

# Which project management methodologies should you use?

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## What is a project management methodology?

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A project management methodology is a set of principles and practices that guide you in organizing your projects to ensure their optimum performance.

Project management is so important to organizations and teams, but in order for it to be really effective, you need to make sure you're correctly mapping your project management methodology to your team type, project, organization, and goals.

## Why are there so many different project management methodologies?

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No two projects are exactly the same (even when you're using handy features like project templates to replicate your past successes).

And when you factor in the different goals, KPIs and production methods of not only different types of teams but also different types of *industries*, it makes sense that there's no one-size-fits-all approach to managing a project.

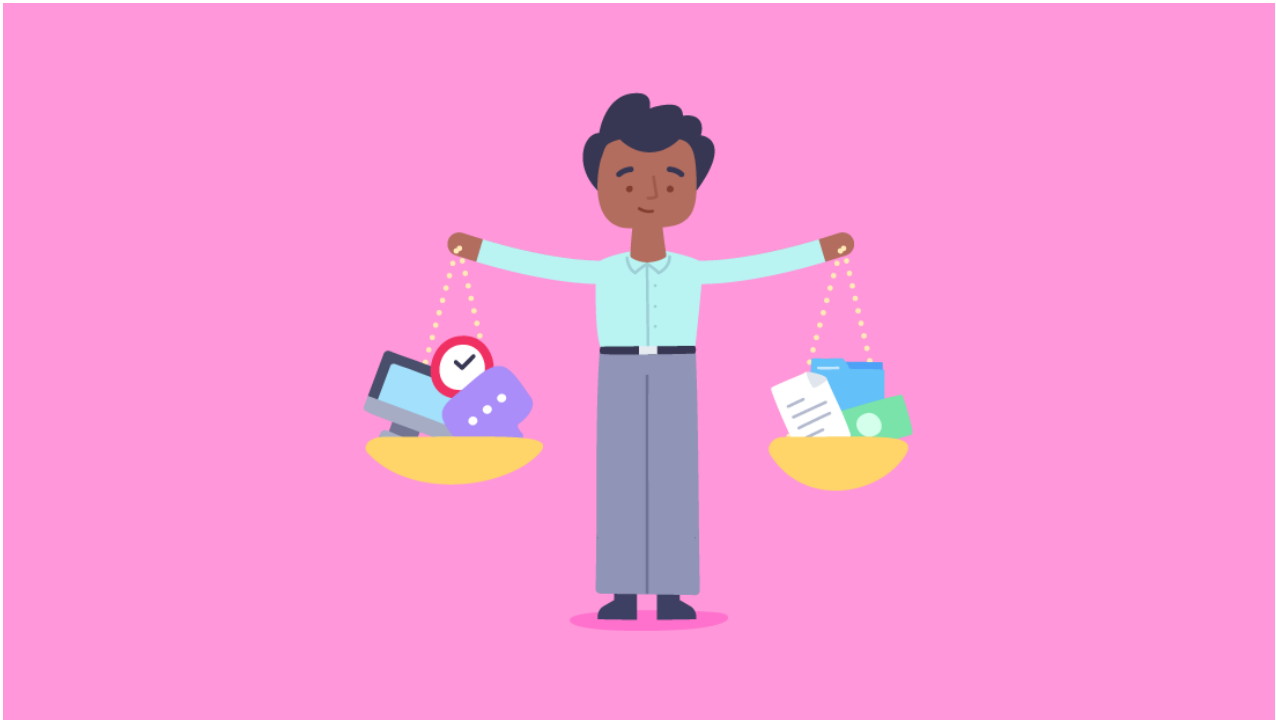
What works best for one type of team could be an absolute nightmare for another.

For example, many software developers started to find that traditional project management methods were hindering — rather than helping — their workflows and negatively affecting their performance and results.

As a result, software teams began to develop a new type of project management methodology, which was designed to address their particular concerns.

Before long, other teams and industries started to adapt those new project management methods to fit *their* unique needs and concerns. And on and on, with different project management methodologies being repurposed and adapted for different industries and tweaked to fit specific use cases.

What we're left with is a ton of different project management methodologies to choose from. So how do you know which project management method (or methods, plural) is right for you and your team?



## How do you choose the right project management methodology?

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There are lots of factors that will impact which project management methodology is right for your project, team, and organization. Here's a quick breakdown of some of the key considerations that can help you decide:

- **Cost and budget:** On a scale of \$ to \$\$\$, what sort of budget are you working with? Is there room for that to change if necessary, or is it essential that it stays within these predetermined limits?
- **Team size:** How many people are involved? How many stakeholders? Is your team relatively compact and self-organizing, or more sprawling, with a need for more rigorous delegation?
- **Ability to take risks:** Is this a huge project with a big impact that needs to be carefully managed in order to deliver Very Serious Results? Or is it a smaller-scale project with a bit more room to play around?
- **Flexibility:** Is there room for the scope of the project to change during the process? What about the finished product?
- **Timeline:** How much time is allotted to deliver on the brief? Do you need a quick turnaround, or is it more important that you have a beautifully finished result, no matter how long it takes?
- **Client/stakeholder collaboration:** How involved does the client/stakeholder need — or want — to be in the process? How involved do you need — or want — them to be?

## The project management methodologies list

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We've compiled this list of project management methodologies to help you get to grips with the basics.

While it's not completely comprehensive, our aim is to provide you with an overview of some of the different methodologies out there, so you can see what's out there and figure out which one might be a good fit for your particular projects.

(We've also added a quick list at the end of this post with a breakdown of which project management methods are often used in which industries, if you want to cut right to the chase.)

Ready? Okay! Let's dive right in.



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## 1. Waterfall methodology

The Waterfall method is a traditional approach to project management. In it, tasks and phases are completed in a linear, sequential manner, and each stage of the project must be completed before the next begins.

The stages of Waterfall project management generally follow this sequence:

- ***Requirements***
- ***Analysis***
- ***Design***
- ***Construction***
- ***Testing***

- ***Deployment & maintenance***

Progress flows in one direction, like a real waterfall.

