

Is a discovery phase needed for an agile-delivered project?

A discovery or kick-start phase is an important activity for any project that will be delivered using agile methods. It can provide just enough preparation before commencing the work. It is not always easy to get the balance right, as it varies for different types of projects and contexts.

Discovery should:

- Create alignment between all parties on the vision (buyer, supplier, and key stakeholders)
- Establish the initial product backlog and road map
- Undertake high-level technical solutioning and co-design, ideally including end-customers and users of the product or service
- Agree the delivery approach and how the key risks and dependencies will be managed
- Establish teams with a sense of purpose in what needs to be done and how they will work.

Discovery may also include providing basic agile training for participants.

This phase provides an early opportunity for buyers and suppliers to work together, giving first-hand exposure to capability and cultural fit. Problem solving can be practised in a real-world situation and a shared view of likely time and cost developed.

It also allows both parties to have enough confidence to make commitments about what must be delivered in the MMR within a prescribed budget and timeframe (see 'Should we expect to get all our requirements delivered in an agile project?' above).

As a very rough rule of thumb, discovery activities should take approximately one day for every month the project is expected to run.

While discovery may be considered as an early phase of a large delivery, consider undertaking this separately at the outset, to inform the subsequent work and agreements.

Establish teams with a sense of purpose in what needs to be done and how they will work.

Who should be available to support early engagement with the market?

The buyer's product owner, subject matter experts, and technical leads should be available when needed to support the full procurement process, as well as the delivery. Note swapping out staff is a risk for any procurement, but it can have even higher impacts on an agile-based project where the weight of communication relies more heavily on collaboration and interactions, and less heavily on documents.

Reaching agreement

Putting suitable commercials in place.

What are the trade offs in contracting for an agile-based project?

Agile gives the buyer extraordinary freedom to adapt to what is discovered during delivery, but this freedom to guide the solution direction makes the buyer ultimately accountable for business outcomes. This is quite different from a traditional contract where risk and responsibility for what is delivered (and when) are typically shifted to the supplier. The supplier still has important obligations to be engaged with the process and provide services of a sound professional standard under agile, but warranties as to specific business outcomes cannot be reasonably required of a supplier.

Agile deliveries rely heavily on collaboration and demonstration during the project to enable the buyer to have a high level of control and be able to make quick decisions on matters such as solution direction and the acceptance of work. However, this means the buyer should not contractually require the supplier to take the risk on items that it doesn't fully control, for example, achieving functionality by fixed milestones, gates and deliverables that may have framed the supplier's obligations in traditional contracts.

Effective agile-based projects are likely to defer much of the detailed specification and design until later in the delivery, as a natural part of iterative solution development. This approach can lower the upfront costs for buyers and decrease the financial risk if the buyer decides to cancel the project or radically change its direction.

> Agile gives the buyer extraordinary freedom to adapt to what is discovered during delivery.

By focusing on delivering small working increments of the final product, agile principles encourage the regular demonstration of valuable, working, integrated slices of the solution (known as increments). This gives the buyer continuous visibility and control of the evolving outcomes and the agile process itself. With those benefits come new obligations for the buyer to address issues as soon as they arise, rather than relying on downstream mechanisms.

Traditional contracts typically allocate commercial risk to the supplier and may provide remedies such as liquidated damages and retentions to address issues. These constructs are not well suited for an agile delivery where the buyer's commercial protections result from their control of what work is carried out (and when), having earlier visibility of delivered value in the sprints, and being able to address concerns as they arise (rather than at the end). In the event of serious failure and disagreement, rights usually remain for the buyer to withhold payment, to use dispute resolution, and to ultimately terminate the services if necessary.

Some parts of a traditional contract will be different for an agile delivery, and buyers and suppliers will need to be aware of these differences. See 'Appendix 1: contract sections' for a description of those areas that may need fresh thinking or that will be applied in a different way for agile delivery.

Should the contract include detail about what agile is?

The contract needs enough detail on the agile approach so there is a common understanding of what things mean and how everyone will work. A reference to an authoritative source (such as the *Scrum Guide*) can be useful in setting baseline expectations and as the foundation for an agreed and documented agile delivery framework.

It is important to confirm the expectation for achievement of the key characteristics and principles of agile that are considered essential for success and any differences that have been agreed. For example, whether the teams will be cross-functional and whether co-location will be used.

As the parties work together and learn from applying the agile method, they may wish to adapt the agreed framework. The contract should make clear how the parties will manage and record changes to the approach.

