

Agile Project Management White Paper

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Foreword from Richard Pharro, CEO, APMG-International



We live in an uncertain world where it is difficult to predict what will happen in the future. As governments and organizations face unprecedented budget cuts, but are still under pressure to perform and deliver, project managers face tough challenges. Unforeseen situations, budget cuts and organizational changes can have a dramatic impact on project outcomes. The key to successfully managing projects is to break them into stages, plan the current stage in detail and be flexible regarding the subsequent stages.

Agile Project Management provides an approach that offers agility but retains the concepts of a project, project delivery and project management. It works alongside more formal project management approaches such as PRINCE2® and complements quality processes such as ISO90001 and CMMI.

Agile Project Management enables organizations to gain the benefits of an agile approach without introducing unnecessary risks. This ensures 'going agile' becomes a measured and balanced change, keeping what is good in the current organization and retaining existing good practices around project management and delivery whilst gaining the benefits of a more agile way of working.

Providing a flexible yet controlled process that can be used to deliver solutions, Agile Project Management combines effective use of people's knowledge together with techniques such as iterative development and modelling to achieve tight project delivery timescales. It offers flexibility while still recognising the processes that give project managers confidence to run their projects effectively.

This paper explores the central concepts of Agile Project Management and clarifies its relationship with the DSDM® Consortium's Atern® method, and also positions Agile Project Management in relation to alternative methodologies.

Richard Pharro

Introducing Agile Project Management

Agile Project Management is the result of collaboration between APMG-International and The DSDM Consortium.

DSDM (Dynamic Systems Development Method) is the longest-established Agile method, launched in 1995, and is the only Agile method to focus on the management of Agile projects. The method has evolved over the years and DSDM Atern is the latest version. DSDM has always operated predominantly in the corporate environment, and has consistently demonstrated its ability to successfully work with and complement existing corporate processes.

Until fairly recently, Agile was still viewed by some as “bleeding edge” or “inherently risky”, whereas the reality is that over many years of successful implementation Agile has become mainstream, and the drive to “go Agile” has been fuelled by the need to deliver timely and cost-effective projects, whilst at the same time embracing change and offering flexibility.

Agile Project Management is a new initiative which extracts the Project Management elements of DSDM Atern and makes them available as Agile Project Management – a certified approach in its own right. This enables experienced Project Managers to adopt a mature, scalable corporate-strength Agile approach within their organizations.

On a traditional project, the Project Manager may be actively involved in directing work and telling their team what needs to be done – a style often referred to as Command and Control. Agile PM follows a different style. In the early stages, the Agile PM creates a high level plan, based on outline requirements and a high level view of the solution to be created. From that point onwards the end project is created iteratively and incrementally, with each increment building on the output of increments preceding it. Unlike a traditional project, the detailed plans for each step are created by the team members themselves and not the Project Manager.

Within each stage of the project the team works in an iterative and incremental style in close collaboration with a representative of the business/customer in order to understand the detail of the next step and to create and validate an evolving solution.

Agile Project Management comprises established and proven components that provide a holistic approach to the management and governance of projects. It has an overarching philosophy and guiding principles, together with a lifecycle (or process) and a set of deliverables to be created and maintained as the project progresses from a controlled start through to completion. It provides clearly defined roles with specific responsibilities designed to bring together all stakeholders involved in the project.



APMG-InternationalTM
Agile Project Management

Relationship with DSDM Atern and Key Differences

Agile Project Management is based on DSDM Atern, which has always been the only Agile method to fully address the concept of an Agile project, and provides detailed guidance on how to manage and deliver Agile projects.

Agile Project Management focuses on the elements of Atern that are specific to the Agile Project Manager; it is important to note that Atern also provides detailed guidance on delivery techniques and solution development, which are outside of the Agile Project Management Handbook.