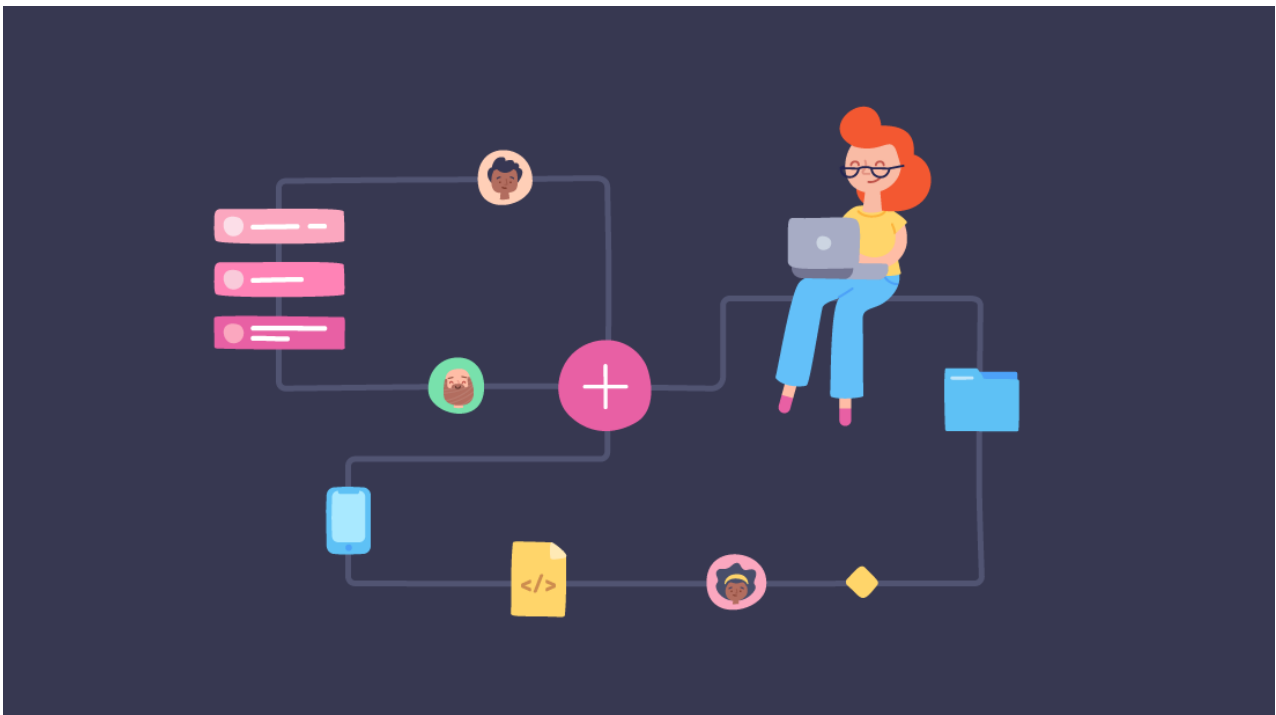
Also like a real waterfall, though, this can quickly get dangerous. Since everything is mapped out at the beginning, there's a lot of room for error if expectations don't match up with reality. And there's no going back to a previous stage once it's completed (just imagine trying to swim against a waterfall — not fun).

**Try this project management methodology if:**

- The end goal of your project is clearly defined — and isn't going to change.
- The stakeholders know exactly what they want (and it isn't going to change).
- Your project is consistent and predictable (i.e. isn't going to change).
- You're working in a regulated industry that needs extensive project tracking or documentation.
- You might need to bring new people into the project midway through and get them up to speed quickly.

**This project management methodology might not be for you if:**

- Your project is liable to change.
- You don't have a full picture of all the requirements before you start.
- You need to do continuous testing or adapt to feedback during the process.



## 2. Agile methodology

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The agile project management methodology came from a growing dissatisfaction with the linear approach of traditional project management methodologies.

Frustrated with the limitations of project management methods that couldn't adapt with a project as it progressed, the focus began to shift to more iterative models that allowed teams to revise their project as needed during the process instead of having to wait until the end to review and amend.

The concept of agile project management has gone on to spark several specific sub-frameworks and methodologies, such as scrum, kanban, and lean. But what do they all have in common? The key principles of agile project management methodologies are:

- It's collaborative.
- It's quick.
- It's open to data-driven change.

As such, agile project management methodologies usually involve short phases of work with frequent testing, reassessment, and adaptation throughout.

In many agile methods, all of the work to be done is added to a backlog that teams can work through in each phase or cycle, with project managers or product owners prioritizing the backlog so teams know what to focus on first.

### **Try this project management methodology if:**

- Your project is liable to change.
- You're not sure at the outset what the solution will look like.
- You need to work quickly, and it's more important that you see speedy progress than perfect results.
- Your stakeholders or client needs (or wants) to be involved at every stage.

### **This project management methodology isn't for you if:**

- You need a lot of documentation (for example, if you'll be bringing new people on-board during the project).
- You need a predictable deliverable, and you need to be crystal clear about what that looks like from the outset.
- Your project can't afford to change during its course.
- You don't have self-motivated people.
- You have strict deadlines or deliverables that you need to stay on top of.



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## The Best Agile Project Management Tools To Use In 2021 & Beyond

It does little good to adopt the Agile method while still using a software that bogs down or complicates your projects. The best agile project management software should go hand-in-hand with the Agile method and make these adaptations smooth, fast, and easy.

[Learn more](#)

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### 3. Scrum methodology

Scrum is a form of agile project management. You can think of it more like a framework than as a project management methodology in itself.

