





A Practical Guide to Project Planning A Step-by-step Approach

ROD SOWDEN





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About this guide

Who's it for?

This guide is for anyone involved in planning who wants to improve their project performance.

If you are involved in project delivery, you are probably thinking that everyone around you knows how to plan – except you. You may be a team member, a project manager, or even a senior project or programme manager, and somehow the whole planning techniques thing passed you by. Your experience tells you that estimates always seem to be wrong, and nobody else seems to estimate any better than you, so why bother?

The point is that is that bad planning wastes time and money. If you are a complete novice to planning, this guide is for you. As a senior project manager with all the main project management qualifications, you probably don't spend enough time on planning and this guide will remind you of some fundamental techniques to help improve your overall performance.

Why do you need it?

Good question. Extensive research through maturity assessments has shown that inconsistency and lack of planning techniques are major weaknesses in the way we deliver projects. Projects come in many different shapes and sizes and it is recognized that no one size will fit all. However, the steps outlined in this publication establish a number of core principles that can apply to all projects.

Organizations that have effective project planning have increased ability to change and improve their performance through:

- A consistent cycle that enables the business to remain in control of the project
- Improved and consistent information, which enables more informed decision-making about priorities
- Early identification and management of issues, which maximizes the chances of success
- A greater transparency about the true cost and risk associated with individual initiatives
- An ability to share experiences, develop a body of knowledge and learn from others
- Planning in outline for a whole project, and in detail stage by stage as we recognize the 'planning horizon'.

A consistent approach to the development of robust and reliable plans that enable projects to deliver to time, cost and specification will help your organization to be at the forefront of project management delivery effectiveness.

Who's it by?

Rod Sowden



Rod Sowden founded Aspire Europe in 2004 after leaving the BBC. It is an organization dedicated to improving organizations' programme management performance. In the last 10 years he has travelled the world working on assignments and lecturing on a variety of topics. He was the lead author on the 2011 edition of *Managing Successful Programmes* (MSP®), a role he also held for the 2007 edition. The MSP Survival Guide series of publications, which support individuals in key programme roles, have also been written by Rod.

He pioneered the development of maturity models to measure organizational performance, and was the lead author in 2008 for the Portfolio, Programme and Project Maturity Model (P3M3®) (co-lead author for the 2015 version). Overall, Rod has helped more than 150 different organizations to improve their portfolio, programme, project and change management performance.

How is it organized?

Ideally this publication should be read before the idea for a project has arisen; however, we understand that in the real world planning is often not considered until after a project has been initiated. This publication provides 'staged guidance', allowing you to develop your plan in a step-by-step manner.

Each chapter represents a new stage in the project planning lifecycle and starts with an overview that includes:

- **Explanation and context** The likely things happening during the stage being described and when they would be expected.
- Inputs/activities/outputs A description of the key activities that should take place during the stage – including the inputs (documents or information required to complete the activities) and the outputs (documents or information which are created as a result of the activity).

Each of the activities within the stage is then described in turn. Each activity may contain:

- Technique A suggested best-practice technique to complete the activity. We provide a
 detailed explanation of the technique and how to apply it.
- Example A demonstration of the technique using a worked example.

- Advanced information Information that is more challenging, such as a statistical technique.
- Tips Extra information to help you further identified by the 'pen nib' icon.

We have used two main case studies: a simple one in Chapters 2 and 3 that covers the setting up of a training course, and a more complex case study in Chapter 4 about setting up a helpline, which enables us to use more complex techniques.

Each chapter finishes with a list of role responsibilities for that stage.

Two appendices are also provided. Appendix 1 summarizes the different plans that you may come across during project planning, while Appendix 2 provides a brief summary of how the techniques and examples given in the main text can be pulled together into the overall project plan.

Foreword

The project management community comes in for a great deal of unfair criticism, much of which stems from the way in which projects, both large and small, are destined to fail before they start because of poor planning. Sadly, a proposal's chances of becoming a live project often depend more on the level of authority of its backers than its value to the organization, with the result that organizations devote large amounts of resources, especially money, to poorly planned projects.

All too often project management then takes the blame. This is like being asked to win a race with no clear route and no finishing line. Planning, especially before the project starts, brings clarity. A *Practical Guide to Project Planning* lays out a sensible process for planning a project and evaluating proposals in a consistent manner, leading to a realistic decision about their worth.

