

THE NEW DYNAMIC OF PORTFOLIO MANAGEMENT

Innovative Methods and Tools
for Rapid Results

MURALI KULATHUMANI, MBA, CSM



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ISBN-13: 978-1-60427-177-5

Printed and bound in the U.S.A. Printed on acid-free paper.

10 9 8 7 6 5 4 3 2 1

Library of Congress Cataloging-in-Publication Data

Names: Kulathumani, Murali, 1974– author.

Title: The new dynamic of portfolio management : innovative methods and tools for rapid results / Murali Kulathumani.

Description: Plantation, FL : J. Ross Publishing, 2021. | Includes bibliographical references and index. |

Identifiers: LCCN 2021003863 (print) | LCCN 2021003864 (ebook) | ISBN 9781604271775 (paperback ; alk. paper) | ISBN 9781604278279 (epub)

Subjects: LCSH: Project management. | Information technology—Management.

Classification: LCC HD69.P75 K853 2021 (print) | LCC HD69.P75 (ebook) | DDC 658.4/04--dc23

LC record available at <https://lcn.loc.gov/2021003863>

LC ebook record available at <https://lcn.loc.gov/2021003864>

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Phone: (954) 727-9333

Fax: (561) 892-0700

Web: www.jrosspub.com

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FOREWORD

It gives me great pleasure to write the Foreword for Murali Kulathumani's new book, *The New Dynamic of Portfolio Management*. Throughout my career in information technology, and presently as Chief Product Officer of a rapidly growing work execution company, I have always found the discipline of portfolio management to be valuable in choosing and monitoring investment choices that ultimately deliver the most value to the customer. I've found that portfolio management can make the difference between mere project activity and meaningful achievement of strategic outcomes.

Part of the challenge for leaders like me has been to visualize a roadmap of capabilities for the discipline of portfolio management so that we can take our organizations to the next level of maturity. In my opinion, while there are many good volumes about portfolio management in the market today, this new book is one of the first to propose a system to measure the capability of different portfolio functions.

Another aspect of portfolio management where the industry could use more exploration has been the gap between portfolio theory and the realities or constraints encountered in real life. While the theory of portfolio management is well established, there remains a considerable gap in applying this theory to the varied situations that are encountered in organizations today. Every organization is in a different place in terms of process maturity and I believe there is always a need to address the gap between theory and practice. This is where this book plays a valuable role in making the reader aware of how to navigate the space between the "ideal" and the "real" while delivering on the promise of portfolio management.

A third aspect of this very readable book that appealed to me was its emphasis on rapid implementation using tools that are readily available. Once again, the popular impression of portfolio management is that it takes too long to deliver any tangible value to the organization. This book successfully anticipates and counters that perception by focusing on rapid implementation from the get-go.

Finally, the approach taken in the book of starting with a *basic* portfolio before graduating to an *advanced* portfolio is a welcome approach for the simple reason that most organizations are early in their development of portfolio capabilities. For such organizations, it is a relatively easy path to attaining a basic portfolio which will provide considerable capabilities to manage and deliver projects. This, in turn, builds the credibility of portfolio management which can then be leveraged to build the advanced portfolio with all its attendant benefits. I also found the chapter on strategic transformation to be valuable and thought-provoking in explaining the strong link between strategy and the portfolio.

From a C-suite perspective, perhaps the most compelling feature of this book is the detailed exploration of how the portfolio office and the C-Level are connected in the delivery of value to the organization. Several aspects of this topic gave me pause for thought and are worth exploring for any C-level executive seeking to optimize the output of their organization.

Although dealing with technical topics and detailed methodologies, the book has been written in an easy-to-follow manner with handy illustrations aiding the reader in comprehension of the ideas and techniques. In conclusion, I believe this book stands apart from similar works in the field and is a must read for anyone interested in portfolio management as well as decision makers looking to achieve strategic transformation through portfolio management.

Gene Farrell

Chief Product Officer, Smartsheet

PREFACE AND ACKNOWLEDGMENTS

“The main thing is to keep the main thing the main thing.”
—Stephen Covey

This quote sums up portfolio management in a nutshell and was the driving philosophy behind this book, which is my second on portfolio management. As we enter the third decade of the century, we are witnessing the Third Wave of Project Management—the exponential mushrooming of projects across all industries and no longer just under the domain of IT. Given this massive increase in projects, what does success look like? This book is a detailed, definitive answer to that question.

Part of the driving force behind this book was the feedback I received after writing my first book, *Breakthrough Project Portfolio Management* (J. Ross Publishing, 2018). Several respected peers and practitioners liked the book and suggested that I write a second offering that would be geared more to organizations that were starting from scratch. I too noticed from personal observations that the right tool would significantly accelerate successful portfolio management in organizations. I also noticed through actual implementations at several organizations that certain portfolio management capabilities were easier to attain than others. With these factors in mind, I had four main goals in writing *The New Dynamic of Portfolio Management*, which are covered in the first three sections:

- Outline the foundational aspects of portfolio management that organizations need to understand to start seeing immediate results.
- Establish the credibility of the portfolio office.
- Provide a pathway to allow organizations to build and then move past the initial building blocks of portfolio management in order to obtain an advanced portfolio and all the attendant benefits.
- Introduce a versatile, flexible tool that allows organizations to accelerate portfolio management delivery and demonstrate in sufficient detail how to utilize that tool.

An effective portfolio always works in partnership with other functions such as Finance, the office of the CIO, and certainly the business. And it usually takes more than one person to implement an effective portfolio—it takes a whole team, hence, the chapter on the portfolio office. Also, there is something to be said about the perennial and inescapable role of politics in portfolio management and how governance is key to success. These topics found a natural home in the fourth section of the book.

Most books, and certainly this one, do not take shape in a vacuum. A whole host of people were instrumental in the creation of this text. Foremost among them are mentioned below, but many more were involved in the interactions that enabled the narratives in the book. Perhaps the foremost person is Stephen Buda from J. Ross Publishing. His encouraging receptivity to the book’s idea and his ample patience in waiting for me to deliver the promised manuscript is much appreciated.

Next, the whole team at Smartsheet needs to be lauded for their phenomenal support in curating the book idea and making valuable resources available to me at vital times during the formation of the book. First, Anna Griffin, the CMO of Smartsheet, who got the ball rolling and introduced me to the amazing team at Smartsheet that formed my working group over many months of effort. Second, Patricia Rollins, who was the driving force of the effort and kept the momentum going through thick and thin. Thanks are due to Andy Simpson, who provided very valuable suggestions through his deep knowledge of the platform and was a great source of ideas. I also appreciated the conversation and useful inputs from Robin Sherwood, a senior leader at Smartsheet and a thought leader in the portfolio management industry. Kara Lumley was also a great collaborator and needs to be recognized for her unflagging enthusiasm in this project. Last, but not least, thanks to Tim Sweeney for making the vital introductions to the Smartsheet team.

On a personal note, I would like to convey my gratitude to my family for their unstinting support through the long months spent on this endeavor. Specifically, thanks are due to my son, Appavu, for taking the time to proofread several versions of the manuscript to get them print ready. Finally, I would like to acknowledge the editing and production staff at J. Ross Publishing, specifically Donna Oliver. Their patient and meticulous edits turned my sometimes-telegraphic prose into meaningful and readable content.

Ultimately, portfolio management is the art of the possible—to win by keeping *the main thing the main thing*. In the face of change, adverse developments, unforeseen risks, and organizational inertia, the portfolio manager is still expected to navigate the portfolio to the safe harbor of impactful strategic results. If this book assists in that endeavor, I will consider my efforts to be successful.