With Scrum, work is split into short cycles known as “sprints”, which usually last about 1-2 weeks. Work is taken from the backlog (see: Agile project management, above) for each sprint iteration,

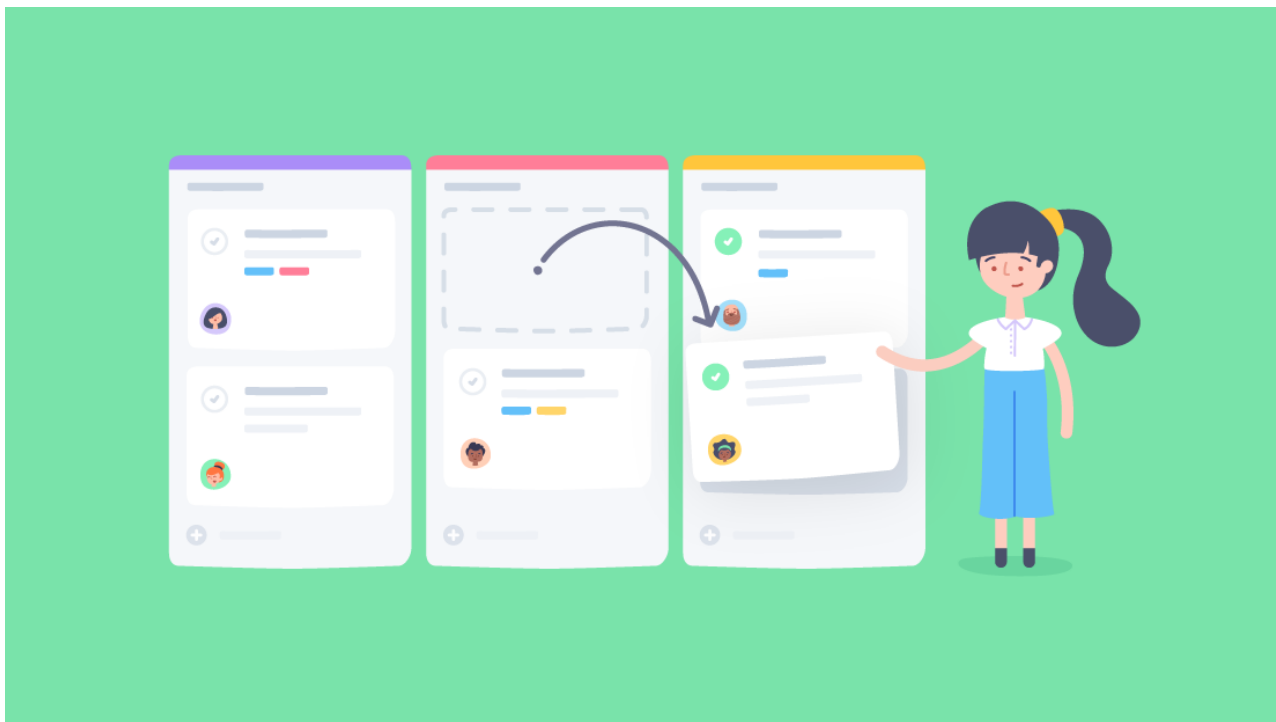
Small teams are led by a Scrum Master (who is not the same as the project manager) for the duration of the sprint, after which they review their performance in a “sprint retrospective” and make any necessary changes before starting the next sprint.

#### **Try this project management methodology if:**

You’re striving for continuous improvement.

#### **This project management methodology might not be for you if:**

You don’t have the full commitment from the team needed to make it work.



## 4. Kanban methodology

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Kanban is another method within agile project management.

Originating from the manufacturing industry, the term “kanban” has evolved to denote a framework in which tasks are visually represented as they progress through columns on a kanban board. Work is pulled from the predefined backlog on a continuous basis as the team has capacity and moved through the columns on the board, with each column representing a stage of the process.

Kanban is great for giving everyone an immediate visual overview of where each piece of work stands at any given time. (You can use kanban boards for everything from your content marketing process to hiring and recruitment.)

It also helps you to see where bottlenecks are at risk of forming — if you notice one of your columns getting clogged, for example, you’ll know that that’s a stage of your process that needs to be examined.

When used as part of an agile project management methodology, it’s also common to implement work in progress (WIP) limits. Work in progress limits restrict the amount of tasks in play at any given time, meaning that you can only have a certain number of tasks in each column (or on the board overall).

This prevents your team from spreading their energy across too many tasks, and instead ensures that they can work more productively by focusing on each task individually.

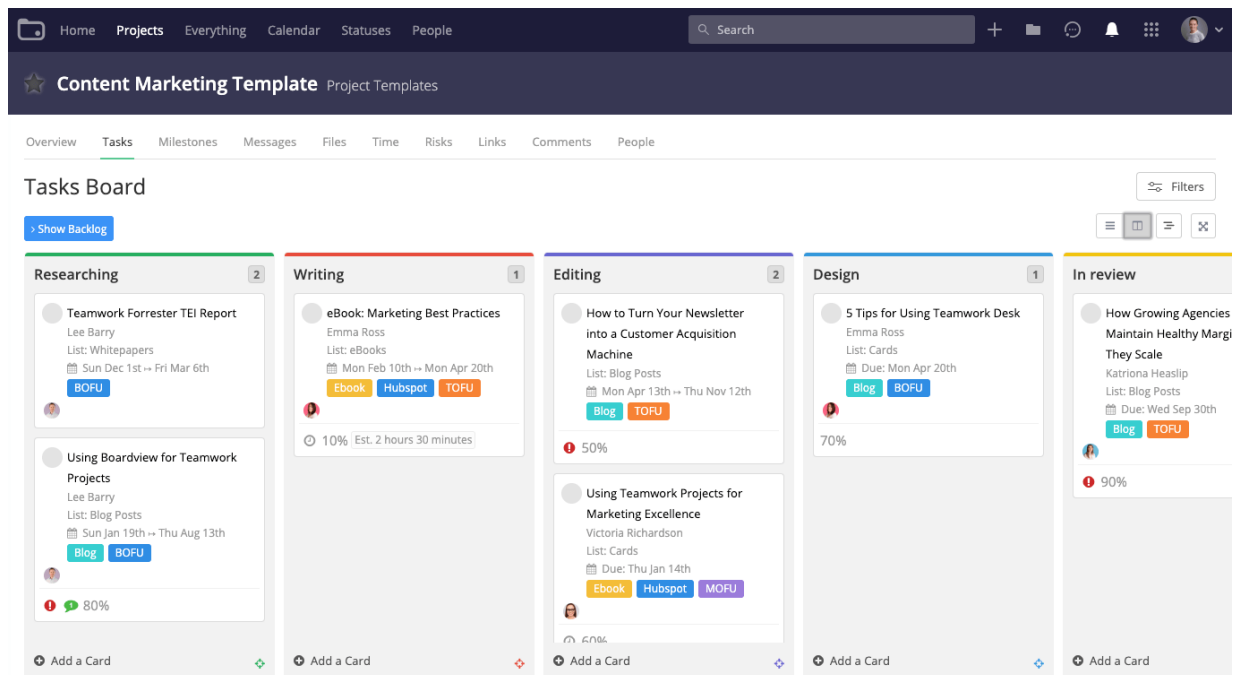
### **Try this project management methodology if:**

