SECOND EDITION

PORTFOLIO AND PROGRAMME MANAGEMENT DEMYSTIFIED

MANAGING MULTIPLE PROJECTS SUCCESSFULLY

PAUL RAYNER
AND GEOFF REISS
WITH DONNIE MACNICOL

ROUTLEDGE

Portfolio and Programme Management Demystified

SECOND EDITION

You're now responsible for a programme, or you've got a portfolio to manage? Where do you start? Right here!

Projects are not simply the bread and butter of an organisation. Form them into programmes or portfolios and they can be prioritised and integrated to deliver change to your organisation in line with your strategic vision. You will be able to control costs and risks and bring together a complex series of themes effectively.

This overhauled second edition now combines portfolio management as a parallel theme with programme management, and it is brought in line with the current thinking of the Association for Project Management and the Project Management Institute. It is written for managers in both the public and private sectors. This new edition includes half a dozen short case studies (from Belgium's Fortis Bank, a software company, local government, and central government), along with more on cross-functional management.

Together with *Project Management Demystified*, also from Routledge, it provides the tools to manage your projects, your programmes and your portfolio to a very high level.

Geoff Reiss is Senior Architect with Program Management Group plc. He has extensive experience in the construction industry and has grown into the project management specialism over a varied career.

Paul Rayner's early career with IBM in Australia in the late 1960s marked the beginning of a lifelong interest in the best ways of managing large-scale corporate projects. He was a Commercial Projects Manager for Cybernet Timesharing in the 1970s, and later built his own computer services business, Great Northern Computer Services. In 1990 he completed an MBA at Bradford University, and subsequently joined Logica plc as a Management Consultant, where he worked until his retirement in 2011. He was an active committee member of the Association for Programme Management, with whom he wrote the *APM Introduction to Programme Management*, and was a co-author of the *Gower Handbook of Programme Management* (2006).

He worked extraordinarily hard to improve approaches to portfolio and programme management, cheerfully involving himself in debates about why things go wrong and how to minimise risk of failure. He willingly gave of his time to deliver presentations in the UK and internationally. He was also a committed family man who took great pride in supporting the achievements of his three children. When he knew he was dying of cancer, he was determined to finish *Portfolio and Programme Management Demystified*, which he wanted to dedicate to them. He died, aged 64, in August 2011.

Donnie MacNicol utilises his extensive PM experience across multiple industries to lead consultancy, training, facilitation and mentoring assignments for global companies and government departments in developing project and programme leadership. Donnie chaired the Association for Project Management People Specific Interest Group for 10 years to 2011, is a Visiting Fellow at Kingston Business School, an individual member of the Acumen7 professional network and Partner at Synatus.

Portfolio and Programme Management Demystified

Managing multiple projects successfully

PAUL RAYNER AND GEOFF REISS

With a special contribution from Donnie MacNicol

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Acknowledgements and dedication

It was a sad time indeed when Paul Rayner died during the creation of this book.

Despite being ill and frequently in pain he insisted on working both at home and in the wonderful Wheatfield's Hospice in Leeds. He did not live to see the fruits of his labours.

This book therefore is dedicated to Paul's memory. He is fondly remembered as an expert in project and programme management as well as an author, linguist, historian, runner, mountain biker, husband, father and friend.

He would have wanted to join me in thanking our wives, Miranda and Liz, for their forbearance; the publishing team at Routledge for their guidance and support; and the expert group of people who took the time and trouble to read, absorb and comment on the drafts of this book: in alphabetical order:

John Bartlett FAPM, CPM

David Burton FRICS RPP MAPM, Project Management Consultant, David Burton Projects Ltd

Richard Copley, Programme Manager, Anaxas Consulting

James Dale MBA, FCIPD, RPP, MAPM

Geof Leigh, Director of Goaldart Limited.

All took the time and trouble to read the final draft of this book and pass comment. All are experts in programme and portfolio management, and their comments have been especially welcome. If you find fault in this book, blame me, not them.

You will never be aware of the many of errors and mistakes removed from the typescript of this book by my eagle-eyed copy-editor, whom I'll thank on your behalf.

I would also like to express my special thanks to Geof Leigh of Goaldart Limited, one of the UK's leading experts on the Cabinet Office publications, for his guidance and comment. Also two enthusiastic Master's students at the University of Warwick, DakoaY. Newman and Edun Ebunoluwa, for their help with the section on methods.

A very special note of thanks goes to Donnie MacNicol of Team Animation for contributing his knowledge and experience when people try to work with others in programmes and portfolios.

Foreword

When the idea of a book on project management was broached I went off to the quiet, peaceful village of Staithes on North Yorkshire's windy coast with a wordprocessor, a dog and a box of supermarket supplies. There I walked, ate and slept whilst the dog wrote most of *Project Management Demystified.*

Some 20 years on, after three updates, 20 reprints and the Kindle version, people still buy the book. It might have helped to misguide many otherwise hopeful people but they must have enjoyed reading it enough to tell their friends, as sales went onward and upward. Perhaps the most pleasing fact is that colleges and universities bought copies for their students.

When I was at college all textbooks had to be on the dry side of arid to make it onto the recommended reading list, so things in colleges must have improved. It has not been a spectacularly financially rewarding experience, as the total income from the book has hardly dented my overdraft, but it has been fun. I had thought I only had one book in me but later decided there was a need for some clearing of the air about programme and portfolio management – hence this book.

Project Management Demystified tries to cover the stuff you need to know about running one project. It tries hard to be down to earth, realistic and honest. It deals with being personally successful in project management and with running successful projects – two very different objectives. *Project Management Demystified* covers topics from defining your project through critical path and resourcing to choosing some software. It lets you sit in on a session where three people plan a small project. It moves on to special resources like money and introduces earned-value analysis.

Portfolio and Programme Management Demystified starts where *Project Management Demystified* leaves off. It deals with the important topic of programme management, that is, dealing with a large number of simultaneous projects within one organisation. It deals with organisational issues and the multi-project conflicts that can and do arise. It once again remembers that your personal career prospects are atleast as important as running a few hugely successful projects.

It never forgets that a successful project doesn't make a successful project manager. People take little notice of project and programme managers and planners. In most organisations the better you do your job, the less notice anyone takes.

So *Project Management Demystified* and *Portfolio and Programme Management Demystified* are designed to be a matched pair – one dealing with the management of single projects and the other dealing with becoming organized enough to manage many projects.

End of plug; good luck with your projects, programmes and portfolios.

1 Let's get these words straight

1.1 Introduction

Welcome to *Portfolio and Programme Management Demystified*.

This book is designed and written to accompany *Project Management Demystified*, a book that has been surprisingly successful and long lived. *Project Management Demystified* tries to do 'what is says on the tin'; it demystifies project management.

If you have a project to manage or are considering a career in project management, you might find *Project Management Demystified* a useful and entertaining way of understanding both how to run successful projects and how to have a successful career in project management. The book will also show you how a successful career is only distantly connected to successful projects.

There have been hugely successful projects where the project manager got the old heave-ho, and complete failures ending in doubles all round and promotions for the team. These are the extremes, but it is true to say that having a successful career in project management is not simply a matter of running successful projects. To start with, what does everyone mean by success?

Even if you are really great at running projects and have a successful career, at some point you will become involved in the issues that surround most projects. You may start to hear (or ask) questions like:

- Why are we doing this project?
- What is it supposed to achieve?
- What are benefits?
- How do I manage one project amongst all the others going on at the moment?
- How do I manage one project when it depends on other projects being progressed alongside mine?
- Who has stolen my project team members this time?
- Why did I get out of bed this morning?[1]

These and many other questions arise when your career takes you across the sea of project management to the shores of programmes and portfolios.

I have two observations for you if you find yourself at your local pub or party discussing portfolios, projects and programmes with your fellow drinkers.

1 If you have studied this book you will have the advantage of knowing that different people use the same terms in very different ways to mean very different things.
2 You really should get out more and find better topics for evening conversation.

The English-speaking nations cannot even agree on how to spell program(me). We will use *programme* throughout this book, but you should remember that people more aligned with the USA will use the term *program*.

This book starts off, in Chapter 1, by explaining the differences between programmes, portfolios and projects. Recognising the fact that these terms are bandied about loosely and mean different things to different people in different industries, this book does try to help clear the air.

Whilst this book will use one very logical meaning of these terms, we will outline the various meanings to be found in the many corners of industry and the public sector throughout the world.

The largest chunk of this book is divided into two parts. In Chapter 2 we discuss *Doing the right projects* and in Chapter 3, *Doing projects right*.

In Chapter 2 you will find that for many people either portfolio management and/or programme management is about carefully selecting, testing, defining and authorising the optimal group of projects that will most help an organisation achieve its business goals. Such organisations seek to do *the right projects*.

In Chapter 2 you can discover the wonderful world of benefits, another term much abused by those who find the idea of a project delivering some kind of benefit too embarrassing for words.

Chapter 2 looks at the way benefits management can help to ensure that programmes and projects actually deliver some improvement to the organisation expecting change. It will put forward the view that benefits can be the measures of success of a change programme and that keeping a focus on benefits is central to successful programme management.

It does seem that many projects start their early lives as a 'pet project' or bright idea in someone's mind. This might be the greatest thing since baked wheat divided into flat sheets,[2] it might be an utter waste of time, or anywhere in between those extremes. Sadly the chances of the project being given the green light and becoming a fully fledged, mature project will depend less on its value to the organisation and more on the adroitness, power and political skills of its backers. We generally hail the messenger, not the message.

For this reason project managers are to be found in most organisations lugging around their ideas for new projects, seeking support, looking for a sponsor whilst trying to 'justify' them in terms of their value to the organisation.

The way in which many projects are conceived is often both misguided and economically dangerous.

Chapter 2 outlines best practice for portfolio management: the process for selecting and prioritising change programmes and projects. It suggests that the organisation first set its overall strategy and then define programmes that will best help it achieve that strategy. In other words the directors and other strategists of the organisation create an image or paint a picture of where they see the organisation in a few years' time. They then consider different ways to deliver that future and select the programmes that will best help. These programmes are mandated to the programme management team, who then subdivide the programmes into projects, safe in the knowledge that the projects do not overlap too much, cover the needs and seem best aligned with the overall strategy. Only then do these projects get the go-ahead.

This top-down approach has been adopted by a wide range of organisations. No longer do projects emerge from the bottom up; in fact in some cases no projects are permitted unless they are the direct results of the top-down, strategic approach.

Regardless of the mechanisms for choosing projects, many people think that programme management means managing a whole plethora of overlapping projects that (a) rain down on them from a mysterious source way above their management level and (b) complete for precious resources and time.

Such people will value Chapter 3.

However well or badly your organisation's portfolio of projects has been selected, you want to make sure that you at least do *the projects right* – even if they are not the right projects and even if you don't really know if they are the right projects for your organisation. You might be a contractor carrying out a range of projects for a range of clients; if so, the right project is the one that makes the biggest profit.

There is a raft of problems that arise when managing a whole group of projects within a single organisation, many of which are not recognised by the traditional approach to projects. In Chapter 3 you can read about ways of providing your senior management with an overview of a whole range of projects, how some organisations share resources across their projects and some tricks that help to centralise risk, assurance and other techniques.

Governance is a term you will hear a great deal about in any organisation grappling with multiple projects – for one simple reason. If you run one project in your spare time, at home or in your local community, you can use any systems and processes you like to manage that project. If, on the other hand, you run one project amongst many in an organisation where many

project managers are running many projects, some standardisation will be very useful. Governance sets some rules and ways of working that support consistency and good practice across all of those projects. This, at last will, give you a chance of taking over a project when a project manager falls under a bus. Chapter 4 therefore deals with the topic of governance.

This book is designed to help you, dear reader, as much as your projects and programmes. You should know about the number of recognised authorities that have published guides and methods on programmes, portfolios and projects. The US-based Project Management Institute (PMI), the UK's Association for Project Management (APM) and the UK's Cabinet Office have all published guides and standards in these topics. Chapter 5 looks at these publications and the range of qualifications that are associated with them. Therefore Chapter 5 deals with methods. These are designed to bring a degree of consistency to the management of a group of projects and have become very popular across the Western world.

Many organisations set up a central operation designed to support, report and police the whole range of programmes, portfolios and projects. These operations have grand titles like Enterprise Programme Office or Project Support Office. Chapter 6 looks at the range of names, titles and functions of these groups.

The many people involved in programmes, portfolios and projects are almost inevitably human beings with personalities, hopes, ambitions, needs and motivations of their own. The relationships between all people in teams are complex, but this is especially so in programme management, where teams, often formed rapidly from both friends and strangers, are expected to get on with a job quickly and smoothly. Chapter 7 suggests some ways of thinking about people, teams and leadership.

Finally, in case you are still determined to know more, the further reading list will lead you to websites, the library and other sources of information on these topics.

1.2 What are portfolio management, programme management and project management?

'Up close, a mosaic is just another piece of broken glass.'

It is extremely hard to differentiate between projects and programmes. To begin with, it is hard to even find a satisfactory definition of a project. A project is a human concept and the word 'project' can mean any number of things to any number of people. One simple definition is 'a group of people getting together to do something'.

Can you think of a project that does not contain smaller projects and which is itself not part of a larger project? Well done if you can. You probably stretched the meaning of the word 'project' to do that. This indicates that we humans draw a fence round a group of tasks and decide to call that a project.

Projects and programmes are on a scale, parts of a spectrum. Some initiatives are clearly projects and some are clearly programmes, but a great number could be regarded as either a project or a programme.

Not only are these definitions hard to find, they do not really help us very much. However, please don't get too despondent, we can do a much better job of defining and differentiating between programme management, project management and portfolio management. That is what we will do next.

Project management, programme management and portfolio management are terms that mean many things to many people. We hope that this book will make a small contribution to the crystallisation of the many terms and the many uses for the terms that exist. At least you, dear reader, will gain an insight into this fast-developing world of projects, programmes and portfolios.

Almost everyone would agree that programme management is about managing a number of projects. In practice this includes most companies that are running a number of projects at the same time, and this therefore involves most decent-sized organisations.

Most would agree that managing a programme means being able to stand back from the detailed problems and get an overview of the objectives as a whole. As well as looking at the individual bits of glass, you need to see the whole mosaic.

Many, but not all, would argue that programmes deliver change rather than products. Such people would argue that whilst each project delivers a *product* or *output*, a programme brings together many such products or outputs and delivers an *outcome*, a *change* to the organisation.

Most would agree that the portfolio refers to all the initiatives (programmes, projects and so on) within a single organisation.

You will see later that there are numerous, quite reasonable, definitions of these terms: projects, programmes and portfolios. There is some value in discussing these: it will at least let you understand what the person leaning on the same bar as you is rattling on about. And yes, there are some human undertakings that are most definitely projects and others that are certainly programmes. There are, however, middle-ground initiatives which could be thought of as projects, programmes or portfolios.

We believe it is better to focus on the differences between *programme management*, *project management* and *portfolio management*, where divisions are clearer and much more useful than the grey, fuzzy lines between projects, programmes and portfolios.

1.3 Programme management

Let's firstly deal with change programmes.

One of my favourite definitions of change programme management is:

> The coordinated management of a group of projects which are designed to change the way an organisation performs.

This implies that an organisation designs and runs a collection of projects designed to deliver change. Change might include increased profits, reduced running costs, better service levels, improved quality or safety.

Whilst 'change' is used a great deal in programme management it is a bit misleading. We don't just want to deliver change, we want to deliver improvements. Change could imply making things worse, and we don't want that kind of change blotting our CV, do we now?

Programmes are supposed to deliver the organisation's strategy. For example an organisation may wish to enter the Chinese market, which will imply a group of projects, including translating its product range, opening up a partnership or marketing operations in China, setting up a support centre and warehousing facility.

An organisation may have numerous programmes, including those to increase customer satisfaction levels, reduce wastage and open up new market sectors.

The degree of change will often be measured through benefits. A list of benefits might include increased profits, decreased costs and reduced pollution. Such changes will normally be enjoyed by the organisation long after the programme has ended.

> You could have a programme designed to help your organisation get better at delivering projects.

The slight problem is that these are not the only definitions, so, if you keep reading, you'll discover some more attitudes and definitions in a moment. You'll also see that programme management includes all of project management and then some.

Organisations of all kinds manage programmes. They range from administrative organisations through computer software houses to jobbing engineering works and arms manufacturers. Such firms may have a good hold on their individual projects with existing project-management techniques or they may have decided that project-management tools do not really meet their needs. We might also talk here of a wide range of organisations, including both central and local government departments such as the very useful Health, Environment and Taxation departments

Programme management is a thin layer of management forming a bridge between the project management teams and the organisation's strategic team (Figure 1.1). This layer involves defining each individual project so that all projects are aligned with the strategic objectives of the

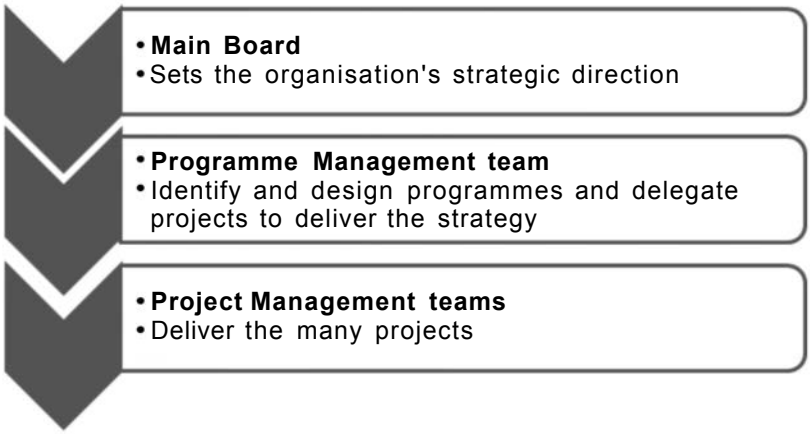

Figure 1.1 Programmes and projects

programme and are planned and resourced accordingly. The programme management team defines the projects, delegates them to the project managers, observes and monitors those projects and helps to provide an environment within which those projects can successfully run.

Programme managers do not micro-manage; they focus on the high level, seeking the longer-term view, and keep out of the day-to-day detail of the many projects.

Programme managers should be able to respond to changes in strategy and changes in the environment within which the organisation operates. Such changes may mean modifying or cancelling existing projects or starting new ones.

In some ways the programme management team matches the systems design people in the IT world. It bridges the gap between people who want software tools but cannot design them and software developers who can develop tools but don't understand what they are supposed to do.

Don't forget that programme management is used to cover the management of any group of related projects. An outsourcing organisation or contractor faced with a group of projects for one or more clients will use the term 'programme management'. These projects are designed to deliver benefits to the client's organisation and the contractor aims to profit from them. Such projects may be connected in some way: they use the same resources, overlap in time and perhaps share common technology.

1.4 Portfolio management

A large organisation may have many programmes and many projects all running at the same time. Such an organisation should be experienced in

managing its workload and will be continually trying to improve the way it operates through these initiatives. Such an organisation will often use a portfolio management layer between the main board of directors and the numerous programme and project managers (Figure 1.2).

Portfolio management normally covers all the initiates in hand within an organisation, including programmes, individual projects and other initiatives.

I promised to share with you the varied meanings of these terms. Well, portfolio management can be thought of as:

1 A management layer – the team responsible for all of the initiatives, programmes and projects with the organisation.
2 A process – the process of identifying, selecting, defining and prioritising programmes and projects within an organisation.

Therefore the portfolio management team devote its time to understanding the current strategic intent of the organisation and designing the optimal group of programmes and projects than present the best way of delivering

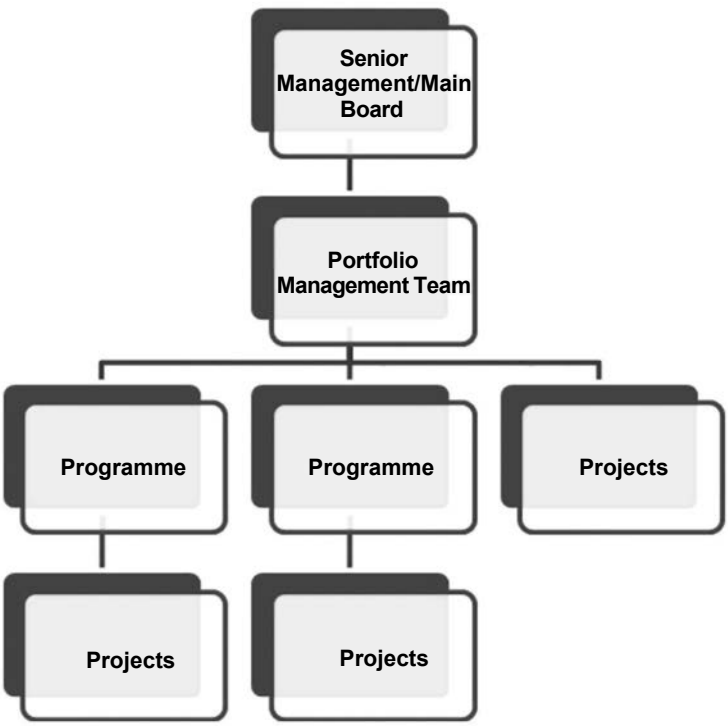

Figure 1.2 Portfolios, programmes and projects

this strategy. The 'best' group of programmes and projects will be the ideal balance of investment, risk and benefit.

It is very likely that a portfolio management team will consider and evaluate a number of alternative solutions before coming to any decisions. It may run investigative projects to get more information about a particular possibility.

Do not get the idea that this portfolio management is a one-off activity, it is only rarely so.

Usually the portfolio management process is a regular activity with major presentations to the board every three months or so. At these presentations the portfolio management will:

A simple example of portfolio management

A building-supplies distributor ambitiously decided to expand its business. Its declared strategy was to move from being the eighth to the fourth largest such chain in the country. The board had decided that they would expand the business by adding home DIY and related services to the existing business, which historically was mostly aimed at the building trade.

After some research and investigation they eventually decided to establish a number of programmes:

Store expansion programme: The objective of this programme was to increase the number of stores from 40 to 70. This was to be achieved by opening new stores in major conurbations around the UK.

Home services programme: This programme was designed to launch a range of services direct to home owners, including fitted kitchen and bathrooms. This implied expanding existing stores to allow for display areas for kitchens and bathrooms; making sure that new stores had space for these displays; arranging for contractors in each region to fit kitchens and bathrooms, which included making insurance and security checks; creating a kitchen- and bathroom-design function within the business.

Manufacturing programme: To assist with the expansion it was decided to open a factory manufacturing certain product lines that previously had been bought in. This meant a factory building, production line, warehousing, stock control, plus a new distribution system.

There were other, relatively small projects within IT/MIS, Human Resources and Accounts to support all this expansion. A larger car park was needed at the head office.

- present an update on the current workload;
- outline the results of investigations and analysis carried over the last three months;
- summarise progress, particularly in meeting strategic objectives, and the benefits realised so far;
- recommend new programmes and projects, and changes (and perhaps some cancellations) to existing programmes and projects;
- happily show its support for the chairman's latest whim.

1.5 Distinguishing programmes, projects and portfolios

Here is a nice, thought-provoking statement that neatly summarises the key differences between programme and projects:

> Projects deliver outputs, programmes deliver outcomes.

This is true of most organisations running programmes of projects to improve their own business. They make sure each project manager has a clear definition of the products, deliverables or outputs from their project and understand how their project ties in with other projects within the programme. The programme team brings together the many products, deliverables or outputs and creates a *capability*. This capability is handed over to the on-going business-as-usual management team and it uses it to generate the desired outcomes.

Let's take an example to explain this simple difference.

Let's say that a hospital management team decided to create a new facility, perhaps designed to deal with accident and emergency cases. It would need a programme made up of a number of projects to achieve this and it would naturally break the programme down into projects that reflected the structure of the organisation.

- A building: The management team probably has an estates team that looks after the range of hospital buildings. The programme team would ask the estates team to organise a building contractor and architect and generally get the building up to keep the rain out.
- Medical equipment: There will be a specialist team that looks after the range of medical equipment, and these guys will help to list and acquire the beds, oxygen masks, bandages, *sphygmomanometers*[3] and machines that go beep.
- Staff: The human resources team will help to establish the organisational structure and recruit the doctors, nurses, orderlies and other staff.

- Computer systems: The IT team will use the opportunity to play with all sorts of clever gadgets whilst setting up the PCs, network cables, servers, patient records system, staff recording, drug administration and so on.
- Cleanliness: The pathology lab will do tests to check that the wards and theatres are OK to use.

So we have a series of projects, each being managed by a project manager who knows about their area of work and all of which will eventually combine to create the new facility. The programme team will help to define these projects and delegate them to the project manager in the relevant department. There will be dependencies between these projects; for example, you can't start to install medical equipment in each area before the builders are done, and the pathology lab will want to test each area once the equipment is in place and working. Each project ends by delivering its specific output.

Once all the projects are complete, the numerous outputs can be assembled into the desired capability and this will be handed over to the hospital's management, team who will take over the running of the new accident and emergency department.

Only then can the outcome be achieved, demonstrated by the benefits as they start to be delivered – perhaps shorter waiting times, better patient care and greater profits.

This is the value path (Figure 1.3), and the value of the work that has been done continues to improve as the programme moves from stage to stage.

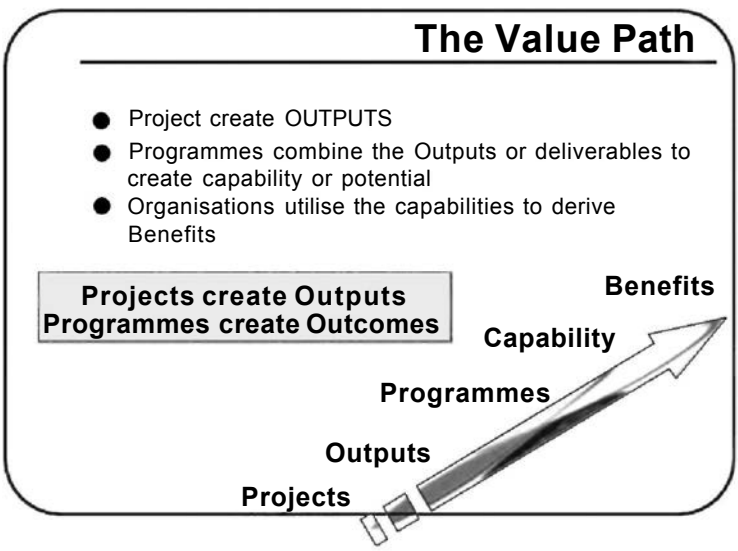

Figure 1.3 The value path

The term 'outcome' refers to the way in which the programme helped the organisation. Outcomes are usually written in qualitative terms such as:

- more profitable
- more efficient
- providing a better service
- safer.

The quantitative way of describing the result of a programme is its benefits – therefore the measures used to define the outcomes. So benefits might be:

- an increase in profits of 5%
- 7% more efficient
- 2 weeks' reduction in delivery times
- 12 fewer accidents per month

You should note that benefits are usually achieved by the on-going management of the organisation taking the capability created by the programme and putting it to good use. So a programme that created a new hospital wing will only deliver the decrease in waiting times if the company operates that new wing successfully.

You might also note that benefits may be impacted on by loads of other factors. If a new wonder drug emerges, then people suddenly no longer need treatment and the benefit of reduced waiting times is delivered with or without the programme to create the new hospital wing.

Table 1.1 on page 18 tries to emphasise the difference between projects, portfolio and programme management.

1.5.1. Few people work on one project at a time

These days the trend towards programme management is so strong that few project managers are actually involved in one lonely project. The majority of projects are small (relative to great dams and bridges) and run within an organisation where many other projects and other endeavours are also going on.

I am slightly envious of the project managers who have only one project on their plate. You find such people in the heavy engineering and construction industries, where normally each project is large, managed individually, separated from other projects. Often such a project is geographically isolated, which is a nice way of saying they are stuck in the middle of some desert, or in a remote valley cut off by snow for three months of the year.

Normally these project managers and their companies are paid to do the work. If you asked why they are building that particular road or a four-star, 300-bed hotel in Amsterdam, you would get this answer 'because we

are being paid to do it'. They are not interested and do not consider if a three-star, 400-bed hotel would be better.

Much of project management came of age on these large construction and heavy engineering projects. The techniques have been adopted by a wide range of organisations that tend to run a much larger number of relatively smaller projects. Such organisations are not paid to do the work; they try to change the way in which their own organisation works. For this reason we have, in general terms, focused on doing projects right without really worrying about doing the right projects.

So let's discuss the differences between the traditional, heavy-engineering approach to projects and the newer, more business-change approach to programmes.

When a team is set up to build a bridge, a tunnel or a zinc mine, the project manager has to fight to build his team from the specialists within the company. The brightest people are all in demand and are probably working on other projects in other corners of the world. He talks to department heads, other project managers and the personnel people and recruits from within his own company, other companies and, very occasionally, the Job Centre. This forms the key team who commit to building the bridge or road or dam for the next few years. Most become full-time members of the project team.

> The gender of the project manager above was selected by a random number generator.

Many project managers gather a team around them and, in an effort to foster team spirit, commandeer the west wing of the fourth floor of head office, set up an office on site or rent some space away from headquarters. They want their team to eat, live and breathe their project. They know that there are going to be enough distractions between male and females, smokers and non-smokers and between company car drivers. The last thing they want is the team members being borrowed to attend to some detail on their last job; to be presented to a client over a future job; or to sit on the local bowling green advisory committee.

Once the project team is formed, project management often becomes predominantly a matter of guiding and coercing resources through a network of sub-contractors. These sub-contractors are companies in their own right, companies that exist to perform specialist work on engineering contracts. They might be quite large employers specialising in double glazing, electrical wiring or underwater welding. The project manager and her team beg and plead, plan and look ahead so that the sub-contractors will elevate their project within the sub-contractors' in-trays. The project team generally deals with companies, not people. Essentially, the project team

sub-contracts the worry about resourcing to the management teams of the various contractors.

This randomly selected project manager happens to be a woman.

Bridge builders don't get involved with individual painters and welders, just as you don't when you get a building contractor to build you a house. You might recognise the bricklayer employed by your builder, but let's say that the brick-wielder wins the lottery and, having an IQ in double figures, hightails it to Bali leaving you both envious and one bricklayer short. You don't go to the Job Centre, you go to the building firm, as it is its job to replace the pools winner with someone else who will lay the occasional brick and demand tea at all hours. Project planning will mostly involve resource estimates in terms of the number of welders, carpenters and labourers that will be needed over time.

The factory or bridge builder has a strong and motivating sanction against unhelpful sub-contracting companies – their contracts can be terminated, they can replaced or simply not paid. A bridge builder will put the success of his bridge project way higher than the success of his sub-contractors' business. Such projects – the dams, bridges and major tunnels (but not your garage) – are the rare and wonderful examples of human ingenuity and ability. The team will talk about 'them' and 'they', meaning the companies they are working with. Tunnel-building project managers say things like: 'We need more carpenters from Cumberland and Sausage.' They don't say 'Nip down to the labour exchange to get some more chippies.'

Such people are running a project, a physical project with a very physical deliverable. They are not running a programme.

Things are very different in a bank, supermarket or government department managing a programme of change. The projects tend to be smaller and each project manager has to fight with a number of colleagues, many of whom are running their own projects and many of whom want the same design engineer or computer at just the same time.

The information technology project manager does not normally employ sub-contractors, but predominantly uses resources paid by the same wages department as him or herself. Some members of the project team may be short-term, freelance workers, known as contractors, but these are individuals usually treated as fellow employees.

The software engineer often has no sanctions against her colleagues whatsoever. She regards her own project as important but realises that all the organisation's projects go towards the success of the company, which is reasonably close to her heart. She must work with her fellow project managers towards the corporate goals. Her resources are on loan to her and to her project from the various parts of her own organisation.

She may have access to the central server on Tuesday afternoons or, worse, after 7 p.m. Many people who help with the project do so as a favour. This favour may be structured and a part of the donor's job specification, but it is still a favour. It is certainly not under the terms and conditions of a legal contract. During most weeks, most people in a project team also work on many other projects and many non-project-related jobs. The project manager may not immediately notice when she loses someone from the project, as her resources work at their own desks and terminals, whatever work they are doing. They are probably only a part of her project, on a part-time basis. The priorities of the individual resources and their functional bosses are their own. Well, actually, that's not true. Their priorities look like their own but they are constantly being dragged to and fro between assorted urgent and high-priority workloads.

'Urgent' and 'high priority' are usually business-speak for 'unplanned'. Sometimes 'unplanned' is OK because no one could have foreseen that a fire would damage the printing works over the weekend. Usually 'unplanned' means something that could have, and should have, been planned ages ago but has been lying around in the in-tray of some senior manager whilst he grapples with important issues like his secretary or paper-clip supplies. Such senior managers suddenly realise that because they have done nothing about 'something', that 'something' is now vital and urgent. So they pull strings, throw their weight about and steal resources from other, well-planned projects. Who said life was meant to be fair? Barnum and Bailey, that's who.

> Project-management Sayings #141: Your lack of planning does not demand a panic from me.

In this environment the project team is normally dispersed. The chances of getting the team to work in one place for a long period are vanishingly small. The project manager's only chance to achieve this laudable goal is to gather everyone for an occasional project meeting. At these meetings everyone sounds, and may actually be, very enthusiastic about the project, keen to be involved and willing to make their contribution. Projects tend to have that effect on people. Good project managers tend to have that effect on people. Unfortunately, the members of the team will also attend other project meetings for other projects at which they will become very enthusiastic, keen to be involved and willing to make their contribution. This makes them forget about the first project and the promises they recently made. Some thoughtful project managers will take the whole team off to a remote location (usually the local hotel) where the plan is explained, the team spirit is cemented and communication channels are opened.

Project managers within a change programme mostly deal with people – they refer to their resources by name, not by skill and not by company

title. You hear this sort of project manager say: 'I need Sandy for about half a day each week for the next four weeks.' If she talks about skills she will say something like this: 'I need some more programming input, can I have a few more hours of Sandy's time for the next four weeks?' So whilst an engineering project manager talks about getting some more welders on the job, the programme manager talks about Sandy's input and Joe's time.

Also, most projects within a programme do not end with a physical deliverable. They are more likely to end with some software, a new system or method, than with a building or a bridge.

I have painted two extreme pictures – the large, one-off project with contractors working for a main contractor, against the multi-project environment where everyone works part time on a variety of projects. These two extremes are at opposite ends of a scale. Where are you on this scale? Can you see yourself, your employee and your workload in these terms?

1.5.2 Everybody's doing it

Both programme and portfolio management are real growth market-places – the key growth area within the already-growing area of project management. Most project-management software houses are scrambling to get into this market-place and some have quite good products. A computer marketing person once said to me: 'Most project-management software vendors are positioning their products in the programme-management market-place.' I thought about this for some time before realising what this meant, and I can save you some time – it means claiming programme-management features and functionality in the brochures. It may or may not mean changing the software to add some features. It certainly means changing the pamphlets.

As part of this increasing level of interest the Cabinet Office (the UK government's body for this kind of thing) has published its *Introduction to Programme Management* and its fuller *Managing Successful Programmes*, plus a whole library of useful publications on the topic.

> The details of these two publications should be in the further reading list near the back of this book.

There have been seminars, colloquiums and conferences galore on this and closely related subjects and all have been very well subscribed. To make you feel more at home, here are some other examples of organisations to help you realise that you are not alone in the world of programme-management ills.

At any one time Thames Water plc has around 500 civil-engineering projects in hand, ranging from the huge London Water Ring Main to building small local weirs and locks. Most motor manufacturers, such as Honda and Ford, have made a considerable investment in project and programme management, which is wise, as they normally have a large number of simultaneous manufacturing projects. Hewlett Packard might have around 50 software-development projects on the go involving some 120 team leaders. Transport for London has a team carefully considering which of its 140+ transport interchanges (Kings Cross, Victoria ...) need improvement and what work it should do. The National Health Service has a huge number of programmes in regions, hospitals, mental health, IT systems and so on. The Environment Agency has hundreds of engineers rushing about the countryside building and improving weirs, dams, locks and fisheries. Ericsson has a number of programmes to develop new communications systems and mobile phone operators like O2, Vodafone and Orange will have programmes to create new products, services and handsets. Supermarkets constantly run projects to launch new products and increase efficiency in their narrow-margin businesses. Most central and local government departments run programmes designed to help them improve the services they offer.

I could rattle on for hours about such firms and what they are doing about programme management, but that would be deadly boring. Instead I'll rattle on for hours about some of the differences between large, engineering-type projects and the organisational-change world of programme management.

Let's try to draw a table showing some key differentiators between programme and project management (Table 1.1).

Let's consider these attributes in our continued effort to clarify the gap between project and programme management.

1.5.3 Projects end, some programmes and most portfolios do not

A friend of mine has a good approach to travel. The approach works whether the journey is by air, train or bus. It might be long or short. He claims that whatever the journey, you start, wait and then finish. For example, you get to the airport, do a lot of queuing and waiting, climb on board a plane, wait and then get off. This attitude changes the journey not one bit but has a huge impact on how you feel about it. Those people who rush to join long queues, are first on board and look harassed and self-important are the people who don't enjoy travelling at all. My friend enjoys every moment. He lets the tide carry him along.

Similarly, given an exciting and dramatic project, we can safely assume that the project will follow a predictable life cycle. It will begin, take place

Table 1.1 Characteristics of portfolios, programmes and projects

ASPECT	PROJECT MANAGEMENT	PROGRAMME MANAGEMENT	PORTFOLIO MANAGEMENT
Scope	A narrow scope focused on delivery of defined products.	A wide scope, focused on delivery of a capability (or set of capabilities) that will make possible the realisation of expected business benefits.	All the initiatives (programmes and projects) for the organisation as a whole, or for a particular domain within the organisation.
Success criteria	On-time, on-budget, on-specification creation of the defined products.	The realisation of the expected business benefits.	The overall contribution to the organisation's strategy of its complete portfolio of programmes and projects.
Approach to change	Projects should be clearly defined before they start. Change should be strictly controlled to minimise impact on time, cost and scope.	Change is inevitable and should be embraced, but the impact should be reviewed against the business case. There are often uncertainties at the beginning about the right approach. Leadership needs to promote the attitude of constant learning and refinement.	Objective is to structure the portfolio so as to optimise the organisation's benefits against the total investment being made and the risk being taken.
Time-scale	The time needed to create and deliver the defined products – typically expressed in months.	The time needed to create the new capability and transition appropriate activities to it – typically several years.	An on-going, business-as-usual activity with no anticipated end date.
Typical planning	Detailed planning to manage delivery of defined products.	High-level plans provide guidance and oversight of component projects, allowing identification and resolution of conflicts and interdependencies between projects.	Overall processes and communications to establish contributions and costs of the whole portfolio.
Typical controls	Monitor and control tasks to ensure on-budget, on-time, and on-specification delivery of defined products.	Monitor component projects and on-going work through governance structures.	Monitor aggregate performance of whole portfolio, in terms of overall benefits realised and contribution to organisational objectives.

and end. At some point on most projects there will be a time when the members of the project team will stand around thinking: 'There, we did it. I built that.' Simultaneously, some big-wig in a suit who took virtually no interest in the project and certainly contributed nothing will be the one saying aloud to the press: 'There, we did it. I built that.' Projects, like people, are born to live and die.

Some programmes arrive at a clear end point when the programme is closed and the team has a great party to celebrate its success. Many programmes never seem to end. Some go on for long periods of time and then tend to rather fizzle out. They remain alive as the programme team monitors the benefits they have delivered (or are delivering) for some time. Programmes sometimes morph into new shapes with new objectives and continue for many years. A Dutch land-reclamation programme is now 65 years old and still counting. Portfolios may only ever stop when the organisation ceases to trade.

Programmes, portfolios and projects are all planned. A project plan can normally be drawn on a piece of paper with a time-scale across the top. These usually have a start date near the top left corner and an end date way down to the right.

> By the way, plans drawn up in the Middle East sometimes do not follow this rule. As Arabic, Hebrew and Persian are written across the page from right to left, project plans are sometimes drawn that way too.

Now let's consider a plan for a programme or a portfolio. We are very likely to need a very long piece of paper and we are much more likely to change the objectives and strategy during the life of the programme, and, therefore, its time-scale. We may continue to look after the changes brought about by the programme for many years to come, or may just let the programme fizzle out.

And if we use portfolio to mean many internal or external projects going on throughout the life of the organisation we can no longer use a single piece of paper. To plan this workload we need an infinitely long, scrolling piece of paper on which programme and projects appear, travel across to the left and disappear. New projects are constantly being added to the right (in the future) and old, now completed projects get deleted and fall off into the past. There is always a workload to achieve. Infinitely long, scrolling pieces of paper are difficult to get these days. I scoured the Sasco catalogue and drove my local stationery store man bonkers. I searched through catalogues of tiny brushes to clean your phone and miniature desktop aluminium dustbins to hold paperclips, but to no avail. There is a world shortage of infinitely long, scrolling pieces of paper. I think that we will have to

resort to some kind of electronic gadgetry to give us an everlasting plan – this sounds like a job for a computer. We'll talk about this later.

There are clear differences between programme management and project management, especially when it comes to planning. Some of the observable trends are summarised below. I'm going to expand on some of these points in a little more detail. Talk amongst yourselves for a moment.

Table 1.2 mentions a number of characteristics that separate programmes designed to deliver business change from projects being carried for a customer. The following paragraphs explain some of these aspects.

1.5.4 One project or many?

Some project managers have the blissfully easy and rewarding task of concentrating on one project at a time. It might seem hard to connect the UK to France with a 26-mile tube or get a bridge built, but the 'hardness' comes from size, bulk and sheer enormity. The team is able to concentrate exclusively on its project and I envy it that single-mindedness. They say that project management is like juggling three balls – time, cost and resources – and it is true and hard to do.

Table 1.2 Comparing types of initiatives

ATTRIBUTE	ENGINEERING-STYLE PROJECT MANAGEMENT	BUSINESS-CHANGE PROGRAMME MANAGEMENT
Number of overlapping projects	One	Many
Full time or part time	Most workers work full time either for the prime contractor or for a sub-contractor.	Most team members work part time on the programme.
Predictability	Often involve technical challenge and unknown techniques.	Follow a methodology, change happens in a series of steps, uncertainties might mean the route to the end goal is not clear at the beginning.
Resource demand	Try to minimise resources hired.	Try to maximise productivity from a relatively fixed pool of people.
Scope	Clearly defined deliverables.	Defined by a vision and benefits, but more likely to change to reflect changing priorities.
Measures of success	Associated with delivery of the product on time and to budget.	Associated with the delivery of long-term benefits.
End date	Firmly based on the delivery of a defined product.	Connected with benefits realisation.
Tools	Wide range of simple, cheap support tools.	The few tools are rather complex and extensive.

Programme management is like a troupe of circus performers standing in a circle, all juggling three balls simultaneously and swapping balls from time to time. Each project has its own restraints of time, cost and resources and must also be seen in terms of its effect on other projects and resources. The programme has a strategic objective.

If programme management takes place in the normal, three-dimensional world, then project management takes place in a flat, two-dimensional world. Programme managers have to establish and maintain teams for each project and watch for interactions between the teams, the resources and the projects themselves. In a single project there is usually a single deliverable which, one day, will be surrounded by proud project team members all saying 'I did that'. In programme management there are many deliverables and some rather difficult-to-define changes to the organisation. The end of a project means that one objective has been reached, but the team must watch to ensure that every project is still valid and worthwhile within the moving and changing world of commerce.

1.5.5 Full time or part time

On a single, engineering-type project there are usually resources involved somewhere along the line, but very often the actual hiring and firing, guiding and checking of individual resources is sub-contracted. Yes, of course you need to recruit resources to form the project team, you may hire people to carry out some specific functions, but increasingly the engineering project manager deals with other companies, each of which deals with individual resources. Sometimes the sub-contractors sub-contract the work to those companies who actually employ the resources that do productive work. This is a sneaky way of expanding your management team, as each sub-contractor contributes something to the management of the project. If you are running a one-off project, the fewer people you hire in the fewer you have to pay and the fewer you have to 'let go' when the project is over.

> Where did the phrase 'let go' come from? It is supposed to make you feel better by giving you ideas of freedom and individual choice. You have, the message infers, been let go to seek your own path, your own fortune. Actually you have been 'let go' in much the same way as a mountaineer hanging from a single rope. You've been given the freedom to seek the bottom of the ravine.

Therefore, on the large single project, resources tend to be involved on the project full time for a part of the life of the project. Many such people are highly mobile and can be found living in 'mobile homes' around

motorway building projects or in local bedsits in the nearest town. These are people who spend their working lives leaving home on 6 o'clock on Monday morning and getting home at 8 p.m. on Friday.

On the other hand, resources in programmes tend to be involved part time in each project, and possibly part time on the programme as a whole. Typically, specialist engineers are available to a project on Wednesday afternoons, or two days per week. They are dragged from job to job and can concentrate on none.

1.5.6 Unpredictable or well known

Single projects tend to be a new, unusual challenge and planners and managers alike have to burn the midnight oil figuring out how they are actually going to achieve the project. The nature of the one-off project is usually unusual. Whilst some guidance can be gleaned from previous projects, the team often has significant challenges facing it. 'How do we …?' and 'How can we …?' are common questions. The team's specialist knowledge about bridge building, applied through method statements, answers such questions. All project managers ask questions about time: 'When shall we…?' Critical path planning plays a big role in answering these questions, but in the big project they also ask 'how'.

On the other hand, projects within a programme tend to be relatively simple and predictable. As another software-development project is taken on there is no need to have lengthy meetings to discuss how the package is going to be built; the process is well known and a standard project plan already exists. There may still be long meetings, but they are designed to examine the prawn and celery sandwiches and taste the Pinot Noir on the client's expenses, not to plan the project. To build the plan for this new project we need only draw in the standard plan and change the durations to allow for the workload in this particular project. The sequence of steps is unlikely to change.

In fact the sequence of steps is often firmly laid out in a published document called a methodology, and we'll look at these later. Hence the majority of project management is concerned with critical path, method and timing. The majority of programme management is concerned with timing and resource requirements.

1.5.7 Resource demand

Another difference to mention is the shape of the histogram. In the single-project environment the team generally hires in the work-force it needs to undertake the project on time. The resources may be employed by a subcontractor, but they are nevertheless hired in to do some work on the clear

understanding that when the work is done they will be expected to move on to another job. Single-project workers beaver away in an unmitigated effort designed to put themselves out of work. A key objective of the planner of a single project is to minimise the number of resources hired in to do the work. If the planner can find a clever way of doing the work and reduce the demand from 16 welders to 14, he deserves a star. If work drifts behind schedule, the first thought will be to hire in some additional people.

In the world of programme management the resource levels are much more fixed and static. It takes quite a long time to recruit new members into one of the functional departments and to get them up to speed. It also takes some time and costs some money to get rid of a resource. So the programme-management team's objective is this:

- keep the resources busy 100% of their time; that is to maximise the contribution the team can make to the organisation's success;
- keep an eye on the future demand for resources.

Engineering project managers like to hire as few people as is compatible with the required progress. They often hire in a few hands for a few days to help over a busy period. The accuracy of resource planning is not usually sufficiently great to plan to the nearest individual resource, but it does fine thank you if the team knows how much of each skill is likely to be required next month. Generally it is possible to hire in a few extra resources for a short period of time. As long as it's compatible with the rate of progress, project managers try to hire as few people as possible, so as to minimise resource requirements.

Programme managers have a relatively fixed resource pool, all of whom have the strange idea that it would be really nice if they could receive a pay cheque each month. The work-force can be expanded and contracted by hiring people in and letting people go (see above, especially if you're in a ravine) but the process tends to take some time. People have to be 'brought up to speed'. It is possible to plan each individual person's time in half days or even hours. The objective then becomes to keep everyone busy, so as to maximise utilisation. Therefore project managers tend to want to keep resource numbers down, programme managers want to keep utilisation up. Project managers like low histograms, whilst programme managers like smooth ones.

1.5.8 Scope

Project managers tend to have simple objectives. I do not say that these objectives are simple to achieve, I do say they are simple to understand. The project manager's job is to build this for that much by then. As long as the oil refinery is finished to specification, to budget and on time, everyone

should be happy. Everyone will probably actually be just a little less miserable, but that's another issue. If the price of oil drops through the floor or if a scientist in Lower Serengeti invents a fuel made from earth and water, the oil refinery will become useless overnight. The oil company directors will wring their hands, wondering why the sky has chosen this moment to fall on their heads. The project manager will steam on, safe in the knowledge that his job is to get the refinery built to cost and budget.

Programme managers have to worry about benefits. Programme managers have to watch the environment closely to make sure that each project's objectives still make sense and still help the organisation to achieve its overall strategy. They have to be ready to drop one project altogether, modify some others and introduce some new projects if, for some reason, the benefits of a project look likely to be whittled away. Programme managers keep their eyes on the corporate objectives, which are strange animals subject to interpretation and change. They will drop a project like a ton of hot chillies if it appears that the project no longer aims towards the corporate goals. This might be caused by the corporate goals changing due to a policy shift, an environmental change or a change within the project. A policy shift is a polite term for a board member changing his mind for no good reason. An environmental change does not mean it has started raining, but does mean that something outside the organisation has changed. Plans to build a second ferry-boat might easily get dropped if a new bridge was announced by the local government. Some projects drop themselves – if, during a pharmaceutical research project, it comes to light that the new wonder headache drug has the side-effect of creating hallucinations in males with beards the chances are that the drug company will drop the project and pass it over to the Colombian drug barons. Actually this never happens, but pharmaceutical firms start many more drug-development projects than they expect to finish. Each project is in a survival-of-the-fittest race, during which most will get dropped long before they see the cold light of day.

1.5.9 Measures of success

To succeed in their chosen career, an engineering project manager must focus on delivering the right product at the right time to the right budget. Their objective is deliver the output of the project that was designed and described to them in a bunch of drawings, to the schedule that was dreamed up early in the project and to stick within the budget laid down by the customer or client.

A programme manager has much more complex task. There will be a variety of stakeholders (we'll discuss these later), all of whom are interested in the programme and all of whom expect to see some change resulting from it. There will normally be a range of projects, and if they all

deliver their products and if those products are used by the organisation and if they were sensibly designed in the first place, some of the stakeholders will be pleased. The measures of success are tied in with benefits and much of the responsibility for benefits is not within the programme manager's control. Therefore success tends to be much more intuitive and subjective.

1.5.10 Available tools

And finally (we're still talking about that table), there are many tools which handle single projects very nicely and simply. The few aimed at programme management are much more complex and expensive. Yes, I know that every software supplier claims to deal with programme management, but very few do. They all offer 'programme-management functionality', which means the ability to merge files; a few offer the ability to create and maintain a hierarchy of plans that you can navigate through to find the bit you want. Some of the mainframe heavyweight systems offer multi-project management, but there is some way to go before the software industry can supply us with strong tools for programme and portfolio management.

1.6 Definitions of programme management

It is important to recognise that the terms in programme management are loose and have not yet fully settled down. But here are the definitions delivered by a variety of important organisations.

The UK government's Cabinet Office has published an *Introduction to Programme Management*, *Managing Successful Programmes (MSP)* and other publications that have already helped UK-based projects people understand these terms.

The Cabinet Office, especially when it comes to programme management, publishes loads of useful stuff aimed at the non-commercial world, where it is more important that justice appears to be done than actually is done.

The Cabinet Office's definition of programme management is:

> A temporary, flexible organisation created to coordinate, direct and oversee the implementation of a set of related projects and activities *in order to deliver outcomes and benefits related to the organisation's strategic objectives*.
>
> (Cabinet Office, *MSP*, 2007)

The italics are my own and emphasise that, to the Cabinet Office, programme management indicates more than multiple projects.

The Cabinet Office talks about defining the long-term objectives of the organisation. Once these long-term objectives are established the organisation identifies programmes of projects that help to attain these objectives and thinks carefully about the benefits these projects are designed to bring about. *MSP* advises that the organisation set up a structure to manage the programme and keep the strategic objectives in mind. The sorts of projects are likely to change the organisation itself – after all, we are talking about relocation projects, rationalisation and reorganisation projects.

If you work in a UK publicly funded body, or indeed any large organisation about to go through considerable internal change, the Cabinet Office's publications on programme management are well worth a look through. They do not mention the idea of seeking work through competing for projects, or projects that bring new products to market. The most avid readers of the Cabinet Office's publications are more likely to be inviting tenders for work than submitting quotations for work. The Cabinet Office's approach to programme management was designed to be applied to a publicly funded body but is used in a wide range of commercial business as well. It is just fine when dealing with the privatisation of British Rail or the decentralisation of the gas board.

The UK Association for Project Management's publication *Introduction to Programme Management* adopts a simplified definition of a programme:

> A coordinated set of projects that together achieve a beneficial change of a strategic nature for an organisation.

The Project Management Institute is headquartered in the USA and has operations throughout the world. It uses the American spelling 'program'. It too offers a definition of program management in its *Program Management Standard*:

> Program Management is the centralized coordinated management of a program to achieve the program's strategic benefits and objectives.

So we already have three definitions from three august bodies, all of which result from some clever people thinking hard about the topic.

Even if they do differ somewhat, the common themes come strongly through:

- multiple projects
- organisation change

- benefits
- strategic alignment.

Before we leave the topic of programme management definition we should explain some of the other views that other people take from other environments and other industries. This is so that you will understand what they are talking about when you discuss programme management at your local club.

The following are the four most common meanings.

1.6.1 Meaning one: the multi-project organisation

Programme management is the directing of a group of projects which benefit from a consolidated approach.

Jobbing engineering companies, software houses contracting for work and many other types of organisation run many simultaneous projects, each of which may or not contribute towards the corporate goals. Typically the result of such a project is a deliverable which is eventually delivered to a client for payment. After many delays, the payment arrives and gets paid into the company's bank account, thereby increasing cash flow, which is achieving one of the company's objectives. Sometimes the projects are much more directly aimed at corporate goals – opening a new factory or launching a new product spring to mind. The common elements of the projects are that they run simultaneously – or at least overlap with each other – they share resources and are supposed to generate some income. One project being cancelled does not necessarily change the organisation's general direction. BAE is fairly typical of this sort of organisation. It has a large number of projects in hand in a number of localities. Something between 100 and 200 projects is probably a reasonable average and most of these involve developing some awful machine to annihilate people. Each weapon will be developed into a prototype before extensive testing (without volunteers) and a short production run before delivery to a 'friendly' nation. Why such a friendly nation should want to blow up so many people is a mystery to me.

Such projects might have one or two engineers devoted to the project for a period of time, plus a range of specialists whose services have to be begged, borrowed or stolen. Once upon a time a part of BAE that was called Royal Ordnance used to operate on a cost-plus basis, claiming that it was the only way to work on sensitive, quality-related products like guns and missiles. In those days the organisation was separated into functional departments like design, prototyping and testing but there was no one especially interested in projects at all. No one, that is, apart from the salesman whose commission depended on delivery and the client who was waiting for the deliverables whilst fending off warring factions as he awaited delivery.

Hence salesmen and clients became project managers and chased their projects through the organisation as the projects drifted aimlessly from department to department gathering costs, and therefore income for the manufacturer. Projects accidentally fell out of the door and into the clients' arms, not so much because they had finished but because Royal Ordnance couldn't find any more believable reasons to do more work and therefore raise costs.

If it wasn't for the fact that these are still very unpleasant devices, you would say things are loads better these days. BAe business managers create projects to develop a new device, allocate project managers, build project teams and run a sophisticated programme-management system. These types of programme run for ever and need have no end date. The projects are separate in that there need be no logical links between projects. Whilst they share the same resources, delays in one project need not cause delays in others.

1.6.2 Meaning two: the mega-project

This refers to the management of a group of projects towards one specific objective; therefore programme management can also mean one very large project.

The USA's Man on the Moon Project was such a programme. In this sense the term 'programme' indicates one very large project which is made up from a number of components. This term is so American I shall drop the 'me' from programme.

Within the Apollo program there were many projects: the Lunar Lander, the Orbiter, the Launcher and the Control Systems were all projects which were so large, complex and interesting that any red-blooded project management person would have given their right arm to be involved. Polaris and the Manhattan project (which resulted in the first atom bomb) are other famous projects large enough to be called programs.

Therefore, particularly in USA, the word program refers to a series of projects which make up one large project. The reconstruction of Afghanistan is thought of as a program. The war-torn (isn't that a hackneyed phrase?) cities are to be rebuilt. There will be many separate projects, each of which will create a government building, a shopping centre, a school or whatever. You may go there for your summer holidays soon. There is a program management team in overall control of a number of project managers, each of whom is running a construction or environmental project.

The program is usually reflected in the management structure, as there will be a program manager to whom the project managers will report. The program manager, or sometimes program director, will be concerned with recruiting and maintaining the project management teams and integrating

the deliverables of each project into one overall program. In this meaning of program management there is likely to be physical deliverables.

These sorts of programs do come to an end. There will be a time when the overall objective has been achieved and the program and all of its constituent projects are over. There may be a time when everyone has realised how ridiculous the overall objective was and the whole thing has been scrapped, but either way the program comes to an end.

The projects within this type of program are often linked. Delays with one project often cause knock-on effects with others, due to logical links between tasks in both projects. For example, if the moon-rocket launch-pad project were delayed, it would delay the testing of the moon rocket itself. The Afghanistan shopping malls will be of little use without the water-treatment plants and the new sewer schemes. Such projects may not share the same resources but they are almost certain to be linked through their logic.

1.6.3 Meaning three: many projects for one client

This is the management of a series of projects within an organisation and for the same client.

Let's consider a company performing work for many clients with a close relationship with some of those customers. Our supplier might have twenty projects in hand for one particular customer and appoint a programme manager to coordinate all the projects in hand for that customer. This programme manager will have a team of project managers each of whom is working on a single project for the special client.

An example might be a supplier of components to Ford. Lucas, Girling and Triplex all make a wide range of components that are designed in collaboration with vehicle manufacturers. This collaboration all takes place in Secret as the white-coated ones meet to design the next Ford car.

Secret is a small village just outside Warrington.

Triplex, a part of the Pilkington group, might be working on the next Fiesta, Focus and Transit van all at the same time but the three project teams within Pilkington will be working with different project teams within Ford. It makes sense therefore for Triplex to tie these projects together into a programme, to assign the programme a manager and to let all the individual projects coordinate through this programme manager. Great ideas from one group get carried over to the other groups. Specialists who work part time on all four projects can no longer take time off smoking behind the bicycle sheds with Milly from catering and expect to get away with it by telling all four project managers that they were working on one of the

other projects. Clients who don't pay their bills on one project may find the other projects held up pending payment.

Such projects are probably not linked logically but almost certainly share the same resources. They may be carried out by different teams within the contracting organisation but probably share the same functional departments.

1.6.4 Meaning four: the programme-management organisation

And so we return to programmes of change.

The term programme management is used to refer to the management of a group of projects all of which aim towards the corporate objectives; the coordinated support, planning, prioritisation and monitoring of projects to meet changing business needs.

Change programme-management companies run many simultaneous projects, each of which leads towards the organisation's strategic objectives. Transport organisations have objectives like 'achieving a 98% record in promptness', and a building society might have objectives like 'having a branch in every high street'. To achieve these objectives entails many projects – property acquisition and refurbishment, staff training, IT support systems and so on.

In this environment every project plays its part towards the organisation's ultimate aims and objectives. Often, as projects are completed, this translates into a revised set of corporate objectives. This is very close to the Cabinet Office's own definition (see 1.6).

These projects are likely to be linked both logically and by resources. Some projects will create deliverables required by other projects. Perhaps a new computer system for line signalling on the underground will be used in many signalling upgrade projects. Also the projects are likely to call upon the same functional departments and resources and battle through the shortage of these common shared resources.

There you go, four very different meanings for programme management. They share some common factors; for example, they all involve many simultaneous projects, they all concentrate on resources and they all need a multi-project view of scheduling. I therefore propose to use the term **programme planning** as the planning and monitoring of a number of simultaneous related projects. I think I'll put that in a box so that it stands out a bit.

> Programme planning is the planning and monitoring of a number of simultaneous related projects.

Programme planning is the constant. Whichever of the four definitions above you choose, or whichever additional definitions you might conceive, the likelihood is that once the projects are defined, you will be in the world of programme planning.

We'll talk about programme planning in section 2.7.6.

1.7 Types of projects

There are as many types of projects as there are project managers.

Whenever a group of project managers come together you often see a furrowed brow, a raised eyebrow and a puzzled look. Sometimes the assembled project managers seem to be arguing some point intelligently but quite often they seem to be talking completely different languages.

If the group comes from the same industry with the same approaches, if the group could swap jobs without much hassle, these problems will not arise. It is when you mix project managers from different backgrounds and different industries that, whilst they use the same words, they mean different things. Behind this confusion is the type of project they have in mind. The nature, type and approach to your project so conditions you that it can make intelligent conversation hard, if not impossible.

As I get the chance to talk to a wide variety of project managers, here are some types of projects. Next time you listen to a presentation at a conference or get involved talking project management down at the pub (have you nothing better to do?) and if you want to make yourself clear, categorise yourself and your projects in these terms. If, however, you are a management consultant and wish to keep everyone in the dark whilst you talk and get paid a lot …

On the next few pages are a number of ways of thinking about projects. You will quickly see that the approach required by a project can vary quite significantly and the groupings and categorisations may help you and your organisation to select the best approach to the many projects you have to tackle.

1.7.1 Internal projects and external projects

There are two very different attitudes to programme management and these two attitudes stem from the kind of work being undertaken. I class the two extremes as internal and external.

Internal projects are designed to change the organisation within which they will run their brief lives. This category includes an organisation setting up a new payroll and bonus system, a new management information system, a relocation or reorganisation project. A great number of government departments are busy dealing with projects that have been

brought about as a result of the drive towards more customer-oriented thinking.

Such projects may use outside contractors but the end of the project is very much aimed at changing the organisation. It is this sort of project that the Cabinet Office has in mind and the pages of its two books on the topic make this very clear. These internal projects are driven by needs found within the organisation. Such projects have no natural client. There is no external organisation that must be satisfied and that will pay the bills for a job well done. Clients have to be artificially created within the company for internal projects and money rarely changes hands.