Agile Project Management follows the same structure as DSDM Atern, with the Agile Project Management Handbook and the DSDM Atern Handbook having the same layout and chapter numbering. This allows the Agile Project Manager easy reference to the full Atern method, should they wish to supplement their understanding of Agile Project Management, and relate their knowledge of DSDM Atern within the Solution Development Team. Many of the chapters in the DSDM Atern Handbook are fully relevant to Agile Project Management, and are reproduced almost in full. Other chapters have been edited to remove details that fall outside of pure Agile Project Management, and in some cases information has been pared back to provide the Agile Project Manager with awareness of a topic and ensure that it is being planned and managed correctly.

Although Agile Project Management can be viewed as a subset of DSDM Atern, there are some extra features in Agile Project Management that are not currently available in Atern. These include 'Top Tips' for Agile Project Managers at the conclusion of most chapters. These 'Top Tips' have been collected from the in-depth practical experience of professional individuals who have managed and delivered Agile projects for many years. These are practitioners who work across a wide range of backgrounds, from small, simple projects to large, complex projects, including regulated environments where they need to work in conjunction with other methods and approaches such as PRINCE2, ITIL®, CMMI, ISO, etc. Access to this experience through these 'Top Tips' has proved to be invaluable and will help the Agile Project Manager to avoid pitfalls and prepare for success.

Supplementary information is also available to help the professional Project Manager to apply Agile Project Management in the corporate environment, specifically linking and aligning this approach to PRINCE2 and ITIL, through reference to in-depth White Papers and publications, created by experienced Practitioners.

Comparing Agile Project Management with other agile methodologies

In the Agile world, there are a number of approaches available; the most common of these are DSDM Atern, eXtreme Programming (XP), SCRUM and Lean. To put these Agile approaches into context:

XP – focusing on I.T. development, XP provides developer techniques and practices such as Pair Programming, Continuous Integration etc. There is no concept of a Project in XP, and with the exception of planning, little guidance around management, since the primary purpose of XP is to provide Agile delivery techniques.

Typically where XP is to be used to deliver Agile Projects, it is often combined with other Agile approaches which add-on the Project and Management elements. Examples of this would be **XP** with **DSDM Atern**, **XP** with **Scrum**.

Scrum provides an excellent team based approach to allow work to be prioritised and delivered, using the concept of a constantly evolving “backlog” to provide the team’s workload. The strength of Scrum is its simplicity, and since it is so easy to describe and to start to use, this has driven its popularity to date.

However in Scrum, there is no concept of a project, simply a Product Backlog of work to be done. For those wishing to scale Scrum to work as a corporate-wide Agile approach, or to use it for management of projects and releases, there is usually significant extra work needed to overlay the project/release concept onto the basic Scrum process. Scrum does offer a very simple version of corporate-wide Scrum (referred to as “Scrum of Scrums”), but in the complex corporate world, there is little confidence in the successful practical application of this.

The end result is often that complex organizations using Scrum, but needing a corporate-strength Agile approach, end up

re-inventing the information and guidance already available in DSDM Atern.

On IT projects, **Scrum** is often paired with **XP**, with Scrum providing the team management process and XP providing the developer techniques.

Scrum is also often combined with **DSDM Atern**, where Scrum is used at the development team level, and DSDM Atern sits above the team to position the work within a project and to provide the project management elements.