—Murali Kulathumani

INTRODUCTION

HOW TO USE THIS BOOK

The goal of this book is to enable you to transform your current portfolio into a world-class portfolio. Whether you already have a portfolio, or are starting to build one from scratch, the contents of this book will inform you about the capabilities of a high-performing portfolio *and* help you get there. The objective is to provide the reader with a complete understanding of all the building blocks of a portfolio and then detail the nuances involved in implementation. The chapters, which sequentially cover the essential and advanced capabilities of a portfolio, are structured in a simple, intuitive way and also cross-reference each other to provide the reader with a logical construct of how the different capability areas interact.

PREREQUISITES

The book assumes very little in terms of prerequisites on the part of the reader. A basic knowledge of projects, coupled with passing understanding of finance terms and modern organizations, are all that it takes for a user to understand and start implementing the concepts explored in this book.

OVERVIEW OF THE BOOK STRUCTURE

The book is divided into four sections. Section I is brief but covers all the basics needed to make portfolio management work. Chapter 1 describes the evolving project portfolio landscape and the massive growth in the number of projects. Chapter 2 deals with the basics of project management since that is the bedrock of any portfolio. Chapter 3 explains the basics of Smartsheet, laying the groundwork for a tool that is used throughout the book.

Section II covers a central theme of the book, namely, the implementation of a basic portfolio. For many organizations, the basic portfolio is the easiest path to build a structure that immediately starts delivering value. In this section, Chapter 4 starts off with an introduction of the foundational capability of portfolio intake and assessment, while Chapter 5 walks through the actual implementation of portfolio intake using Smartsheet. Chapter 6 then introduces the concept of portfolio reporting and performance monitoring, while Chapter 7 shows how to implement those capabilities using Smartsheet. Chapter 8 then approaches the human element of portfolio management with an extensive treatment of portfolio resource management and how to implement it using Smartsheet. Chapter 9 forays into an area that determines success or failure for most portfolios—annual planning. Chapter 10 builds upon that introduction with an extensive treatment on how to orchestrate annual planning using Smartsheet. This marks the end of Section II, a hugely impactful collection of capabilities that make up the basic portfolio.

Some organizations have mastered the basics and are ready to advance to the next level. Section III details implementation strategies for the advanced portfolio with the introduction of budgets, benefits, and strategic planning. Chapter 11 directly addresses issues around allocating budgets to projects in the portfolio and includes a section on implementation using Smartsheet. Chapter 12 revisits the concept of portfolio performance monitoring in the backdrop of the advanced portfolio. Chapter 13 then deals with the sophisticated techniques surrounding balancing the advanced portfolio. Chapter 14 delves into the much needed, but often ignored, topic of benefits realization. Finally, Chapter 15 explores the intricate relationship between strategic transformation and portfolio management, while enumerating the benefits of having the two work in tandem. Section III describes the advanced capabilities that mark the best-of-breed portfolios and includes a detailed look at portfolio governance and how to ensure that it successfully provides direction for the portfolio.

No successful portfolio operates in a vacuum. Section IV explores in depth the support systems that play a huge role in making the portfolio successful. Chapter 16 begins by addressing the dominant factor that can make or break portfolio performance—the politics at work in organizations and how to successfully navigate them. Chapter 17 underscores the importance of a team in making big portfolios work, with the concept of a portfolio office. Chapter 18 continues with the concept of portfolio governance and shows how governance is the key to preventing portfolios from going off the rails. Chapter 19 explores the important relationship between the CIO and the portfolio office, while Chapter 20 follows up on the relationship between Finance and the portfolio office. Chapter 21 highlights the critical role played by the change management function in preparing the organization for changes rolled out by the portfolio office in the course of implementing portfolio management. Finally, Chapter 22 concludes Section IV with an exploration of the solutions to the most common problems faced by portfolio managers as they try to roll out capability enhancements in their organizations.

Throughout the book are Key Concept boxes that provide the reader invaluable material that summarizes important lessons to learn or things to know. Please do not skip over these call-outs.

CHAPTER STRUCTURE

Every chapter begins with an introduction to the central topic of that chapter. As part of the introduction, a summary listing of the chapter's contents is provided to enable the reader to get a bearing of how the chapter will unfold. This is typically followed by another section that elaborates on the introduction with a closer, more detailed discussion, including why this area of portfolio management needs to be covered. Several chapters employ the technique of progressive elaboration of the topic at hand, using tables and diagrams as appropriate. For most chapters, there typically follows an explanatory section that deals with how to set up the building blocks of a certain capability using our tool of choice, Smartsheet. Some chapters include a section that describes the levels of portfolio capability maturity for that topic and the attendant characteristics of each level. Finally, a chapter summary provides a synopsis of most chapters.

COMPARISON WITH FINANCIAL PORTFOLIO MANAGEMENT

A singular difference between this book and most other volumes on portfolio management is the use of financial portfolio management to introduce some topics in project portfolio management. I believe that most people are familiar with financial portfolios for the simple reason that they are likely to have a personal investment portfolio. It is therefore reasonable to expect people to grasp project

portfolio concepts when they are introduced as a variant of the already-familiar financial portfolio concepts. However, this comparison is applied judiciously and, where appropriate, the difference between the financial and project portfolio concepts are highlighted.

THE PORTFOLIO OFFICE AND THE PORTFOLIO MANAGER

Although the portfolio office consists of more than just the portfolio manager, it needs to be remembered that many organizations only have one person—namely the portfolio manager—managing the portfolio. This is especially true for organizations that are just starting on their portfolio journey. Where there is a larger portfolio office, the portfolio manager is understood to be the prime driver within the portfolio office and that the other members of the portfolio office function under his/her direction. Therefore, the terms *portfolio office* and *portfolio manager* are used interchangeably, unless expressly indicated otherwise.

THE CONTINUOUS JOURNEY OF PORTFOLIO MANAGEMENT

Every portfolio is at a different level in terms of capability because of many factors, including the context of the larger organization. Consequently, it's natural that every portfolio manager will approach the book a little differently based on their current place in the journey. To aid in this approach, references have been inserted that enables the reader to look up other chapters where a topic may have been introduced or explored in greater depth.

FOCUS ON IMPLEMENTATION

This book was written with an emphasis on impactful implementation in the real world. Accordingly, every concept that is discussed is then followed up with a detailed introduction on how to implement that capability using Smartsheet. Although the basic or simplest Smartsheet approach is provided, it is understood that the platform is versatile enough to allow multiple different solutions to achieve the same portfolio capability. The reader is encouraged to explore and experiment using the Smartsheet platform, which is constantly being improved to deliver additional ease of use. Finally, the tables and figures used in the various chapters have been made available in their original form as a resource to jump start the reader's implementation journey.

CONCLUSION

Portfolio management can be a challenging endeavor. It can also be a rewarding journey, especially as the organization begins to become aware of its potential. *The New Dynamic of Portfolio Management* tries to enable both the reader and their organization to become successful on that journey, both by describing the different components that make a portfolio and offering the subtle nuances which have been proven effective by observation and experience. It is my fervent hope that the reader can deploy the content of this book to create a high performing portfolio in their own organization.

—Murali Kulathumani

ABOUT THE AUTHOR

Murali Kulathumani, PMP, has over 22 years of IT management experience. He has successfully managed large project portfolios at leading Silicon Valley firms such as Facebook, Cisco, Symantec, and Kaiser Permanente. Murali has extensive knowledge of the full spectrum of portfolio capabilities and pioneered a simplified form of earned value management, called *mEVM*, which has been well received by industry practitioners and several organizations. In fact, it has become the standard at a billion-dollar business unit of a leading health care provider in the United States.

