
AGILE PRACTICE GUIDE



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PREFACE

The Project Management Institute and Agile Alliance® chartered this practice guide to create a greater understanding of agile approaches in their communities. The vision for this practice guide is to equip project teams with tools, situational guidelines, and an understanding of the available agile techniques and approaches to enable better results.

Project teams are using agile approaches in a variety of industries beyond software development. Both organizations realize that expansion has created a need for a common language, open mindedness, and the willingness to be flexible in how products and deliverables are brought to market. In addition, both organizations realize there are multiple ways to achieve successful delivery. There are a broad range of tools, techniques, and frameworks; teams have choices for approaches and practices that fit their project and the organizational culture in order to achieve the desired outcome.

The *Agile Practice Guide* core committee members are from varying backgrounds and use various approaches. Some of the committee members are consultants and some work inside organizations. All have worked in agile ways for many years.

TABLE OF CONTENTS

- 1. INTRODUCTION..... 1**
- 2. AN INTRODUCTION TO AGILE 7**
 - 2.1 Definable Work vs. High-Uncertainty Work..... 7**
 - 2.2 The Agile Manifesto and Mindset 8**
 - 2.3 Lean and the Kanban Method 12**
 - 2.4 Uncertainty, Risk, and Life Cycle Selection..... 13**
- 3. LIFE CYCLE SELECTION 17**
 - 3.1 Characteristics of Project Life Cycles..... 18**
 - 3.1.1 Characteristics of Predictive Life Cycles..... 20**
 - 3.1.2 Characteristics of Iterative Life Cycles 21**
 - 3.1.3 Characteristics of Incremental Life Cycles 22**
 - 3.1.4 Characteristics of Agile Life Cycles..... 24**
 - 3.1.5 Agile Suitability Filters..... 25**
 - 3.1.6 Characteristics of Hybrid Life Cycles 26**
 - 3.1.7 Combined Agile and Predictive Approaches 27**
 - 3.1.8 Predominantly Predictive Approach with Some Agile Components 28**
 - 3.1.9 A Largely Agile Approach with a Predictive Component..... 28**
 - 3.1.10 Hybrid Life Cycles as Fit-For-Purpose..... 29**
 - 3.1.11 Hybrid Life Cycles as Transition Strategy 30**
 - 3.2 Mixing Agile Approaches 31**
 - 3.3 Project Factors That Influence Tailoring 32**

4. IMPLEMENTING AGILE: CREATING AN AGILE ENVIRONMENT	33
4.1 Start with an Agile Mindset.....	33
4.2 Servant Leadership Empowers the Team.....	33
4.2.1 Servant Leader Responsibilities	34
4.2.2 Role of the Project Manager in an Agile Environment.....	37
4.2.3 Project Managers Use Servant Leadership	38
4.3 Team Composition.....	38
4.3.1 Agile Teams	39
4.3.2 Agile Roles.....	40
4.3.3 Generalizing Specialists.....	42
4.3.4 Team Structures.....	43
4.3.5 Dedicated Team Members	44
4.3.6 Team Workspaces.....	46
4.3.7 Overcoming Organizational Silos	47
5. IMPLEMENTING AGILE: DELIVERING IN AN AGILE ENVIRONMENT.....	49
5.1 Charter the Project and the Team.....	49
5.2 Common Agile Practices	50
5.2.1 Retrospectives.....	50
5.2.2 Backlog Preparation	52
5.2.3 Backlog Refinement.....	52
5.2.4 Daily Standups	53
5.2.5 Demonstrations/Reviews.....	55
5.2.6 Planning for Iteration-Based Agile	55
5.2.7 Execution Practices that Help Teams Deliver Value	56
5.2.8 How Iterations and Increments Help Deliver Working Product.....	57
5.3 Troubleshooting Agile Project Challenges	57
5.4 Measurements in Agile Projects	60
5.4.1 Agile Teams Measure Results	61