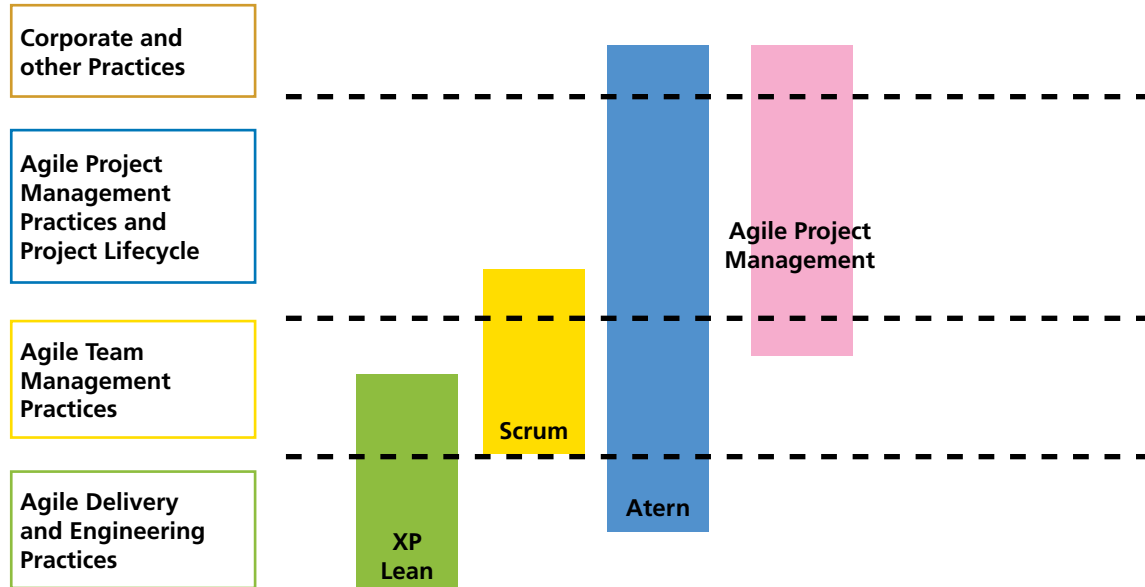
Lean – an approach which originated in the Toyota manufacturing environment in the 1940s. Lean drives work to be done in an efficient way through its main principle of “Eliminate Waste”. In practice, this means avoiding anything that does not produce value for the customer. Examples of Lean thinking are “don’t do all the detailed analysis up front, because it will change/some will not be progressed to delivery” and “test throughout, then you don’t waste time working on things that do not fit the business”.

A lean approach can be applied at development level, but it is also often used at the organizational level.

Lean is often used in conjunction with other Agile approaches, since it is complementary to most of them, e.g. **Lean** and **DSDM Atern**, **Lean** and **Scrum**, **Lean** and **XP**.

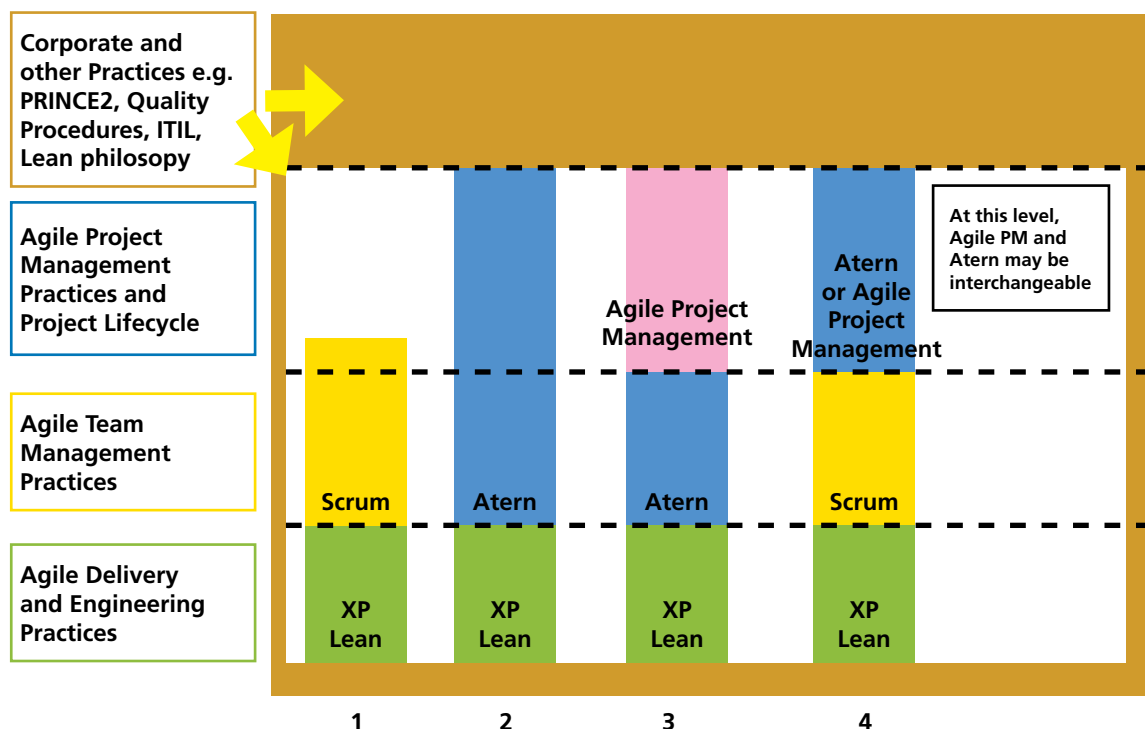
When choosing which Agile approach to adopt, at its simplest, an organization could choose a single Agile approach, focusing on the area of highest concern to them, as demonstrated in the following diagram:

What the Agile Method Covers*



Alternatively, various Agile approaches may be combined to provide a blended approach to fulfil different needs, as demonstrated in the following diagram.

Combining Agile Methods*



Benefits of Agile Project Management

Organizations seeking to adopt an Agile approach are sometimes concerned about some of the messages and myths of Agile, and it can be very difficult to separate rumour from fact. For example, some Agile approaches suggest that Project Management is irrelevant or unnecessary – a very worrying message for organizations that rely on their project managers, and organizations that may have invested heavily in creating a pool of experienced and accredited Project Managers. This has led some to an incorrect perception that Agile is only applicable for small, simple pieces of work, and that organizations would need to choose **either** Agile **or** formal project management and corporate processes. However this perception is incorrect.

One advantage of Agile Project Management for the organization is that they can adopt an Agile approach that has a track record of successful management and delivery in the corporate environment, and an approach that complements and works with existing corporate processes, such as PRINCE2, quality and audit processes, etc. Indeed, DSDM Atern originally was designed to integrate with PRINCE2. There is no need to develop and integrate company-specific Agile management processes, the organization can simply adopt a tried and tested approach.

Another benefit for the organization is that Agile Project Management, and its parent process DSDM Atern, has a formal recognised certification process for individuals. Within the organization, this can be used to develop professionalism in employees, and as part of staff professional development. The certification can also be used as part of the recruitment process, to identify individuals who have already been independently assessed and certified as possessing accurate knowledge on Agile Project Management.

At its simplest, using the Agile “Story” concept to define why an organization would adopt Agile Project Management:

As an organization

We need Agile Project Management Training and Certification

So that we can skill our workforce, show they are valued and distinguish between those with Agile skills and those without.

As a Hiring Manager

I need Agile Project Management Certification

So that I can distinguish between job candidates whose Agile skills have been independently validated and candidates without external Agile knowledge validation

Individuals who work in the Agile arena are as keen to demonstrate and prove their knowledge as those who work in a more traditional environment, both to themselves and to their employers. Agile Project Management provides Foundation and Practitioner level certifications, and so enable a candidate, or team, to progress from a basic level, to a more advanced, applied level of knowledge. For those who wish to progress even further, the close link between Agile Project Management and DSDM Atern allows an individual to become a DSDM Atern Advanced Practitioner, a certification based on experience, and an oral exam which examines both practical experience and theoretical knowledge.

To outline why a Project Manager would adopt Agile Project Management:

As a Project Manager

I need Agile Project Management Training

So that I can develop my Agile management skills based on recognised best practice.

As a Project Manager

I need Agile Project Management Certification

So that I can validate my Agile skills using an external, independent measure, and so that I can differentiate myself when applying for Agile project management positions.

Agile Project Management and PRINCE2 – one or the other, or both?