Mr. Kulathumani has a technical degree in Electrical Engineering from Bangalore University and an MBA from Purdue University. Murali earned the Project Management Professional (PMP)[®] designation from the Project Management Institute and is a Certified Scrum Master. He is the author of *Breakthrough Project Portfolio Management* (J. Ross Publishing, 2018) and is a consultant, trainer, and professional speaker. Murali has also taught courses as an adjunct professor at Purdue University.



SECTION I

The Foundational Basics

UNDERSTANDING THE NEW PROJECT AND PORTFOLIO LANDSCAPE

INTRODUCTION

Almost everything is a project these days and every kind of organization now does projects—not just IT. It is commonplace to see significant numbers of projects in most companies. To manage these projects, everyone now must wear the project manager hat. In this chapter, we'll look at a few basic things:

- What is a project?
- What can go wrong in a project?
- What is the role of a project portfolio?
- What does a good portfolio look like?
- The need for a portfolio manager.

WHAT IS A PROJECT?

Although the term *project* is extremely commonplace, everyone has a slightly different take on what it means. The official definition of a project is as follows:

KEY CONCEPT: A project is a temporary endeavor undertaken to create a unique product, service, or result.¹

And the official definition of project management is provided below:

KEY CONCEPT: Project management is the application of skills, tools, and techniques to project activities to meet project requirements.²

A project is simply a series of tasks that needs to be performed to get to a specific goal. There has been an explosion in the number of projects in practically every type of industry. Chapter 2 will feature an extensive tutorial on project management.

WHAT CAN GO WRONG IN A PROJECT?

The short answer: anything and everything. It is an accepted fact that most projects will run into trouble at some point. The fundamental reason for that lies in the nature of project management: every project is an experimental endeavor to “create a new product, service, or capability with finite resources and budget within a finite time while meeting concrete performance criteria.”³

With all these constraints and unknowns in effect, it should come as little surprise that projects get into trouble. Here is a partial list of what can go wrong in a project:

1. Incomplete capturing of scope: “We didn’t realize we had to do all that!”
2. Optimistic timeline: “No idea it would take so long!”
3. Budget constraints: “It cost way more than we thought, and still isn’t complete.”
4. PM (in)ability: “Jim’s a good guy, but he’s never seen these kinds of difficulties in a project before.”
5. Inadequate design: “IT never said it had to work with both internal and external systems.”
6. Organizational partner problems: “Finance never finalized the design and now they want to rethink the project!”
7. External problems: “The vendor said they could it in 3 months and now they’re 6 months late!”

KEY CONCEPT: There are many factors that can (and do) cause a project to fail.

We can all relate to some version of the above issues that land our projects in deep trouble. However, there is one common factor above all that determines whether a project succeeds or fails—*visibility*.

Visibility makes all the difference. Think about an important project that executive management is betting their jobs on. If key project indicators started showing the project going sideways—not meeting scope, schedule, and quality milestones—do you think the executive team would let that continue? Of course not, you can bet they would start taking strong action. Whatever the reason (internal politics, project manager problems, wrong timeline, etc.), the issue would get fixed in a hurry and the project would stand a higher chance of getting back on track.

So why doesn’t this happen on every project? Why do approximately 50% of projects underperform and/or fail? The answer is a lack of visibility.⁴ There simply aren’t enough hours in the day for management to do a deep dive on every project. And with the explosion in the number of projects, the available time for management to examine each project only decreases. Because of this lack of visibility, most projects are left alone until they begin to fail in a visible, public way. By that point, it may already be too late to save it (or the project manager’s job, in many cases).

KEY CONCEPT: Without visibility, there is a high chance that a project could fail.

WHAT IS THE ROLE OF A PROJECT PORTFOLIO

In common usage, the word portfolio is simply a generic term used for a grouping of things, and the term in project management refers to a grouping of projects. The purpose of a portfolio is to establish centralized management and oversight for many projects and/or programs. A portfolio also helps

establish standardized governance across the organization. The purpose of creating and managing a portfolio is to ensure the business is taking on the right projects that align with the company's values, strategies, and goals.⁵ But the main reason a portfolio exists is to provide visibility and control over the projects running in the organization.

KEY CONCEPT: A portfolio provides visibility and control over a group of projects.

There are many other advantages to having a portfolio:

- **Single window:** Quite simply, the biggest advantage of a portfolio is that it's a single window that shows all the projects. As organizations get bigger, there are so many active projects that seeing them in one place is a huge achievement.
- **Standardization:** Managing projects as a portfolio ensures that all projects follow similar standards. This could be as simple as always publishing the project manager's name in a standard place next to the project's title.
- **Intervention:** When projects are reported as part of a portfolio, it becomes easier to spot projects that are not doing well and intervene early.
- **Risk management:** By managing risk across a set of projects, management can adjust and control risk much better.
- **Strategy alignment:** Portfolios are ideal vehicles to identify which projects are aligned to a company's strategy and which are not. Effective project portfolio management requires a keen understanding of the relationships between strategy development and strategy implementation.
- **Forward looking:** A good portfolio can actually show where the company will be in its strategic journey ahead of time. If you can't see the future of your organization by looking at your portfolio, you have no chance of getting there.
- **Success rate enhancement:** According to the Project Management Institute, organizations with mature project portfolio management practices complete 35 percent more of their programs successfully.⁶ They fail less often and waste less money.

KEY CONCEPT: Portfolios are very useful structures for managing large numbers of projects.

KEY CONCEPT: Projects are likely to fail without being managed in a portfolio.

WHAT DOES A GOOD PORTFOLIO LOOK LIKE?

A well-structured portfolio does not have to be a complex and costly setup. However, there are a few basic characteristics that a good portfolio needs to have:

- **Comprehensive:** Stakeholders can rely on this portfolio to have "The official list of all projects" with nothing missing.
- **Updated:** The basic portfolio is expected to have up-to-date information. Even if the information is not updated every day, it sticks to a service level agreement of keeping things current (e.g., all projects in the portfolio are updated at least once a week).

- **Well described:** Each project in the portfolio has a basic set of attributes that are populated with meaningful data. This enables decision makers to make decisions based on correct, substantial data. Each project should at least convey the name of the project, the project description, and the project owner.
- **Well reported:** It should be quick and easy for various stakeholders to see their projects in the portfolio. For example, the head of the finance department should easily be able to access a list of finance projects in the overall portfolio. All organizational leaders should be able to see the subset of their projects in the portfolio without having to ask someone to create that list.
- **Regulated (controlled):** A good portfolio has some kind of gate control; projects don't just get entered into the portfolio without at least the portfolio manager becoming aware of it and approving the entry. This ensures the portfolio manager can confidently vouch for the portfolio and its projects.
- **Scalable:** As mentioned previously, there are more and more projects around us. Therefore, any good portfolio should be scalable to accommodate the increase in the volume of projects.
- **Flexible:** If there is one constant in organizations, it's change. Department names can change. Processes can change. A capable portfolio should be flexible enough to evolve with the changes without causing excessive change management burdens on portfolio users.

These characteristics together describe a robust portfolio, one that would make most executives and organizations happy.

KEY CONCEPT: Portfolios don't have to be complex or costly, but need to have some basic capabilities.