6. ORGANIZATIONAL CONSIDERATIONS FOR PROJECT AGILITY	71
6.1 Organizational Change Management	71
6.1.1 Drivers for Change Management.....	73
6.1.2 Readiness for Change	73
6.2 Organizational Culture.....	75
6.2.1 Creating an Environment of Safety.....	75
6.2.2 Assessing Culture	75
6.3 Procurement and Contracts	77
6.4 Business Practices	79
6.5 Multiteam Coordination and Dependencies (Scaling).....	80
6.5.1 Frameworks.....	80
6.5.2 Considerations	80
6.6 Agile and the Project Management Office (PMO).....	81
6.6.1 An Agile PMO is Value-Driven.....	81
6.6.2 An Agile PMO is Invitation-Oriented	81
6.6.3 An Agile PMO is Multidisciplinary	82
6.7 Organizational Structure	83
6.8 Evolving the Organization	84
7. A CALL TO ACTION	87
ANNEX A1	
<i>PMBOK®</i> GUIDE MAPPING	89
ANNEX A2	
AGILE MANIFESTO MAPPING	97
ANNEX A3	
OVERVIEW OF AGILE AND LEAN FRAMEWORKS.....	99
APPENDIX X1	
CONTRIBUTORS AND REVIEWERS.....	115

APPENDIX X2	
ATTRIBUTES THAT INFLUENCE TAILORING.....	119
APPENDIX X3	
AGILE SUITABILITY FILTER TOOLS.....	125
REFERENCES	139
BIBLIOGRAPHY	141
GLOSSARY	149
INDEX	157



LIST OF TABLES AND FIGURES

Figure 2-1.	The Four Values of the Agile Manifesto	8
Figure 2-2.	The Twelve Principles Behind the Agile Manifesto	9
Figure 2-3.	The Relationship Between the Agile Manifesto Values, Principles, and Common Practices	10
Figure 2-4.	Agile is a Blanket Term for Many Approaches	11
Figure 2-5.	Uncertainty and Complexity Model Inspired by the Stacey Complexity Model	14
Figure 3-1.	The Continuum of Life Cycles	19
Figure 3-2.	Predictive Life Cycle	21
Figure 3-3.	Iterative Life Cycle	21
Figure 3-4.	A Life Cycle of Varying-Sized Increments	22
Figure 3-5.	Iteration-Based and Flow-Based Agile Life Cycles	24
Figure 3-6.	Agile Development Followed by a Predictive Rollout	27
Figure 3-7.	A Combined Agile and Predictive Approach Used Simultaneously	27
Figure 3-8.	A Largely Predictive Approach with Agile Components	28
Figure 3-9.	A Largely Agile Approach with a Predictive Component	28
Figure 5-1.	Burndown Chart for Remaining Story Points	62
Figure 5-2.	Burnup Chart for Showing Story Points Completed	63
Figure 5-3.	Example of a Kanban Board	65
Figure 5-4.	Feature Chart	67
Figure 5-5.	Product Backlog Burnup Chart	68

Figure 5-6.	Earned Value in an Agile Context.....	69
Figure 5-7.	Cumulative Flow Diagram of Completed Features.....	70
Figure 6-1.	The Relationship Between Change Management and Agile Approaches	72
Figure 6-2.	Example of Assessing Organizational Culture	76
Figure 6-3.	Initial Ranked Backlog for Changes	85
Figure 6-4.	Using Backlogs and Kanban Boards to Organize and Track Change Work.....	86
Figure A3-1.	Agile Approaches Plotted by Breadth and Detail	100
Figure A3-2.	Kanban Board Demonstrating Work in Progress Limits, and a Pull System to Optimize the Flow of Work	105
Figure A3-3.	The Crystal Family of Methods.....	106
Figure A3-4.	Feature-Driven Development Project Life Cycle.....	109
Figure A3-5.	DSDM Approach to Constraint-Driven Agility.....	110
Figure A3-6.	Representatives of Scrum Teams Participating in SoS teams	112
Figure X3-1.	Model for Suitability of Agile Approach.....	127
Figure X3-2.	Buy-In to Approach Assessment	129
Figure X3-3.	Trust in Team Assessment.....	130
Figure X3-4.	Assessment for Decision-Making Powers of Team	130
Figure X3-5.	Team Size Assessment.....	131
Figure X3-6.	Experience Level Assessment.....	131
Figure X3-7.	Assessment for Access to the Customer/Business	132
Figure X3-8.	Likelihood of Change Assessment.....	132
Figure X3-9.	Assessment for Criticality of Product or Service	133
Figure X3-10.	Incremental Delivery Assessment	133
Figure X3-11.	Suitability Assessment Radar Chart.....	134
Figure X3-12.	Drug Store Project	135
Figure X3-13.	Military Messaging Example.....	137

