

Project Management Methodologies Explained

VOLUME 4



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■ A note from the CEO

Established in 2010, Aprika Business Solutions started as a Salesforce consulting practice, which evolved into software development building high quality solutions for the AppExchange.

Mission Control is built natively on the Salesforce Platform, and has grown into one of the top Project Management and Professional Services Automation (PSA) solutions supporting businesses to elevate workflow and maximise efficiencies and profitability in over 25 countries across the globe.

One of the best qualities of Mission Control is that it has the capability of supporting whichever project management methodology you choose to use. The PSA solution has a multitude of features available that can work with a singular methodology or multiple if you've chosen to operate a hybrid methodology.

We've put together this eBook for anyone who is wondering which methodology would suit you best but also explaining each one and how they work. We hope you find it useful!



Colin Johnson
CEO, Aprika Business Solutions

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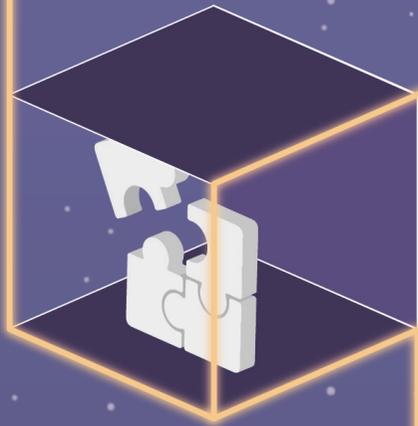
Introduction

Most would assume a project has a start date, end date and a range of actions in the middle to get you to the end goal. However, as project management evolves as a discipline, so does the way we approach the planning and implementation. It's no longer simply a case of plotting out actions against a timeline and setting the team to work. There's a whole host of different ways to manage a project which opens up a world of opportunities to improve business workflows and efficiencies.

It's also not just how we're running projects that's shifting, it's when these projects are starting. Traditionally projects commenced when we knew what the end goal was and what we were setting out to achieve. Many businesses are now, however, introducing project management practices far sooner into the piece – using them to help identify the end goal, solve problems or facilitate innovation within the business.

The good news is, you don't always need to know exactly what method you're going to use and when; good project management software will allow flexibility. You may find you want to run one project with one method and another using a different methodology – and that's perfectly acceptable. There's a range of software tools out there to suit each and every type of project style. In this eBook, we'll take you through everything you need to know about the key project methodologies, when they might be suitable for your business and how to go about running them.





Agile

In a word: Collaborative



Overview

Agile is a flexible, team-based project management approach, first gaining traction with Japanese companies like Honda and Fuji in the 70s and 80s. It was born out of a frustration of traditional style projects running over budget and over schedule when roadblocks were hit. At the heart of Agile is the team, their collaboration and transparency amongst all. The work is adaptive and always open to change if that leads to improvement. This means you don't need to know exactly what the output will look like when starting out on an Agile project. For example, you may set out to creating software that serves a market need. That may evolve along the way as the market does and that's all part of the Agile process.



Imagine going on a road trip. You know roughly where you're headed (let's say North) but the exact route and final destination isn't set in stone just yet...and that's ok. You've got your trusty vehicle, gas money and you know who's coming on the trip with you. The route you take may change – depending on what you discover along the way. Who is on your road trip with you is critical to the success of the trip and will also help determine where you finally end up. Together you will get there. **This is Agile.**