THE NEED FOR A PORTFOLIO MANAGER

In the previous section, we saw how portfolio management can help increase overall project success rates. However, portfolios don't just come into existence or manage themselves. The following are some common reasons why organizations find it challenging to start a portfolio and get it running:

- **People can't follow instructions:** It may sound like a cliché, but people simply cannot follow the most basic instructions. The management of a portfolio that solely relies on people to follow instructions usually fails.
- **Conventional project portfolio management (PPM) tools can be too hard to configure:** These tools are invariably hard to use and difficult to configure. Project managers and project team members avoid these wherever possible and try to work around them, defeating the concept of *one portfolio containing everything*.
- **Unconventional PPM tools can be too basic:** On the other end of the spectrum, many organizations try to operate a portfolio using Excel spreadsheets. Excel is easy to start with but hard to maintain because the end user can change columns, headers, or almost anything. Soon, the spreadsheets fall out of sync with different people creating new columns and attributes which don't match the rest of the team.
- **Hard to scale:** Some teams do start with Excel and manage to maintain a working portfolio. However, they run into trouble when the portfolio grows. For example, it may be possible to publish a portfolio report containing 50 projects with a weekly effort of 2 hours. When this

portfolio grows to 100+ projects, the effort involved will grow dramatically and prove to be unmanageable.

In short, it can be a challenging task to manage a portfolio which actually provides major benefits. That, in turn, creates a natural need for a portfolio manager to manage it. In the hands of a capable portfolio manager, a basic portfolio can be built that is neither complex nor costly. It is for those people that this book is written. If you are a project or program manager aspiring to move up the value chain, this book will teach you how to become a successful portfolio manager using one of the most versatile portfolio management platforms in the marketplace—Smartsheet. If you are already a portfolio manager, this book, with the help of advanced Smartsheet tools, will show you how to dramatically increase the capability of your portfolio.

REFERENCES

1. Project Management Institute (PMI). *Project Management Body of Knowledge (PMBOK® Guide)—Sixth Edition*. PMI, 2017.
2. Ibid.
3. Kulathumani, Murali. *Breakthrough Project Portfolio Management*. J. Ross Publishing, 2018.
4. IT project success rates finally improving—CIO.com (<https://www.cio.com/article/3174516/it-project-success-rates-finally-improving.html>).
5. Definition of portfolio management from: <https://www.wrike.com/project-management-guide/faq/what-is-portfolio-in-project-management>.
6. Delivering on Strategy—The Power of Portfolio Management (<https://www.pmi.org/-/media/pmi/documents/public/pdf/learning/thought-leadership/deliver-strategy-portfolio-management.pdf>).

A SIMPLE GUIDE TO PROJECT MANAGEMENT BASICS

INTRODUCTION

Everyone manages projects, whether as a certified project manager handling a portfolio or as a team player managing work processes as needed. In our world of doing more with less, finding methods and best practices to enhance your efficiency is essential.

That's why this project management guide is so valuable. It will help you learn the basics, discover useful strategies that you can implement today, get started on your next project with a range of pre-built templates, and gain the resources needed to manage all the work you do.

You don't have to use every one of these strategies in your project plans, but it's useful to have this toolset to choose from when planning a project.

PROJECT INITIATION

How to Manage a Project

Starting a new project is exciting, but you must do your due diligence ahead of time to ensure you start off on the right foot. What follows are the key details of the *initiation* phase, including how to create a project charter, define scope, identify objectives, and set expectations.

What Is the Project Initiation Phase?

The initiation phase encompasses all the steps you must take before a project is approved and any planning begins. The goal is to define your project at a high level and tie it into the business case you wish to solve.

KEY CONCEPT: Project initiation is the first activity before a project is approved and any planning begins.

You should be able to answer two questions: why are you doing this project and what is the business value you expect to deliver? Consider the feasibility of your project and all the stakeholders that may be affected or require involvement.

Create a Project Charter

Once the initiation phase is underway and you've been given the green light, you need to create your project charter, or project initiation document (PID). The project charter outlines the purpose and requirements of the project.

It includes details, like business needs, key participants and stakeholders, scope, objectives, and overall goals. The project charter provides a foundation for defining project decisions and ensuring they are in line with company goals.



Although typically around one to two pages in length, your charter can be longer depending on the size, type, and complexity of the project. Here are some items you should be sure to include in your project charter:

- Title
- Brief description
- Background
- Goals/Deliverables
- Scope
- Impact on other business systems and units
- Stakeholders
- Roles and responsibilities
- Milestones
- Budget
- Constraints, assumptions, dependencies, and risks
- Success measurements/ROI (return on investment)
- Project approval

Define Scope

Project scope is the identification of the project's goals, deliverables, budget, and schedule. While scope can change over time, it's essential that you define it early on to set expectations with all stakeholders.

Because a successful project is measured by its ability to complete the stated requirements on time and on budget, it's important for the requirements to be clearly defined at the onset. Completing this step early on not only sets expectations but also provides a framework for you to fill in the details in order to deliver your project on time.

Defining project scope means you identify the project's purpose and deliverables along with the resources you'll need to execute your plan. Some of the items you should determine are:

- Project objectives
- Deliverables
- Constraints
- Assumptions
- Exclusions
- Schedule
- Budget

Additionally, the Project Management Institute (PMI) outlines the following six phases of defining scope:

1. **Plan Scope:** Decide how scope will be defined, monitored, and controlled.
2. **Control Scope:** An ongoing phase where you manage stakeholder expectations.
3. **Collect Requirements:** In this phase, you define project requirements needed to carry out your project.
4. **Define Scope:** Once you have requirements you can finally define scope including what is out of scope.
5. **Create Work Breakdown Structures (WBS):** This common project management tool breaks the broad project scope into a hierarchy of tasks.
6. **Validate Scope:** In this phase, internal and external stakeholders formally sign off on the proposed project scope and deliverables.

Identify Project Objectives

Like the scope, having set goals and objectives for your project can help you avoid risks and steer a course to project success. Having clear objectives will help your team stay on track because they know precisely what they're working toward.

An *objective* is specific and measurable and must meet time, budget, and quality constraints. A project may have one objective, many parallel objectives, or several objectives that must be achieved sequentially. Although it can be difficult to write clear objectives, consider the targeted key performance indicators (KPIs) that are specific to the business case you are trying to solve. One way to create clear, concise objectives is using the SMART method:

- **Specific:** Define objectives clearly and in detail, leaving no room for interpretation.
- **Measurable:** Identify the KPI you'll use to determine if you met your objectives.
- **Attainable:** Pick objectives that are reasonable for the team to successfully complete.
- **Realistic:** Set objectives that the project team believes can be achieved.
- **Time-bound:** Set a date or specific period that you plan to accomplish the objectives.

