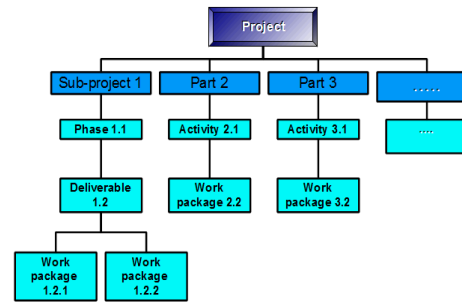
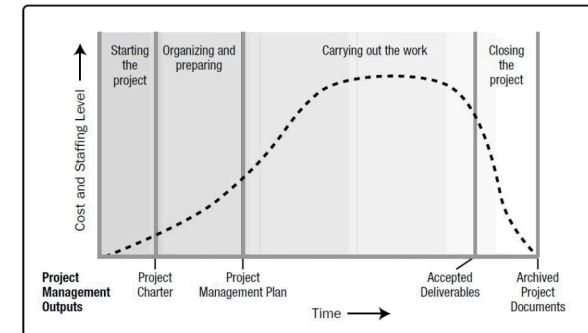


Exceptional service in the national interest



(Example of WBS)



Lifecycle Project Planning

Eric Boatman, MBA, PMP

Overview

What is lifecycle project management?

How do you develop the plan?

What are the benefits of lifecycle planning?

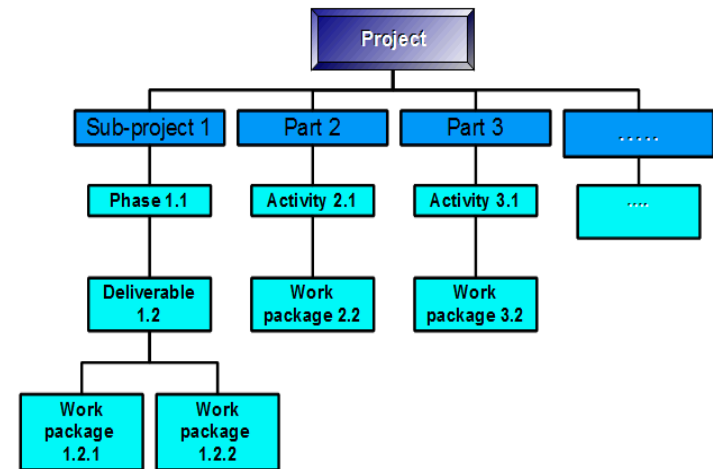


What is Lifecycle Planning?

- Defines the project and establishes the technical, cost, and schedule baselines to identify:
 - what work will be performed
 - how much the work will cost
 - when will the work be completed
- It is a process to identify, document, and track the technical work to prevent **scope creep**

How to Develop the Plan

- Creating a Work Breakdown Structure (WBS) is the first step
- It establishes the **framework** within all planning, budgeting, performance measurement, and actual costs are collected and reported
- Defines a project and **groups** the projects discrete work elements in a way that helps organize and define the total work scope of the project



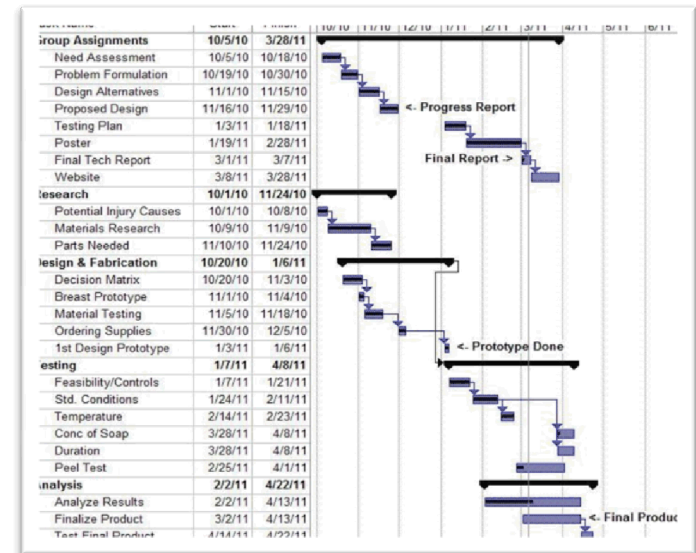
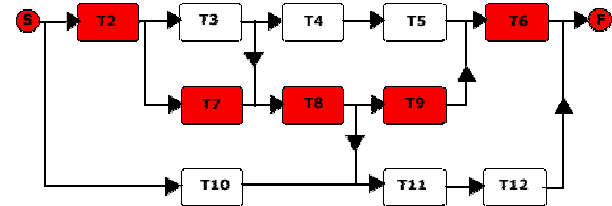
(Example of WBS)