Successful projects start with a clear plan describing timing, scope, budgets, measures of business success and an understanding of what project success will really look like. This publication supports this ideal and brings a logic to where and when techniques should be used that is missing from many other books. Recognizing the critical need for upfront investment in resources to give clear targets and timescales, this guide will help you to devise a project plan that will give the project team and the organization a fair chance of delivering success.

Geoff Reiss M.Phil, HFAPM

Principal of Geoff Reiss Ltd Honorary fellow of the Association for Project Management Founder of ProgM – the programme management special interest group www.geoffreiss.com

Preface

To achieve great things, two things are needed: a plan, and not quite enough time. Leonard Bernstein

In the past 10 years, Aspire Europe has been involved in more than 150 maturity reviews using the P3M3 maturity standard, provided consultancy to some 200 organizations, and delivered training to around 3,000 people across the globe. The one astoundingly consistent fact that has come out of this is that most organizations are very poor at project planning, and this is a major constraining factor on their ability to deliver.

The industry is not helping itself. If you have a project manager who has one of the main qualifications from the Association for Project Management (APM), Project Management International (PMI), the International Project Management Association (IPMA) or PRINCE2®, the reality is that during the week of training they probably spent less than 15% of the time learning about planning – so the lack of good planning should not surprise us.

The majority of project methods and in-house handbooks fail to provide standards or guidance on what techniques to use. This publication started life as guidance for one of Aspire Europe's clients, but the more we delved into the subject, the bigger it became, and before long the foundations of *A Practical Guide to Project Planning* had been laid.

We have created a step-by-step approach to developing a plan that is aligned with the common stages in a project, we have explained the best-practice techniques simply and we have given you examples based on straightforward case studies. As the people who reviewed the publication noted, the guide goes beyond just planning, because planning and project management are inherently linked through the project lifecycle.

Whether you are new to project management or have qualifications in the subject, you will find something in this publication for you. It will help to demystify some of the common vocabulary so when people use the terms you will understand what they mean, rather than nodding sagely while being totally confused.

If you are looking for a practical guide to help improve your project planning and increase your ability to control the plan, this is the publication for you. No matter what framework you are using, planning is a key element essential to achieve success.

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James Arrowsmith is currently working for Antalis Limited as project management office director and is responsible for managing the company's portfolio of more than 50 projects. James has a proven project management track record stretching back over 25 years. He originally qualified as an accountant in the early 1990s. James has carried out a variety of jobs within finance (including finance director) and initially specialized in the implementation of finance projects. He moved into general project management in 2003 and has subsequently implemented a variety of programmes and projects after supplementing his practical experience with formal PRINCE2 and MSP training.

Paula Bartram

Paula Bartram joined Boeing Defence UK Ltd in February 2013 and is responsible for the programme management office, reporting into the vice president and managing director, David Pitchforth. Paula ensures organizational accountability, a more consolidated view of decision-making, transparency and maintenance of standards across its UK defence programmes including Information Services, UK Rotorcraft Support and Training. Her role also ensures the embedding of programme and project management best practices through appropriate governance and training.

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Richard Caton is a programme and project manager at the London Borough of Hackney. He is lead facilitator for the public sector Project and Programme Management (PPM) Community of Practice, a best-practice online network of around 1,800 people, and is also chair of the London PPM Forum. He has previously reviewed several Cabinet Office PPM guides, including Management of Portfolios (MoP®), Portfolio, Programme and Project Offices (P3O®) and P3M3. Richard developed Hackney's project management approach including methodology, tools, training and performance monitoring and was instrumental in developing the Public Sector Programme Management Approach, a wiki-based methodology viewed over a million times. Richard led Hackney's London 2012 Day Job programme and currently manages the council's Transforming Day Care project.

Adrian Davis

Adrian Davis is a member of the Civil Service Project Delivery Profession, with expertise in project controls such as planning, scheduling and dependency management. A former head of profession for planning within the Home Office IT Portfolio, he is now the senior manager leading on developing planning capability in the Department of Energy and Climate Change. As the Departmental Planning Advisor, Adrian is in contact with those skilled and unskilled in project planning and scheduling on a regular basis. He is a proven coach and very knowledgeable about the challenges in making planning easy for those new to the discipline.

Ralph Howle

Ralph Howle is the Corporate Planning Manager at Devon & Somerset Fire & Rescue Service. He has worked on large projects including the first voluntary combination of two fire and rescue services and the South West Regional Control Centre. He has led the tailoring and implementation of programme and project management methodologies and systems so they are matched to need and organizational maturity. Ralph also specializes in organizational performance management including the development of business models and frameworks, organizational approaches to business planning and undertaking improvement reviews. He leads on public consultations for substantial changes. Ralph volunteers his time as chairman of a local sports club.