Invite the Right Stakeholders

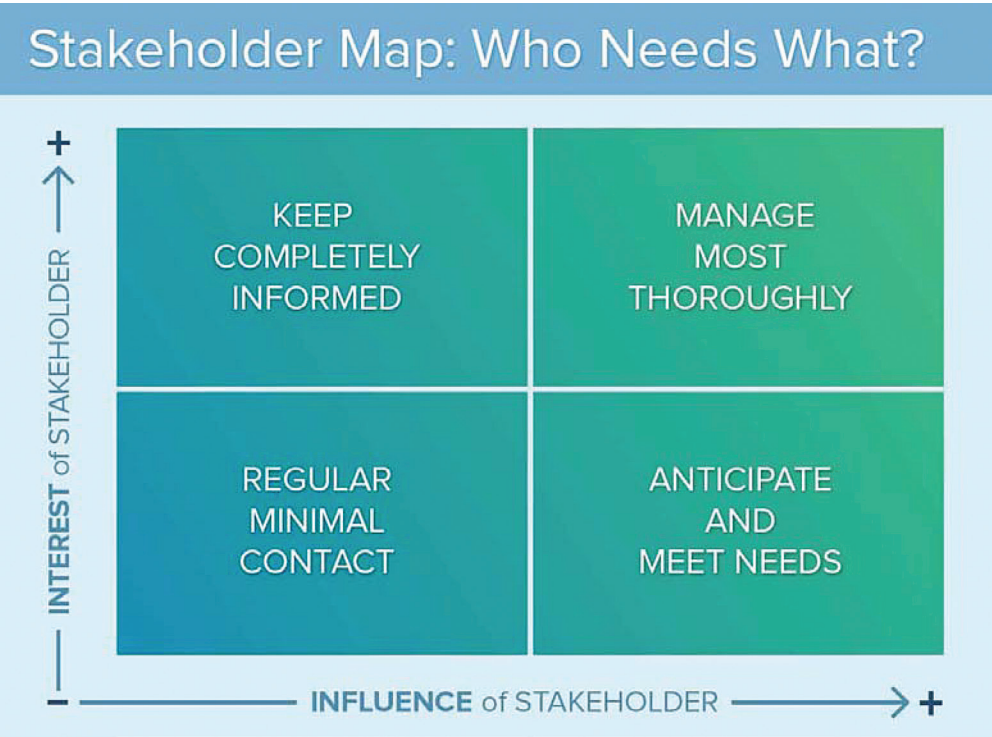
Successful project managers ensure that they have the right stakeholders involved early on in the initiative. Many project managers often overlook less obvious—yet critical—stakeholders, so it's important

to consider everyone that may be impacted by or have interest in the project plan, deliverables, and outcome.

The other thing to remember is that stakeholders can be internal *and* external. To maintain transparency throughout the project, guarantee that you have the right tools and processes in place to communicate effectively with all stakeholders. To determine the level of involvement and communication that each stakeholder may need, consider the following five important factors:

- 1. Who are the stakeholders who have the most influence on your project?
- 2. Which stakeholders will be most affected by your project?
- 3. How should you handle important people who aren't considered stakeholders?
- 4. Who controls the resources?
- 5. What are the top motivations and interests of your stakeholders?

You may even consider mapping the various stakeholders on a stakeholder map, based on level of influence and interest, to determine who needs what and when.



Set Expectations

Setting clear expectations of project objectives and goals, deliverables, timelines, resources required, and budgets is key to the success of your project. Of course, it's virtually impossible to anticipate every issue that may occur and throw project timelines for a loop. However, putting the effort in up front to consider and communicate all of the potential issues, and then being transparent as things change,

will make a world of difference in keeping all parties on the same page. Here are some key factors to consider when setting expectations:

- Ensure the project charter is complete and well thought-out.
- Plan for risks and potential hiccups.
- Estimate realistic timelines and budgets but allow for some padding.
- Share project plans with all internal and external stakeholders.
- Set milestones throughout the project timeline to show incremental progress.
- Provide regular updates and real-time status reports.
- Be honest if things go wrong.

THE PROJECT PLANNING PHASE

The project planning phase is key to setting the roadmap for your team to follow to reach your intended project outcome. Nail this phase and your likelihood of delivering a successful project increases exponentially. This section will detail how to create your project plan broken out into phases and milestones to help estimate specific project costs, assess required and available resources, and determine potential risks and ways to mitigate them.

KEY CONCEPT: Project planning is the act of creating the roadmap of activities needed to successfully execute the project.

Create a Project Task List Organized by Phases

With all the factors involved in a project, it's easy to overlook a detail that could potentially lead to missed deadlines or budget overruns. Any project or plan can be made more manageable by breaking it down into individual tasks. One way to do this is by creating a WBS (discussed later in this chapter), which is a visual representation that shows the scope of a project broken into manageable sections.

From there, your task list can be displayed in a variety of ways. Whether on a whiteboard or in an online task management tool, finding what works for you and your team and the project at hand is key to ensuring nothing is missed. Some project managers and teams find it helpful to use a task list template to quickly get started with their lists. Once you have your task list created, start grouping tasks together into phases and then set milestones for each phase. This will help you determine which tasks must happen when and which tasks are dependent on others.

Create Your Timeline

Now that you have your task list set, you're ready to create your timeline. A timeline is helpful to provide a visual representation of all the tasks within your project and how they are connected or dependent on each other. At this point, you will estimate and set start and end dates for each of the tasks within your list. Determining duration of individual tasks will help give you an idea of the finish date of your project. Be sure when estimating dates that you provide a small buffer to account for any issues that may arise.

Although there are many ways to create a project timeline, one that successful project managers often use is a Gantt chart (discussed later in this chapter). Gantt charts are visual timelines that display tasks as bars and enable you to track progress, map your critical path, show dependencies, and make updates by changing task duration.

Consider Available Resources

With your timeline ready to go, you need to consider which resources are available to keep your project on time and on budget. Making the best use of the resources you have is what will help get your project to the finish line. Resource management is designed to allocate human and tangible assets—finances, materials, and equipment—efficiently and effectively. Yet, it is one of the most difficult processes to control, maintain, and achieve success.

It is also important to assign roles and responsibilities to your team members at this time. This sets expectations up front, ensuring that each team member knows what they are responsible for. Within your project plan, define who is going to do what, by when, and then stick to it.

Estimate Project Costs

No matter what type of project you are managing, successful projects require accurate cost estimates. Cost estimations forecast both the budget and the resources needed to execute your project. In turn, project objectives are achieved within the approved timeline and budget. A *cost estimate* is the sum of all costs required to successfully complete a project through its duration. Although there are many ways to categorize the types of cost items, the most simple way is in two categories: direct costs and indirect costs.

- **Direct costs:** Expenses billed to a single project, such as project team wages and costs to produce physical products.
- **Indirect costs:** Expenses that are not associated with a single project, but rather are used by multiple projects simultaneously.

Beyond direct and indirect costs, project expenses can also fall into any of the following categories:

- Labor
- Materials
- Equipment
- Services
- Software
- Hardware
- Facilities
- Contingency costs

Assess Potential Risks

Risks are an inevitable part of any project. That's why it's critical to consider and assess potential risk before jumping into the execution phase. First, it's helpful to think through and list if/then scenarios. For example, "If we go over budget in this first phase, then X will happen or need to happen." In this case, "X" could be an adjustment made to scope, budget, timeline, etc. Next, create a risk assessment

matrix, which is used to help evaluate and prioritize risks based on the severity of their impact and their likelihood to occur. A risk assessment matrix (see below) is a chart that shows the severity of an event occurring on one axis against the probability of it occurring on the other.

RISK ASSESSMENT MATRIX

RISK RATING KEY		LOW	MEDIUM	HIGH	EXTREME
		0—ACCEPTABLE OK TO PROCEED	1—ALARP (as low as reasonably practicable) TAKE MITIGATION EFFORTS	2—GENERALLY UNACCEPTABLE SEEK SUPPORT	3—INTOLERABLE PLACE EVENT ON HOLD
		SEVERITY			
		ACCEPTABLE LITTLE TO NO EFFECT ON EVENT	TOLERABLE EFFECTS ARE FELT, BUT NOT CRITICAL TO OUTCOME	UNDESIRABLE SERIOUS IMPACT TO THE COURSE OF ACTION AND OUTCOME	INTOLERABLE COULD RESULT IN DISASTER
LIKELIHOOD	IMPROBABLE RISK IS UNLIKELY TO OCCUR	LOW – 1 –	MEDIUM – 4 –	MEDIUM – 6 –	HIGH – 10 –
	POSSIBLE RISK WILL LIKELY OCCUR	LOW – 2 –	MEDIUM – 5 –	HIGH – 8 –	EXTREME – 11 –
	PROBABLE RISK WILL OCCUR	MEDIUM – 3 –	HIGH – 7 –	HIGH – 9 –	EXTREME – 12 –

By assessing existing and potential risks, you can estimate their impact, adjust your project time-line accordingly, and then plan for responding to the risks if they occur.