External projects have a deliverable that gets delivered to a customer. The engineering firm making marine gearboxes to order, the printing company bidding for contracts to print things, the software company negotiating deals to write software for its clients – these are all examples of external projects. Such projects contribute to the organisation's goals in that they bring home a profit but they do not change the organisation's way of working. There are natural clients for external projects and they do pay real money for a job well done.

On the border between these two categories is the new product project. In such a project the research and development team, backed up by the testing group, the prototype department and a market-testing agency staffed by people with handkerchiefs hanging out of their sleeves dream up an idea for a new product that will set the world alight.

The project team develops the idea, tests the prototype product, sets up marketing and distribution and then hands the whole thing over to the production department. Is this an external or an internal project? The answer is 'it depends'. It depends on the nature of the product, the relationship between research and development and production and the way in which the project is run. It also shows, as the hairdresser said, that there is no black and white in life, only shades of grey.

1.7.2 Open and closed projects

This classification could be called design and designed. Some project managers start a project with a huge bunch of drawings and specifications. These explain in tremendous detail what is to be achieved during the project so that right from the outset everyone knows what is to be done. OK, there might be variations and change orders but these alter the previously rigid definition of the deliverable. Such projects are 'closed'.

Other project teams start out with a very vague brief indeed. One project is designed to create a programme management software system. The design has evolved and will continue to evolve right through the process. There will be a very wide range of dates when the team can decide to

launch the first version and start on version two. It can and does adjust the balance between the scope of the work and the time-scale.

The difference is between designing a hotel and building one. The design team has to design a hotel – which, you must agree, is a very open brief. It will be told how many bedrooms the hotel should have, the conference facilities and the leisure club requirements – but how long will the design take? No one knows. Set a target and you can bet the design will take 10% longer than target because people are exactly that good at balancing scope and quality with time. More time may result in a better hotel. Once the design exists the deliverable is defined and the project becomes 'closed' – a time-scale can be set because the scope and quality are defined. Give the builder more time and you will get exactly the same hotel a little later. Another open project was the first Everest ascent.

1.7.3 Physical and non-physical

I think I'm in love with these two words: physical deliverable. It is a lyrical, sing-along type of phrase; it is an incantation, a mantra evocative of mass emotion pent up and then, orgasmically, released.

> Don't worry, this is just my attempt to get into Pseuds' Corner in *Private Eye*.

Physical versus non-physical is an obvious difference but has subtle implications. Builders, civil engineers and mechanical engineers all deliver physical deliverables. Great lumps of tin and concrete called buildings, bridges, tunnels and trains are all the very tangible physical deliverables of these kinds of projects.

People find it so easy to get motivated towards such a target – you can visualise it, and many project teams understand the benefits of having a model of the thing-to-be sitting on a plinth in the foyer. This, the model silently says, is what we are here to create. Apart from the pay cheque, this is why we come to work. One day the team members will stand back and admire the thing-that-now-is and think proudly 'I built that'.

No such luck for the non-physical project team. They have no mental picture of the thing, as there is no physical thing to imagine. Software people suffer from this as do some research-and-development teams. The thing-to-be will be contained on a memory stick. The end objective might be a report containing thousands of neatly desktop-published words. 'Unexciting' is a word that underestimates the lack of impact.

Monitoring causes a wee problem. Whilst builders count bricks, tunnellers count feet and engineers count welds, what does our poor old

software engineer count? People involved in non-physical projects dream up ingenious measures which they can use to measure progress in some artificial way. Lines of code has been used, and metrics is used in some companies in the software industry. But compared with physical projects, software is like building a four-bedroom detached house inside a large cardboard box. You cannot see through or over the box but you can shout through the wall 'How's it going?' and get responses like 'Fine'. On a day bearing little connection with the planned end date the box will be removed and there will be a petrol filling station just as you didn't want it to be.

What tends to happen in software is that the team sets up all sorts of phases and stages under the guise of a methodology to surround the actual code-writing bit. These, to an engineer, are temporary works – things that you create to enable you to do what you really wanted to do in the first place. A software prototype is very much like a scaffold in these terms.

In many of these areas, planning software fails almost completely. You can plan a closed project with a physical deliverable because you know what is to be done and can make some pretty good estimates of how long it will take. The idea of breaking the work down into chunks works quite well. Because the scope of the project is fixed, time becomes the key issue.

But given an open project with a non-physical deliverable you may as well throw your planning software in the bin. It will only distract you from the true goals. You'd be better off motivating the team – and there is little more demotivating for a project team with an open project than a fixed project plan. Such a plan sets time above all other objectives, effectively saying 'we'll do what we can by this date', which may be exactly what you do not want to do.

1.7.4 Runners, repeaters and strangers

These terms do not refer to athletes, rifles and people. The idea is that you can take each project and classify it into one of these three classifications. The resultant classification might well affect the way in which you run the project and the style of project manager you will need.

1.7.4.1 Runners

These are projects which happen all the time. There are nearly always a few of these types of projects ongoing – they may be your bread and butter. Your organisation is probably well set up to deal with such projects and they rarely present major challenges. They are low-risk projects.

1.7.4.2 Repeaters

These projects occur a little less frequently and are a little out of the ordinary. They are similar to the mainstream *runner* projects but have enough variations to make them worthy of a little more attention. As they are a little odd, the organisation may not be so well set up to deal with them and therefore different groups may have to contribute. The risk with these slightly less certain projects is more significant.

1.7.4.3 Strangers

These are the one-offs of the project workload, the things of which your organisation has little or no experience. The organisation is certainly not geared for this kind of project and therefore it may involve many different interests and functions. There is likely to be a high risk.

Here is an example. Imagine you are a company producing and publishing popular music. You get groups of not especially spotty youths together, cover their faces with makeup, get them to leap about in a weird location whilst some other people sing and play instruments similar to the ones being carried by the youths. You record all this on video and audio tape and release it on an unsuspecting world. You aim for the top ten, YouTube and the record-buying public.

As this is your business a *runner* would be yet another pop record. It follows the normal pattern and is fairly predictable. The location might change, the youths might be male or female, spotty or not and the music might be brilliant or unrecognisable. You've got people ready and willing and experienced in running projects of this kind. You know the sorts of things that are likely to go wrong, and so the risks are reasonably well known.

But when you decide to record a live opera you need to set up recording equipment at the opera for both video and sound and then edit the tracks together into a more adult package. Marketing will be different, editing and recording will be different but the technology is much the same. A *repeater* like this will need a project manager who can adapt, adopt and improve. The risks are greater simply because they are unknown. You're going to have to use some new people to get the recording set up in the theatre and working on time.

Then you decide to present one of your groups at a live concert at Wembley. This is something completely outside your area of knowledge, you have never sold tickets to an event before, never employed bouncers and other officials. This project is a *stranger* and you will need new talents and experience if you are to bring this in on time and to budget. The risks of abysmal failure are unknown and therefore high.

You can see that the team, the contingency and the risks of each type of project vary significantly. You would be foolish to treat all three types of project identically and make no provision for the increased dangers and problems of less familiar projects.

Types of projects

Runners: everyday, predictable projects
Repeaters: nearly normal but with a twist
Strangers: a completely new challenge.

Bringing this sort of thinking to the attention of your superiors can do wonders for your office credibility.

You might even recognise in your methodology that projects can and should be categorised and that the procedures you use should reflect their status in these terms of familiarity.

1.8 Benefits

We cannot talk for long about programmes and portfolio before we come to the topic of benefits.

Programmes are designed to deliver outcomes, and the measure of those outcomes is benefits. Benefits will normally be enjoyed long after the programme has ended.

Benefits are the way in which we measure the success of a programme, the value of the outcome. They are close in concept to the temperature of a patient.

Benefits normally have their impact on the organisation rather than on the project, programme or portfolio.

Some examples of benefits are:

- increasing the customer list;
- increasing customer satisfaction;
- making the company more efficient;
- improving the product's manufacturability;
- improving the brand's image;
- improving morale within the company;
- decreasing wastage;
- decreasing shipping costs;
- increased knowledge through information systems;
- reduced churn.

Churn is the rate at which an organisation's customers leave to join a competitor. Mobile phone service providers and home entertainment firms don't like you to leave, as it costs a lot to recruit new customers.

Profitability depends on a whole host of other factors – it is not simple to calculate. You might have a brilliant wheeze and set up a cheap and effective project that should increase sales levels by 10%, but coincide with some consumer scare about your type of product. Nevertheless you can compare the cost of the project with the effect that you estimate the successful outcome of the project will have on market share.

This can be very revealing, as, armed with such a comparison, organisations can sensibly evaluate the rights and wrongs of each project or of a combination of projects. The question becomes: Should we spend £x million on a new product on the basis of a 3% increase in market share?

There is a personal issue here. When you have an idea for a project that will increase sales, you naturally get 'behind' the idea and become a salesman promoting this new idea of yours. It is a human thing to do. The trait in humans that bubbles to the surface in such situations is called optimism. You will inevitably tend to look for the good things, ignore or underestimate the dangers and oversell your idea.

I'm not getting at you, it is just a normal, human thing to do. By exaggerating the benefits of the proposed project you set yourself a target to aim for. If you sell an idea for a new product to your board of directors on the basis that it will increase sales by 15% and then later achieve 12% they will be unhappy. If you sell an idea for a new product to your board of directors on the basis that it will increase sales by 8% and then later achieve 12% they will be very happy little chappies.

So the trick is to find the lowest targets that the men in grey suits will accept before giving you the go-ahead. Too low a target and the project does not seem worthwhile. Too high a target and you will never achieve it and will disappoint. Watch your back.

Benefits are so important and so central to the topic of programme management that you can read much more about them in section 2.6.

Case study 1.1 What happens when you don't manage change as a programme or project

Introduction

AQA (the Assessment and Qualifications Alliance) is one of three organisations that set and mark the United Kingdom's school examinations. These exams consist of the General Certificate of Secondary Education (GCSE), normally taken by pupils aged 15/16, and the more advanced A level exams, normally taken by pupils at 17/18 and used as the basis for gaining a place at university. AQA describes itself as the largest of the three organisations, awarding 45% of full-course GCSEs and 44% of A levels nationally.

AQA is an independent registered charity, with no shareholders, but the

scale of its operations is massive. Typically, about 1.5 million candidates sit its exams, requiring the processing of 10.5 million marks in total, from about 3.5 million pieces of coursework and around 6.5 million completed exam papers. Much of this huge volume must be processed within a few weeks across the summer and the workloads are increasing steadily. Most of the marking is undertaken by external markers – typically school teachers who supplement their regular term-time teaching with some exam marking during the school holiday periods, for which they are paid so much per piece. Handling all aspects of exams in a consistent and secure manner is a great challenge.

As AQA's Director General, Mike Creswell, explains, the organisation is 'committed to the use of new technologies where they improve the quality of our assessments and the service we provide to centres and examiners ... to ensure that students get faster, more accurate results and an even better service'.[4] However, as this case study shows, turning such a commitment into reality requires even the most professional and dedicated organisations to make consistent use of best practice with respect to programme and project management.

The problem

Over the last six years, AQA has sought to use the power of IT to speed up its processes and to keep costs under control. A key tool is now the use of 'electronic marking', whereby completed exam papers are scanned by AQA into a central database, from where the part-time examiners can download the students' responses and display them on their own computers at home. Much of the technology for this is provided by a third-party organisation.

In the summer 2010 examination series, approximately half of the candidates' responses were marked onscreen. But that year's exams included a significant addition to previous years' use of IT.

Following pilot exercises conducted in 2009 and in January 2010, AQA introduced for the summer 2010 examinations the onscreen marking of 'unconstrained' answers. This is where the candidate normally writes their response in a separate answer booklet, where the response area for each question is not pre-defined. Approximately 270,000 scripts across 54 components were marked using this process.

Allowing unconstrained answers permits much more flexibility in exam design, since responses need no longer be constrained to what can fit into a pre-defined box on the exam paper. Instead, candidates can provide essay-type responses covering multiple sheets within an answer booklet. However, candidates must then take care to number the sheets correctly. The 'Instructions to Candidates' section of the answer booklet gave an example of how to write the question number – 01 – with the number one including the use of a serif (a serif is a short line at the end of the main strokes of a character). Some candidates made a special effort to ensure

that the two-digit question number was written as legibly as possible and used numbers with serifs, in accordance with this example. Unfortunately the software did not recognise all the different numbering styles, especially those involving serifs. This increased the possibility of question numbers being misread – for example 01 being misread as a 02 or a 07. Once such a misread occurred, it was possible for sheets to be sent to the wrong examiner, who would then have to recognise the problem and escalate it for resolution. In practice, this did not always happen, leaving some candidates with elements of their responses unmarked.

In any case, examiners are constrained by tight time-scales and system procedures and have to focus on their marking. As one explained, 'Most marking is done during term time, creating extra pressure if you are still teaching. Moreover, with unconstrained papers, no examiner sees a whole paper – just a batch of downloads, so you can't see if anything is missing.'

He went on to point out: 'Once you've started marking, you can't really stop. If you do, then the IT system requires you to do the practice papers all over again next time you log on and so you are losing money and time. And you have to work quickly; otherwise you run the risk of somebody else who is working faster taking "your" allocation of papers, leaving you with no papers to mark and thus no money.'

This, and other weaknesses in the onscreen marking procedures, meant that some creditworthy material in candidates' scripts went unmarked. As a consequence, 3,353 candidates from 1,335 examination centres in England, Wales and Northern Ireland received incorrect marks. This in turn resulted in 622 incorrect qualification grades being issued to candidates, of which 146 were A levels. The failure came to light after AQA received queries from examination centres that had requested access to a candidates' responses. When the centres saw the full exam responses, they could see that some elements had not been marked and they reported this to AQA.

A comprehensive enquiry was speedily organised. As a consequence 36,133 exam responses were reviewed and 5,200 remarked. As a consequence, 622 candidates received improved grades.

What caused the problem?

The direct causes of problem were a series of technical issues, mostly within the IT system, such as the example described above. The working procedures should have ensured appropriate reconciliation of marks (a check whether responses' failure to meet rubric requirements included unmarked responses), so that any unmarked material was noted. However, when the IT system and supporting procedures were used in a 'live' environment involving hundreds of thousands of responses and great time pressure, using thousands of examiners, the reconciliation arrangements failed.

A subsequent report by Ofqual, the government body that oversees the whole of the examination system in England, showed a range of indirect causes, all related to the way that markers used the system.[5] These included:

- Inadequate training in the onscreen marking process had been provided to many of the examiners. All those engaged in the pilots had received specific training, but only a minority of the much greater number involved in marking the summer exams were trained. The rest had to rely on a 61-page booklet sent out in PDF format, which not all chose to print out because of its size.
- The pilot exercises had been limited, in that they did not fully replicate the 'live' working environment and used only a relatively small number of specially selected examiners. Because of this, they were not effective in allowing AQA to predict marking issues that might arise on scaling up to the live usage, with a more varied range of components attracting a more diverse group of candidates.
- User-acceptance testing had been inadequate and focused on the IT elements, not on the whole procedure, resulting in a failure to identify weaknesses in the reconciliation and related processes.
- Appropriate risk-management arrangements were lacking. There was no thorough assessment of potential risk factors and of the mitigating actions needed to manage the risks identified.

The most remarkable finding of the Ofqual report was that the 2010 changes were not regarded as part of a programme of business change, but merely as part of the organisation's 'business as usual' activities. Furthermore, those involved in the changes had focused largely on the IT aspects, at the expense of the people and processes.

There are plenty of well-documented programme failures to demonstrate that project and programme management does not, on its own, solve all problems. However, providing a central oversight of all related activities, whether in IT, examiner training, exam formatting or working procedures, would probably have resulted in many of the above problems being picked up during testing and piloting – especially if matched with appropriate sponsorship and governance arrangements. AQA's internal inquiry identified 'Absence of project methodology and effective risk management' as the principal cause of the problem, since 'In the absence of dedicated project resources with clear roles and responsibilities, delivery depended on operational resources with conflicting priorities and demands on their time.'[6]

Because of the involvement of a third-party organisation to manage the IT aspects, the adoption of project management disciplines would almost certainly have led to the adoption of some programme-management practices to resolve risks and to ensure effective coordination between the two organisations.

The Ofqual report also noted that AQA had, in principle, taken up the Prince2 methodology for use with projects – demonstrating that the organisation appreciates what makes good project management practice. It was just that, in this case, it did not use the methodology because it failed to appreciate that these changes to the way it conducted exams should be subjected to the disciplines and costs of project or programme management. As a consequence, an organisation that is committed to quality, and has a reputation for excellence, has had to pay the extra costs of reviewing and re-marking thousands of responses, and to suffer the indignity of being subject to a formal inquiry by a public body.

1.9 Summary and reflection

In Chapter 1 we have clarified the terms used by programme, portfolio and project managers. We stated that it is not fruitful to distinguish between portfolios, programmes and projects but it is very useful to separate portfolio management, programme management and project management. Unfortunately the terms are used in different ways in different industries and different environments, but at least we understand what those are.

We have brought up the challenging but vital topic of benefit management.

2 Doing the right programmes and projects

2.1 Top-down or bottom-up?

Two key issues in programme and portfolio management share common words cleverly shuffled around:

'Doing the right projects'
'Doing the projects right'.

Whilst some, but by no means all, organisations are becoming able to *do projects right*, vanishingly few can claim to have any confidence that they are *doing the right projects*.

A short tale from my youth in project management will help to explain this key difference. I was working for a construction company building a hotel in Amsterdam. We, the building contractor, were building a four-star hotel with 200 bedrooms. The hotel was planned to offer all the usual facilities like exercise rooms, meeting rooms, restaurants and bars. During one of the few quiet moments I asked my construction project manager why it was designed to have four stars and 200 beds. I pointed out it could just as well have been three stars and 300 beds, five stars and 150 beds or any number of possible bedroom and star ratings. The answer I got was: 'We're just paid to build it.' This was a slightly rude response but, thinking of my future career, I chose not to point this out.

Project management history is based on this type of thinking. Much of it comes from the world of construction and heavy engineering, where the project team is 'just paid to do it'.

In recent times, project management ideas have spread out from those muddy building sites into IT offices, software houses, pharmaceutical companies, research offices and a whole host of other environments. With them has come the idea of *doing the project right*, but very little thought about why the project was being done in the first place.

So, as a consequence, we now have worlds of banking and insurance, government and commerce and a whole host of other environments where the project teams have got pretty good at carrying out, with great

efficiency and effectiveness, completely the wrong projects. This is rather like enjoying a train ride where the sandwiches were tasty, the heating worked well, no one spilt a lager over your laptop computer, your seat was comfortable and the train arrived exactly on time – unfortunately at completely the wrong station.

So this chapter puts forward a rational process for project identification, prioritisation and selection. It will also explain that many organisations seem to be appallingly bad at doing this. But please note: if your organisation is in the business of performing work for external clients and the only common factor is each project's contribution to your company's profit-and-loss account, the concepts in this chapter are almost irrelevant. You may be interested in the way your clients think, you may find it useful to understand how programmes of change have life breathed into them and you may want to speak the language of programme and portfolio management in order to communicate better with your clients. If so, read on. But an organisation that is simply paid for the work it does by its clients does not have much control of the projects it selects to run.

We are here talking about programmes of change, programmes that are designed to help the host organisation to achieve its strategy.

As described in Chapter 1, the process for identifying, selecting and prioritising projects and programmes is generally known as portfolio management. In most organisations, the portfolio represents the whole set of programmes and projects that the organisation is running and is proposing to run. The exceptions to this are very large organisations where each division or business unit is large enough and independent enough to run its own portfolios.

So this chapter is concerned with portfolio management, the way in which an organisation can select and prioritise a portfolio of programmes and projects, all of which are designed to change the organisation itself. There are essentially only four approaches in which change projects and programmes get started:

- top-down
- bottom-up
- a mixture of both top-down and bottom-up
- anarchy.

Each of these approaches is briefly described below.

2.2 *Top-down*

You may be lucky enough to work for an organisation that takes a top-down approach. In such cases the organisation has clear objectives and a vision for the future.

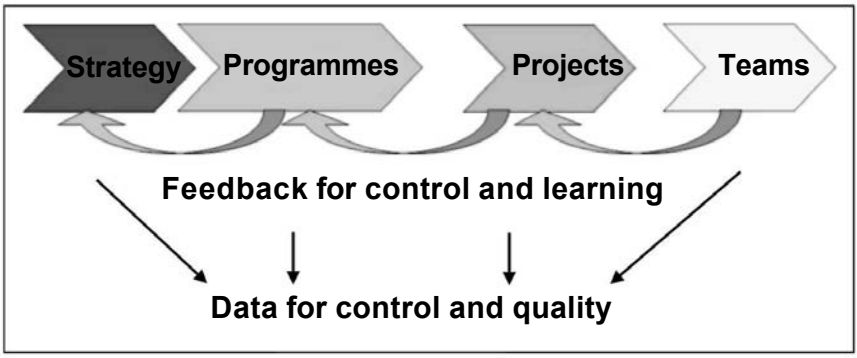

Figure 2.1 The top-down approach

As an example, let's take a medium-sized retailer of building supplies. It is currently a fairly small player in the market-place for DIY goods, with a few shops in one part of the country, most of which serve small building companies.

Let's outline its corporate vision, develop from this outline a strategy for delivering that vision and then try to develop that into a series of programmes and projects. This is, like so many movies, based on reality.

Its vision went like this:

> We aim to be the fourth largest DIY retail organisation in the UK within the decade.

This simple statement presents a challenge to the organisation's senior management, who will need to identify ways of achieving this aim. It has been especially chosen for its simplicity, but a vision paints a picture in words of how the organisation will look at some future time.

Some people refer to these short statements of objectives as the programme mandate.

There are many possible ways by which this corporate vision might be achieved. The directors discussed this and came up with a short list of possible ideas.

- the company might buy or merge with another DIY business;
- it might double its number of regional stores from 30 to 60 by building new stores or renting existing store buildings;
- it might expand the range of services it offered. These new services might include fitted kitchens and bathrooms;
- it might build or acquire some factories and start manufacturing its own products;
- and how about starting an online sales operation?

The company might do all of these things or any combination of them. So implementing the simple, one-line corporate vision statement about the organisation's ambitions quickly generates a whole range of possible change activities, each of which could become a major programme.

To use another analogy, the vision is very much like the destination of a journey (Figure 2.2). It defines the place where the journey will end. Once we know our destination, we can consider the many forms of transport that we might use to get to our desired destination. Should we fly, catch a train or a bus, cycle, drive a dog sled or walk? We may decide on a combination of some of these. We may decide to do it all in one go or rest somewhere en route. The journey to the destination will be our programme. Each individual part of the trip – the bus journey to the station, the train trip to the junction, the connecting journey on the main line – will become a project.

> Whilst no one would start a journey without knowing their destination, a vast number of projects start with no clear objective in anyone's mind. It is even worse if people do have objectives in mind that are clear but different.

OK, let's get back to that DIY retail company. Given a little time and effort, the management team could probably define a range of major programmes designed to deliver the overall objectives. They will consider

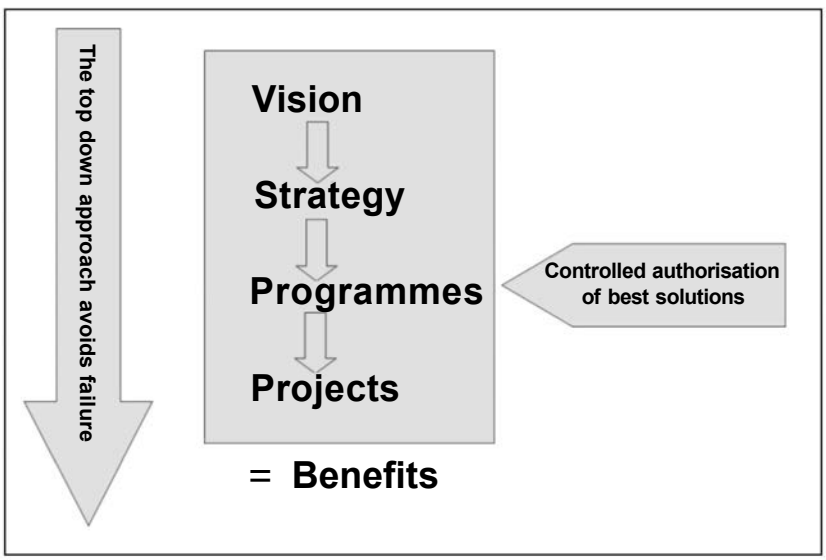

Figure 2.2 From vision to benefits

various possible ways of delivering the vision and eventually select a set of programmes that they believe will have the best chance of delivering that vision. This is their **strategy**, the way in which they aim to go about delivering the required future state.

The management team may spend some time and money at this stage doing some research into the market, testing out various ideas, perhaps running some 'pilot', 'feasibility' or 'discovery' projects to see how well its ideas will work. It probably will not design each programme in detail, but each possible programme will have a short statement defining its purpose. A summary of these programmes is shown in Box 2.1.

Box 2.1 Expansion programmes

New Stores Programme: Locate, acquire and open 30 new stores located near towns where we have no current presence. Target date is 2016.

New Services Programme: Create and launch a nationwide kitchen and bathroom design and installation service aimed at the domestic and small business market by 2016.

IT Expansion Programme: Install IT systems capable of managing a 30% increase in staff, a 50% increase in store locations plus a new manufacturing facility where stock control will be required.

New Manufacturing Programme: Develop a manufacturing capability to deliver a range of kitchen furniture bearing our own brand and aimed at the domestic and small business market by 2018.

The implementation of strategy is usually broken down into programmes, bearing in mind the strengths and structure of the current organisation. The New Stores Programme can be led by the director responsible for stores. The New Services Programme and New Manufacturing Programme are both entirely new initiatives and may require new directors or programme managers to lead them. The IT Expansion Programme will be handled by the existing IT department.

At some point four programme management teams will be required. These will outline a range of projects that will both suit the organisation and deliver these programmes.

For example, there will be a project to locate and acquire or perhaps build a suitable factory and this must follow a project to design the manufacturing plant. Hence a series of integrated projects will emerge as the most effective and efficient way of delivering the programmes and, thus, the organisation's overall objectives.

(Further guidance on how programmes may be sub-divided into component projects can be found in in the case study, 'Selecting the 'right' component projects for a programme', later in this chapter.)

The projects define objectives or **deliverables** for the project managers that are going to run them. Each project will be **delegated** to a project manager, whose role will be to create the defined deliverables.

The example of this DIY company is deliberately rather simple; you should understand that large organisations typically have a whole range of strategic imperatives and objectives.

As well as defining their overall corporate vision, some organisations like to define a vision for each programme. Such programme vision statements outline the programme in broad terms in a manner that will make sense to stakeholders. A programme vision statement will typically cover the points summarised in Box 2.2.

Box 2.2 Programme vision

- Define what success means, what 'good' will look like.
- Describe a compelling future that engages the heart as well as the head.
- Motivate the team at the start and sustain them through adversity.
- Describe a desirable future state, in terms of the interests of key stakeholders. Can be easily understood by a wide variety of stakeholders.
- Written with the broadest range of stakeholders in mind as the target audience.
- Match the degree of transformation change with boldness of the vision conveyed.
- Avoid target dates unless the vision is truly time dependent – such as the 2012 London Olympics.
- Describe a vision that is verifiable but without too many detailed performance targets.

Programmes of change like the one described here may run for many years. Over such a long time the world in which the organisation operates may easily change. This is referred to as **environmental change**. This does not normally refer to climate change, but to broader changes in the world in which the organisation operates.

For example, house buying might easily slow, due to an increase in mortgage rates and, as most DIY work happens just after a house move, this will cause a drop in demand for new kitchens. Competing shops may appear, grow, disappear or shrink. Legislation might impact the market for new bathrooms. These are all examples of environmental changes.

An example of how an organisation in the finance sector might respond to such environmental change is illustrated by the example in Box 2.3.

Box 2.3 Environmental change

A building society has a stated policy of opening a branch in every main town. This leads to a number of projects:

- one is to locate suitable premises in each town;
- another is to develop a corporate image in terms of interior decoration and staff clothing;
- another is to have the fixtures and fittings built to the house style and, to put all this together, there is a building and shop fitting project in every town;
- new premises need to be acquired in a number of towns and this project involves those most-maligned of all living creatures: estate agents. They are employed to find excuses to explain why they haven't yet found and purchased a suitable property.

The various projects are well under way when the announcement of a competitor's failure leads to hurried and secret merger negotiations with another building society. Suddenly the 85 shop units that belonged to the newly merged company all need modifying to the new house style as well, but 25 newly purchased premises are no longer required.

Some old projects get scrapped, some new ones are formed and some go on in much the same way as before.

An external change affected the justification for many of the projects.

So the top-down approach is very much driven by an organisational strategy. This strategy is defined by the senior management and laid down in a vision statement. The programme team develops this simple vision into a series of programmes and these programmes are delivered through specific projects. In extreme cases no projects are permitted to start within the organisation unless they are a part of this top-down thinking – see Case study 7.2.

You cannot expect project managers, to keep an eye on the overall fit of their projects into the corporate goals as they are generally far too busy and too fired up to do anything other than push on with their projects.

A project manager is unlikely to ask the question 'Is this project still a great idea?' This is like asking someone 25 metres from the end of the Olympic 100 metres sprint if they would be better off running in the marathon. The answer will probably be short and rude.

Instead, the programme management team should adopt the role of checking that every project is moving towards the overall objectives of the company at all times. So we end up with a three-tier organisational structure where the programme team forms a bridge between the senior management of the organisation and the project managers running their projects. See Figure 2.3.

A sad fact of life is that many large organisations have no strategy at all, or at least not one that has any kind of useful meaning, so that programmes and projects spring up in an uncoordinated way. But I'm running ahead to the next section ...

2.3 Bottom-up

In this approach, a wide range of people are able or even encouraged to come up with ideas for new projects and programmes. Sometimes anyone, and sometimes only people over a certain grade, is able to suggest or propose ideas for projects.

Such organisations often have a project definition form or project proposal document of some kind with which to start off each project. Similarly there may be a different and more comprehensive programme definition form or programme proposal document.

This is a formal request to proceed with a programme or project and typically contains the information outlined in Box 2.4. In some cases such documents are presented to a recognised authority such as the portfolio board, sometimes known as the programme board. Only this group has the authority to approve new programmes and new projects. The portfolio board may actually be the last couple of hours of the board of directors' meeting every three months.

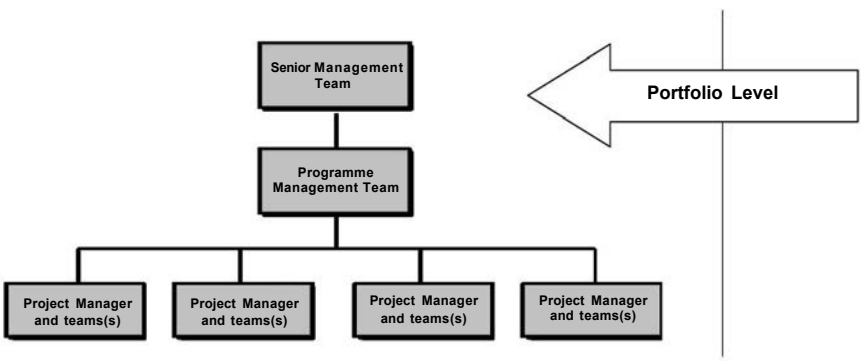

Figure 2.3 The overall management structure

Box 2.4 Typical content of project initiation document

- The objectives and purpose of the project.
- The time and cash budgets.
- The key personnel.
- The risks involved.
- The benefits that should be achieved as a result of the project.

In other organisations, each senior manager can approve their own projects. This is especially common in IT departments.

In the absence of a portfolio board, project definitions are often very weak and projects spring up in different parts of the organisation, resulting in duplication of effort or even internal competition. Such a situation usually results in a large range of projects – usually far more than the organisation has the budget or resources to pursue successfully. This is the difference between a rose garden and a mess of wild weeds – but we will come to anarchy later.

The portfolio board will, at each of its regular meetings, consider and approve some of the current crop of project proposals. Some will be complex, difficult and high risk but with great returns on investment, whilst others will be of lower risk and lower benefits. To help manage the selection process, you can display them in graphic form, as shown in Figure 2.4.

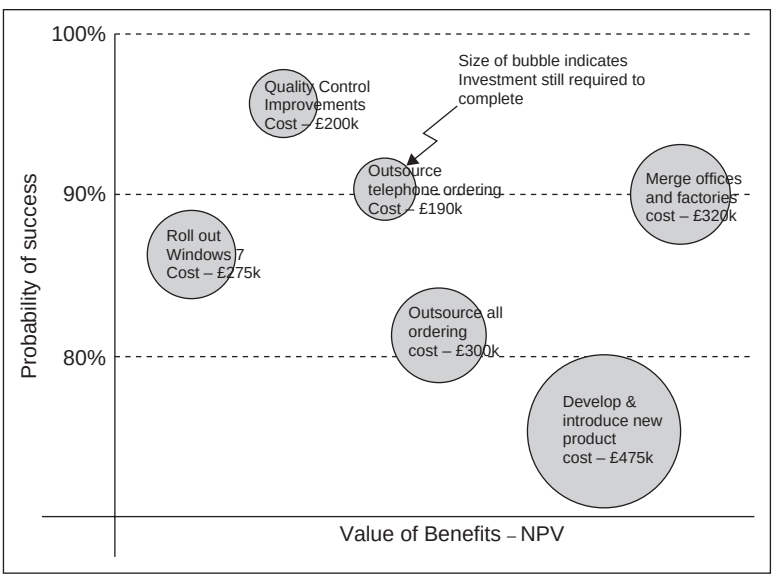

Figure 2.4 Example of a bubble chart

There may be a process by which the portfolio board can approve the form, thereby giving the project manager the authority to spend the money from the budget. In some organisations it is very hard to spend money without an account code, a project reference number and/or a signed off project proposal and these are only handed out when the project is approved. After signing off a project definition form, programme definition document or **project initiation document** (PID) the board and the project manager have a reasonably similar understanding of what the project aims to achieve.

Every project manager needs a clear statement of the aims of the project, and especially of the measures of success that will be used.

They should always ask themselves some important questions:

'Do we all know and agree how we will decide if I did a good job?'
'Do we all know what we are trying to achieve here?'
'Do we all agree when this project is to stop?'
'Where can I find a proper job?'

Apart from the last question, this is all most difficult to do at the start of a project because right at the outset, before you have even started work, you have so little knowledge about the project's circumstances that you may as well often read tea leaves for an estimated end date and budget for the project. This is one reason why it is so important for the programme management team to do careful estimates when breaking down the programme into component projects.

This lack of full knowledge at the start of a programme emphasises the need for progress reviews as greater understanding becomes available. As discussed at the beginning of this chapter, those who instigate projects and programmes in the first place are not always fully realistic in respect of budgets, time-scales and risks. Most commonly these instigators regard their idea as truly brilliant and very much 'their baby'. They tend, even at a subconscious level, to underestimate risks, time-scales and costs and overestimate outcomes and benefits.

> You can always find a project manager to agree to a delivery date but it is much harder to find one that can actually achieve it.

Another approach to dealing with inadequate knowledge at the start of a programme or project is to run a 'pilot', 'feasibility' or 'discovery' project designed to find out exactly what the initiative will involve. This might involve undertaking some research or building a prototype or some other form of simulation that will help you understand more about your great idea.

There are a couple of simple tools that help to evaluate a project's viability and we'll throw them in with the price of this book.

The first idea compares a number of alternative initiatives by examining a range of key factors. Normally high-value, low-investment and low-risk initiatives are the ones that should proceed. Initiatives that give little payback, cost a lot and are very risky should be are doomed to the great critical path in the sky. Where there are too many proposed initiatives for the organisation to run (which will almost always be the case), it must carefully select those with which to proceed.

To help in this process, the details of each proposed initiative can be shown in a 'bubble chart' (Figure 2.4). This is a sort of graphical representation of the 'survival of the fittest' approach. In this example, the three factors being compared are:

- the value of the project to the organisation – i.e. the benefits
- the cost to the organisation of completing the initiative
- the risk of the initiative not delivering, in spite of the provision of all necessary budget and other resources.

In Figure 2.4, each bubble represents a proposed programme. The left-hand vertical scale indicates the probability of success, with 100% being absolute certainty; thus, the higher up the graph, the greater the certainty of success. The horizontal scale represents the value of the benefits that should result – the further to the right, the greater the benefits. The size of the bubble relates to the investment that will be required to complete the delivery of the programme – the bigger the bubble, the greater the cost.

In this simple example:

- the Quality Control Improvements programme requires a low investment, has a low risk and delivers quite reasonable benefits;
- the proposed programme to Roll Out Windows 7 requires a larger investment and delivers very little benefit;
- the high-risk programme Development and Introduction of a New Product requires a large investment but delivers significant benefits;
- there are two competing ideas for outsourcing. One is to outsource just the telephone ordering process – Outsource Telephone Ordering; there is a higher-risk approach to outsource all ordering. This requires very similar investment to the previous programme, but the team feels that outsourcing all ordering has a higher degree of risk;
- there is also a programme to merge offices and factories. This has high benefits and a relatively high probability of success.

A chart like this can often show on one sheet of paper what hours of debate and pages of text would fail to communicate. But none of this is very scientific. Whilst you might be able to quantify the expected cost fairly

accurately, you will have to use subjective judgement to estimate factors such as probability of success or the value to the organisation of likely benefits. However, since the purpose of the chart is to compare proposals, as long as you use the same values and judgements for all programmes, the comparison should be fair.

Another idea is to give programme or project approval to proceed in stages. For example, a programme may be approved through to the end of the design phase or through to prototyping. At the end of that stage, the remainder of the programme is again submitted for approval to proceed. **Justification** and **viability** are terms used to measure or compare the value of the proposed programmes and projects.

This will normally require a methodology that defines the key milestones and what work should go on before each one. We'll talk about methodologies and key milestones in Chapter 5.

This bottom-up approach will also require a group that has the authority to approve programmes and projects, commonly called a **portfolio board**, sometimes called a **programme board**. As described in section 1.4, such boards meet from time to time to consider the initiatives currently in progress, the new programme and project proposals and any adjustments to the direction of the organisation as a whole that might impact on any current initiatives. Further guidance on the workings of a portfolio board can be found in section 1.4.

2.3.1 One last thought

It is very common to call everything a project or a programme, even those initiatives that have yet to be authorised. This gives everyone the idea that a specific idea is going to happen simply because it is has been given a name. It helps a lot to distinguish between ideas and authorised initiatives. Using terms like 'programme proposal' or 'proposed project' or 'contender programme' gives the idea that whilst some exploratory work might be going ahead, the initiative is yet to be considered for authorisation. This helps to clear the air considerably.

For that matter some mature organisations attach a range of status indicators to their projects and programmes, something like Table 2.1.

Table 2.1 Programme status indicators

Contender	Under consideration, no budget allocated
Live contender	Under consideration but some exploratory work is being undertaken
Authorised	Approved to proceed, budget approved
Live	Work has begun
Closed	The project or programme is ended

2.4 Both top-down and bottom-up

Some organisations have a series of programmes that are designed to deliver a long-term strategic vision through a top-down approach, but also allow a limited range of other projects to spring up on a bottom-up basis.

This may suit the way the organisation works or it may be part of a transition from bottom-up to top-down approaches. Top-down is regarded as being a more mature approach and something that many organisations aim to achieve, but in many large organisations the transition to a top-down approach is neither simple nor straightforward.

2.5 Anarchy

In this approach anyone in the organisation is permitted or even encouraged to develop ideas, gather support and run their own projects. It is often very competitive and those people who are seen to run successful projects do very well in their personal careers, thank you very much.

On the other hand, each project instigator will have, at best, a limited view of the organisation's overall strategy and an even more limited view of the other projects that are going on or about to start.

Inevitably projects overlap with each other, directly compete and, in the worst case, make each other completely redundant. There was a major hospital where one group was about to place an order to double glaze a building, with the objectives of saving on heating bills, improving cleanliness and improving the patient environment. Unfortunately another group had plans to tear the old building down and replace it with a completely new structure. If the two groups had not become aware of each other's projects the newly double glazed building would have been torn down, with a waste of hundreds of thousands of pounds.

You may think this is extremely rare and that I am making it up but I assure you that this sort of thing goes on all the time in larger organisations. Vast sums of money and resources are spent upgrading products that are about to be withdrawn from the market. Departments in public sector organisations expand just before they merge with another group or are replaced with some technology.

A few organisations seem to thrive on anarchy, such as the Hash House Harriers referred to in section 7.1.1, but the professional world of project and programme management believes that generally, in the case of businesses and public sector organisations, almost anything else is better.

2.6 Benefits management

Many programmes are designed to improve the way in which an organisation works. The outcome of the programme might be to:

- reduce running costs;
- increase the number of customers;
- improve the health of the local population;
- reduce staff turnover;
- improve efficiency;
- introduce a new product and therefore generate new income.

These are all benefits. Benefits are the central focus of a programme of change; they are the *raison d'être* and driving forces behind the whole initiative. And because benefits are so central to a programme of change they may eventually be the measures of success.

Benefits will normally be enjoyed long after the programme has closed.

Just to slightly recap may I politely remind you that projects create products; programmes combine those products to create a capability and the business then uses the capability to generate benefits (Figure 2.5). So benefits are measures of the improvement delivered. Of course it will make life very much more worthwhile if your benefits relate to the programme's vision. Benefits are the quantifiable equivalent of the qualitative vision.

If the vision of a health-industry programme is to 'decrease the occurrence of a specific disease', one of the benefits might be a 15% reduction in cases. Benefits are nearly always a change in a measure: 15% increase, 3.5% decrease, reduced by 100/annum etc.

Base lined benefits give a fair comparison. The benefit baseline shows what has been happening to a specific measure in the recent past, what the measure is expected to do in the future without the programme and what

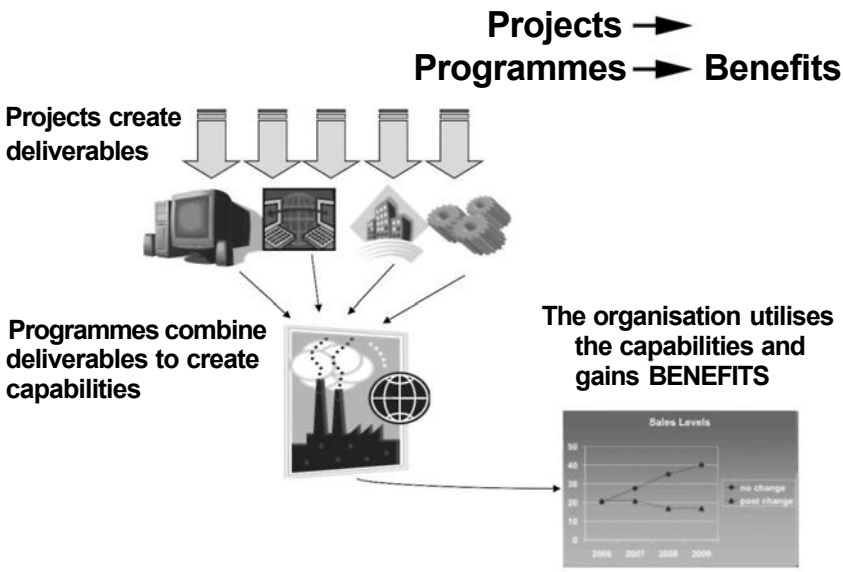

Figure 2.5 Projects, programmes and benefits

the measure is expected to do if the programme proceeds. These are *if we do/if we don't* measures.

At this point an example would be great, so here goes.

Let's imagine that we make and sell cars and one of our models is looking a bit dated. Sales had been rattling along but began to fall away about 6 months ago. The feedback from our dealers is that sales can be expected to continue to fall at 2 or 3% per month. Our spies tell us that a competitor will launch a strong product in our market area within 12 months and this will again hit our sales. If we invest in an updating programme and add various features to the car, we expect sales to recover and even-out. If we assume a five-year period the total cash benefit can be calculated, along with return on investment and other useful numbers that amuse financial people.

In Figure 2.6 the lower line shows our predicted levels expressed in millions of pounds per quarter-year. The upper line shows that there will be no change during the development of the new, updated model; but when it is launched after one year (four quarters), sales start to recover rather well.

From this you may deduce three things:

1 With a little effort it is fairly easy to make some sensible estimates to help the executives make rational decisions before authorising (or not) a programme.
2 With a little more effort it is fairly easy to fiddle the figures to make almost any crazy idea look absolutely wonderful.
3 Your tame author has virtually no knowledge about the motor industry.

Please do not run off with the idea that all benefits are counted in pounds, euros or dollars. Benefits can be measured in all manner of things as shown in the Box 2.5.

Figure 2.6 A benefit graph

Box 2.5 Measuring benefits

- ✓ 5% reduction in the frequency of accidents in our factory.
- ✓ 10% increase in the number of customers using our service each year.
- ✓ 15% reduction in annual staff turnover.
- ✓ Improve efficiency – now 98% of ambulances arrive at the scene within 8 minutes, an increase from last year's 80% rate.
- ✓ Our flights take off with an average of 75% seats occupied, up from 60%.
- ✓ 25% increase in the number of customers rating us 'excellent' on our feedback forms.

If you truly want a rational decision it does make sense to compare action with inaction: what would happen if we do this programme and what will happen if we don't.

The best benefits are the differences between such measures. Good benefits are at least expressed in numbers. Poor benefits are vague statements including: 'the public will think better of us', 'quality will improve' and 'we will be more efficient'.

Sometimes the only genuine benefits that will be realised are financial. For example, cash saving might be the only realistic benefit to be realised from merging offices and thus saving the rent of those no longer required. Such benefits, which can be expressed in terms of money over time, are normally referred to as 'tangible'. However, there are frequently other benefits which, whilst important and worthwhile, cannot reasonably be expressed as money – at least, not without engaging in the voodoo arithmetic discussed above. Such benefits are referred to as 'non-financial', because they cannot meaningfully be converted into money terms.

Even some non-financial benefits can be measured. The number of products discarded due to quality checks is easy to measure. The number of patients recovering from an operation can be counted.

But then there are benefits that no one can sensibly quantify. These include concepts like brand awareness and happiness. These are sometimes known as qualitative benefits: we can describe them, but not define them numerically. So benefits fall into one of four categories, as shown in Figure 2.7. Which of these four would you regard as being most useful?

Of course, wherever possible, all expected benefits should be expressed in numeric terms and used to create targets against which the progress of the initiative can be measured. For example, in the case of the proposed motor car upgrade we might try to elicit the views of customers, both existing and potential, through surveys and focus group. When a stranger with a clipboard asks you what kind of newspapers you read or which brand

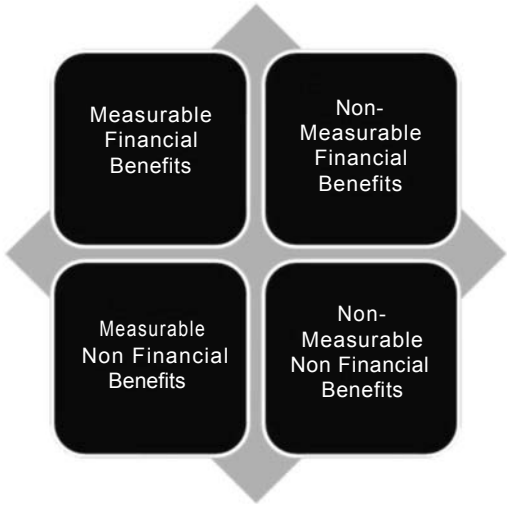

Figure 2.7 Types of benefit

of toothpaste you use, you are taking a small part in some kind of survey run by a team associated with at least one programme. Loyalty cards were conceived to give retailers a clearer picture of spending patterns. We were offered bonuses and prizes to encourage us to take up these tracking systems. These are all part of various benefit management initiatives.

There appears to be no universal set of rules for categorising or calculating benefits that can be applied without adjustment to all organisations. Instead, each must devise its own. And when calculating such targets, full allowance should be made for disbenefits. For example, our new car may have all sorts of new gadgets, but that might put some motorists off. Certainly it will mean all sorts of specialist servicing equipment – and all that will increase costs. An increase in a company's user support operation may have benefits in terms of customer satisfaction, but will have disbenefits in terms of the increased running costs.

But even if no numeric targets can be calculated, it is still useful to understand, document, allow for and publicise all non-tangible or qualitative benefits. Word-of-mouth stories suggest that the projects and programmes most likely to succeed are those with the greatest range of different types of benefit. This is because, when such initiatives encounter difficulties at some later stage in their life, they will get help from all those stakeholders who will be positively affected – and the wider the range of benefits, the greater the number of positively motivated stakeholders. By contrast, those projects and programmes that are expected only to deliver tangible (i.e. financial) benefits are likely to be of interest only to finance directors and their associates. Accordingly, when difficulties are encountered, these initiatives may find that they have only a limited number of supporters.

2.6.1 *Benefit mapping*

One day some bright spark noticed that most programmes have a number of projects and a number of benefits. Said bright spark suggested that it might be possible to show how the various projects combine to deliver the many benefits.

'Ah ha', said the programme management community, 'wouldn't that be just great'.

The argument suggested that if we knew how projects mapped to benefits we would be better placed to understand the implications of a project going off the rails and a change request. Sadly it was not simple. The problems of mapping projects to benefits loom large, so there is not yet a brilliant way of doing this.

Remember that one project may lead to many benefits and one benefit may depend on many projects. Some projects may have a very large impact on some benefits whilst others may be 'nice to haves' that add only a little extra benefit. They are the icing on the cake. We would need a method of differentiating between the 'must haves' and the 'nice to haves'.

Also, some projects do not themselves deliver any benefits at all, as they are designed to make other projects possible and it is those projects that should deliver our precious benefits.

But people are trying. By the time you read this, it may have happened.

Nevertheless here are some ideas for benefit mapping. Mapping projects to benefits is possible on some simple, straightforward programmes.

An organisation is getting bad feedback from its clients and wants to improve its hit rate by delivering more successful projects. It decides that its objective (or vision) is to increase its own project-management

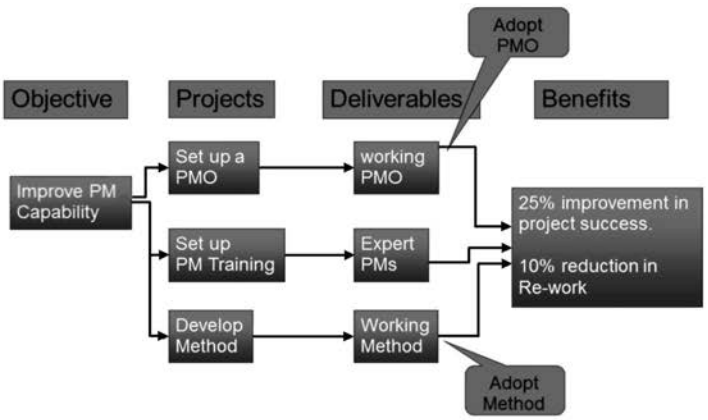

Figure 2.8 A simple benefit map

capability. To do this it plans to set up a project management office, develop its own project management methodology and design and deliver some PM training to its own project managers (Figure 2.8).

It creates three projects and appoints three project managers. These project managers understand the deliverables or products they are supposed to create and these can be linked to the benefits.

We can see that all three projects contribute to the objectives. We can't see which of the three projects makes the biggest contribution and which is the smallest, but we can see a simple map or a very simple programme.

As we leave behind these very simple programmes you will see that the benefit mapping becomes a lot more complex. Figure 2.9 shows how a range of capabilities link to deliver the overall objective of reduced litigation risk. Perhaps there are some numbers supporting items such as 'Better diagnoses'.

Finally, you might consider a benefit diagram using a matrix rather than a network. The spreadsheet in Figure 2.10 lists the projects down the left-hand side – there might be many more than are shown here. Across the top are the overall aims, objectives or visions of this hypothetical local government body in a country far, far away. Each project is then graded in terms of its contribution to each aim. In this case the project managers used:

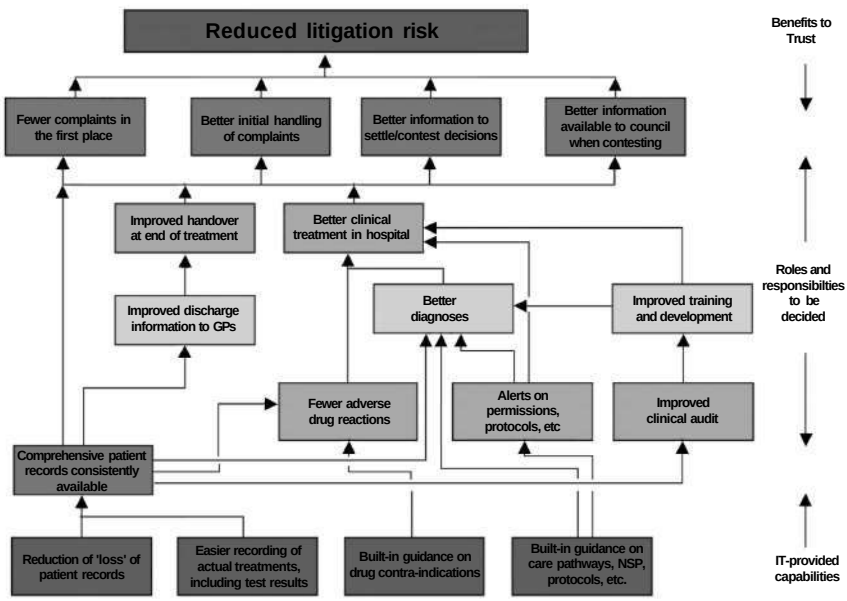

Figure 2.9 A benefit map

- a green box and the letter H to indicate a high contribution;
- a yellow box and the letter M to indicate a medium contribution;
- a red box and the letter L to indicate a low contribution;
- a blue box and the letter D to indicate a disbenefit – a negative contribution;
- a white box with a ? to indicate something hard to estimate.

You could get much cleverer by using a scale, say from −10 to +10 or −100% to + 100%. This gains a lot of ground. Some projects will be shown up as delivering few or even no benefits and should be questioned, cancelled or not approved. Other projects can be shown to have a wide range of benefits and therefore should be prioritised and given a strong project team.

Also, you can see if the various aims are supported in a sensible way. Perhaps they should be supported equally; perhaps some aims carry more weight than others. You could even weight the aims, give each project a score for each aim and calculate an overall project rating. You might impress a few people. You might upset another group.

This matrix approach is favoured by organisations running a wide-ranging programme of fairly independent projects leading to multiple aims.

Using a numeric value helps in other ways. By adding up scores horizontally you can grade each project in terms of its overall contribution to

	Sample Corporate Aims					
Project Register	Urban Regeneration	Healthier Citizens	Improved access to services	Cleaner, Greener, Safer	Towards 5% efficiency	Comments
New housing project	H	H	M	M	?	Consider prioritising projects - which order would they be in?
Upgrading Sports facilities	M	M	L	L	D	Should this be delayed or put on hold if resources are limited?
Building a new leisure centre	L	M	M	D/L	?	Are there any disbenefits (D) e.g. to cleaner greener safer depending on where it is located? Are there links to Healthier citizens?
New 1 stop shop	M	L	L	L	?	This should have a low priority as it has no "high" linkages - what staff are being used here? Should they be reallocated to higher priority ones?
Review of Customer Access services	L	L	H	M	M	Should this have a clear dependency to the project above?
IT project to improve shared services	L	L	H	M	H	What has been done in this project against the 5% efficiency targets that could be replicated on others?

Figure 2.10 A benefit matrix

the organisation's aims. Adding up the scores vertically will show if the various aims are supported evenly or not.

This kind of matrix suits a group of disconnected projects, that is, projects that all should help to deliver the organisation's strategy but are not mutually interdependent.

2.6.2 Benefits realisation plan

A benefits realisation plan is a document that explains how benefits are going to be managed throughout a programme. Normally a part of the programme documentation, it will be produced by the programme manager and form part of the documentation that is used to make a decision on the viability of the programme. An early version of the benefits realisation plan is therefore often found in the business case, programme initiation document or programme charter.

The benefits realisation plan:

- identifies each benefit;
- sets a baseline for comparison and reports any work done or that needs to be done to calculate this;
- establishes the exact measures to be used;
- allocates responsibility for measurement during the programme;
- allocates responsibility for measurement after the transition at programme closure;
- sets benefit realisation milestones.

2.6.3 A benefit spectrum

Not all benefits are the same. There are some benefits that are very controllable, close to home, short term and predictable. Others are distant, may be affected by a wide range of other factors and are unpredictable (Figure 2.11). John Wanamaker, a renowned American department store merchant is attributed with this memorable quotation: 'Half the money I spend on advertising is wasted; the trouble is I don't know which half'.

And so it is with some programmes. Your programme to deliver a new product may be fantastic, you delivered a great product on time and to budget. The slight problem was that three major competitors got into the same market and the sales never really took off. On the other hand, and despite a programme that staggered along in a disorganised way because of a shortage scare, sales skyrocketed.

For this very good reason a programme manager cannot be responsible

Internal	External
Close Control	Lack of Control
Predictable	Unpredictable
Within your own regime	Outside you own influence
Little or no impact from outside factors	Great impact from outside factors
Low Benefit Risk	High Benefit Risk
Short Term	Long Term

Figure 2.11 A benefit spectrum

for delivering benefits. Note that sentence down and repeat it next time you get involved in a programme.

The programme manager is responsible for delivering the products and capability that the programme demands and delivering the benefits realisation plan that shows what the benefits should be, how they are supposed to be measured and by whom. But in the end the poor old programme manager has to leave it to the on-going management of the organisation to make use of the capability and deliver those pesky benefits.

Because of the varied distance between the programme and benefits we can class our benefits on a scale. Some are fairly predictable but others may be far distant and benefit not our own organisation but our customer or clients, or the even the population at large. For these reasons there is a case for seeking out some intermediate measurements that are not really benefits but that will allow you to measure and – importantly – demonstrate the success of your programme.

The Department for Environment, Food and Rural Affairs (Defra) is a government department in the UK. Imagine that you worked for Defra on a programme to reduce flooding round the UK. Clearly, the climate is going to play a very big role and that is completely out of the department's control.

So you could set up a series of measures, starting with those closest to you and ending with the overall aim. Clearly you have more control over those measures at the top of list than those at the bottom:

- number of flood protection measurement systems announced
- number of flood protection measurement systems in place
- number of flood protection schemes announced
- number of flood protection schemes installed

- public perceptions improved
- media perceptions improved
- actual reduction in frequency of flooding.

Similarly, a health authority that is trying to reduce waiting times for operations will depend on the number of operations needed by the local population:

- number of waiting time monitoring schemes announced
- number of waiting time monitoring schemes in place
- number of waiting time reduction schemes announced
- number of waiting time reduction schemes installed
- actual reduction in waiting times.

It makes sense in some programmes to consider the end point but reflect on the interim.

Case study 2.1 A benefit statement

Towards a healthier future
A ten-year vision for healthcare across one hypothetical NHS region

This is a modified version of a real healthcare benefit statement. It has been changed to remove any possibility of embarrassment to any healthcare group but it retains the good sense and ambitions of the programme team. It starts off with a statement of concerns and goes on to propose some solutions.

Here are nine healthcare facts taken from the full report that show some of the things we need to change:

- Whilst a majority of smokers want to stop smoking, our region currently can only help 3% of smokers in any one year.
- Similarly, treatment for alcohol misuse is effective but not widely available in the NHS.
- Education and help over falls for older people prevents further falls by 61%, but only about 1 in 100 of the people likely to benefit are referred to a falls service.
- Women in the deprived areas have a 40% higher maternal death rate than women living in the most affluent areas.
- A person signed off sick for six months currently has only a 50% chance of ever returning to work.
- Only 50% of people with diabetes in the area have an agreed care plan.

- Only 2% of practice nurses have received specific training in mental health issues.
- Of all complaints about hospital care, 54% are related to palliative care.
- In our region fewer than 20% of stroke units meet the agreed standards.

Therefore we will support and encourage private sector companies and small businesses to invest in health promotion for their staff, including providing time off for smoking cessation and healthy catering policies. Mothers will receive consistent care from a midwife who is local, known to and trusted by the patient. Healthy schools and children's centres will promote healthy eating, exercise, smoking avoidance, alcohol awareness, sexual education and accident prevention.

People with long-term conditions will be assessed by a range of professionals in order to develop a practical individual care plan. Out-of-hours access to care will be via a single accessible point of contact. An integrated clinical record will ensure that care is safe and that duplication of information gathering and clinical investigation is avoided. Clinical treatment of mental health problems will be supported by active management of social factors, including schemes to include patients in social environments where they have a role, a responsibility and a social network. A 'Key Worker' will be assigned to patients nearing the end of their life to coordinate care and assess, support and review the needs of patient and carers in the last weeks or months of life.

2.7 Portfolio management

As described above, many people in organisations have great ideas for programmes and projects, leading to more good ideas than can be realistically coped with – hence the need for portfolio management. Everywhere that we have worked has been staffed by intelligent and committed colleagues who wish to see the world made into a better place.[1] To this end, they have been eager to promote better ways of doing things and often this has resulted in proposals for projects and programmes of change, many of them developed in their own time during the evening and at weekends.

Sadly, very few such proposals seem to have been adopted. This is because having a worthwhile proposal, supported by a good business case, is not enough. It is also important to show that this proposal is better than any of the others that the organisation could invest in. Because most organisations have more worthwhile proposals than they have resources to invest, most therefore select the set (or portfolio) that gives the best overall pattern of benefits.

And even though we know that intangible benefits are important, costs are always tangible and budgets are fixed. So the organisation can run

only a finite portfolio of projects and programmes consistent with the investment funds available. This usually means that lots of worthwhile proposals have to be rejected or postponed.