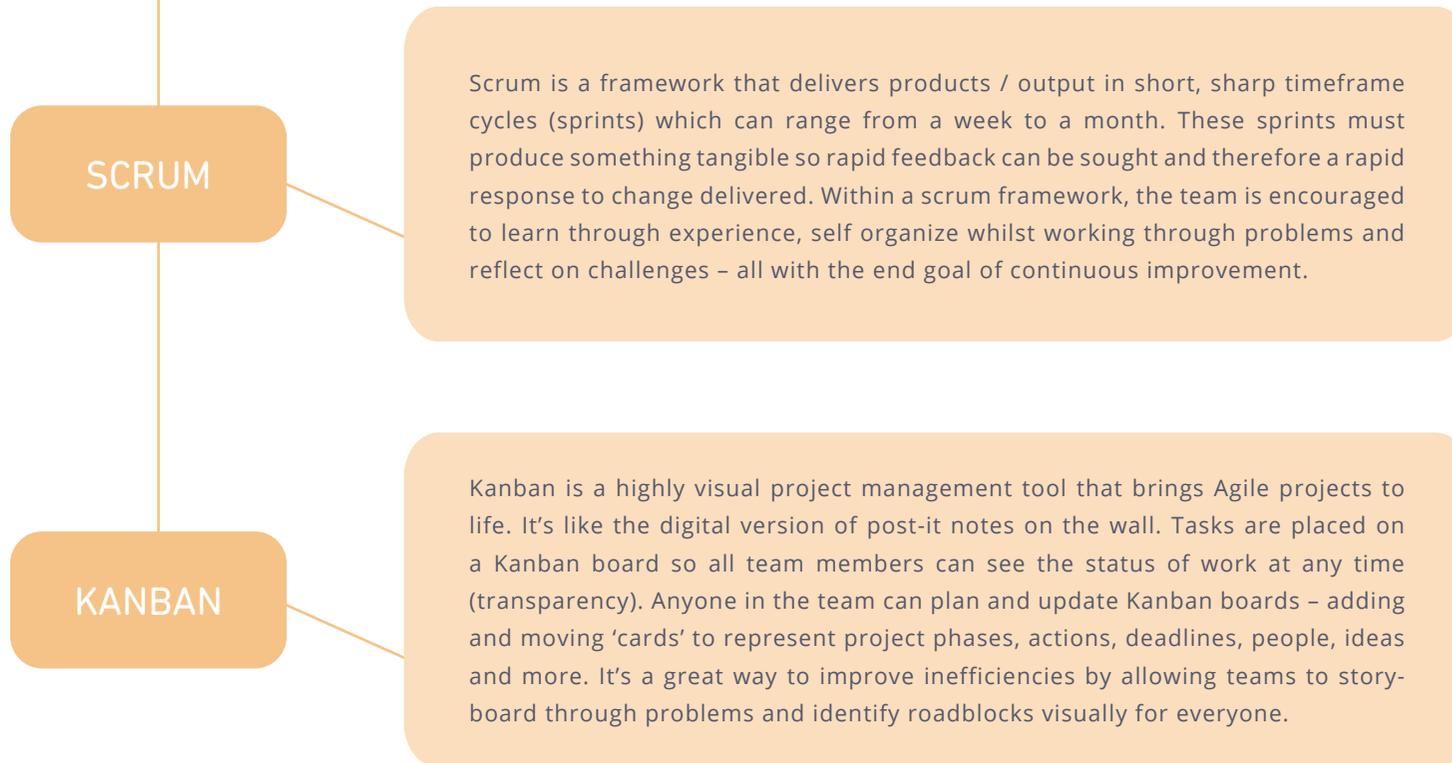


Who

Agile started out as a methodology well suited to software developers and engineers who needed a more flexible way of managing projects in order to produce the best outcomes. Nowadays, Agile is far wider reaching – relevant to any businesses trying to solve complex problems where the work is based on consistent feedback and changing landscapes. If there's a focus on innovation but uncertainty around the end product, then Agile is perfect: Think computers, medical devices, food, clothing and more. It's also gaining momentum in projects that need a quick and responsive production schedule, such as marketing campaigns.

How

So it's not just all the collaborative sharing of ideas, Agile projects are broken into 'scrums' and 'sprints' to get through short bursts of focused activity.