Table 1. FY12 WBS for SNL/NM ER Operations Activities

Indenture Level									WBS Title	WBS
1	2	3	4	5	6	7	8	*		
				X					SNL ER Operations	1...
					X				Regulatory Closure	1.01
						X			Regulatory Closure Subproject Oversight	1.01.01
						X			Mixed Waste Landfill	1.01.02
						X			Chemical Waste Landfill	N/A*
						X			Misc SWMUs/AOCs Regulatory Closure	1.01.03
					X				Groundwater	1.02
						X			Groundwater Subproject Oversight	1.02.01
						X			Burn Site Groundwater	1.02.02
						X			Tijeras Arroyo Groundwater	1.02.03
						X			TA 3/5 Groundwater	1.02.04
						X			Mixed Waste Landfill Groundwater	1.02.05
						X			SWMU 8/58 Characterization	1.02.06
						X			SWMU 68 Characterization	1.02.07
						X			SWMU 149 Characterization	1.02.08
						X			SWMU 154 Characterization	1.02.09
					X				Project Management/Controls	1.03
						X			Project Management Oversight	1.03.01
						X			Department Management	1.03.02
						X			Administrative Support	1.03.03
						X			Project Controls	1.03.04
						X			Regulatory Compliance/Fees	1.03.05
						X			Records Management	1.03.06
						X			Project Closure	1.03.07

Steps to Develop the Schedule

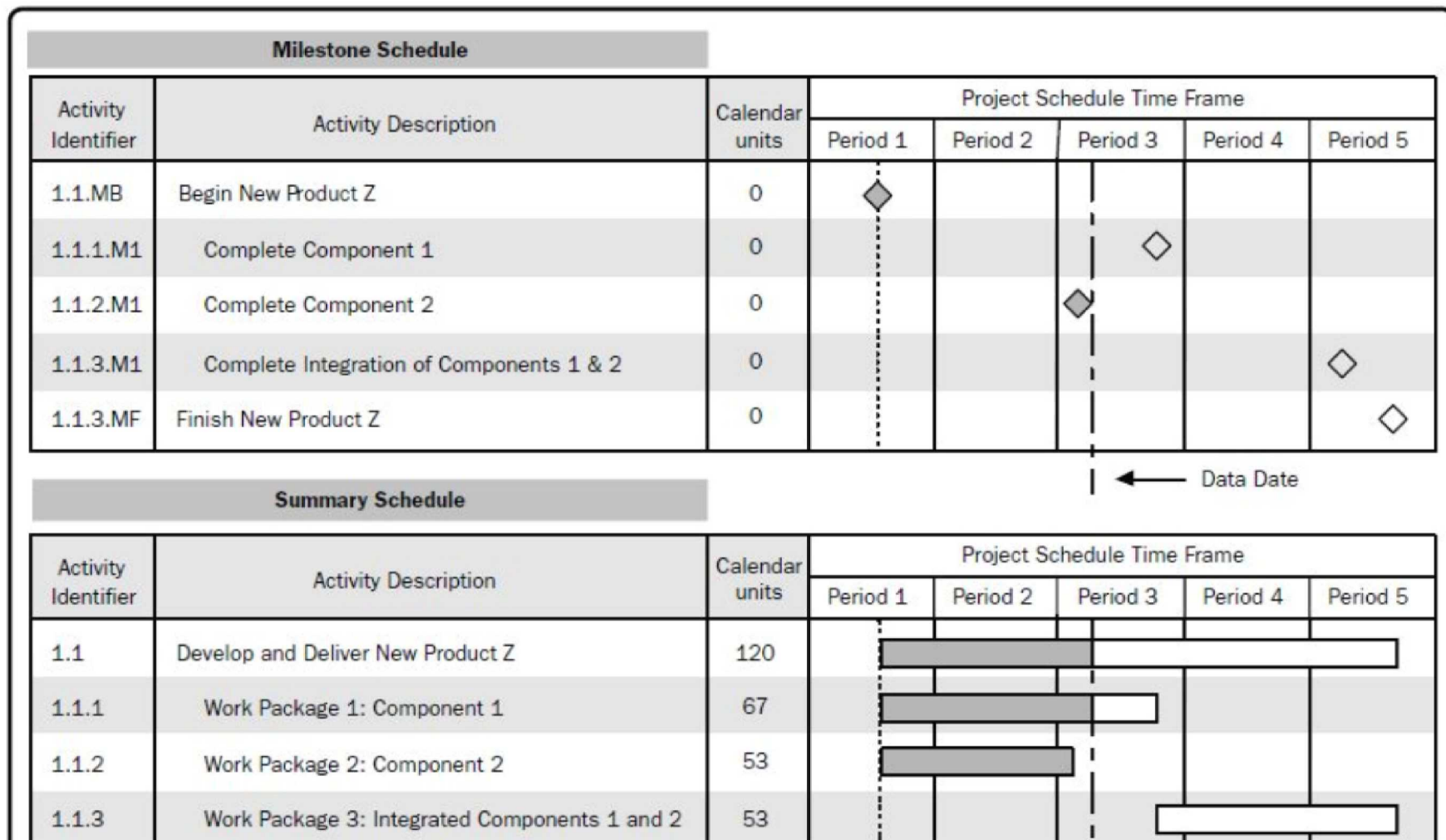
1. Define the activities
2. Sequence the activities
3. Estimate the activity resources
4. Estimate the activity durations
5. Develop the schedule
6. Tools
 - Oracle Primavera (P6)
 - Microsoft Project
 - Excel