- You’re looking for a visual representation of your project’s progress.
- You want at-a-glance status updates.

- You want to encourage using WIP limits so your team can stay focused.
- You prefer to work on a continuous “pull” basis.

### **This project management methodology might not be for you if:**

- Your process is super complex or has tons of stages.
- You want a push system instead of a pull system.



### **Kanban board view**

Use kanban boards in Teamwork to map out your workflow, quickly see the status of tasks, and automate your processes.

[Learn more](#)

## **5. Scrumban methodology**

It’s the answer to the age-old question: what if scrum and kanban had a baby?

Scrumban is a hybrid agile project management methodology that has scrum’s nose and kanban’s eyes.

The main benefit of scrumban as a method is that instead of deciding which task from the backlog to work on in each sprint at the outset (like you would in a “traditional” scrum framework), scrumban allows teams to continuously “pull” from the backlog based on their capacity (like they would in a kanban framework).



And using work in progress limits (from kanban) during your sprint cycle (from scrum), you can keep a continuous flow while still incorporating planning, reviews and retrospectives as needed.

**Try this project management methodology if:**

You've ever looked at scrum and kanban and thought "I wish those two crazy kids would get together".

**This project management methodology might not be for you if:**

You've ever looked wistfully out the window and thought, "Oh, scrum is scrum, and kanban is kanban, and never the twain shall meet".

## **6. eXtreme programming (XP) methodology**

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The eXtreme Programming (XP) methodology is another form of agile project management that was designed for software development.

It emphasizes teamwork and collaboration across managers, customers, and developers, with teams self-organizing. It has a defined set of rules that teams should follow, which are based on its five values: simplicity, communication (face to face is preferred), feedback, respect, and courage.

**Try this project management methodology if:**

- You want to foster teamwork and collaboration.
- You have a small, co-located team.

**This project management methodology might not be for you if:**

- You're a rulebreaker.
- Your team is spread across different places and time zones.

## **7. Adaptive project framework (APF) methodology**

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The adaptive project framework (APF) methodology, also known as adaptive project management (APM), is a type of agile project management methodology that was designed with the inevitability of change in mind.

The adaptive project framework knows that, as John Steinbeck might say, even the best-laid projects of mice and men often go awry. So the fundamental attribute of APF is that teams need to be able to adaptively respond to change.

That means that using adaptive project framework methods, teams must try to anticipate the risks and prepare for the unexpected in their project. They need to understand that key components are constantly in flux, and be able to constantly re-evaluate results and decisions with these moving parts in mind.

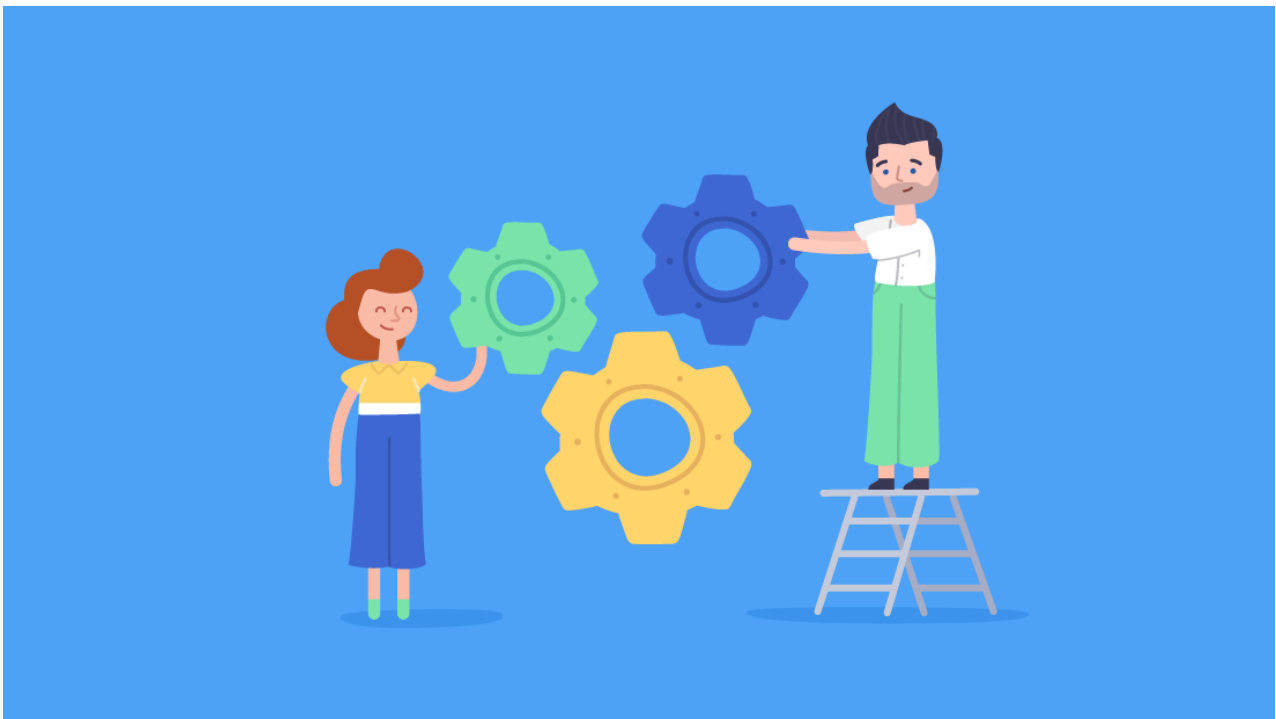
This requires lots of communication with all stakeholders and — like other agile project management methodologies — be able to work collaboratively.