📌 The Good



Continuous collaboration and transparency amongst the team / client means no surprises at the eleventh hour



Can evoke a strong sense of ownership from client – great if they like to be hands-on



Flexibility to evolve project depending on insights and findings along the way



Can facilitate speed to market

📌 The Challenges



Loose requirements upfront can make stakeholders reluctant to commit



Can be never ending! The high level of consultation and collaboration can, if not careful, hinder progress. Project Managers need to be disciplined to safeguard against losing momentum

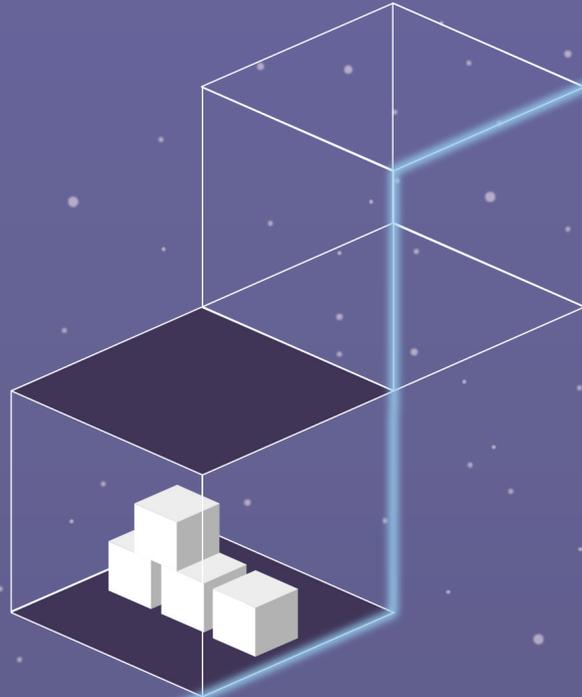


For many industries, having all resources working full time on this helps ensure progress which isn't always viable with resources



Getting teams together physically is not always possible – 2020 being the perfect example. This however, fast tracked the need for companies to be able to work remotely, but maintain real-time collaboration and visibility of progress





Waterfall

In a word: Linear



Overview

Waterfall is widely regarded as the traditional approach to project management. It is characterized by being linear – meaning there are distinct stages along the way that need to be completed sequentially before the next stage can start. In order to plan and implement a Waterfall project successfully, it relies on knowing and defining the full scope of the project requirements upfront. This is not the method for unknowns! Like water falling, there is one direction for the project to go, cascading down through the stages. Waterfall is considered a very logical and pragmatic methodology and still remains very relevant to projects requiring a clear project plan and agreed output from the offset.



Who

Waterfall is great for any type of project that requires a sequential plan for success. It has traditionally been used instead of Agile for manufacturing and construction projects, which are highly structured. They're perfect for when it's too expensive to pivot or change anything after the commencement of the project. It's also well suited to organizations that work best under a milestone and date focused paradigm and can still have a level of flexibility when using real-time software to manage projects.



When you hit the road for a Waterfall road trip, you'll have each stage planned out well ahead of going – possibly reservations made for overnight stays along the way. Each leg of the trip depends on you completing the last part. And you'll know exactly where you're headed at the end, who is driving each leg of the trip and what day you will arrive. **This is Waterfall.**



1 | Requirements

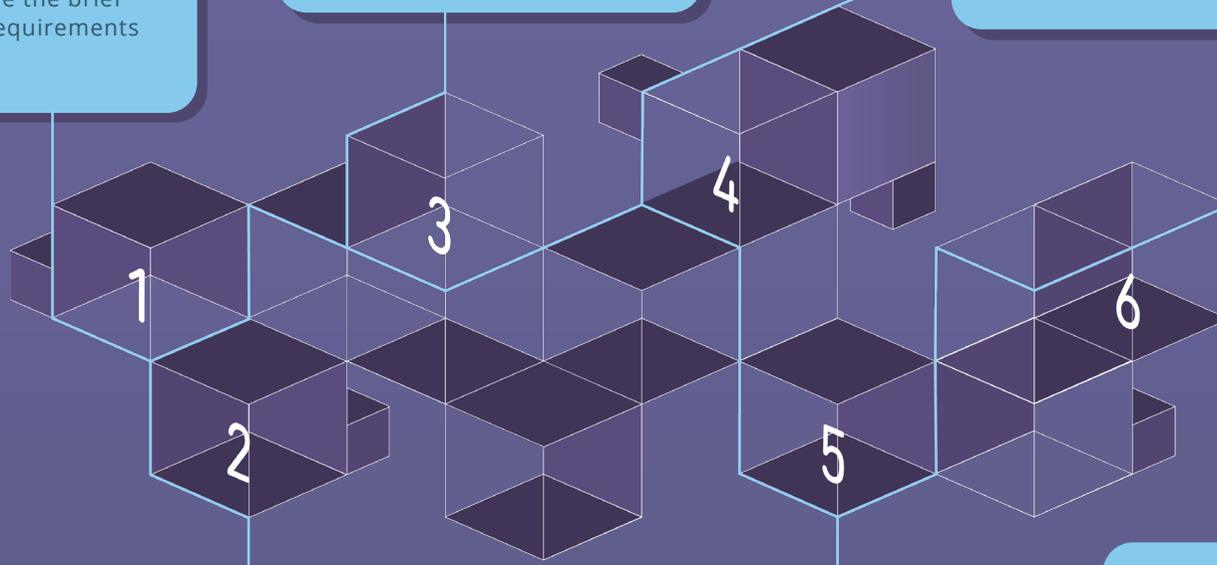
This is where the client and stakeholders play a key role helping to define the brief and the exact requirements of the project.