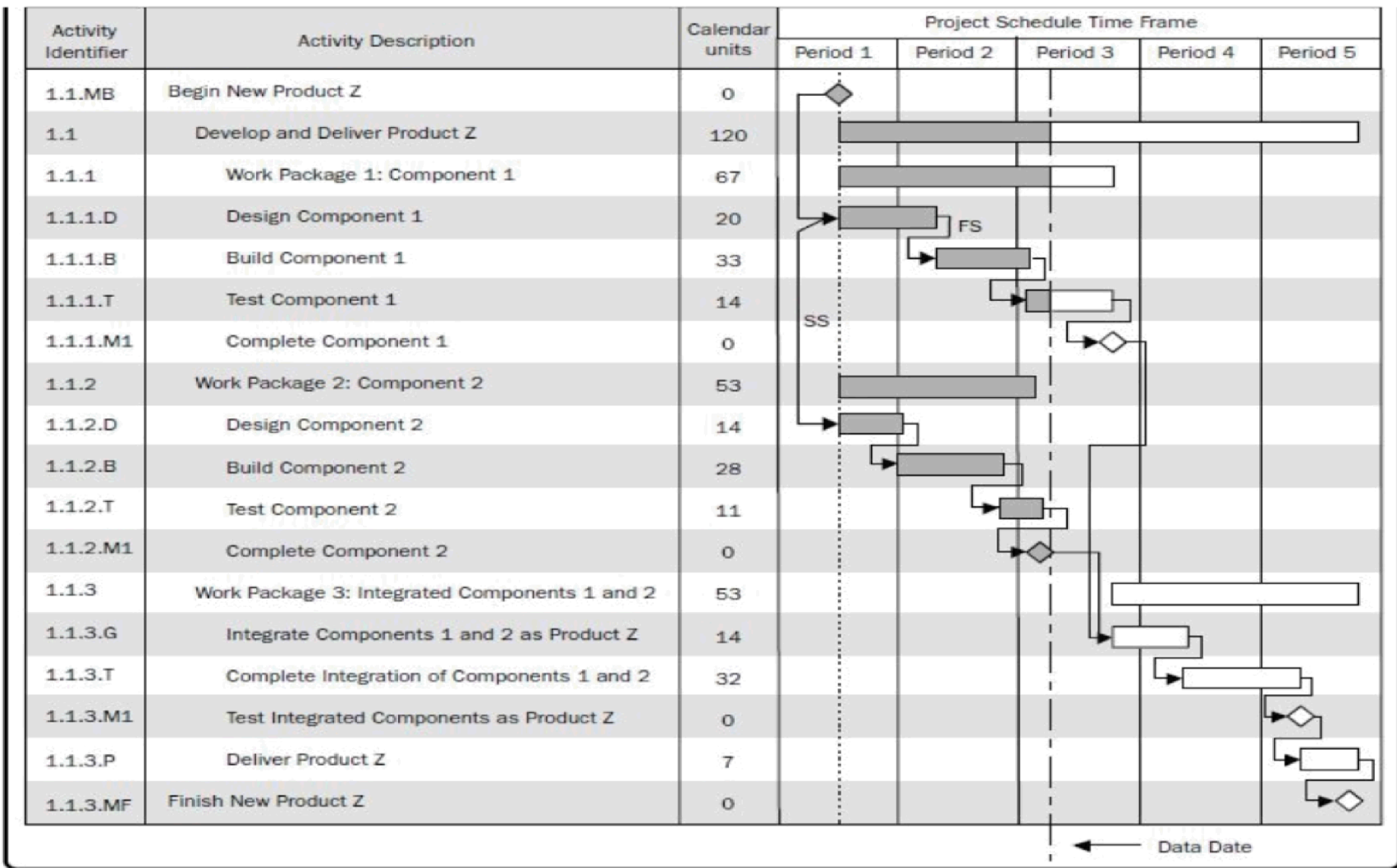
Rolling Wave Planning

- Useful tool when defining activities
- An iterative planning technique in which the work to be accomplished in the near term is planned in detail, while the work in the future is planned at a lower detailed level
- As more information is made available throughout the project lifecycle more detailed planning can occur

From High Level...

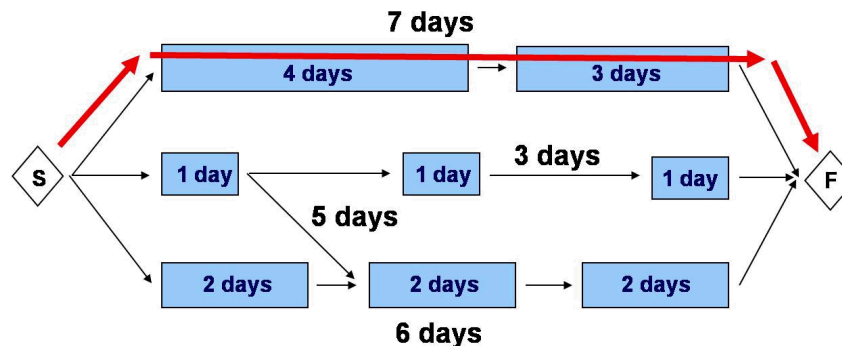


...to a more detailed view