PROJECT EXECUTION

The project *execution* phase is where deliverables are developed and completed, and it often feels like the meat of the project since a lot is happening during this time. This is where all the work you’ve put into planning the project will be executed. This section will discuss how to direct and manage

the execution of the project plan, communicate with stakeholders on progress, and orchestrate status meetings and reports.

KEY CONCEPT: Project execution is the part of the project where the work happens and deliverables are completed.

Types of Project Meetings

It's more essential than ever to maintain open communication during the project execution phase to ensure that everything runs smoothly. Depending on your project, there are different types of meetings that may be helpful throughout the duration of your project.

Project kick-off meeting: The project execution phase generally starts with a project kick-off meeting. All stakeholders and team members should be invited to talk through the project plan and discuss any foreseeable issues or concerns.

Stand-up or Scrum meeting: Also known as a daily huddle, morning roll call, or daily stand-up, these meetings bring project team members together to talk about what they accomplished the previous day, what they plan to do that day, and what obstacles they face. The focus here is on collaboration and accountability between team members.

Status or progress meeting: The project status or progress meeting generally happens on a weekly or monthly cadence throughout the life of the project. This meeting brings together all stakeholders to discuss what's been accomplished, milestones achieved, what's coming down the line, and any issues that need to be addressed.

For both the project kick-off and status meetings, project managers should send out an agenda prior to the meeting and have someone in attendance to document meeting minutes. This will help attendees plan and prepare for the meeting, while also allowing team members to look back on the minutes as a system of record for items discussed.

Manage Stakeholder Communication Plan

Creating strong lines of communication with all stakeholders throughout a project is key to ensuring it runs smoothly and maintains stakeholder confidence. Earlier in the initiation phase section of this chapter, a list of factors to consider when creating your stakeholder management and communication plan was provided. Now, in the execution phase, it's time to implement your plan. Here are best practices for communicating with stakeholders throughout your project:

1. **Be prepared** and stay two steps ahead in planning on how and when to communicate to your important stakeholders.
2. **Anticipate the needs of stakeholders** and respond to them before they become an issue.
3. **Ensure that all stakeholders have access** to the whole project plan so they can check in on progress without needing to bug you.
4. **Create a roll-up view** of high-level progress and KPIs so that stakeholders can view specific indicators without having to get into the details of project tasks.

PROJECT MONITOR AND CONTROL

While the project is underway, the project manager must have a constant pulse on how progress is tracking and have a real-time way to capture, track, manage, and report on their project status. This includes knowing whether tasks and milestones are being completed on time, if the budget is in line with actual costs, and more.

KEY CONCEPT: Project monitor and control is the activity of watching over the project's progress and shoring it up as needed.

Identify and Mitigate Risk Early

It's inevitable that projects face issues. These issues can include budget risks, timeline risks, incidents, emergencies, opportunities, and more. Project managers who complete their risk assessment early on will have a better chance of avoiding issues, but they still must have a real-time view into their work to identify and mitigate unforeseen risks before they impact the overall project timeline and budget.

Since no project is without risk, having the right risk management tools and processes in place can help you identify, monitor, and resolve risks far more efficiently than relying on your own ability to be in the right place at the right time. Some benefits of using a risk management software include:

1. **Greater transparency:** Project managers are able to tackle and prioritize project risks with the best risk/reward outcomes.
2. **Reduced compliance and legal costs:** Integrating corporate governance and risk management compliance processes means lower costs for all.
3. **Better internal controls:** Project managers that closely monitor and manage their risk show deeper ownership of their projects than those who don't monitor as closely.
4. **Strengthened project operations:** The more knowledge a project manager has, the better they can be at predicting risk for future projects.

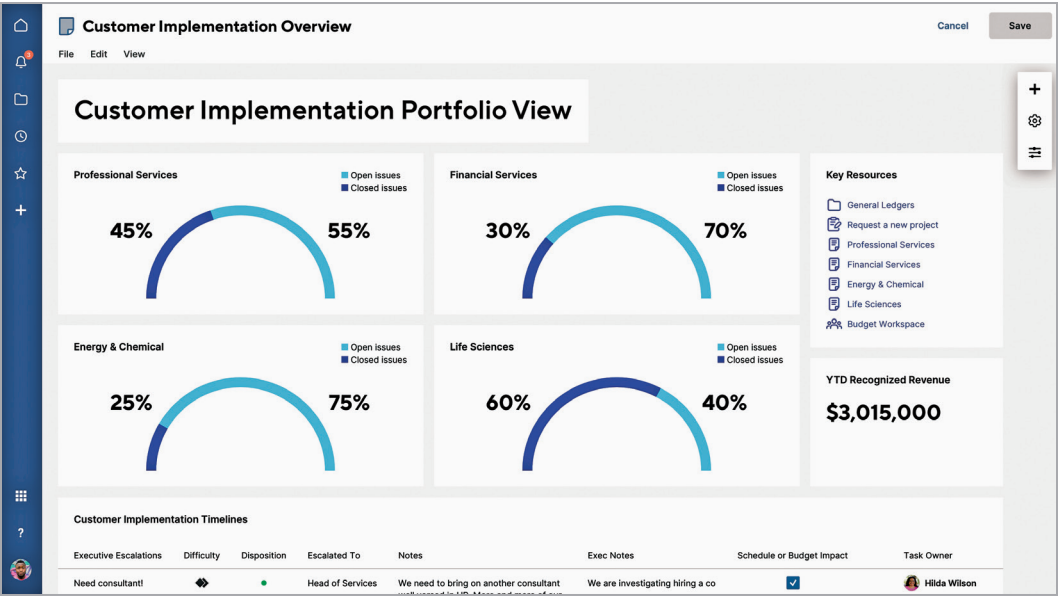
- 5. **Increased stakeholder trust:** Showing that you have the right tools in place to stay ahead of risk puts stakeholders' minds at ease.

Track Key Performance Indicators

Project managers must use KPIs to determine whether the project is on track. Here are some of the top KPIs to measure project performance:

- 1. **Project objectives:** A project that is on schedule and on budget is a good indicator to determine if the project will meet its original objectives.
- 2. **Quality deliverables:** Measure whether task deliverables are being met and if they meet specific standards set within the project requirements.
- 3. **Effort and cost tracking:** Project managers must track effort and costs associated with resources to see if the budget is on track.
- 4. **Project performance:** This tracks changes that occur in the project including amount and type of issues that arise and how they are addressed.

TIP: Creating a real-time project-specific dashboard (like the one below) to track high-level KPIs and then sharing it with all stakeholders will help reduce the time spent answering status questions.