To make the contract readable, it is useful to define basic terms (for example, sprint, backlog, user story, sprint planning, retrospective, time box, and velocity) and how these fit together into the planned sequence of agile events. Avoid being too detailed and prescriptive so the method can adapt without having to change the contract.

Also include definitions for the agile roles (product owner, scrum master, agile coach). Separately, it is important to describe the specific responsibilities of the agile roles, the party providing those roles, and the name of the person performing the function (where they are key positions).

If there are parts of the agile process that are important to you — either because they are different from usual agile practice, have a more significant consequence, or are just more complex — then it would be best to clarify those with the other party before signing the contract and, if necessary, write them into the agreement.

The description of the agile framework can be in the main body of the contract, in an approach section, in a schedule, or in a separate document that is incorporated into the agreement — it depends on the form of contract.

Can an agile delivery contract provide a fixed scope by a fixed date for a fixed price?

An agile delivery may have a fixed price and duration, but the scope to be delivered will vary as priorities change and as features are added or removed to ensure that the fixed time and cost constraints are met. If fixed scope, duration, and price are required, agile delivery may not be the best approach to use (see 'Is this the right project to deliver using an agile framework?')

If the buyer wishes to have an agile delivery with a fixed duration, price, and scope, the significant risks this creates will need to be treated. Mitigation approaches that could be used include ensuring:

- Both parties are satisfied with the quality of the initial product backlog, generally through a period of funded collaborative work to confirm this
- Both parties agree the time and money available appear to be sufficient to deliver all the backlog items and non-functional requirements, but with a clear understanding that requirements that are not must-haves (perhaps a significant proportion of the requirements) may not be delivered
- Reasonable time and money are included in the price to mitigate risks that the velocity (rate of delivery) might be less than expected, or discovered scope and complexity might be greater than expected
- Activities that lack sufficient clarity and understanding to be reasonably estimated are outside of the fixed price/time/scope
- The buyer has committed to supply the essential aspects of the agile process that strongly influence velocity, such as effective and engaged personnel in the product owner and supporting roles.

Can agile be used for delivery within a traditional project approach?

Traditionally projects are required to implement a fixed set of detailed requirements and designs developed at the beginning and to transition the solution to productive use through formal acceptance at the end.

Increasingly, however, there is a trend for these plan-driven projects to adopt some practices borrowed from agile frameworks during delivery. For example, they may place work items on a backlog, have a kanban board, run sprints, and use regular stand-up meetings. Note that there is a spectrum of hybrid and quasi-agile delivery approaches. Colloquially these are known by names such as water-scrum-fall and wagile.

Projects should be encouraged to adopt useful techniques regardless of where they come from. However, considerable risk is created for the buyer and supplier if these techniques are mistaken for actual agile delivery - to be clear, the use of inauthentic agile implementation is not recommended.

A traditional project uses detailed requirements and tight control of change to attempt to support the allocation of risk from the buyer to the supplier. These characteristics are quite different from agile, where the buyer retains risk in exchange for being able to start with a much less well-defined specification of the solution and to control its direction as a result of close involvement with its development.

Parties need to openly confront and address the conflicting characteristics of the approaches. For example, how can a buyer specify the priority of work under agile when the supplier also needs to do this to meet its contracted obligations using a traditional delivery?

In a highly collaborative engagement, where both parties have a very mature understanding of the conflicts and a commitment to achieve an authentic agile delivery, it is possible to manage the boundaries between the different approaches. If this management is difficult to achieve, however, it may be better to accept that the project is actually a traditional delivery (even if it utilises some practices borrowed from agile frameworks). Communicate clearly to all stakeholders, and structure the project and contract accordingly.

Also see ‘Is this the right project to deliver using an agile framework?’ above.

An agile delivery may have a fixed price and duration, but the scope to be delivered will vary.

How are agile projects paid for?

There are many ways that agile delivery can be acquired. A buyer may purchase complete teams, individuals, or a service. These can deliver variable scope on a fixed-price basis, using time and materials (capped or not), or some combination. Payments can be based on completed sprints (the regular cycles of development and delivery) but may also be driven by other calendar dates, deployments, or any event that the parties believe is a fair milestone that is within their control.

Commercial advisors should remember these are just charging mechanisms that do not define the underlying principles in agile — time and money are constrained, and the scope of delivered functionality will be adjusted to fit within these constraints. (Also see 'Can an agile delivery contract provide a fixed scope by a fixed date for a fixed price?' above).

Who is responsible for delivery, and how do we allocate risk for agile delivery in a contract?