As a result, selecting the portfolio can be a tense and politically sensitive process, as each department, business unit or major stakeholder attempts to see that its preferred initiatives are adopted for immediate implementation. And of course, in such a process the proposals of 'low level' individuals tend to get little support, even though the proposers may have a much better understanding of the realities of the business than does the management, which operates at higher levels. Instead, those with influence seem to engage in a form of horse trading – 'if you'll support my proposal, I'll support yours'. Indeed, McKinsey, the global management consultancy firm, noted that 'behind-the-scenes lobbying and logrolling – and sometimes outright deception, are fairly frequent and inhibit constructive debate and dissent'.[2] One consequence of this is that most organisations end up trying to run more initiatives than they can really support. In a review of product development portfolios in Australia, Catherine Killen noted that 'companies regularly attempt to complete too many projects. This sets up a vicious cycle whereby resources are stretched, reliable information becomes hard to find, and management finds it difficult to kill unsatisfactory projects'.[3] The end result, according to McKinsey, is that approximately 33% of investments actually are poor choices and should be terminated or should never have started, whilst 21% of proposals that were rejected should actually have been accepted.[4]

2.7.1 Establishing a level playing field

The solution to this inherent unfairness is to create a level playing field in which all worthwhile proposals can be reviewed on the basis of their merits and not upon the basis of who shouts loudest or who has the most political 'clout'. This can be partly achieved through using the strategic and governance services associated with a 'full service PMO' as described in Chapter 6. A group independent of the organisation's mainstream political playing field, plus a systematic process, will bring a degree of rationality to the evaluation process. Nothing will make it completely apolitical.

This level playing field needs six elements, each of which is briefly described in the following paragraphs.

2.7.1.1 Agreed characteristics and weightings

Successful organisations develop an agreed set of characteristics for determining the most worthwhile projects and programmes. The key here is simplicity, and typically they involve only a few criteria, for example:

2.7.1.2 The tangible value of the benefits that will be realised

To allow for the effect of time on the value of money, this is often expressed in terms of Net Present Value (NPV) or equivalent (Box 2.6). This value recognises that, because of inflation and other factors, a pay-off of £1 million in ten years' time is likely to be of less value than a pay-off of £1 million today (after all, I could put the investment funds into my local building society and earn 3% interest just for doing nothing – with no effort, hardly any risk and the ability to withdrawn more-or-less whenever I want).

Box 2.6 Calculating net present value

Net Present Value (NPV, aka Net Present Worth) is calculated from all incomings and outgoings, remembering that money in the bank should grow over time, as it earns interest.

NPV is roughly described as the amount of money you would need right now to carry out a long-term project and see its benefits.

So if your project was to buy and maintain a new car for five years and then sell it you would add up the initial purchase price, allow for tax, insurance and maintenance over the years and the paltry sum you will get back from your heap of junk in five years' time. Remember that bank interest will increase the sum you set aside to spend in the future.

And values change as more is learnt about the problems and issues and as business circumstances change, so what may have seemed like a brilliantly profitable idea at the start may turn out to be much more costly as time goes by – as is exemplified by the London 2012 Olympic Games (see Case study 4.1). So benefits and all other characteristics need to be kept under review throughout the life cycle of an initiative. For example, if it turns out that more profit could be obtained through putting your money into your building society or savings bank, why would you continue to spend it on a risky project or programme?

Most major organisations have their own formula for calculating NPV, usually held by the finance department. The objective of using a standard formula is to ensure consistency when comparing different projects or programmes.

An area of particular difficulty for many programmes or projects is handling the benefits flowing from staff reduction. Frequently, a key objective of a programme or project is to reduce labour costs through a substantial redundancy scheme. Such schemes are rarely popular amongst the staff involved and organisations generally take great care that any such proposals are not leaked in advance. Accordingly, it can sometimes be difficult to

have free and comprehensive discussions about such initiatives amongst the portfolio board. It is probably best in such circumstances recognise that details will leak. Accordingly, try to be as open as possible and to work out in advance the key questions that are likely to be asked, and then to have answers prepared and ready should any of those questions be asked. Whilst staff may not like the idea of a redundancy scheme, they will like any attempt to hide the truth even less.

2.7.1.3 Costs still to be incurred

Against any financial benefits must be set the costs – not the full costs across the whole life cycle, but those costs yet to be spent to ensure successful completion. The money already spent is gone and (in most cases) can never be recouped and so should not be included in any comparisons.

As shown in Table 2.2, it is thus possible that a current initiative that has grossly overspent to date, and where, as a consequence, the costs vastly outweigh the benefits, will continue to be supported to completion. At the same time, a new initiative where the expected costs are far less than the benefits will not be supported, the reason being that the money still needed to complete the first initiative is much less than the expected benefits and the cost/benefit ratio is still better than that for the new initiative.

Table 2.2 Table showing how cost/benefit ratios may vary

	CURRENT ESTIMATE OF TOTAL COST OF INITIATIVE	COST SPENT TO DATE	COST STILL TO SPEND	EXPECTED TANGIBLE BENEFITS	COST/ BENEFIT RATIO
Current initiative	£500K	£450K	£50K	£250K	1:5
Proposed new initiative	£100K	£0	£100K	£250K	1:2.5

2.7.1.4 Intangible benefits

As explained above in section 1.8, most good investments are intended to also deliver some intangible benefits, and generally the more the merrier. These benefits are normally allowed for by cross-referencing to the various strategic objectives that the proposal will support. Thus, an initiative that provides good support to all the organisation's objectives but has no tangible benefits may still be selected for go-ahead rather than one with strong tangible benefits but no intangible ones.

2.7.1.5 Risk

It is vital to allow for risk, and the likelihood of succeeding should be calculated for every initiative and then allowed for in selecting those initiative that

will go ahead. Riskiness is normally converted into a number, indicating the probability of success. In this way, different proposals can be compared.

The process used to calculate risk at the level of a programme or project can be fairly simple. The business case should contain a comprehensive register of all key risks. These can be converted by a panel of experienced programme managers into an overall estimate of risk for the whole initiative. This estimate can be expressed as a percentage – where 0% means no possibility at all of completion and 100% means absolute certainty in every aspect of estimates. In Table 2.3 the risk probabilities range from approximately 75% to about 96%.

Once a risk probability has been agreed, it can be used as a factor in decision making. Figure 2.4 also shows in diagrammatic form how risk can be compared against benefits and costs to help to identify which programmes will be supported and which must wait or be cancelled altogether.

Since circumstances change, attitudes to risk may change. For example, Case study 1.1 What happens when you don't manage change as a programme or project, shows how inattention to risk can damage a reputation. From now on, this organisation is likely to be much more careful about identifying and managing risks and this may require adjustments to be made at the next portfolio review.

Equally, perceptions of risk will change as programmes and projects progress. In the early stages in an initiave's life cycle many aspects of cost, benefit realisation and so on, will be highly uncertain. As the programme progresses, these uncertainties will decrease. Accordingly, the probability of success should increase and this change should be reflected in portfolio board discussions.

A final point is to note is that risk weightings can be handled in various ways. Risk can be treated as an independent characteristic and given an appropriate weighting, as with other agreed charactersitics. Alternatively, contingency premiums can be calculated for each key risk and these can be added to the expected costs. Thus, risk will be reflected in the anticipated costs. Finally, a combination of both approaches can be adopted.

2.7.1.6 Interdependence

Some initiatives are likely to depend upon others, and this will restrict the freedom of decision making. This is frequently an issue within IT portfolios, where new systems can be implemented only when basic operating systems have been upgraded.

Another type of interdependence is provided by the need to 'prove' the viability of proposals. Many major initiatives require some form of experiment, feasibility study or pilot project to demonstrate viability and to provide the value-for-money information on which the full business case will be built. Often such studies are projects in their own right and must be identified within the portfolio, but with the main project dependent

Table 2.3 Table of possible initiatives, sorted into priority to show which could be completed within the currently available budget – i.e. which will fall above and below the line and which below

REF	TITLE	BENEFIT NPV	COST NPV	OBJECTIVE					RISK LEVEL	INTERDEPENDENCE	PRIORITY AVAILABLE	BUDGET
				A	B	C	D	E				
12	UK office rationalisation	€375K	€105K			✓		✓	98%		1	€4,395K
11	Directors' car parking @ head office	€0K	€235K					✓	98%		2	€4,160K
07	2010 Windows global upgrade	€0K	€200K	✓	✓				See 09		3	€3,960K
08	CRM pilot roll-out – Netherlands	€75K	€115K		✓				See 09	Depends on 07		€3,845K
09	Full CRM global roll-out	€1,115K	€455K		✓				75%	Depends on 08	4	€3,390K
03	Project manager training programme	€105K	€175K	✓	✓			✓	95%	Savings against current budgets	5	€3,215K
14	New product development laboratory	€4,323K	€1,950K		✓			✓	80%		6	€1,265K
01	Updated SAP finance system	€200K	€1,233K				✓		90%		7	€32K
04	New product-ordering system	€762K	€1,200K				✓		66%		8	n/a
05	Integrated global stock control system	€950K	€776K				✓		66%		9	n/a
16	Revised staff grading system	€200K	€250K				✓		75%		10	n/a

upon a successful outcome. A failure of the preliminary project may result in the main project being postponed, merged with another or cancelled completely. In such circumstances, the funding allocated to the main project can be diverted to another – but only with the agreement of the portfolio board.

2.7.2 Collecting and collating relevant information

A key role for the portfolio management office (PMO) is collecting and collating the above information for each proposal so that fair and equable comparisons can be made. A good example of how this might be done is shown by Transport for London (TfL) (see Case study 2.2). The characteristics shown in Case study 2.2 are for one of 75 initiatives that were selected in 2009 to go ahead as part of that organisation's £29 billion portfolio of investment. The objective was to make it easier to get around London for residents, tourists and other visitors. Prior to finalisation of the portfolio, the characteristics of all proposals were displayed in the form shown in Figure 2.14, enabling the investment programme management board (i.e. the portfolio board) to make a fair and reasonable selection.

The discerning reader will note that some of TfL's characteristics involve turning intangible benefits into tangible ones, especially item 7. Here, an agreed set of formulae, based upon those of the Department of Transport, have been used to convert intangible benefits such as reduced travel delays into numeric terms. I don't suppose that agreeing how this guidance would apply was easy, but I have been assured by contacts within TfL that, once agreed, it has been applied universally.

2.7.3 Agreed budgets

Nobody can spend money that they don't have and cannot borrow. Governments can borrow for longer than you or I, but eventually even they have to stop and live with what they have got. As a consequence, there is a finite amount that can be spent, however worthy all the proposals.

> Old Chinese saying:
> Income £1, spending 99p = happiness.
> Income £100, spending £101 = unhappiness

Determining the final amount available, i.e. the agreed budget, can itself be the outcome of a complex series of negotiations. As Case study 4.1, on the London 2012 Olympic Games, makes clear, funding can come from a

variety of sources and may be based on certain projects receiving the go-ahead, so there can be all sorts of linkages and conditions.

The budget is normally agreed as part of the organisation's strategic planning process. In the case of TfL, this involves looking ahead on a four-yearly cycle. As the introduction to TfL's latest business plan makes clear,[5] this agreement can involve some very serious negotiation with those providing the funding. Furthermore every time there is a change in external circumstances, this agreed budget may have to be revised, resulting in a new series of negotiations. Trying to keep all the funders happy throughout series of negotiations is unlikely to leave the portfolio manager with much free time!

In Table 2.3 the various proposals have all been sorted according to a ballot of the portfolio board members.[6] The heavy line across the table shows the total agreed budget that is available for investment; projects and programmes above this line can go ahead, whilst those below will have to wait until extra funds become available.

2.7.4 Forum for debate

The ancient Romans quickly learnt that, however unpleasant were the politics of the Forum, they were better than having decisions made in secret, backed up by the power of the dagger. The same applies today with complex, multi-party decision making in business. Hence a key role for the portfolio manager is to bring the key decision makers together, with all necessary data and information, and to get a collective decision on the proposals that will go ahead – i.e. the agreed portfolio.

In practice, the process can rarely be quite as detached and objective. Whatever is finally agreed needs to be 'balanced'. Like an elephant, this balance is hard to define in advance, but easy to recognise when you see it. The portfolio must be balanced in that:

- it must give support to all the different organisational objectives;
- it must be balanced in terms of risk, with neither too many high-risk initiatives nor to many low-risk but low-benefit initiatives;
- it must give a steady stream of benefits over time, with some 'quick wins' early on to encourage the doubters, matched by substantial benefits later on as long-term initiatives mature;
- it's a good idea to see that all major stakeholder get something from the proposed portfolio – so that they will continue to lend support;
- in most organisations there is always an issue of public perception that needs to be considered. In the case of TfL, the elected Mayor of London had made a strong personal commitment to expanding cycling. Accordingly, it would have been an odd portfolio that did not include a reasonable set of initiatives to support this form of transport.

Once a set of priorities has been agreed, those proposals that lie 'above the line' of the agreed budget can be accepted whilst those lying below must be deemed rejected or postponed – see the example in Table 2.3. But merely gaining initial one-off agreement is rarely enough. That agreement must be maintained, in principle, for as long as the portfolio exists. This means constantly reminding all stakeholders of what they have committed to and the benefits they should expect to realise.

It also means constantly monitoring the agreed portfolio in the light of changes to business priorities, to strategic objectives and to a changing understanding of what agreed projects and programmes can achieve. For example, it is now recognised that the plans for the UK National Health Service's National Programme for IT (NPfIT) were hopelessly optimistic. As a consequence, these plans are being scaled back, with the possibility of the whole programme being reduced and much of the funding being redirected elsewhere.

Gaining initial agreement is usually tied in with the annual accounting cycle, since this helps the chief financial officer to make the necessary investment funds available when they are required. And, typically, the portfolio is subject to a mid-term review at the financial half-year. At this review, projects that are likely to fail can be stopped or merged with others and the funds so released transferred to other, existing projects (e.g. to speed them up so that benefits can be realised earlier) or used to allow new, worthwhile projects to join the portfolio.

2.7.5 Chairmanship and sponsorship

Normally, a select group of senior managers, the portfolio board, is charged with selecting the agreed portfolio. This board typically consists of about half-a-dozen of the key players, such as the chief operating officer, chief marketing officer, finance director etc. Through the guidance and direction of the portfolio manager, their task is to come to agreement on the initiatives that the finally agreed-on portfolio should contain.

Getting all such key decision makers together into one room is usually very difficult. This is one area where sponsorship by the chief executive officer (CEO) or similar can help – by authorising a regular 'away day' at a smart hotel with the clear objective of planning the implementation of the organisation's strategy. But, whilst the CEO can help to get the key players around the table, the portfolio manager should be the effective chair and should steer the meeting towards agreement. Otherwise, the resultant selection may be deemed by some to be the CEO's rather than an independent and mutually agreed portfolio, and thus become enmeshed again in corporate politics.

In turn, the PMO manager should provide assistance by speedily presenting and re-presenting portfolio data to show the implications of attaching different weightings to the various criteria of each proposition.

Managing senior decision makers such the chief financial officer or the chief marketing officer is not easy – especially if the next step is for one of them to review your annual performance and determine what pay rise, if any, you will receive next year; hence the importance of very senior-level sponsorship and agreement beforehand from all other parties regarding the process that will be followed. Indeed, agreeing and reviewing investment portfolios may be treated as a responsibility for the main board or for a board committee, such as the strategic planning committee.

There is no 'silver bullet' for gaining agreement in such a politically sensitive environment – instead, portfolio managers must use courage and determination to cope with the inevitable tricks as key stakeholders promote their 'pet projects' at the expense of others. In theory, the objective of the whole exercise is to obtain an ideal combination of projects and programmes that maximise value to the organisation; in practice, the real measure is whether a selection has been agreed that all stakeholders will accept and will continue to accept until the next formal review.

2.7.6 Tools and techniques

Much blood, sweat and tears have been spent on developing and advertising special tools to support portfolio management. In spite of this, there is little evidence that the use of any particular tool will help. In fact, one consultant stated at a conference that 'Of fifty portfolio management [toolset] implementations that I have led, fewer than 25% were still in operation twelve months later'.[7]

Tools can be a tremendous boon in helping to present and re-present data and lists of priorities, but only within a clear framework of decision making, as described above. What is needed is a toolset that allows the PMO manager to re-tabulate the data whilst the portfolio manager calls a break for coffee.

The bubble chart is a good example of how a simple tool can be used to present complex data into an easy-to-understand form. Experience shows that graphic images like this can greatly speed up agreement – but the portfolio manager must be clear in advance about the message that the image should display.

2.7.7 Mature portfolio management

There have been numerous studies of the maturity of organisations in their ability to manage their own portfolio of work. There are maturity models from both sides of the Atlantic that help to understand this, but the general lesson is that very few organisations are good at doing this.

Figure 2.12 shows how a high-quality portfolio management board fits in to a mature organisation. Some key points to note about this diagram are listed here.

1 In the middle is the PPM board – more typically called the portfolio board, programme board or, to earn the acronym PPM, the project portfolio management board. This group might meet every three months, perhaps tacking the meeting on to the end of every third main board meeting.
2 The PPM board is charged with making decisions about projects and programmes, including which ones should proceed, which should change and which should be scrapped. The inputs are:

   - the latest organisational strategy;
   - progress reports on live projects;
   - suggestions for new initiatives that have been investigated and tested through a pilot or discovery project.

3 The decisions made relate to the existing and future project and programme workload. They may abandon a project that no longer aligns with the latest strategy. They may approve a programme of work to start in a few months' time. They may give someone a pat on the back for recently completing a successful programme.
4 This process is neither expensive nor very time consuming. It can, however, deliver enormous improvements to the return on investment that the company can enjoy. The PPM board won't always get every decision right but it will at least be able to show that it made rational, sensible, considered decisions rather than permitting highly political, highly emotional battles set its programme and project direction.
5 The PPM board will ensure that a programme and project register is maintained showing all projects at whatever stage. This programme register will probably be maintained by the PMO (we'll talk about project offices in section 5.5) on the PPM board's behalf.
6 The PPM board will probably set up a process for receiving up-to-date reports from all live programmes a week before each meeting. (We'll talk about reporting in section 7.3.4. Programme status might include:

   - under consideration;
   - pilot project (or equivalent) under way;
   - under way – on schedule;
   - under way – behind schedule, but with plans in place to bring back on schedule;
   - under way – behind schedule and likely to remain that way;
   - abandoned;
   - complete.

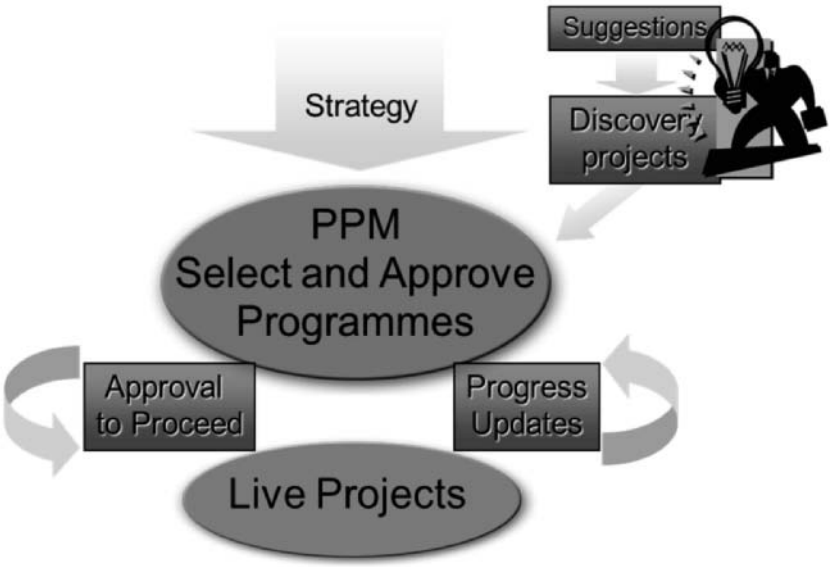

Figure 2.12 Mature portfolio management

In more mature organisations, only programmes or projects that have been approved to proceed can have work charged against them. I remember one managing director setting up a process just like this and announcing to the 200 middle-management staff: 'From this day forward no one should do work for anyone other than their department head or for a project manager of an approved project as shown on the project register.' By so doing, he stopped a range of little projects from going on behind closed doors, under the counter and in secret.

2.7.8 Barriers to effective portfolio management

There are a number of barriers to effective portfolio management and we had better run them by you in an attempt to help you with their recognition.

2.7.8.1 It doesn't apply to me

There is a class of motorists known throughout the world for their attitude to driving: 'the rules of the road are fine and should absolutely be obeyed ... by everyone except me'. Such people have yet to figure out this: when they say the traffic is bad today, they are part of it. Every car is traffic, including the one you are driving.

So it is with projects. There is a wide range of senior people who consider themselves to be above these boring ideas of portfolio management. They believe PPM is a fine idea and every good company should follow these best-practice ideas. Except of course the person in question dreams up ideas so brilliant, so inspired that PPM is unnecessary and their ideas for projects should be waved straight through.

Such people tend to be very senior and important and therefore have power to wield. They get their way.

In fairness, they may have brilliant ideas, but just not be very good at following the rules of the PPM game. However, they should delegate someone to do the work for them and subject themselves to good practice. Even the most mature organisations recognise that sometimes a project gets the go-ahead because of political pressure, despite scoring low in the PPM process. At least they know when this has happened.

2.7.8.2 Blue-sky thinking

There are some great visionaries. They have the most fantastic ideas and some of these are really good. It is often hard to know if a fantastic idea from a visionary is any good, mostly because we don't have a framework for evaluating the idea. These ideas may be revolutionary, long term and highly risky. Some people talk about blue-sky thinking for the reason that such ideas are supposed to come to people who are lying about in a field looking up at the blue sky above. This seems to be a waste of an opportunity to just lie in a field and look at the clouds.

Here is an example. Sir Richard Branson, the founder of the Virgin group of companies, conceived the idea of adding to Virgin Atlantic, Virgin Records, Virgin Coke and Virgin Railways the development of Virgin Galactic. Virgin Galactic is already selling tickets for a ride in space. One day, if you are rich enough,[8] you'll be able to climb aboard a Virgin spacecraft, take off, and hang about in space for some time before returning to Earth. One day in the more distant future, this might give us very fast, low-polluting travel to distant locations. As I write in early 2011, the *VSS Enterprise* has flown test flights and the landing site is operational. Virgin Galactic is not alone, there are competitors developing similar ideas. Now it would be very hard to put an idea like this through a formal portfolio management approach. Clearly the risk is high (imagine the impact of an early flight catastrophe), the costs are long-term and unpredictable and the benefits very hard to estimate. Such blue-sky thinking ideas may have to bypass the portfolio management process, but only at the insistence of a very powerful, visionary individual. Few people could have got an idea like this off the ground. So a challenge for our portfolio management team is the blue-sky thinker wielding significant power. The team wants to obey good portfolio management practice but perhaps also wants to try this blue-sky idea.

As well as blue-sky thinkers, regrettably there are also 'deep doo doo' thinkers[9] who wield considerable power and are able to drive the organisation straight into the nearest cess pit by using the blue-sky bypass. It will often be hard to separate the brilliant ideas from the rest.

2.7.8.3 Mandatory

There is a class of programmes and projects that are regarded as mandatory. Mandatory implies that the organisation has no choice over this matter, the programme must be done. European banks are forced by law to comply with certain criteria about their funds and must be able to show that they have done so. Basel II is an example of such a mandatory programme. Switching taxation formulae to comply with a change in the law might be another example of a mandatory project.

There is normally a date associated with these changes and, in theory, the organisation will be unable to trade after that date if it is not compliant with the relevant laws. I say 'in theory', as there is usually some leeway or an initial fine to pay.

Some people argue that a mandatory programme should bypass the whole portfolio management process on the basis that '*we just gotta do it!*'

The benefit of a mandatory programme is that the organisation is allowed to continue to operate. This is a spectacularly huge benefit, one that trumps all others. However, the timing and the priority of the programme may well be worth discussing. Therefore, in our view, even mandatory programmes should follow the portfolio management process. The programme business case will state the implications of not proceeding with the project by mentioning fines to be paid or simply stating that the business will be forced to close on such-and-such a date.

2.7.9 The business case

Most leading institutions recommend that every project and programme has a business case. This may be called a programme proposal or a programme charter. Such a document outlines the feasibility and justification for the programme by summarising the benefits, required investments, scope and risks of the programme. These will normally be at a fairly high level (Box 2.7), as only initial thinking and perhaps some early research will have been carried out. Nevertheless, the portfolio management team will be asked to authorise the programme, at least to the next stage, on the basis of this business case. The business case may form a large part of the project or programme proposal.

Box 2.7 Checklist for components of a business case

- Is the business need clearly stated?
- Have the benefits been clearly identified?
- Are the reasons for and benefits of the programme consistent with the organisation's strategy?
- Is it clear what will define a successful outcome?
- Is it clear what the preferred option is?
- Is it clear why this is the preferred option?
- Where there is an external procurement, is it clear what the sourcing option is?
- Is it clear why this is the preferred sourcing option?
- Is it clear how the necessary funding will be put in place?
- Is it clear how the benefits will be realised?
- Are the risks faced by the project explicitly stated?
- Are the plans for addressing those risks explicitly stated?

One important part of a business case is to describe why the programme should go ahead, what will happen if the programme is not authorised and does not proceed and what other solutions have been discussed and discarded in favour of the proposed solution.

Business cases are not static documents, they are likely to require amendment as details of the programme become clear, as benefit baselines are measured and set, as risks are considered. A business case may change as a result of a change in strategy or in the environment surrounding the programme. This is especially true of larger programmes. When major changes to a business case occur, these should be communicated back to the portfolio team so that it is kept up to date.

Sometimes a three-stage procedure for the development of a business case is used:

- preliminary business case to confirm strategic fit and business need, typically no more than a few pages;
- outline business case indicates assumptions to support the preferred way forward;
- full business case provides validated assumptions to support the investment decision.

At the start of a programme, you may find yourself in a bewildering world of business cases, visions, blueprints and other documents. You may also have found some elements of the previous few chapters confusing. Nevertheless, please do find out what your organisation considers important.

Much more detailed guidance on programme proposals, mandates, charters, business cases, blueprints and other specialist documentation is available from respectable authorities such as the UK government's Cabinet Office, the UK-based Association for Project Management and the US-based Project Management Institute. You will find links to these institutions in section 5.10 Portfolio and programme approval documentation.

Sadly, when you ask around your organisation for the project approval process, the answer may well be a 'lemon', i.e. there is no process or clarity at all.

If you find yourself starting a programme, you should set out what you plan to do, what documents you plan to create and what authorisation you think you need. It is very much in your interests to do this. You really need the important and powerful people in your organisation to have as clear a picture as possible of what the programme team is trying to do. You need their support and you may soon need to run to them for help. You need to bring them along with you as you try to get your programme off the ground.

The cost of such work in these initial stages is trivial in comparison with the costs that would result from a subsequent failure.

2.7.9.1 What does a business case look like?

There is plenty of guidance available on the templates and formats to be used for preparing documents known as business cases – such as that promoted by the UK government. Sadly, this guidance does not always produce meaningful documents, since the resulting focus is on the format and not on the key purpose, which is to show what the benefits of the proposed initiative are and how these outweigh the likely 'costs' of all types.

In the PMOs of many initiatives, in the backs of long-forgotten cupboards, lie dusty folders bearing the title 'Business Case'. They were written to gain initial funding, and since then, have never been looked at. Some of them contain many pages of background and history, but with the critical sections on costs and benefits squeezed into a just a couple of hard-to-comprehend pages.

Other business case documents focus almost exclusively on the financial aspects, to a depth sufficient to convince the finance department that the proposed investment will meet its standard criteria in terms of return on investment (ROI). Unfortunately, attempts to calculate ROIs can easily descend into 'voodoo arithmetic' – meaningless numbers based on a chain of assumptions that cannot be confirmed but which appear scientifically precise. For example, a proposed internet-based IT system to provide 'self-service' booking of holidays and time off for the staff of a government department was partly justified on the basis of 'improved staff morale'. To calculate ROI, this intangible benefit was converted, by a chain of unsupported assumptions, into potential financial cash savings on the basis that

self-service would result in improved staff morale, which would result in lower staff turnover, which would reduce the costs of staff recruitment, replacement and retraining.

Such calculations are valuable when used to help generate understanding – especially when comparing various options for implementation, such as to establish 'order of magnitude' cost and benefit estimates. But making firm decisions on the basis of such spurious numbers is mad – although, sadly, there seem to be a lot of mad people around!

Good business cases are usually a combination of art and science and should be judged not on their size in terms of number of pages or on their conformance to a specific template, but by how clearly and completely they provide a basis for judging the proposed initiative.

This is what the UK Cabinet Office says about the business case:

> **Business Case** – describes what the value is to the sponsoring organisation from the outcomes of the programme. The programme-level Business Case provides a summation of the project level business cases to present the overall balance of benefits and costs against strategic objectives. The Business Case is developed in iterations, and in particular alignment with the development of the Blueprint

Managing Successful Programmes (*MSP*) suggests that the business case 'provides a framework for planning and management of the business change' and that the 'on-going viability of a project or programme will be monitored against the Business Case'.

In PMI terms there would be a high-level business case to move through Gate 1 from pre-programme setup to program setup. There would be a detailed business case to move through Gate 2 from program setup to the third phase: establishing a programme management and technical infrastructure.

Here is the PMI list of elements in the business case. It looks long, but remember that this is likely to exist at a fairly early stage and therefore each element will be at a pretty high level and lack lots of detail.

- executive overview
- business need or opportunity
- alternatives
- benefits
- costs
- financial analysis
- assumptions
- constraints

- market analysis
- competitive analysis
- organisational considerations
- programme description
- risks
- implementation plans.

Please do not get too tied up with these classifications. Clearly assumptions, constraints and risks will have elements that overlap. Not everyone needs a market analysis. Use your own categories and do not waste time trying to fit everything you can think of into a special category. But do spend time defining your programmes, their business cases, their blueprints and how you plan to go about climbing the mountain currently blotting out the sun. Time spent at this early stage is rarely wasted.

2.7.9.2 When to create a business case

Most of us, when investing our own money in a new home, a building society savings account, stocks or shares at the Stock Exchange, or a pension, seek strong reassurance that what we will get in return for our money is worthwhile. Similarly, for every separate business investment, most of us would expect to see a comprehensive business case, as described above. Thus, cases should exist for all programmes and for all 'stand alone' projects – the latter are those which are not component parts of larger programmes and so must justify themselves on their own merits.

There can also be circumstances where the component projects within a programme may also have their own business cases. Not every programme is the result of a classic 'top-down' strategy, as described in section 2.2. Some are created through managing together a set of existing projects for administrative convenience, such as to share a common PMO. In this case, each project must have its own justification – and thus its own business case. In effect, such a programme is really a mini-portfolio and should be subject to the same disciplines and reviews as a full portfolio so as to ensure that it is still worth spending money, time and effort on the individual projects.

2.7.10 Selecting, prioritising and authorising projects and programmes

Whichever combination of these approaches your organisation uses, apart from total anarchy, there should be a way of measuring and comparing proposals for initiatives, in order to decide which should go ahead. In other words, to pick 'the right projects'.

In a top-down approach, these project proposals might be just trying to show they are the best way of achieving the deliverables required by

the programme and therefore the vision of the organisation. As the programme management team will have defined each project at least in terms of the desired deliverables, the project proposal has only to demonstrate that the proposed initiative is a sensible, efficient way of delivering the desired output. Therefore project proposals in the top-down approach are submitted to the programme management team, who which is authorised to approve projects within its own programmes.

In a bottom-up approach, these proposals will be trying to sell the idea behind the project or programme to the management of the company. The proposal essentially says: 'This is a great idea, *we should go ahead with it really soon*'.

Most organisations have some system for documenting project and programme proposals, even if it is only a copy of some proprietary standard such as Prince2.[10] These go by a variety of names and I have seen them called project definition, programme initiation document, business case and programme charter. This document will outline the hopes and expectations of the team promoting the initiative in a reasonably standardised manner that readers will recognise and understand.

The concept behind such proposal documents is to provide the information needed for a suitable body to give approval for the project or programme to go ahead and for funding and resources to be made available. In many organisations there will be a group called the programme board or similar that is authorised to consider and approve proposals.

Case study 2.1 Selecting the 'right' component projects for a programme

All programmes have 'morphology'. This is a fancy word used in biology to mean the 'size, shape and structure of an organism'. This is a great term because it usually makes people sit up and ask 'What does that mean?' and it uses one word in the place of seven.

In the case of a programme, the morphology is the set of component projects and other activities that make it up and the way that they interrelate. Typically, this will have been identified during the 'initiation' phase of the programme, in which the business case has been prepared and approved. This approval (if done right) will have selected the most appropriate option, and thus will have gone a long way towards determining the outline morphology.

The detailed morphology is then largely determined by practical issues such as:

- which team or sub-contractor will do the work. This is normally determined by the skills that are required – construction of the new office block will

require those of a building contractor, creation and delivery of the computer system will require those of a suitably experienced IT organisation, preparing marketing literature will require those of a communication specialist, changing the sales incentive scheme will require those of an HR specialist with influence within the organisation, etc.;

- what the key review points are at which progress will be reviewed. For example, in some programmes, no external contracts can be let until detailed designs have been completed and reviewed, so no development may progress on a stream of work until the approval is received;
- what degree of control is required for each component and who will provide it. For example, changing the salesman's incentive scheme to support this programme might be deemed part of the annual business-as-usual responsibility of the organisation's director of human resources – in which case this would not need to be managed as a project with the consequent overheads. Similarly, preparing marketing literature may be a discrete task that has to be managed but is not so big as to need the overheads of being run as a project; instead it can be treated as a work package.

An example of programme morphology is shown In Figure 2.13.

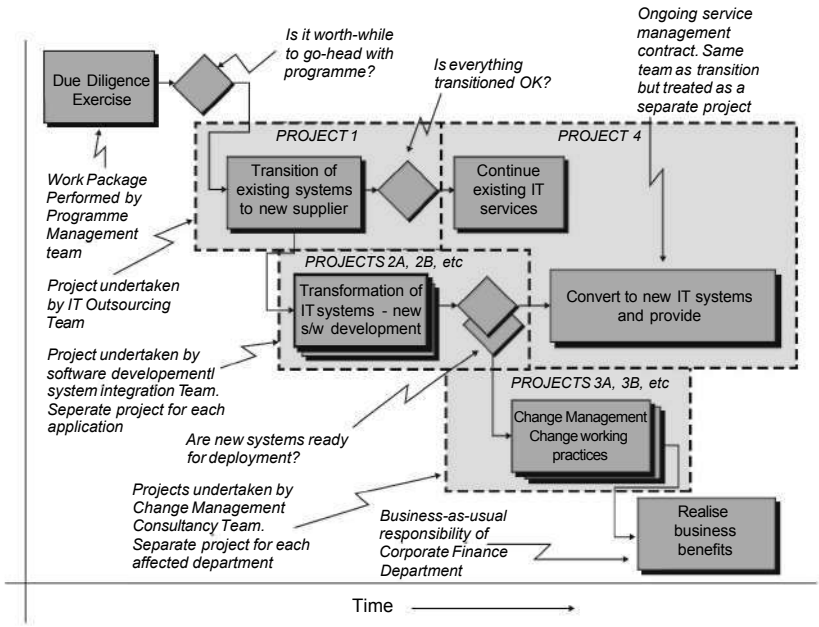

Figure 2.13 Morphology of an IT outsourcing programme

Figure 2.13 shows outline morphology for a programme involving the outsourcing of IT services for a major UK electricity supply company. The contract involved transferring the management of IT systems to a specialist

external IT services company for a period of ten years. During this time, the key IT services provided to the business must be upgraded so that the performance of the business is measurably improved. Effectively, this is a programme of business change, supported by changes to IT services and management.

- As the diagram shows, the programme comprises a range of activities
- A due diligence exercise will be undertaken by the outsourcer to confirm that the bases on which the programme has been planned are correct. This does not warrant the overheads of being treated as a project but will be managed as a work package.
- Assuming that the review following the due diligence exercise is positive, the transition activities will start. These include transfer of staff from being employed by the client to being employed by the outsourcer. All these activities will be organised as Project 1 and undertaken by the outsourcer's service-provision team using its proven, proprietary approach. Within the project will be a number of work packages, such as transfer of staff, transition of hardware and transition of software.
- Once all transition is shown to be complete, the existing services will continue to be provided until they are replaced by new ones created as part of the transformation. This work will be performed as part of an on-going contract. For convenience, it is deemed to be Project 4.
- At as early a stage as possible, work will start on upgrading the various IT services that are provided to the business (such as finance, client relationship management and operational scheduling). This transformation work will involve the purchase and configuration of new software and hardware, the writing of new programmes, and all the necessary specification, design and testing activities to ensure that they will be satisfactory when put into use. The transformation of each service will be treated as a separate project (Projects 2A, 2B, etc.), since each will require different specialist knowledge (of application areas or of software packages).
- The main purpose of the programme is not to change IT but to change the way that the business works. This will require changing the ways that staff operate and this will require careful direction and guidance – such as will be provided by specialist change consultants working within each affected department of the client's organisation. This work will be organised as a range of Projects (3A, 3B, etc.) – one for each affected department.
- Realising the expected business benefits will require on-going use of the new IT facilities, which will be a client responsibility. In this example, it will also be the client's responsibility to measure the benefits that result, and this has been allocated to the corporate finance department as part of its business-as-usual work.

As this example shows, when determining the component projects to make up the programme, programme managers will seek an optimum compromise between the cost of project management and the additional benefits in terms of control and risk reduction that it provides. In particular, they will be seeking to eliminate any duplication of management effort – they will not be paying unnecessarily for the managers of component projects (or the PMO) to do work that could also be undertaken by existing in-house departments such as finance. At the same time, they will be seeking to protect their programme from corporate politics or other risks and may thus prefer to pay for some activities to be undertaken within the programme, even though they could be handled from elsewhere within the client organisation.

Although this example relates to a programme managed by an external organisation (the outsourcer), the same principles would apply to a programme of change managed internally.

A check on your programme's morphology can be provided by drawing out a benefits map along the lines shown in section 2.6.1, but with each project shown on the left and the required business benefits listed on the right. Such a diagram will quickly identify any unnecessary projects or work packages.

Case study 2.2 Enhancing London's transport system

Transport for London (TfL) is responsible for London's transport system, including buses, London Underground trains, certain suburban railways, roads, cycle ways and other initiatives determined by the city's Mayor. To meet these responsibilities for the next ten years, to 2022, it has agreed a portfolio of 75 investment programmes and projects, worth £29 billion.

The ten-man Investment Programme Management Office, part of group finance, oversees this portfolio to ensure that TfL's investments generate the best possible contribution towards meeting London's future transport needs, in accordance with the objectives set by the Mayor. This is not always straightforward: for example, providing cycle routes can sometimes conflict with the need to streamline road junctions so as to improve traffic flow. Furthermore, objectives can change, as occurred in 2008, when a new Mayor was elected. Nevertheless, a balanced set of investments covering the next nine years has been agreed and their progress is monitored by the PMO to ensure that they will deliver the expected benefits within agreed time and budget constraints.

Each programme/project within the portfolio is outlined within TfL's investment plans. Figure 2.14 shows an example. Some key points to note are as follows:

1 This project is for the London Underground system.
2 This project will contribute to meeting the Mayor's 'Meeting demand growth' objective.
3 This section summarises the things that will be delivered.
4 This section summarises the business benefits that will be achieved.
5 This section summarises impacts on the environment.
6 This section summarises contribution to 'employment and inclusiveness' strategy.
7 The project will cost £516 million but will generate benefits that exceed cost by 370% – using TfL's cost/benefit approach (based on that of the Department of Transport).
8 This section shows the key milestones.
9 This chart shows the profile of expenditure over time.

TfL's Investment Plans are publicly available at: http://data.london.gov.uk/datastore/package/tfl-investment-programme-200910-201718. This communicates the choices that have been made with organisation's 10 million+ stakeholders.

2.8 Summary and reflection

This chapter has focused on doing the right programmes and projects; this implies having a process and system for evaluating, prioritising and

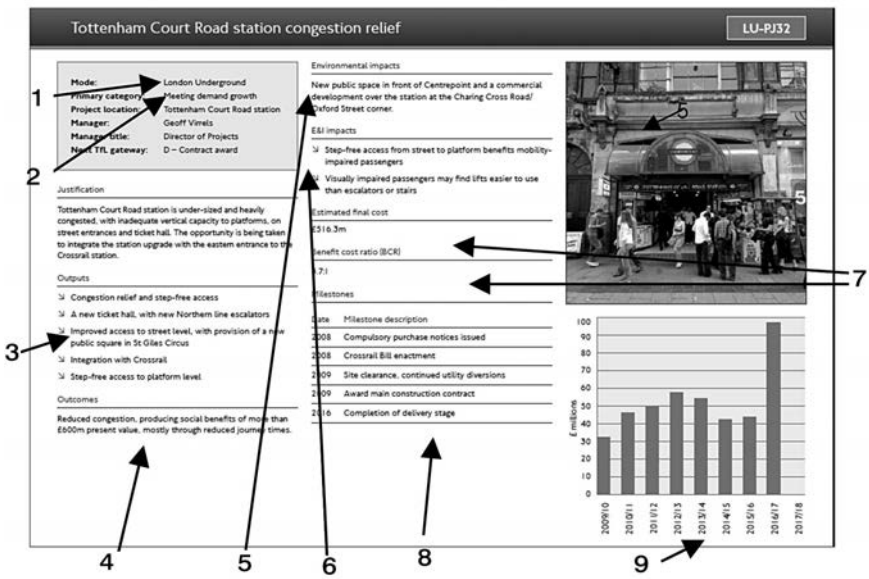

Figure 2.14 A TfL programme proposal

authorising initiatives based on their value to the organisation, rather than the more common salesmanship of the sponsor.

We recognised that many organisations use a bottom-up approach, allowing projects to be dreamed up, justified and approved but recognising that this is likely to lead to overlap, duplication and conflict between the various initiatives. Some organisations, and certainly best practice, propose a top-down approach where the strategy for the organisation's future drives the selection of programmes and these programmes are further broken down into projects, all of which are designed to efficiently and effectively drive the organisation forward.

We went into benefit management in more detail, as benefits are the measure of success of change programmes.

3 Doing programmes and projects right

3.1 Introduction

This chapter discusses a raft of issues that may help you to run a portfolio of projects. It is almost irrelevant why you and your organisation have chosen to run these projects, as project selection is discussed in earlier chapters of this book.

It is enough that you have chosen to think about your projects as a group of projects.[1]

There could be many reasons that tempt you to think of these projects as a group. Your projects may:

- form a part of a complex programme designed to change your own organisation;
- be a group of projects each of which is for a different client or customer but all of which will benefit from being managed together in some way;
- share or call on the same precious resources;
- be similar, so lessons learnt on one project may help another.
- benefit from a single central purchasing approach;
- be a group of projects for a single customer, like upgrading 30 shops or water-treatment plants;
- form a group of projects you are running under a managed service agreement for a customer.

One thing we can say is that these projects will benefit from being managed as a group in some way.

Let's just have a quick reminder to those who have read the previous chapters and to clear the air for those who haven't.

Projects create products or deliverables. A project is a human concept; a group of tasks that someone has chosen to ring-fence and call a project. The end of the project will nearly always produce a product, also known as a deliverable. As Marks & Spencer labels its underwear, these deliverables might be small, medium or large. A bridge is a deliverable, so is a new software tool, an IT system, an office building and a book.

So this book is the output of a project. Phew!

So the objectives of a project are clear, or should always be clear. The objective is to create the required product on time, to budget and in accordance with the requirements for quality.

A major cause of project failure stems from those projects where the objectives are not crystal clear – or at least, not clear to some significant stakeholders.

If your stakeholders are not clear about what to expect or have different visions of the eventual outcome, you will disappoint at least some people, perhaps everyone. That is not because you are useless at project management but simply because the expectations of your various stakeholders are not the same as yours. Or each other's. Disappointing important people is generally regarded as being bad for your career, and that might hit you hard in the pocket. So get those objectives written down as clearly and unambiguously as possible. Do it now. Don't forget to get everyone to agree to them.

Let's also remember that some programme managers are working with a whole group of projects within their own organisation. You may work within the IT/MIS (management information system) team of a manufacturing company or a government department. In this case your projects will deliver goodies to other departments within the same organisation that pays your miserable salary. You may call some people customers or clients, but they will all have the same colour of pay cheque as you do.

You may work for a contractor who is being paid to carry out these projects. Your organisation will have a formal, legal contract with another organisation to carry out some projects or to deliver some deliverables. You may work for an engineering contractor who is contracted to deliver 200 water-treatment plants to a local utility company. You may work for a telecommunications company with a contract to erect a series of mobile phone masts round the country.

Some people are responsible for delivering specific projects. Maybe that includes you. If so, you are a project manager. You should have responsibility for managing one or more specific projects with very specific objectives. That is what project managers are supposed to do.

Let's also assume that there is someone or some people who are responsible for the overall picture, the portfolio of projects. These people may be called programme managers, portfolio managers, projects directors or senior project managers. Whatever their title, they are responsible for directing and coordinating the whole range of projects and have delegated authority for each project to the project managers. We'll call these people programme managers.

Programme managers should know quite a lot about managing and directing projects and therefore it is their responsibility to make life comfortable for their project managers. In a sense, programme managers are close to being the client to the project manager.

The programme manager works *downwards* to the project manager and:

- defines each project or makes sure it is properly defined;
- delegates authority to the project manager;
- provides back up services and support to the project manager;
- guides the project manager on standards and governance procedures;
- expects to be updated on progress, risks, issues and changes;
- worries about interactions between the many projects;
- allocates resources across the many projects;
- accepts the products of each project.

The programme manager also deals *upwards* to the client. Remember that the 'client' may be the senior management of the host organisation, or a separate organisation where a formal legal contract sets out the ground rules. The programme manager reports to the client on the overall progress of the work and maintains a close working relationship with the client (Figure 3.1)

One part of the programme manager's role is to make the project managers happy. Sensible, experienced programme managers will try to make sure that the project managers are happy in their work. The programme manager who tries to be a dictatorial object of hate will not, in the long

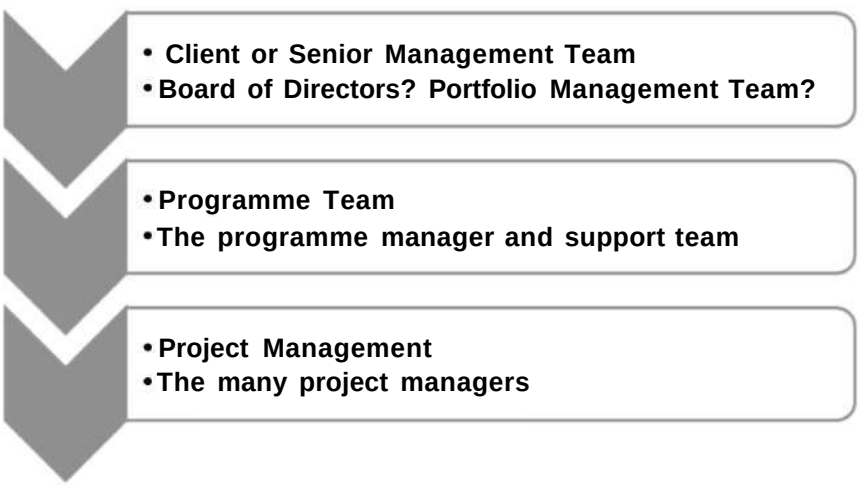

Figure 3.1 Programme hierarchy

term, generally succeed. A hard-nosed approach may be required now and then but it is not, in my gentle view, a good long-term strategy.

Let's move on to describe some typical situations where a portfolio of projects is being run without too much chaos.

3.2 What kinds of organisations manage a portfolio of projects?

I'm lucky to have worked with or visited or written about a wide range of organisations doing battle with a portfolio of projects. To give you some idea of the wide range of such organisations, I thought you might like to read about other organisations that are worrying about the same things that worry you, making similar mistakes and occasionally celebrating some great success. This may make you feel less alone.

Let's start by taking a bank.

When I say *let's take a bank* I do not mean that we should arm ourselves with guns, wear balaclavas and rob a bank branch of its cash before dashing off in a high-speed car chase across the city. I mean that we should imagine life within a bank.

Banks are mostly technology organisations. They live by and for IT systems. There will be systems to look after current accounts, saving accounts, bad debts, credit cards, mortgages and investments. There is even a category of bank customer called 'high-net worth individuals'. As you may not fall into this category I should explain that this simply means *very rich people*. High-net worth individuals don't get rude letters from the bank, they get invited to lunch.

Like every other organisation, banks have IT systems to support their payroll, pensions schemes, hiring and firing and security. They also have email and websites and whole range of secure systems to support online banking.

Credit card departments have rather clever IT systems that pop up a warning if your spending pattern changes in unexpected ways. A human being sees this warning and may check with you. Have you ever had a call asking if you are on holiday in Spain? Or asking if you have recently tried to buy a motorbike in Paris? I had such a call and, as a result, the 'someone' who had cloned my card had their illicit career nipped in the bud.

Banks have to comply with a variety of legal requirements that, for reasons unknown, come from Basle in Switzerland. Basle III lays out an international accord describing how much money a bank must put aside to support its lending. IT systems must monitor and report on Basle II compliance. I guess they sat round a table in Basle to figure that out.

So most banks have loads of IT projects on the go at any one time. Not only upgrades to comply with the latest Basle accord, improvements to security and backups, better ways of managing online banking, plus less-

technical projects like building and opening new branches and offices. They might be rolling out Windows 7 or providing online banking on Blackberry. They might be about to introduce a new credit card that only needs to be waved in the general direction a card-reading machine. You can see the wide range of diverse projects that any bank will have in hand at any time.

Enough of banks. How about a drug dealer?

I am thinking here of a pharmaceutical-manufacturing organisation like GlaxoSmithKline, Bayer or Roche, and not a back-street seller of illegal pills. A vast number of people spend their lives developing a huge range of chemicals, each varying only slightly from the last. Occasionally one of these chemicals shows promise of commercial opportunity and, even more occasionally, the chemical is selected to start the detailed and lengthy patenting, testing and approvals process.

A little side issue about washing powders, pixies and gnomes

Once upon a time there were two brands of washing powder, one made by pixies and the other by gnomes. They both had roughly the same market share but they both worked hard all day to gain a little extra market share from the other.

One day, a fairy visited Rapunzel, the marketing-director gnome, who lived on the top floor of a huge mushroom, and said: 'Hey dude, have I got a wizard idea' for that's how fairies in this story speak.

'We should launch a new washing powder with a different brand name and print "gnome" in tiny letters inside the bit of the box you tear off. Then there will be three brands on the market and they will all have around 33% market share each. The trick is that we will own two of those brands and therefore actually we'll have 66% of the market!'

'Brilliant' said Rapunzel, who had been watching *Star Trek* on TV. 'Make it so.'

The fairy's idea worked well for about a week until the pixies realised what had happened and brought things back to 50/50 by launching a second brand of their own. The gnomes and the pixies went on inventing new washing powders one at a time, each time taking and giving back a little market share. Both were too scared to stop. Both pretended that each new brand was new, exciting and represented a wonderful scientific breakthrough.

The claims to be better or just different became ludicrous, as the gnomes and pixies had to dream up something special to say about their latest new product.

Moral: That is why we now have 42 brands of washing powders from the same few manufacturers.

So pharmaceutical companies are faced with a survival-of-the-fittest regime where many, many projects are executed simultaneously, some of which will eventually result in a commercially available drug. The rest will fall by the wayside. In addition to the development of new drugs, they have projects to improve existing ones, as well as the normal range of projects almost any big business will have in accounting, payroll and similar administrative affairs.

Telephone service providers like Orange, O2 and Virgin in the UK have a wide range of parallel projects, upgrading the services they offer and adding new features like 3D messaging and internet access. I worked with one that typically ran 300 projects each year, varying from quite small to large and complex.

Transport for London (TfL) looks after – well, transport in London. You rather guessed that didn't you? It has interests in buses and coaches; transport both underground and over-ground, boats and taxis, cycling and walking, the Dockland Light Railway and the congestion-charge scheme. It is responsible for over 200 transport interchanges where you can switch from underground to overground, from bus to taxi and so on. It publishes a list of its infrastructure projects and schemes. At one point its website listed about 75 projects, including the massive Crossrail scheme and the much less ambitious Art on the Underground scheme.

You will not be surprised to learn that TfL has a very large team looking after all these projects, and a special team called the Independent Investment Programme Advisory Group, which gives advice on the selection and management of its wide portfolio of projects and programmes.

Within the public sector you will find a great range of projects within every local government organisation and central government department. The National Health Service has too many programmes and projects to list. I don't suppose anyone knows exactly how many. These range from the gigantic Summary Care Records programme to a vast range of regional and departmental projects to improve a specific hospital department or even a ward.

There is another approach that is used where the result of each project is to increase the company's market share. I have in mind those organisations that develop new products, enhance existing products, run advertising campaigns and do countless other things to convince you that you really ought to buying their petrol, washing powder or computer. This is mostly completely false, as we all know that all petrol, washing powders and computers are actually identical apart from the wrapping.

3.3 A multi-project organisation

OK, you have read about some organisations that are faced with a portfolio of projects of varying size and complexity. All these organisations share

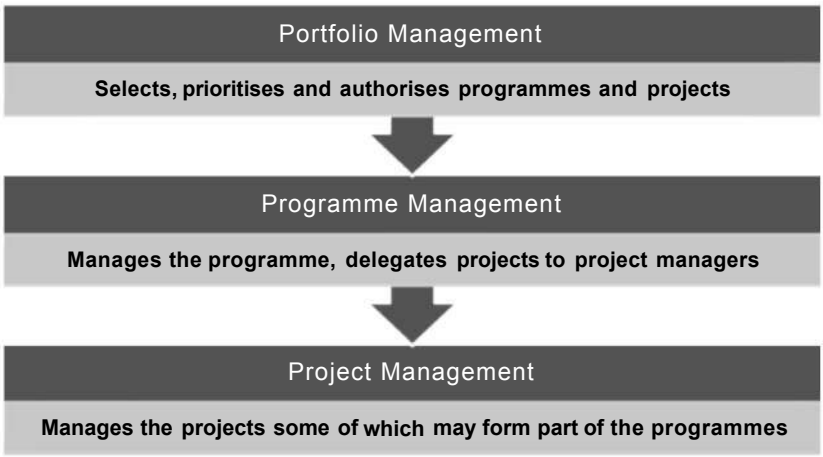

Figure 3.2 Programmes, portfolios and projects

some common characteristics in terms of their structure and organisation. They will probably be organised into three management layers.

The portfolio management team will be the smallest and will normally be part time. There may be a few technical people who do portfolio research and project evaluations and make recommendations, but the decisions will be taken by the senior management, and this may be the main board of directors. It may devote an hour or two after every third monthly board meeting to its portfolio management roles. This layer can be carried out by a client, customer or a group within the host organisation. It is very often done very informally; it is very often done very badly.

Some of the larger investments will be managed through programmes, and the programme management team or teams will take responsibility for the programme or programmes at any one time. It will interpret the portfolio management team's wishes and mandate into a defined programme and run that programme. Delivering a programme will normally mean defining and delegating a range of projects to the project managers within the organisation.

Whilst some projects are part of a programme, some are independent. Some are designed to change the host organisation and some are designed to deliver a product to a customer in exchange for a payment. Either way, there will be a group of people called project managers who take responsibility for running the range of projects.

There will often be many interactions between the projects and these interactions will be the responsibility of the programme management teams. These interactions can be varied and subtle and some common ones are listed here. You might watch out for these and make sure that someone is looking after them.

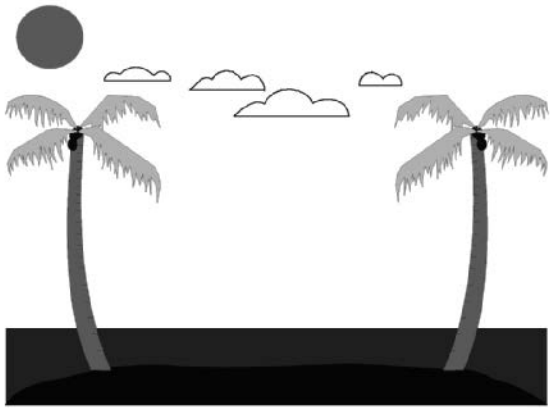

Figure 3.3 No project is an island

These roles will be more fully explored in sections 4.4, 4.4.1 and 4.4.2.

So no project is an island. Ninety-nine per cent of projects interact in one way or another with other projects. Let us examine the ways in which projects interact and what a programme and project management team can do about it.

3.3.1 Inter-project links

These are pretty easy to understand. They occur when the start of one project depends on the end of another. So we have a project that involves building a prototype of a new excavator, but this cannot start until the design team has churned out the necessary drawings. We can't test the software until it is written; we can't write the user guide until the phone handset's design is firm.

Actually these inter-project links can get slightly trickier, as they may not be simple finish-to-start links where one project cannot start until another has ended. A milestone within one project may depend on a milestone within another project. Similarly, a single project may depend on the successful completion of a number of preceding projects. For example, we cannot launch a new product until the product is designed and tested, production has ramped up, the support team is in place and the marketing project is in full swing. We need to know about these links so that when (not if) projects start to run into problems we can understand the way delays in one project will delay others.

The programme team must take responsibility for identifying, defining and monitoring these inter-project links. All the project managers involved must agree what the relevant milestone definitions mean. For

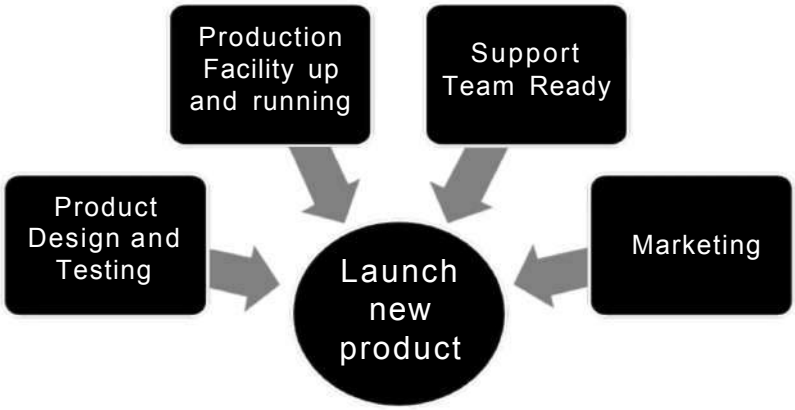

Figure 3.4 Projects often depend on other projects

example does 'Software complete' mean that the code is written, tested, approved or accepted?

3.3.2 Standards

We are probably going to need our project managers to use certain standards and follow certain procedures. An appropriate level of standardisation will help us to maintain a degree of control across the whole portfolio. So, for example, we may insist that every project has an approved project charter or project initiation document before it can start. We may ask each project manager to maintain a risk register in a standard spreadsheet so that we know what to expect when we look at each of the many risk registers. We may ask all the project managers to plan using the same calendars showing the same working week and holidays.

This standardisation is a part of governance, and it is as easy to put too much governance in place as it is to put too little. It is quite hard to get the right amount. Chapter 4 deals with governance.

3.3.3 Resources

It is very likely that some or all of the projects will call on the same resources to help their projects along. Every project manager will think of their project as the highest priority, and in their mind it will be so. We want these pushy, aspiring project managers to think like this. But someone has to try to ensure that enough resources are available to the workload as a whole, and that the inevitable conflicts are resolved in the way that is best

for the overall programme rather than just one specific project. This role is likely to be adopted by the programme management team. It will act as a sort of referee or umpire making prioritisation decisions when resources are over-demanded.

Better project managers predict their resource requirements in advance so that the programme team can consolidate all the resource requirements across the many projects, predict shortfalls and take appropriate decisions. Weaker project managers complain that they are short of resources *today*.

3.3.4 Escalation from layer to layer

Portfolio, programme and project managers should agree guidelines for escalation. Escalation occurs when something is a big-enough problem to be raised to the level above. A large or imminent risk in a single project might be escalated to the programme level if the risk could impact the overall programme. Delays over a certain level (more than one week?) might be escalated. The programme manager can expect to hear about expected budget overruns if they exceed 10% of budget.

So guidelines for escalation should exist to help the project managers to know when they should seek help and from the portfolio and programme managers and to help the programme managers to know when they should nip round to the portfolio management team with the worrying news.

Do you think London Underground has escalation processes on its escalator installation projects?

3.3.5 The project-management trap

There is one other worry and concern that you should know about in this multi-project world. It is mentioned here to help you spot trouble rising, like a prehistoric monster, out of the fetid bog that is your organisation, and also to help you see how you can manage your own climb up the slippery career ladder. This problem is called *the project-management trap*

Please try to avoid – or at least recognise – the project-management trap. The trap is laid by getting some poor sucker to take responsibility for achieving an objective like a new warehouse or a new product launch. The trap is set by ensuring that the poor fool has no authority over the only resources available to perform the work. Many fall into this trap so often that they think it is normal.

Your project may have a very clear objective, but it probably relies on expertise in other departments – departments over which you have zero authority. In a local council the workload was almost entirely project oriented. Everyone in the group – and this was a group of nearly 100 people

– specialised in some area of council work and was involved in a number of projects. Anyone could be a project manager. So, if you talked to a highways engineer he might be a project manager on one job, an assistant project manager on another, a highways-design resource on three other jobs and have a small administrative workload as well.

I can see that this would work in some environments. As everyone is involved in projects everyone must help each other. If the highways engineer, working as a highways expert, lets down an architect, he can expect retribution. If the architect, working as a resource, does well with a design, he can expect help from the project manager when the tables are reversed.

The danger is that everyone gets pulled down to the lowest common denominator; they all do really badly and keep quiet about it so that little gets done, everyone has a quiet life and the council funds continue to be wasted in much the same way that they have always been wasted. Hoh, hum! It is very hard to prioritise work sensibly in this environment. The oldest and most popular form of resource prioritisation is commonly adopted, and that is: 'The project manager who shouts the loudest gets.'

In such an environment the project manager with the most strident voice (or perhaps the most persuasive tone) will get their job done, often at the expense of other projects being run by less eloquent people. This is fine and dandy as long as you recognise that this is the system, and as long as the high-priority projects get allocated to the vocally enabled project managers.