**Try this project management methodology if:**

You know your ultimate goals (in project management terms, you've outlined your Conditions of Satisfaction; or, in Beastie Boys terms, you're clear about you're clear about whatcha whatcha whatcha want).

**This project management methodology isn't for you if:**

- You need predictability.
- You don't have the resources to handle the potential negatives of adaptability (e.g. scope creep, rework, misuse of time).



## 8. Lean methodology

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Lean is another project management methodology that has its origins in manufacturing (and specifically the Toyota Production System). It's all about applying lean principles to your project management methods to maximize value and minimize waste.

While this originally referred to reducing physical waste in the manufacturing process, it now refers to other wasteful practices in the project management process. These are known as the 3Ms: muda, mura, and muri.

*Muda* (wastefulness) consumes resources without adding value for the customer.

*Mura* (unevenness) occurs when you have overproduction in one area that throws all of your other areas out of whack, leaving you with too much inventory (wasteful!) or inefficient processes (also wasteful!).

*Muri* (overburden) occurs when there is too much strain on resources such as equipment and people, which can often lead to breakdowns — in both machines and humans.

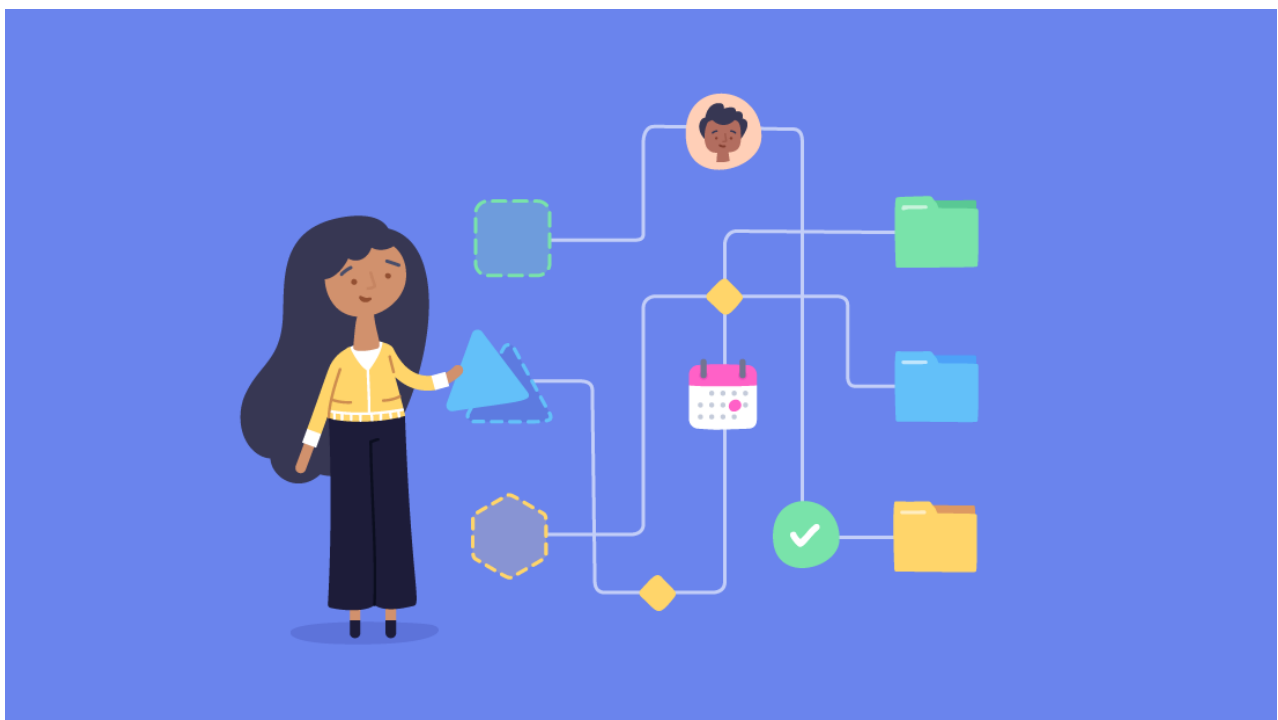
Using the key principles of lean, a project manager can reduce these types of waste to create more efficient workflows.

**Try this project management methodology if:**

- You're looking for a set of principles that will help you cut the fat and optimize your flow.
- You're always trying to improve and add value for the customer.
- You want to ultimately decrease costs.

**This project management methodology might not be for you if:**

- You can't afford to run into supply problems (e.g. you don't have enough inventory in stock) or lose room for error (e.g. in the case of essential equipment failure).
- You don't have the budget to invest in it (while lean project management aims to reduce costs overall, it can be costly to implement).
- You're a raccoon and you love waste, actually.



## 9. Critical path method

The critical path method (also known as critical path analysis) is a way of identifying and scheduling all of the critical tasks that comprise your project, as well as their dependencies.

That means that you need to:

1. Identify all of the essential tasks you need to do to achieve your project goal
2. Estimate how much time each of those tasks will take (bearing in mind that certain tasks will need to be completed before others can be started)
3. Use all of that information to schedule the “critical path” you’ll need to take in order to get the project done as quickly as possible without missing any crucial steps.

The longest sequence of critical tasks becomes your critical path, and will define the timeframe for your project.

Along the path, you’ll have milestones to meet that will signal when one set of tasks (or phase) is over and you can move on to the next one.