3 | Design

Consider this a reverse brief – mapping out the proposed and most suitable direction needed to bring the project to life – including resource, budget, timeline and critical phases. This is the time to ensure everyone is agreed and on the same page.

4 | Development/ Implementation

This can be seen as the official start of the project because this often feels where the real action takes place; where you turn the key in the ignition and the road trip begins. The first 3 stages are critical to informing this stage however.



2 | Analysis

This is the brainstorm part – what are all the possible solutions to the brief? This is the opportunity to ensure everything is considered before a project plan is agreed upon.

5 | Testing/ Verification

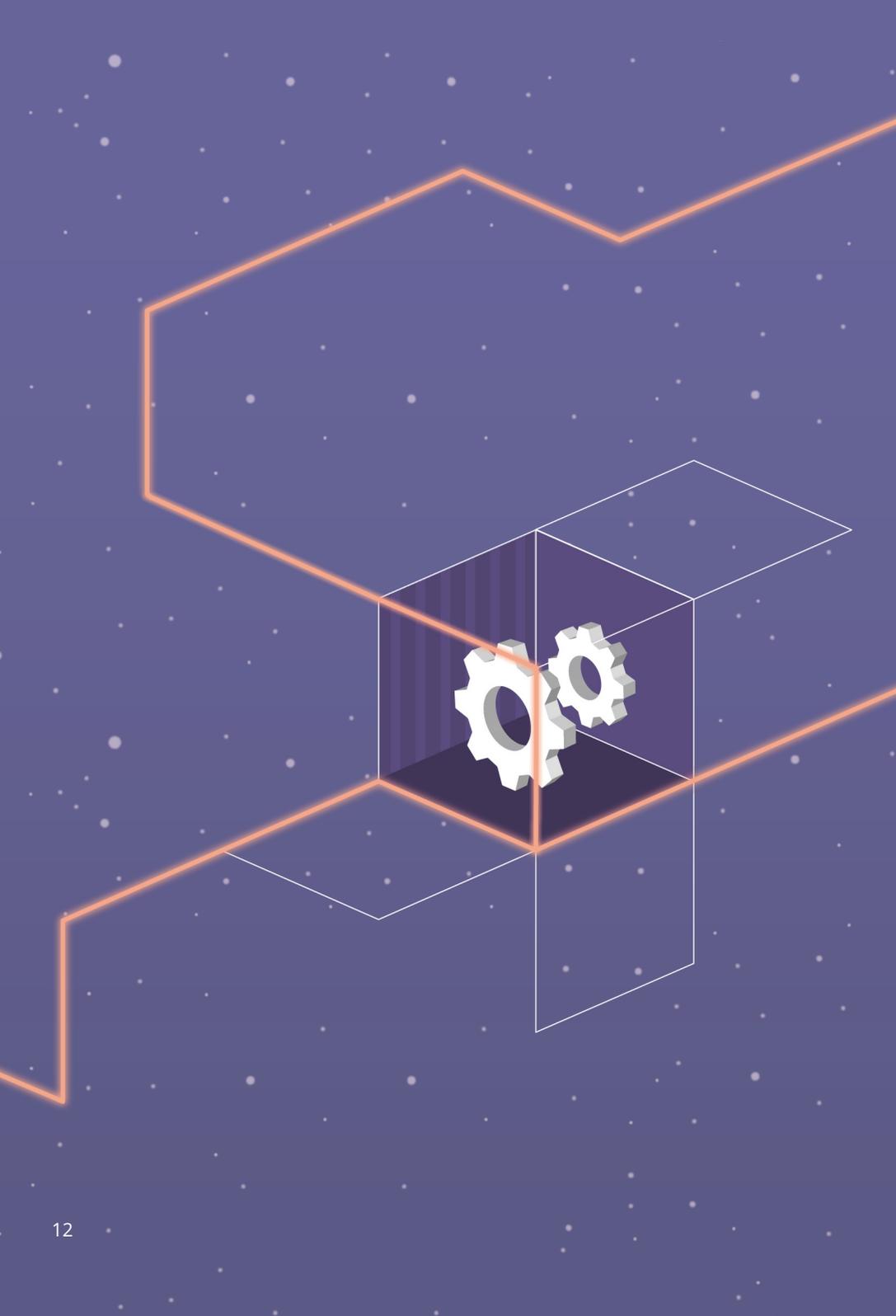
This is where customers / stakeholders are brought back in to see initial output cross referenced against the initial requirements.