Peter Johnson

Peter Johnson has skills in PPM with experience in public and private sectors in the UK and internationally in the sponsorship, management, application and training management of PRINCE2 (he chaired the PRINCE2 change control board for the 2009 version). He has MSP and APM qualifications and carries out Gateway (peer) reviews. As a civil servant, Peter was responsible for the development of PPM skills in central government as part of the Office of Government Commerce. Peter now designs and delivers PPM courses for training organizations and is continuing to contribute to the development of the PPM profession, as a volunteer, within the APM.

Kevin Parker

Kevin Parker is a project management professional with more than two decades of experience in a variety of sectors including health, justice, policing and sport. The last eight years have been spent at UK Sport, an organization that provides strategic investment to enable the UK's Olympic and Paralympic sports and athletes to achieve their full medalwinning potential. A key role here was project managing the award-winning 'Mission 2012' process that helped sports on their way to unprecedented success at London 2012.

Lee Pundsack

Lee Pundsack is a project manager for Plymouth City Council, working within the Transformation portfolio. He has been working for the local authority for 15 years, initially with Environmental Services. He started on the 'shop floor' and worked his way up through to management. He began his project management career in 2014 and became a qualified PRINCE2 practitioner in the same year. Recently, Lee has been working on the Commercialization project, creating new income streams for the council.

1 Introduction

Planning is at the core of good project management. Competent and accurate planning does not happen by accident: it is developed by learning from experience, using the right techniques at the right time to develop the required information and then acting upon that information.

The plan evolves – or, more accurately, plans evolve as there is usually more than one of them – through a number of steps. Planning itself is not guesswork; rather, it is the systematic calculation of the time activities will take, how much they will cost and when they will be delivered. However, it does involve estimating, making assumptions and therefore taking risks.

By having a clearly defined plan, the project manager will remove ambiguity and be able to take informed decisions that are transparent to the project board and stakeholders, and will provide an auditable impact assessment of the options.

The Association for Project Management (APM) values planning because it:

- Enables (viable) options to be evaluated
- Helps obtain commitment
- Enables communications
- Enables monitoring and control
- Enables informed change
- Helps to align with 'standards'
- May be useful to answer any future queries
- Informs the customer to enable effective contracting
- Helps the implementing suppliers to meet time, cost, and quality requirements
- Informs the risk management process, enabling monitoring and control.

1.1 Guiding principles of planning

I keep six honest serving men (They taught me all I knew) Their names are What and Why and When And How and Where and Who. Rudyard Kipling The guiding principles of What? Why? When? How? Where? and Who? underpin effective planning, and should be considered by all project team members who are involved in developing the plan.

- Why? tells us the drivers for change and is a key element of a business case.
- What? tells us the objectives, which help us decide which option(s) to take forward at a high level and the precise deliverables or outputs of the project. We need confidence that these outputs will lead to business outcomes that, in turn, result in the benefits that are explicit in the business case.
- How? tells us the approach that colours the content of the plans that is, the strategies that underpin the planning process.
- Who? When? and Where? will influence the resources needed and the planning schedule.

1.1.1 A consistent approach for all projects

All projects should follow the same basic steps and use the tools and templates provided to ensure that there is consistency of approach to planning that improves the quality of the project delivery. Without consistency, improvements cannot be made as there will be no baseline from which to build up.

1.1.2 Transparency about obstacles

All projects face challenges in terms of deadlines that have to be met. They may also be challenged to accommodate realism, ambiguity about what is required and the technical and organizational change difficulties to be faced. Failure to acknowledge these challenges and ambiguities will reduce the likelihood of success, even if it does seem expedient in the short term to ignore them.

Projects often start to go wrong very early in their lifecycles. Many of the issues that cause delays or failures could and should have been foreseen, but are either underestimated or ignored. Robust planning requires these issues to be defined and understood. A change as simple as a delay to the start date will probably result in a change to the end date unless something unexpected or fortunate happens, or additional resources (costs) are applied.

1.1.3 Plans should be metrics-driven

All plans should have estimates and tolerances of time, cost and quality built into them. By using the tools provided and accessing the experiences of others, the accuracy of these estimates will improve, leading to better delivery of business solutions.