This is also fine if the adept and persuasive project managers happen to be assigned to the highest-priority projects. This is rarely the case because their adeptness has caused them to neatly side-step the key projects where failure will be obvious. They will try to be allocated to less-vital projects, and then use their clout to get the resources and finish, with a flourish, on time.

Pointing out this state of affairs must be done carefully, but can be beneficial because few will have recognised the way the organisation is run. It is particularly helpful to explain this to the more quietly spoken members.

3.4 Multi-project planning and control

Multi-project planning and control is not about planning and controlling each individual project. You should hope, expect or demand that each project manager is planning and controlling their own projects. Multi-project planning and control is about a higher level of planning. It is about combining the many individual schedules into one master schedule for each programme. If there are multiple programmes there may be an even higher-level schedule for the portfolio as a whole.

This application area is often known as programme management software, so we will use this term from here on. It is a slight exaggeration, as only people can manage programmes.

Putting together and operating a programme management software environment is an expensive project in itself. So what do organisations get for all this effort? The next few paragraphs have two objectives. One is to explain what you can realistically expect to get from programme management software, and the other is to provide a bagful of good points to help you justify your proposal if you decide to travel the programme-management road.

Let's first take the organisation that plans its work and allocates its resources in a consistent way. There may be many planners and project managers but we must hope or insist that they all:

- use the same planning software on compatible hardware;
- use the same calendars;
- use a consistent task-description system;
- use consistent names for resources;
- keep their plans up to date;
- are honest.

Most programme management software tools allow some mechanism for merging together a number of discrete[2] project plans. The idea is that you take a number of plans on a few computers, somehow get them into one database and then merge them into one large plan. Once you have merged together many plans you can then display and print overall histograms showing demand for a specific resource or type of resource across the whole workload. Doing this is not a trivial matter, but it is very useful.

You can also 'slice and dice' the database of tasks and projects to gain insight into the workload. You might select to see all the design work in all projects so that you can share this with the chief designer. You could ask to see a bar chart of all the activities with 'design' in the description, or for all activities that use a resource called 'Tarquin'. This would show you the workload created by many projects for that department, resource or individual. Critically, you can generate high-level summary reports for the board of directors, programme board and other executives. This will enable you to resolve or fend off the oft-spoken complaint: 'I don't know what's going on.' This should help you to produce simple, useful reports with which you can enhance your reputation.

It would also be useless, perhaps worse than useless, if the plans were long out of date. So the chances are that you will have a programme planner or coordinator whose is responsible for drawing together all of the discrete project plans every month. There are organisations that do this weekly or every two weeks. The people that will look after and operate

your programme management software tools will probably work in your programme office (see Chapter 6).

This process also assumes consistency in planning task descriptions, resource names and so on across all of the projects.

In this world, many people plan their projects, most of which have tasks involving design, prototyping, testing and so on. Once all the work is planned and the plans are consolidated, similar tasks can be grouped together and passed to the many interested parties. All of the design tasks go to the chief designer; the testing tasks go to the people in charge of the testing facility. It sounds simple and it works well, but it does take some energy and commitment. Reporting across the many projects is a key output of programme management.

The programme plan may cover a very long period of time indeed; it will probably be limited only by the software you use or the life of the organisation. So whilst individual project plans have a start and finish, the programme may go on forever.

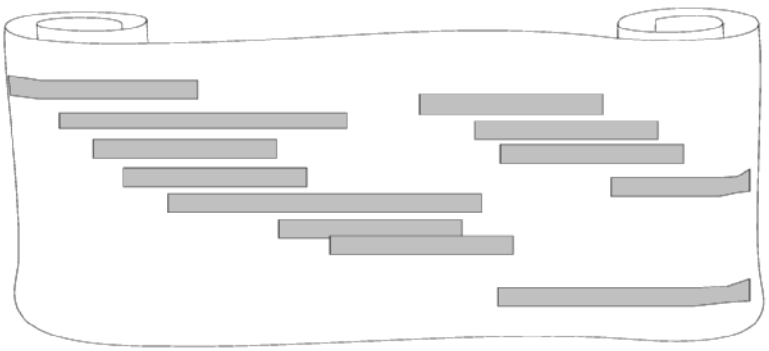

Figure 3.5 Programme plans may go on for ever

A range of popular tools, referred to as programme management software solutions or project management information systems (PMIS), exist solely to gather together multiple plans and generate reports. These will be discussed in section 3.9.1 as well.

But programme management software can do a lot more than simply report on the work. There are significant advantages.

3.4.1 Advantage one: people think ahead more

When there is an atmosphere of planning hanging in the air people do seem to think more about what they intend to do. This is partly because if they don't get the bar chart on the boss's desk by Friday they are for the

high jump, and partly because they actually get a smoother and quieter life. Planning doesn't get things done, nor does it avoid all problems, but it does help to bring up problems when there is still time to avoid them. Compare for a moment the following two scenes. Spot the balls-up and win a prize.

SCENE A

Location

An office full of piles of old files; stacks of papers on the desks; phone lost beneath some drawings; bin full of papers, old crisp packets and a suspicious-looking apple core; overflowing ashtrays. A sign on the wall says 'You don't have to be mad to work here but it helps.'

Characters

George: Design Department Manager (DM). He is gravitationally challenged; needs a haircut; his shirt bulges over his expansive stomach revealing a not-very-clean vest; he smokes incessantly.

Mary: Project Manager (PM). She is much more presentable, neat, tidy and bespectacled. She carries a neat folder containing a few key documents and she looks as if she had time this morning to prepare for the day and for this meeting.

PM (enters George's disorganised office, glances around and hides her disapproval):

Hi George. I've got the specification for the Mark 4 approved at last and it's ready to go into the design phase.

DM (starts a fruitless search under bits of paper and through piles of files):

Oh, right, Mary. The Mark 4. Yes. I've got the draft specification round here somewhere. I can't understand why the board takes so long to think about these things – what do they know? I hope you're not in a hurry for it.

PM: Well yes, really we are. If we don't get a design proposal in front of the client before November Fifth, there will be fireworks.

DM (starts to laugh): Fireworks. November the Fifth. Great. Ha ha. Sorry, no chance. I've got four of the guys working on the revisions to the Winchester job, one on a training course and one off sick. The team I had working on the nose cone have just been taken off it to do some secret rush job which even I don't know about and my secretary has left. I'm not sure we could start it before the fifth. Why didn't someone tell me this job was coming in? I could have hired in some contractors.

PM: It is a priority job, it's worth over four million pounds and there could be loads more work from this client. Can't you do something?

DM: More work. Do you think I want more work? I'm snowed under as it is! *(Dissolve.)*

SCENE B

Location

A neat, tidy office: bar charts and histograms are displayed on neat pinboards; filing cabinet shows project names; the phone has its memory preprogrammed with other department heads' numbers; there is some orange peel in the bin; the PC is running, showing some project plans; a sign on the wall says 'THINK AHEAD'.

Characters

George: Design Department Manager (DM). He is slim, healthy and relaxed looking. He looks like he knows where he is and where he is going. You would hate him if he didn't seem such a nice chap, or if he had a digital diary.

Mary: Project Manager (PM). She is equally presentable, neat, tidy and bespectacled. She carries a neat folder containing a few key documents and she looks as if she had time this morning to prepare for the day and for this meeting.

PM: Hi George.

DM: Hang on a sec, Mary. Let me just save this file ... Right, how's it going?

PM: I've got the specification for the Mark 4 in for approval at last. I know that it is a week behind schedule and I don't think we can expect to catch the time up. It should be ready to go into design on the 3rd October. Will that be a problem?

DM: Well, let's see. Let's pull up the workload plan for October and November. Umm. We'll be overloaded in the second half of the month but I should be able to pull in a couple of freelancers to help out, given this much notice. Yes, it'll be fine. Thanks for letting me know.

PM: That's a relief – I hate to bring bad news.

DM: I can deal with bad news – I can't deal with late bad news.

Spot the differences? No, you don't get the prize for spotting that the apple core in scene A had become some orange peel in scene B. Things still

go wrong, but the people work together to solve them. They cooperate. Advantage one, therefore, can be summed up as this: They have time to plan because they take time to plan.

3.4.2 Advantage two: people communicate better

Once you have a plan you have a means of telling everyone who is vaguely interested what it is that you all plan to do. A programme plan is different from a project plan in that it covers many people's work and is the result of many people's effort. The plan is a centralised source of information, letting everyone know what everyone else is planning to do.

A plan for a single project should be the result of a thinking-ahead process involving the project team. We do not like to see project planners working away in glorious isolation, coming up with a plan and then issuing it to the people who are really going to make it happen. Plans are a statement of intent and must be *owned* by the people who *own* the project. Even on a single project the planner's role is to interpret the ideas held in the heads of the project team and put them down on paper. It is not the planner's role to decide how the project should proceed and tell people what they should be doing.

This is doubly the case in a programme environment. If a planner or two are sent off into a planning office to come up with a plan for the whole works, it will probably not work at all. Projects people will reject the plan, as it doesn't fit in with their thinking and because they don't 'own' the plan. Departmental managers will quickly show the plan to be full of holes and prove it to be unworkable. The worst crime would be for the planners to decide which resources should be allocated to which tasks – a move very likely to antagonise the departmental managers and team leaders, who have the quite reasonable idea that they are in the best position to understand who is best suited to which task. The planner's role in a programme is to help the project managers plan their tasks, to help the departmental manager plan their workload and to spot conflicts in good time. Programme planners usually do not know about the workload coming from other projects, programmes and business as usual (BAU).

The programme plan should also tie the many project plans and resource plans into one master plan. This programme plan might be fairly large, it might be huge, and so the planner should also help people set up their computer systems so that they get the information that is relevant to them. So, given a plan that everyone has contributed to, everyone is involved in, everyone 'owns', it is possible that people will bring their part of the programme plan up onscreen regularly to see what is going on, who is doing what, what problems are developing and what is in their intray. They may even think that the planner is a good egg. And that good egg is you.

3.4.3 Advantage three: you have something to monitor against

Things never go exactly to plan. Things go their own sweet way in complete ignorance of your plans. The weather does its thing without reference to the BBC or the Met Office. If the wind feels like blowing from the east and bringing huge black clouds over your picnic, no amount of arguing that the weather forecast promised bright sunshine will send the clouds away.

Perhaps an even better analogy is that a journey will take the time it takes, whatever your schedule says. No amount of wittering on to the airline staff about your itinerary and how it says you will arrive in Bogota at 15:40 will mend the plane's engine and get you going. You are wasting your time complaining, so you may as well enjoy it.

What the itinerary does tell you is that you are late. Not late as in 'the late Ernest Hemingway', but late as in running behind schedule. You know that there has been a delay and that this means you can expect to arrive in Bogota late. Now you know this is likely to happen, you can call ahead and tell the people expecting to meet you. Without an itinerary you don't have any means of knowing if you are on schedule, miles ahead or hours behind.

In much the same sense a programme plan is an itinerary that allows people to keep an eye on what is happening and to see if those things are happening on schedule. The plan becomes a useful yardstick against which you can monitor progress and report back. On the positive side, you can predict problems, change future plans to accommodate the revised schedule and avoid too much chaos. On the negative side, you are giving ammunition to the senior management to come and batter you around the ears for being late. It is a regrettable side-effect of planning that because you take the trouble to plan your work and publish your plans, you lay yourself open to criticism. In the worst organisations people get told off for being behind schedule, and therefore avoid issuing plans of any kind. The penalty for not producing a plan is smaller than the penalty for being behind schedule.

Leave this next paragraph open on your boss's desk:

> In project management it is not necessarily a crime to be late, but it is always a crime not to know you are late.

What a shame this is too long to be a bumper sticker. You should be respected for planning, encouraged to try hard to make the projects move forward rapidly and effectively, and you should be supported when difficulties emerge.

OK, this is the real world and many people plan the impossible, schedule the unlikely, laze about whilst the project goes wrong and should be first in line when the flesh-eating monsters invade from the planet Thrugg. Most poor managers don't plan. Most good managers plan well. Say thank you to Geoff Groom (RIP) once of The Projects Group plc and part time project-management guru, for this other little tortuous gem:

> If you fail to plan, you plan to fail.

Now that could be a bumper sticker.

There is another argument for having a plan – to prove things are OK. Take this little story.

In the absence of a plan a pin-striped person with half-moon spectacles and a smattering of white hair will get the idea into his head that you are miles behind schedule with your project. This idea becomes really significant when people at the managing director's golf club (for it is he with the suit, specs and shiny hair) poke fun at the speed at which his new factory is going up.

Regrettably this bit of fairly friendly fun-poking coincides with his eldest son being caught with a small amount of a proscribed substance at a rave, his daughter announcing that she is moving out and his dog catching Distemper.[3]

This combination of events does little for his temper, his son's temper and Distemper and he takes it all out on you. He gives you a carpeting in front of your mates when you bump into him in the foyer one day. In between assorted rude words he puts forward the view that the factory is going to be weeks late and anyone with an ounce of intelligence can see that is the case. This view is based on a false impression gained through ignorance. Mentioning metrication and suggesting that he means 28.35 grams of intelligence is possibly the worst thing you can do. Producing a reasonably detailed project plan marked up with progress and showing a healthy state of affairs is amongst the best things you can do, as long as you don't do it in front of your colleagues, as most senior people back down only in private.

When you are doing well (and you may expect these times to be few and far between) a plan can help a lot.

3.4.4 Advantage four: you can predict resources across the whole workload

One return on an investment in programme management is the ability to predict resource requirements across a lot of projects and to draw together the many demands for the individual skills or resources.

This is not easy to do and does require a large degree of consistency within each project plan in terms of resource names, updatedness (is there such a word?) and calendars. But if each project manager predicts the resources they expect to need, the programme team can predict the resources needed on all projects and this is really useful. To predict that the work will reach a bottleneck in three months' time when the demand for testing will exceed the available capacity of the testing team is really beneficial. Because this issue has been raised in good time the programme team can do something about it. Maybe it will hire in some extra testers, maybe it will reschedule the testing. Maybe the testers will all rush to book holidays to avoid this busy time.

A problem foreseen is a great step forward.

3.4.5 Disadvantage: programme management can easily be abused

There are some potential uses of multi-project planning that everyone can quickly and easily gain just for the price of a little cooperation and helpfulness. You can share and enjoy. When I say share and enjoy, I mean that all the project managers and project planners do loads of hard work so that the senior management can have these new reports on which they can base their decisions before taking the rest of the day off. You do your share so that they can enjoy the golf course.

Sometimes a programme management toolset becomes one of the worst forms of management around because it has become, or even was designed to become, only a reporting mechanism. In such a case, is there a benefit to the poor old project-management person somewhere lurking? Yes there are loads:

- The project managers learn to use the software.
- … Err …
- That's all.

They could have achieved the reporting option with one of the popular and much cheaper PMIS systems.

Don't run off with the idea that that is all there is to generating reports across a programme management software tool – it's just that there are many simple, direct and visible benefits to the senior managers, not to project managers. The danger is that senior management will worry about project management, read about programme management and decide that programme management will help them along. Next they create a working party, committee or even a new department to examine the topic. They go out and select some tools, set up a methodology and install it. To the

average project manager this is just extra work from which the project manager does not benefit.

A great many project managers spend a great deal of time reporting on what has happened. leaving too little time left over to plan the future.

Frequently the only realistic answer to a normal project manager who asks 'What do I get out of this?' is 'A clip round the ear'. This is because most senior managers adopt the police approach to project management, which is:

> Anything you say may be taken down and used against you.

The senior management adopt an approach to project management that is really a fault-allocation system. They get you to plan what it is you and your hard-working team are undertaking to do. They press you to do it more quickly and with less money and then expand the amount of work involved. Under the pretence of wanting enterprise-wide resource reports you have to plan your work down to the nearest half person-hour using named resources and create a structured task-description system. Every second Tuesday you deliver a copy of your up-to-date plan to someone or other who merges your plan with many others. The management then lists the projects with the jobs deepest in the excrement first – and then sets about battering everyone whose job is on the list.

Project managers complain that programme management is just the latest fad from the fifth floor [them, upstairs, head office]. They realise they'll have to go along with it even if it means more work for the project managers and virtually no benefit.

There is that reasonable question again: 'What do I get out of it?' The answer is probably 'continued employment'.

The planners do, at most, the minimum possible to satisfy the demands of the management. Management, armed with this new data, list the projects in order of greatest slippage or greatest over-budget and give those projects' managers a hard time. Such a system is not 'owned' by the people; it is not respected; it is seen not as an aid, more as a pain. Such a system has missed the point. It is a criminal justice system set up by burglars, policed by safe breakers and judged by murderers, but one where the hangman wears a pin-striped suit and has a rosewood-effect desk with leatherette trimmings.

I hope your organisation takes a much more sensible and rational view of programme management that the negative style of management I have just described. If the description sounds just like your office, it might be time to start looking around the back pages of *Project Manager Today* as there are much more positive-thinking organisations around.

3.4.6 Managing all the time

An early step in programme management software tools is an attempt to predict resource shortfalls and allocate resources across the workload. This is often tied into a timesheet system where the people actually doing the work report their achievements and successes as well as time spent on the various types of work.

The worst possible scheme is a timesheet system that is not tied into the programme management toolset. This takes time and effort and does not play a role in updating plans.

One of the problems in programme management tools is that most people do not work full time on the project workload. They are normal people with line-management roles and responsibilities who are asked to work on the projects as well. Even if they are allocated full time to the project workload they will always have other priorities.

What is priority number 1? Any resource that offers an honest answer will tell you their priority number one is their annual holidays. This is such a high priority that they probably won't even think about it until you prompt them. Holidays are just one example of things that soak up resource time. There is inevitably a background workload plus sickness, training, general meetings and other time-consuming operations, all of which have to be dealt with somehow in a programme management system.

Here are some time-consuming operations that do not relate to specific tasks in the specific projects but do absorb some of the time available from your precious resources:

- training courses;
- internal non-project-related meetings;
- holidays;
- travelling time;
- union meetings;
- filling in timesheets;
- talking to project planners and managers;
- reading books about programme management;
- regular background work – user support, filing, backing up computer data;
- chatting up the blonde in the corner;
- reading the *Sunday Sport*, *Hello!*, or *Which?* magazine.

They all take time and need to be allowed for. If you plan for your resources to work productively on the projects for 40 hours each week your plans will be hopelessly optimistic and the work will fail to proceed as planned.

There are a few ways to deal with these non-project and non-programme demands on your resources' time.

3.4.6.1 Ignore the whole thing

Generally a bad plan. You might plan for each person to do 40 hours each week for the foolish reason that they get paid for 40 hours per week.

Everything will appear to be behind schedule and everyone will blame everyone else for your error. An amazing number of organisations not only do this but continue to do it, in the face of all the evidence showing that it just doesn't work.

3.4.6.2 Plan on a realistic 30 hours per week

This is much better. You can produce data or calculate for yourself the actual 'project productive' time available each week. Then you use this as a reasonable estimate of the available time each person has. This information is usually a part of the working calendar for the resource. Thirty hours per week is a normal average.

You can avoid upsetting people by selecting your words carefully here. If you baldly state 'Our resources work 30 hours per week' you will cause much upset between the resources and the management that pay them. The management may feel that people are paid to work 40 hours each week and they should work 40 hours each week. At least.

To avoid this kind of upset you might imitate a management consultant and use some confusing and unhelpful but technical-sounding terminology. Here are some suggestions:

- available product progress time
- effective task progress time
- availability for project work
- direct project progress time.

These are the sort of terms that sound grand and technical and that soften the blow. They do not infer that the rest of the time is wasted, just that it doesn't go directly into any project. You might be able to calculate the realistic amount of time you can expect from each resource on a scientific basis.

3.4.6.3 Allow for downtime in productive time

In this strategy you stick with the standard 40-hour week and plan and monitor against it. When you create tasks and assign people to those tasks you allow for their downtime in the durations you estimate. Some organisations use a set of constants which show how long things take to do, allowing for the non-project downtime. For example, bricklayers lay

around 80 bricks per hour, welders weld around one metre of plate per hour. More sophisticated constants can be derived, for example, bricklayers lay 75 bricks per hour when building cavity walls above 3 metres but below 6 metres from the ground.

These constants allow for normal downtime – they show that a bricklayer lays 80 bricks per hour for which he is paid. Such output figures allow for tea breaks and other non-productive time and can be arrived at simply by observation. If you watch a bricklayer all day he will do all the things bricklayers normally do: make tea, climb scaffolding, leer at women in the street, adjust his clothing, wonder why you are watching him and lay the occasional brick. You can therefore always allow for non-productive time in the production rates you use. The danger here is that those in higher management positions will display their prejudice and say things like 'You mean our bricklayers only lay 70 bricks per hour? I could do better with my hands tied behind my back.' Patient explanations about non-productive time being allowed for in the production constants will be like a rubber skate – they will cut no ice.

3.4.6.4 Add continuous 'background' tasks

These tasks might perhaps absorb the first 10 hours of each resource's time for each week. To keep everyone happy you plan on everyone doing their standard week as paid for. They are available for, let's say, 40 hours per week, in line with their terms of employment. You then introduce a high-priority, continuous task absorbing 10 hours of every resource's time. This takes away the time spent on non-project-related work before you can begin allocating the rest of the time to tasks in the various projects.

3.4.6.5 Plan specific downtimes as tasks

This is neat and works well in some organisations. It deals with specific and unusual downtime periods rather than the continuous background, non-productive or lost time. You create a 'phantom' project called 'training' and create tasks called things like 'attend programme-management training course'. This has duration of three days and absorbs 100% of the time of the people going on it.

You can have another phantom project called 'holidays' which contains similar tasks, each of which absorbs 100% of the resource's time and is a very high-priority task. Descriptions might be 'Joe goes on leave' or 'Mary gets sunburned again'.

Tasks in the 'training' and 'holiday' groups absorb resources just like any other tasks and, being of a high priority, leave nothing over for the resources to contribute. The spin-off, as Murray Walker would say, is that

you can produce bar charts from these phantom plans showing everyone's holidays and absences on training courses as part of the planning service you thoughtfully provide.

3.5 Financial control

There are things that money can buy, but it is useless in itself. Sure, you can stuff a mattress or wallpaper a wall with old Russian million-rouble notes, but you can't eat money.

Cash is an illusion – it is really only the bits of paper you use as part of a complex international barter system. Money represents the debt society owes you for making your contribution. If money in your pocket is an illusion, money inside a computer is trebly so. It is not so important, it just happens to be the score by which we measure success and that has been made important.

Now the lack of money – that is a problem.

But many people regard money as the central issue of programme management, so we had better take a look at the various ways in which you can get into trouble and ruin your promising career by running hugely successful programmes that look black on the balance sheet. That's black as in black look, not black as in a healthy bank statement.

3.5.1 Programme approval

If you are involved in running a programme of projects that are aimed at achieving the goals and objectives of the organisation you are following the Cabinet Office and the PMI's definition of programme management.

Organisations that find the Cabinet Office's work especially appropriate have names like North East Water, Huddersfield Underground Railway or HMRC. They are public sector departments normally paid for by you and me through an ingenious system called taxation. Taxation is much like giving to charity, except that you have fewer options. In such environments the programmes are not aimed at creating a deliverable that will be delivered to a client and paid for, they are aimed at achieving the long-term goals of the organisation.

Water companies build new sewerage plants, railway companies lay new track and quangos quang. They are not all public sector bodies. Telephone service providers launch new services, supermarkets open new stores and airlines offer new routes and this is all most commonly achieved though programme management.

These programmes are designed to make the host organisation better, more efficient, improve morale, create a new asset or give a better service. In these environments the first step for the budding programme manager

is to convince the powers that be that they should invest huge sums in this new and innovative programme through some kind of project proposal or programme charter. These will involve a business case.

The aspiring programme manager person puts together a case promoting the value of the ingenious new product or service, showing how the investment will result in a golden future for the organisation. It is quite normal for a company to allow individuals to do preparatory work on a new programme – enough to get together a business case for the programme.

In some organisations there is a definite system to encourage people to come up with ideas for new programmes and to permit the time to develop the ideas into a business case. Some organisations actively promote free thinking and innovative programmes by a business-development programme.

Engineers were encouraged to dream up ideas to develop the business. Some programmes were designed to lead to new products, but many were more to do with efficiency and economy. Armed with the business case the programme manager then has to try to get approval to proceed with the programme – and this means approval to spend the necessary money. Make no mistake, it is the money you are really after. Most managers will happily approve your programme if you offer to pay the bills yourself, but will be a little more doubtful if company funds have to be set aside.

This process may put you in front of some very influential people in rooms with thick carpets and oak panelling.

Some of the reasons you will be given to prevent your programme from proceeding are mentioned below in increasing order of truthfulness.

- The company may not have enough money. The predictions for income over expenditure for the forthcoming period do not leave enough cash to pay for the super programme you have dreamed up. This excuse does not suggest that your programme proposal is in any way faulty, only that the expenditure cannot be borne.
- Your programme may not show a high enough return. If the financial people insist that money is to be the target you should be able to show how investment in your programme will cause an upturn in your company's fortunes. This might be in the form of reduced outgoings, due to better quality control, less wastage or perhaps a more efficient manufacturing process. The upturn might be in the form of additional income generated by the capital asset that is the goal of your programme. At least we are getting nearer the true reasons for not giving a programme the go-ahead.
- Your programme might be too risky. As a part of the case you put forward to substantiate the essential rightness of the proposed programme you should have identified some risks. The board reads through this list of risks and gets the collywobbles and is now giving the programme the cold shoulder and giving you the honourable and long-respected

'being discussed' delay. The truth here is that no one wants to speak up on your behalf in case those horrid risks come to pass.

- Your programme is not a high-enough priority. Now we are getting near to the truth. There is a reasonably fixed sum of money that is available for investment and your programme is not viewed as being the best. All those programmes ahead of you in the queue have got (or appear to have got) a better return on investment or some other attraction that makes it worthwhile for the board to go for them rather than yours. The other attractions include important elements like: if we have a factory in Spain I can go and visit it and take a few days off in the sun; if we had a wholesale outlet in Chelsea I could go there on Saturday mornings before the match and claim my expenses.
- We just don't feel comfortable with your programme. This is generally the real truth. If they felt comfortable enough with the programme they would find the money, borrowing if necessary. If they liked your plan they would move your programme up the queue, take the risks and go for it. All those cover stories about insufficient funds assume that there is a ceiling, they know where the ceiling is and the possible programmes fighting for the money are in a sensible order.

You have to sell your programme if you want it to succeed. They have to believe in you and your idea. The chances are, they do not have a fixed ceiling on capital investment but a moveable target that can be moulded to suit the prevailing conditions. It is also very likely that they are not very sure how much is currently spoken for in forward investment. If the board wanted to know what jobs were being planned, approved and monitored it would prepare a set of figures looking something like Table 2.3 for programmes that might form part of the company's investment strategy.

The idea here is that a mix of programmes are all vying for life in a highly political survival-of-the-fittest competition, and every few weeks some programmes get cancelled, some new ones come along and existing programmes change their budgets and time-scales.

3.5.2 Programme budgets versus annual budgets

This deals to some extent with the old problems of programme budgets versus annual budgets. This is similar to the old problem of people with vision versus accountants. Accountants tend on the whole not to be great visionaries. They have a driving need to make things balance and would be great in the circus ring with a bowl of flowers, a couple of swords and a unicycle. Forward-thinking and forward-looking accountants do exist, but you are unlikely to have one in your firm, as they are all senior partners in the major accountancy firms. The normal accountant's ideal is to keep things on an even keel and (to stick with the nautical analogy) know

exactly how high the water is. They don't seem to care if the boat is sinking – or not as long as they know exactly how much water is getting in.

A basic precept of accountancy is something called the tax year. This is a period of time equal to the period of time it takes the earth to go round the sun (which is convenient), but which starts and ends on otherwise unimportant dates. Only in the religion of the Immaculate Double Entry does the new year come on 6 April. Your firm has probably got yet another new year's day, which was chosen by someone years ago in a drunken stupor who called it a 'tax year'. This is all very well and of little significance to us programme people *until you have a programme that crosses the company's tax-year boundary.*

As far as the accountancy goes, you have to predict and record exactly what you intended to and did spend before and after that magic date. You also have to make these long-term predictions about expenditure in each tax year and stick to them. Finally, if the company system makes no special arrangements, your programme is effectively up for review at every tax-year end. Your programme knows little of tax years but deals in overall investment and returns. Your accountant knows of investment and returns but wants the books to balance each year. Programmes have been cancelled because there was a cash shortage for the coming year and the programme got dropped from the budget. The programme might have been 90% complete, with only a few more pounds needed in accordance with the original budget to see the returns flowing in, but the job got scrapped. You may have some sympathy for the programme manager whose programme, due to severe problems, overruns into the next financial year. Crossing this date line means little to the programme team, but there may be no allowance for this programme expenditure in the following year.

So a system must be created within the company that recognises both needs: long-term programme budgets across year ends and the year-by-year financial forecasting and reporting beloved by accountants. This usually means that a partly completed programme passes through the annual budget approval process positioned high on the list of priorities and therefore grabs the budget before other programmes that are yet to start. Sometimes, but by no means never, programmes come to a stuttering halt as budget allocations leave nothing for such programmes.

Even if such a system exists, you may have to spend the right amount each year so as to fit within an annual budget. What happens to the programme if you underspend or overspend in a given year? This can also create a serious conflict in inflexible organisations. You see the chance to get ahead of schedule and save some money by buying in some plant early, but are stopped because that expenditure is not due until the next accounting period.

By the way, do include all the costs – many are hidden and don't count, or are not counted within the organisation. Some organisations work partly or entirely with person-hours and then multiply this by some figure

representing person-time costs. These can be hugely overestimated or, occasionally, way underestimated. It is worthwhile having a clear idea of who costs what. You can get into a situation where the programme manager finds it cheaper to go outside to a contractor and pay real money out of the company's bank account than to use internal resources. This is despite the fact that internally no real money changes hands but is because of the ludicrous internal cross-charging system.

In such a situation the programme manager looks better if he spends the company's real money whilst equally real money is paid to people sitting around with nothing to do. The only real problem is that the interdepartmental charging system is screwed up and makes the programmes look really expensive.

3.5.3 Accuracy of estimate versus phase

The following ideas about phases are based loosely on those used in oil exploration. In that environment the projects are large engineering thingies which look and smell so awful that they have to be left out in the middle of the North Sea. The concepts behind this approach apply equally, as long as there is a relatively cheap design process before an engineering or execution stage, during which the real money gets spent. In such environments new projects are divided into three main phases with names like: concept (or initial) design, detail (or final) design and construction (or implementation) phase.

The programme team is likely to seek approval to move into each and every phase, and indeed cannot move forward without that permission. Initially a very rough outline is produced with some rule-of-thumb cash estimates. This is used to explain the nature of the programme, the potential risks and return and to seek approval to move into the concept-design stage. Here a relatively small sum of money is requested, authorised and then spent with a group of internal designers hacking the thing about to get it into some sort of shape. At the beginning of this stage estimates are expected to be between +50% and –20% of final costs (Figure 3.6). Once the internal design team has spent some time examining the programme, a number of problems have been addressed and dealt with and a clearer idea of the content of the programme has emerged. Armed with this information, the programme manager revises and extends the financial justification for the programme and submits the results of the work done in the concept stage and requests approval to move forward into the detailed design stage. The submission will give a better idea of the estimated financial future of the programme and will; also include an estimate of cost for the next phase. By now estimates are tighter and expected to be within the range +35% and –10%. You may note how the programme costs are expected to rise more than fall.

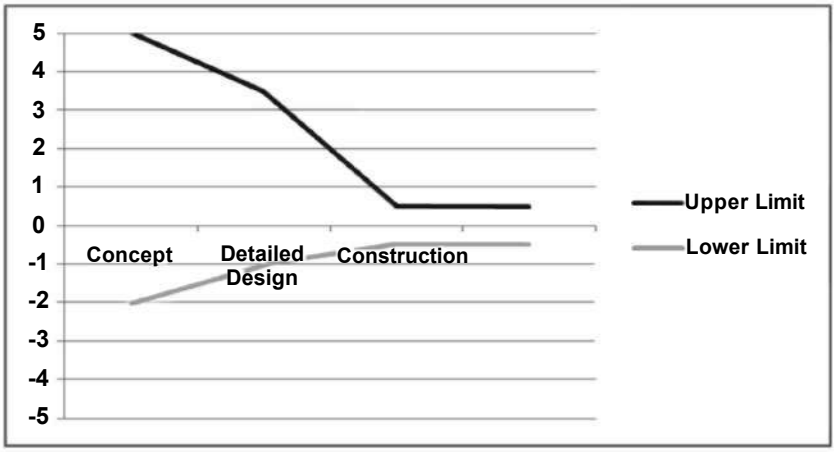

Figure 3.6 Improving accuracy of estimates

Once this approval has been granted the programme goes out for detailed design. This will be a great deal more expensive – it may involve external design consultants, tests, prototypes and engineering experiments. At the end of this detailed design process a much clearer idea of the nature of the programme has emerged and the estimate of cost has once again been refined. Armed once again with this detailed design and a much more detailed cost and financial prediction, the programme manager goes back to the powers that be for a final time to seek approval to actually construct the thing. The cost of the two design phases might tot up to 10% of the total programme costs, so this last stage is likely to be requesting an amount of money nine times that previously committed.

The board is going to be much more thorough with its investigation and will expect to be fed with more detailed estimates before giving approval. This final stage may require approval by a higher authority. By now costs are supposed to be tightened down a great deal, within the range shown: plus or minus 5%, a reasonable contingency at this stage. You can see that any company can set up a programme-approval process with a number of appropriate stages. At each stage the programme manager seeks approval to proceed to the next stage and justifies that application with information gained in the previous stage. At each stage the degree of accuracy of estimates is expected to improve as the uncertainty reduces and, often, the cost increases.

You might be able to search through the company archives and find out how accurate these kinds of estimates have historically been over the last few years, which might well be hysterical historical data. At each stage the approval mechanism might involve more senior people within the organisation. The further along you get, the higher up you get. There is no reason

to fix the system regardless of the size of programmes. You can have a two-tier approval system, one for programmes under £100,000 and another for those over that limit. At any stage, a programme can be cancelled or shelved, due to factors within the programme and due to changes in the corporate environment. You can always take your programme down the road to the opposition. Organisations that have a formalised procedure tend to allow people to come forward with programmes at any time of the year. Approvals may come from a meeting of senior managers, and they may meet only every three months, but there is no fixed annual programme-review season – it goes on all year round.

Figure 3.6 shows how uncertainty over a programme's future starts off being very great and drops away, finally reaching zero only when the programme is complete. Uncertainty, in these terms, could refer to the overall programme costs, overall programme duration, or your chances of surviving with your job intact.

3.5.4 Survival of the fittest

I hope you see that in these environments it is a management jungle and the rule of the jungle applies: only the fittest survive. There are many programmes out there all seeking to gain access to the precious money that will give them life. There is almost certainly not enough cash to slosh around, so only the fittest programmes will go forward to grow strong and healthy. Is it surprising that people are optimistic at this stage? Imagine, there you are, working up a fairly detailed look into the future of your hypothetical programme and you are thinking about how much it will cost, what the returns will be and what the risks are. Are you going to be pessimistic, tell the bald, untarnished truth and watch your programme become stillborn? Or are you going to do what everyone else is doing, perhaps subconsciously, which is underplay the investment and risks and overestimate the returns? It is as natural as being human – and if you are not human, what are you doing on this planet without a permit?

This is partly why many programmes almost inevitably come out over budget and behind schedule. It's because people get enthusiastic about their exciting dream programmes and do not bother to look under stones until they have to move a stone out of the way and find it is really the top of a mountain. For this reason some organisations have a system for reviewing the enthusiastic programme manager's proposal. This can be a technical review group that goes over every proposal analytically and dispassionately and adds its views to your submission before it goes in front of the board. The team that does this may live within the programme office (see section 5.5)

There can be a peer review where your fellow programme managers take your programme to pieces and give you a fairly hard time, again before

the formal approval session. They can't get at you too much, because you should soon have a turn to get a look at their pathetic programme.

The word 'fit' in the phrase 'survival of the fittest', when applied to programmes fighting for funds, should mean those programmes that will have the best effect on the organisation, those programmes that will move the organisation closest to its objectives. Actually 'fit' usually means those programmes that the managing director likes, that have a high profile or that are run by popular and well-liked programme managers. Some organisations have separate groups to evaluate potential programmes. There may be programme managers, capital-planning managers or project-appraisal people whose function is to take a number of 'expressions of need' that could come from anyone in the company and translate those needs into a series of planned and integrated programmes.

'Expressions of need' state a requirement: 'We really could do with 25% more capacity on the South East Region railways.' The need is translated into a number of possible solutions (run more trains, run longer trains, two-storey trains, buy buses, shoot some passengers), and then whittled down to some that become programmes – perhaps one is to acquire the needed rolling stock. This process is more dispassionate and analytical but requires some considerable expenditure, with full-time people busy evaluating programmes. The evaluation group is soon likely to settle down into a rut without any injection of new blood, and bright, agile minds in the rest of the organisation don't get a look-in. Very large organisations have a hierarchical approval system where programmes are first approved in very broad terms and then, within those programmes, specific programmes are approved. Alternatively, individual programmes may have to pass a local approval system before going up to the regional headquarters and then finally to the international headquarters.

Box 3.1 Cost monitoring

Cost monitoring is about finding out what money has actually been spent. This is dead easy as long you have considerable patience or are not in a hurry. It becomes a very challenging affair indeed if you insist on finding out quickly what money is actually being spent. 'Quickly' here means in time to do something about it. You can find out what money has gone out of the window very easily in due course, but this will not be useful information in a year's time. You need to know much more rapidly than that and, probably, much more rapidly than the accounts department can tell you.

Cost control is steering the costs so that they stay on course. Trying to control without monitoring is like driving with your eyes firmly

shut. Monitoring without control is sitting in the back seat and watching the world go by without saying a word. Sitting in the back seat shouting advice is called back-seat driving and has nothing to do with project management. Do you know what you are responsible for: monitoring, control, or both? How can anyone sell a cost-control software package?

3.5.6 Problems with cost-monitoring information

A number of problems come to light when you try to gather cost-monitoring information. The obvious problem is that the numbers are too big. I don't mean they are displayed in 60-point Helvetica, I do mean that the cost of work done to date is invariably too great. This is a problem you seriously want to know about, but there are significant problems in actually getting to know anything useful. Some of these problems are explained below.

3.5.6.1 The type of data

This problem is to do with the form of the data you get. Your accounts department has these wonderful and sophisticated accounts packages that rely on things like 'supplier codes' and 'client codes'. The idea is that every invoice received from a supplier is collected under the supplier's code. Once collected in this way, they are available for inspection. People can ask questions like: How much work has A and B and C Soup Canners done for us this year? How much do we owe this company? Should we pay them something or can we make them sweat a little longer? This is very helpful for the accounts people, but not for projects people. You may not wish to sort through a pile of supplier's listings to find the few invoices that relate to your programme. You might prefer to see the list of invoices relating to your job – then you would know how much each firm thinks it has done and deserves to be paid for in the last month. If you can get this information you are beginning to monitor costs.

3.5.6.2 Lies, damned lies and invoices

Your contractors may, unhelpfully, submit invoices when they finish the work; programmes would be so much easier if contractors did not insist on being paid for their work. These invoices might cover one or two months' work. Contractors will generally warm to the idea of being paid on a monthly basis, as this will improve their cash flow, but it may

mean extra work for them to do. Each month they have to value the work done to date, deduct the amount invoiced prior to that month and invoice the bit left over. Building and engineering companies are used to doing this and have special rules to make the process work fairly. They have a system called interim valuations that allows for completed work, uncompleted work, materials delivered but not yet fixed and defects in completed work that need fixing. There is even a complex formula for dealing with inflation. It is in the nature of life, the universe and everything that the contractor will lie his head off to build the monthly amount up, and you will lie your head off to keep it down. The contractor wants to keep his bank manager happy and you want to keep the contractor on his toes. Overpaying a contractor has the magical effect of slipping your programme way down his in-tray, well behind other jobs, where he has to chase the money.

3.5.6.3 Internal staff

Some organisations deal predominantly with their own staff's time. In these cases most work on the programmes is done by the team of experts employed by the company for their stunning brilliance. This is fine and dandy as long as you can get a feel for how much time these people are charging to your programme. Perhaps they submit timesheets or some other form of record to their bosses, and it may be good if you can get an idea of the bits that concern you.

3.5.7 Speed

The next problem to face up to is speed. As mentioned before, a common and recurring problem is the speed at which cost-monitoring data gets back to the programme manager. It may be fine for a production manager to get information back on her baked-bean production process, because the chances are she is still baking beans and can make good use of the information. If the information about the programme takes a long time to get back to the programme manager, the chances are that she has moved on to a different part of the programme and has no scope for correction or control. If the design process is running over budget, she can do nothing about the design phase if the product has been prototyped, tested and is being shipped before she finds out the actual design costs.

The graph at Figure 3.7 shows the way that the influence you have over any project rapidly reduces over its life cycle – the later in the programme, the less you can do to steer the programme to influence cost. There is no real measure for the amount of control you have, but the concept is sound: you rapidly lose your room for manoeuvre.

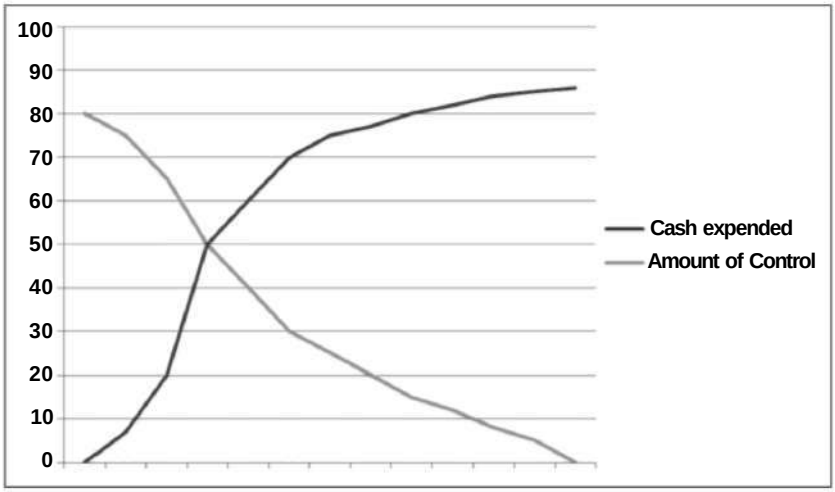

Figure 3.7 Amount of control over costs versus amount actually expended

3.5.8 Cash-flow diagrams

Cash-flow diagrams indicate the expected rate of expenditure over the life of the programme. This is normally achieved by building up a cost for each task so that the planning software can summate the costs expected to be spent on each day of the programme. To help with this aim, the programme management software allows the operator to specify at which point within a task costs are actually incurred. Some costs are incurred on the first day of the task, some on the last day and some are spread evenly across every day of the task. With this information, plus the timing of the task within the projects, you can see that anyone can add up all the money due to be spent on each day. Adding each day to the day before gives you a cumulative view of this planned expenditure. You only need a computer to perform this task because it is more accurate than you, and less easily bored.

As well as the on-going payments for the labour and raw materials going into the programme, you may have big sums of money going to pay for expensive computers, buildings or other big items of investment. How do these get charged to your programme? The results of these calculations is a cash-flow curve showing day by day (or week by week) how the expenditure adds up. This is a simple one-line graph assuming that tasks all begin at their earliest possible times. A second line can be drawn assuming that all tasks are delayed until their latest possible start and finish dates, and the combination of these two graphs is called a cash-flow envelope.

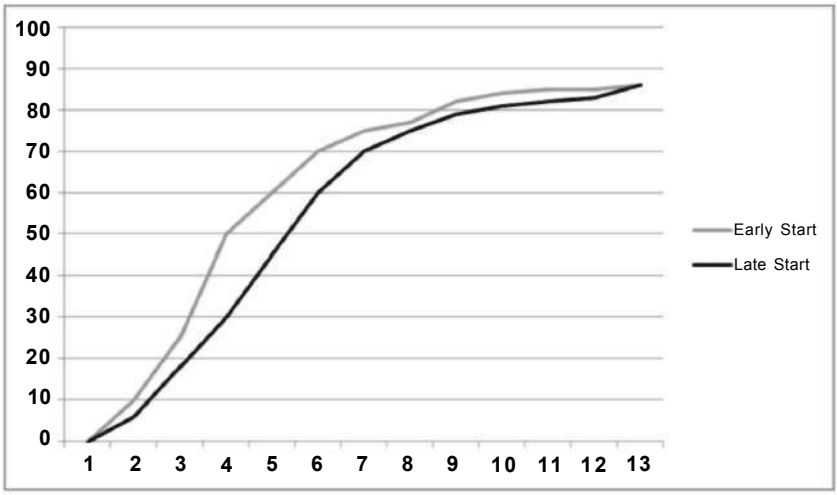

Figure 3.8 Cash-flow envelope

3.6 Earned value analysis

Project Management Demystified (this book's elder brother) has a whole section looking at earned value analysis, which is a fine way of comparing three things:

- the amount of money you *should* have spent to date using planned work and budgeted costs;
- the value of the work you have *actually* done to date using actual progress and budgeted costs;
- the amount of money you have *actually* spent to date using actual progress and actual costs.

Earned value analysis (EVA), which is also known as C/SCSC or C-Spec, is designed to provide a measure of progress in terms that fairly compare actual achievement with planned. It is not appropriate that this book cover EVA in detail, but an understanding of its concepts will help those who wish to research the area.

EVA allows a three-line graph to be prepared that summarises the actual achievement and actual expenditure on the programme in comparison with planned (Figure 3.9). EVA uses the early start line from the cash-flow diagram as its basis, as has just been described.

To measure progress it is necessary to physically measure the actual work done or to estimate work done as accurately as possible. Using the rates for doing work that form the basis of the cost estimates and the actual

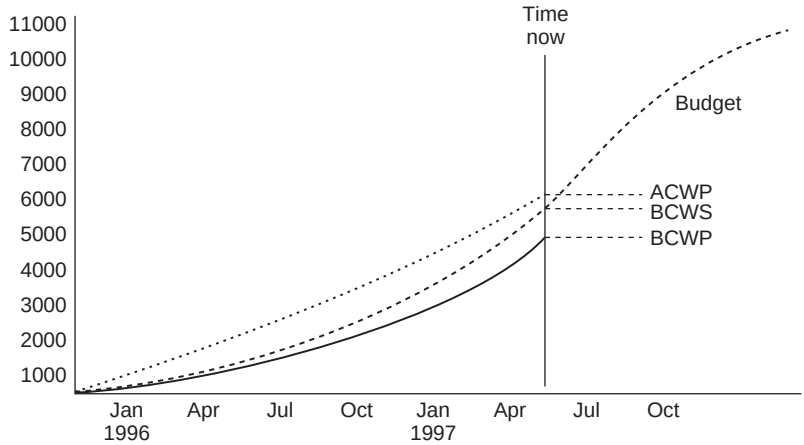

Figure 3.9 Earned value analysis

amount of work done gives the value of work actually done and this line is drawn alongside the cash-flow curve. This is called budgeted cost of work performed (BCWP). This second line shows the amount of work done in cash terms on exactly the same basis as the original estimate. A third line shows actual expenditure and is known as the actual cost of work performed (ACWP).

With a little training anyone can interpret these three lines to arrive at a reasonable view of each project. The programme management team can then take the EVA graphs for each project and consolidate them into one magnificent programme-level graph showing the programme's status. In the example in Figure 3.9 the programme's status is shown as at early May and it can be seen that the programme is ahead of schedule but costs are high, even allowing for the extra value of work that has been achieved.

Getting these three lines on one bit of paper takes some doing, but gives a good picture of how the job is going.

3.6.1 Control

So now we have got to a stage where you have collected all the cost-monitoring data, drawn pictures of it, drawn conclusions from it and decided whether the programme is in good shape or needs some fitness training. It is time for some cost control. This is where you turn on that remarkable brain of yours and decide what to do. This is where you begin to control the programme. This is where most books run out of suggestions and ideas. Including this one. I'm sorry, but at least I'm honest. Ninety-nine per cent of books mix cost monitoring and control together and spend 99.99% of their time talking about monitoring. Control is such a personal, environ-

mental thing that I am not sure anyone can tell you what to do. The whole deal about what is commonly called cost control is in finding out what the situation truly is. That's where systems help. Doing something about it is pretty much down to you. Hang on a minute. I suppose there are some things you can do. Let's look at some of the things you can do – but be warned, this is going to be pretty simple stuff.

3.6.1.1 Cut something

If you find out that the budget is likely to be exceeded in time, you may be able to reduce the amount of work to be done. In this case you find something within the remaining part of programme that you can get away without doing and without making a big issue of it. Less work means less cost. Maybe your next mansion can do without the gold-plated taps.

3.6.1.2 De-scope the programme

This is management-speak for cutting something out of the programme altogether. The difference is that you do make an issue of it and get the client to agree to the cuts. This is much easier if the 'client' works for the same firm as you.

3.6.1.3 Use the contingency

Most professional programme managers like to start out with a contingency. This is a sum of money set aside for the unforeseen. The one thing you can certainly expect as you journey into the future is that some things will be unforeseen. When the London Olympic team started on the 2012 Games programme it declared a £2 billion contingency. Yours may be smaller, but size does not really matter.

You can dip into that contingency or apply to whomever controls it for some extra cash. Well, that is what it is there for. Some element has gone over costs: to pay the bills, you need some money out of the contingency or you will be forced to make savings from some other element.

In practice, project managers will approach the programme manager and request money to be released from the contingency fund into their own project budget. Very occasionally a project manager might put some money back into the contingency budget. This usually happens when three pigs are lined up on the runway ready to take off!

If a programme manager holds a contingency, each project may not need a contingency of its own.

3.6.1.4 Revise the programme estimate

You could go back to the client and ask for more money to be made available. The result of such a request will depend to a large degree on your

relationship with the client. If you have a fixed-price contract with another company your client will laugh in your face at your request. If the client is part of your organisation they may agree, and then laugh behind your back. If you have a 'cost plus' form of contract with your client they will cough up the extra money and you will laugh up your sleeve as the programme budget and your company's profits go up.

3.6.1.5 Get something done more cheaply

Perhaps you can find a way of doing everything within the scope of the programme, but doing some things more cheaply. Because you found out about the overspend nice and early, and you can add this information to your budget – which is carefully broken down into categories – you are in an ideal position to look at the programme for savings. It is amazing how a careful scrutiny under pressure finds some areas to cut costs. Maybe you can substitute steel taps for gold ones. Would a cheaper carpet do? Once again, it might be time to talk to your client or manager before making decisions. It is easier to go with cap in hand and make them aware of the overspend on some early work if you are armed with some ideas for bringing the programme back into line. You can extol the benefits of your excellent programme-management techniques which brought the problem to light in time to fix it. It may be bad news, but it is not bad news that came too late.

3.7 Progress monitoring, feedback and the timesheet angle

If project plans are going to be anything like useful they must reflect reality.

A plan is an external model of what you think is going to go on, it is a model of a future. It may not be the model of your future; it is much more likely to be a model of a future that takes place in a distant and nearly parallel universe where the electronic household gadgets break down one day before the guarantee runs out.

> In our universe household electronic gadgets break down one day after the guarantee runs out.

Your plan may have been spot on last week, but since then three more jobs have been won, one has been cancelled, the design department had to close for half a day, due to a bomb scare, and a whole range of other bits of progress have been achieved. Most of these bits of progress have

been achieved by sensible, intelligent people getting on with any work they can get on with. Some of it was done by sensible people responding to some senior manager shouting at them. The list of actual work done will bear only a passing resemblance to the work planned for the same period, so you had better update your plan in light of these actual achievements. To do this you must know what achievements have been accomplished.

On physical construction projects like housing, bridges and roads the way to monitor progress is to step into a pair of Wellington boots, don a plastic safety helmet and walk out to the project worksite to see what is going on. Much of project management software is based on this concept.

In our world of programme management the work is normally much more cerebral and much less physical. We cannot walk around and count bricks, or metres of road. We need to understand how the software engineers, design team, authors and database people are getting on, but there is nothing to pick up and count.

Using your brilliant mind plus the wonderful, interactive, user-friendly, Windows-compatible, fourth-generation, artificially intelligent, client/server, globally enabled decision-support software, you plan the workload in appropriate detail.[4] Very soon your wonderful plan is ruined because someone does some actual work. How dare they! Not only do they do some work, they don't quite do the work you planned for them.

Because reality has the annoying habit of not fitting in with your plans, the system should loop round with some form of feedback so that people can know what has been actually happening. In many organisations the project managers cannot simply measure progress, as there is no physical deliverable. Life is simple for the builder who has bricks to count, but much harder for computer people, research engineers and technical authors. These environments involve cerebral work, and that goes on only inside people's heads. There may be distance or other problems in measuring actual work done. Hence the timesheet angle.

3.7.1 Timesheets

One way to measure progress is via a timesheet system. Timesheets are a great way of finding out what is going on. Setting up a system for a regular feedback to project managers or their planners helps to keep planning in the centre of things and plays a useful and positive role.

Timesheet input is very common in some environments. It is particularly common in those organisations where most work is done by highly paid professionals – situations like software development and research and development. Update information is created as everyone enters data into timesheets that is fed back into and updates the project plans.

There must be some human intervention here, as we all know that eight hours' work on a task does not necessarily mean eight hours'

progress! So timesheets are prepared by people actually doing the work and approved or checked by a team leader, manager or project manager.

There are some problems: Timesheets are supposed to be a quick, efficient method of collecting data on actual work done. This is done for a number of reasons. Staff can be paid, people can be checked up on, clients can be invoiced and you can update your plans, to name but four.

Actually timesheets are some of the greatest works of fiction of our time. Many timesheets ask completely the wrong questions and collect inappropriate and misleading information. Many members of staff lie through their teeth through the medium of the timesheet, in an attempt to cover for the time they spent drinking coffee and chatting up members of the gender group they happen to prefer.

Timesheets ask what time has been spent on a task. For example, against the task name 'Design nosecone', designer Danny enters 40 hours in the 'Time spent this period' column. What progress do you report on that task? Not 40 hours, as Danny has overlooked the two or three hours each day he spends in meetings, on the lavatory, reading technical journals (*Nosecone Today*), reading technical journals (*Private Eye*) and backing up his computer.

Most people actually produce project-related work for about 50–70% of their day. It is entirely possible that they work hard and do a lot of useful other things, spending no time reading *Private Eye* and keeping up with recent developments in their field while on the train to work. Nevertheless, there is an overhead of time that does not directly relate to the project and its tasks. Danny also took a look at a new job he may be doing next month. He spent a few hours giving the new job a once-over to estimate how long it would take to do the design. Very useful, but non-productive as far as this task goes.

Regrettably, we find later, the 25 hours' time he actually put into the nosecone design task was based on an out-of-date specification that has been scrapped. No one told Danny. Net output for this task therefore equals zero hours. When he finds out that this has happened, he is likely to go off into a blue sulk for a few hours and the design manager will have to do her damnedest to cheer him up. This could take a couple of hours, so the true progress this week was minus two hours.

OK, we have established that timesheets are good at reporting time spent but that we need to keep a wary eye on the productivity that has been achieved. Some timesheets therefore ask how much of the task you think you have done and expect an answer in terms of a percentage. So nosecone designer Danny reports being 85% complete this week, mainly because he reported being 75% last week and progress should go up week on week. Slightly extreme, you might say, but it happens.

As the weeks roll by and the work gets done, as a result of project

managers' optimism this estimate of work done, percentage complete, rapidly increases. It generally increases more rapidly than the work itself. Soon the team realises that it has overestimated the percentage figures and then realises that it cannot go back. Reporting a figure less than last week's would show negative progress. Thus begins a lengthy period when the percentage-completed figure is close to and even approaches, but never actually reaches, 100%. This is referred to as persistent 99% complete syndrome and results in the saying that '99% of tasks in 99% of projects are 99% complete for 99% of the time' (Figure 3.10).

The big question that the timesheet should have asked is: 'How much do you think is left to do on this task?' Or 'What is your estimate of remaining duration for this task?'

Therefore, rather than saying the task is 75% complete, Danny's timesheet reports 5 days left to go. Even this is sub-optimal and we may not be clear if Danny means five days to go or five days' work to do, but, due to holidays and other work, this will actually take at least two weeks. We need to be clear about this data.

This 'estimate to complete' makes no assumptions about the accuracy of the original estimate for the task's duration, nor about Danny's production rate and other interruptions. It makes people think about the work that is left to do and allows for changes to affect the time that remains on

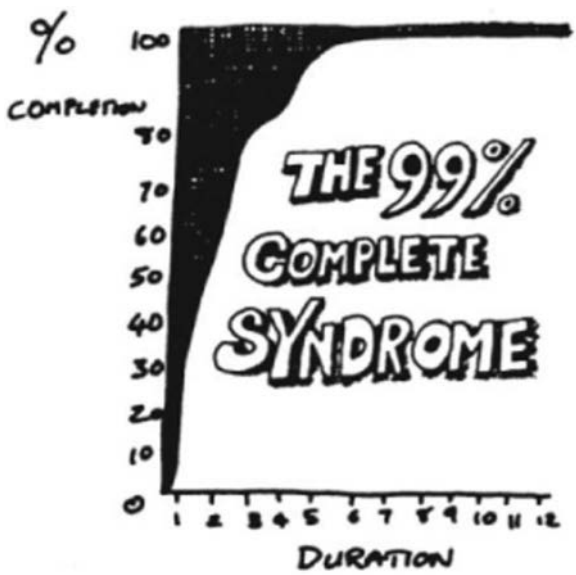

Figure 3.10 The 99% syndrome

this task: the 'remaining duration'. So timesheets can be a great help to a programme plan. They need to be watched carefully. There are a number of PC-based timesheet programs on the market that can be trained to link into project-management software, and in such a system lies the basis of a true programme-planning system.

There is another problem with timesheets.

Timesheets are a pain; they are almost universally loathed. I think this is the case because the people who do the work of filling out the timesheets get no benefit back: they do it because someone has told them to do it. And they can take ages to do. Perhaps people dislike timesheets because they are a reminder of those horrible and belittling clock-in machines, where it was assumed that you would arrive as late as possible and leave as early as possible, and so a machine would be set up to watch you. Very often timesheets are seen as a policing system that is used only at random and only to check up on people.

This is true in some companies. Such companies check to see how long their staff spend in the lavatory. In such companies the timesheets are filled in and collected and then stored for the statutory seven years or whatever it is. No one looks at them or uses them, except the odd manager playing detective who decides from time to time to pull at a form or two at random and check that the story fits.

Sometimes timesheets are used to create income. No, I don't mean selling them as great works of fiction, I mean using timesheet data in the invoicing process.

Some organisations are paid by that hour or day that each person spends on their projects. This is sometimes called a time and materials contract. You start with 20 highly paid engineers working away at various jobs, keeping their timesheets up to date. Every timesheet contains person-hours that have been spent on jobs for your various clients, and in this case time means money. Sometimes you simply multiply the person-hours by the agreed rate for the work and there you are – with an invoice to be paid. Or at least the information that goes onto the invoice. Solicitors and accountants use an approach like this.

Some people are paid by the hour or day and therefore their timesheets drive the wage calculations, and these are the home of many great works of fiction.

In some strange companies there are separate timesheets for workload planning and costing/invoicing/wages. This means that a lot of productive people have to complete two different styles of timesheet every week. Where is the sense in that? A small group of bureaucrats has stepped forward and become more efficient at the expense of the efficiency of the much larger group who actually do the work.

So timesheets need to be quick and easy to do and should help to provide a benefit, or at least show a benefit to the people who actually fill out those timesheets. They should understand why the information is useful

and what is going to happen with it. Otherwise they get a laugh at first, but quickly get bored with the whole thing.

The deal a programme manager might offer the resources goes like this: I'll plan the workload throughout the whole organisation, working with the project managers and departmental managers, and you'll get a report showing you what you are supposed to be doing over the next few weeks. Each week you do a timesheet and I'll re-plan the workload, working with the project and functional managers, and issue you with a new bar chart showing the next month.

The deal gets better. You can explain that when someone comes along to ask them to work all night to finish off some job that wasn't properly planned, when a director demands that you drop what you are doing and collect a client from Heathrow, they can reach for your bar chart or timesheet and show, prove and justify the way you spend your time. Such a deal might get people slightly keener to fill out those pesky timesheet for you.

What can you, the programme planner, do with these timesheets? You can add the information contained in the timesheets (even better if they have been checked by the team leaders and project managers) to your own knowledge of what has been going on and therefore update the programme plan. The original estimates of durations and resource requirements for each task were just that, estimates. Sometimes they are guestimates,[5] sometimes they are guesses. Whatever they were, you now have some new information with which you can update your plan.

You may also have some physical measurements to take: how many gearbox casings are ready; how many branches have switched over to the new system. These interim measures of progress are sometimes called metrics, and they can be a useful measure of progress and ring useful alarm bells when actual achievement varies from planned. People will listen if you can say: 'By today we should have switched 67 of our branches over to the new system, but we have actually switched over only 60.'

You may also have the project manager's dire warnings: 'This is going at a snail's pace.' You may have the functional manager's reassurance: 'It's going really well.' These are emotional, gut-feel evaluations of progress and will vary according to mood.

Put all of these clues together and you can revise your estimates of how long those tasks will take to finish and what resources will be required. It therefore makes sense not only to ask how long each person has spent on each task: you also want to know how much more time they think they will need. Don't bother to ask how far they have got because answers to such questions are unreliable and assume much about the accuracy of your first estimate. Ask how long they think it will take to finish and you'll get a much more realistic estimate that takes less notice of your first shot.