6 | Launch/ Operation

Following any minor adjustments, the final output is finalised and the project is complete.



Gantt chart: is the perfect tool for Waterfall Project Managers. It allows you to map subtasks, dependencies (think knock-on effect of certain tasks being delayed) and each phase of the project against timings and resource. Good Gantt Chart software should include features such as drag and drop to (re)schedule timings, baseline tracking and the critical path mapping.



 Lean

In a word: Efficient



Overview

The Lean project management approach is all about producing minimal project waste whilst empowering a team to be customer-centric and deliver value. Lean project management is an off shoot of Lean manufacturing. Henry Ford's name is synonymous with Lean who integrated the concept into the manufacturing process in the early 1900s which was then further developed and formalised by Toyota. Lean methodology is all about efficiencies - ensuring a business is optimizing its people, resources and energies. It focuses around key guiding principles for continuous improvement. Instead of trying to hold total control of work processes, Lean management encourages shared responsibility and shared leadership through teamwork. It can be viewed as a long-term philosophy which can be applied to all aspects of a business - not just individual projects. In fact a business can adopt an overall Lean approach which works alongside other project management methodologies like Agile and Waterfall.



Who

Lean continues to be used widely in manufacturing but has also become a popular approach in construction, government, education and the service industry. It's also perfect for start-ups where the goal is to shorten product development cycles and rapidly determine if a business concept is viable.



On this road trip, you've got to get from A to B as efficiently as possible. Perhaps you're in a Tesla but if not you can be guaranteed you know exactly how many kms you'll get to the gallon from your vehicle. You'll know who's on board for the trip, exactly how far you'll go, what consumables you'll need and when you'll arrive at the final destination. And unless absolutely necessary (and planned for), the air con won't be going on. You may even scrap the car and jump on public transport if that's the most cost and resource efficient way to get you there. **This is Lean.**



How

There are five guiding principles to Lean project management which can all work together throughout the project, not just as a structured flow:

1

Identify Value

What's the problem you are solving for the customer? Ensure this is identified at the beginning of the project but then also kept at the forefront throughout.

2

Value Stream Mapping

This is when the project workflow is analyzed from start to finish. It's imperative all tasks and details are included – even the minor ones.

3

Create Continuous Workflow

Here the workflow is refined and streamlined. The key here is not to focus on one task at a time but instead look at the entire project management process and see where improvements can be made. Unnecessary red tape, approval processes and roadblocks should all be removed to increase efficiencies.

4

Create a Pull System

This 'just-in-time' principle safeguards against businesses overproducing in anticipation of demand. Only produce what is needed by the customer.