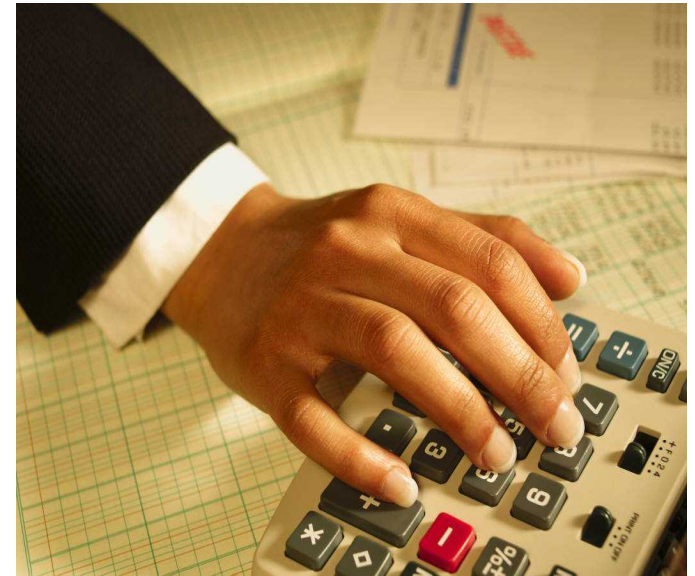
Using the Schedule: Critical Path

- The sequence of activities that represents the longest path through a project, which determines the shortest duration
- It determines the amount of schedule flexibility on the network paths by measuring the amount of time an activity can be delayed (FLOAT) without delaying the project finish date or a critical deliverable
- This represents the project end date and should be closely monitored