Manage Documentation

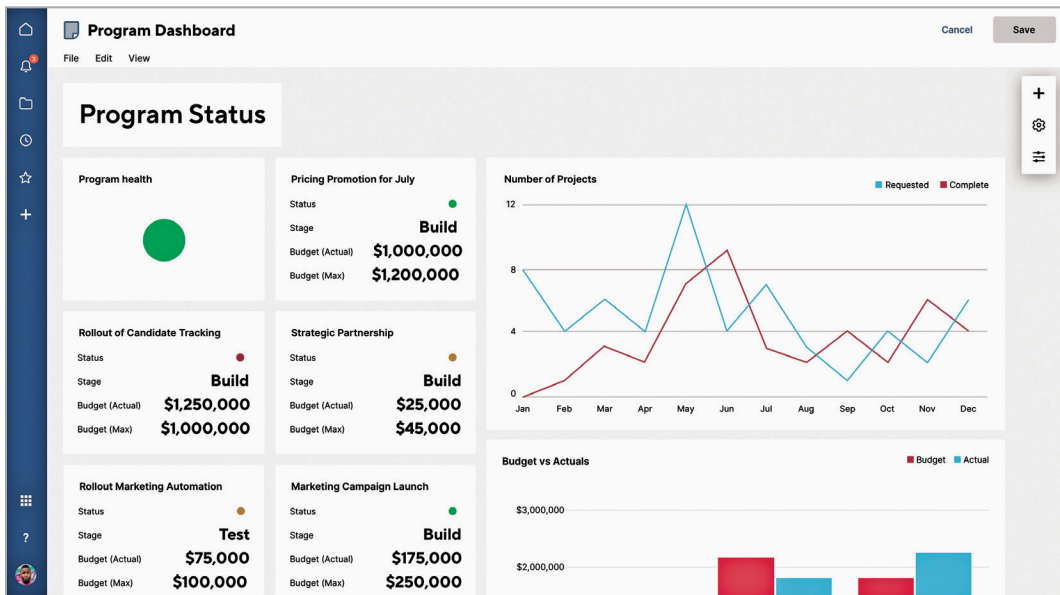
Documentation is an important part of any project. Whether you prefer waterfall over agile, kanban over Scrum, keeping records of what happened and changes that occurred throughout the project's life cycle will add to overall success. Especially when there are clients or external stakeholders involved, having organized documentation can be the deciding factor when disagreements or issues occur. Additionally, having a well-documented project provides historical insights that can be used on future projects.

The key here is organizing your documentation so that you aren't searching through folders, email, messenger apps, project management tools, etc., to find the documentation you need. Create a single location to manage all project documentation so that you can quickly access the information you need and keep details in context.

Know the Status of Your Project

Part of the project manager's role is to keep key stakeholders up-to-date on status throughout the duration of the project. Not knowing the status of your project when asked can send red flags that you aren't tracking your project closely and may reduce stakeholder trust in both you and the project. One way to guarantee that you know the status of your project at any moment is with a project status report. A project status report should capture all the business-critical activities, developments, and risks associated with a project. Essentially, a project status report is a snapshot of where a project stands and how various aspects of the project are doing. Additionally, status reports help to:

- Create and enable buy-in from stakeholders
- Provide transparency into progress toward milestones
- Identify issues and risks, so course correction can happen quickly
- Pinpoint work done by individuals, teams, or departments, so you can allocate resources as needed
- Provide a high-level gauge of project health
- Create a method to keep project managers and teams accountable
- Prevent scope creep



Control Scope Creep

Changes happen throughout a project and are to be expected. But, because the scope is defined at the very beginning of the project during the initiation phase, it's easy for stakeholders to try to add to that scope months down the road when the project is under way. It is essential that the project manager add requests to the requirements and prioritize based on value. If you say "yes" to every change request

without evaluating the value and the impact on the timeline and budget, you will have a never-ending project that becomes a money pit.

PROJECT CLOSING

The project closeout phase represents the completed project. Final deliverables are handed over at this time, vendors who were hired for project-specific work are terminated, and valuable team members are recognized.

KEY CONCEPT: Project closeout is the finishing phase of the project, where activities are brought to a controlled finish.

Project Closeout and Retrospective

Once the project is finished, the project manager still has a few tasks to complete. Many project managers hold a meeting—often called the postmortem or project retrospective—to evaluate what went well in a project and identify any project failures. Project managers need to create a project punch list, including tasks that didn't get accomplished during the project, and work with stakeholders to resolve them. Additionally, project managers need to complete a final project budget and project report and collect all project documents to store them in a single location for future reference.

Conducting a project retrospective is important to consider how well the project was initiated, planned, executed, and controlled. This is not necessarily to point out failures and successes, but rather to provide greater value through lessons learned. Documenting lessons learned allows an organization to record, maintain, and reuse insights on future projects.

TIP: A cloud-based work execution platform makes it easy to collect, manage, and save all project closeout documentation in a single location throughout the project life cycle.

PROJECT MANAGEMENT TOOLS

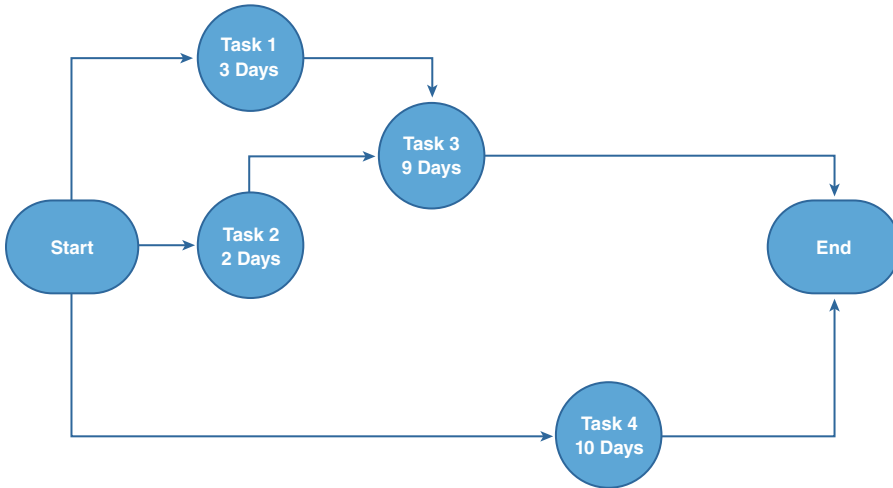
As a project manager, you must find the right processes and tools to help you and your team deliver projects within the specified requirements. With the right tools in place, you can focus more on managing the project and delivering quality end products, and less on managing the process. The following section discusses some top project management tools and techniques that successful project managers use to plan, track, and manage their projects.

Program Evaluation and Review Technique (PERT)

With any project, time is important. But as complexity increases, sticking to timelines is even more critical. This makes it vital for project managers to be able to accurately estimate how long a task will take, and if there are any dependencies to completing each task. To accomplish this, PERT was developed.

PERT is often used with one-off projects where time is more important than cost. PERT work is represented in a chart or diagram that provides a visual into all scheduled tasks in a project sequence.

Project managers can then analyze how much time it will take to accomplish each task, and then forecast the overall project timeline.



Here are some of the ways project managers use PERT:

- Estimate a completion date
- Gauge risk when there is a drop-dead date
- Find where you have flexibility in the schedule
- Improve scheduling of tasks

Kanban Board

A kanban board is most commonly used to visualize and track work being done (or needing to be done). It acts as the information hub for all task status and progress, since you can view all items on a single board. Tasks move across the board from left to right through the different stages of a workflow. This easy-to-set-up tool can also be overlaid with current processes and workflows. When setting up your kanban board, you will have (at the very least) the following three columns: *To-Do*, *Doing*, and *Done*. From there you can add any additional columns that align with stages of your project or workflow.