5

Continuous Improvement

Keep seeking perfection – Lean doesn't have an end point, even if your project does. Use software that allows tracking of issues, regular team communications and effective project debriefs to inform future projects, ongoing improvements and shared learnings.

Scheduler: Is THE efficiency feature where you can review and analyze where time is being most spent, where resourcing isn't aligning with capacity and make the necessary shifts to ensure maximum output with minimum wastage. Your project management software should have the capability of this detailed oversight and ease of reassigning actions.



📌 The Good



Less waste: From time to resource to budgets.



More focus / higher productivity: This methodology cuts out the tasks that don't add value to the overall project goal instead puts resource onto far more critical tasks.



Motivated teams: Keeps your team working on the substantial tasks that are at the core of their capabilities. It gives teams purpose and allows them to create impactful work.



Improved quality: Reworks aren't efficient in any business and this approach will ensure they're addressed upfront, not retrospectively.

📌 The Challenges



Time: Can require a decent time investment upfront which may include tracking existing processes to identify areas for improvement.



Loss of strategy: It can be easy to get caught up in the micro detail of project tasks and efficiencies and lose sight of the bigger picture. Project Managers need to be vigilant to safeguard against this.



Small margin of error: When a project is so streamlined, there is little room for error.



This can throw things off course quite dramatically if not planned for.





PMI / PMBOK

In a word: Standardised



Overview

The jury is out on whether PMBOK® is a methodology at all but rather a framework. To give a little background, the Project Management Institute (PMI) is a not-for-profit membership association, project management certification and standards organization. PMBOK® is an acronym for Project Management Body of Knowledge, a book published by PMI, that compiles the processes, standards, conventions, best practices, terminologies and guidelines for the industry. It creates a standardized method to keep projects consistent across different companies. It is also the basis for PMP certification, which is the gold-standard among Project Managers, and recognized all over the world. The PMBOK® best practices are often referred to as a foundation or reference guide for informing the project planning and implementation.



Who

The PMI was established in 1969 by U.S. leaders in the construction, aerospace and defense industries to create recognition and standardization for project management as a discipline. Almost any project in any industry can benefit from PMBOK®, as all projects big and small can go through the various stages and it's a great way to keep everyone on the same page and offers a clear definition of how a project is managed.



The first port of call on your PMBOK® road trip will probably be the Tourist Visitor Center. They'll be able to give you already published maps, recommended routes and great insights and tips by experts in the industry. It's then your job to decide which route best suits the road trip you're planning. You can combine a few for a hybrid trip but the foundations of your trip will be from the well versed travellers before you. **This is PMBOK®.**



How

PMBOK® has five designated stages of project management:

1

Conception and Initiation

This is where high level project goals are developed. The feasibility of the project is also explored.

2

Definition and Planning

Here a project roadmap is created to help guide the team towards specific targets within the project. The full scope of the project is defined here including stages, tasks, resource, schedule and measurement. A Gantt Chart tool will prove super useful here!

3

Launch of Execution

This is where the 'action' happens and deliverables are completed.

4

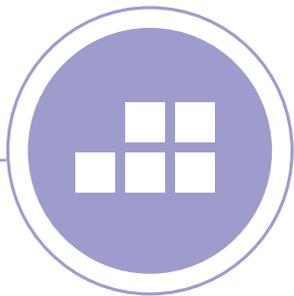
Performance and Control

As part of the project, there will be ongoing monitoring like baseline tracking and issue tracking to ensure the project is delivering against Key Performance Indicators (KPIs).

5

Project Close

Project Managers close off the project including a project debrief which covers a punch list of unaccomplished tasks, issue tracking and final budget analysis. Everything is recorded to inform future projects.



Project Builder: Will help you build your project roadmap based on the targets you've set and aligning with the scope of your project. A project management software tool should have the components that allow you to set clear Actions alongside resources and timeframes with ease.

📌 The Good



Tried and tested: There's a trust and an ensuing confidence which comes with utilizing an industry respected methodology.



Comprehensive: PMBOK® has 39 processes grouped into nine knowledge areas or five process groups so draws on a range of shared practices.