As with any contract, it is useful to understand each party's responsibilities, which set the expectations about allocating risk. In an agile delivery, the following responsibilities and risk allocation would normally apply:

- The supplier is responsible for the quality of the resources it provides and their professional standards — the risk of reasonable quality in its personnel and their work is owned by the supplier
- The buyer is responsible for defining what it wants and the priority with which available time and money will be assigned to those needs (through the product owner role)
- Both parties are responsible for the appropriate performance of their individual roles within the agreed agile framework.

Because the agile delivery relies on both the buyer and supplier's performance of their responsibilities, apportioning risk and liability is often more difficult in a contract for agile delivery.

Who has responsibility for productivity?

Productivity can be considered as the ratio between the value produced and the cost of producing it. This ratio will vary depending on the nature of the inputs, the nature of the technical and delivery processes, and the nature of the environment involved in creating the outputs.

The buyer is likely to have significant influence over the inputs, and the supplier is likely to have most control over the technical and delivery processes. Each party is responsible for the environment and the performance of their roles in the agile-based delivery process. So, in a project using agile delivery methods, both the buyer and supplier are jointly responsible for productivity.

Factors beyond the direct control of either party may also influence productivity, for example, complexity of the problem domain, the need to use specific technologies, and the extent to which participants rely on effective support from other organisational teams.

Agile frameworks have very useful mechanisms to provide early visibility of productivity, and to allow the parties to consider changes to address issues and take advantage of opportunities.

How will change be managed?

A sound agile implementation allows changes in priority and value to be managed by the product owner.

For other changes, the contract should describe the product owner's responsibilities to exercise formal change control (similar to what one might expect on a traditional project delivery), where the project deviates significantly from its initial objectives or vision, or where any minimum product functionality may not be achieved.

The contract should also describe the mechanisms under which the number of agile iterations (and associated costs) may be increased or decreased, for example, reducing requirements or bringing the project to an early end.

How will we know we are getting value for money from the agile delivery?

Value for money is an important consideration for any delivery project, including agile delivery, and should be considered during supplier selection (see the section 'Getting started' above).

While price is one aspect of value for money, it is not the only factor. For example, a supplier may be chosen because they demonstrate during an early engagement they are easy to work with and have the best capability to achieve the vision, even though they are not the lowest cost.

Buyers and suppliers should agree indicators for the key aspects of value for money used in the procurement so they can be monitored during the delivery. Well-applied agile methods should provide iterative value through work completed in each cycle and enable rapid feedback that will aid monitoring of value delivered. Formal activities and events during the agile delivery process can be used to openly surface issues and address them, such as regular reviews, retrospectives, and reporting on planned-versus-achieved backlog items in each iteration. Contracts can refer to those activities and events as part of the reporting regime or in the general description of the agile process.

Good governance plays a role in supporting the achievement of value for money, by ensuring clarity of purpose, by providing effective oversight of escalated risks and issues, by making timely decisions, and by removing obstacles to the project's performance that are outside the project's direct control.

Formal activities and events during the agile delivery process can be used to openly surface issues and address them.

Delivering value

Working together effectively.

What sort of people should the buyer provide?

Arguably, the key person the buyer can expect to provide is the product owner. This role should be filled by one person, capable of guiding the solution direction on a day-to-day basis and maximising the value of the product resulting from the work of the supplier's development team(s).

The product owner will often need to be supported by the buyer's business and technical subject matter experts (business analysts, architects, security specialists), end-customers and users to assist co-design and validate the solution, and any independent testing the buyer requires for the product (such as for acceptance, performance, or security). Wherever possible, all these functions should work with the product owner and agile development teams in a highly collaborative and integrated way.

The buyer should also expect to provide people to prepare the organisation for the solution. Readiness could include things like training (although this may also be provided by the supplier), communication and marketing, process design, policy, legal, and other aspects of organisational change management.

Who makes a good product owner?

The best product owners typically have a deep understanding of what the business requires, are well-connected and respected within their organisation, collaborative, open-minded, can confidently make sound decisions, and are available to engage with the project on a daily or near-daily basis (ideally at the same geographical location).

The product owner must also be trusted by the buyer's project sponsor to own and guide the delivery of the vision.

These qualities are often found in experienced, senior staff who are very close to the business and how it works. Where a product owner lacks deep knowledge of specific business processes and technical

Buyers can be assured of better outcomes from agile delivery by setting realistic expectations and plans.

systems, they can be supported by specialists. However, it can be harmful to assign the responsibilities of this key role to a programme or project manager (who have other delivery functions outside the agile method and are not empowered to own the vision), or to a committee (who are unlikely to be able to engage with the solution teams every day and make rapid decisions).