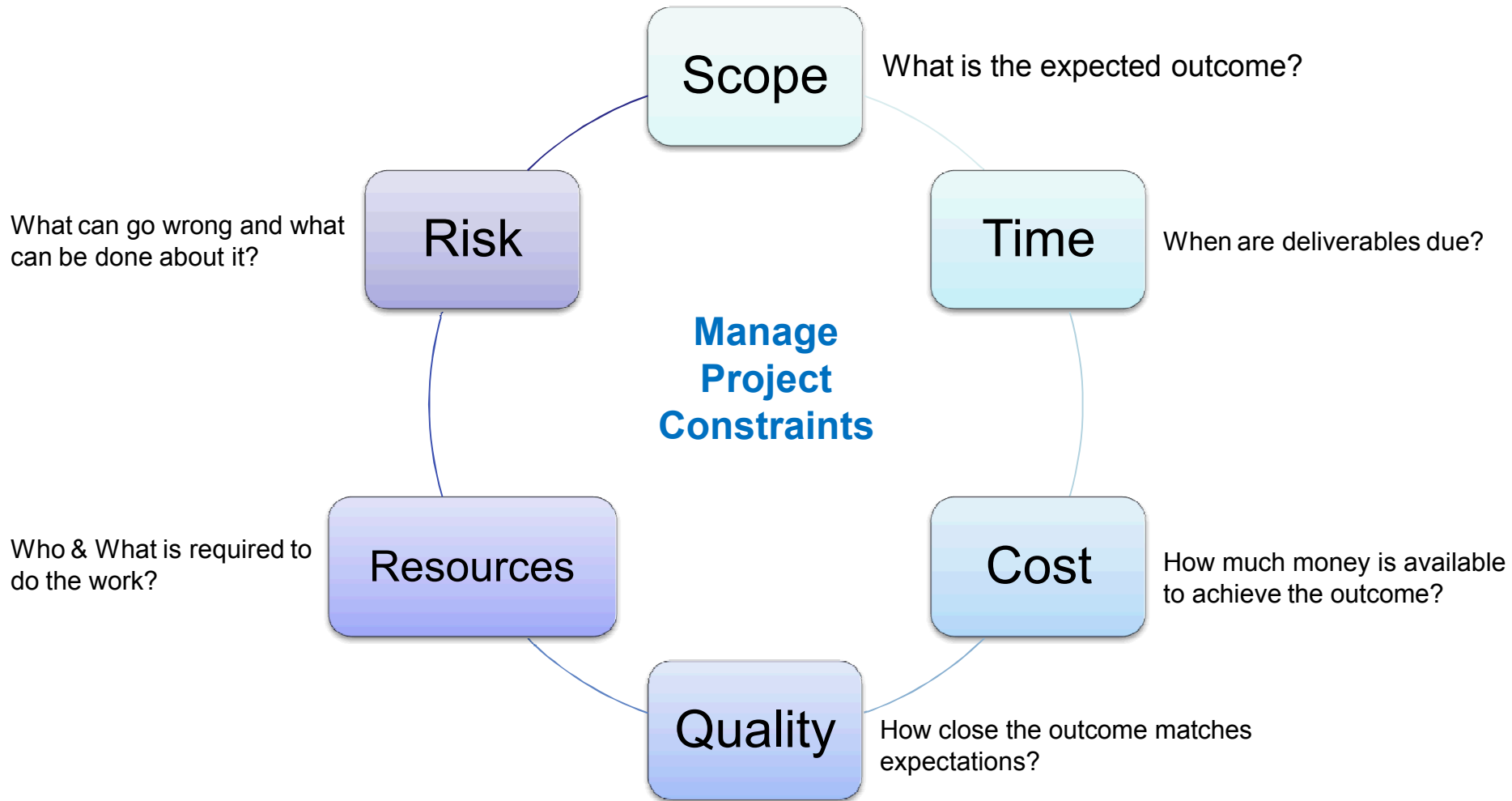


How to Develop the Cost Baseline

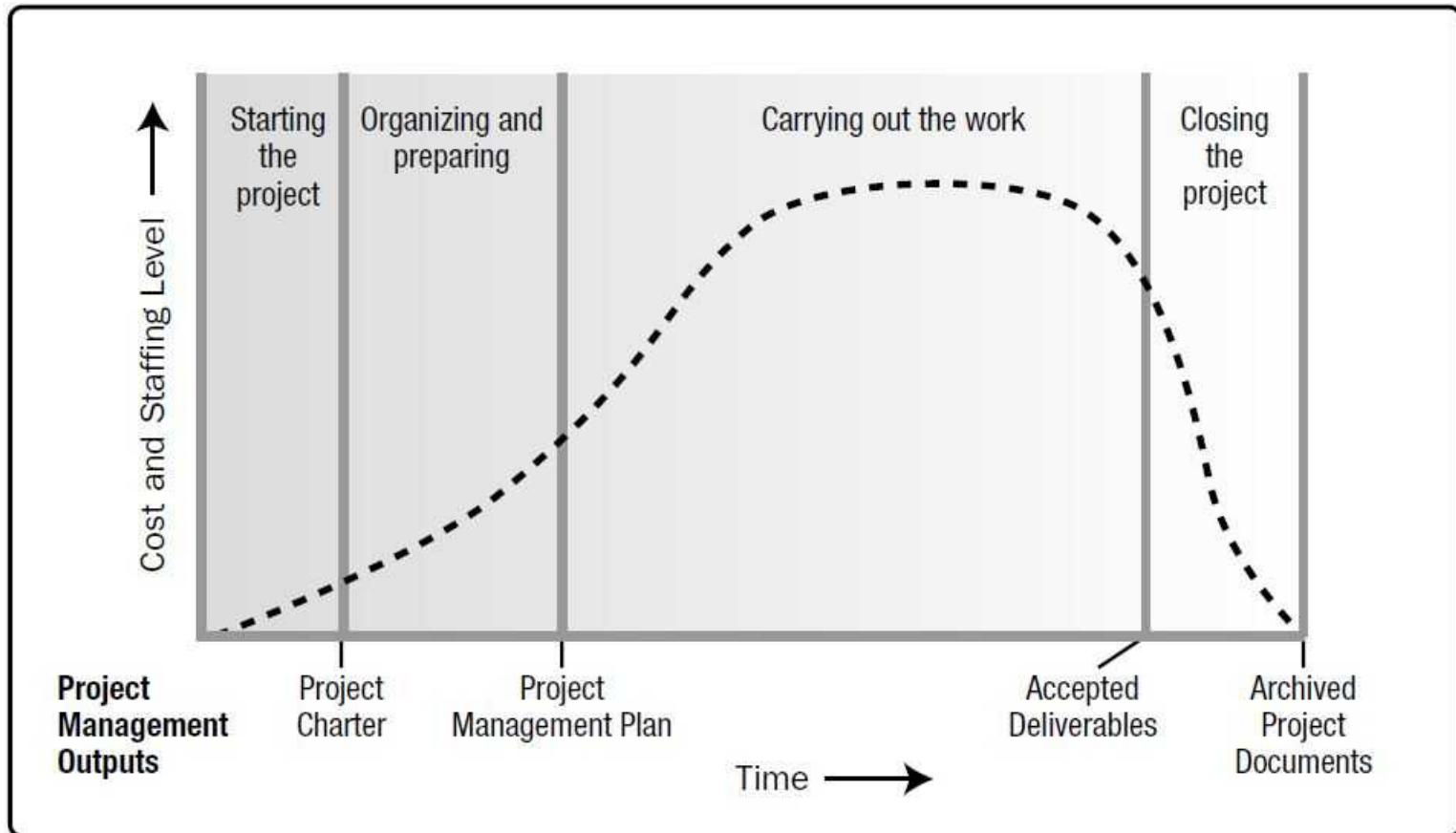
1. Estimate Costs for Activities Scheduled
 - Parametric
 - Analogous
 - Bottom up
2. Determine Budget (develop a baseline)
 - Monthly Spend Plan
 - Yearly Budget
 - Total Project Budget
3. Extra Funding to Address Risks
 - Contingency: covers known risks
 - Reserve: covers unknown risks