Table 1-1.	In-Scope and Out-of-Scope Items	4
Table 3-1.	Characteristics of Four Categories of Life Cycles	18
Table 3-2.	Tailoring Options to Improve Fit.....	32
Table 4-1.	Attributes of Successful Agile Teams.....	40
Table 4-2.	Agile Team Roles	41
Table 5-1.	Agile Pain Points and Troubleshooting Possibilities.....	58
Table A1-1.	Project Management Process Group and Knowledge Area Mapping.....	90
Table A1-2.	Application of Agile in <i>PMBOK® Guide</i> Knowledge Areas.....	91
Table A2-1.	Agile Manifesto Values Covered in the <i>Agile Practice Guide</i>	97
Table A2-2.	<i>Agile Practice Guide</i> Mapping of Principles Behind the Agile Manifesto.....	98
Table A3-1.	Scrum Events and Artifacts.....	101
Table A3-2.	The Practices of eXtreme Programming.....	102
Table A3-3.	Defining Principles and Properties of the Kanban Method.....	104
Table A3-4.	The Core Values and Common Properties of Crystal	107
Table A3-5.	The Key Elements of the Agile Unified Process	111
Table A3-6.	Comparison of LeSS and Scrum	113
Table X2-1.	Tailoring Guidelines.....	121





1

INTRODUCTION

Welcome to the *Agile Practice Guide*! This guide was developed as a collaborative effort by the Project Management Institute (PMI) and Agile Alliance®. The members of the core writing team who developed this practice guide included volunteers from both organizations, drawing on subject matter expertise from a broad range of current practitioners and leaders from a diverse range of backgrounds, beliefs, and cultures.

This practice guide provides practical guidance geared toward project leaders and team members adapting to an agile approach in planning and executing projects. While our core writing team recognizes there is staunch support to use predictive approaches and conversely, passion around shifting to an agile mindset, values, and principles, this practice guide covers a practical approach to project agility. This practice guide represents a bridge to understanding the pathway from a predictive approach to an agile approach. In fact, there are similar activities between the two, such as planning, that are handled differently but occur in both environments.

Our core writing team used an agile mindset to collaborate and manage the development of this first edition of the practice guide. As technology and culture changes, future updates and refinements to the practice guide will reflect current approaches.

Our core team adopted a more informal, relaxed writing style for this practice guide than is typical for PMI standards. The guide incorporates new elements, such as tips, sidebars, and case studies to better illustrate key points and concepts. Our team intends for these changes to make this practice guide more readable and user-friendly.

This practice guide goes beyond addressing the use of agile in the computer software development industry, because agile has expanded into non-software development environments. Manufacturing, education, healthcare and other industries are becoming agile to varying degrees and this use beyond software is within the scope of this practice guide.



AGILE-BASED LEARNING

Education is a prime and fertile ground to expand agile practices beyond software development. Teachers in middle schools, high schools, and universities around the world are beginning to use agile to create a culture of learning. Agile techniques are used to provide focus on prioritizing competing priorities. Face-to-face interaction, meaningful learning, self-organizing teams, and incremental and/or iterative learning that exploit the imagination are all agile principles that can change the mindset in the classroom and advance educational goals (Briggs, 2014).*

*Briggs, Sara. "Agile Based Learning: What Is It and How Can It Change Education?" *Opencolleges.edu.au* February 22, 2014, retrieved from <http://www.opencolleges.edu.au/informed/features/agile-based-learning-what-is-it-and-how-can-it-change-education/>

So why an *Agile Practice Guide* and why now? Project teams have used agile techniques and approaches in various forms for at least several decades. The Agile Manifesto [1]¹ expressed definitive values and principles of agile as the use of agile gained substantial momentum (see Section 2.1). Today, project leaders and teams find themselves in an environment disrupted by exponential advances in technology and demands from customers for more immediate delivery of value. Agile techniques and approaches effectively manage disruptive technologies. In addition, the first principle of agile places customer satisfaction as the highest priority and is key in delivering products and services that delight customers (see Section 2.1). Rapid and transparent customer feedback loops are readily available with the widespread use of social media. Therefore, in order to stay competitive and relevant, organizations can no longer be internally focused but rather need to focus outwardly to the customer experience.