Figure 3.11 shows a layout of a fairly sensible timesheet that you might use. It makes sense to set up a system to make these forms available online (nearly all timesheets are filled out on a screen). They are submitted on

Project Number	Task Description	Actual Hours Spent this Period	Current Estimated End Date of Task	Actual Start Date	Actual Finish Date (enter only when task is complete)	Notes (version number of product, delays and problems)
14/42	Design Nosecone	20	10 Oct	10 Sept		
Eh?	Design Earcone	10	15 Oct	17 Sept		
99	Design Ice Cream Cone	0				
M25	Design Traffic Cone	0				
	Illness	**8**				**Off sick on 19th Sept – broken leg**

Figure 3.11 A typical timesheet layout

some sensible, regular date – every Friday evening might be good. The timesheet software system may have the job of listing the sorts of tasks that the resource is likely to have been working on. Alternatively, the resources may have a task list that they can refer to when filling out the timesheet. This might be a pull-down menu. The purpose of these two approaches is to make the language consistent.

Some organisations issue a short-term bar chart showing the tasks that should be going on but leaving space for two types of information: the actual work that has been done on the listed tasks, and the actual work that has been done on tasks not on the bar chart. We can call these personal plans – they show the work planned for one person and leave space for them to fill out their actual achievements. Everyone is supposed to mark up work done, add any extra tasks, fill in the columns about actual work done and submit the bar charts on Friday evenings. When all the timesheets come flooding in from the various departments, you, dear planner, may have the job of trying to link these entries to the tasks in your plan. Using consistent task descriptions is going to help you a great deal when you try to decide if Cheryl has been designing the nosecone on the new missile project, or really designing a new earcone for the Punch and Judy show. In an effort to make your life easy, it makes absolute sense to extract the task names from the project plan itself. Maybe your software builds up a timesheet form showing the tasks that the person might be working on and leaving the blank spaces alongside for them to fill in this week's details. The form goes out looking just like the one in Figure 3.11 – it shows the period it covers, when it should be returned, who it is for

and the likely tasks. You should always leave space for the person filling in the timesheet to add some tasks that you did not think of or even know about. During most weeks people are whisked away from their project work to clear up mysteries about long-completed projects or discuss proposals for future projects. They need the space to add in those extra tasks that you had no idea about.

3.7.2 The lost timesheet

You hardly ever get 100% of your timesheets back on time, so what do you do about the lost or delayed timesheets? Joe, in Testing, was out of the office on Friday; Mary was sick; Aziz's computer played up and he lost his timesheet, you'll be lucky if you get 90% of timesheets in on time.

How do you deal with the absence of a few timesheets in your system?

One way to help increase the percentage of timesheets submitted is to link the system to payroll; no timesheet, no pay and no bonus. Of such things great motivation systems are created. This might precipitate a riot.

One hard-nosed way is to assume that if there is no timesheet, no work has been done and therefore no progress can be reported. This is hard and firm but does tend to help get those timesheets in. The next version of the plan shows that during the last week no progress was achieved, the work that was there to be done last week is still there to be done, and any project manager worth his salt will be on the phone immediately he sees the new plan. The information is probably untrue, as work was probably done, progress was achieved and the resources are now moving on to work on some other stuff. On being asked, they will quickly reassure the project manager that work is going on but there was a problem and the timesheet didn't get submitted on time. Still, the message got through.

A much kinder way is to assume that work went on according to schedule and that when the timesheets show up they will prove that this was the case. The new plans are issued showing that the work was done to time and showing how the resources can now move on to new work. This will probably also be untrue, as those involved most likely did some of the work but didn't quite finish it and have to spend the few hours of the next week finishing off what they should have done last week. This approach is therefore optimistic to the point of being dangerous.

Perhaps you could set up a system where you made assumptions based on other information, phone calls and your own intelligence to update the plan and mark the appropriate tasks in some way: ***No timesheet submitted – estimated***. This is like the technique used by the utility companies when they visit your house to read the meter, knock on the front door with a sponge and sprint away back to the van. They estimate the reading and give you a little 'E' after the figure.

There is a loose connection between missing timesheets and aggravation. People never like to be the bearers of bad news. When a task is going badly, people at first tend to lie to themselves about how well it is going and report back happily. Later, as things get worse, they stop lying to themselves but go on lying to the project management team and still report back happily. Later still, when things get really bad and the dreaded day is approaching when these lies are all going to come out into the sunshine, they stop reporting all together. Their logic, if that is what it is called, dictates that because they can no longer tell lies and are not yet ready to tell the truth, they had better say nothing.

3.7.3 The non-project work

If you have been using the techniques for planning non-project work described a few pages ago, you will also need to get timesheet information on this. This can become very useful. Everyone not only records what time they spent on project work, but also reports time spent on the other items you have used in planning, including training, holidays, illness, rework and so on. This information will allow you to report on the amount of time each person has spent on training, ill and on holiday. Your human resources team will love you forever if you do this. You will also get better at estimating the time people spend usefully on non-project work as you begin to see what they actually record against these items. A whole range of useful information will come from this kind of data.

If your timesheet system covers project and non-project work you can expect all time spent working to be recorded in the system, and this provides another useful check on the amount of time people spend at work.

3.8 Dealing with uncertain projects

The phantom project ... no, this is not the twilight hour. No nasty project is going to leap out at you from behind a critical-path diagram covered in tattered black clothes, gore, blood and mud and a wearing sickly grin or with scissors instead of hands.

The phantom project is the maybe project – the project that you might and might not be doing. If you are in the business of trying to win work in a competitive market-place, if you bid for work on a competitive basis or submit proposals for work to your potential clients, if you wait for approval from head office before proceeding, then you have phantom projects.

There is a list of jobs that you expect to get, might get, but which are not yet firm. The problem lands squarely on your nose when you are supposed to plan the workload for the next few months but don't even know which jobs you are going to be doing. You cannot plan to use all the resources on

the firm project workload, as that will leave nothing left over for the phantom jobs, some of which you do expect to win or for which you expect to get the go-ahead really soon. Remember that in the world of programme management we are not talking about one plan with a start and a finish; we are talking about a continuous workload that has no start and no end. New projects arrive on this ever-moving plan and old projects fall off the back of the plan and into history.

You cannot plan to do all of those phantom projects, as that is unrealistic and would show a huge overrun on resource demands.

So how do you deal with the phantom projects? Here are some ideas.

3.8.1 Don't plan them at all

This sounds daft at first, but actually works very well in some organisations. You make no provision for any phantom job until it becomes firm. Immediately a new job becomes firm you go into a fairly busy few days replanning the workload to allow for the new project. You work up a detailed plan for the new job and add it into the schedule of existing projects. It helps if the number of new jobs is small and their demands for resources are not instantaneous. If you get a job that gives you three months' breathing space you don't need to plan before it is firm.

You might draw up a plan for the phantom job as a separate individual plan and show off to the potential client your undoubted project-management skills. Once the job becomes firm, creating a real plan is made easier by using the existing plan.

3.8.2 Do different plans

This is likely to be relevant when there are a small number of big projects that will have a big effect on the workload. You produce a plan that covers the situation where the big job does not arrive, and another plan for the situation where it does. You could take this a little further, and if you have two big but different phantom jobs: prepare plan A for if job one arrives but two does not, plan B for the opposite, plan C for neither, and D for both being won. When things settle down you drag out the appropriate plan and it becomes official. It gets really hard at just three jobs, so that is where you start to play the odds.

3.8.3 Play the odds

This is an approach where you rate each project by the chances of getting it. First you plan each phantom job in the same detail as any other job.

If you are 50% confident of winning this particular tender, then this job is rated at 50% likely. You can apply such a percentage to each project and, in particular, its resource demands. A 50% likelihood project might demand only 50% of the resources it would really demand if it became firm. By this technique you can plan all the possible projects even in the near future. By planning two projects each with a 50% likelihood, you are saying that one of them will become real and one will disappear but we don't know which. It gets more complex when you have 20 possible projects all of different sizes and with different likelihoods but you can see that reasonable estimates can be made of future demands for resources, particularly if the projects are similar – runners or repeaters. If your software allows you a way of entering this percentage likelihood once per project, acknowledging a change in odds (e.g. you won the job) is then very simple.

3.9 Managing multiple resources across multiple projects

Resource conflicts have to be top of the list when it comes to the problems of planning a series of projects. I hope that by now you have begun to rely on me for the normal, official, educated line plus the truth. Well, this is another example of those two aspects.

The theory says that many projects vie for the same resources. This is clearly likely to be true and is a problem that requires addressing. 'Addressing' in this sense does not mean sending the problem a postcard showing your holiday hotel in Bonka Plenti.

There are often many projects going on, each of which will create a demand for a skill. Tasks require design input, welding and painting. These are skills, not resources. People are resources and people have skills. Neville and Jenny are resources and they may have skills in painting and dog walking.

The requirement for skills can be met in a number of ways. There may be software programmers who are the obvious people to meet the demand for programming skills. These programmers have names like Fred, Azif and Julie and these are resources. They are capable of producing work and meeting the skill requirements. Their ability to provide programming skills is probably around 100%. You may have a few junior programmers or system analysts who do not normally write code but who do have some of the skills. They may not be as efficient as the proper programmers but they will get there in the end. Perhaps they are 50% efficient at programming. To use another example, Joe, the caretaker, is 100% efficient at sweeping the floor, whereas Sue, the dinner lady, is only 50% efficient at the same job. Albert the managing director's efficiency at sweeping the floors is … if only, if only.

Some people record each resource's effectiveness at performing skills.

This can become a political hot potato, as people become upset at being graded, especially if they don't come first. It is often quite hard to measure these things and a league table may get you into more trouble than necessary. I'm told that in some countries this sort of grading would be illegal. It is much easier with machines. There is no reason why you shouldn't plan to use skills like 'milling' and satisfy that need with a milling machine. You might have three milling machines, each of which has an efficiency rating when performing milling operations. The machines won't mind being graded into a league table.

There are ingenious resources and skills that people use: 'lecture rooms' and 'space' being just two.

Conflicts arise because more than one project manager has planned more than one project containing more than one task to occur simultaneously. The net result for these tasks is that the resources available cannot satisfy the demand for the specific skill. For example, there just aren't going to be enough painters to paint all those components in August. The bad news is that you need more painting skills than you have available to do the work. The good news is that because you have been a good planner and planned the work in appropriate detail, you have time to sort out the problem. If your role is a planning role, then, once the problem is identified, you are in the clear. You've done your bit and you pass the problem up the management hierarchy to the referee, umpire or senior manager, who can decide who gets what. This is probably the programme manager. If you are that programme manager it is time to don the thinking hat and sort out this little problem.

> What is the difference between a problem and a crisis? The time you have to sort it out.

When your management has decided who is to get which resources you should be told, because this will probably change the plan. Perhaps someone's project has to be delayed so as to await the resources coming free from some other work. This needs to be shown in the next plan update so that everyone knows what is supposed to be happening. I am rashly assuming that a system of planning exists that predicts the demand for skills and resources and that predicts shortfalls. I am also assuming that there is a mechanism for discovering future problems and resolving them. If you are in programme management and don't have any of these things, it is time to get organised.

Human nature plays a significant role in this resource-allocation business, and people lie a great deal. The sorts of people that you want to push, shove and heave your projects along are going to be human bulldozers.

You want keen, enthusiastic people who have a desire to get the project done, the sorts of people who don't mind taking a bit of a risk in the interests of getting on with the job. Such people will have found, over a period of years that one system generally works well when it comes to grabbing resources. They will have noticed that shouting loudly is one very effective strategy. Nagging is another. Barefaced lying to exaggerate the importance of the particular project is another. Bribery, favours and a thousand other tricks are employed by highly motivated project managers to get the resources that they need allocated to their projects. Another neat trick is to lie about task timetables.

If you say 'We want this testing doing from 14 to 21 February', you may well be told by the testing department manager: 'Impossible. We've got the new De Luxe model to test then and we've got three guys going off on some silly training course in programme management so you've got no chance.' You jump up and down, throw you hat on the floor, claim to know the managing director's wife personally, threaten to tell the managing director about the design chief's illicit habits, threaten to take the matter to the boardroom and eventually settle for 25–29 February.

Of course this is exactly what you wanted in the first place, and thank you, that will do nicely. Yes, the truth is that people lie. And that's the truth. With the best possible intentions and in the best possible taste these project managers will do anything, including lie their back teeth off, to get their project out on time. The better the programme-management system in place, the less this kind of thing is needed. In those organisations with little planning and no methodology they simply rely on this kind of cut and thrust to get the work done. It collapses frequently, as people are constantly letting each other down with no notice at all. Design packages do not arrive for manufacturing, causing workshops to be bereft of work one week and flooded the next. Promises to do work are broken by functional managers as their resources, previously allocated to a specific project, are spirited away onto another project with a louder project manager.

This means the sub-contractor who is due next week will not be able to start doing anything more useful than submit his first bill which will say: To standing around all week, as per schedule, with nothing to do, due to long delays before we arrived £Lots and Lots plus VAT.

Would you like to send that bill up to your boss for approval? There is also a trend to take things easy, ask when some resources are going to be available and plan around that. These are all problems that surround the mystic art of resource allocation. Programme management offers a structured and well-managed approach to solving these problems where the aims and objectives of the organisation as a whole can be balanced against the needs of the projects and the availability of the resources. It is up to you and your company to choose: programme management or cut and thrust.

3.10 Managing the matrix

I am truly sorry to disappoint you if the title of this section led you to assume we were off to the movies where numbers spill down the screen and people in black cloaks fly around the place. This section deals with the relationship between the project manager and the people who actually do the work.

The problem is easily explained.

Most organisations were structured into departments long before projects came along. Each department will be a 'centre of excellence' in a specific area of work. Examples include Purchasing, Accounts, Transport, Networking, Hardware Design, Testing and Medical Equipment. Many people have long and successful careers in one such department, perhaps starting out as a junior medical equipment technician and rising through the ranks to become the department head honcho.

These teams are known as functional teams because they perform a business function, and the head of each department is known as a functional head. The functional department may contain within it a number of teams. For example, with the IT function there may be a team for each of testing, software, operating manuals, support operations and networking. We'll use the term 'team leader' as a more general term for the person who is responsible for each team. These teams will have a normal day-to-day workload meeting the needs of the organisation.

Along comes a project that is designed to change the organisation and it is very likely that the project manager will need input from some or even all of these functional teams. Each project makes demands on some or all of these functional teams and this is called a matrix (Figure 3.12). The functional teams follow a vertical axis and the project workload is horizontal. The project manager has to find a way of getting productive work done on their project by these functional teams. The question is this: what is the

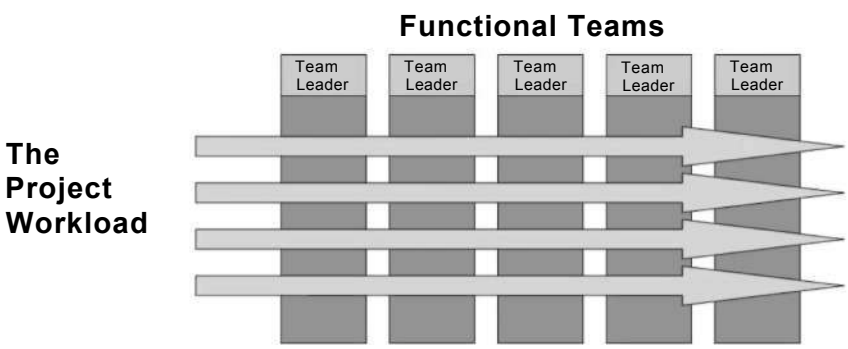

Figure 3.12 Matrix management

relationship between the project manager, the team leader and the people actually doing the work?

Let us therefore take a look at the organisational matrix in its classic forms. I'll briefly run through the ones with which I am familiar, trying to state the advantages and disadvantages as I go.

3.10.1 Sub-contract or delegation matrix

In this arrangement you give the project managers a budget and let them 'buy' work from the functional departments (Figure 3.13). Each project manager is given work to do, in the shape of projects, by the programme manager. Work is farmed out depending on the availability of the project manager's time, knowledge of the client, knowledge of the type of work, conflicting holidays and other workload.

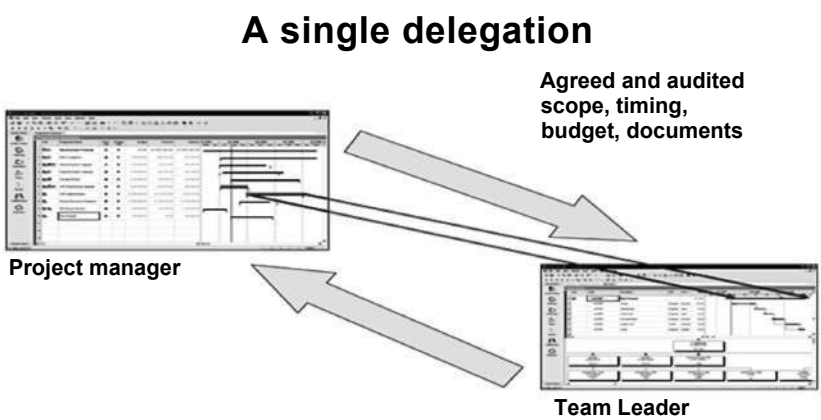

Figure 3.13 Delegation

In a sub-contract or delegation matrix, once the project manager has got the job he works out a budget and a project plan. These two documents may be quite simple and he may only need to plan down to the first level – perhaps only five or ten budget items and tasks.

The project manager then hawks his plan and budget around the various internal functional departments, asking 'Would you like to do the design for this job?' or 'How about the moulding of this new gizmo?' Informally, as he is within his own company, he is seeking quotations for executing the various stage of the work. The functional departments essentially bid for the work. Very much the same as in a sub-contract with an external company, the project manager does not get involved with who actually does the work and may meet no resources face to face. He may not know

when the actual work is to be done, but as long as it fits within his project milestones he should be happy. The functional department manager takes away the job and comes back some time later with his part of the job, the delegated work package, done. The project manager accepts the project back and passes it along to the next department.

Where a project and a functional department meet on the matrix is sometimes called a *work package*. A work package refers to a package of work being performed by one department on one project. Project managers delegate work packages to functional teams (Figure 3.14).

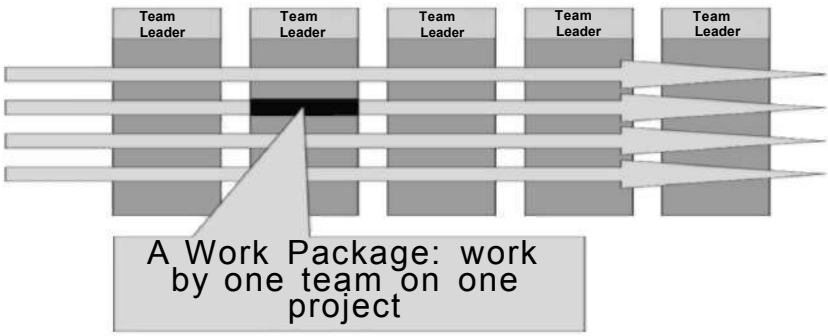

Figure 3.14 A work package

This approach works exceptionally well where there is more than one functional department that can compete for the work. Small working groups are encouraged to set up shop within the company and punt around for work. Within the same organisation money rarely changes hands. The project manager has a budget, part of which gets transferred to the functional departments. The functional department manager has a profit target, so the artificial 'income' from the project managers gets balanced against the only-too-real wage bills and invoices for hardware to calculate his profitability.

Motivation can be a bit of a worry under a delegation matrix. The departmental heads are motivated towards making a profit just as if they were external contractors. Sometimes the interests of 'quick and profitable' for the functional department and 'high quality' for the project manager cause a conflict. Also, the functional managers tend to prioritise those jobs that they see as helping their department and its budget along. Such prioritisation may not been in the best interests of the company.

The project manager tends to be a little distant from the work in this delegation arrangement. Even in-house, the project manager may never get to meet with the operatives actually working on his or her project and discuss the problems with them. The project manager has no need to get involved with resource allocation at all. The job might be done by everyone in the

department in one day, or by the tea boy over the next three months, but as long as the agreed milestones are met, the project manager has to be happy. If the functional manager permits, the project manager may meet with the people working on the assignment.

Another small disadvantage of this approach is that there are no highly motivated, enthusiastic project teams – the project team does not exist.

However, on the plus side, the functional departments get very good at carrying out a mixture of their normal work and the project work – which arrives and leaves rapidly and frequently. They work within their own specialist field and are surrounded by like-minded people of whom they can beg favours and to whom they can give advice. The specialist departments become centres of excellence within which expertise on a specific topic is developed and maintained. People spend their lives climbing the functional ladder and becoming ever more senior in their roles.

In some organisations the project manager can discuss her needs with contractors outside the company. The internal department is in competition with a number of outside agencies who would be only too happy to take on some of the workload. Indeed some of the better people within the company leave and set up their own small, efficient companies to tender for work. Instead of a standard and probably friendly agreement between the project manager and the functional manager, one will need a formal contract, but the principle holds firm.

What happens if a department is held up and causes delays? As long as those delays stay within the agreed milestone plan, there is no problem to the project. But, life being what it is, the delays will probably mean that some resources are engaged for a longer period than expected and therefore they will not be free for their next job. As soon as a functional department realises it is going to miss a deadline it should tell the project manager, who will tell the other departments down the line about the delays.

The project manager has every reason to be honest. Often the functional departments don't realise or won't admit that they are going to be late until it too late to correct the situation, and then the next-in-line becomes upset at being let down. The person doing the letting down is the poor old project manager, who has to go to the next department and tell them that because the design for the new product is not ready the test assembly work cannot begin on schedule. In a competitive world you can guess which design manager is going to be at the bottom of this project manager's list for the next job. In a non-competitive world, bottom of the list equals top of the list because there is only one name on the list.

Let's take a look from the departmental manager's perspective. These people are sometimes known as functional managers, resource managers or team leaders.

Departmental managers can help by planning their work. From their perspective they have many project managers who delegate work to them

and they have to try to satisfy them all. For each project manager, each job starts with just two milestones: start and finish. Start means the start of this department's role in this project and finish means the end of this department's contribution. The department can take a list of such simple dates and get busy planning its own workload. The departmental manager looks at the sort of work involved and, knowing the people under his control, decides who is going to do what and when. He assigns Sue to the new football simulator project, puts Joe on the new teapot concept and gets Alan to do the chairman's freebie give-away nodding dog for motor cars' rear parcel shelves.

The departmental manager does this kind of thing, balancing the operatives' strengths and weaknesses against the urgency of the job, their holidays and training plans and the non-project work that he must never forget. His plan starts off with a list on unconnected jobs, gets broken down into small sub-projects and then gets extended with resource allocations.

At this level the functional department might get down to work planning or work scheduling and simple Sasco, card index or a planning system built in a spreadsheet might work well.

3.10.2 Full-time assignment matrix

This is another approach, and a much more personal one at that. The project manager is once again given the job to do and approaches the functional managers – not to hand over some work, but to borrow staff. Conversations start like this: 'I'm going to run the dam project in Malaysia and I need a concrete technologist, 40 carpenters and some good luck.' The functional manager thinks about this and gives the project manager a concrete technologist for the duration.

How the roles are changed! Instead of doing the job for the project manager like a sub-contractor, the functional department is lending out people. The project manager is building a team of people on loan to him from the various specialist departments and the team will set about this project as one united group. The project manager must clearly plan in sufficient detail to predict his demand for resources of all kinds. His budget will be hard hit if he has carpenters and concrete technologists sitting about on his dam project waiting for something to do.

We are typically talking about quite large projects where the team is working full time for the duration of its time on the project. Very often there is a removal from head office to a project office. The project manager builds his team and tries his best to weld it together in order to work together and achieve the project. This is what happens every day in construction and heavy engineering all over the world. The functional manager's job is to have the right sort of people just about to come free when they are needed.

The ideal departmental manager should run a tight department where people move from project to project without a minimum of breaks. She will provide advice to her departmental staff members about their careers, their training and what will be good for them do. She hires in new people, bids a fond farewell to good people who leave and breathes a sigh of relief when not-so-good ones leave. Whilst there is a pool of expertise in such organisational structures, it tends to be spread around the place, country or even world.

Departmental managers will therefore organise 'knowledge exchanges', bringing together all the concrete technologists from the 14 projects in hand around the globe. At these events the company's total experience in a topic is collected in one room so they can swap ideas and experiences. Our man in Malaysia might give a lecture to his follow specialists about the special problems of laying concrete in tropical conditions. Perhaps someone else is working in the office on a different but equally interesting technical problem.

The team leader keeps in touch with the many project managers, and especially when one of her specialists is likely to be coming free off a job. She must find something to convert the unemployed resource into an employed resource – ideally another job. Her role is to balance having people ready to drop into new projects with a low running cost.

The project manager is rather well off – he has a full-time team who are likely to become quite excited about the project as they live, eat and breathe it every day. Not for them the diverting life of working on 42 projects with as many managers.

A slight problem is that every resource has two bosses, two lines of authority. Somehow the project manager and functional manager must manage the resources between them. Clearly, the long-term future and career path of an individual should lie with the functional manager because she has a long-term perspective on the person's future. The project manager can say, at any time, 'Sorry Fred, but this one is going to be built in steel after all', and pass his concrete expert back to the functional manager.

Equally, what happens if the resource is a poor timekeeper or fails to perform in some other way? Who issues the formal warnings? What does the team member do when they want to book a holiday or a training course? Such issues need to be addressed in this two-boss environment.

3.10.3 Part-time assignment matrix

In the part-time assignment matrix the resources are grouped into functional areas and loaned out to the project teams. The demand that the project make on each person's time is such that they are required only on a part-time basis.

The project manager should approach the team leader and ask to borrow someone, either by name or by describing the required skills. The project manager should outline the start and end of the proposed loan and the part of the working week required. For example a project manager might ask for a tester from 3 February to the end of the month for three days each week. The team leader might agree to loan the person three days per week, 60% of their time or Wednesdays, Thursdays and Fridays. The project manager should not approach the individual without mentioning in to the team leader. This is very common, and the route to chaos, anarchy and bad feeling all round.

The effect of by-passing the team leader is that each person has a number of 'pulls' on their time. The demands of many projects add to the many normal demands of the functional department and pull resources in many directions at the same time. This is because there are many, rapidly changing priorities on each task and those priorities are set by different people. The result is often that each resource is frequently, or even most of the time, on the start-up curve. They frequently pick up a job, gain or refresh their understanding of the requirement and start work. As they begin to 'get into' the task they climb the learning curve and become efficient at performing the work. Just as they reach, or sometimes before they can reach, a level of efficiency the resource's priorities are changed by a manager and the resource is persuaded or told to drop the current job and start another.

Of course some managers do this with their own full-time staff, but the problem is much worse in a multi-project, multi-department environment. These problems can lead to low morale because the resources feel that whatever they do they will be unsuccessful and continually let people down. So the project managers must agree these part-time loans with the functional team leaders and they must agree how the person's time is to be shared. The project manager, in this arrangement, gives tasks to the team member and sees them on a regular basis. One advantage of this approach is that a project team does exist and its members can work together, hopefully motivated by their exciting project, and share a party at the end of their time together.

3.10.4 The resource pool

In the resource pool system resources are collected in a number of resource pools and loaned out from that pool to the project teams (Figure 3.15). It is the extreme case of the loan model, one where no functional work exists. It is likely to exist in a 'projectised' organisation where all, or very nearly all, work is managed as a project. It is necessary to develop some strategy to decide on prioritisation – a method of deciding which resources should spend what time on each project. This can be a committee of project managers or it can be a 'resource pool manager'.

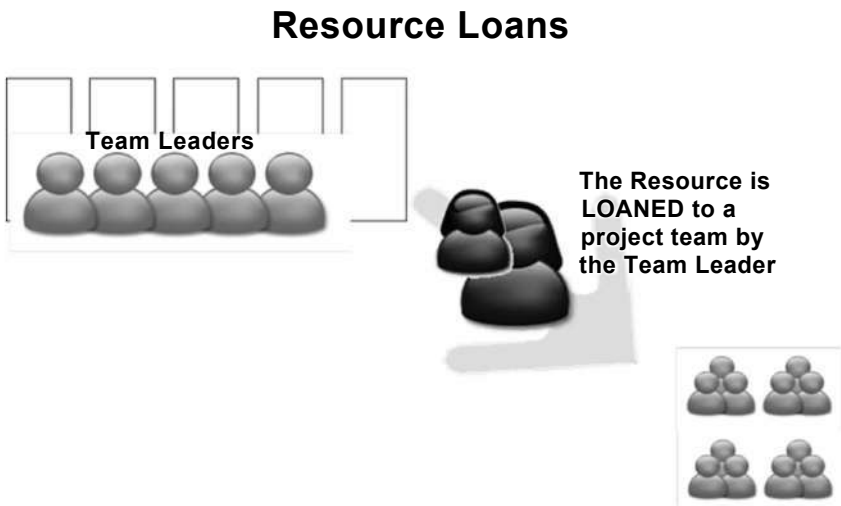

Figure 3.15 A resource loan

The benefits of the functional grouping may be retained in that specialists are grouped together, but they may spend very little time together because they are frequently out on projects. It is possible in a pool system for resources to lead a very quiet and undemanding existence without doing very much work, as there is no direct manager responsible for each resources overall time. A time-recording system that is used to record time spent in such a way that ensures the project manager's approval reduces this danger.

Table 3.1 summarises the differences between delegation and loan.

Table 3.1 Delegation versus loan

DELEGATION	LOAN
Defined work package	A person with a skill
Timescale for the work	Start and end dates of the loan
Inputs to enable work to proceed	Percentage of the team member's time
Outputs or deliverables expected	
Budget	
Project manager plans at work-package level, functional manager plans at assignment level	Functional manager plans loans and other work at the assignment level. Project manager plans at the assignment level
Team leader requests and receives updates from team members	Project manager requests and receives updates from team members

3.11 Project management tools in the programme management environment

I guess the first question to ask about tools for programme management is: do we need one? Software sales people are not reliable sources of information on this topic. Even if they don't actually want to sell you something, they tend to come from the 'It can be done, therefore it should be done' school of computing.

There are some sensible factors to be considered when you start to think about programme management. Step one should be: take a long, hard look at the organisation. You really don't want to start with computer tools. You may easily end up making the same mistakes you have been making for years rather more quickly than before. You may easily find yourself making some new mistakes. Try to figure out what you want to achieve and then to find sensible systems to manage the process you design. The tools you need might be printed forms, a wall chart with flashing lights, a Lego bar chart drawing kit, or a bit of software designed for the job.

You may need software tools to support your programme management techniques for these reasons:

- It is easy to encourage or even enforce standards through a software system. It is simpler to ensure that everyone uses the same milestones on their plans and that every plan shows the design work being signed off by the board before manufacturing begins. It is easier to get people to plan in a consistent and predictable way with a systematic approach, and a software system will underpin this.
- It should not be complicated to extract from the mass of data the information each manager needs. Each manager's requirements will be different: project managers want details of their projects, departmental managers want to know what is going on within their teams, programme managers want an overview of all projects, and individual resources want to see what they are supposed to be doing. This kind of manipulation of data is what computers are good at doing.
- There is going to be a lot of information. You might easily have three or four thousand tasks in a plan, mixed in with resources, calendars, costs and baselines. It all gets a bit voluminous – not complex, but overwhelming. Computers are good at dealing with loads of numbers.

3.11.1 Planning and control tools

Tools designed to help with project planning (scheduling) and control are often known as programme management tools. This can be traced back to the name given to project planning and control tools: project management software.

Programme management and project management are exalted names for a bit of clever software. I feel partly guilty of this, as I was a member of a team of four that wrote one of the very first software packages built for a small computer (Apple II). Long before the Mac or the PC, before the shift key and hard disks and not long after Steve Wozniac found a way to write letters on a TV with a computer. Our tool was sold by Apple under the title of Apple Project Manager, and ever since then tools that do critical path and bar charts have been known as project management tools.

Programmes and projects can be managed only by human beings. They can be helped along by drawing up schedules using critical-path diagrams, work breakdown structures (WBS), bar charts, resource histograms and cash-flow curves. But these are only software tools – and, as they say, a fool with a tool is still a fool. So when we use the term *programme management tool* or *programme management software* I mean a software tool to help schedule a group of projects.

When we think about software tools for programme management there are different approaches. The three basic classes are:

3.11.2 Stand-alone project management systems

Here a simple, easy-to-use, convenient software package is purchased and installed. Most people can fairly quickly get the hang of such a system and turn out neat-looking bar charts all day long. You could even sprinkle a few copies of the system around the organisation. Such system will allow the creation of work breakdown structures, network diagrams, bar charts and resource histograms. They will focus on one project. The benefits are that you can encourage a little consistency in planning and you get people planning in the first place. You do not get an overview across many projects. You do not get a feedback mechanism. Each plan is an external model of one project that is useful to that project, but not to the enterprise as a whole.

Such systems are cheap – expect to pay from £100 to £500. The most popular such system is Microsoft Project. There are online, software-as-a-service applications that offer similar functionality.

3.11.3 Programme management systems

These are another ball park all together.

Such multi-user systems run over a multi-user network and are complex, powerful and expensive. Lurking at the centre of a web is a central processor that knows about critical path and budgets and so on. Hooked up to this web are PCs that allow you to enter and update details of your project.

Your details are added to everyone else's details in the pile of data held at web central. This means that anyone with the necessary authority and the enthusiasm to overcome the hurdles set up by the necessarily complex multi-user systems can get as many overviews of the data as they want. Bar charts showing summaries of all the work and histograms showing the demand for resources and skills across all projects are available.

Such systems require teams to maintain and support them and cost loads of money. Typically, the software tool 'belongs' to the project office, and within this group expert users spend a good deal of time on the systems and get to know them well. They are the furniture vans and tank transporters of the project management world.

It often happens that an organisation purchases a site licence allowing for its 50 project managers and planners to use such a system. The system is so hard to use that only a few actually get into the system and make it sing for its supper, and these one or two people quickly become almost full-time planners, doing the planning for everyone else. This is OK, except that the cost of 48 user licences has been wasted.

3.11.4 Combined, portfolio or enterprise project management systems

You can get close to what might be the best of both worlds for some organisations. You give the planners a simple front end in the shape of a stand-alone system and use a more powerful tool in the project office to merge the many plans together. This is a good plan and works well in some environments.

You take everyone's plans in from the stand-alone systems, add them together with the heavyweight software and examine the conflicts.

Resolving conflicts means changing plans, and these changes need to be reflected in the stand-alone plans. You probably have to tell the planners to change their plans to bring them into line with the master plan.

A key player in this market is Microsoft's Enterprise Project Management tool (EPM).

Typically, in the world according to Microsoft, each project manager or project planner has a copy of Microsoft Project and the project office use the installed version of the much more complex and expensive EPM. EPM integrates the many MS Project plans into a central database that can be used to support decisions and generate reports. This may even by tied into a timesheet system.

Some of the web-based tools provide each team member with a task list showing the work they are asked or required to perform and this allows them to reflect their progress in some form a bit like a timesheet.

At the time of writing, CA offers a tool called Clarity; Oracle offers Primavera; and there are other players in this same market-place.

There are problems of data compatibility and consistency here. If the many plans are to be collated into a database it is important that the data is recognisable. This means that consistency in naming conventions for projects, tasks and resources will be important, as will be agreed standards for calendars, costing and so on. The project office will probably agree and support these standards.

The data transfer is generally one way only. This means that once the plans are all absorbed and collated, and once decisions have been taken about the priorities of the projects, these decisions have to be communicated verbally and the stand-alone plans modified accordingly. The programme manager may experiment with various solutions to the timing of the many projects before making a decision and then call on Jack and say 'We're going to have to delay the nosecone project testing until 27 February because of the pressure of demand on the test rigs. Can you change your plan to suit?' This is not a very automatic system, and mistakes are likely to happen.

When it comes to planning multiple projects in industry there are four stages in the planning process.

1. Planning: the creation and editing of individual project plans on PCs hooked up over a network.
2. Transmission: physical movement of project-planning files from the computer on which the plans are built and maintained to the computer on which they are to be consolidated. This stage may be automated by the software tool.
3. Consolidation: the merging of many plans into one model (Figure 3.16). The decision- making examination of that master plan, the identification and reporting of problems and the communication of those problems.
4. The communication of the solutions.

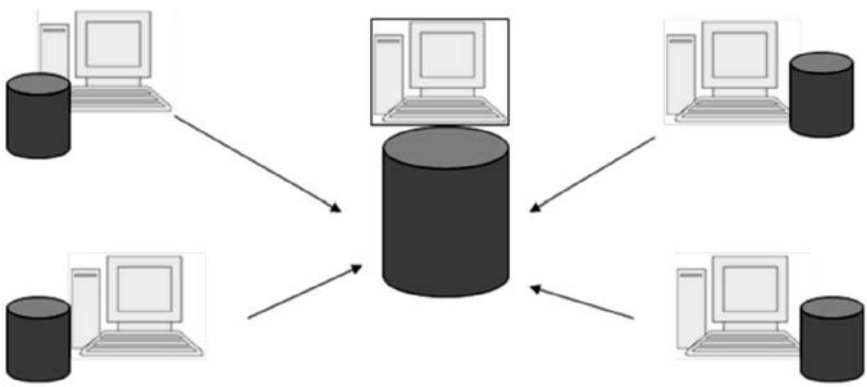

Figure 3.16 The consolidation model

3.12 Consistency

A common misconception is that programme management is actually about bringing together many single project plans. The people who put these ideas about are generally those who sell a project management software package that can bring together many single project plans.

If you take the trouble to read the section on 'Project management tools in the programme management environment' you will see that there is, or can be, a great deal more to it than this. However, the idea of bringing plans together is a foundation to programme planning – the planning of multiple projects. Some people call this 'roll-up', some talk about merging plans together and still others speak of linking plans. It is generally known as consolidating and deconsolidating the schedule. Consolidation is about collecting and merging the plans. Deconsolidation is about splitting the plans back out again once they have been modified in light of the problems highlighted.

The idea is that many people create many plans for many projects and, from time to time, submit their plans to a central planning function. Within this function the many plans are brought together in some way and the total workload is viewed. Software packages are very often sold on their consolidation abilities but tend to ignore the deconsolidation side of things.

The total demand made by all projects on types of resources can be viewed. You can see one histogram showing all the programmers working on all projects. As this will normally show that you need three times as many programmers as you have working for the organisation, you have achieved a great deal. At the end of the ensuing discussions some projects will be rescheduled, some contractors will be hired in and other steps will be taken to arrive at a workable plan. As you normally cannot deconsolidate the big plan back into its many little plans, this new and workable plan needs to be communicated back to those many project managers so that they can bring their plans into line with the master plan.

The managing director can do naughty things with this database of all the projects. He can list them all in order of greatest lateness or overspend. He can list all projects and demand a status report from each project manager. The head of design can list all design tasks by getting the multi-project database to search through all projects for design tasks. These are very admirable ideas. But to achieve any of this consolidation requires considerable consistency. All the project managers are going to have to agree on some conformity to their planning. Let me mention a few areas where consistency counts – you can't stop me, can you?

You don't have to read this bit if it doesn't apply to you.

3.12.1 Areas where consistency is critical

3.12.1.1 Calendars

Calendars define when the company, the project and each resource are available to work. Typically a calendar states that Jenni is available 9:00 to 5:00 with an hour for lunch, five days each week. She takes all Saturdays and Sundays off as well as Bank Holidays and her birthday. Software packages get upset and stamp their little procedures angrily if the various plans have different calendars from each other and the multi-project workload itself.

3.12.1.2 Task names

If the managing director is going to search for particular types of tasks he needs to know that everyone is using a consistent task-naming and numbering form. To a dumb computer 'Design nosecone' is completely different from 'Nosecone design', which is also different from 'Nose cone design'. This applies equally to milestones, which are the sort of thing that a managing director is likely to look at. Inconsistent task or milestone names may mean that the managing director misses out your project and does not discover that you are setting records for lateness. You wouldn't want that to happen, would you?

3.12.1.3 Resource names

A programmer is totally different, seen through a computer's eyes, from a 'programmer/analyst'. Ms J. Buchet is another person when read next to Jane Buchet. If different project plans contain different resource names the software will add them up into separate groups, not realising that they refer to the same person or trade. Then, when you pull up a histogram of Ms J. Buchet's workload you see that everything is fine and she is nearly but not quite overloaded. What you don't see is the other histogram that is also nearly but not quite overloaded but that shows work to done by the same person under a slightly different name. If you do realise the problem and add these two together, you see the true position of this single resource.

3.12.1.4 Cost centres

It is common for people to add up the costs associated with each project and, once again, using consistent category names reduces the risk of getting the cost monitoring wrong.

3.12.2 Reporting tools – project management information system

A slightly different approach is used by many organisations called a project management information system (PMIS).

Most PMIS installations are built using Microsoft SharePoint Services and this is quite a complex environment, one that will almost certainly involve your in-house IT/MIS department. It may have already installed Microsoft SharePoint Services in your organisation.

A PMIS collects together information on the many projects and delivers reports in a variety of forms, including paper, email, SMS text messages and updated web pages. The Project Management Institute (PMI) thought that PMIS was such an important idea it defined it in its Project Management Body of Knowledge (PMBoK). The PMI's definition of a PMIS is this:

> An information system consisting of the tools and techniques used to gather, integrate, and disseminate the outputs of project management processes. It is used to support all aspects of the project from initiating through closing, and can include both manual and automated systems.

The information that is collected together may come from a variety of sources. Commonly, this starts with each project manager filling in a form to report on their project. This might be an onscreen form sent to them through a workflow system using Microsoft SharePoint Services. A decent PMIS will present a standard form to each project manager on the right date each month or week. The form will show last month's data, including target, actual and planned dates, budgets and actual spend, and a space for free-text comments. The project manager updates the form in light of progress (or lack of progress) each month and then sends the form off to the next stage. Some project managers complain that this process takes some time to complete. They have to work out what has happened during the last month and complete the form. The project manager gets little or no benefit from this effort: the benefit goes to the more senior people who receive the summary reviews.

Even smarter PMIS designs extract data from each project manager's current plan and budget. This means that, as long as each project manager keeps their plans up to date, they will have little to do to report their progress. The project managers thus devote much less time to reporting and this helps to keep them happy. We want happy project managers don't we?

Once the forms are complete, the project manager might click on 'submit' or attach the form to an email. It might go to the programme manager for checking or straight to the project office team. Eventually most project managers will have submitted their reports and these will be collated and merged in some way to provide high-level summary reports for the programme managers, programme board and other senior staff.

The cleverest systems generate web pages showing current status in a summary form. The advantage of a web page is that people can be given access rights to see certain pages and not others. Perhaps the resource managers can see the resource demands but not the financial information. Also, web pages can allow the viewer to drill down and see the detail of one programme by clicking on a specific programme. This might allow them to inspect an individual project as well.

Most programme management tools will include PMIS functionality, and there is a grey division between programme management software and PMIS tools. In general, a PMIS is a one-way affair. It works by collecting data from project managers and producing reports for the various stakeholders. Programme management tools are more two-way: they collect data from project managers, often data they are producing by managing their own projects, and also send data back to the project managers and other stakeholders.

3.12.3 Portfolio management tools

Portfolio management tools are tools designed to assist the portfolio management team. If you have been reading the preceding chapters, and especially Chapter 3, you will of course know that the portfolio management team is responsible for identifying, evaluating, designing and authorising new programmes and projects of change. This means a group of senior, expensive people who make the big decisions about which programmes and projects the organisation is going to run. The projects they will choose will be designed to deliver change to their own organisation, and this change will be in line with the organisation's strategy.

The portfolio management team should be very familiar with a range of different factors:

- the organisation's strategy – so they understand what the organisation wants to achieve, and wants to be in the future;
- the state of the current workload of projects and programmes – so they can know what work is going on, how well it is going and what resource are available, or will be available, to take on new work;
- all the bright ideas for new projects and programmes that have been dreamed up by the members of the company.

By considering all these inputs the portfolio management team will be able to make rational decisions about new and existing work. It may authorise new projects and programmes, it may cancel or authorise changes to existing work.

It is important to understand that the portfolio tool must be able to deal with existing projects and programmes (ones that have been authorised) and proposals for new projects and programmes (ones that have not yet been authorised). It is also important to understand that many organisations do not simply take a project from a 'proposed' status to a 'live' status in one move. The PMI and other bodies suggest a pre-project sequence of steps where more detail and a better understanding of the proposed project is gained. So a portfolio management team might approve an idea for a project through one or more initial stages of investigation. These stages will have names like inquiry, discovery, initialisation, planning and setup. A project manager will be appointed to take the proposed project through one of these stages and then report back to the portfolio team. The portfolio team will update its own overview of the current workload and proposed projects and then decide (or not) to proceed with this proposal to the next stage. The stage might be to fully authorise the project, and this involves the largest part of the investment and commitment.

So a portfolio management tool will be able to reflect the current work and allow the portfolio team to experiment by adding proposed projects and programmes, changing their timing and evaluating the benefits the organisation should receive, whilst keeping an eye on resource availability and risk. It would be unusual for the very senior managers to use such software tools: they will probably employ lesser-paid mortals (perhaps in the project office) to do the keyboard tapping and to create a range of reports outlining what decisions the senior managers need to take and the options they have. Options will involve ranges of projects and programmes presented in some way to demonstrate the likely impact on the organisation.

The screenshot in Figure 3.17 is generated by Microsoft's portfolio management software through an MS Access database. It shows the kind of dashboard that a portfolio manager might want to see in order to help decision making about proposed projects and programmes.

3.12.4 Document management and collaboration tools

Most projects could neither survive nor succeed without a wide range of documents. Documents can be grouped into two categories

- Documents that are themselves products of the project. These will include specifications, test scripts, drawings, user guides, test results, designs and so on. These are all products of tasks within the projects.

6.0 Hydra Manager Personal

Documents | Assistant

Cut | Copy | Add | Purge | Delete | Alerts | Create Collection | Refresh

1 to 15 of 16 displayed <<|<|1|2|>|>>

Document Name	Notes	Ver	Status	Uploaded by	Uploaded
HTML Help Registry Update		1.0		Nicola Harlow	20/02/2007
Hydra Administrator Guide 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Api Manual 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Database Schema 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Keys and Parameters 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Manager API Overview 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Manager FAQ 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Manager Installation Guide 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Manager Quick Start Guide 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Manager What's New 6.0		1.0		Nicola Harlow	02/01/2007
Hydra Network Installation Guide 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Personal Quick Start Guide 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Personal FAQ 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Remote Working Installation Guide 6.0		1.0		Nicola Harlow	20/02/2007
Hydra Remote Working User Guide 6.0		1.0		Nicola Harlow	20/02/2007

1 to 15 of 16 displayed <<|<|1|2|>|>>

Figure 3.17 Portfolio management dashboard

- Documents that help to manage the project. These will include bar-chart schedules, resource estimates, project initiation documents, risk registers and budgets.

Both categories of document will be numerous and may well follow some established pattern or governance arrangements. It may be that your organisation insists that test scripts are signed off and approved before any design work begins. You may be expected to maintain a risk register in a specific form on every project.

So documentation is going to be central to every project. We can recognise this as something that is often true; add in the fact that most documents exist in an electronic form, but complicate the whole thing because projects have people and teams in different locations.

We can also recognise (or you can take my word for it) that many, many projects go astray because someone got the wrong document and the wrong time and went on to waste loads of time. Hundreds of software

programmers have wasted time using an out-of-date specification; testers have had to start all over again using the correct text scripts, and walls have had to be knocked down and rebuilt to the correct drawings. If you haven't seen this happen, you haven't lived. Even if the right document is found, much time is often wasted whilst the search for the document goes on.

A good approach to this problem is a document management system. These are designed to enable the whole team to keep all important documents in one central place. Not on everyone's laptop, not being emailed around the team every day, but in one accessible, central location. This is just a great idea and it works brilliantly well. You might use a tool like Microsoft SharePoint to build shared document storage within your organisation. It will be secure and documents will be available to everyone with access to your company's network. Or you might use a commercially available web-based document management system where the documents are stored somewhere or other on the internet. This is not quite as secure, but can be made available to anyone with access to the internet. This is great for teams working in different locations and for different companies. Documents are normally stored in a 'work space' or 'project work space', which is a ring-fenced area on a server somewhere in hyperspace.

You can get some very nice features with document management tools. Version control allows you to see when documents were created and modified, what the changes were and who made those changes. For example, a document might be version 2.6 which was modified by Fred on 12/05/12. Fred updated the risk register following the project meeting. Anyone dipping into the project work space to check the risk register is certain to get the latest version (Figure 3.18). Also, you can control who can create, modify, read and delete each document. Maybe the design team can modify and create design documents but the programmers can only read these documents but not change them. Perhaps the architect can change drawings but the builder can only inspect them. I have used Project Place extensively when working with dispersed groups. We keep our entire set of project documents in a central location (somewhere in Sweden I think) and each team member can always see what the other team members have done. There are no issues with time zones here.

Many organisations have a set of governance rules supported by templates for project-control documentation. The project office will have standard forms for project charter, risk register, project bar charts, monthly reports and a whole host of other things right through to project closure. In this case the project office can create a work space containing the whole set of templates and simply copy the whole work space and pass control over to each new manager of each new project. The project manager starts out with a complete set of templates, which saves loads of time and is very efficient all round.

		Type	Name	Version Mgmt	Size	Date	Modified by
	0		APM Introduction to programme management working files		1.9 MB	24 Sep 2007	Kay, Susie
	0		APM Introduction to Programme Management v4.2.doc		414 KB	24 Sep 2007	Kay, Susie
	0		APM Introduction to Programme Management.v4.1.doc		414 KB	23 Sep 2007	reiss, geoff
	0		expert panel.xls - no longer in use		17 KB	8 Jun 2007	reiss, geoff
	0		ProgM Guide to Programme Management - draft.doc		301 KB	8 Jun 2007	reiss, geoff
	0		Project Registry Document.PrgM.Guide.final.doc		161 KB	16 May 2007	reiss, geoff
	0		reviewers experts and comments.xls		253 KB	8 Aug 2007	reiss, geoff
	0		STATUS_REPORT v6 prgm july07.doc		119 KB	8 Aug 2007	reiss, geoff
	0		STATUS_REPORT v6.prgm.june07.doc		119 KB	8 Jun 2007	reiss, geoff
	0		STATUS_REPORT v6.prgm.may07.doc		118 KB	16 May 2007	reiss, geoff
	0		Archive		0 bytes	13 Sep 2007	Murton, Mala
	0		Background Information		4.3 MB	22 Feb 2007	reiss, geoff
	0		Professional Development Strategy		291 KB	7 May 2006	Kay, Susie
	0		Project Management Proposal		1.1 MB	23 Jan 2007	Bosman, Graham
	0		10 Jan Competency Framework.ppt	0.1	985 KB	22 Feb 2007	reiss, geoff
	0		APM_CompetenceFramework_Version-2.0.pdf	0.1	1003 KB	22 Feb 2007	reiss, geoff
	0		Discovery project - XB Report - July 2005.doc	0.1	175 KB	7 May 2006	Kay, Susie
	0		PDB PDS Certified Programme Manager.doc	0.1	176 KB	7 May 2006	Kay, Susie
	0		Qualifications in programme management.doc	0.1	27 KB	29 Jun 2006	Reiss, Geoff
	0		Understanding PM Competence and the GAPPS standards.ppt	0.1	529 KB	22 Feb 2007	reiss, geoff
	0		Early Planning & Scheduling		42 KB	12 Jan 2007	Bosman, Graham
	0		Planning		42 KB	5 Jul 2006	Bosman, Graham
	0		Jan 2007 Proposal		117 KB	23 Jan 2007	Bosman, Graham
	0		High Level Schedule.mpp		91 KB	23 Jan 2007	Bosman, Graham
	0		Proposal 16-01-07.doc		26 KB	23 Jan 2007	Bosman, Graham

Figure 3.18 A document management screen display

3.13 Programme risk management

3.13.1 Introduction to programme risk management

Programme managers have all the normal areas of risk associated with projects, plus some additional ones. If you want to know more about project risk management please read one of the books on project management or project risk management. As this is a book on portfolio and programmes, we will restrict ourselves to talking about the additional levels of risk that programme and portfolio managers worry about.

3.13.2 Consistent project risk registers

The first step in programme risk management will be to encourage the numerous project managers to manage risk on their projects in a profes-

sional way. One part of this will be to ensure they all use the same risk register layout. The word 'encourage' can be taken loosely; it might be: 'use this or else'.

A wise programme manager might set up a simple spreadsheet and give it to all the project managers, along with notes on its use. This will provide space for risks to be listed, perhaps graded in terms of likelihood and impact, but, most importantly, there should be space for an individual or team to be given responsibility for monitoring and managing the risk. The wise programme manager will ensure that risks are discussed frequently. The value in risk management is the management of those risks. A unwise programme manager will allow each project manager to do their own thing with risks, which may mean no risk management at all. Slightly better than no risk management at all is an incomplete risk register languishing in a draw somewhere, last examined and discussed some considerable time ago.

Our wise programme manager will periodically assemble a programme risk register and management plan by combining all of the project risk registers. This combined programme risk register may help the programme manager in a number of ways. There may be:

- common risks that might be better managed at the programme level;
- risks that are being mistakenly managed by more than one project manager;
- risks that are mistakenly not being managed at all;
- risks that will need to be managed by project managers not yet appointed;
- some project managers doing a fine job of risk management;
- some project managers who need lots of help with their risk management.

3.13.3 Risk escalation

Giving a little thought to the matter, you will see that there may be risks that would be better dealt with at the programme level rather than the project level. Risk escalation refers to this, and wise programme managers agree guidelines with their project managers. It is very hard to set down hard and fast rules, but guidelines are feasible. These guidelines will outline when a risk should be considered for escalation, and a simple process for passing the risk from a project manager to the programme managers and, potentially, back down again.

3.13.3.1 Benefit risk

Benefit risk is a special kind of risk. It occurs because, even though all projects were carried out brilliantly, on time and to budget so that the

right capability is delivered, there are still risks that relate purely to the delivery of benefits. These risks usually start of their lives under the management of the programme management team. Later on the responsibility for these risks will be transferred to the business-as-usual team as the programme team disbands. Therefore a risk management plan will outline the way in which risk will be managed through the life cycle of the programme at both project and programme levels, and how responsibility will be transferred or transitioned at the time of programme closure.

3.13.3.2 Contingency management

As estimates of cost are inherently difficult to produce accurately, it is often sensible to include a contingency. It is extremely sensible if you are responsible for bringing the project in to a budget, as you will almost certainly need some elbow room. A contingency is an amount of money set aside to deal with the unforeseen.

Some organisations formalise the calculation of contingency sums by using a percentage of total costs. The percentage may vary as the project passes through its life cycle. Perhaps a 20% contingency is made in the initial feasibility stage, but this is reduced to 10% when the design is finalised. Often, contingency reflects the size and likelihood of the major risks. You can get more or less sophisticated when working out a sensible contingency, but there are two much more important political factors at work here.

3.13.3.3 Contingency control

Everyone regards the contingency as their own. Don't you? Control over contingency is a common source of conflict, as everyone takes for granted their right to spend the contingency sum exactly when they feel like it. The project team usually begins to feel like it after the first two or three days, when the first unforeseen event becomes visible. With a quickness of hand that deceives the eye, they'll be diving for that contingency to save the day. It might easily slip their minds that they may need this sum of money to save another day in the future.

The programme team can hold the contingency and adopt a role for approving allocations out of the contingency sum. In such environments, project managers must apply for release of contingency to the programme management team. Project managers who deliver under budget can contribute funds to the contingency sum. This makes the use of contingency sums a management matter and allows for a proper balance to be achieved. It makes people think twice before reaching for the contingency lifebelt. By making the contingency not too easy to get to, this approach makes people

search for another, easier route. Project managers, like water, search for the route of least resistance.

3.13.3.4 Contingency location

Now, where are you going to put this contingency? Do you want it to be displayed:

- on your lapel alongside your train spotter club badge; or
- up your sleeve with your elbow room?

Some organisations show their contingencies openly. It makes you think that it was a bit of a waste of time counting all those door hinges and self-tapping screws that cost 0.02 pence each. The contingency is there for all to see as one great lump of cash. Some organisations hide the sums within other tasks or budget items. If you have a standard company rate for welding, this might include an allowance for contingency. In the unlikely event of the organisation wishing to price a large order, every price and every rate might include a hidden amount for contingency. There is no bald explanation of the sum set aside. The company culture will often decide which approach is most appropriate. Organisations with internal projects are generally happy to show and manage their contingencies. Firms that bid for work and send those bids in to their clients are generally much happier to hide their secrets. Politics rule, OK.

Professional arrangements are rare and we should congratulate the London Olympic Games Organising Committee (LOGOC) for publicising its contingency sum

3.14 Management of scope and change

What is change control?

Change control and change management are terms easily confused; so let's try to clear the air. Change control, also known as scope control, tries to ensure that changes to the project or programme definition are dealt with in a professional, managed manner. Change management refers to the changes that will impact on the human beings who will use the capability created by the programme. A large number of changes impacted on the counter staff working in UK post offices, and without change management there could easily have been chaos.

We are dealing here with change control. Many organisations allow senior managers, clients and other important stakeholders to make changes to the definition of their projects and the programme as a whole. These changes (usually arbitrary) mean more work, more costs and more time but these three impacts are usually overlooked. Such organisations

talk about 'scope creep' – the scope changes in subtle and apparently small ways, but collectively the change can be large. In the worst cases they talk about 'scope gallop'. This is like scope creep, but much, much faster.

You probably have made the same error – I know I have. I dropped my car off for an MOT and mentioned the annoying squeak from the rear seat. I expected the garage would attend to the squeak whilst doing the test and forgot that it might cost some more cash. It did.

There may be changes to the specification of the products and deliverables, changes in budgets and time-scales, changes to stakeholders and risks. What should happen is this:

- Each proposed change is put forward to the programme team.
- The programme team investigates how this will impact on the various projects. It might change one or more projects' deliverables; it might mean some additional new projects or the cancellation of some existing ones.
- The programme team reports back to the programme board with an assessment of the proposed changes
- The programme board decides whether or not to adopt the change.

That is what should happen (clearly, this process will be expensive and slow, so it will normally not be applied to small changes). What actually happens is that senior people command random changes at random times (when they happen to remember the programme), due to their mood swings, without expecting those changes to have any implications for time or budgets. If they happen to be a member of the local royal family or the CEO of your client, you let them make their changes. Say 'Yes, sir', and quietly change the budget and time-scale appropriately. Of course, in the rare case that the change they suddenly came up with actually makes the job easier, you can make a point of mentioning this.

A programme manager who has delegated a group of projects to a group of project managers must ensure that they all agree how change control is to be handled. The programme manager should be involved in nearly all changes to the projects within the programme. Only the programme manager can judge if the change impacts on other projects, resource conflicts or inter-project links. Does this change mean re-shuffling the project teams and budgets? In programme management a change may mean cancelling a project and creating some new ones. So, much as with risk management, we need the programme manager and the project manager to agree on guidelines for change-control escalation. These try to define when changes need to be escalated and when not.

Beware: many programme managers spend a great deal of time chasing up potential or actual change-control issues. You must set aside time and resources to deal with this.

Case study 3.1 Motor Industry Research Association

The following case study originally appeared in *Project Manager Today* and describes, amongst other interesting asides, the Motor Industry Research Association's (MIRA) approach to matrix management issues.

Admire a MIRA

It is probably a great deal more fun to be driven round the banked track at MIRA than to be in one of those poor cars that get smashed into concrete blocks. I am not quite sure as I have only tried out the former and that was about as stimulating as anything you can do with your underwear in place.

At first, the Motor Industry Research Association does not seem too likely to be a hotbed of project management, but it sounded like a really interesting place to visit. Project management turned out to be a major issue at MIRA which at least means I can claim my expenses.

The motor engineers at MIRA spend their days subjecting otherwise peacefully resting vehicles to extreme conditions of all kinds. They whack them about the test tracks which include wet cobble-stones, Belgian pavé, Australian creek crossings, spoon drains and even New York sunken manhole covers. They smack cars into concrete blocks and steel barriers, heat them up, put them in simulated dust storms and bombard them with radio frequencies to try and upset the electronics.

If you happen to be a car, bus, truck or van and you find yourself being driven down the A5 near Nuneaton, break down immediately as you might be heading for a very bad day.

MIRA is run like a golf club. It owns its own land and has members who pay subscriptions. MIRA pays no dividends to its members, preferring to reinvest its profits in research and capital projects. There are greens but no clubs and no 19th hole.

Vehicles come from all over the world in complete security, as Keith Read, who looks after client relations and is himself an ex-international rally competitor explains. 'Manufacturers need to keep their cars secret. Perhaps it is months before a new car launch, perhaps for political reasons. We might easily have the next Ford and a new Rover next to each other in screened-off preparation areas, waiting for impact tests.'

Certainly there were any number of cars with varying levels of disguise circulating the facilities, wrapping your prototype in black plastic bin liners seeming to be the favourite camouflage technique. I searched the bushes for motoring magazine photographers hoping for an exclusive on a new car. I found a hare.

MIRA is open 365 days per year and deals with customers from around

the world. It is a centre of excellence recognized around the globe. MIRA even lend their expertise to countries setting up their own testing facilities. MIRA consultants have been seen working in Hungary, Korea, China, Taiwan and throughout Europe. Competition comes from USA and Japan.

Before being allowed out onto the test track you have to check in with the equivalent of air traffic control and very strict rules try to keep the speeding cars away from each other and any unplanned encounters with hard obstacles. Until, that is, the time for crash testing arrives. They test more than vehicles at MIRA, with lampposts, kerbs and other bits of street furniture coming under the hammer. They had just finished testing a new motorway barrier design and if you are interested, this is how the barrier gets its comeuppance. If you have a nervous disposition miss the next paragraph.

MIRA start by building the barrier in just the way it would be built on the M25. Then it's down at the local scrap yard where they purchase an MOT-failed but intact large saloon like a Rover. This is hooked up to a wire rope which passes around a pulley set in the ground near the new barrier and back to a huge winch machine. The winch is wound up slowly. The high-speed cameras are set rolling, the warning sirens sound and the winch is released. The car accelerates faster than a drag racer and is chucked at the required angle into the barrier reaching the national speed limit a mere 100 meters from where it starting moving. On arrival it proves that there is no such thing as an immovable object. The path taken by the car post impact (excuse the pun) is filmed and the damage to the car is inspected. Then it's back the lab to develop the 1000 frames per second film and to write up the report. The scrap yard owner gets his Rover back.