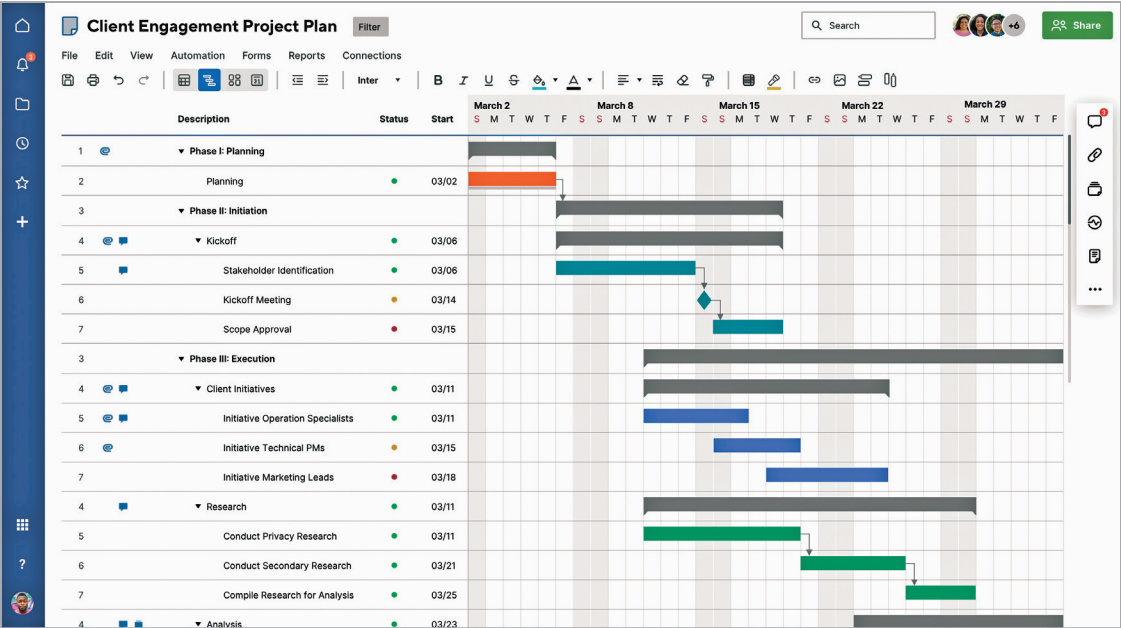
When deciding whether to use a physical board (post-it notes on a whiteboard) or an online kanban board, consider the following factors:

- Do you need real-time access to status?
- Will you have multiple team members working on the same project?
- Are your team members all located in the same physical space?
- Will you need to share your kanban board with external stakeholders?

Depending on your answers to the previous questions, you may want to consider an online kanban board that will enable you to share your board with all stakeholders no matter where they are located, and collaborate on project tasks in real time.

Gantt Chart

A Gantt chart (see next page) is a visual timeline that makes it easy to see how a project is progressing. Project tasks are organized on a horizontal bar chart that shows task durations, dependencies, and milestones. With a Gantt chart, you can plan out all of your tasks, making complex projects manageable.



Use a Gantt chart to determine the overall project timeline and to assign roles and responsibilities to your team to ensure no task is missed. Some of the benefits of using a Gantt chart allows you to:

- Determine all necessary tasks.
- Know when tasks need to be completed.
- Discover the critical path (discussed next).
- Keep your team informed on progress.
- Simplify complex tasks.

Although there are many tools out there that can help you create a Gantt chart, make sure you consider the following factors before selecting one:

- Will it integrate with your daily workflow?
- Is it easy to create and update?
- Does it provide real-time updates when changes are made to the schedule?
- Is the Gantt view customizable?
- Can you view and update your chart on different devices (e.g., desktop versus mobile)?
- Is it easy to share your Gantt chart with your team?

The answers to the above questions will help determine the right platform to use for all of your Gantt chart and project needs.

Critical Path

Depending on the size and type of your project, it may require you to manage hundreds of tasks and dozens of dependencies, which can make it tricky to identify the most important tasks—the ones that,

if missed, could send your project over schedule. That's why it's essential to have the right tools in place to identify the critical path for your project.

The critical path helps to identify the important tasks to keep on track throughout the duration of your project. Here are three benefits of utilizing a critical path:

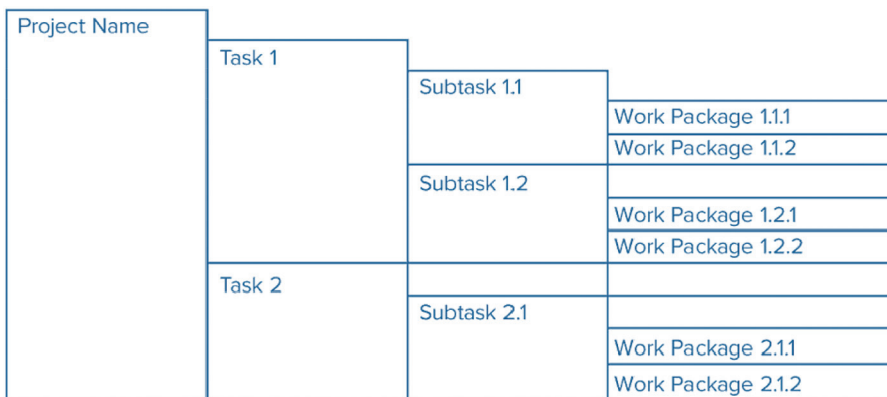
1. **Identifies the most important tasks:** It clearly identifies the tasks that you will have to closely manage.
2. **Helps reduce timelines:** When the critical path is displayed on your project timeline, it provides a new level of visibility to determine where you can make adjustments.
3. **Compares planned with actual:** Using the baseline schedule developed from the initial critical path analysis can help track schedule progress.

Originally created as a hand-drawn diagram, you can now automatically identify the critical path within most online project management software. Be sure that your software allows you to overlay your critical path on your project timeline Gantt chart, and is easy to turn on or turn off.

Work Breakdown Structure

A WBS is a visual tool for defining and tracking a project deliverable and all the small components needed to create it. As defined by the PMI Project Management Body of Knowledge, a WBS is a “hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables.”

To create your WBS, start with the desired outcome, which you then break down into the smaller deliverables or tasks. The deliverable can be a physical object, a service, or an activity. A visual representation of a WBS is below:



Often an overlooked tool within project management, here are some of the benefits of creating a WBS:

- Provides a visual representation of all parts of the project.
- Offers an ongoing view for stakeholders into how the project is progressing.
- Defines specific and measurable outcomes.
- Breaks the work into manageable chunks.
- Provides a way to make successful experiences repeatable.
- Sets a foundation for estimating costs and allocating team members and other resources.

Project Roadmap

The project roadmap is a key visual tool (see below) to quickly convey the overall project purpose and plan. It is a high-level, easy-to-understand overview of the important pieces of your project. Share this helpful resource with stakeholders to provide a quick snapshot of what the project aims to accomplish, important milestones, key deliverables, dependencies, and possible risk. This key communication tool should include the following details:

- **High-level project overview:** Be succinct and concise when documenting your goals and objectives. Aim for a few sentences at most.
- **Schedule overview:** Provide a high-level view of the timeline. Don't worry about including too many details: simply link to the project plan from your roadmap.
- **Key milestones:** Highlight a few important dates. This quick view into milestones will help set expectations with less-involved stakeholders.
- **Dependencies:** Show important deliverables and how they contribute to project success.
- **Key contacts:** Identify the go-to people on your project team, what their focus is, and how to get a hold of them.

Project Name	Goals <i>Why is this work important?</i>	Objectives <i>What are you planning to accomplish?</i>	Key Deliverables <i>What are the major outputs of this work?</i>
Schedule Overview + Dependencies <i>Show workstreams here, too.</i>			
Key Milestone 1 <i>IMPORTANT DATE!</i>	Key Milestone 2 <i>IMPORTANT DATE!</i>	Key Milestone 3 <i>IMPORTANT DATE!</i>	
Key Project Contacts			

Additionally, to be effective, your project roadmap should be updated frequently—ideally in real time. This ensures that stakeholders are looking at the most up-to-date information and will reduce the number of requests you receive for real-time updates.