If execution of a plan takes longer than estimated, and there is slippage against the plan, that time can never be re-captured. Therefore, unless a change is made to deal with the slippage, the project will run late and probably cost more. This in turn means later delivery

of benefits and has a compound effect on meeting the business case's benefits scheduled in the benefits plan.

As part of the development of the plan, there will be a point against which the plan is 'baselined' for time, cost and quality. This is when the plan is authorized, usually by a project sponsor. Beyond that point, all reporting on performance and progress will be against this baseline. This will enable greater visibility of performance and trends within individual projects.

1.1.4 Involve stakeholders in the development

One regular complaint from auditors of failed projects is that stakeholders have not been adequately engaged. Stakeholders will generally take two forms:

- Those who will be supporting and enabling the project through knowledge and effort (supporters or blockers)
- Those who will be receiving the outputs of the project (winners or losers).



Tip Recent studies by the UK's National Audit Office have shown that stakeholder involvement and perception are as significant to the success of a project as time, cost and quality management.

Stakeholders may well view the project as an inconvenient change or demand on their time, so they will need to be involved in the process of planning to minimize the impact on them and maximize the benefits of their involvement. Later these same stakeholders may be involved in many aspects of testing or quality control.

Nothing is for free. Stakeholder time and effort has a cost, whether it is financially attributable or intangible (e.g. time spent not undertaking other work or on trying to improve the stakeholder perception of the project). 'User' involvement needs to be budgeted for in plans – and committed to by a business representative when detailed plans are authorized.

1.1.5 Change must be controlled

A major reason for project failures is that during their lifetime changes to requirements and scope are included without any sort of impact assessment – on time, cost and quality or on the business case. Changes to requirements or time, cost and quality will require recalculation of the estimates, the plan's costs and the business case.

Major changes should be analysed. However, in real life consideration is rarely given to actually stopping the project; generally the focus is on maintaining momentum and overcoming the obstacle rather than reviewing the overall viability of the project. When planning the governance (i.e. the project strategies) the project manager should propose

the levels and scope of change authorities, and propose a change budget, in addition to the project budget and any financial tolerances.

Never underestimate the impact of the accumulation of the minor changes that go relatively unnoticed, without formal analysis and approval. It is the failure to control these small changes, as well as major ones, that often leads to time and cost overruns.

1.2 Project roles in planning

We refer to a variety of roles in this guide, and Table 1.1 provides a quick overview of what they do. At the end of each chapter, we give a summary of their role in the context of that particular stage.

Role	Responsibilities
Project sponsor	Person at the top of the project, personally responsible for making it a success, rarely from a professional project background but should have business seniority. PRINCE2 uses the term 'project executive', while others use 'sponsor'.
Project manager	Person responsible for getting things done, planning, organizing and managing resources and facilities that have been made available.
Business representative	Person who is the customer for the project at a junior level to the project sponsor. They have a very important role at the start to ensure the requirements are right and at the end because they will support the transition into service. In between they provide advice and support decisions about the functionality and transition. PRINCE2 has the term 'senior user' for this role, while others use 'customer'.
Suppliers (internal or external)	Persons representing the suppliers, who may be providing the services or outputs that are being built or acquired. PRINCE2 uses the term 'senior suppliers', while others use 'suppliers'.
Project management office/centre of excellence	In a larger organization, a central group that supports others or sets standards for how the project should be managed. It is sometimes also called a corporate portfolio office.

Table 1.1	Overview	of roles a	nd respons	ibilities in	project	planning

1.3 Stages of planning

Planning is an unnatural process; it is much more fun to do something. And the nicest thing about not planning is that failure comes as a complete surprise, rather than being preceded by a period of worry and depression. Sir John Harvey Jones

Figure 1.1 illustrates the four main stages of planning.



Figure 1.1 The four main stages of planning

1.3.1 Defining the Plan

Once the project is authorized to move forward, based on business and benefits analysis, the first stage for the project team is to formalize requirements. This work will endeavour to remove ambiguity and ensure the intent of the project is understood.

This is often the stage that is skipped or has inadequate focus, and may be the source of trouble once the project moves into delivery.

In PRINCE2 this stage is often referred to as 'pre-project' and it is assumed it has been done. If this is not the case, this may be the source of problems that are experienced later.

1.3.2 Designing the Plan

At the outset of a project a detailed set of requirements may be handed over to the project manager by the business representative who has been developing the requirements. The extent and complexity of these requirements will be a key consideration in Designing the Plan.