One area of testing has less impact but was a surprise to me. Most modern cars use complex electronics to control everything from speed to brakes and these systems must be immune to all common forms of Electro Magnetic Frequencies (EMF). It would not be useful if every time you drove past someone on a car phone your car accelerated or cut out. At MIRA they have two opposing test facilities. One building completely screens its contents from EMF and the other provides no barriers to such emissions. You can drive a car into the first with its radio on and hear the radio go quiet as soon as the special doors slide closed. Then you can bombard the vehicle with all sorts of frequencies in a controlled way to see if anything odd happens.

In the other one they had an excavator and were measuring the emissions 30 metres away. A controlled environment is at the heart of much that MIRA do.

The project which I had gone to see was the environmental test facility, known dramatically as the Climatic Wind Tunnel (CWT). In this wind tunnel you can simulate a car driving from Siberia to the Sahara against a gale. You can pretend that you are whizzing at very illegal speeds down the M25

in mid summer (55 degrees, 95% humidity and 200 kph) and stop at a traffic queue to see if the engine boils or the air-conditioning fails.

The project manager for this new facility was Robert Birkmyre and he was appointed very early on in this process. It is a mystery to me where projects (and babies) come from and I often ask project managers for their views. At MIRA they get an idea for a new test facility and try to sell it to their own 'club members'. If the manufacturers are happy to buy a reasonable percentage of the facility's usage then the project will go ahead.

Robert sees himself as a slight maverick within the organisation as his work involves many departments doing work that is outside their normal daily role. Robert devotes time very early on to 'getting input from the manager of each area, discussing their input, identifying specialists and getting a team together'.

Eventually there will be an order, either externally generated by a client or internally by the MIRA management, for the project to proceed.

The project manager has authority from that point on – 'Anything that does not go through the project management does not happen', explains Birkmyre.

The project management for the CWT drew together a team of civil engineers, aerodynamicists, instrument specialists and IT people. The IT people look after the huge computer system that controls what will happen inside the chamber and that measures what happens to the poor old car.

Robert Birkmyre is a full-time project manager running a number of projects. Project managers are selected usually because of their backgrounds.

There are civil engineering project managers and mechanical engineering project managers like Robert.

The project manager asks for specialists from the functional departments.

'I have requested an aerodynamicist from the Aerodynamics Department and I have asked for the best', explains Robert, 'and I have been allocated Geoff Carr for a period. That is now in my schedule. We keep talking to people and keeping each other up to date. If I asked for an engineer next week they would go up the wall; because my request was in good time I got who I wanted and everyone is content.'

Now there is an interesting resource-prioritisation system – the earlier you ask, the better choice you get.

'Of course things go wrong but we rely heavily on the high degree of motivation here at MIRA,' adds Keith MacKellar, General Manager of the facilities and site. 'We pay people to do jobs and not just to attend. We have a great team here and often have to force people to take their holidays.'

At MIRA they use critical path analysis based on the Primavera planning tool. 'Planning suits us', says Robert, 'as it is a logical process. We produce network diagrams for all significant projects and then produce bar charts on a plotter selecting tasks for each department. We often group the work by contractor and then summarise the whole thing into a small chart'.

'We do not use a planner, as we see Primavera as a project-management tool and therefore the project manager is the user. We have fortnightly reviews and update the plans the day before the review meeting. At the review meetings we hand out the new plan, highlight and discuss the problems.'

Robert was sounding enthusiastic about his role as a planner so I asked how he felt about the planning function.

'I enjoy it', he surprised me, 'the computer system drives people to go on improving the plan but you have to stop somewhere.' He thought of three reasons in answer to my question about why he enjoyed it: 'It is a mental challenge, it is a change for me and it is still quite new to me.'

Robert uses three calendars on his plans – seven, six and five days per week – as some jobs like concrete drying go on every day and then contractors and MIRA people have varying working weeks.

'One day I would like to see all of MIRA's work planned in this way.'

Robert thinks ahead, 'We are in a learning exercise, gaining expertise all the time. I often think how do I do this, how do I do that. We did go on the training courses that were part of the software purchase and we found the user support hot line very useful.'

The biggest surprise to me, which was not a surprise to MIRA at all, was their overall attitude to work and working on projects.

'We work for MIRA,' explains Keith MacKellar. 'If MIRA does well, we all do well. Each department is a cost centre with a budget and target. Each department owns certain resources like test equipment and specialists and rents these resources out to outsiders and other departments. We don't have witch hunts here – when there is a problem we say that you have made a mess, what are we going to do about it?'

This all sounds too good to be true but my day with the people at MIRA seemed to confirm that this is the case. How is it that one organisation can achieve this level of co-operation and motivation whilst so many others are full of empire builders and people who are so afraid of doing something wrong that they do nothing at all?

And what is it that people in large civil service organisations fear so intently? You must have met the sort of people I mean – they are in a dead safe job where the ways of getting sacked are few and far between.

Yet still they will do great damage to the company or to a project to cover up anything that might possibly be thought of as a mistake. In some companies people openly admit to errors so that everyone can do their best to deal with them and so that second occurrences can be avoided or at least minimised. But in the civil service type organisation it seems vital to maintain some appearance of not being at fault, however much reality has to be stretched.

The civil servant type's first reaction to any problem is 'It's not my fault' and the reaction is never 'What can we do about it?' This is particularly appropriate to project management as, in the words of Martin Barnes, 'You can only manage the work that remains to be done.'

So many organisations spend so much time worrying about fault allocation. At MIRA they do seem to manage the work that remains to be done.

They do not seem to have these problems at MIRA – there seems to be an atmosphere of openness which goes hand in hand with a general feeling of well-being. They seem to enjoy their work.

3.15 Summary and reflection

In Chapter 3 we have dealt with the management of multiple projects without regard for their source. This chapter would be useful to a programme manager directing a series of projects that make up a programme, and also to an organisation doing multiple projects for multiple clients within their normal business dictates.

It has made a case for thinking through the relationship between project managers and programme managers and the confusing uses of the term 'portfolio'.

It has referred to the tools and techniques that are in use in this environment, mentioning some of the difficulties and challenges in making such tools work usefully.

4 Governance

4.1 Introduction

Governance is the buzzword these days – you hear of enterprise governance, IT governance, portfolio governance, programme governance, project governance, data governance, and the list goes on. Typing 'governance' into Google will generate approximately 116 million hits.

In spite of the frequency with which the term is used, there appears to be no single, standard, agreed definition. However, most agree that governance is important, that it should apply to change initiatives just as much as it applies to business-as-usual activities and that lack of governance can expose the organisation and its programmes to serious risks.

A supporter of governance would say that governance helps an organisation to align its programmes with its strategy and deliver change in the most effective way. The cynic would say that governance is about getting the right ticks in the right boxes. Some would say it is about being able to show, to prove, that you took care and gave reasonable consideration to your decisions. You may believe that the more important a decision is, the more likely it will be made on the basis of a careful investigation and consideration. You may believe exactly the opposite: that big decisions are made flippantly, small ones are carefully thought through. What else can explain the range of high-value public sector programmes that are doomed at the start on account of being a terrible idea. In this collection are: the National Health Service's National Programme for IT; the Fire and Rescue Service's FiReControl programme, the attempts to merge the probation and prison service systems, and the Millennium Dome.

> Governance fan, cynic or somewhere in between? It all depends on your point of view.

4.2 What is governance?

A little demystification is clearly called for to try to make sense of this confused picture of governance.

Governance starts at the top and covers the whole organisation. Establishing and maintaining an appropriate system of governance is a key responsibility of the organisations senior management, as represented by the main board of directors. Here lies a problem: most main boards inevitably focus on business-as-usual activities, with the consequence that change initiatives can easily get forgotten. Programme and portfolio governance is about ensuring that the organisation's principles of governance are extended in an appropriate fashion to all change initiatives.

Governance is primarily about the way in which decisions are made. In particular, it should provide a framework that leads to logical, robust and repeatable management decisions at all levels of the organisation. Part of this framework ensures that intangible issues – such as ethics, quality and security– are taken into account when making decisions. Thus, when senior management sets explicit objectives for programmes and projects, such as cost and milestone targets, there is an implicit assumption that all work will be undertaken in a way that protects the organisation's reputation and public image.

To be effective, the governance system must stretch right through the organisation. As demonstrated by the case study at the end of this chapter, it is no use the senior management preaching one set of standards and values whilst lesser mortals in the front line are busy practising a different set. A key element of governance is ensuring proper accountability. Whilst responsibility will always rest with the main board, this group must inevitably delegate to groups and individuals with more detailed knowledge and understanding. Governance can only be effective if the details are fully communicated to all involved and the latter know how to make them work: hence the need for the organisation's governance arrangements to clearly defined in standards, guidelines, procedures, training and mentoring arrangements. Amongst these may be proprietary standards such as MSP[1] and Prince2.[2] These are covered in Chapter 5, where you can read all about these popular methods.

Governance operates at three levels. The principal level is that of the portfolio, which corresponds to the corporate-level governance arrangements that apply to business-as-usual activities. In addition, there may be additional governance requirements at the programme level, such as maintaining the programme vision and the realisation of expected benefits. Finally, there may be some government requirements, such as those relating to the use of specific technology or contractual arrangements, that are specific to individual component projects.

> One day soon an important shareholder is going to hold the board of directors to account for the misguided, irrational and just plain daft programmes it saw fit to spend huge sums of money on.

So, in a nutshell, programme and project governance is about having sensible processes, procedures and documentation, not only to help make sensible decisions but also to demonstrate that care has been taken.

Governance procedures take time to define and establish, but you don't need to start from scratch. Some very helpful publications will give you all sorts of tools and techniques to help with these processes. These are generally referred to as methods and Chapter 5 will examine the leading methods on the market.

4.3 Why is governance important?

Governance, at best, is about trying to stop too many things going wrong. Because of this illusive nature of governance, it is much easier to demonstrate what happens when it is not present than what happens when it is present. Two examples demonstrate the consequences of poor governance when it impacts at corporate level.

An attempt by News International Ltd to buy shares in a news organisation (BSkyB) was cancelled as a consequence of a scandal created by an apparent failure of corporate governance. Whilst the failure relates to the business-as-usual operations of the company, it demonstrates how a collapse in ethical standards can have massive consequences – if it is found out.

Poor governance can also lead to the very tangible failure of specific programmes and stand-alone projects. The UK government's Cabinet Office has analysed the principal reasons why projects fail and identified eight. All are related to governance in some way.[3] Below is a description of how poor governance contributes to each of the eight causes of failure. The headings are taken from the Cabinet Office's report.

4.3.1 Lack of clear links between the project and the organisation's key strategic priorities, including agreed measures of success

Why would anyone spend money on a change initiative that does not contribute to the realisation of the organisation's strategic objectives?

As described in section 2.7, the contribution to the achievement of strategy should be a key criterion in deciding whether or not to invest in it in

the first place. On-going supervision should ensure that the initiative continues to be in line with strategy – and if the strategy changes, the initiative may need to be adjusted or abandoned. Ensuring such on-going alignment is a key element of governance, normally implemented through portfolio management.

4.3.2 Lack of clear senior management and ministerial ownership and leadership

Leadership at all levels is critical to the success of any programme, but especially at the programme level. This is normally provided by the programme sponsor, whose roles and responsibilities are described below in Chapter 8. The appointment of a suitable sponsor is a critical governance activity, normally achieved through the main board appointing one of its own members to act as sponsor.

4.3.3 Lack of effective engagement with stakeholders

A key role of the various boards through which governance is implemented is to ensure the appropriate involvement of key stakeholders. Ensuring appropriate membership of these boards is a vital governance activity. In particular, it is good to get a reasonable spread of members, especially of those who are providing the funding or resources. At the same time, it is important to avoid too wide a membership: the boards are there to make decisions, not to be a 'talking shop'. The bulk of stakeholders can be engaged through comprehensive stakeholder management and communications plans.

As part of its governance responsibilities, the portfolio board, acting on behalf of the main board, should arrange appropriate reviews of the programmes within its portfolio. These will confirm the adequacy of stakeholder engagement.

4.3.4 Lack of skills and proven approach to project management and risk management

Capable and experienced programme and project managers do not grow on trees. They can be hired from consultancies, but not with knowledge and experience of the organisation. Sometimes they can be found within the organisation, but not with the needed level of expertise and experience. Only rarely can a world-class programme manager be found within the organisation.

Budgetary constraints often mean that a member of staff is assigned to lead a new programme. Very often the challenges of running a programme are underestimated. 'It can't be that hard, can it?' In the worst case, the member of staff is sent off on the Managing Successful Programmes or Prince2 training course and is expected to come back ready to manage a major initiative. Leave this page open for all to see.

> Prince2 and MSP qualifications are like the written part of the driving test. They are very useful and essential, but you can pass the examination with a good memory and no actual experience at all.

Furthermore, even the most skilled and experienced can be effectively disenfranchised by a project-unfriendly environment within the organisation.

The most effective way to ensure an adequate supply of skilled programme and project managers is to create an internal development programme to create a cadre of potential programme and project managers, all with appropriate programme and project management plus a thorough understanding of the organisation. This cadre should be supported by the adoption of appropriate standards, guidelines, procedures and mentoring arrangements. Only organisations expecting to run numerous programmes can do this.

4.3.5 Too little attention to breaking development and implementation into manageable steps

Much experience shows that the 'big bang' approach, whereby all features and facilities go live on the same date, often fails. Whilst a 'step-by-step' approach, whereby the programme is split into phases, may take longer and be initially estimated to cost more, it is likely to be much less risky. This conclusion is supported by surveys and research.[4]

As part of its governance responsibilities, the portfolio board, acting on behalf of the main board, is responsible for arranging reviews at key points in the life cycle of the programme. This supports the concept of dividing the programme into stages and implementing on a step-by-step basis.

In addition, including risks as a criterion for assessing business cases will help the portfolio board to ensure a correct balance between selecting initiatives on the basis of cost as opposed to risk, as described in section 2.7.

4.3.6 Evaluation of proposals driven by initial price rather than long-term value for money (especially securing delivery of business benefits)

The whole purpose of investing in a new initiative is to gain appropriate business benefits. A key responsibility of the portfolio board is to ensure that the expected benefits will be realised and that the value of these benefits outweighs the costs. Ensuring that adequate focus is maintained on realising benefits, at all stages of the life of the programme, is a key governance responsibility, achieved through:

- proper business cases, as covered in section 2.7.9;
- thorough evaluation and selection process as described in section 2.7.10;
- formal reviews and audits at stage review points.

4.3.7 Lack of understanding of, and contact with, the supply industry at senior levels in the organisation

Large programmes usually involve a range of suppliers, some of whom may be based overseas. Integrating these into a single, successful team is vital to success. Members of the programme board, including the programme sponsor, have a responsibility to ensure that all such stakeholders are fully involved.

4.3.8 Lack of effective project team integration between clients, the supplier team and the supply chain

Large programmes usually involve a range of suppliers, some of whom may be based overseas. Integrating these into a single successful team is vital to success. The programme sponsor (who is appointed by the portfolio board) has a responsibility to see that this happens. Verifying this through reviews is an important element of governance, exercised by the portfolio board.

In conclusion, all the major causes of programme and project failure can be linked to governance arrangements. Programme governance will not eliminate all causes of failure, but will give advance warning, allowing corrective action to be taken in sufficient time to be effective.

4.4 Governance roles

The people leading the initiatives play a very significant role in ensuring that governance is taken seriously. A critical role is played by the programme sponsor so let's consider this key governance role.

4.4.1 The role of the programme sponsor

Implementation of governance activities within the programme is normally the responsibility of the programme sponsor. This should be a senior executive, allocated to direct the initiative in line with corporate strategy and to provide high-level sponsorship. This sponsorship includes ensuring adequate resources are made available. Usually this means money, but it could include liaising with senior stakeholders, borrowing resources for various departments and arranging for users to specify requirements or to try out prototypes. This executive also has a vital role in maintaining the stability of the programme by protecting it from senior managers who may wish the programme's resources to be diverted to their own 'pet' programmes and projects.

Typically, the executive is referred to as the 'programme sponsor', reflecting the vital role of sponsoring the programme to the senior management team. Other role titles include 'programme director' or 'programme executive'. This person will typically be a member of the main board or portfolio board, delegated to ensure that the wishes of that board are achieved within the programme. Within the UK public sector, this person is usually referred to as the 'senior responsible owner' or 'SRO', i.e. 'the single individual with overall responsibility for ensuring that the programme meets its objectives and delivers the projected benefits'.[5]

Specific responsibilities typically include:

- appointing the programme manager and the other members of the programme board;
- on behalf of the portfolio board, approving overall budgets and targets for the programme;
- on behalf of the portfolio board, ensuring that an adequate business case exists for the programme, with responsibilities for benefit delivery clearly identified (where appropriate, to fellow directors and to line managers);
- ensuring that the aims of the programme continue to be in line with the strategic goals and, in particular, focused on the benefits to be realised;
- securing resources for the programme – mainly budgets and people;
- ensuring integration of external suppliers and sub-contractors into an effective team;
- setting agendas and chairing programme board meetings;

- escalating corporate-level risks and issues to fellow directors or to the portfolio board and facilitating their resolution
- providing assistance and guidance, as required, to the programme manager.

The programme sponsor is normally responsible for reporting back to the portfolio board on the programme's progress and helping that board to appreciate any additional opportunities or major risks revealed by the programme. He/she thus has a major role to play in ensuring effective governance within the programme.

Sponsoring the programme is usually a part-time post and most of the day-to-day management of the programme will be provided by the programme manager.

4.4.2 The project sponsor

The Project Management Institute (PMI) recommends that all projects have a project sponsor. This seems fine at first, but is this still true when the project is part of a programme? A project manager managing a project that falls within a programme will normally be delegated to the project by the programme manager; will use specifications and scope documents provided from the programme manager; will escalate issues and risks to that same programme manager; and will deliver the eventual output of the project to that same person. Therefore, in most cases, the programme manager fills the role of project sponsor for the projects within the programme. Generally, therefore, a separate project sponsor will confuse the picture, the project sponsor and the poor old programme manager.

Occasionally, a project may deliver some output to a programme and yet be an independent project in its own right. Perhaps the project is being undertaken in one part of an organisation, possibly miles away, both politically and geographically, from the programme as a whole. In such cases there may be a case for a separate project sponsor.

4.5 How is governance different from management?

Governance is an additional layer of control and leadership, over and above that provided by management. Portfolio, programme and project managers are generally expected to ensure that their programmes and projects meet defined objectives and targets. Frequently these can be expressed as tangible numbers, such as cost limits, specific time targets or milestones, profit targets (where the organisation managing the initiative is as external contractor).

By contrast, governance establishes the framework within which managers can make decisions. The assumption is that managers should meet

their targets within this framework. Furthermore, this framework generally covers all the intangible requirements that are often difficult to express in concise words. At the portfolio level, this framework should cover a range of matters, including:

- compliance with legislation (both general, such as laws against bribery, and industry specific, such as the Sarbanes-Oxley legislation that applies within the financial sector in the USA);
- quality assurance, including interfacing with corporate quality assurance arrangements;
- health and safety legislation;
- security arrangements;
- protection of the environment.

Amongst the intangible factors that are normally assumed in this way are:

- use of shared resources – including key staff, equipment, premises, etc.;
- HR policies;
- client focus and the relationship between the short-term and long-term objectives of the organisation.

Governance also sets the organisation's appetite to risk, some organisations being prepared to take large risks for large returns. This will then be used as a factor in deciding which initiatives the organisation will support, in the manner outlined in section 2.7.

4.6 A question of balance

Because so many elements of governance are intangible, it is impossible to define in advance exactly how they will apply to specific programme situations. Therefore, the main board and/or the portfolio board must be able to rely on the integrity and common sense of programme managers when it comes to the day-to-day implementation of governance principles. Sadly, a climate has grown up in the UK in recent years that results in excessive concern about health and safety issues.

This has resulted in the cancellation of many traditional leisure events such as the cheese rolling contest that has been held every spring for 200 years at Coopers Hill in Gloucester.[6] The competition involves participants in chasing a 7lb Double Gloucester cheese down the hill in a series of races. The winner of each race wins the cheese. Such is the passion within the local community that, when the official organisers cancelled the 2010 event, enthusiasts staged an unofficial one instead.

Common sense is in short supply. There is a tendency to promote people into programme management roles without proper consideration of their skills and abilities, and without giving them much training. They may be otherwise intelligent people who have been performing well for many years, but the programme management role may be something they are just not suited for. Two very fine gentlemen, Dr Laurence J. Peter and Raymond Hull noted this effect in their amusing and entertaining book, *The Peter Principle*, way back in 1969 (Box 4.1). Why it is not called the Hull effect is a mystery.

Box 4.1 The Peter principle

Let's start off with a great software engineer who gets noticed for being good at her job. She gets promoted to section leader and handles that well. She gets promoted each time she does a job well.

She eventually becomes a senior project manager, something that involves all sorts of politics and team building. She happens not to like this stuff and dreams wistfully of her software engineering days.

She probably gets a little training for this new job but it is woefully inadequate for her needs. She yearns to be back with those intricate programming problems that she enjoyed dealing with. As she cannot handle the job of senior project manager she does not do well and does not get further promotions. She gets stuck in the first job she can't really handle.

The organisation has acquired an inadequate senior project manager and has lost a great programmer. The 'climb the ladder' approach provides no system for stepping back down a few steps or even for stopping in a job you like and can do well.

Thus, management guru Dr Laurence J. Peter said: Everyone tends to rise to their own level of incompetence.

More seriously, this excessive attention to the minutiae of legislation has imposed additional costs on British businesses. These have been difficult to calculate, but the McNulty Report[7] suggests that they contribute to the 40% higher costs of civil engineering projects within the UK compared to those within continental Europe.

Within programmes, an excessively bureaucratic approach to governance can lead to delay and extra costs, plus delusions of adequacy in the way that the programme is being managed. We were members leading a project to provide the IT elements to an organisation-wide information management programme where the client's oversight team outnumbered my development staff by a ratio of 3:1. In spite of this, major client-side

risks were missed, such as the fact that no appropriate coding scheme for the organisation's management had been devised. It never was and the IT system was demonstrated with test codes. As far as I know, no scheme has yet been devised and the system has never been commissioned. Yet all elements of the programme had to be managed according to Prince2 and every document required by that standard had to be produced.

Following due process is no substitute for getting things done through effective management and good leadership.

Case study 4.1 The London 2012 Olympic Games

Introduction

The four-yearly Olympic Games is amongst the greatest spectacles of the modern world. It also provides some of the greatest programme management challenges. Although it is time-dependent in that everything must be in place and ready for the opening ceremony, the whole life-span of the Games (including planning, preparing, hosting, and managing the legacy) will take decades. The cost of the Games is enormous and, because national prestige and billions of public money are at stake, the task of managing stakeholders and related communication is gigantic.

The Games to be held in July and August 2012 will be no exception. The sheer scale is daunting. Known as the 'Games', it comprises the Summer Olympic Games, featuring 26 sports, from archery to wrestling, and the Paralympics Games for disabled athletes, featuring 20 sports. All told, there will be 15,000 athletes taking part, representing 205 countries, and supported by 14,000 officials. It is expected that approximately seven million tickets will be sold to spectators and that over the 17 days of the Games, 5,000 hours of television will be beamed around the world.

Programme time-scales

Like many large programmes, the 2012 Games initiative will have a long life-span. From when the British Olympic Committee started preparatory work in 1997 to when the last facilities are handed over to the local communities around 2016, the programme will have been underway in some form or another for 19 years.

As the bar chart in Figure 4.1 shows, when the International Olympic Committee (IOC) awarded the Games to London in July 2005 – in preference to Paris, Madrid, Moscow and New York – the bidding process had already been underway for eight years, representing three years of initial work by the British Olympic Association (BOA), three years of formal bidding with UK government support and two years of evaluation by the IOC. Creating

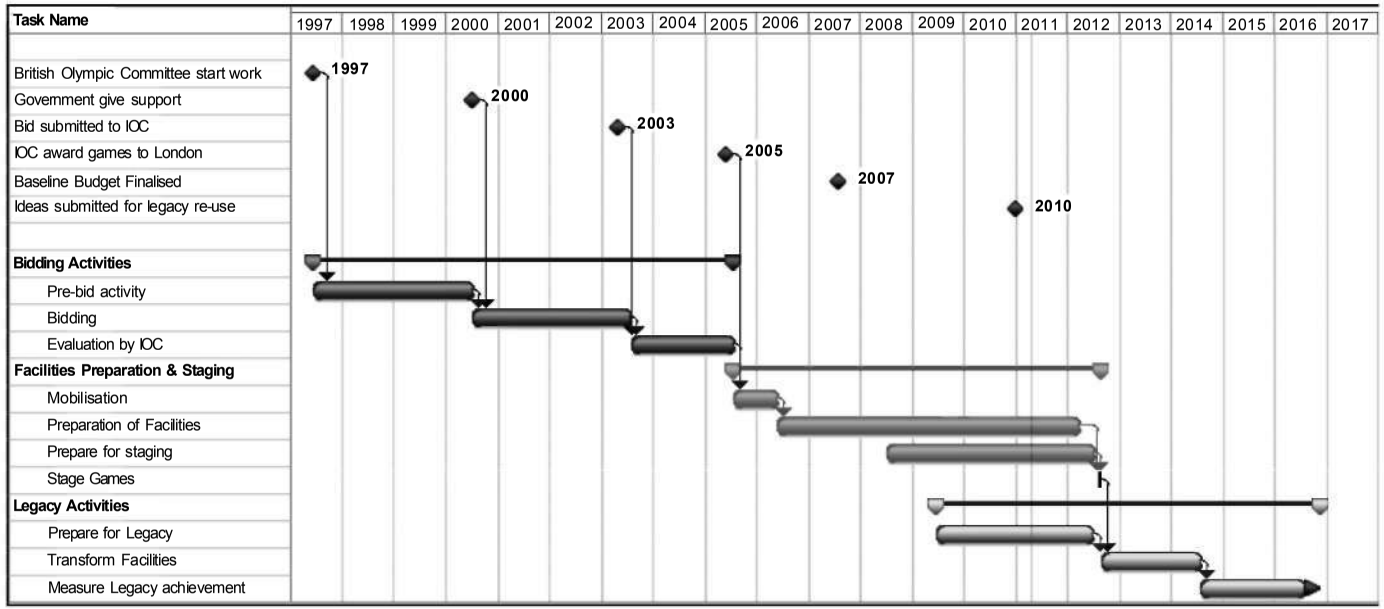

Figure 4.1 Approximate life-span of the 2012 Olympic Games initiative

the Olympic Park and other sports venues, and organising the staging of the Games, has required another seven years. Once the Games are over, transferring the sports arenas and other facilities to local authorities and creating a lasting legacy for the people of London will require at least another four years.

Programme organisation

Different organisations have been made responsible for different aspects of the Games:

- the BOA had prime responsibility for creating a winning bid;
- the Olympic Delivery Authority (ODA) was created to oversee the preparation of the Olympic Park and other Games venues;
- the London Organising Committee of the Olympic Games (LOCOG) was created to stage the Games;
- the Olympic Park Legacy Company was created to manage the transition of the Olympic Park and other venues back to local authority control and to ensure the delivery of legacy benefits.

Each of these different aspects is a very large programme in itself. The ODA is responsible for a portfolio of 29 separate projects covering site preparation, creation of venues within the Olympic Park and elsewhere, and transport improvements.

The majority of events will be staged in the Olympic Park. This has been created in a run-down area of East London, centred on the valley of the River Lea. Within the park are the Olympic Stadium, the Athletes' Village, the International Press Centre and 11 other sports venues.

Overseeing all activities to do with the Games is the government's Olympic Board, chaired by a government minister and charged with ensuring that the interests of the taxpayer, the people of London and the country as a whole are protected. This board is assisted by an Olympic Executive, which provides programme office services, and by a steering group to provide more detailed oversight on behalf of the board.

Also involved in the Games are a range of other important groups, such as the National Lottery and the London Development Agency (which is providing part of the funding) and the IOC (which is effectively the 'customer' for the Games).

Inevitably, over the life-span of the Games initiative, there have been changes to detailed governance arrangements. Inevitably, over the life span of the Games initiative, there have been changes to detailed governance arrangements. For example, a major addition since then has been the creation of the Olympic Park Legacy Company, which was formally incorporated in 2009. Prior to that, planning for the Games' legacy was the responsibility of the ODA.

Programme costs

As with many programmes, the initial estimates of costs were shown to be over-optimistic. At the time of submitting the bid to the IOC in 2003, they were estimated as £2,992 million, of which £2,375 million would be provided from public funds. Following the award of the Games to London, the estimates were reviewed and revised, so that by 2007 a full 'Baseline Budget' could be prepared, which showed that the public funding requirement was £9,325 million.

Naturally, these increases in the burden placed on the taxpayer have been a source of political debate, since every penny spent of the Games is one that cannot be spent on something else. As the responsible cabinet minister at the time remarked: 'We are looking at this ... as being potentially a major public expenditure commitment that would have to be set alongside the commitment to building new hospitals, new schools and so forth.'[8]

Reasons for the dramatic increase in costs and in the public funding requirement reflect a range of factors, including uncertainty about the full scope of what needs to be done, inadequate provision for contingency, increases in the risk of terrorism, and some naivety in the original cost estimates. Since 2007, there has been a small (£27 million) fall in the anticipated public funding requirement, reflecting the fact that some Games venues have been completed at lower than expected cost and that some risks that were allowed for in contingency have not occurred, allowing these funds to be diverted to cover other increases in cost, such as those related to security.

This public funding will come from a variety sources; £6,248 million from central Government, £2,175 million from the National Lottery, £625 million from the Greater London Council, and £250 million from the London Development Agency.

Programme objectives and benefits

As is common with many programmes, there is agreement in principle on what the Games is expected to achieve, but little that is specific. Objectives and expected benefits have been expressed in general terms and not in detailed, measurable numbers.

Furthermore, objectives and expected benefits appear to have changed over time. In 2005 the principal objective was to provide a successful set of Games on the agreed date. By 2008, the focus had moved to ensuring a suitable legacy in terms of:[9]

- making the UK a world-leading sporting nation;
- transforming the heart of East London;
- inspiring a generation of young people to participate in communal life;
- making the Olympic Park a blueprint for sustainable living;

- demonstrating that the UK is a creative, inclusive and welcoming place to live in, to visit and in which to do business.

In December 2009, an additional legacy benefit had been identified – transforming the life experience of disabled people.

In May 2010 there was a general election and a new government took charge. Subsequently, the promised legacy benefits were summarised into four key strands:

- building Britain's passion for sport;
- showing that Britain is open for business and boosting the national economy;
- building the Big Society;
- developing the Olympic Park as part of the regeneration of East London.

Individual organisations have more specific objectives. For example, the ODA's Corporate Plan identifies its contribution to the Games as follows:

- create infrastructure and facilities associated with Games venues to time and agreed budget in accordance with the principles of sustainable development;
- deliver Olympic and Paralympics Games venues to time, to design and building specification and to agreed budget, providing for agreed legacy use;
- deliver the necessary transport infrastructure for the Games, and devise and implement effective transport plans which provide for legacy use;
- deliver agreed sustainable legacy plans for the Olympic Park and all venues.[10]

As in most large programmes, attention has been focused first on those aspects that need to be delivered first, hence addressing some legacy issues has been delayed whilst more immediate issues have been dealt with. One consequence of this was that, with only 16 months to go before the Games, there were still no comprehensive plans for how delivery of the legacy would be measured, monitored or coordinated, nor anything resembling benefits profiles or a benefit realisation plan.[11] Furthermore, although a Framework had been developed as to how benefits might be calculated,[12] and an Overall Legacy Plan had been recently published,[13] there were as yet no estimates of the net benefits expected to accrue as a consequence of the Games.[14]

Audit and review

Like most major public sector initiatives in the UK, the 2012 Games is subject to rigorous review. Individual projects are subject to Gateway

Reviews at key stages and all aspects of the programme are subject to annual audit by the National Audit Office (NAO) and by the Culture, Media and Sport Committee of the House of Commons.

The results of Gateway Reviews are discussed with those responsible for the project, but otherwise the results are confidential. By contrast, the findings and recommendations of the NAO and of House of Commons committees are published and are available free of charge on the relevant websites.

Because the reviews are undertaken by professionals and involve interviews with key stakeholders, the resultant reports give valuable insight into stakeholder expectations and conformance to recognised good practice. Accordingly, they are treated with great respect by those working on the Games initiative. Speaking of review by the NAO, Liz Underhill, Head of 2012 Programme Integration and Assurance within the Olympic Executive, stated: 'It's good. We're open to that sort of scrutiny and challenge. It's been extremely helpful and, on the whole, very reassuring.'

Programme management lessons of the 2012 Games

Although vastly larger and more expensive, the 2012 Games have faced many of the same issues and challenges as more conventionally sized programmes.

1 There was a long period of bidding prior to starting the main programme. In turn, there will be a long period after the close of the main programme during which the benefits will be realised. As is frequently the case, different groups have been involved in the different phases and it is crucial that an over-arching framework of governance is provided.
2 Like most programmes, the 2012 Games initiative has required many different stakeholder groups to work together. Again, this stresses the need for formal governance structures, headed by a sponsor of appropriate seniority and credibility. This complexity of stakeholders also emphasises the need for comprehensive stakeholder management and communication. Moreover, communication must be tailored to the interests and awareness levels of each group. For example, concepts that a programme management professional would regard as common sense might be regarded as expensive and unnecessary by someone without practical experience; and if that someone is a senior politician, the result can be serious under-provision for risk or similar. Speaking of lessons learnt from the 2012 Games initiative, Liz Underhill stressed the critical importance of 'putting things into a language that the audience will understand – you must use their terminology and reference their issues, not your own'.
3 Preparing cost estimates is always difficult and frequently the outline estimates prepared at the bidding stage or included in the initial

business case turn out to be flawed once the full design is complete. This has often been a problem for Olympic Games bids – for example, the people of Montreal and Quebec only finished paying the cost overruns on the 1976 Games in November 2006 – and even that required the hypothecation of the revenues of a province-wide tobacco tax. For this reason, good programme practice requires the preparation of comprehensive estimates, including contingencies for all the various types of risk that might occur. In the case of the 2012 Games, this took place in only 2007, two years after the award of the Games and ten years after work first started on bidding.

4 Any human initiative that lasts for more than 18 months or so is likely to be subject to change – change of people, change of business and economic climate, change of expectations, and so on. The 2012 Games initiative is no exception. For example, the programme structure has changed and developed significantly since the award of the Games in 2005. Hence, there must be a readiness to change structures and organisation, without losing sight of the end goals.

5 Part of the reason for this change is that, when a programme of this scale is first conceived, there are a huge number of unknowns – issues, risks, problems. Only as the programme progresses are these unknowns gradually resolved – hence the time required to create comprehensive estimates with adequate risk contingency.

6 However, the importance of these unknowns can be reduced by learning from others – in particular, from recognised good practice. According to Liz Underhill, the biggest single lesson learnt to date from the 2012 Games initiative is 'the value of programme management principles – especially in the areas of planning, risk and issue management, measuring performance and delivery governance'. However, she also adds that 'Applying these principles to complex situations like the Games is still difficult'.

4.7 Summary and reflection

Chapter 4 introduced the term 'governance' and gave different views of this contentious topic. It pointed out that it is easy to over-govern and easy to under-govern, but it is very hard to set in place just the right level of governance for an organisation and its current workload.

5 Methodologies and methods

Maureen Lipman, acting some time ago in a TV ad, brought scientists and engineers down to earth with a breath-taking thump as she described her grandson's A level results: 'He got an ology, already!'

If you feel the need to make something sound important, significant and, above all, expensive, give it an 'ology'.

We'll talk about methods, not methodologies. I suppose I could go through this chapter later and globally change *method* to *methodology*, but I have found global change to be a dangerous tool and, between us, dear reader, we don't need 'ologies'.

In any case the suffix '*-ology*' is derived from the Greek word *logos* and refers to the 'study of'. So *methodology* should refer to the study of methods. To call a book a methodology is just poor English. The longer word is used by consultancies to make the whole thing sound expensive and vaguely worth their enormous fees.

We will stick firmly to 'method'.

A method is simply a systematic way of doing something. Methods lay down the stages, phases and procedures by which programmes and projects should be managed. A method will outline the committees, boards, roles and responsibilities that need to exist and what they should do. If your organisation likes to have things done by the book, the method is the book by which everything is done.

Now, if you were write down in some detail the way in which you think people should run their projects, you would have a nice book. Your chances of selling a large number of copies of your book at huge prices would be low. *How I Run My Projects* by Fred McSmigginbotham at £3,000 would languish at the lower end of the bestsellers list, alongside *Lesser Known Trams of Grantham* and *Ten of My Favourite Bricks.* But if it got published by a government who gave it away free, many people would use it. There may not have been anyone called Fred on the team, but that is roughly what the UK's Cabinet Office did.

The Cabinet Office includes the UK government's centre for project and programme management and it has been beavering away for ages producing and publishing a number of significant methods. These

publications have become very significant, especially in the UK public sector. The United States of America is not a country that likes to be left behind, so its independent Project Management Institute (PMI) has also published a variety of documents and books on which methods and standards may be based. As if offerings from the UK government and PMI were not enough to satisfy the need for formal methods, the independent, UK-based Association for Project Management (APM) also publishes a number of relevant guides.

Because there are choices – arguably too many choices – this chapter outlines these publications.

You may one day explore, with the help of our good friend Mr Google, the industries that have built up around some of these publications. There are user groups, training organisations and consultancies all of which will be delighted to meet you and take you organisation's cash in exchange for service and products.

Do please also remember that these books tell you what you need to do, not how to do it. For example, a method will say that you need to produce a project schedule and a resource plan and get these approved, but none of the techniques – like critical path analysis – is explained.

The most relevant and leading publications from the Cabinet Office, PMI and APM are listed in Table 5.1.

The Cabinet Office called its first book *Prince* which stands for PRojects

Table 5.1 Relevant publications

PUBLISHER	TITLE	OUTLINE	SECTION
PMI	*The Project Management Body of Knowledge* (PMBoK)	Not really a method, but many organisations have built a method using the PMBoK guidelines	5.1
Cabinet Office	Prince2	A method for managing projects	5.2
Cabinet Office	*Managing Successful Programmes*	A method for managing programmes	5.3
PMI	*The Standard for Program Management*	A method for managing programmes	5.4
Cabinet Office	P3O	Project, programme and portfolio offices	5.5
Cabinet Office	*Management of Portfolios*	Managing the overall portfolio of programmes and projects	5.6
PMI	*The Standard for Portfolio Management*	A method for managing portfolios	5.7
APM	*The Project Management Body of Knowledge* (APMBoK)	Not really a method, but some organisations have built a method using the APMBoK guidelines	5.8

IN a Controlled Environment. It may not surprise you to hear that *Prince2* is the second evolution of this document. *Prince2* became so well known that later versions are still called *Prince2*.

PMI's key publication, *The Project Management Body of Knowledge*, or PMBoK, is available in many languages (translations are available in Arabic, Chinese, French, German, Italian, Japanese, Korean, Portuguese, Russian and Spanish) and usually pronounced 'pimbok' which sounds a little like an cute, furry Australian creature with long back legs.

That many of these publications suffer from frequent updates indicates how the worlds of project and programme are still young and evolving. These publications do change over time and are supported by associated publications, guides, summaries, overviews and case studies.

You can buy these books yourself if you are really interested, so we will briefly introduce the key publications in the following pages. We hope this will save you loads of time and help you avoid expensive mistakes. Some of these publications are associated with a formal qualification. These are all issued by reputable organisations and are therefore both valuable and recognised; however they are valued and recognised in different places.

Over the next few pages, the version of each method current at the time of writing is outlined, along with the associated qualifications.

If you have a problem choosing which of these competing routes to take, consider where you expect your career in project management will take you. If you career is likely to be within the UK public sector or in industries and countries where the UK public sector sets the standards, consider the Cabinet Office route. If you career is likely to be in the USA, USA-aligned countries or industries, take the PMI route. The APM route will suit those in the UK, but not within the public sector.

The world of project management is full of TLAs (three-letter acronyms) and most of them have at least one 'P'. The next few pages will clarify all of these acronyms.

5.1 Project Management Body of Knowledge (PMBoK)

The *Project Management Body of Knowledge* (PMBoK), was made popular by the project management certification process of the Project Management Institute and, as such, has been widely regarded as a great book to base your project management methodology on. In conversations it is normally pronounced 'pimbok'. It defines project management best practices and can be tailored for use in almost any type of project. The PMBoK recognises five basic process groups and nine knowledge areas typical of almost all projects. The basic concepts are applicable to projects, programmes and operations. The five basic process groups are shown in Table 5.2.

Table 5.2 Process groups and their functions (adapted from PMBoK, 2008)

PROCESS GROUP	FUNCTIONS
Initiating process group	Processes which enable a new project (or a new phase of an already existing project) to start. They mark a beginning of a set of tasks and activities.
Planning process group	This group helps to determine the project scope and objectives and sets down the sequence of tasks and actions to be done.
Executing process group	This refers to actually doing the tasks that will contribute to the project.
Monitoring and controlling process group	These processes are designed to keep an eye on the projects and its tasks, to monitor progress and deal with variations and change.
Closing process group	A process group that deals with an orderly conclusion to the project.

The nine knowledge areas in which, according to PMI, any project manager should be well versed are shown in Figure 5.1. Each knowledge area contains some or all of the project management processes. For example, project procurement management includes:

- procurement planning
- solicitation planning
- solicitation
- source selection
- contract administration
- contract closeout.

Project integration management
Project human resource management
Project communications management
Project scope management
Project quality management
Project risk management
Project time management
Project cost management
Project procurement management

Figure 5.1 PMBoK knowledge areas

The main strong points of the PMBoK include that it serves as a set guide or framework to be followed. It is process oriented and defines for each process the necessary inputs, tools, techniques and outputs required and make it possible to state the knowledge needed to manage the life cycle of any project or programme. It provides a framework that any industry can build upon. Its main flaw, however, is that it may be too complex, especially when applied to a relatively small project. It is also very mechanistic and has little to say about the issues faced when working with human beings in project teams.

5.1.1 Mapping of process groups and knowledge areas

PMBoK maps the processes against the knowledge area to show how the processes in each group are not isolated. The knowledge areas and the process groups are thus both geared towards achieving the project's objectives in order to realise benefits. Thus the ideal project manager should be familiar with all the knowledge areas and use them to help navigate through the process groups.

Also, the five main process groups are rarely as distinct as this method suggests. For example, it is very likely that the planning group will overlap with the executing group and that execution and monitoring will run in parallel. This fault is common to nearly all methods.

Please do not run off with the idea that every project should follow every PMBoK concept. This is very much a set of guidelines that form a fine basis for a method or methods within each organisation.

5.1.2 Related qualifications

PMI manages a qualification process which that successful candidates Project Management Professional (PMP) status. To join the ranks of PMPs around the world you need to:

- prove a significant history of involvement with projects, backed up by colleagues;
- pass an examination exploring your knowledge of PMBoK;
- pay the fees.

Your PMP will expire unless you keep up to date with development through a system where attending courses, events, conferences and other relevant activities earns you professional development units (PDUs).

5.2 Projects IN a Controlled Environment (Prince2)

The Cabinet Office (previously known as UK Office of Government Commerce) developed this project management method, which has become the de facto method, especially in the public sector in the UK. It is claimed to be a process-based method that is suitable for any type of project that an organisation intends to implement.

5.2.1 Principles of Prince2

According to its authors, seven key principles differentiate Prince2 from other methodologies (Figure 5.2). These are:

- *Continued business justification:* The Prince2 methodology believes that for every project there should be a sound business case that should be documented and reviewed at various intervals of the project to ensure that the project in view is still sustainable.
- *Learn from experience:* Prince2 focuses only on the critical areas required for a project and is not as detailed at the PMBoK method. It therefore requires a level of experience from the project manager to fill in the gaps. This principle suggests that a project 'team' should learn with each project and pass on learnings to future projects to aid their smooth execution.

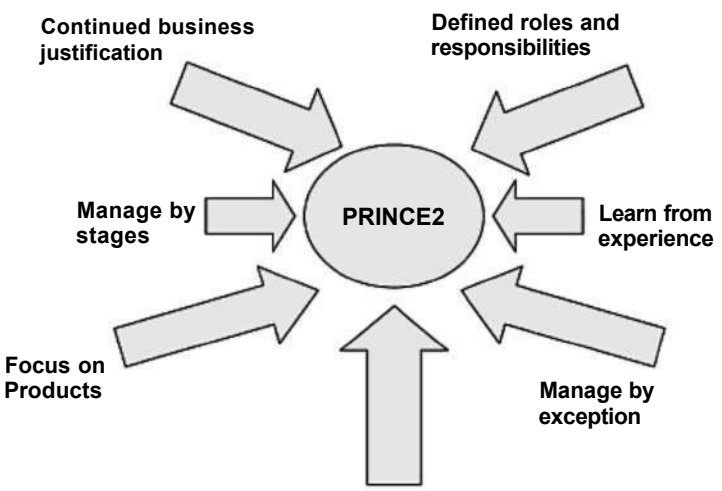

Figure 5.2 Prince2 principles. © Crown Copyright 2009. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO

- *Defined roles and responsibilities:* Depending on the size of the project or the organisation, some form of structure is required. It is essential for project teams to define and understand what roles and responsibilities are required. Prince2 suggests an organisational structure for a project, explaining the role of the project manager, project board and others.
- *Manage by stages:* As it is important for a project to be monitored through its life cycle, the Prince2 methodology is divided into stages that allow ease of planning and monitoring. At the end of each stage or phase there may be a 'formal checkpoint' or 'gateway' that allows the project to either proceed to the next stage, change direction or just stop.
- *Manage by exception:* Prince2 offers high-level management the opportunity to have control over the project without actually being consistently present. Prince2 suggests that there are four management levels when dealing with project management, three of which are within the project for directing the project, managing stages and delivering the end result, and the last one, depending on the size of the project, either corporate or programme management. On each level, management is given the free will to act accordingly unless there is need for higher management. Nonetheless, reporting and consultation are still done as initially planned.
- *Focus on products:* For any given project, it is important to define what the objectives are and what the expected deliverables will be. Prince2 supports this by placing focus on the deliverables at end of each activity. This enables everyone to be aware of what to expect and monitor if the output meets the requirements. This indirectly relates to the monitoring the scope of the project.
- *Tailor to suit the environment:* As mentioned earlier, projects vary with size, complexity, environment. It is therefore important to be able adapt a method when the need arises. Prince2 is one of such methods; it can be tailored to meet any project, irrespective of the size or complexities. However, caution should be taken when implementing it, as organisations tend to get carried away when adapting it and ignore certain parts of the methodology. The right information should be delivered and the right decisions should also be made.

5.2.2 Themes of Prince2

Prince2 is big on the idea of a 'product'. One important product is the thing that the project is designed to create – the building, the software tool or the new process. In addition, most tasks produce some kind of product – a floor-plan, a specification for a software tool or a set of test scripts.

Key themes are areas of a project management that need to be continuously addressed, and in the case of Prince2 they are areas that need specific treatment to enable the methodology to be effective. There are seven such key themes that Prince2 relies on (Figure 5.3):

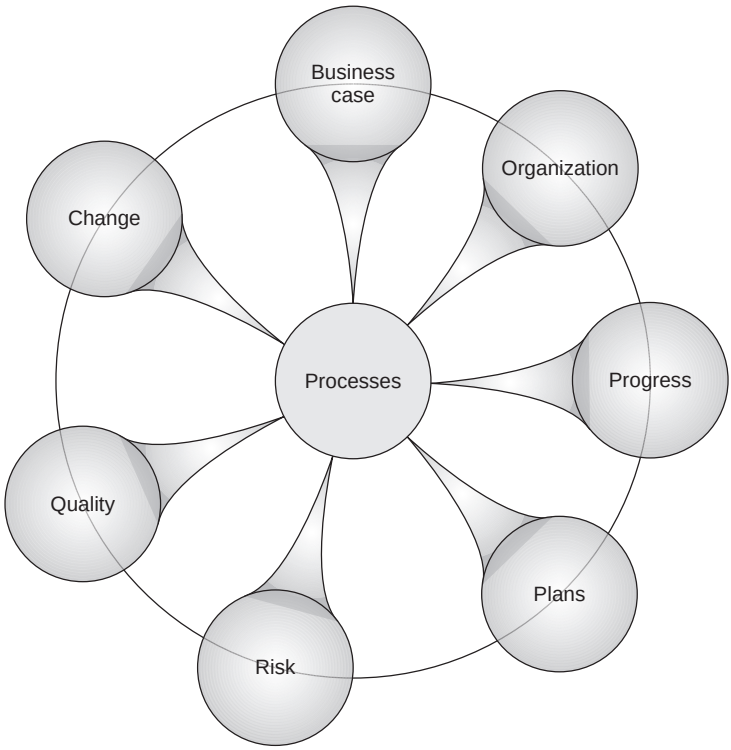

Figure 5.3 Themes of Prince2. © Crown Copyright 2009. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO

- *Business case – the why:* Justifying why the project is necessary for the organisation is a key condition for the Prince2 method. The project board or some other authority has to review the business case before the commencement of any project and, as mentioned in the principles, the business case also has to be monitored during the project life cycle to ensure that the project is still viable.
- *Organisation – the who:* An organisational structure is essential in any project management team, as there are different individuals responsible for directing and executing the project to deliver set results. Prince2 provides such structure, defining what the roles are, the responsibilities and the relationships between all involved. This theme ensures that the appropriate communication between all parties involved is organised.
- *Quality – the what:* For the Prince2 methodology, quality is an important criterion and, as such, it is integrated into both management and technical processes during execution. In order to ensure products that are

fit for purpose, Prince2 defines and implements the required resources that will be needed.

- *Plans – the how:* Plans are the main strength of any project. Depending on the type and size of the project, Prince2 offers a series of plan levels that can be tailored to fit. The procedures required to develop and update these plans and the required product-based planning technique are described within this theme.
- *Risk – the what if:* It is impossible to avoid risks during the life cycle of a project. As uncertainties remain unknown, it is therefore sensible to identify, assess and control such uncertainties. Prince2 defines the point in the life cycle of the project where the risks should be reviewed, gives a detailed approach to managing such risks and continues to track these risks until the end of the project.
- *Change:* It is important to have control over the changes that occur during the project life cycle, as they may have a significant impact on the business case or budget and, as such, management needs to know what decisions to take regarding the changes. Change control here refers to changes to the scope of the project that come up during the project's life cycle. Requests for an extra report or extra staircase are typical. This is popularly known as scope creep: many projects grow in terms of scope but stay put in terms of time and budget. In extreme cases it is known as scope gallop. So a change control is required so as to avoid negative impacts on the project objectives. Such changes could be specification changes or off-specification changes or basic management changes. Configuration management, which is tracking the components of the final product, is also addressed in this Prince2 theme. It helps the project management team to have control over the products.
- *Progress:* The plans that have been approved at the different stages of the project life cycle need to be monitored to ensure that they are still feasible. This theme describes the decision-making controls that ensure that the product is appropriate as specified; the project remains viable when set against the business case; the project is running against the set criteria; and the risk level is acceptable. Prince2 has controls which aid this, and, as mentioned earlier in the Prince2 principles, 'manage by exception' allows high-level management at different levels to have control over the progress of their defined stages.

5.2.3 The Processes of Prince2

The Prince2 method offers seven processes; however, it is left to the management team to decide how extensively it will want to apply the processes. These seven processes might be useful in a large, complex and high-risk project, but normal, simpler projects will get by with fewer processes and simpler versions of each.

- *Starting up a project:* This is a one-off, pre-project process that is geared towards ensuring the requirements for initiating the project are present. The project management team needs to be defined, with its roles and responsibilities assigned; the project scope needs to also be defined, as well as the client's quality requirements. This is the start phase of the project, where the unknowns become known and the organisation can then decide if the project will be worth the effort it is about to become immersed in.
- *Directing a project:* This phase is directed at the very busy key decision makers of the project, the people who represent the sponsors, the suppliers, the users and the project board. As they oversee the project throughout its life cycle, and by adopting the Prince2 principle of 'manage by exception', these individuals are able to direct the project: they can authorise the preparation of both the project plan and the business case. They can also give the go-ahead for the project's execution and monitor it until it reaches a controlled and, hopefully, successful close.
- *Initiating a project:* This is another process that occurs only once in the project life cycle. The initiation process lays a foundation by analysing the work required and this enables the organisation to make the final decision on whether or not it wants to continue with the project. A project initiation document (PID) is created at the end of this process, which then becomes a baseline for measuring progress during the project life cycle.
- *Controlling a stage:* This phase is directed towards the project manager, ensuring that they control and monitor the project effectively and are able to react appropriately to any unforeseen change that occurs. This stage is repeated continuously through the developmental stages of the project to ensure that the desired deliverables are delivered.
- *Managing product delivery:* This is a way for project managers and project teams to agree on the work that is to be carried out, especially if there are teams that are unfamiliar with the Prince2 methodology. A work package that contains the targets and requirements is derived, and the process continues.
- *Managing a stage boundary:* The transition from one stage to another needs to be managed effectively so as to ensure that the previous stage was completed as defined and the inputs for the next stage are as expected. Information is also given to the project board in order to evaluate the project and decide if it is still viable against the business case.
- *Closing a project:* This is where the project terminates. It is important for a project to close on completion, as lessons learnt, as expressed in the principles of Prince2, can be derived.

There is research that indicates that the early Prince2 stages, especially the creating of a PID, are widely used but that the later processes and stage boundaries are not so common.

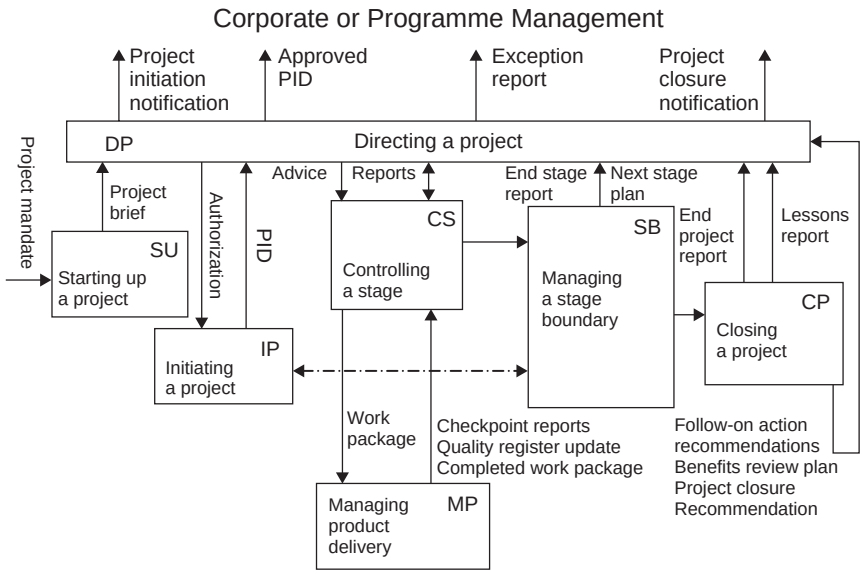

Figure 5.4 The Process Model of Prince2. © Crown Copyright 2009. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO

Prince2 does not guarantee success, it is merely a tool and technique, as all others, which, when properly implemented under the right form of management, will deliver project management success that will ultimately deliver project success.

Please do not run off with the idea that every project should follow every page from Prince2. This is very much a set of guidelines that form a fine basis for a method or methods within each organisation. Many organisations have created a range of methods using a popular naming convention used by most clothing shops (S = small, M = medium and L = large), so that different methods suit different types of projects.

5.2.4 Related qualifications

APMG-International manages a qualification process on behalf of the Cabinet Office and the Best Practice Group (BPUG) that gives successful candidates Prince2 Practitioner status. To join the ranks of Prince2 practitioners around the world you simply need to sit and pass an examination. No evidence of experience or practical knowledge is required. Anyone with a good memory can pass this examination.

Most people attend a five-day course with an approved training provider, in which you sit the Foundation examination at the end of day 3 and the Practitioner examination on day 5. A significant proportion of people are happy to go no further than passing the Foundation examination. You can prepare for the examination using distance-learning tools, but the majority of people get their employer to pay for a week's training.

5.3 *Managing Successful Programmes (MSP)*

Managing Successful Programmes (MSP) is published by the UK Cabinet Office, previously known as the Office of Government Commerce. At the time of writing the current version, issued in 2011, is a guide to managing programmes of change, programmes that are designed to change the host organisation and to deliver benefits of strategic value.

MSP is built on three concepts, which are summarised in the neat diagram in Figure 5.5. The central area shows the overall life cycle of a pro-

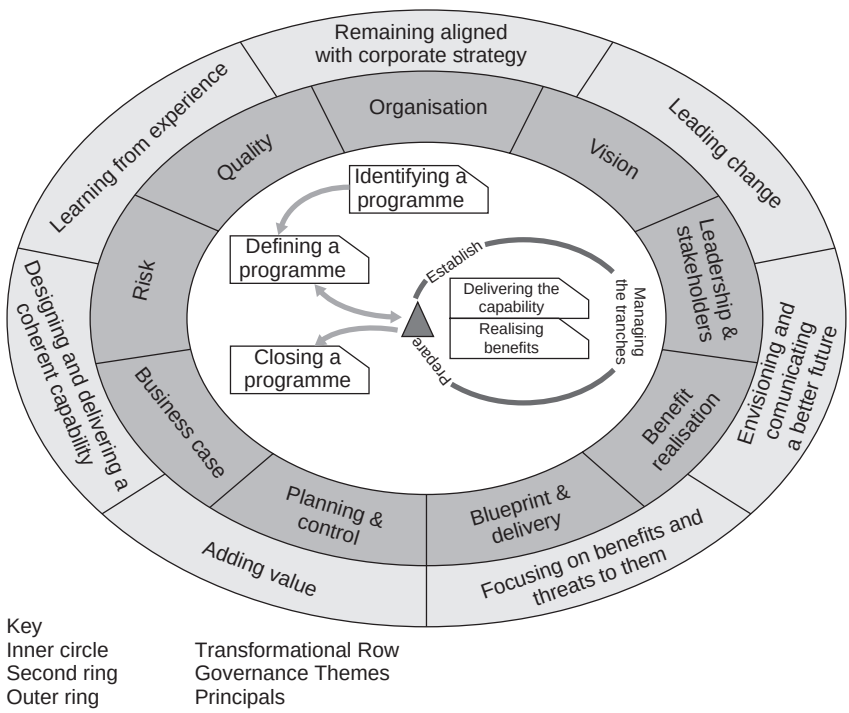

Figure 5.5 MSP diagram. © Crown Copyright 2009. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO

gramme, known as the Transformational Flow, where a programme is identified and defined, before an iterative process of delivering the capability and realising the benefits. Finally, the programme is closed. The second ring contains the Governance Themes proposed by MSP, and the outer ring shows the Principles of the programme.

Looking at this diagram gives us an image of a Cabinet Office specialist leaping out of bed in the middle of the night and sketching out this brilliant diagram after a flash of inspiration. If this picture is in any way accurate and you are that specialist, please give me a call.

5.3.1 MSP life cycle

The MSP life cycle can be expanded into a linear form that looks as shown in Figure 5.6. The slight problem MSP (and for that matter PMI's Program Management Standard in section 5.4) has to face is that the fourth and fifth stages are not simply sequential. The relationship between delivery of the capability and the achievements of benefits can vary widely, depending on the nature of the programme

Once a programme has been defined and approved, the team will start running the projects that make up the programme. At some point in time the last project will come to an end and the overall capability will be delivered. Hopefully. The beginning of benefit delivery may start any time after the first project and will almost certainly go on after the programme has closed.

Consider a programme to update a computer system in the 400 offices of a government agency around the country. Imagine that the team has to visit each office and install some new technology. The first benefits will therefore be delivered as soon as the first office switches to the new system, greater benefits will be achieved as more and more offices come online, and these benefits will continue long after the last office is switched over.

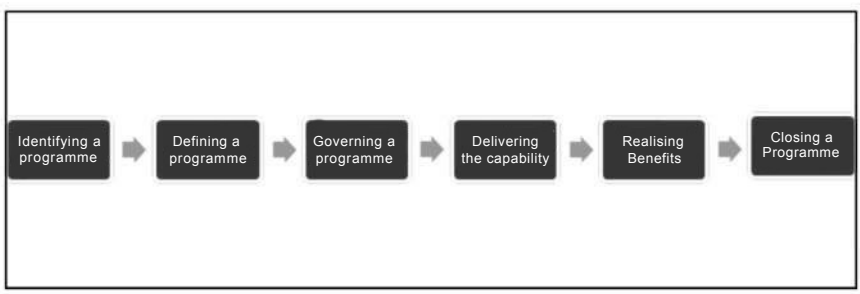

Figure 5.6 The programme life cycle according to the Cabinet Office. © Crown Copyright 2009. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO

On the other hand, a new facility like a bridge will only start to deliver benefits around the time that the last projects end – once the bridge is built, the toll booths are opened, a celebrity has cut the tape and the traffic starts to flow and pay its tolls.

In the Cabinet Office's language we have a stage called 'Realising Benefits' which precedes programme closure. This is unrealistic, as very often a programme is formally closed once all the projects within it have delivered their products, these products have been adopted by the on-going management of the organisation and responsibility for benefits realisation has been transferred from the programme team to the on-going management team. 'Realising Benefits' means that benefits are understood, measures are agreed and responsibility is arranged, but not that all the benefits are actually achieved.

The Cabinet Office also has a stated gateway process, so we can add gateways between these steps. The Cabinet Office provides us with six gateways and, again, the idea is that the programme team presents its work to date to the programme board or steering committee, seeking approval to proceed to the next stage or step. The Cabinet Office has named these decision points as follows shown in Figure 5.7.