Universal: Being globally recognized, many businesses and industries use it meaning projects can be transferrable and applicable in a variety of settings.

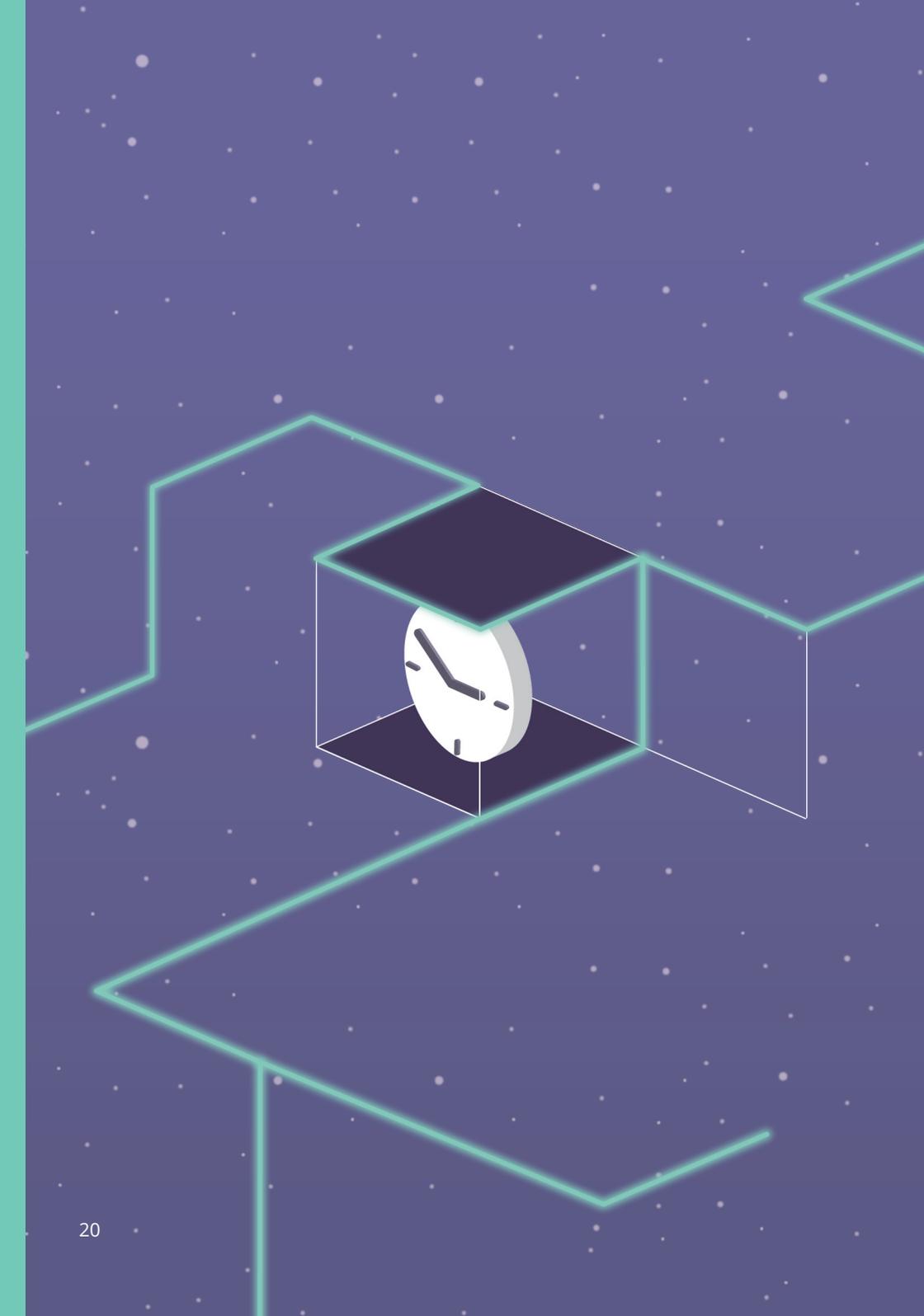
📌 The Challenges



Decision making: There's been criticism that the systems put too much responsibility with Project Managers when it comes to decision making.