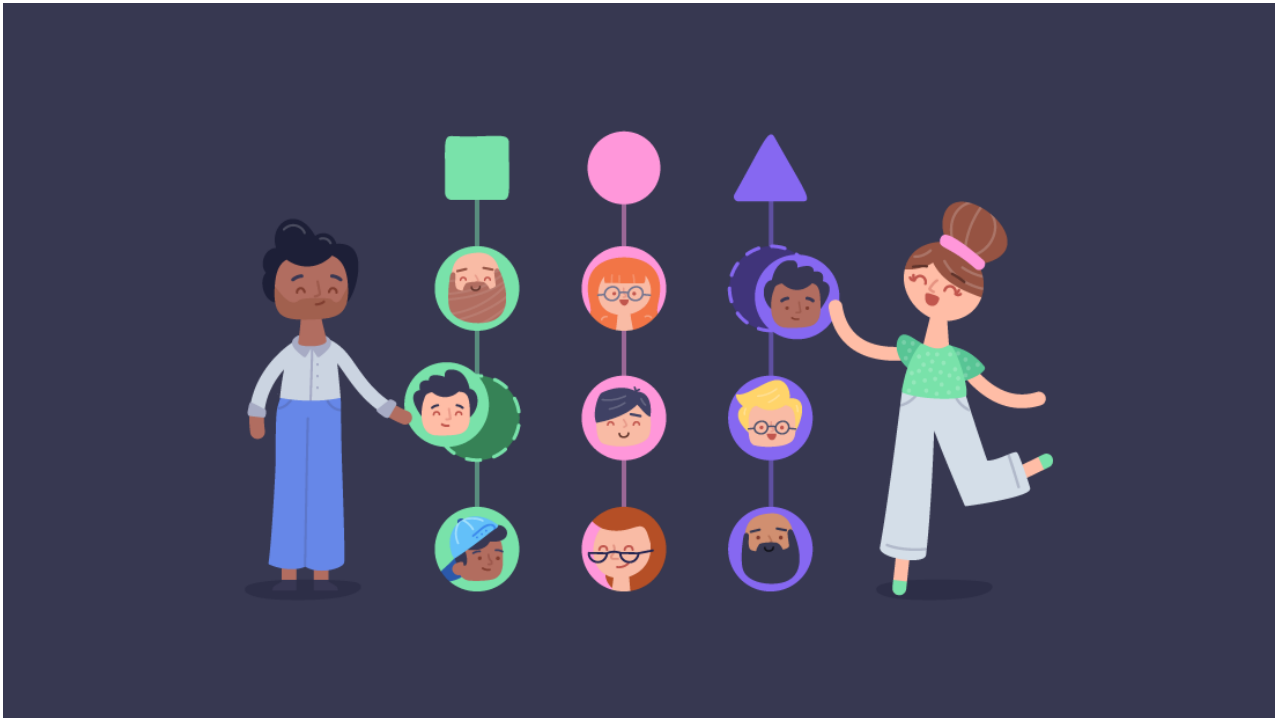
There are lots of ways to visualize the critical path, depending on the complexity of your project, from flow graphs to Gantt charts.

**Try this project management methodology if:**

- Your project is large-scale and complex.
- Your project has a lot of dependencies.
- You’re looking for a visual way to map out the sequence of tasks.
- You need to identify which tasks are the most important so you can better allocate your resources.
- You have a strict plan and deadlines, with no room for silly business.
- You love algorithms. Love ‘em!

**This project management methodology might not be for you if:**

- You don’t need something with a lot of complexity.
- You’re unsure about deadlines, timings, or durations.
- Your project needs wiggle room to change.



## 10. Critical chain project management

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Critical chain project management (or CCPM) takes the critical path method (CPM) one step further.

While the critical path method defines the length of time needed to get each critical activity done from the beginning of the project to the end, it can often be, well, unrealistic when the time comes to actually put it into practice.

Critical chain project management addresses those issues by allowing a bit more time for the human elements of your project — like delays and resourcing issues.

In critical chain project management, you have a few buffers built in that your critical chain can use without derailing everything else, so that your entire project doesn't have to go off track just because life happens.

### **Try this project management methodology if:**

- You like the sound of the critical path method, but you want something a little more realistic.
- You were already overestimating task durations in CPM to allow for a buffer and you want more accurate data on how long the work is actually taking compared to your projections.

### **This project management methodology isn't for you if:**

- You think buffers are just a safety net for people who didn't plan it right the first time.
- Nothing could possibly go wrong.