Benefits of Lifecycle Planning

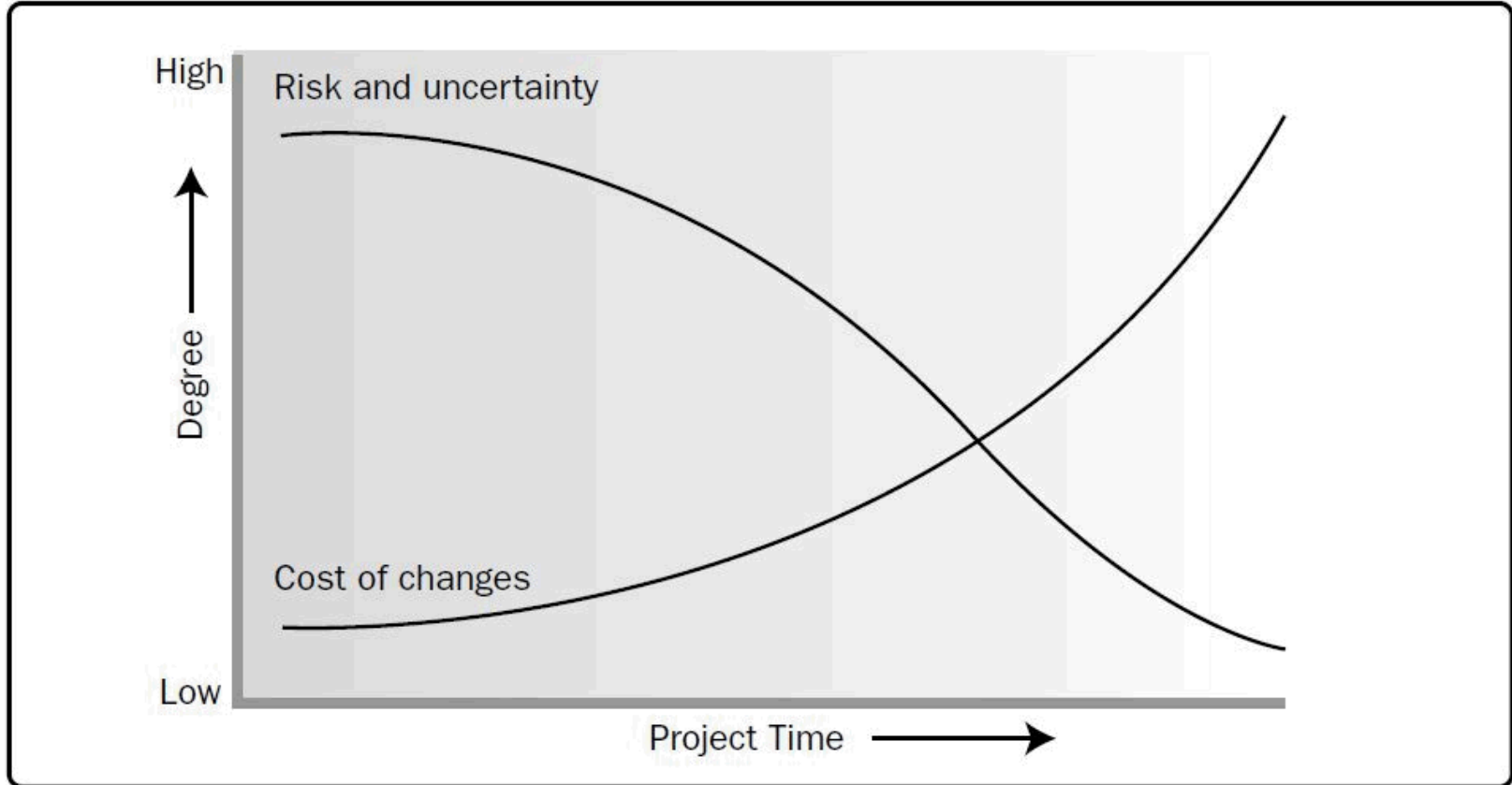


Project Lifecycle



Typical costs and staffing across the average project lifecycle

The Impact of Poor Planning



Conclusion

- Lifecycle Planning is a helpful process to manage your project
- It helps provide a justification for your budget
- It helps identify risks early on
- It helps to identify the need for resources ahead of time
- Planning should be iterative and the project plan should be continuously improved and updated as more information becomes available

References

- The Project Management Institute www.pmi.org



- A Guide to the Project Management Body of Knowledge (PMBOK Guide), 5th Edition, 2013