Less collaboration: It can be seen as less collaborative than some approaches with Project Managers often leading the charge on project scoping, planning, resolving issues and driving comms.



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CPM

In a word: Sequential



Overview

Whatever project you are undertaking, it's fair to say there will be some core tasks that will be critical to its completion. CPM is like an algorithm for mapping out that set of core project tasks sequentially. When using the CPM approach, an entire workflow of the project is created, including all the milestones and actions, the duration of those tasks, what task dependencies there are and timeframes in which deliverables are due. With this information, a path is determined to finish the project with the least challenges and foreseeing the roadblocks in advance. It's great for being able to scope a project right at the start.



Who

This methodology is great for being able to scope a project right at the start so therefore it lends itself well to established outsourced services like consultancies, finance and the creative industry. It works well with smaller – mid-size projects where upfront data is not so complex that it's overwhelming to map and make sense of. A good project management software with a detailed Gantt Chart, however, makes this scalable for large scale projects like those in the manufacturing and construction industries.

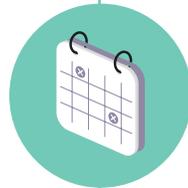


If there's roadworks on your proposed road trip route, you'll know about it before you set off if you're using the CPM method. Think of CPM like your GPS system, tell it where you want to go and it'll map out the quickest route factoring in any current conditions including traffic jams and diversions. The fastest route will be mapped out before you turn the key in the ignition. **This is CPM.**



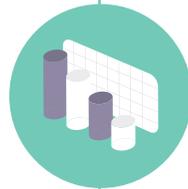
How

Not unlike Waterfall, the CPM method starts by understanding the stages involved in delivering the project requirements.



Define Project Scope

This includes the tasks needed to complete the project, dependencies and timeframes.



Critical Path Analysis and Identification

This is where you clearly identify which activities are sequential and which can be run in conjunction with others. These tasks can be put into project management software like a Gantt Chart to then help determine an overall timeline.



Different Project Paths

This includes the tasks needed to complete the project, dependencies and timeframes.





📌 The Good



Date is King: Like Waterfall, a solid understanding is needed of what the project requirement is upfront. If you're a business with this information to hand then this is a great way to utilise it.



Helps scope a project: CPM is a perfect solution when outsourcing to help shape a project pitch, a project scope, timings, resource and budget



Manage expectations: Stakeholder / clients can be managed from the offset making it easier to get buy-in.



Can be easily replicated: Once you have a path mapped for a specific project / service then it's easy to tweak and roll-out

📌 The Challenges



Larger projects: This can be extremely complex – especially for new members of the team to help scope. Also the ongoing monitoring of the critical paths becomes more complex the larger the project.



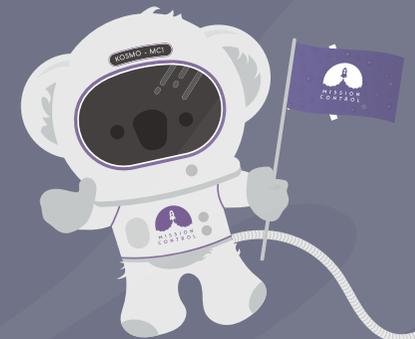
Time consuming: To initially set-up this style of approach can take considerable time as each task is mapped individually from timescale to schedule.



Rigid: If a sudden change occurs, it can be difficult to remap the plan once underway.

So There You Have It...

a snapshot of some of the more popular project management methodologies out there. And of course as project management evolves further, more methodologies will come into play. The key is not to get overwhelmed on what approach to adopt and when. Instead engage in quality project management software that supports them all. The reality is that one size doesn't fit all with project management and your business may run a series of projects using different methodologies depending on the business need. The key is that you take that road trip!



Discover how Mission Control can work with whatever Project Methodology you choose

If you would like to find out more about Mission Control, speak to one of our team members today.

→ GET YOUR FREE TRIAL

→ GET IN TOUCH

aprika.com/missioncontrol