A key element of Designing the Plan will be setting the scope for the project that will define the boundaries within which the planning will work.

All projects are, to some degree, unique. Therefore, the approach to Designing the Plan may need to vary. There are a variety of techniques that can be used and this stage will look at business options, previous experience (i.e. learning lessons from the past) and other techniques to gather together the information that will be used to develop the plan using a chosen approach.

This aligns loosely with Starting up a Project in PRINCE2.

1.3.3 Developing the Plan

Next, we take the information gathered during Designing the Plan and look to develop the plans matching the optimized delivery option and approach for the project. There could be many different types of plan to be developed, not just one.

This is the point where a number of techniques and processes are used to manage the complexity.

This aligns with the Initiating a Project stage in PRINCE2, where the project initiation documentation and plans are being created.

1.3.4 Delivering the Plan

If a plan is not monitored and controlled it cannot, realistically, result in delivery of the tested, approved and accepted outputs. That does not mean that a plan cannot change, but any changes should happen based on careful consideration of the implications. Projects will probably face a number of pitfalls. Many of these can be forecasted, and the control of the plan should include the navigation of these obstacles. The project manager can trade off any tolerances for time, cost and quality to maintain overall progress within stage tolerance (i.e. take corrective action), but will have to escalate forecasts of exceeding tolerances to the project sponsor.

This aligns with the Managing a Stage Boundary process within PRINCE2, where the outputs are being delivered.

Reviewing the plan is an essential part of delivery. There should be regular reviews for effectiveness and the lessons documented and learned. If this is not done then the same mistakes may be made again and again (as happens all too frequently in reality), so this is a key part of project planning.

This links to the Managing Product Delivery process within PRINCE2, where lessons are being learned about the effectiveness of planning.

1.4 Planning process overview

In this section we describe the main steps that need to be followed to deliver some or all aspects of the project.

Planning is a process that continues throughout the life of a project. The plan is not something that is created at the start of the project and then left to gather dust on a shelf – it is at the heart of good project management. Without a plan, a project will become a set of random activities that might produce something of value at some stage; equally it may not.

The project should be commissioned in response to a business driver, whether it is a threat or an opportunity that has been identified. Within your organization this may trigger business analysis work to develop understanding of the driver and the likely effects it will have on the business operations. Business benefits derived from the analysis should be the justification for the investment in the project.

Once the analysis has been done, one or more objectives can be set, and these will set the direction and scope of the project. A well-structured project will also have success criteria defined at the start, normally linked to the objectives.

The next step is to establish the requirements, but this is an area that is often overlooked. If you do not have a clear understanding of what the project is required to deliver, what chances are there of being successful? The requirements set out what the organization needs from the project to enable it to achieve the outcomes and benefits. Once the requirements have been defined, the next step is to produce a technical specification of what is required to be produced (referred to as 'outputs' or 'deliverables'). Outputs, known as 'products' in PRINCE2, are the anticipated results of the project. An output can be anything that is tangible: a report, a policy, a building, or an item of technology. The product description describes how the requirements will be met, and what the output will look like. We use the term 'product description' here, but it could also be called a technical specification.

Creating the output as part of delivery usually constitutes the main part of the project. The output may be created in-house or procured in some other way, dependent on what it is. Delivery will normally be made up of a number of steps. Each step provides a control point for decisions to continue or change direction. A step may be linked to the creation of individual outputs or groups of outputs; this will depend on the project.

On completion, the output is tested and ready for use. In project-speak this is 'completed output' and is also an output of the project work. An example might be a database that has been created, tested and can be used when the other elements of the project such as training of staff on the new database are completed.

There will come a point where all project outputs have been completed and are ready to move into live use. At this point the organization has the capability to do something new or something different. Circumstances can change, so the organization can actually choose not to go ahead and could even mothball the outputs. Hence, this state is referred to as 'capability'. An example might be when an IT system is tested and ready to go, and everyone has been trained, but due to unforeseen problems with something else the live date is postponed.

From a project perspective, the final state is likely to be the outcome. This is the point after transition has been delivered and the capability is now live. The new capability and maybe the new ways of working are in place, the business has changed the way it delivers its services and it is now stable again.

Benefits will follow, but these will be within the domain of the business areas themselves and normally outside the scope of the project team. However, decisions during the project will be driven by benefits and it should always be remembered that the project exists only because of identified benefits.