We can connect the two diagrams presented in Figures 5.6 and 5.7 as shown in Figure 5.8. This indicates that a strategic assessment decision is made after the programme has been identified; a business justification decision follows the programme definition. Once the programme governance stage has prepared the organisation and the programme team to deliver the programme we can approve the delivery strategy and make the big investment decision. When the portfolio of projects within the programme has been carried out and delivered its products, the new facility will be ready for service and we can continue into the delivery of benefits.

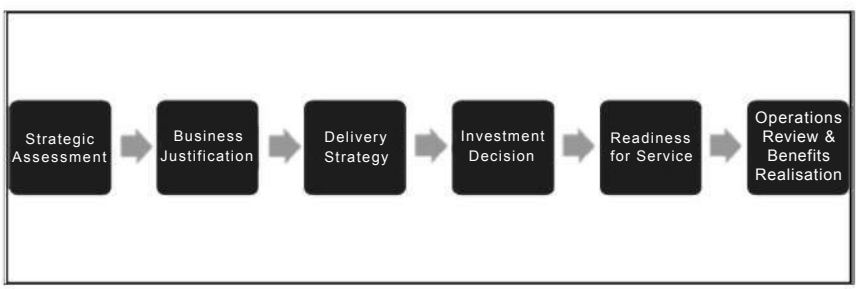

Figure 5.7 The programme decision gateways according to the Cabinet Office. © Crown Copyright 2009. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO

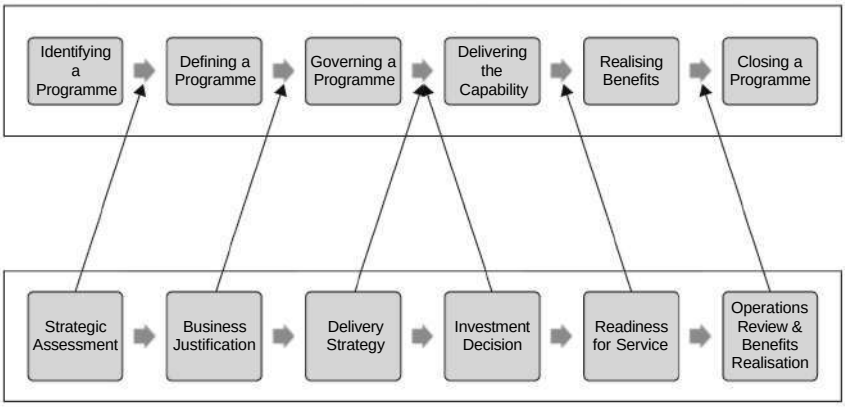

Figure 5.8 The programme decision gateways according to the Cabinet Office. © Crown Copyright 2009. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO

5.3.2 MSP governance themes

MSP proposes a series of themes each of which focuses on a useful and relevant aspect of a programme. Here they are.

5.3.2.1 Organisation

This section deals with the organisational structure of the programme, referring to three layers of the programme organisation: the sponsoring group, the programme board and the project boards. It provides guidance on the roles to be filled and their responsibilities, including the senior responsible owner; programme manager, business change manager, change team, programme office, programme assurance and other lesser roles.

5.3.2.2 Vision

This section outlines the concept of a vision and the vision statement. These set the overall image of the shape and operation of the organisation in broad terms after the programme has ended.

5.3.2.3 Leadership and stakeholder engagement

This section is very much aimed at the human side of programme management. It discusses the need for engaging with the many stakeholders

in a programme and how leadership is needed to head up a programme of change. It refers to the task sometimes known as 'business change management', where the human side of adopting and using a new capability is addressed.

5.3.2.4 Benefits realisation management

This section links benefits to objectives and strategy. It describes some ways of modelling benefits and outcomes and benefit mapping. Benefit ownership and benefit profiles are also discussed. Rarely amongst methods, the idea of dis-benefits is raised. A dis-benefit is an outcome of the programme that makes some part of an organisation less efficient or effective. Dis-benefits are more common than you might expect. For example a new computer game might lift sales and increase profitability, but increase the costs of user support and marketing. In this section the benefits realisation plan is discussed.

5.3.2.5 Blueprint design and delivery

MSP uses the term 'blueprint' to describe a document defining the way the organisation currently works and the way it will work post-programme. A blueprint is not concerned with how the changes will be delivered, but defines the changes that are required to be delivered. The term blueprint comes from the construction and engineering industries, where blueprints show the current building and the layout of the building that is required.

5.3.2.6 Planning and control

A programme plan includes a schedule or timeline for the programme but covers much more than just time. A programme plan explains how risk, assumptions, resourcing, deadlines, constraints and transition are to be managed as well as providing a time-scale and explaining how progress will be monitored and controlled.

5.3.2.7 The business case

This section explains the content of the business case and other related documents, including the programme mandate and programme brief.

5.3.2.8 Risk management and issue resolution

This covers the management of risk, including escalation and benefit risk as well as the management of issues. Change control is also dealt with in this section.

5.3.2.9 Quality management

As well as dealing with concepts of quality, including the role of the programme team and suppliers and contractors, this section looks at critical success factors and configuration management.

5.3.3 Related qualifications

APMG-International manages a qualification process on behalf of the Cabinet Office that gives successful candidates MSP with one of three levels of status. To join the ranks of MSP practitioners you need simply to sit and pass an examination. No evidence of experience or practical knowledge is required. Anyone with a good memory, after a lot of hard work, can pass this examination.

Most people attend a five-day course with an approved training provider where you sit the Foundation examination at the end of day 3 and the Practitioner examination on day 5. A significant proportion of people are happy to go no further than passing the Foundation examination. A smaller number of enthusiastic people stay for the full five days and then go on for an additional two days either immediately or at a future date to sit the Advanced Practitioner examination. You can prepare for the examination using distance-learning tools, but the majority of people get their employer to pay for a week's residential training.

5.4 The Standard for Program Management

From its US base, the Project Management Institute (PMI) produces a range of products, including the PMBoK (usually pronounced 'pimbok') outlined in section 5.1. To accompany PMBoK and to cover the program management topics, it published the second edition of its *Standard for Program Management* in 2008.

> Note: The switch to the US spelling in this section reflects the terms used in this publication.

This book is available from the PMI and provides a rather technical approach to managing programs of change. It is very much about change programs; it devotes a large number of pages to understanding the organisation's strategy and developing programs that will help to deliver that ambition. It is really not going to help you much if you are in the business of delivering a range of projects, if you're not involved in defining what those projects are.

Whilst a good range of tools and processes are proposed, there is surprisingly little about the role and responsibilities of the people involved.

No standard could be complete without a life cycle and, like all life cycles, the PMI life cycle has weaknesses. Most obviously, it proposes three distinct stages, each ending with a gateway, before the first project in the program gets going. According to PMI, pre-program preparations, program initiation and program setup should all precede the start of the early projects within the program (Figure 5.9). Very few organisations are going to insist on each program passing through all three stages, three gateways and three go/no-go decision points before starting serious work on a program. Most merge these three stages in two stages or even a single stage. In the worst case, an organisation misses these stages out altogether, replacing them with a senior manager having a brainwave in the bath at home and announcing the new program to the amazed assembled staff the following morning.

The title of the fourth stage in the life cycle is very misleading. 'Delivery of program benefits' does not really paint a picture of the initiation and management of the constituent projects within the program and the delivery of the capability to the organisation. Nevertheless, this is the stage where those projects go through their own life cycles.

As with MSP, it is entirely possible that no benefits are expected to be achieved until all the projects are completed. It is also possible that some benefits are achieved after the first few projects and the benefits continue to flow as more and more projects are completed. It all depends on the character of the program.

In the program closure stage, PMI does talk about the transfer of responsibility for benefit delivery and measurement from the program team to the business-as-usual team. The life cycle seems to suggest that the program closes once all benefits have been delivered. This is very rarely the case. Normally, benefit delivery continues long after the program management team has gone on its way to new opportunities, new programs or a long-deserved holiday in the sun. What actually happens in most cases is that the program team hands over the new capability (the output or result of all the projects in the program), plus responsibility for benefit realisation, to the business-as-usual management team before closing down the program and heading off to pastures new.

> In some cases the program team is too busy denying any involvement with the recent disaster and scanning job vacancies to do any such thing.

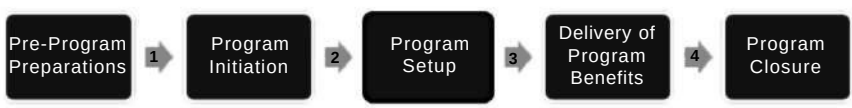

Figure 5.9 The program life cycle according to the PMI

So the title 'delivery of program benefits' is misleading.

Perhaps you can think of a better title. If so mail, it to us written on a £5 note. We'll donate the money to charity and forward your suggestion to PMI. Even better, you tell them of your ideas yourself.

Some better suggestions include 'delivery of the capability' or 'execute projects and deliver early benefits' or 'delivery of the capability and early benefits'. Perhaps an additional stage would allow the separation of the management of the projects and the delivery of benefits.

The PMI standard devotes a chapter to each of the following knowledge areas:

- Program integration management
- Program scope management
- Program time management
- Program cost management *
- Program quality management *
- Program human resource management *
- Program communication management
- Program risk management
- Program procurement management
- Program financial management
- Program stakeholder management
- Program governance.

Actually that is not quite true, as three of these topics simply refer the reader to the PMBoK guide. Those three topics have a star by them in the above list. PMI assumes that cost, quality and human resource management are the same for projects and programs. This is not quite true, as every program manager has to agree with the project managers how these (and many other matters) are going to be dealt with through the life of the program. For example, the project managers may agree to use a specific form of spreadsheet to store their budgets so that the program manager can consolidate the many project budgets into one program budget. You will not find a mention of this in PMBoK.

Surprisingly, PMI offers no chapter devoted to program benefit management, this topic being dealt with in the chapter on governance! If benefits are the driving force of a program, then surely they deserve deeper coverage in a chapter of their own.

A major document in the PMI standard is the program charter. This brings together all the documentation prepared in advance of the key go/no-go decision. The components of the program charter include:

- justification
- vision
- strategic alignment
- desired outcomes

- program scope
- expected benefits
- initial components
- resources required
- key stakeholders
- governance processes and structure
- success criteria
- constraints
- assumptions
- risks
- high-level road map
- program milestones
- program manager responsibilities and authority
- roles and responsibilities.

The *Standard for Program Management* proposes 47 processes and, whilst it would not be useful to explain all of these 47 processes, we can take one to give you an idea of what to expect.

One of the processes is called 'Identify stakeholders'. This explains how the program team will use as inputs to this process the following:

- any contracts with suppliers, contractors or customers
- requests and proposals
- the organisational chart
- the program stakeholder management plan

in order to identify the stakeholders that need to go on a stakeholder register.

The outputs of the process will be a:

- stakeholder register
- a stakeholder inventory
- the program stakeholder management plan updates
- stakeholder management strategy.

This process leads on to the 'Plan communications' process, where the team decides how, when and to whom they will communicate through the program life cycle.

Pages and pages are given to detailed processes like this, making this publication a great source for lovers of processes.

5.4.1 Related qualification

PMI manages a qualification process that gives successful candidates Program Management Professional (PgMP) status. To join the ranks of PgMPs around the world you need to:

- prove a significant history of involvement with programs (this might have been involvement on projects within a program);
- have your application backed up by your colleagues;
- pass an examination exploring your knowledge of the *Standard for Program Management*;
- pay the fees.

Your PgMP will expire unless you keep it up to date with development through a system where attending courses, events, conferences and other relevant activities earns you professional development units (PDUs). At the time of writing there are roughly half a million PMPs and less than one thousand PgMPs loose in the world. You should draw your own conclusions from these statistics.

5.5 Portfolio, Programme and Project Offices (P3O)

The Cabinet Office is based in the UK and forms a part of the UK government. It publishes a variety of useful guidance for us projects people, including *Prince2*, *Managing Successful Programmes* and here, P3O.

We are back in the UK, so will return to the UK spelling of programme.

P3O is about Portfolio, Programme and Project Offices.

You may have firmly fixed ideas about the role of a programme office. If you sneak a look at Chapter 6 of this book you will see it can have many different titles (programme office, project office, project support office …) and many roles. You will also discover that there is no internationally known standard and very little connection between the title, organisational location and role.

For the purposes of clarity the term 'PO' will be used throughout this discussion to refer to project or programme offices. P3O refers to this publication on the topic.

So P3O proposes a group of roles under three main headings. Your programme office, whatever it is called, might cover some, all or none of these roles. A single PO may cover all of these roles, or the roles may be split amongst two or more different POs, in which case they will have different titles.

5.5.1 Decision support

In this role the PO does the leg work to help the senior management decide which programme and projects should be selected and authorised.

The PO team analyses each idea, maintaining a clear view of the 'big picture', the organisation's strategy, and providing a 'single version of the truth' to the decision makers. Clearly the decision makers must know the state of the current live programmes and projects before making decisions about new ones, so the PO has also to provide visibility across the project landscape. We'll come to that role that in a moment.

To be clear, POs do not make decisions about new programmes, they very rarely authorise work themselves. They do, however, analyse new ideas and report to the decision makers. So in this role the PO is supporting the organisation's desire to 'do the right work'.

5.5.2 Governance and control

In this role the PO is much more concerned with 'doing projects right'. The PO has the role of checking that the many projects and programme are being managed in line with the methods in use within the organisation. It will expect to see the project initiation documents (PIDs), the risk registers, the minutes of meetings and so on. Its purpose is to check that the project teams are carrying out the processes they should be carrying out and doing them all to a good standard.

In a sense the PO is a little like the police. The PO can become quite like a policeman asking a driver, with that smug imitation of politeness that lets you know that you don't even deserve politeness: 'May I see your driving licence and insurance documents, sir?' To continue this line, the PO may report that a project has started before the PID has been signed off, the bar chart hasn't been updated for six months and is too high level to be useful and there is no risk of finding a risk register.

It follows that the PO must have a thorough knowledge of the method in use, so it will probably 'own' it. The PO will be the font of knowledge about the method and will be responsible for changing and updating it from time to time. Reports from the PO will normally head towards the programme managers and their teams.

This 'control' role will normally include providing that 'visibility across the project landscape'. The PO will work to gather together progress measures across the range of work on a regular basis (weekly, monthly …) and bring this all together in a range of high-level reports. The PO may have automated this process in some way, through a programme management tool or a project management information system (PMIS).

5.5.3 Centre of excellence

In this role the members of the PO team are very helpful people. They are able to support the project managers on technical project management

issues like planning and control tools and techniques. They may organise project and programme management training and mentoring. They may be involved in matching project and project teams and developing the organisation's ability to deliver successful projects.

5.5.4 Level of office

Many organisations have developed one or more POs in an unstructured way. They often spring up first within the IT/MIS function and spread their influence to the wider organisation once they have proved their worth. There may be more than one group and it is not that unusual for a number of POs to merge together into a powerful force for good.

You should get the idea that the location of the PO on the organisation structure does not follow any fixed guidelines. A Director of Projects, if there is one, with responsibility for all projects and programmes, will want the PO to report to him or her. A single programme manager may want a PO working solely on their programme. A PO within IT might report to the head of department. A PO reporting to the finance director will be focused on budgets as much as on anything else.

5.5.6 Structures of portfolio, programme and project offices

There is no 'one size fits all' way of structuring portfolio, programme and project offices. P3O uses the term 'model' to describe the way, in both structure and nature (such as temporary or permanent), that the offices and their functions can be organised.

P3O describes five types of model as shown in Table 5.3, whilst recognising that there are many other options, for example aligned to local organisational culture and business decision and delivery structures. Figure 5.10 shows an example of the hub and spoke form. By the way, hub and spoke is also a dated description of a management structure where the hub represents the senior management and the spokes represent the lines of communication.

Many project managers will entertain you by explaining the mushroom form of management where they keep you in the dark and shovel manure on your head twice a day.

5.5.7 Related qualification

APMG-International manages a qualification process on behalf of the Cabinet Office which gives successful candidates the P3O qualification, with

Table 5.3 P3O models. © Crown Copyright 2011. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO.

MODEL NUMBER	MODEL NAME	FEATURES
1	Organisation portfolio office model	A single permanent organisation-level portfolio office, focused on strategic portfolio support, planning, delivery support and COE [centre-of-excellence] functions, with temporary programme and project offices set up to support new initiatives as they are launched.
2	Hub and spoke model	Large-organisation model with multiple decentralised permanent hub portfolio offices designed to serve specific divisions, geographical regions, business units, departments or functions.
3	Temporary office model	No permanent office exists, temporary programme and project offices (or individuals with support skills) are set up as new initiatives are launched.
4	Virtual office model	No physical central office, P3O functions are carried out by business or functional units across the organisation.
5	Small organisation model	Very small office or single individual, usually focused on consistency of methods/training etc.

one of two levels of status. To join the ranks of P3O practitioners around the world you need simply to sit and pass an examination. No evidence of experience or practical knowledge is required. Anyone with a good memory, after a lot of hard work, can pass this examination.

Most people attend a five-day course with an approved training provider where you sit the Foundation examination at the end of day 3 and the Practitioner examination on day 5. A significant proportion of people are happy to get no further than passing the Foundation examination. You can prepare for the examination using distance-learning tools, but the majority of people get their employer to pay for a week's training.

5.6 Management of portfolios

The Cabinet Office also publishes *Management of Portfolios* (MoP).

A portfolio management team normally cover all of the programmes and projects within an organisation. If you consider for a moment an organisation with a long-term strategy you will see that it will have temporary structures and teams to manage a range of individual programmes

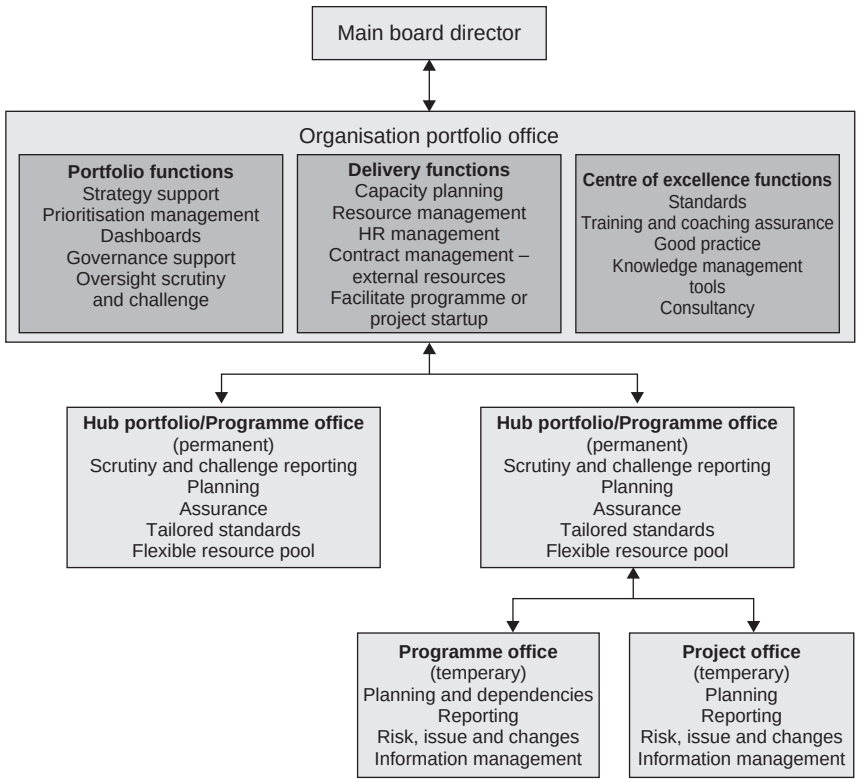

Figure 5.10 An example of the hub and spoke model. © Crown Copyright 2011. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO.

and projects. These will form, manage their work, hopefully, deliver their objectives, and then disband.

On the other hand, the portfolio team may be much more permanent, it will be guardian of the organisation's strategic objectives and have the authority to investigate and authorise projects and programmes that it believe will help to deliver the organisation's strategy (Figure 5.11). *Portfolio Management* is focused on the overall contribution of the outcomes, benefits and outputs to strategic objectives. MSP and Prince2 seek to ensure successful delivery at the individual programme or project level. The basic portfolio process is simplicity itself (Figure 5.12).

Portfolio groups often reflect the senior management of the organisation. The portfolio board might mean the main board of directors holding a portfolio meeting after every third board meeting, as they are the same people already together in one room. Their objective is to find a balanced group of programmes and projects that will most help to deliver the strategy.

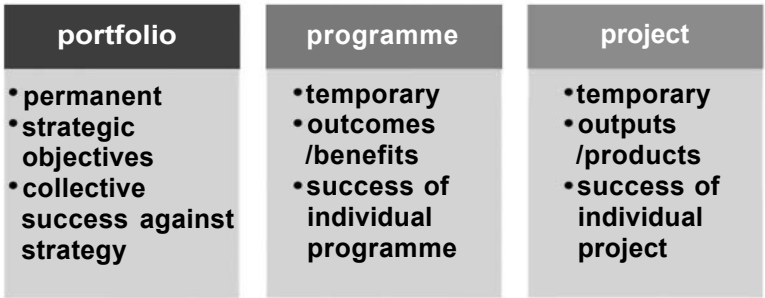

Figure 5.11 Portfolios, programmes and projects. © Crown Copyright 2011. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO.

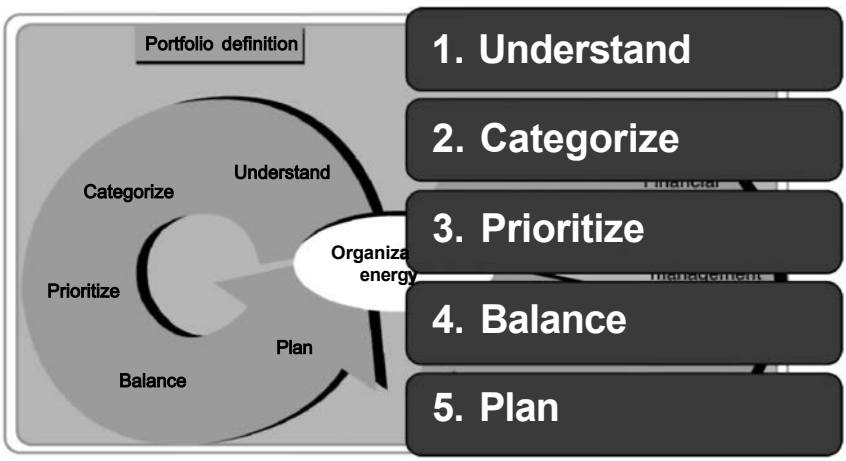

Figure 5.12 The portfolio management process in concept. © Crown Copyright 2011. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO.

This means, firstly, understanding what each new idea is actually about (here the PO may help with some useful input). Once understood, the idea can be categorised and prioritised, seeking a balanced range of initiatives. Some of these may be very high risk/high return; others might be less valuable but less risky. Some may involve technology improvements, others may involve changed methods or the construction of manufacturing facilities of offices.

Figure 5.13 is taken from a course book for a management of portfolios training session and sums up much of the concept very well.

Corporate Governance
Defined as

The ongoing activity of maintaining a sound system of internal control by which the directors and officers of an organisation ensure that effective management systems, including financial monitoring and control systems, have been put in place to protect assets, earning capacity and the reputation of the organisation.

Corporate Governance support by Portfolio Management

- Strategic objectives linked to investment
- Transparency & effective accountability
- Framework of rules and practices for delivery of the portfolio
- Clarity on progress against plans
- Integrated assurance
- Responsibilities and accountabilities for making decisions
- Audit trail of investment decisions

Budgeting & resource allocation

In either case common portfolio management standards may be applied across the organisation.

Additionally, there may be a central portfolio governance body to apply control (e.g control of budgets) to programmes and projects above a set level.

It may be that fund allocations are based on agreed business cases with ongoing assessments of viability & approval.

Programme & Project

Fit for purpose standards, process, people

- limited resources – used on highest priority
- risk management
- dependency management – effective **across** the portfolio

Programmes and projects may well be slowed down or speeded up to benefit the portfolio as a whole

Figure 5.13 Extract from *Management of Portfolios* course book. © Crown Copyright 2011. All rights reserved, material is reproduced with the permission of the Cabinet Office under delegated authority of the Controller of HMSO.

5.6.1 Related qualification

APMG-International manages a qualification process on behalf of the Cabinet Office which gives successful MoP candidates their qualification. To join the ranks of MoP practitioners around the world you need simply to sit and pass an examination. No evidence of experience or practical knowledge is required. Anyone with a good memory, after a lot of hard work, can pass this examination. Most people attend a five-day course with an

approved training provider where you sit the Practitioner examination on day 5. You can prepare for the examination using distance learning tools, but the majority of people get their employer to pay for a week's training.

5.7 The Standard for Portfolio Management

This PMI publication is much less well known and much less useful. It does attempt to cover the issues of portfolio management, but it is weak and incomplete in a number of key areas. You rather get the impression that PMI felt it needed a book with this title and got someone who had too limited knowledge of the strategic processes to make a really useful contribution.

There are no qualifications associated with this publication.

5.8 The APM Body of Knowledge

The Association for Project Management (APM) is the UK professional body for projects people. At the time of writing the current version of the APM's Body of Knowledge (APMBoK) is version 5.

APMBoK could be used as a basis for a method, although it lends itself to this use less well than do some other publications. It is more like a very full glossary than a method. It does not lay down processes or procedures but focuses on topics that good portfolio, programme and project managers should know all about. It is mentioned here to complete the picture for you, dear reader, although I doubt that the APM would suggest it as a basis for a full method.

APMBoK does devote a page or two to each of a very wide range of project-related topics. The list is huge, but it includes cost management, risk management, funding, sustainability, assurance, time scheduling, change management, value management and so on. It is not quite a textbook as it does not attempt to teach techniques and processes. You'll get a useful overview of each topic so that when you access the excellent section referencing books and other publications on the topic you will at least start with a basic understanding.

5.9 Are methods essential?

Why do you want a method? A method lays down house rules for running a project. It describes the roles that people should adopt, their relationships to other roles, the stages and phases that the work should pass through and the documents that should be prepared. It will be at its least useful in a normal, single project. By the time you had written down your

method, a single project would be nearly over and there would be nothing left to apply it to.

That is not to say that a method is never of value on a single project. I met a project manager on a large, single-construction project whose team was made up of people from many organisations. At the start of the project they were strangers to each other. The project manager got the working team to set out a method because this forced the team to sort out a way of working amongst themselves. The value was partly in the preparation of the book and partly in issuing the book to the other, late-joining team members.

But methods clearly are going to pay their way where you have a number of projects to undertake. Not only is the idea of a set of rules for running projects going to apply in an organisation where there are many projects, it is going to be at its best where those projects are similar. Not surprisingly, the whole idea stems from the world of IT, where all projects are similar.

'All IT projects are similar'! Can this be true? Well, in nearly all IT projects there is a specification process, where the computer people try to understand what the user wants; there is a design process, where the IT people try to come up with a system that will meet the need; and there is a build phase, where the programmers write the thing. Then there is a testing and installation phase, where the users discover how closely the system meets their needs. From a project-management viewpoint, most IT projects are similar.

It is these phases that Prince2 and its commercial competitors aim to tie down. So choosing to have a method is like choosing an attitude to life. If you want to control as much as you can so that you get fewer failures (but no great successes), then a method is for you. If you want to give people their heads so that you get some spectacular successes (and a few equally spectacular failures), don't bother reading Prince2. On this basis, you will not be surprised to hear that Prince2 is widely used in government IT projects.

There is a halfway house where you allow people to pick and choose from a methods toolbag to suit their environment.

Another sound reason for acquiring a method is self-preservation. A set method will almost certainly allow you to point the finger of blame at someone who bypassed the method, someone who didn't produce a product breakdown structure or who skipped a stage review. And if everybody did everything by the book, you can at least say you tried your best by using the best method around.

Yet another sound reason is so that you can answer 'yes' to the question: 'Do you use Prince2 or another approved methodology?' (They will use the full term, 'methodology'). This question tends to arise when negotiating to do IT work for a government department. Many will employ only contractors who use such a method. Now that is a good reason for at least acquiring and understanding a sensible method.

If your organisation does not have a method, perhaps you might suggest that you investigate the subject more fully and then run a project designing and installing a method appropriate to the company. If this unlocks doors with government, you might enhance your personal reputation a touch.

It is worth thinking about who is best suited to creating a method for you. You have a number of choices here. You can recruit some methods people to come in on a full- or part-time consultancy basis, learn about your company and write a method just for you. Your own company 'ology'. Of course you will have to pay them for their time whilst they learn about your organisation and the way it works. You'll also have to pay your own staff for the time they spend talking to the consultants and explaining to them how the company works. Another approach is to take some people from within your own organisation who are familiar with its systems and methods and get them to learn about method theory and create a method for you. Rather than take a methods expert and teach them about your company, you take a company expert and teach them about methods. Perhaps the ideal is a mixed team of both.

One of the more risky approaches is to select a fine member of the organisation whose current prime objective is to survive quietly until the retirement party ends and retirement begins. As this person ran some really great projects in their hey-day and since they know the company inside out they should be ideal for the job, but their motivation is low and they may have extreme difficulty in understanding what this method is actually for. Some organisations take a bright young thing who has recently joined the organisation. The bright young thing devotes some time to researching with a fresh eye how the organisation works and makes notes in a procedures manual or a method. There is a spin-off benefit here, apart from the method itself, and that is that you get a bright young newcomer who is familiar with all aspects of the company's machinations.

Methods tend to get stuck in a groove. As times change, as organisational structures change and as the company metamorphoses to react to those changes, the methods have to be kept up to date. There is a danger that the method becomes the Holy Grail, the organisational equivalent of the law. People often blindly obey the strictures of the method's scripture long after it has become irrelevant to the company's current way of working. It pays to set up a group now and then to update the method in light of changing circumstances. I have never seen a company with a suggestions box for improving the method, but some system for keeping an eye on the method reduces the danger of stagnation.

5.9.1 A final word on methods

One final word about methods and methodologies. This world of methods is packed with acronyms most of which have at least one 'P'. One of

the best is the alternative and possibly more popular meaning of Prince2: Projects Running INto Confused Excuses. We also hear of a much more common methodology than Prince2. It is called PRIDE – PRojects In Deep Excrement.

5.10 Portfolio and programme approval documentation

Bearing the different approaches and varied language of these methods in mind, let's look at the documents that are likely to support these processes and gateways within the programme management context. We will look at the major documents only in broad terms. If you need to work with the detail you'll have to get a copy of *Managing Successful Programmes* or the PMI *Program Management Guide*. There is no value in repeating it all here.

In this section we'll outline some of the key documents that are used in many organisations as a part of their programme and portfolio management processes. Do please remember that there is no single, perfect solution and that your organisation may use different names for the same things, or different things under the same names. If the UK government's Cabinet Office, the UK Association for Project Management (APM) and the US-based Project Management Institute (PMI) can't agree, what chance have we got? The documents are explained in the various methods published by these professional bodies and discussed earlier in this chapter. They are mentioned here because they are specifically designed to support the portfolio management process of submitting programmes of work and gaining authorisation.

Let's start with the content of a typical business case document (Box 5.1). You may note that this is not a million miles away from PMI's program charter.

Box 5.1 Key content of a programme or project business case

Programme or project name
This is fairly simple. It is very popular to try to choose short, exciting-sounding names for projects, names that get the hot-blooded worker's mind going, names that often speak of the future: 'Outlook 2120', 'Phoenix', 'New World 2025', or 'Programme for Growth'.

Name of proposer and sponsor
Someone will be backing this initiative. There may be a proposer backed by a sponsor. It is a fact of life that projects backed by adept and

enthusiastic senior managers will always have a much better chance of being approved than those proposed by shy and nervous juniors.

Date of proposal
Simply the date the proposal was or is to be submitted. Most organisations have a programme board or portfolio board that meets regularly (e.g. each quarter or half-year) to consider the existing live workload and look at proposals for new programmes and projects. Proposals therefore are generally submitted to coincide with this meeting cycle.

Summary of the project or programme
This is normally a statement of the content of the initiative. It explains what projects, tasks and activities will be involved and, especially, the deliverables that should be there after the project ends.

Expected benefits
This is a big one. This shows the way in which the business will benefit from its investment in the project or programme. It will describe what can be expected if the initiative is approved, and what if it is not.

This is such a big part of the proposal that we have devoted a whole section of this book to it. Please read section 1.8 to understand benefits, benefit management and benefit realisation.

Expected investment
The organisation needs to know what investment it will have to commit to if this proposal is to be successfully completed. This might mean a budget showing the cost estimates for each major phase of the initiative as well as the total sum. It will almost certainly include a contingency to cover risk.

The initiative may demand specialist resources – e.g. the time and effort of people and specialist machinery already committed to working elsewhere in the organisation. Their costs may be hard to establish and the proposal may estimate the amount of time and effort that will be needed from the various teams within the organisation.

5.10.1 The mandate

The mandate is normally a short, non-technical document outlining the whole idea for the programme (or project). It is usually created by the senior management of the organisation and is full of unanswered questions. An early job for the programme management team will be to flesh this out and to go back to the senior management team and ask 'is this is what you really meant?'

Mandates vary from a few pages to a sentence or two. John. F. Kennedy gave one the greatest programme mandates of all time in 1959 and 1960:

'We aim to put a man on the surface of the moon and bring him safely back to Earth by the end of the decade.'

A slightly less ambitious mandate from a UK retail organisation was:

We aim to be the fourth largest DIY retail organisation in the UK by 2020.

When the management team at the Ascot horse-racing venue decided to rebuild, it eventually agreed, after considerable portfolio management input, to 'build the best horse racing venue in the world'.

Mandates usually start the whole programme process running. In the language of the PMI, a mandate is issued during the very early 'Pre-Program Set-up' stage. In the language used by PMI, the programme may or may not get the green light to proceed, and at this mandate stage we really don't know if it will or not. Certainly there will be an authorisation for someone to spend some time taking an initial look at the mandate and developing it into more detail by thinking about the programme. But that may be all.

To confuse things slightly, the APM mentions that the term 'mandate' may be used to instruct the programme team to initiate the programme following some research and investigation.

5.10.2 Vision statement

A vision statement describes the capabilities that will exist after the programme has ended. *Managing Successful Programmes* (MSP) likes vision statements. A strong vision statement should achieve these objectives:

- define what success means, what 'good' will look like;
- motivate the team at the start and sustain it through adversity in both emotional and logical ways;
- describe the future, especially in terms understood by the broadest group of key stakeholders;
- outline a bold transformation change;
- remind the team what it is trying to achieve.

Vision documents are generally too high level to deal with timing or specific targets.

Let's have an example. This is taken from a region of the UK National Health Service and was part of its vision statement for a ten-year improvement programme:

- The NHS will support and encourage private sector companies and small businesses to invest in health promotion for staff including providing time off for smoking cessation and healthy catering policies.
- Mothers will receive consistent care from a midwife who is local, known and trusted by the patient.

- Healthy schools and children's centres will promote healthy-eating, exercise, smoking avoidance, alcohol awareness, sexual education and accident prevention.
- People with long-term conditions will be assessed by a range of professionals in order to develop a practical individual care plan.
- Out-of-hours access to care will be via a single accessible point of contact.
- An integrated clinical record will ensure that care is safe and that duplication of information gathering and clinical investigation is avoided.
- Clinical treatment of mental health problems will be supported by active management of social factors, including schemes to include patients into social environments where they have a role, a responsibility and a social network.
- A 'Key Worker' will be assigned to patients nearing the end of their life to coordinate care and assess, support and review the needs of patient and carers in the last weeks or months of life.

You can see that to achieve these elements, each of which identifies what 'good' looks like in an area of healthcare, will involve all sorts of projects and programmes; changes of all kinds. It plants ideas in the minds of the people working within the organisation, describing what they are striving to deliver.

5.10.3 The blueprint

'Blueprint' is a term that is bandied about by programme managers quite a lot, so you had better understand what it means. It is a term taken from the construction industry, where a construction blueprint shows how an existing building is to change. It might show walls to be demolished, doorways to be knocked through, stairs to be built and a helicopter landing-pad to be built on the roof.

Programme management blueprints are similar, except that they show how an *organisation* is expected to change.

Let's take an organisation that is about to undergo a strategic change, we can refer back to the DIY retail store chain, the organisation that decided to become the fourth-largest DIY retailer by the end of the decade. It is in section 2.2. They decided to run four programmes:

- New store programme: Locate, acquire and open 30 new stores near towns where we have no current presence, all by 2018.
- New services programme: Create and launch a nationwide kitchen and bathroom design and installation service aimed at the domestic and small business market by 2018.
- IT expansion programme: Install IT systems capable of managing a 30% increase in staff, a 50% increase in store locations plus a new manufacturing facility where stock control will be required.

- New manufacturing programme: Develop a manufacturing capability to deliver a range of kitchen furniture bearing our own brand and aimed at the domestic and small business market by 2016.

The programme management team will be keen to make sure that it tidies up all the loose ends and that it doesn't forget any aspect, so it works with the managers of every department to prepare a blueprint. A blueprint will help it to avoid mistakes.

Is the suspense getting to you yet? OK, the blueprint is a document that considers every department and operation within the business and describes what it is like now, before the programme begins, and what it will be like after the programme ends. MSP refers to this idea as follows:

> Blueprint – model of the future business, organisation, its working practices, structures and processes, the information it requires and the technology that will be needed to deliver the capability described in the Vision Statement.

Training company ESI has encapsulated this idea into two simple phrases: AS-IS and TO-BE. It puts forward the idea that the organisation is currently in a specific state, and this is described in the AS-IS status. The objectives of the organisation will transform it into something better, its vision for the future. This is described as the TO-BE state. The programme's function is to take the organisation from where it is today, AS-IS, through to the defined future state, the TO-BE (Figure 5.14).

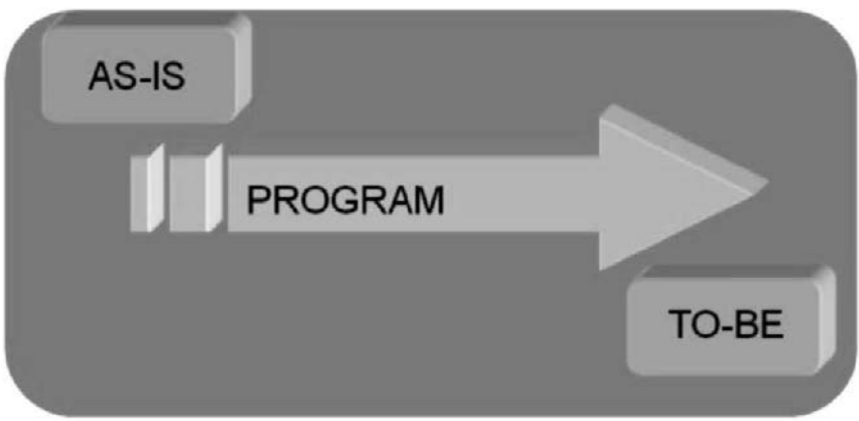

Figure 5.14 ESI's concept of transition through a programme

So, let's nip back to our DIY retailer example, using either the blueprint or AS-IS/TO-BE approach, and consider each department and function within this company.

The director in charge of the stores will point out, for example, that are now 30 stores mostly in the Home Counties (AS-IS or current state). After the programme there should be 60 stores spread through the UK (TO-BE or future state). The 30 store managers reporting directly to the director of retail operations (AS-IS) will become 60 store managers. After the programme the director of retail operations might realise that four regional store directors, each responsible for 15 store managers and each reporting to the director of retail operations will be needed (TO-BE). Each new regional store director will be based in one convenient store and will need a company car to get round the other stores. That means that at least four stores will need a small management office suite for the local regional store director.

Let's assume the organisation currently does not do work in a customer's home or business premises. After the programme it will be offering to design, supply and fit complete kitchens, the fitting work being done by local contractors in each region. There is no team capable of managing groups of contractors and no form of contract that could be used to agree terms with these contractors. It will need to have a security arrangement so that contractors carry an ID card. Both contractors and customers will need insurance protection against accidents and other problems. The organisation will need to establish a new team of people with experience in employing contractors and with legal/insurance knowledge to manage these contractors all around the country. This team will be located in the head office.

In total, including the new contracting team, the larger IT team, HR team, management team and so on, the organisation expects the head office staff numbers to increase from 80 people to 150. The current offices, canteen and car parking are not adequate, so it needs to build or otherwise acquire additional head office space for these new people. It needs more toilets.

So the blueprint is not really concerned with the projects or the programme. It is more concerned with the host organisation. It sets down the starting-point and ending-point of the many changes that are required to be made. This will be very helpful, as it will:

- help the organisation to recognise all sorts of changes that had been or might have been misunderstood, underestimated or simply overlooked;
- define the scope of the change;
- help to reduce the list of things that get forgotten;
- help to finalise both the budget for the programme and the operating costs after the programme;
- help to define the many outputs or deliverables, and therefore the projects that will be required;

- help to define the way changes depend on each other (e.g., no contracting work can start before the team has been set up to deal with contractors in the regions);
- provide a check-list of work for monitoring and control purposes;
- be used to explain to the many programme stakeholders what is going to happen.

So, all in all, a blueprint is a pretty smart tool. It does not take a great deal of time to prepare but can have a huge impact on a programme in its early stages. I would not be happy to support or give approval to a major change programme without a blueprint to help everyone understand the scope of the work.

5.11 Roles and responsibilities

This section tries to outline the roles that exist within the generalised programme management environment. When I say 'roles' I don't mean ham rolls, Rolls Royce or rolls in the hay. I do not even mean individuals, but rather, the actions and responsibilities that need attention. A role might involve a part of a person or multiple people.

Many organisations cannot afford a full-time project planner. So someone, usually the one person who actually has figured out how to make SuperWorkPlanner version 9.6 produce a bar chart, has the planning role for a day or so each week. She may be a design engineer, but on those days each week she has the role of planner. In larger organisations there may be many planners and they may all be full-time staff. But don't forget that one person may carry out many roles, and one role may be carried out by many people. In some organisations and textbooks these roles are known as logical functions or shared functions.

I'm doing this so that you can think about your own organisation and see where these roles appear or should appear. You might use some of this as script for your own internal reports, so I'll be a little more serious – it's going to be hard, but I'll try.

Before getting into specific roles, let's take a look at the overall picture. Figure 5.15 shows a fairly typical matrix-style structure – the sort of thing you might find in any organisation. Within this structure there are four major roles to be adopted by someone or some people. They are:

- project managers;
- functional or resource managers;
- resources or operatives;
- programme managers who act as referees or umpires.

We may also have a programme board.

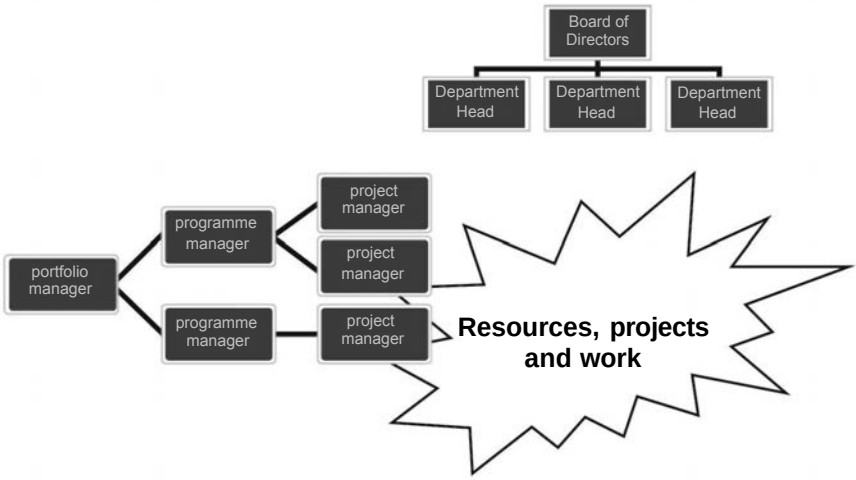

Figure 5.15 The management matrix

Within the structure of a matrix the project managers push, pull and coerce projects across the matrix. They may have no resources of their own but they do have projects to get done. They get through these projects by getting the functional, resource or departmental managers to allocate or loan resources to their projects. Across the top of the matrix are the functional managers, each with a team of people who provide a specialist service.

The senior management function sits above and around both axes of the matrix. The senior management hires, directs and fires the functional managers and the project managers. These people understand the priorities of the organisation and have authority over the project and departmental managers. Therefore the senior management will act as umpire or referee to settle priority issues when the demands of many projects overload a functional department's ability to provide resources for a period of time.

The resources or operatives work within a functional department and do work on the projects that pass through their hands. Projects are dragged across the matrix, spending time in each department as they get progressed towards completion. These resources are allocated to work on the projects in a variety of ways. Sometimes they are seconded to the project on a full-time or part-time basis, sometimes the department contracts to do the work.

Most organisations do not only have a project workload. Any programme-management organisation is likely to have a continuing background workload of ordinary non-project work. The resources will be involved in project work and a whole raft of other work that does not conveniently break down into projects. The background workload might

include maintenance of equipment, looking after users of old projects, selling activities on new projects and changing toilet paper in the washroom. They all involve doing work and take time, but are not connected with the project workload.

Apart from non-project work, few people work full time all of the time. I know it may seem that way, but most people will put their holidays firmly in priority position number one, above training courses, illness, trips to the doctor and other diverting activities.

Now let's take each of these five major roles one at a time in a bit more detail, starting at the top with the programme board. I'll take these five roles and for each I'll describe the sort of responsibilities they may have.

You may notice that some of the areas of responsibility are optional. For example, some functional managers exist to loan resources out to project teams, whilst others exist to perform work for a project manager. You should be able to select the responsibilities that seem appropriate to your organisation. This all relates back to the discussion on matrix management in section 3.11

5.11.1 Programme boards

5.11.1.1 Brief description of the role

Programme boards design their agendas and devote the majority of their time to each programme's vision, strategy, objectives and benefits. Therefore they should concentrate on ensuring clarity and support for their programme's vision, the way the programme supports the strategy and objectives of the initiatives, and the benefits they are intended to deliver. They should devote little or no time to technical issues – for example, databases, programme languages or project management methods.

Board members should concentrate on performance management rather than on the projects and programmes that deliver the improvements. It is important that stakeholders understand how the programme will improve the performance of the organisation in the long term and that the projects and programmes are the means to that end.

Best practice programme boards ensure that the business case clearly states the intended benefits and that these are kept in focus during the planning and delivery of the programme. A key aspect of performance management is in the delivery and measurement of benefits during and after the life of the programme. The teams and board members should be acutely aware that work is carried out only to produce benefits. As benefits may be reviewed and re-assessed throughout the life cycle, the board should understand and communicate the impact of any changes to the vision, and the expected benefits and the methods for their measurement and assessment. The board should ensure that plans and mechanisms are

in place to both harvest and measure benefits as soon as possible and long into the future.

It is important to maintain a dynamic benefits register, and to ensure that benefits are kept simple and understood. The benefits manager should ensure that stakeholders are engaged and involved at the outset in identifying and articulating the benefits, and understand the part they play in the delivery of the benefits. This builds a benefits picture with the stakeholders and makes it easier to approach the service to take ownership of measuring the benefit.

5.11.1.2 Responsibilities

- Establish and maintain a shared vision, an understanding of the expected benefits and an appetite for the change.
- Create high performing, mixed teams.
- Maintain a high level of visibility and impetus for the programme, especially in an environment of competing priorities.
- Identify and highlight benefits and consider their management, realisation and measurement.
- Maintain a firm business case whilst reacting to changing needs. Ensure that the business case develops (and changes are authorised) as needs change.
- Make plans to ensure that the changes wrought by the programme will be fully adopted at an operational level.
- Clarify and manage impacts and interdependencies with other initiatives.

Below, for each key stage in this flow, the key processes that are the responsibility of the programme board are listed.

Identifying a programme

- Programme board formation (if none exists).
- Appoint the SRO, programme director or other senior person
- Confirm the programme mandate.
- Approve the initial programme vision
- Approve the initial programme brief.
- Develop the initial programme plan.
- Approve the programme to proceed to the definition stage.

Defining a programme

- Ensure the programme infrastructure is assembled.
- Establish the team responsible for preparing the programme definition, including the programme manager.
- Check the identification of the stakeholders and an initial communications plan.

- Define and communicate the vision statement.
- Approve the blueprint.
- Approve the benefit statement and initial benefit realisation plan.
- Ensure that a suitable design for the programme's organisation and its team members.
- Ensure the programme's governance arrangements are suitable.
- Approve the programme plans.
- Consolidate and approve the programme definition document, including the business case.
- Approve the programme to proceed to the delivery stage.

Delivering the capability

- Ensure that projects are aligned with the programme's objectives.
- Authorise the direction of the component projects.
- Engage with senior stakeholders throughout the communications plan.
- Monitor and control progress at a programme level.
- Receive and check progress reports at the project level.
- Ensure management of programme-level risks and issues.
- Ensure projects are closed.
- When necessary, revise and communicate the up-to-date vision and benefits realisation plan.
- Establish benefit measurements.
- Realise any early benefit and monitor benefits realisation.
- Ensure planning for the change of the relevant operations.
- Communicate the plan for change.
- Ensure readiness for change.
- Manage outcome.
- Respond to changes.
- Receive and check monitor and status reports.

Closing the programme

- Notify stakeholders that the programme is about to close.
- Update and finalise programme documentation.
- Confirm programme closure.
- Disband the programme organisation and supporting functions.

5.11.2 Programme management

5.11.2.1 Brief description of role

- Management of the programme's workload, being made up of a number of projects.

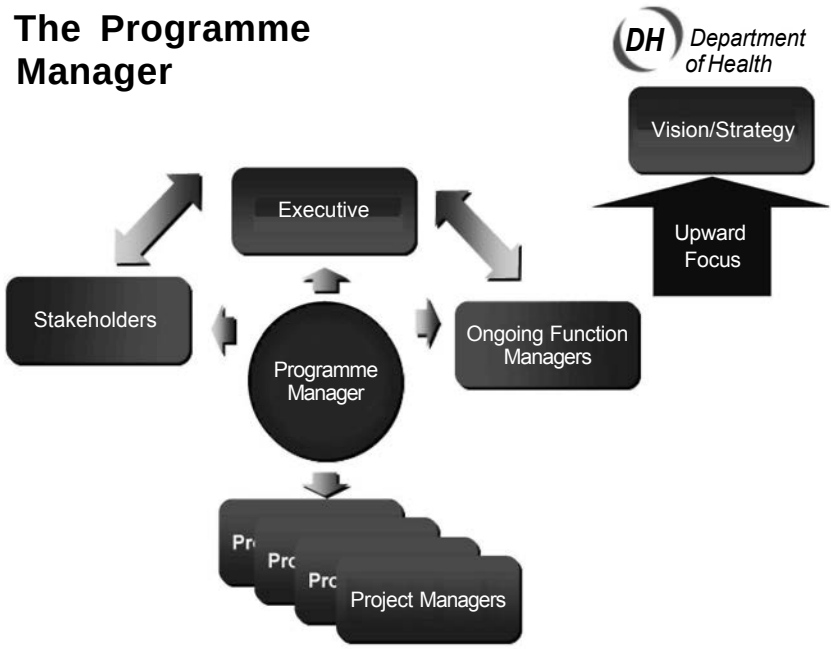

Figure 5.16 The programme management role

- Delivery of a set of projects that are collectively aimed at meeting the organisation's objectives and business strategies.
- Management of interactions between those projects.

5.11.2.2 Responsibilities

- Defining programme goals based on the organisation's strategy.
- Continually evaluating the potential enterprise-wide benefits of internal projects, so as to justify the programme in terms of the changing corporate objectives.
- Evaluating risks and benefits from external projects.
- Describing the scope and boundaries of the programme; maintaining relevant section of organisational breakdown structure and work breakdown structures to adroitly fragment the workload amongst the project-management team.
- Controlling the membership of the programme and project management teams.
- Establishing and operating an approval procedure by which projects can be checked and approved.
- Initiating the programme infrastructure by gaining approval at board level to embark on a feasibility study for the programme.

- Approving projects' budgets and time-scales in appropriate detail.
- Assigning projects to project managers.
- Managing conflicts between projects and between functions.
- Monitoring progress against project milestones or in appropriate detail.
- Experimenting, modelling and making decisions about future workload and opportunities.
- Working with potential projects and workload.
- Considering strategic implications of each project.
- Approving changes in project status, e.g. giving permission to start a project.
- Understanding the impact of one project on another project or a phase.
- Maintaining library of standard projects and outputs.
- Ensuring projects are formally closed.
- Analysing past project performance and monitoring feedback systems.
- Risk management.

5.11.3 Project management

5.11.3.1 Brief description of role

- The management of specific, named projects.

5.11.3.2 Responsibilities

- Driving a project through the enterprise.
- Planning what tasks and products are required for a project.
- Estimation of work content and skill requirements for tasks and products.
- Negotiation of time-scales with resource managers.
- Deduction of the project's structure, e.g. work or product breakdown structures and critical path planning.
- Receiving and utilising resources 'seconded' by the resources managers.
- Sub-contracting packages of work to the resource management.
- Monitoring progress and adjusting time-scales of key points in the project, if necessary.
- Defining deliverables of tasks and projects.
- Estimating budgets and time-scales for projects.
- Gaining approval for budgets and plans.

5.11.4 Resource management

5.11.4.1 Brief description of role

- The management of a number of specific, named resources.

5.11.4.2 *Responsibilities*

- Recording expected availability of individual resources (holidays, overtime, etc.).
- Allocation of skill levels (capabilities) to resources.
- Allocation of specific resources within a department and/or enterprise to satisfy the requirements made for certain skills by project managers and others (the resource manager 'satisfies' the need for, say, 100 designer hours by allocating specific designers to the task).
- Secondment of resources to a project manager for a period of time (in a secondment matrix).
- Performance of tasks as requested by a project manager (in a sub-contract matrix).
- Prediction, communication and resolution of resource shortfalls.
- Responsibility for maintenance of a specific local area of the organisational breakdown structure.
- Negotiation of time-scales with project managers.
- Optimisation of resource utilisation.
- Maintenance of resource output tables and database of production outputs.
- Instruction of distant resources on their next work.
- Ensuring timesheets are completed on time.
- Working within departmental budgets.

5.11.5 *Operatives/resources*

5.11.5.1 *Brief description of role*

- Anyone who actually does direct work towards the project's goals.

5.11.5.2 *Responsibilities*

- Performing work on the tasks within the projects.
- Reviewing work done by others.
- Measuring and reporting on actual achievement, work done.
- Updating estimates of work remaining.
- Committing update information to the system.
- Comparing remaining work with work planned.
- Comparing work done with work planned.
- Receiving instructions on future work.
- Enquiring on the history of work completed.
- Understanding how own work fits into overall plan.

There, that wasn't too bad, was it? You have my permission to impress your fellow workers by using any part of the above in documents internal to your company.

For good measure here are a few other roles that you might stumble across.

5.11.6 Project support offices

Many organisations establish a project office to centralise some of the project-planning work. Within the project office are planning experts who spend a great deal of time planning. Any project manager can request plans, budgets and progress monitors to be carried out by the project office members on a specific project.

The major benefit of this approach is that a considerable degree of expertise will be available to help plan each project and a high degree of standardisation can be expected. The project office often produces reports for senior management on all the projects in its hands. The project office becomes a service department to the project managers, loaning planners out to the project teams as and when required. A disadvantage is that the project team does less 'thinking ahead' about its own project, effectively sub-contracting that role to a professional planner.

Some programme management organisations have a central planning office and call it a war room, project room or visibility room. In these rooms all planning work is done by dedicated teams of planners supporting the various projects and functions. A war room has a lot of plans on the wall. They may be produced from a project management software package, they may be one of those flexible but mechanical wall chart display systems. There really ought to be an electronic version of a wall chart.

There are other uses of the term 'project support office' and we had better make sure that you understand some of them. This office can be a more educational service, in that it tells other people how to manage their projects rather than providing planning services to the various project teams. Especially in IT, the project support office is seen as a group that supports the project teams as a sort of internal management consultancy. It offers advice on topics such as:

- project definition and justification;
- risk management;
- methods for monitoring and controlling the project;
- learning from previous projects;
- cost-control mechanisms;
- reporting procedures.

In this sense, the project support office does not perform this work for the project teams, it tells the teams how they should do their work.

Please see Chapter 6, which is devoted to the topic of these support offices.

5.11.7 Project boards

Where a number of projects are in hand within an organisation there is nearly always conflict amongst the project teams for precious resources. Teams fight for the resources they need to complete their project, but do not have the benefit of the broader view of the work. The broader view permits understanding of priorities between the various projects. To help in this respect some companies establish project boards, whose role is to act as a referee between the various project teams. Project boards expect a standardised form of reporting from all project managers, and all project managers report to the board. When questions of priority arise, the project board is aware of all the workloads and the conflicts and is able to make decisions about resource allocation. Project boards may also set and maintain standards with respect to project management methods, bringing a degree of standardisation to the project culture.

5.12 Responsibility assignment matrix

This little document is designed to link the WBS – the work to be done – with the OBS – those available to do the work. It is sometimes called a RACI matrix – you'll see why in a moment. It also sometimes called a 'linear responsibility chart' (LRC), which is a very grand-sounding name, the sort of name that gets you a PhD just for dreaming it up.

We go over now to the *Blue Peter* studio, where our resident presenter will help you to make a RACI matrix. All you will need is a small thermonuclear explosive device (get your mother's approval first), 14 cabbage white butterflies, a cardboard box (detergent size), some glue, three toilet-roll holders and a piece of squared paper.

Take the piece of squared paper and place it centrally on your desk.

Now imagine taking the OBS and placing it on the desk the normal way up just above the squared paper. You would have all the names of the workers and their functions across the top of your squared page.

Then take the WBS, turned in sideways and put it down to the left-hand side of the squared page – this gives a list of tasks in a column down the left-hand side of your squared page. You would achieve the same objective with the outliner mentioned before. Take any task, run your finger across the page and stop when your pinky is under the name of the person who is responsible for doing that task. Mark that box with an 'R'.

Every cell in the matrix is completely filled with either a blank, or a letter showing some sort of involvement for that person with that work package (Figure 5.17). Network Rail's signalling engineers use an R, A, C or I, meaning *responsibility*, *accountability*, *consultation* (in some companies *communication*) and *information*, at each point. This shows who is doing what

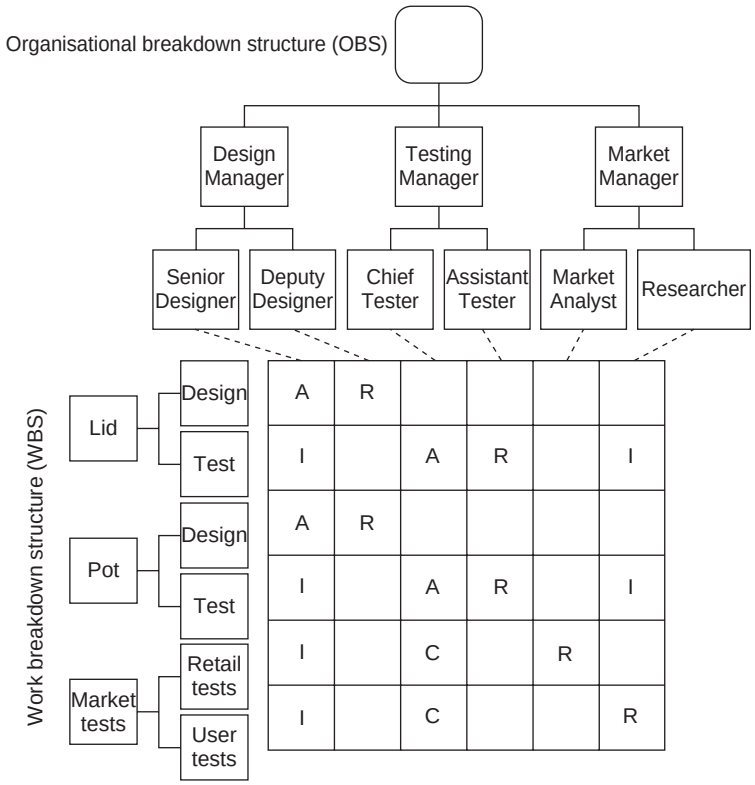

Figure 5.17 A RACI diagram

on the project. You could develop your own system if you don't happen to like this one. There could be one such diagram per phase of the project, if it gets too big.

There you are, your very own RACI matrix, which you can take to show your boss. If he doesn't like it you can use the thermonuclear device to blow him off the face of the Earth (get his permission first), simultaneously promoting yourself and getting the 1.6-litre XL car you so richly deserve. Before going to see the boss with your RACI matrix you had better be prepared, in case he asks what these letters stand for. You had also better be prepared for him to speak correctly and not end his sentence with a preposition – for what do these letters stand?

Here are some ideas, but please do not take all of this too literally, as many organisations use their own interpretation of these terms. Anything sensible can be used, as long as the people in your organisation know what the letters mean.

5.12.1 Accountability

This is the person who is accountable if this task goes horribly wrong. This person may or may not be actually doing anything at all towards the achievement of this task, but it is this poor person who gets a slap on the wrist if it is not done correctly, on time and to budget. Only one person can be accountable.

5.12.2 Responsibility

These are the doers who will actually get their hands dirty. My experience of project management is that the only times that project managers gets their hands dirty is when digging carrots or changing nappies or toner cartridges. Only the last generally happens within the office, so I put all this talk of 'rolling up our sleeves' and 'getting our hands dirty' down to wishful thinking – they are wishing that they could actually do something useful. Still, those with an 'R' in the RACI matrix are expected to do the work.

There could be many people with responsibility for doing the work – it could be a team of people – and they will typically report up to the person who is accountable for their actions. On a line across the matrix there can be many 'R's but only one 'A'. It is nice to know that you can roll your 'R's across the page.

One person can be both responsible and accountable for a task and will therefore get 'A/R' in the relevant box.

5.12.3 Consultation (communication)

A 'C' represents a two-way communication between the doers and someone else. Some people call it consultation. In the example in Figure 5.17, the chief tester needs to be consulted about the user tests and reckons that he will have something to contribute to the market researcher.