Where a project is entirely technical in nature, for example, moving a digital platform from on-premise to the cloud, it may be appropriate for the product owner role to be filled by a senior architect who has the necessary attributes.

How will we know the velocity of the project is okay?

Velocity is the rate at which development teams produce completed work.

In estimating when the project may deliver and how much it may cost, it is important to consider the things that may affect velocity and the possible range of delivery rates that could be achieved. By frequently tracking actual velocity against these estimates during the delivery, the project can determine if predicted or unforeseen risks are being realised, and whether action is needed to address these issues.

Progress through the backlog items should be visible at any time, and teams will usually report their velocity at the end of each sprint (and this requirement can be described in the contract).

There are some important points to note about velocity:

- The velocities of early sprints are likely to be lower, as team members adapt to working with each other (and potentially to the new agile way of working)
- Velocities may be higher or lower in any given sprint due to normal variation — it's the velocity trend that matters
- Due to the differences that exist between teams and the nature of their work, the velocities achieved by different groups should not be compared.

How can the buyer get the assurance they need?

Buyers can be assured of better outcomes from agile delivery by setting realistic expectations and plan, by engaging closely with the market to find a capable and well-matched supplier, and by investing in authentic participation in the agile process.

Agile methods include various safeguards to monitor progress and enable reporting of the costs incurred compared to scope and value delivered over the relevant time frame. Monitoring, reporting, and early engagement on concerns by all parties can help ensure that agile delivery occurs as intended.

For formal assurance during agile delivery, New Zealand's office of the Government Chief Digital Officer has provided guidelines [7] both private and public sector organisations may find useful.

[7] https://www.digital.govt.nz/dmsdocument/115-assurance-guidance-for-agile-delivery-full/html

How will we know when the work is done to the right level of quality?

Different acceptance criteria for each item in the backlog and common criteria that apply to all items (called the definition of done) are important elements that help define the agreed level of quality for the work.

Manual and/or automated testing can verify that functional and non-functional requirements have been achieved for the backlog items completed in each iteration. However, in a sound agile delivery, there should also be frequent opportunities for the product owner, supporting technical specialists, and wider stakeholders to observe the quality of working solutions through interaction with the development team and in regular review sessions.

How will we deal with defects and quality issues?

It is important to remember that defects are a normal part of development activity, whether in agile or traditional delivery projects, and their existence does not necessarily imply poor quality.

Agile aims to identify and correct defects during their related development activities with the minimum of overhead, so many defects may not be subject to formal defect management. Defects that can't be repaired immediately, or those that are found outside of the current development iteration, should be tracked as part of the backlog and be subject to product owner prioritisation for remediation. These may be software defects, but could also be issues with requirements, architecture, or testing itself.

If the number of defects or general quality issues (including the quality of the agile process) are adversely affecting velocity and the delivery of features, these problems should be dealt with using collaboration and the agile feedback mechanisms in the first instance (for example, reviews and retrospectives). If underlying causes or solutions are outside the influence of the delivery teams, or are proving intractable, then support can be sought from project governance.

Some degree of rework is unavoidable on any software project and is expected as a natural consequence of discovery and learning on an agile delivery.

How will the delivery be accepted?

Ideally backlog items will be fully accepted within each of the development iterations, but this can be hard to achieve and it is not uncommon for some acceptance to occur after the related development has taken place.

Considerable risk can be created for the buyer and supplier depending on the size and nature of this offset and any misalignment between criteria used for solution development and those used for acceptance. These risks can be mitigated by creating high levels of early and ongoing engagement between the product owner, those responsible for any offset acceptance activities, and the development teams.

When should rework be done at the supplier's cost?

Some degree of rework is unavoidable on any software project and is expected as a natural consequence of discovery and learning on an agile delivery. Where a project involves greater uncertainty or discovery, more rework can be expected. However, rework does not always contribute positively, and poor performance by the buyer or supplier can cause waste in the form of avoidable rework.

It can be difficult to define exactly when the amount of rework has become excessive, and because agile requires parties to work more collaboratively, it is sometimes not easy to say who is responsible for rework (or if one party is solely responsible). Buyers and suppliers should use the many opportunities for visibility and feedback in an agile project to understand if rework is causing problems, and to collaborate in quickly addressing any causes of avoidable rework.

Where rework issues clearly lie within the supplier's sole control, and are not able to be promptly remedied, it may be reasonable for a buyer to expect that the rework is done at the supplier's cost. In keeping with sound agile principles and behaviours, issues of this nature should be raised early and openly, escalated through project governance (if necessary), and not appear as a surprise to either party at the end of the project.