## 11. New product introduction (NPI)

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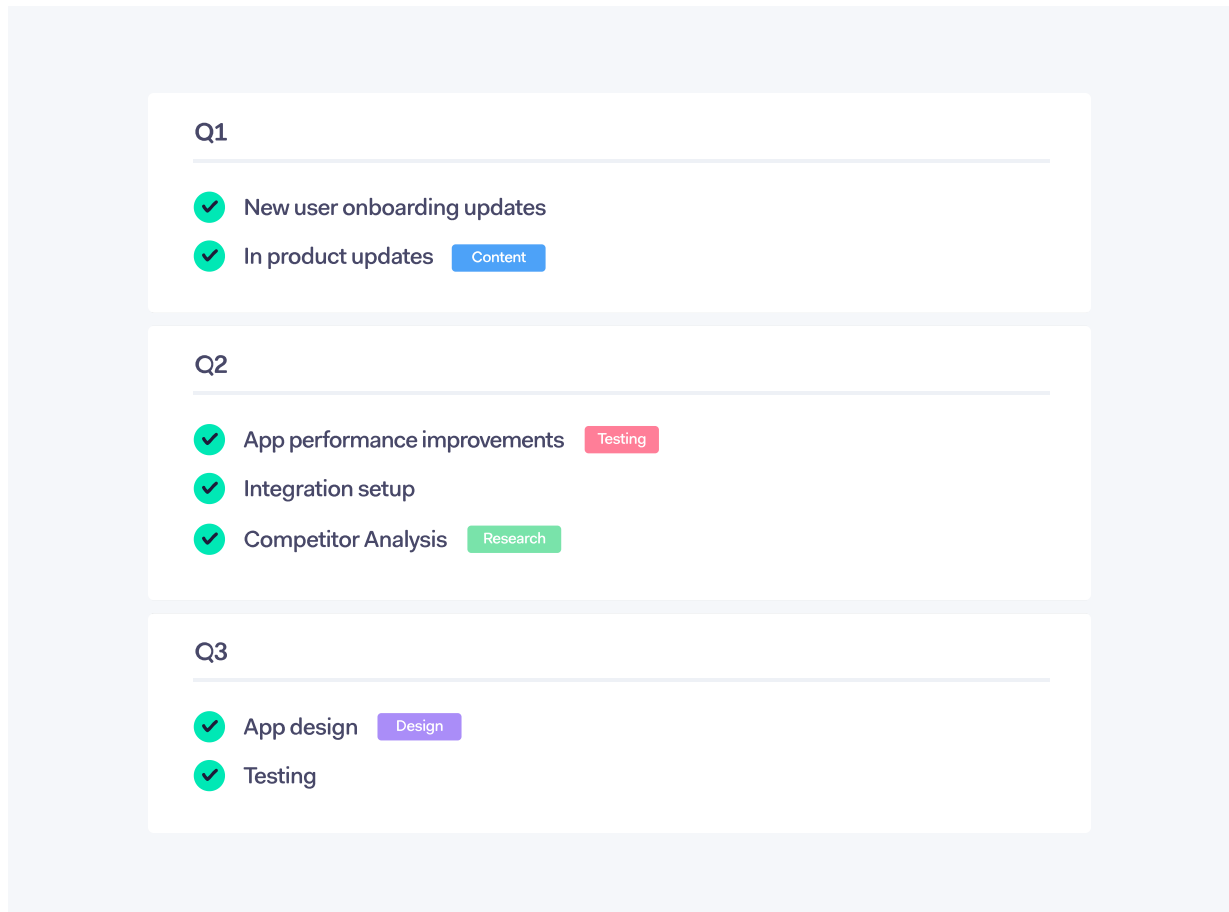
New product introduction is a great project management methodology for when you want to, well, introduce a new product.

Also known as new product development (NPD), the new product introduction process covers everything you need to define, develop and launch a new (or improved) product.

The project follows a single product through the entire development process. This process involves multiple phases or a stage-gate process, which can vary from organization to organization, but usually include things like:

1. Defining the product spec and project scope
2. Evaluating the feasibility
3. Developing the prototype
4. Validating the prototype via testing and analysis
5. Manufacturing the product on a larger scale
6. Evaluating the product's success in the market after launch

As the requirements for a successful new product introduction span a number of departments across an organization, from leadership to product managers to marketing and more, it requires a lot of cross-functional collaboration and communication.



## Product launch plan template

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Manage the launch planning process from beginning to end and bring new products to market more quickly and efficiently with our product launch template.

Try our product launch plan template

### Try this project management methodology if:

- You're bringing a new or improved product to market.
- You're focusing on a single product.
- You want to foster key stakeholder and cross-functional alignment right from the beginning.

### This project management methodology might not be for you if:

- You're not bringing a new or improved product to market.
- You're looking for a more agile approach to product development (as NPI is usually sequential rather than iterative).

## 12. Package enabled reengineering (PER)

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Package enabled reengineering (PER) is a project management methodology that aims to help organizations redesign products or processes with fresh eyes. It focuses on facilitating business transformations quickly and strategically, whether through redesign of processes or realignment of people.

**Try this project management methodology if:**

- Your organization needs an overhaul.
- You need a fresh perspective on your products or processes.

**This project management methodology might not be for you if:**

You're not trying to improve an existing system.

### **13. Outcome mapping**

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Outcome mapping is a project progress measurement system that was designed by the International Development Research Centre (IDRC). It differs from the other project management methodologies on this list in that it doesn't focus on measurable deliverables; instead, it focuses on creating lasting behavioural change.

It's a common project management methodology used in charitable projects in developing countries. As a project management methodology, it's less about the project itself than the long-term impact of the project and its ability to effect change in the community. As a result, it measures influence rather than other (perhaps more "typical") measures of project progress.

Outcome mapping consists of a lengthy design phase followed by a record-keeping phase to track the results.

**Try this project management methodology if:**

- Your project is aimed at changing behaviour rather than producing deliverables.
- Your project is related to change and social transformation (e.g. in the fields of international development, charity, communications, research).

**This project management methodology might not be for you if:**

Your project is all about finished products rather than behavioural outcomes.





## 14. Six Sigma

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Six Sigma is a method for improving processes with an emphasis on ensuring consistency in output and impeccable quality. (And if it's good enough for Jack Donaghy...)

There are a few different flavors available, such as Lean Six Sigma and Agile Sigma, but ultimately Six Sigma is a business methodology that aims to eliminate defects and reduce variation by using its defined methodologies.

Six Sigma methods can be used to optimize and improve existing processes or create new ones.

To improve business processes, you can use the Six Sigma DMAIC process, which stands for the phases in the project methodology: **Define, Measure, Analyze, Improve, Control**.

To create new processes or products, you can use the Six Sigma DMADV process: **Define, Measure, Analyze, Design, Verify**.

As a set of principles and techniques (sometimes it's even described as a "philosophy") rather than a project management methodology in itself, Six Sigma methods can be applied alongside many other project management methodologies, like Lean and Agile.