¹ The numbers in brackets refer to the list of references at the end of this practice guide.

Disruptive technologies are rapidly changing the playing field by decreasing the barriers to entry. More mature organizations are increasingly prone to being highly complex and potentially slow to innovate, and lag behind in delivering new solutions to their customers. These organizations find themselves competing with smaller organizations and startups that are able to rapidly produce products that fit customer needs. This speed of change will continue to drive large organizations to adopt an agile mindset in order to stay competitive and keep their existing market share.

The *Agile Practice Guide* is project-focused and addresses project life cycle selection, implementing agile, and organizational considerations for agile projects. Organizational change management (OCM) is essential for implementing or transforming practices but, since OCM is a discipline within itself, it is outside the scope of this practice guide. Those seeking guidance in OCM may refer to *Managing Change in Organizations—A Practice Guide* [2].

Additional items that are in scope and out of scope for this practice guide are listed in Table 1-1.

DISRUPTIVE TECHNOLOGY

Disruptive technology is especially enabled by the transition to cloud computing. Companies across the globe are leveraging the model for quick and cheap access to computing resources and to gain entry into traditional markets. Cloud computing requires a reduced upfront payment, but is paid over time via a subscription service, based upon a pay-as-you-go or pay-what-you-use model. Updated applications, infrastructure, and platforms are released into the cloud in an iterative and incremental fashion, keeping pace with improvements to technology and evolving customer demand.



Table 1-1. In-Scope and Out-of-Scope Items

In Scope	Out of Scope
Implementing agile approaches at a project or team level	Implementing agile throughout the organization or creating agile programs
Coverage of most popular agile approaches, as listed in industry surveys	Coverage of niche approaches, company-specific methods, or incomplete life cycle techniques
Suitability factors to consider when choosing an agile approach and/or practice	Recommending or endorsing a particular approach/practice
Mapping agile to <i>PMBOK® Guide</i> processes and Knowledge Areas	Change or modification of <i>PMBOK® Guide</i> processes and/or Knowledge Areas
Discussion on the use of agile beyond software development	Removal of software industry influence on agile approaches. (Note that software is included in this practice guide even though the use of agile is growing in many other industries beyond software.)
Guidance, techniques, and approaches to consider when implementing agile in projects or organizations	Prescriptive step-by-step instructions on how to implement agile in projects or organizations
Definitions of generally accepted terms	New terms and/or definitions

This practice guide is for project teams who find themselves in the messy middle-ground between predictive and agile approaches, who are trying to address rapid innovation and complexity, and who are dedicated to the team’s improvement. This practice guide provides useful guidance for successful projects that deliver business value to meet customer expectations and needs.

This practice guide is organized as follows:

Section 2 An Introduction to Agile—This section includes the Agile Manifesto mindset, values, and principles. It also covers the concepts of definable and high-uncertainty work, and the correlation between lean, the Kanban Method, and agile approaches.

Section 3 Life Cycle Selection—This section introduces the various life cycles discussed in this practice guide. This section also addresses suitability filters, tailoring guidelines, and common combinations of approaches.

Section 4 Implementing Agile: Creating an Agile Environment—This section discusses critical factors to consider when creating an agile environment such as servant leadership and team composition.

Section 5 Implementing Agile: Delivering in an Agile Environment—This section includes information on how to organize teams and common practices teams can use for delivering value on a regular basis. It provides examples of empirical measurements for teams and for reporting status.

Section 6 Organizational Considerations for Project Agility—This section explores organizational factors that impact the use of agile approaches, such as culture, readiness, business practices, and the role of a PMO.

Section 7 A Call to Action—The call to action requests input for continuous improvement of this practice guide.

The annexes, appendixes, references, bibliography, and glossary provide additional useful information and definitions:

- ◆ **Annexes.** Contain mandatory information that is too lengthy for inclusion in the main body of the practice guide.
- ◆ **Appendixes.** Contain nonmandatory information that supplements the main body of this practice guide.
- ◆ **References.** Identify where to locate standards and other publications that are cited in this practice guide.
- ◆ **Bibliography.** Lists additional publications by section that provide detailed information on topics covered in this practice guide.
- ◆ **Glossary.** Presents a list of terms and their definitions that are used in this practice guide.