Sustaining value

Ensuring the solution continues to provide value.

Can agile help sustain value after the solution is delivered?

If a solution has been initially supplied in the smallest valuable form (MMR), then successive agile deliveries provide a natural way to extend the product's value. Agile principles can also be applied to operations and support to ensure the focus remains on delivering value. These approaches require continued engagement with the product ownership functions and a funding model to maintain the flow of enhancements.

Note that any specific agile framework used for development may not be the best framework for support — operational teams should consider which agile methods work best for their context.

What happens to requirements and defect fixes that were not delivered during the project?

Ideally, the project's backlog should be picked up by the services responsible for ongoing operations and support. Any residual features and defect repairs that were not prioritised for delivery during the project can be considered and prioritised against new requirements and defects that may arise.

It is normal for features and defects to be carried over in most projects, and some items may never be delivered if more important and valuable work continues to take priority.

Conclusion

Successful agile delivery can provide better outcomes for buyers and suppliers but requires a paradigm shift in how they work together. This change can be difficult for all parties.

- Reach out early and be prepared to invest in doing things differently
- Be honest about your capabilities and what is needed to create an authentic agile delivery
- Value the efficiencies and benefits of agile ways of working and manage commercial risk by utilising these new features
- Focus on agile principles and look for these as you work together closely. Create an environment where the success and safety of all stakeholders is important, where people and organisations can learn quickly, and where the value that the business most needs is able to be delivered rapidly.

The authors welcome further questions and suggestions you may have to improve this playbook:

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Appendix 1: contract sections

Most contracts provide coverage for a common set of topics. The following table shows which of these typical areas are likely to need a different approach for an agile delivery:

Products/Services	Protections	Liability	Termination	Other
What is being bought/sold The contract will be about defining a vision, a process, adherence to that process, and the supply of capability by both parties.	**Governance** The delivery will have greater autonomy, but boundaries will need to be defined.	**When a party is liable/not liable** Some liabilities may be applied in a significantly different way to reflect the collaborative nature of agile delivery.	**Term and renewal**	**Amendments**
Requirements and specifications Requirements and specifications referenced from the contract will be in a less detailed form (such as a product backlog, or high-level architectures and designs).	**Change management process** Most change will be managed with lower formality (although usual change control will still exist for some types of change).	**Force majeure**	**Termination rights/ consequences of termination/ disengagement** Termination and disengagement should be easier (and may not be a bad thing).	**Assignment**
Deliverables Because product owners choose which requirements will be supplied and when, the contract will focus less on specifying deliverables than on clarifying the exact ways in which the parties will work together.	**Remedy plan process** The delivery will be expected to continuously adapt to address issues as they arise, rather than relying on remediation programmes.	**Insurance**	**Survival**	**Contracts privity**
Performance obligations There will be important responsibilities that need to be exercised in new ways with an emphasis on collaboration.	**Warranties and representations** Some warranties are likely to be different as the solution will not generally have a detailed specification at the outset.			**Costs**
Quality/performance measures The management of quality and performance will be more explicit and collaborative.	**Compliance with policies** Technical compliance expectations should be clearly stated and incorporated into the scope of agile processes and outputs. Procedural compliance requirements are not changed.			**Counterpart**
When/how delivery will occur The description of the agile process should describe when/how delivery will occur.	**Reporting** New types of reporting may be more appropriate, and information may be conveyed in forms other than documents, for example, as part of the agile processes.			**Entire agreement**
Transition arrangements Transition may have to occur multiple times because of multiple deliveries.	**Key people** Key people should include critical agile roles across both parties.			**Further assurance**
Acceptance Acceptance is likely to be significantly different due to the way this is achieved as part of each iteration in an agile-based project.	**Security** Backlog items that implement functional security obligations may need support in the contract to be appropriately prioritised.			**Non-solicitation**
Rights to use	**Confidentiality & Privacy**			**Governing law**
Exclusivity	**Intellectual Property**			**No agency**
Minimum volumes	**Announcements**			**Notices**
Price Pricing may be simpler and more transparent as generally charges will be defined around the supply of a team or teams for several iterations (or sprints).	**Record keeping**			**Remedies**
Payment Mechanisms such as retentions or liquidated damages drive the wrong behaviours during agile delivery and are rarely suitable.	**Audit**			**Severability**
Tax	**Access**			**Sub-contracting**
	Health and Safety			**Waiver**
	Dispute resolution			**Terminology/definitions** New terms and concepts need to be introduced.

Generally unchanged for an agile delivery

May be simplified for an agile delivery

May be significantly different for an agile delivery

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