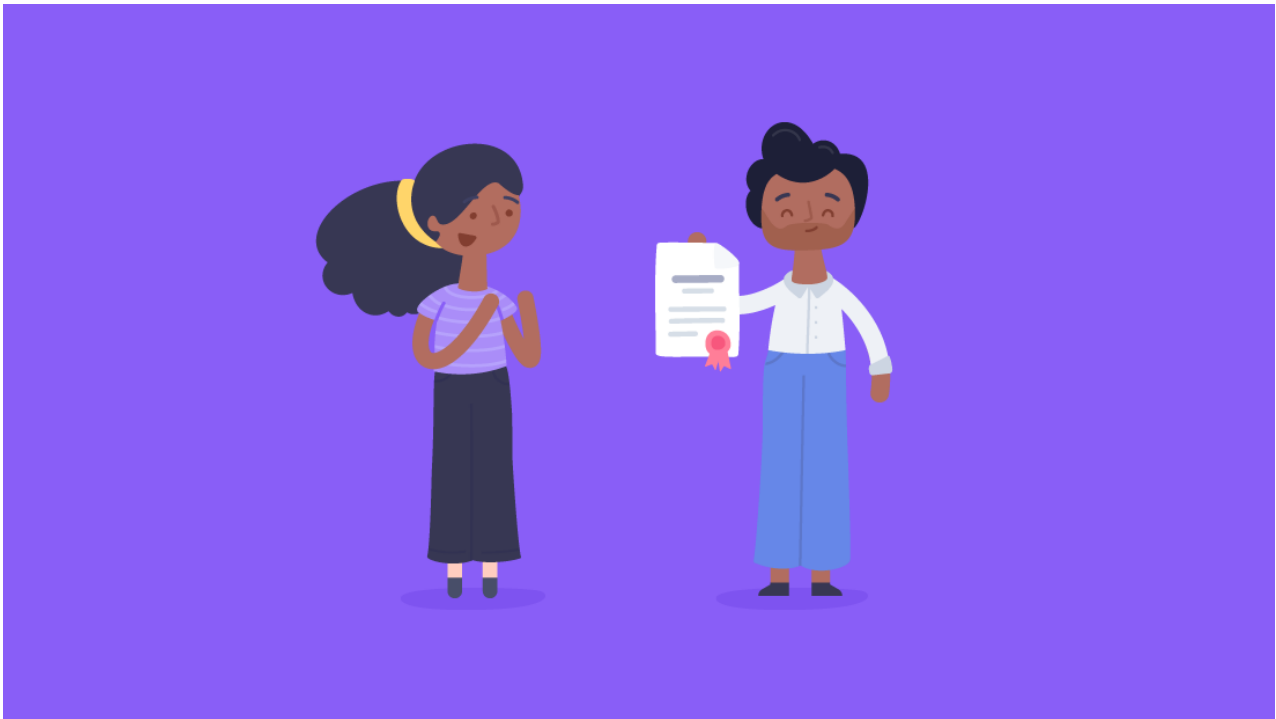
### **Try this project management methodology if:**

You're looking for a set of principles and philosophies you can bring with you to almost every project and organization.

### **This project management methodology might not be for you if:**

- You don't have a lot of budget to invest in training — it can be expensive to get trained and certified.

- You're looking for a defined process for a particular project rather than a set of guiding rules.



## 15. PMI's PMBOK

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The Project Management Institute's Project Management Book of Knowledge (AKA the PMI's PMBOK) isn't a project management methodology in and of itself. However, it is a best practices guide — and it forms the basis of the PMI's Project Management Professional (PMP) certification, one of the leading project management qualifications.

As such, the PMBOK is an industry-standard set of guiding principles that you can use to ensure that your projects across multiple types of teams and organizations meet the PMI's high standards and comply with best practices.

### **Try this project management methodology if:**

- You have (or want to get) a PMP.
- You want to stay up-to-date with industry standards and best practices.
- You live and work in a place where the PMP is the standard project management qualification (such as the US).

### **This project management methodology might not be for you if:**

You need a solid project management methodology to map your project, rather than general (albeit helpful) project management knowledge.

## 16. PRINCE2 methodology

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PRINCE2 (**PR**ojects **IN** Controlled **E**nvironments) is a project management methodology and certification that aims to equip project managers with knowledge of best practices and processes.

Unlike the PMP certification, it doesn't require a number of prerequisites, making it a good choice for project managers looking to get both a methodological grounding and a qualification.

Also unlike the PMP, PRINCE2 is a methodology in itself. It's guided by seven principles, which in turn dictate the seven processes a project manager needs to use in each project when using PRINCE2.

**Try this project management methodology if:**

- You're looking for a certification to give you an edge.
- You live and work in a place where PRINCE2 is the standard project management qualification (such as the UK).

**This project management methodology might not be for you if:**

- You don't want to commit to full certification.
- The seven-step process doesn't map to your projects.
- You find yourself tailoring (or outright ignoring) the process stages so much that it becomes PINO — "PRINCE in name only".

## **17. Rapid application development (RAD) methodology**

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Rapid application development (RAD) is a type of agile project management methodology that aims to facilitate faster software development.

It uses rapid prototype releases and iterations to gather feedback in a short period of time, and values that user feedback over strict planning and requirements recording.

**Try this project management methodology if:**

- You want to be able to give customers/clients/stakeholders a working model much sooner (even if it's not perfect).
- You want to create multiple prototypes and work with stakeholders to choose the best one.
- Speed is of the essence.
- You want to encourage code reuse.

**This project management methodology might not be for you if:**

- You don't have an experienced team.

- Your clients or stakeholders don't have the time to commit to such a collaborative process or can't give feedback within the necessary timeframes.
- You have a large team.
- You prefer to have a detailed spec that outlines all functional and non-functional requirements.



## Choosing the right project management methodology

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The right project management methodology can elevate your project and help the project manager to get the best out of each team.

Whether you prefer the agile methods favored in IT project management or the more traditional waterfall project management and critical path methodology used in construction and manufacturing, there's a project management methodology for every team.

But no matter which methodology you go for, you need a collaborative, flexible, and easy-to-use project management tool to support you every step of the way.

Choosing a project management tool that supports multiple methodologies — i.e. that doesn't lock you into one methodology or way of using it — like Teamwork means that every team in your organization has the freedom to work the way that works for them without sacrificing on features or complexity.

No matter how you like to work, Teamwork helps your team to replicate their best practices, ensure compliance and consistency, and constantly improve their processes.