A significant advantage of adopting Agile Project Management is that it is a process based on DSDM Atern, and over many years Atern has proven its ability to work alongside and complement PRINCE2. So for an organization which already uses PRINCE2, adopting Agile Project Management enables the continued use of PRINCE2 with Agile Project Management providing complementary, tried and tested Agile management processes.

For an organization that may be new to Project Management and wanting to deliver Agile projects in a controlled way, Agile Project Management alone will provide sufficient guidance to allow for successful management and delivery. However, if the organization wants to further strengthen their Project Management, then adopting Agile Project Management alongside PRINCE2 provides options for the optimum way forward.

Qualifications & Training

Training courses in support of APMG-International's Agile Project Management scheme are available from an international network of Accredited Training Organizations (ATOs), certified by APMG-International. Details of all Agile Project Management ATOs can be located via the APMG-International website.

Courses will:

- Explain how to lay the foundations for successful agile projects
- Explain how an agile project is managed
- Clarify the different management styles needed for successful agile projects (compared to "traditional" projects)
- Provide integration with PRINCE2

The scheme consists of two qualification levels: Foundation and Practitioner, with an examination for each.

The **Foundation Examination** assesses a candidate's knowledge of Agile Project Management through a one hour multiple-choice paper composed of 60 questions. Candidates must achieve 30 correct answers (50%) to pass.

The **Practitioner Examination** tests a candidate's ability to apply the concepts of Agile Project Management to the running and managing of projects through an Objective Test – a style of complex multiple-choice examination – lasting two hours. There are four questions with 15 marks available per question. Candidates must achieve 30 marks (50%) to pass.

About APMG-International

APMG-International is a global Examination Institute accredited by The APM Group Ltd, the Official Accreditor of the UK Office of Government Commerce. Our regional offices are located in Australia, China, Germany, India, Italy, The Netherlands, Malaysia, the United States and the United Kingdom.

Our portfolio of qualifications – including the OGC Best Practice qualifications – fall under three broad categories:

- **Portfolio, Programme & Project Management (PPM)** including PRINCE2®, MSP®, P3O®, MoP™ and Agile Project Management.
- **IT Service Management (ITSM)** including ITIL®, ISO 20000, Change Analyst and Service Catalogue.
- **Specialist Management Qualifications** including MoV™, Change Management, OBASHI, CHAMPS2 and Earned Value Management.

We accredit training organizations, trainers and training materials and certify examination candidates through a variety of methods. Our Accredited Training Organizations (ATOs)

have a wide variety of qualifications to choose from if they want to extend their offerings to candidates.

We also accredit consultants working with OGC's Maturity Models to help organizations improve their delivery of Best Practice.

As well as accrediting training and consulting organizations, we set, mark and certify the relevant examinations. To support candidates who sit our exams our online bookshop APMG-Business Books provides core guidance texts for all our qualifications, as well as general management-related books and software.

For more information please visit our website at www.apmg-international.com

About the DSDM Consortium

The DSDM Consortium was founded in 1994 as a not-for-profit membership organization operating on a collegiate model. It was formed in response to a widely recognised need for an approach to software development that was both quicker than traditional ('waterfall') methods, and also allowed for the development of scalable, maintainable applications that met current and changing business requirements. The DSDM approach was developed by capturing the experiences of a broad consortium of organizations; large corporate IT departments, business users, consultants and vendors. These organizations recognised the need to build applications (responsive to change) quickly, and that to do so required business commitment and new techniques based on a documented repeatable lifecycle and iterative development.

DSDM v1 was published in February 1995 and the approach has constantly evolved to address the needs of a business driven development culture.

A radical review of the framework culminated in the launch of DSDM Atern in April 2007. Atern retains the fundamental focus on delivery of early business benefits from IT projects and programmes and has been enhanced to provide improved support for projects including those with no technology element at all. The framework is free to view at **www.dsdm.org**

Alongside the DSDM Atern framework, the Consortium publishes white papers and other supporting material, and delivers public Seminars, Conferences and Training.

For more information about DSDM Atern and the Consortium please visit **www.dsdm.org** or call +44 (0)1233 611162.



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