5.12.4 Information

An 'I' in the box indicates keeping an eye on the task. In Figure 5.17 the senior designer wishes to be kept informed about all the testing tasks so that he can evaluate their impact on the design he is accountable for (oops, for which he is accountable).

In Figure 5.17 You can see, for example, that the 'testing the teapot lid' task involves four people. The assistant tester is responsible for carrying out the task and the chief tester is accountable for the test's being done.

Both the senior designer and market researcher wish to be kept informed of the testing process.

The values of such a diagram are that:

- Decisions are taken about who is doing what – this tends to reduce the number of times everyone in a meeting looks blankly at each other saying 'I thought you were doing that.' Misunderstandings are reduced. The roles of each person are easily communicated so that people who want to know can know who is doing what to whom and with what.
- Extremely busy people can be spotted and checked against time-scales. Overloads can be planned around, in one way or the other.
- Before the thing that is brown, steamy and smelly and comes backwards out of cows hits the air-conditioning and covers everyone, the blame can be reasonably fairly allocated.[1]
- Regrettably more rarely, praise can heaped upon the right person. In our world, where so little praise abounds, any going should at least be fairly placed. As soon as the RACI matrix has been drawn and distributed, there is a danger of demarcation. Do you remember those days when unemployment was minute, jobs were easy to find and strict lines were drawn between simple and similar tasks? Some were undoubtedly sensible – an airline hostess might not be the right person to fly a plane. Some were ludicrous – a labourer could lift cardboard boxes but not wooden ones. People were prevented from doing things at work that they would do without a second thought in their own homes.

You might find a RACI matrix for your family revealing.

If you value a team spirit, then take care with your RACI ideas. You might drive people away from the concept of 'we're all in this together and we should all do anything we are competent to do'. You might move towards 'That's not my job', which is right and proper in some situations but can be divisive if someone refuses to photocopy the report because it 'isn't my job'.

5.13 How to fail as a programme sponsor or SRO

These guidelines were designed (with tongue firmly in cheek) for those destined to deliver no benefits at all. To fail as an SRO or programme sponsor simply follow these guidelines:

1. Hide – make sure that no one on the programme or any constituent project can ever find you. Keep your door closed at all times – so that if anyone on the programme team does find you, they cannot bother you with their problems.
2. Sit through the MSP and Prince2 practitioner examinations and then make sure you stick to every step of the methodology, fully producing

all the right reports and documents. That way, when it all goes wrong, you can avoid any blame, as you have followed the correct procedures.
3. Always blame the messenger – when a programme manager comes to you for help or support, promptly shoot the messenger, saying as you pull the trigger that you always knew this would happen. The project team will soon stop telling you the truth and will report everything in the rosiest of terms.
4. Stay within you own comfort zone. Don't get dragged into discussions about schedules, quality, benefits, risk or any other of those technical project management thingies. Insist on talking about the one topic you do know about (administration? purchasing? databases?).
5. Avoid programme board meetings. They will only use an in-house language full of acronyms each containing at least one 'P'.
6. Ensure the programme's objectives are described in glowing but unspecific terms. That way you can claim that whatever you do achieve is exactly what you aimed to achieve.
7. Lie persistently about progress. The chances are that someone else's screw-up will completely obliterate yours.
8. Leave the team long before the end. That way you can claim that it was all in great shape in your day.
9. Remember that nine women can have a baby in one month.

Case study 5.1 Inmarsat

I am happy that Inmarsat allowed me to use this short case study which puts its view of methods as well as other elements of programme management in perspective from an engineer's point of view. It first appeared in *Project Manager Today.*

Space is big

Something very special happens 36000 km above your head. At that precise height satellites can be persuaded to stay more or less still relative to mother Earth. Anything lower or higher will seem to move over the surface of the earth and it is very much easier to point your satellite dish at a non-moving target. At 36000km a satellite is geo-stationary, circulating with the same 24-hour cycle as the Earth below.

For comparison, shuttle Endeavour climbs to around 300 km and Jumbos cruise at 30 km. We have author Arthur C. Clarke to thank for the idea of the geo-stationary orbit as it is he who specified the whole idea in the 1940s. If he had patented the idea he would have become very wealthy indeed – the idea was tested in the '60s and is now in common use. Fortunately he has made so many TV programmes, films *(2001,*

2010) and written such great books in both Science and Science Fiction (the Foundation, Cradle and Rama series) that he rarely has trouble paying the milk bill. It is you and I that have benefited rather than the inventor. One of his rather less tested ideas is a geo-stationary space station with an elevator back to earth. The connecting cable would be a one-molecule-thin cable 36000 km long with a 'station' at each end. In *Paradise Lost* he wrote about this scheme, figuring that the elevator would use very little energy as it goes up and down conveying bits of space vehicles economically into orbit. The problems of making a one-molecule-thick cable seem no more daunting today than those of placing a vehicle at 36000 km must have seemed at the beginning of the Second World War. Mr Clarke is one bright guy.

So is Keith Rowe. He is not as well known and probably not as wealthy but he contributes to our ability to speak to people and see events all over the world courtesy of that great global communication system known simply as 'by satellite'. After graduating from the University of Canterbury, Keith joined the RAF and was soon a Satellite Operations Officer looking after military space vehicles.

'For me,' explains Rowe, 'space was an accident. I looked at various RAF sites and asked for one "near space". I was always fascinated by sci-fi and space. I took over command of a telemetry station at Farnborough before going to Kinloss to look after Nimrod avionics. I didn't enjoy that one. Then I spent some time in a software-testing team. Therefore satellites seemed sensible for me.' After time at another RAF telemetry station, in control of a defence communications network in Bath, Keith went into mobile satellite communications on the Falklands connections. 'I was fortunate,' he remarks, 'I didn't have to go to the Falklands.'

After eight years' service he left the RAF early and joined Inmarsat. At first he managed contracts, spending time on secondment to a French national space contract. Later he became Operations Manager in London and was then 'given this job as programme manager'. He describes it all as a fun career. Inmarsat is an internationally owned cooperative in the business of chucking satellites into the sky, building earth stations in remote corners of the planet and then using its assets to provide a wide range of communication services.

Talking through space

There are currently a wide range of things you and I could do with Inmarsat's help and a great deal more just around the corner. Ship-to-shore telephones were originally important enough to name the organisation: INternational MARitime SATellites. When you watch live transmissions from remote corners of Bosnia, India or Africa do you stop to wonder how the images and sounds are being transmitted to your lounge? Do you ask why the commentators have so many pockets? Do you wonder why throughout the

world children of all ages feel the need to get behind the commentator and wave? The answer to the first question is generally Inmarsat.

Until recently TV crews had a couple of suitcases loaded with camera, microphone, satellite dish and power supplies. Set the system up, link directly to the satellite and dial your editor and you've got Kate Adie live from the hills over Bosnia on breakfast TV. Today one briefcase or a phone that searches for the nearest link, which might be the local cell system but, if you happened to be climbing Kilimanjaro, would probably be the nearest satellite. That'll put you one up on the guy in the Golf Gti on the King's Road with a Vodafone stuck to his ear.

Guess who is behind the installation of phones in Jumbo jets? Inmarsat Aero has installed flying handsets that talk to satellite and therefore to anywhere from within a plane. Air Traffic Control (ATC) has been revolutionised by these better links, as a permanent electronic signal gives a better idea of where a plane is, who it is, where it is going and how long the in-flight movie has to run.

Satellite-based ATC gives a single worldwide ATC system, helping scheduled flights divert round weather at the cost of a phone call. Plus you could fax, phone, place bets, do your shopping and ring ahead to report your arrival at Los Angeles. Is there no escape?

Inmarsat C offers communications for small yachts and trucks. Take a driver on his way East as part of an aid convoy. The driver has a little terminal hooked up to an antenna on his roof. From time to time the driver's location gets sent back to head office. They can make a message appear on his screen, perhaps to reroute via a new pick-up. And finally it is Inmarsat who provide us with our daily diet of financial facts and figures. The TV stations buy a feed from Reuters detailing all those exciting market indicators and exchange rates. I know no one who is actually interested in the Nikkei, FT100 or the more friendly and American Dow Jones. In news-gathering terms it is satellite cheap.

Worldwide

There is a wide range of active projects in hand in the organisation. There are new communication systems, new ground-control stations, new products galore. Satellite systems involve the spacecraft itself talking to and being controlled by ground stations. Ground stations are those remote sites with innumerable large dishes pointing up at space. The hardware is augmented by a wide range of software control and communication systems. Rowe's projects cover a wide range and a wide geographical area. A small job is around $10m and large means $2.5bn. A project current at the time of the interview was Inmarsat 3 ground control programme. This involves five major projects: Beijing (four antennas – two new and two upgrades); Fucino, Italy (four antennas – three upgrades and one

new); Pennant Point, Nova Scotia, Canada (two new antennas) and Lake Cowichan, Vancouver Island (two new antennas). The sites are chosen for remoteness. Deserted places tend to give less interference problems but cause significant problems when it comes to access. Nipping down to the hardware store for a bag of nails in any of these locations is a few days, not a few minutes. Rowe spends a deal of time travelling between these remote locations and living in temporary site accommodation.

Back in London is one of those wonderful control rooms where banks of screens and operators look after the global system. The control computer system with hardware from Encore is based on RISC machines and one project involves buying new and upgrading existing software. On my visit, we caught a satellite controller eating a Big Mac. It's nice to know they're human. (The controllers, not the burgers.)

The system allows a controller to type a command in London which is transmitted to China via cable or Intelsat (you don't use your own systems to control your own systems). This message gets processed through the baseband system, put into the RF system, transmitted to satellite. The space vessel might manoeuvre, or switch in a component. Telemetry sends back status messages all the time to let the ground-based controllers know what is happening above their heads.

I thought Keith might be able to give us a worldwide view of management attitudes in these four very different environments. 'You have to be flexible, look at things, deal with people', he began, 'you might be successful in one place but you won't be in all four. There are different contractors and project management techniques, different contracts and attitudes.' 'Canada is very USA-orientated', he continued, 'the American way of managing and dealing with things. Fucino is more European, more laid back whilst still efficient. They are very Italian – a meeting starting within ten minutes of plan is OK to the Latin temperament. At the Chinese site few speak English therefore I need translation. They mostly tend to listen to you in English and then fire back in Chinese. They try to do everything internally to avoid importation. If there is a choice they'll do it in China even if it costs loads more. They learn very fast – we tell them we need improvements and they just do it. I don't underestimate the Chinese. They have a lot to learn, but boy are they learning fast! The culture is still ancestral, with an overemphasised respect for age. This is starting to go a bit, but still there is great respect for wisdom. We decided that to have the right person leading the team was vital and to have older people working with young whizz kids. UK people have to have the right position and preferably be a bit older. We get special problems in these very different and remote locations. On the Lake Cowichan project we had a problem with the backing on some antennas which are made of foam. Woodpeckers pecked the foam to pieces. It had to be wrapped in steel but the manager still talks about hearing woodpeckers trying to get through on the transmission.'

Introducing project management

Historically, Inmarsat didn't have much of a project-management process. Some projects were successful, some were not. There was no specific method. When a project failed it was normally due to poor initial planning. Keith concluded that 'we needed better initial processes to show that you can use a process and that process can be made to work and be successful'. So they set up three or four projects to follow a more formal process of planning and management, including the selection of personnel. One of these special projects was Keith Rowe's, who explains: 'These projects were given every opportunity to succeed but had a microscope trained on them. The Director General looks at these project and each has an Executive Vice President.'

Rowe takes the view that 'as a company gets bigger you need better systems. On the four test projects each team developed their own systems and out of these will come corporate methods. As there is such a wide range of projects – some projects are hardware, others more collaborative – teams are encouraged to develop processes on the hoof to suit their environment. We look for commonality between the programmes and which differences we should acknowledge.'

'There is a team of eight or nine project managers under a Director plus an organisational development person working on a mini-project to set up a programme management system.' Rowe enthuses, 'We have a library of tools, a handbook of systems, development plans for training and assessing project managers. There is a feedback from the pilot projects to this work. We compare notes and select the ideas that work for us. This is better than buying Prince2. Prince2 is one tool in our library alongside training courses, planning software, risk software, books and references.' Ground Control Project (GCP) was the first pilot scheme under Executive VP Gene Jilg, whom Keith describes as 'a project champion, a powerhouse. He pushed through the need for professional project management plus moved the company from annual budgets to project budgets where appropriate.' This is often a problem within organisations where the annual budgeting system conflicts with multi-year project life spans.

Inmarsat now operate on appropriate projects a system with revised budgets each year for multi-year projects. GCP has an overall budget which is resubmitted each year. If it fits within the original cash flow envelope everything is OK. Keith reports, 'GCP is still on schedule and still on budget after moving two years down the road. This is due to good planning and budgeting. It is a credit to those who work on the project.' Ah, comments your suspicious reporter, one way of being on time and to budget is to start with generous allowances for both. Keith's reply seems honest. 'Time was not generous but money was slightly. I think overall it balances out. We have not yet hit the contingency. We believe in setting a realistic sum and time plus a contingency and then to tell the team to go and do it. We don't bitch and moan.'

The project team

Keith set up a programme office to deal with the Inmarsat 3 ground system programme. 'We have eight in the programme office essentially managing contracts, with nine in TTC doing the same. There are eleven involved in implementing the computer project plus eight in operations and four in flight dynamics. This gives us a team of about 40 virtually full time plus contractors and their staff all over the world working on a total project worth $350m.' This is some asset. My impression of the people I met at the London offices of Inmarsat was the most unlikely conceivable for a group of people working in space: they have their feet firmly on the ground. I suppose that every visitor to Inmarsat will come away with their heads slightly in the clouds. Perhaps even above the clouds. We tend not to think about what is in orbit or how those bits got there but we just enjoy the benefits without a second thought. Next time Aunt Marjorie calls from Australia, you watch a TV showing some remote part of the world or take a call from your stock broker in mid-Atlantic, blame those quiet, unassuming and very down-to-earth people at Inmarsat for having made all these things possible.

5.14 Summary and reflection

Having outlined the major publications that are used to form formal methods, this chapter compared them and gave advice on which to use where and when. It went on to describe the typical documentation that methods are likely to require portfolio, programme and project managers to use, and to suggest some definitions for the key roles.

6 Programme, portfolio and project offices

6.1 Introduction

Many years ago, when personal computers were new, I ran a small business that developed and traded software packages. Of the seven people who worked for me, Barbara was the most important. Barbara came from Germany and she kept order in the business with the thoroughness and competence that we associate with natives of that country. As well as acting as my secretary and personal assistant, she kept the books, handled correspondence, verified that invoicing was up to date and ensured that staff and suppliers were paid. At the same time, she was very good at reminding me of key issues that I had failed or forgotten to address. In short, she handled much of the routine work within the business, leaving me to lead the rest of the staff and to resolve critical marketing, operational and technical issues.

Although a software business is very different from a programme or portfolio of projects, the latter have just the same need for a Barbara – someone who can make sure that the vast amounts of administration, information handling and data processing that inevitably result are properly handled, leaving the manager free to lead his or her projects and programmes to success. Of course, in the modern world, and especially within large organisations, we usually give such people an impressive sounding job title, such as 'programme office manager' or 'global centre of project excellence manager'. Moreover, in large programmes or portfolios, involving multiple projects and often hundreds of people, one person is not enough – in such circumstances, any Barbara needs a team of assistants to support them. This team is frequently referred to as a 'PMO', often with no clear understanding of what those initials mean.

The term PMO can be used to cover anything from a junior employee who provides some administrative support to a single project manager (also referred to as a project office), through a centralised team that provides support and guidance to all the projects within a large programme (sometimes referred to as a programme management office), to a group that oversees a whole portfolio of programmes and projects (i.e. a

portfolio management office or enterprise programme office). Strictly speaking, a team that provides only administrative support should be referred to as a PSO, where the 'S' stands for support: the acronym PMO only being used where the office has some managerial responsibilities. Box 6.1, shows some examples of the different types of entity that might be covered by the term PMO.

Box 6.1 Different types of PMO

PMOs may take many different forms, according to the needs of the organisation and the complexity, size and quantity of projects and programmes that are undertaken. As a consequence PMOs also vary greatly in their size, sophistication and responsibilities:

- At its simplest, a PMO can be a *project office*, providing support for a single project or small group of unrelated projects. Such a PMO takes over the project's administrative chores, freeing the project manager(s) to concentrate on leading the project to success. It will ensure that the organisation's management team gets the accurate and up-to-date management information it needs in order to ensure effective direction and governance.
- Larger and more complex programmes of change are likely to need a *programme management office* (PMO) supporting a single programme management team. Such a PMO provides the above plus the extra support needed by a programme of change to coordinate all the component projects. PMO services typically include benefits management and change management to ensure that not only do all the component projects deliver on time, but change is fully coordinated and the organisation will ultimately be able to realise the expected business benefits. This type of PMO will usually also provide standards and guidelines for the component projects, ensuring that their deliverables can be successfully combined together.
- The most sophisticated form of PMO is a *portfolio management office*. This normally gives all the above services, plus senior-management oversight of the complete portfolio of projects or programmes for the whole organisation or for a component division or business unit. It can be expected to provide standards and processes to be followed by the projects and programmes, together with guidance to senior management on the prioritisation of investment in new projects and programmes. Where necessary, it will advise on the merger, delay or cancellation of poorly performing initiatives or initiatives that are no longer relevant to the organisation's strategy.

Of course, every organisation is different and the objectives, responsibilities and structure of the PMO should reflect this. Thus the roles of PMOs, and the benefits that they are expected to generate, are different for every organisation. To add to the uncertainty about what the initials mean, the PMO team may be distributed around the organisation – e.g. some members of the team may oversee the strategic alignment of projects at the portfolio level, whilst others provide support to individual project managers. Thus, the perception of what a PMO is and does may vary according to the observer's position within the organisation.

6.2 Definition of PMO

It is normal at some point in a book like this to give a definition, although many books on PMOs avoid this. Even where definitions are given, there appears to be little consensus, and this uncertainty is reflected in the varied definitions that are available.[1] For this book, I propose that we use the following definition:

> A PMO is an organisational unit providing a range of centralised services, varying according to organisational needs and circumstances, but which include elements of management and direction and which are aimed at improving the efficiency or effectiveness of projects within its remit.

Some points to note about this definition are given below.

1 This definition makes no assumptions about the size of the unit or its structure. It could be a single person, a part-time role for one person, or it could be a large department. See section 6.5 for further comments on the size of PMOs.
2 The services provided will depend, in part, upon the benefits or added value that the PMO is expected to provide. However, they provide more than just administrative support. Section 6.4 contains further discussion on what these services might be and gives some examples.

Please don't get hung up on names and titles. Observations of a large number of organisations by the authors of this book cover a wide range of names, including: programme office, enterprise programme office, project support office, programme and project support office, portfolio office, project management office, project centre of excellence and others. The same observations have revealed a wide range of possible roles. But very little correlation has been found between the name of the operation and the work it does.

1 Although the overall control and management of the PMO must be centralised, the actual provision of the services may be decentralised. As discussed in section 6.5, a single organisation may have multiple PMOs at the level of the organisation as a whole and at the level of specific departments, assisted by subordinate offices to assist individual programmes and projects.
2 The purpose of implementing and operating a PMO is to gain worthwhile benefits for the organisation, examples of which are summarised in section 6.3.
3 This definition assumes multiple projects, such as might be under the overall control of a programme or multiple programmes, or of an overall portfolio of projects. It therefore excludes any PMO-type units that provide support to individual projects, which might be more accurately referred to as project offices.

6.3 Why implement a PMO

Not everyone operates a PMO. They cost money to set up and run, and small organisations with only a few projects may feel that there is no need to create an additional layer of potential cost and bureaucracy.

However, the majority of organisations running programmes or multiple projects run some form of PMO. Research by Cranfield University in the UK suggests that about three-quarters of all large UK organisations claim to use them.[2] Enquiries in Europe suggest an almost identical proportion.[3]

Of course, the one quarter of large organisations that do not operate a PMO may still be using some PMO-type services – it's just that these are not provided by a separate business unit. For example, project accounting may be undertaken by the corporate finance department, procurement may be handled by the organisation's buying department, resourcing may be handled by operational line management. Furthermore, not all large organisations are project focused. Some are so committed to 'business-as-usual' procedures and attitudes that they do not recognise the value of managing change as discrete projects. Case study 1.1 gives one example of such an organisation, showing the undesirable consequences that can result.

On occasion, one or two of the more expert project managers generously take on the role of the project office by giving advice and help to other project managers and guiding the whole portfolio along.

But there is no doubt that a well-managed PMO, whether focused on an individual programme or associated with a complete portfolio, can provide lots of business benefits. In the case of a programme, it can:

- improve project effectiveness through ensuring the adoption of common standards and terminology throughout the component projects

that make up the programme – this reducing the risk of projects failing to deliver to time, cost or quality targets. Many PMOs keep standard document templates and worked examples and will be available to help a project manager complete a project initiation document, business case, schedule, communication plan, etc.;
- enhance the effectiveness of the governance process by providing a consistent standard of reporting on progress, risks, issues, etc. across a whole range of initiatives – thus helping to ensure continual alignment between the programme and the organisation's strategy;
- provide best practice support to struggling project managers by helping them with critical-path diagrams and other project management techniques. For example, they might oversee an effective risk management process by controlling contingency budgets – ensuring that any problems are identified early, so that corrective action can be taken when it still has a chance of succeeding;
- 'own' and look after any programme, portfolio and project management tools, including scheduling, document management and collaboration tools;
- increase the realisation of business benefits by adding a benefit-realisation focus to the 'time, cost specification' focus of the individual projects;
- maximise the use of scarce resources and eliminate duplication of effort by effective coordination of resource demands between all projects within the programme;
- gain 'economies of scale' by centralising project support activities, so that all projects within the programme have effective support, without the need for every project to employ its own 'Barbara'.

In addition to the above, a PMO for a portfolio can ensure:

- a consistent and effective process for the review of project and programme business cases, so that only those projects and programmes that will really benefit the organisation will be authorised;
- regular review of on-going projects and programmes to verify continued alignment with the strategy of the organisation.

An overall summary of how a mature, portfolio-level PMO can improve the efficiency and effectiveness of programmes and projects can be seen in Figure 6.1.[4] In this map:

- the various services provided by the PMO are shown in the first column on the left-hand side;
- the provision of these services will allow changes to the way that things are done, which are shown in the second column. For example, the 'Planning and estimating and business case' service should ensure

that for each of its proposed programmes or projects there will be a full understanding of how achievable they are, what they are likely to cost, whether this can be afforded, and what the likely risks are;

- the changes will result in the realisation of benefits, shown in the central column of the map. For example, the combination of better understanding of proposed programmes and projects, appropriate prioritisation and realistic understanding of benefits, will result in the organisation's initiating only the 'right' projects and programmes – i.e. those that are likely to generate the most added value to the organisation;
- benefits often depend upon each other. For example, undertaking the 'right' projects will result in fewer being abandoned or changing following a gateway review, thus reducing the amount of time, money and effort that is wasted on unsuccessful programmes and projects;
- the overall consequence of realising the expected business benefits will result in the achievement of the organisation's strategic objectives – shown in the column on the right-hand side. In this case the objectives of the PMO are to help the organisation to make the optimum pattern of investment in a portfolio of programmes and projects, where expected benefits are realised that contribute fully to achieving the individual objectives.

These benefits can often be quantified. PM Solutions, an American consultancy firm, estimates that organisations with a 'mature' PMO can expect

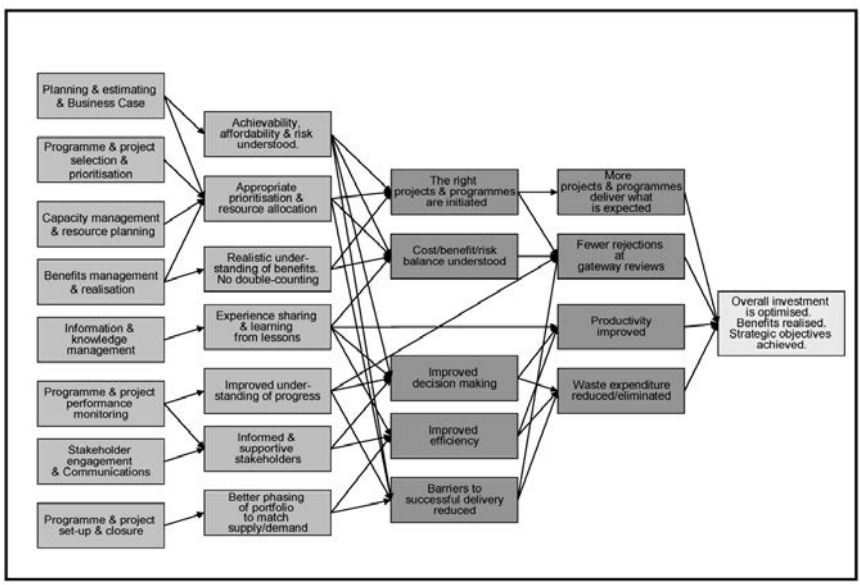

Figure 6.1 Generic benefits map showing how elements of portfolio management contribute to optimisation of benefits

project failure to decrease by 31% and the costs of delivering projects to reduce by 17%, with concomitant improvements in delivery against schedule and budget, as opposed to organisations without such a PMO.[5]

Where the PMO has authority over a whole portfolio, the benefits can be even higher. An ROI (return-on-investment) review amongst a selection of US-based IT departments suggests that fully implementing a portfolio-level PMO within the department will typically cut overall project costs by 8.6% in the first year and by 15.8% over a three-year period.

A tiny pinch of salt may be needed here, as PM Solutions is clearly not impartial. The discerning reader of this report will note that the fact that 'some have obtained substantial benefits' does not mean that *all* will. For a start, the review covered only IT departments. Such departments are renowned for having large and very fluid portfolios of projects, often driven for technical reasons; hence there is almost always much scope for improvement. However, there is no reason to assume that other types of organisation could not benefit just as much, such as marketing departments developing new products or research departments overseeing a portfolio of research projects.

The reader will also note that the costs of the review were paid for by the provider of the PMO services. Whilst there is no question as to the thoroughness of the process used or the accuracy of the findings, it is likely that many unsuccessful PMOs were excluded. Hence the findings show only what is possible, not what is likely to be achieved in every case. As described in section 6.7 below, many organisations are disappointed by their PMOs – primarily because they cannot see the value that they bring. Nevertheless, the findings of the review do show that implementing a PMO can generate substantial benefits.

6.4 The PMO role

Repeated studies show that there is, as yet, no standard set of services that PMOs can be expected to undertake. Whilst many provide services such as 'project progress reporting', 'promoting common standards for project management' and providing elements of 'accounting and financial control', there appears to be no single service that all PMOs provide. Figure 6.2 shows the results of one such study.[6] This variation in the services actually provided partly reflects the fact that there are many different types of PMO. It also reflects the fact that some organisations prefer to use their business-as-usual resources for some functions. For example, responsibility for providing 'accounting and financial control' could be kept with the organisation's finance department rather than being allocated to the PMO.

The relationship between services provided and scope has been analysed at the International Centre for Programme Management at Cranfield University. Whilst confirming the uncertainty about detailed services, the

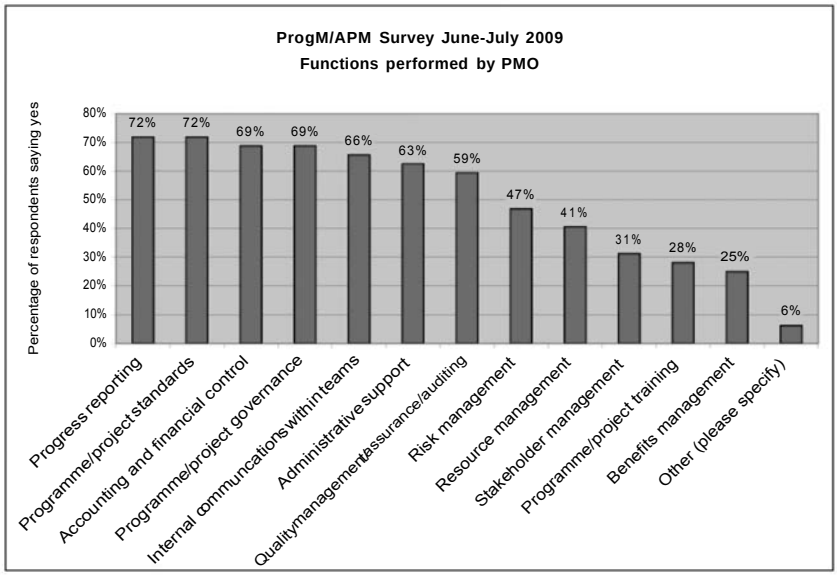

Figure 6.2 Services provided by PMO

analysis suggests that there tends to be a hierarchy of services, with some basic support services that apply to all types of PMO, through to more sophisticated services that apply only to those PMOs that are managing programmes or portfolios.[7]

This hierarchy of services is summarised below.

- Most PMOs provide some form of administrative support for programme managers and for the managers of component projects, such as secretarial, diary management and room-booking services – just the sort of services that Barbara used to provide to my software business all those years ago. Typically they also provide a range of basic services such as those provided by Barbara and listed in the introduction to this chapter. These include:
  - collating and reporting the status of individual projects and then summarising the information into an overall report for the whole programme – for example, by creating and distributing monthly project and programme status reports. This implies that the PMO chases each project manager for their monthly status data and perhaps reports those who fail to deliver;
  - providing standards, methods and appropriate tools for use throughout the programme or portfolio. These might include mandating the ways in which a ready-made methodology, such as Prince2, is applied within each project. Common tools might include shared

electronic work spaces, templates for reports and standardised ways for generating project schedules or for recording time spent, etc.;
- managing project documentation (including plans, risk registers, schedules, incident logs etc.). This might include maintaining an online repository for all such documentation. See Box 6.2 for an example of the contents of a repository, as used by the portfolio-level PMO of an IT department within a large company;

Box 6.2 Example of contents of a programme repository

Key programme documents to be stored within the programme's shared work space will include:

- the programme brief;
- the business case and other programme initiation documentation;
- the programme plan, including:
  - time schedule;
  - interdependencies with other programmes or projects;
  - key milestone dates;
  - quality assurance arrangements.

All such documents will be subject to review and approval by the portfolio board.

Progress information will include:

- any significant changes to scope, budget, timetable, including any changes to assumptions within any of the key documents (such as changes to likely benefits or the identification of new dependencies upon another programme);
- actual progress against plans – in the form of milestone trend charts;
- any significant changes to issue or risk registers;
- any issues or risks that are to be escalated to the committee for assistance in resolution;
- financial and other information, as recorded in the financial status and progress status reports.

Where relevant programmes and projects are being financed from sources other than the committee, similar information will be made available.

Such information will be used by the PMO to prepare summary reports giving a 'portfolio level' view of all programmes for the port-

folio board's consideration. The PMO will also use this information to maintain up-to-date roadmaps for the whole portfolio, as well as portfolio-level risk and issue registers.

Guidance and templates for such information will be issued from time to time by the PMO in order to simplify and speed information collection and presentation.

It is assumed that the majority of the information within the repository will be available for access by all within the company, with access being restricted to portfolio board members only where the documentation is particularly sensitive.

  - supporting sponsors and those engaged in governance, through organising project/programme board meetings, circulating agendas and board papers, and recording minutes.

- PMOs supporting programmes generally provide most of the above services, plus a range of more advanced, specialised services, including:
  - providing estimating, scheduling, communication and risk management expertise to the many project managers. A large PMO may employ specialists in each of these areas to advise the programme manager and to assist the managers of the component projects;
  - coordinating plans between projects and monitoring resource use. This is especially important in many IT departments where a limited number of key technical resources may be required to work on a number of different projects;
  - monitoring and reviewing the performance of component projects – especially time, cost and delivery performance – against agreed plans;
  - managing the process of making changes to the scope of programmes and projects, from initial request through to final acceptance of the revised project deliverables;
  - maintaining quality records and scheduling reviews to verify that common programme-level standards are being adhered to throughout the programme.

- More sophisticated programme-level PMOs will provide all of the above plus additional consultancy and advisory services, such as:
  - developing competencies of personnel, including training and mentoring for project managers, sponsors and others engaged in project/programme governance;
  - evaluating project managers' performance. Typically this will involve using an evaluation framework approved by the organisation's HR department;

  - recruiting, selecting and/or allocating project and programme managers. In some cases, these staff will be deemed to be employed by the PMO – hence the large size of some PMOs;
  - recording, analysing and disseminating lessons learnt from within projects and programmes. The dissemination of such lessons is a major contributor to ensuring a high level of project success;[8]
  - ensuring the identification and management of benefits and the measurement of their realisation.

- Full-service PMOs, such as those overseeing large portfolios of projects and programmes, will usually also provide additional strategic and governance services, for example:
  - identifying, selecting and prioritising new projects and programmes to ensure that only the 'right' projects are undertaken, including involvement in benefits management and business cases, contingencies, etc.;
  - acquiring and allocating resources between projects and programmes;
  - providing advice and recommendations to senior management, such as sponsors and those serving on portfolio and programme boards. This might include providing suitable training to sponsors and board members;
  - conducting project and programme health checks and post-completion reviews, and ensuring that appropriate follow-up actions are taken within the projects and programmes. Such reviews are a good source for identifying 'lessons learnt' that can be applied to other projects and programmes;
  - monitoring and reviewing PMO performance and its effect on project delivery and on the realisation of programme benefits.

By whatever means the above services are provided, whether from a PMO, from somewhere else in the organisation, or in some other way, the role of the PMO needs to be clearly defined and communicated – typically within a programme or portfolio charter. An example of part of such a document is shown in Box 6.3.

Box 6.3 Excerpt from a portfolio charter summarising the responsibilities of its PMO

Administrative and portfolio support activities for the portfolio board will be provided by a portfolio management office (PMO). An objective of this office will be to maximise the effectiveness of the

company's portfolio management activities and thus to ensure that the company's investment in IT provides the maximum of business benefit. Its objectives will be to ensure:

- a clear understanding by the board's members of agenda items sufficiently far in advance for them to read supporting papers and discuss them with colleagues;
- prompt circulation of minutes of meetings of the board and of its sub-committees;
- easy access by authorised staff to an up-to-date and easily navigable repository of board papers and of key portfolio documents for all the programmes within the portfolio (such as programme briefs, business cases, etc.) – including any relevant projects and programmes funded from outside the board's control (such as any local IT initiatives being financed by individual countries within the group);
- accumulation and presentation of up-to-date summaries of management information on the status of the whole portfolio and of all programmes within it, including:
  - financial status;
  - progress against time schedule;
  - spend against budget;
  - major risks or issues.
- maintenance of up-to-date records on the state of all items requiring board attention, including:
  - actions agreed within the board;
  - portfolio-level issues and risks;
  - budgets and expenditure;
  - overall roadmaps and portfolio-level milestones;
  - portfolio-level change requests;
  - delivery and realisation of business benefits.

The PMO will also provide a central point of contact for all those:

- requiring information about the board or its portfolio of programmes and projects;
- with business needs that might be fulfilled by the portfolio;
- wishing to notify the board of problems or issues with any part of any programme or service covered by the portfolio.

Over recent years, especially in the UK public sector, the term 'centre of excellence', abbreviated to CoE, has come into use for those PMOs that have a responsibility for enhancing the quality of project and programme

management within the organisation.[9] Such PMOs generally provide, amongst other services, those described above as additional consultancy and advisory services, plus strategic and governance services. The CoE is thus responsible for ensuring both the selection of the 'right' projects and programmes, plus their effective execution – i.e. 'doing them right'.

In order to fulfil its responsibilities, the CoE must have full authority, and this usually means transferring power and budget from existing business units. For example:

- The responsibility for the training and development of project and programme managers must usually be transferred from the organisation's human resources or staff development unit.
- The responsibility for agreeing the personal objectives and targets for individual project and programme managers must be transferred to the CoE – typically from the line-of-business units that employed them or from the human resources department.
- Responsibility for setting standards and auditing them should be transferred from the organisation's quality-assurance unit.
- Responsibility for allocating key staff, such as project and programme managers, to specific initiatives is transferred from the line-of-business units. One effect of this transfer is that the CoE is deemed to be the employer of the organisation's key project and programme resources – hence such units can employ large numbers of staff.

Let's feel a degree of sympathy for the PO that covers so many roles. Part of the time they are seen as an unwelcome police force checking up on the project managers; part of the time they are a welcome polite force helping project managers to move their projects forward; part of the time they are developing the project team; and finally, they are advising on project selection and prioritisation.

You might find all this quite surprising, as your PO is actually a travel agency organising travel for the project teams; a group of administrators who collate weekly timesheets; a team that pulls together the finances for all projects every month. The sad fact is that there is very often a huge gap between the expectations that project managers have of the programme office and the work they are responsible for doing.

6.5 PMO size matters

Establishing a PMO usually represents a big change to the way that the organisation works and should be managed accordingly, i.e. as a programme of organisational change. This means that a business case should be prepared showing how the benefits will outweigh the costs of set-up and running – and these costs will largely depend upon the size of the

PMO. Research by ProgM and others shows that, when it comes to size, PMOs vary enormously.[10]

Not surprisingly, the single biggest factor in determining size appears to be the scope of the PMO, with those covering a single project being smaller than those covering a whole portfolio, as shown in Figure 6.3. Project offices serving a single project employ on average 3.5 people, whilst PMOs serving programmes employ 8.3 people and PMOs serving whole portfolios employ 10.7. It can reasonably be assumed that a significant proportion of these will be relatively low-paid administrative support people.

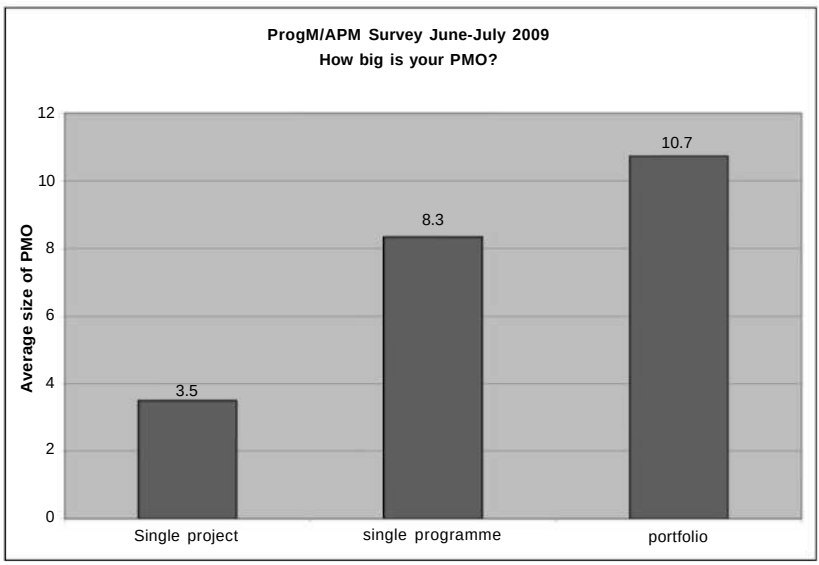

Figure 6.3 Average (mean) size of PMO

In particular, the survey showed that PMOs that oversee portfolios had a great range of sizes, with some in the sample employing over 50 staff. Some PMOs are even bigger: the PMO of a global supplier of telecommunications infrastructure is believed to have over 2,000 staff, providing the full range of CoE-type services described above.

Amongst the other factors that determine size are:

- the range and complexity of the services to be provided – as discussed in section 6.4;
- the organisation's overall objectives for the PMO. Generally, the more that is expected, the more the resources that will be needed;
- the arrangements by which the PMO is funded – i.e. whether it is funded as a corporate overhead or whether individual projects and

programmes must provide funding according to the services that they use. This will determine whose sets of objectives must be supported to ensure on-going funding;
- the context of the organisation within which it operates. This determines how much time and effort must be spent on internal communication. In general, there can never be too much time and effort spent on this.

Another factor determining the resources required by the PMO will be the way that it is structured. PMOs may operate at various levels and some of the work is dispersed from the central PMO to multiple PMOs at lower levels of the organisation. Figure 6.4 shows a possible multi-level structure. In this example:

- A corporate-level PMO provides prioritisation and oversight across the whole of the organisation's investments on projects and programmes.
- Within three key departments – IT, research and operations, there are subordinate-level PMOs that provide oversight of their sub-portfolios.
- Within the IT department, projects are organised into two programmes, 'A' and 'B'. Each has a programme-level PMO to support its programme manager.

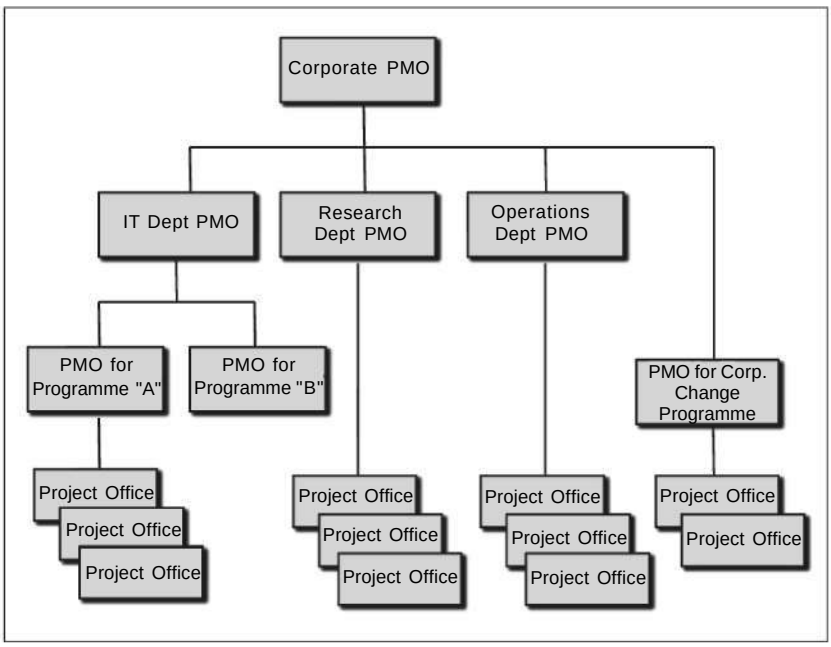

Figure 6.4 Possible PMO structure within a large organisation

- Of the two IT programmes, 'A' is more complex, hence the managers of the component projects are supported by project offices. However, programme 'A' is not so complex and all PMO services are provided from the programme-level PMO.
- The portfolios of the research and operations departments consist of free-standing projects. Accordingly there are no programme-level PMOs, but the managers of each project are supported by project offices.
- At corporate level there is a programme of change, which is served by a programme-level PMO.
- Certain key projects within the corporate change programme are supported by project offices.

When two banks merged to form Fortis Bank in Brussels, a programme delivered a vast range of changes within the MIS group. The programme office grew as the programme gathered pace, and peaked at 32 people – 15 in the central programme office, plus 17 distributed around the various operating divisions. As the programme began to run down, the size of the programme office was reduced in parallel. There were some 3,000 specialists working on the programme, so the PMO represented roughly 1% of the total head count, at its peak.

The structure in Figure 6.4 represents a large corporation, but would provide great flexibility. It would allow different departments to use different methods and would provide support to major projects. However, there would inevitably be some duplication of effort and resources. Thus, a dispersed structure, as shown in Figure 6.4, would require more staff than a single, centralised PMO.

A major factor in determining PMO staffing levels is the tools that are available. A well-selected and well-implemented set of tools can greatly enhance the productivity of PMO staff, thus allowing the PMO to achieve its objectives with fewer staff. Sadly, many PMOs have inadequate tooling, so that staff spend their time struggling with spreadsheets, thus using a lot of resource but generally achieving little of value.

When considering staffing, thought needs to be given to how much staff cost. In general, administrative support services, as would generally be required for project offices, do not require the same kind of highly experienced and qualified staff as would be required within portfolio-level PMOs, which have to review business cases and advise main boards of directors on which major projects to invest in.

Another point to note is that portfolio-level PMOs needs to exist as long as projects and programmes are being undertaken – which generally means that they are a permanent feature of the corporate landscape. By contrast, projects and programmes are temporary things with finite lifespans – hence their PMOs are only temporary. It may well be appropriate for staff in the former to have permanent contracts of employment, whilst the latter can be staffed largely by people working on temporary contracts.

As soon as a company hits hard times and there is pressure on budgets, the two elements that are pushed into the firing line first are training and PMOs. We have observed the situation described in Figure 6.5 more than once.

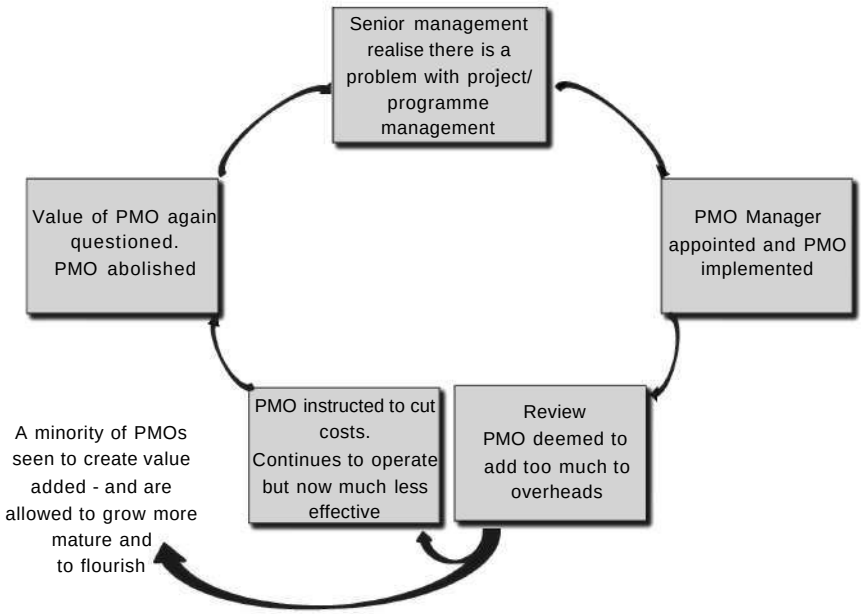

Figure 6.5 Diagram showing life-cycle of typical portfolio-level PMO

In very broad and non-scientific terms here is a rule of thumb to predict the likely size of your PO:

Number of PO staff = (number of project resources/100 rounded up) + 1.

So if you have up to 100 people working on your projects, two people should be able to look after your PO function. If you have 500 projects you will need a team of 6. I worked on a very large programme with 3,000 software engineers, designers and database specialists. The PO had 32 staff.

6.6 PMO maturity

In spite of the great amount of interest shown in PMOs in recent years, relatively few PMOs appear to be completely successful, especially those operating at the portfolio level. For example, a survey by international

consultants ESI suggests that only 17% of organisations regard such PMOs as 'fully effective in addressing the key business challenges'.[11] The same survey showed that 30% of PMOs had 'their existence seriously questioned in recent years'. Other studies show that the life span of the typical PMO is very short, with the majority being under three years of age.[12]

It appears that many PMOs have a short and unhappy life cycle of five stages – as summarised in Figure 6.5. Here is the PMO life cycle. Where is your PMO at the moment?

1 The organisation's senior management realise that its approach to managing projects is unsatisfactory. Many projects overrun their schedules and budgets and the resulting systems do not always satisfy users. The senior management casts around for a solution and decides to implement a centralised PMO – often on the advice of a particular tool vendor.
2 A PMO manager is appointed and, full of enthusiasm, he/she sets about implementing the PMO.
3 Not long after all the expense of setting up the PMO, a corporate economy drive is started. The finance department looks for targets and focuses on administrative overheads that do not have powerful senior management sponsorship. The PMO falls into this category and is subjected to detailed scrutiny. Because the office is relatively new, there are not yet many proven tangible benefits that can be shown to flow from the PMO. Moreover, the senior management, which was so keen to see something done about its projects and programmes, is now focusing on other things. Even though the cost of the PMO is a minute fraction of the value of the portfolio or programme that it is controlling, if it cannot demonstrate that it has already delivered worthwhile benefits, it will be vulnerable
4 The PMO is instructed to cut its costs, so staff are released. The PMO continues to operate, but with fewer staff it is unable to achieve its objectives and focuses on basic administrative support.
5 The value of the PMO is again questioned. Senior management now decides that administrative support is a luxury that project managers will have to do without – and the PMO is abolished.

This whole life cycle seems to take about three years. The only pleasure that it provides to those who work in PMOs is that, within another two years, the organisation's senior management will realise that its approach to managing projects is unsatisfactory and the whole cycle will start again.

The solution seems to lie in creating what is normally referred to as a 'mature' PMO – one that creates clear added value for the organisation and can demonstrate this whenever needed. This concept of maturity is summarised in Table 6.1, levels 4 or 5 being deemed 'mature'. Because of the nature of corporate life, it is difficult to progress up this ladder of maturity once the enthusiasm of senior management is lost. Accordingly, it is vital

Table 6.1 Summary of the five possible levels of PMO maturity

MATURITY LEVEL	DESCRIPTION OF PMO STATUS
Level 1	The organisation's board of directors recognises that programmes and projects are different from 'business as usual' and runs an informal list of its investments, but there may be no formal tracking processes.
Level 2	The organisation creates a PMO to ensure that each programme and project in its portfolio is run to a minimum specified standard of processes and procedures, but there may be limited consistency or coordination.
Level 3	The PMO establishes centrally controlled programme and project processes and individual initiatives can flex within these processes to suit the needs of particular initiatives. The success or otherwise of projects and programmes is measured.
Level 4	The PMO obtains and retains specific metrics on the whole portfolio of initiatives as a means of predicting future performance. It assesses its capacity to manage programmes and projects and prioritises them accordingly. It also takes an active role in prioritising investments and in advising on projects and programmes that should be terminated. It is able to demonstrate tangible benefits that it creates for the organisation.
Level 5	The PMO continuously improves its management processes, with proactive problem and technology management, in order to improve its ability to predict project, programme and portfolio performance over time and to further optimise processes.

to be clear at the start about what the PMO is expected to deliver and then to see right from the start that it is delivered.

The above life cycle can also apply to programme-level PMOs, where the programme lasts for more than a few years. Such programmes are frequently subjected to the same short-sighted, money-focused review and are subject to the same demands for economy.

6.7 PMO success

There appear to be seven things that are generally critical to PMO success, enabling a PMO to break out of the life cycle shown in Figure 6.5.

6.7.1 Fit to the needs of the organisation

Every organisation is different and has a unique structure, culture and set of issues and concerns. To be successful, a PMO must accommodate these characteristics. The PMO should also contribute to the organisation's 'governance' arrangements in both encouraging good initiatives that provide benefits and discouraging bad ones that don't.

6.7.2 Provide assistance to project and programme managers

Although the PMO must fit in with the needs of the organisation as a whole, it must also provide practical and effective assistance to project and programme managers. This frequently takes the form of freeing those managers from routine chores so that they can concentrate on leading their initiatives to success. An authoritative adviser on project management recommends that project managers should spend 90% of their time on communication, but none can even approach this level if they are required to spend long hours on administration, accounting or reporting tasks.[13]

6.7.3 A valuable early deliverable

A valuable early deliverable from the PMO could be a set of tailored guidelines, supported by templates and examples, to help project and programme managers comply with best practice and with organisational standards. Wherever possible, processes should be kept simple and aligned with existing processes that are already seen to add value.

6.7.4 Ensure executive support

PMOs can add tremendous value by identifying projects and programmes that are unlikely to deliver value or to help the organisation deliver its strategy. But such information is not always welcomed and sometimes PMOs must cope with 'political' opposition from project and programme sponsors and other stakeholders who might be affected. Because of this, it is vital that the PMO has strong executive support in order to cope with such difficulties.

6.7.5 Clear statement of 'vision'

A clear statement of vision, showing how the PMO will support the organisation, is a valuable aid to generating executive support.

6.7.6 Demonstrate value added

A proven way of maintaining executive support is for the PMO to be continually able to demonstrate the value that it brings. Examples of metrics that might be appropriate to doing this include:

- project and programme success rates in terms of capital cost, duration, operating cost and benefits realisation;
- improved portfolio balance in terms of risk, programme/project life cycle stages;
- strategic alignment and investment type;
- enhanced contribution to strategic objectives.

An issue for newly established PMOs is that there is often no existing baseline of data to provide any measures of such value added. In these circumstances, it might be appropriate to conduct surveys of project and programme managers, of users, of sponsors and of stakeholders to establish their levels of satisfaction with current arrangements. Follow-up surveys at six-monthly intervals should then demonstrate the improvements that have occurred, without the need for complex data on project success rates and strategic progress.

An important source of business value accruing from strategically focused PMOs (such as those at portfolio level) is the improved portfolio balance that they generate. This comes not only from developing the most appropriate mix of programmes and projects to support the organisation's strategy, but also from avoiding the duplication that results when multiple departments initiate similar programmes and projects at the same time. Furthermore, a balanced portfolio will ensure that internal resources are used effectively.

To support the balancing of portfolios, it is essential to be clear about the benefits that each project and programme are intended to provide. This may require the strengthening of business cases and the implementation of a formal sign-off process to stop low-value projects at their inception.

6.7.7 Present a clear picture to management

Another way of maintaining executive support is to ensure that the PMO provides clear, accurate, meaningful and easy-to-understand information that helps senior management in its decision making. A frequently used technique is the production and updating of a 'management dashboard' that provides a high-level view of the performance of the project, programme or portfolio. Colour coding can be used to identify what is going well and what is going less well, providing an 'at a glance' summary. An example of part of such a dashboard can be found in Figure 3.17.

6.7.8 Link in to wider organisation

The PMO will also have to link in to the wider business organisation and will have to interact with a range of stakeholders, such as those identified

in Box 6.4. As a result, it is essential that all these other departments and groups understand the objectives of the PMO, the help that it can provide to them, and what the PMO requires from them.

Box 6.4 Stakeholders affected by portfolio management

Stakeholder groups that will be affected by the introduction of portfolio management, and whose potential opposition must be overcome, include:

- *project and programme managers* – who will be subjected to new controls and reporting requirements;
- *main board directors* – who may no longer be able to 'squeeze in' new initiatives whenever they want;
- *existing sponsors* – who may fear that their 'pet' programmes and projects will be the ones that are scrapped;
- *managers of line business* – who will have to accept responsibility for delivering the benefits on which the business case rests;
- *other business functions* – such as finance, HR and quality assurance, who may have some of their freedoms and influence curtailed.

6.7.9 Manage PMO implementation

The introduction of a PMO can result in major changes – to those who manage the affected projects and programmes, to the users and stakeholders that are affected by them, and to the senior management whose decisions initiate or terminate them. Accordingly, the implementation of a PMO should be managed as a programme of organisational change, with all the planning, stakeholder management, communication and business justification that such a programme implies.

It is generally wise to adopt a stepped approach to implementation, concentrating in the early stages on activities that give instant visibility to senior management. For example, a register of current projects and programmes can be a major 'eye opener', showing for the first time the breadth and value of the organisation's portfolio.

6.8 Conclusions

Establishing a PMO, whether at the programme or portfolio level, will affect many in the organisation. In particular, a mature PMO will impose disciplines on senior management that it is unused to. For example, impos-

ing a rational process for evaluating proposals for new projects and programmes will greatly benefit the organisation, but it may frustrate some senior executives who are used to getting their way just by shouting louder than anyone else. It may also annoy middle management, who lose power to the PMO. For example, the finance department may think that it should be the sole arbiter of whether a proposal represents good value for money. So a PMO that really wants to make a difference is likely to encounter lots of opposition.

But PMOs are not unique in this. All organisational change programmes encounter this problem at some stage, and have been doing for centuries. As Nicolo Machiavelli wrote in fifteenth-century Florence:

> There is nothing more difficult to take in hand, more perilous to conduct, or more uncertain in its success, than to take the lead in the introduction of a new order of things. For the reformer has enemies in all those who profit by the old order, and only lukewarm defenders in all those who would profit by the new order, this lukewarmness arising partly from fear of their adversaries and partly from the incredulity of mankind, who do not truly believe in anything new until they have had actual experience of it.[14]

Nevertheless, by remembering the nine things outlined in section 6.7, PMOs can overcome the political objections and deliver rich rewards for their organisations. The total cost of a PMO is usually only a fraction of the value of the programmes and projects that it oversees; yet the benefits that it can deliver are huge. After all, as explained in the introduction to this chapter, everyone who runs a project, programme or portfolio needs the services of someone like Barbara if they are to be successful.

Case study 6.1 PMO return on investment study

Background

The Gantry Group is a specialist market research consultancy delivering strategic guidance to leading business-solution providers. It has developed a methodology for assessing the Return on Investment (ROI) of business improvement initiatives and has repeatedly been consulted by a leading IT company. This IT company provides PMO tools and services to major US organisations and has repeatedly asked Gantry Group to assess the ROIs achieved by its customers as a consequence of using these facilities. In 2008 Gantry Group conducted a benchmark review across eight such organisations to identify the average benefits.

Review methodology

All the eight organisations covered by this review were using portfolio management to improve the effectiveness and efficiency of their IT departments. All had been using the tools and services for at least three years. Gantry Group used interviews with senior managers to identify discrete areas of value added. The information so obtained was then entered into a spreadsheet, from which averages for ROI and other areas of value could be calculated.

The calculation for determining the annual ROI is:

Value of tangible benefits minus monetary investment necessary to achieve them.

From this, the Net Present Value (NPV) ROI is calculated using a standard NPV formula that discounts the cost of capital at 10%.

Tangible benefits are those that can be tracked directly and connected to financial returns. Investment represents the financial expenditure required, including up-front deployment costs (such as software licences, implementation costs, hardware and infrastructure, and PMO-specific training) and recurring life-cycle costs (such as staff costs, technical support, hardware maintenance and follow-up training).

Review findings

Of the organisations covered in the study, six reported a positive ROI within the first year of deployment. Altogether, the eight gained tangible benefits of $US6.5 million, generating an ROI of $US4.8 million by the end of the first year – equivalent to 6.5% of the average annual IT budget. Over three years, this ROI had grown to $US22.3 million, representing 14% of annual IT budget, when discounted for the cost of capital.

These benefits are summarised in Figure 6.6. Note that benefits come not only from 'doing projects right' (reduced project overruns), but also from 'doing the right projects' (avoidance of expenditure on non-strategic

Savings as % of Average IT Annual Budget	Year 1	3 Year Ave
Reduced IT project overruns	3.1%	3.4%
Avoidance of IT expense on non-strategic IT projects	7.8%	12.6%
Reduced IT labour expenses due to change request reduction	4.5%	7.0%
Reduced IT labour expense due to improved staff loading/utilization	0.4%	1.0%
Reduced IT project management expenses	0.5%	0.7%
TOTAL TANGIBLE FINANCIAL BENEFIT	8.6%	15.8%
ROI	6.5%	14.0%

Figure 6.6 Examples of cost savings from portfolio management within an IT department

projects). Other benefits come from better control of change requests, better use of staff resources and improved project manager productivity.

The review also suggested that many measurable but non-financial improvements could be made to other aspects of programme and project delivery, even though these could not be converted into financial benefits, some of which are shown in Figure 6.7.

Non Financial Benefits	Year 1	3 Year Ave
Improved capture of Change Order Requests	4.6%	14.3%
Improved project timeliness	30.5%	45.2%
Increased budget accuracy	12.6%	0.9%
Reduced management time spent on project status reporting	30.5%	43.2%
Reduced time to generate IT labour reports	51.9%	54.7%

Figure 6.7 Examples of non-financial benefits from portfolio management within an IT department

Note that 'project timeliness' is based on the number of projects that are completed on or before the expected completion date. 'Budget accuracy' is the extent to which actual project costs during the year match expected costs, as allowed for in initial budgets. 'Labour reports' are those that pinpoint exactly what resources were used on the project, how much time they spent and what the value of that time was.

Further details of this review can be found on the Gantry Group website at http://www.gantrygroup.com/ or downloaded directly from www.hp.com/hpinfo/newsroom/press_kits/2009/lasvegasevents2009/HPPPMROIBenchmarkStudyReport.pdf

6.9 Summary and reflection

The programme office, project support office, or such office with a wide variety of titles and roles can provide very useful services to an organisation management multiple projects. The roles these offices can play have been outlined and their success criteria proposed.

7 People matter

Over the second half of the twentieth century there has been a significant change of emphasis, to thinking about the way in which people work together on programmes and projects, rather than about the tools and techniques of their trade. It would be nice to think that this is because the tools have reached a stage where they are at least stable and generally fit for their purpose. It may be that we – that's you, me and all the other programme and portfolio people – have become accustomed to these tools and are able to make do with them. Whatever the reason, the project, programme and portfolio community has started to give more time and clearer thinking to the people, their wants, motivations and their roles. The degree of effort and thinking about people has drawn roughly level with thinking about tools within the project management profession. There is now a desire to understand how the two should co-exist and support each other to achieve the ultimate objective – successful programmes.

Some people seem gifted, able to achieve desirable outcomes against the odds with few tools and techniques, but with a devoted and motivated team. The rest of us can improve our abilities in dealing with people by understanding some of the issues.

We cannot here cover the vast range of psychology, team dynamics, personality profiling and leadership aspects, but we can discuss some important aspects that are especially significant to those in our trade and point to better sources elsewhere. In this chapter we'll cover:

- *leadership* – because programme managers are not only leaders but leaders of leaders;
- *stakeholder engagement* – because stakeholders are often a headache in programme and portfolio management;
- *the development of programme management and portfolio skills* – because many organisations seem to struggle to build their programme management capability.

7.1 Leadership

Leadership tends to be like drainage, you only really notice it when it is not there, the rest of the time you take it for granted. This is especially the case when projects and programmes are involved; those that are properly led and go well are quietly ticked off the list and the world moves on. Those initiatives that were poorly led and thus got into trouble become the source of hero stories about the recovery, often involving 18-hour working days, evenings, weekends or bank holidays and requiring dramatic actions by the person sent to lead the recovery.

Part of the reason for this is the link in most people's minds between leadership and military glory, as exemplified by David's famous picture of Napoleon leading his troops across the Alps.[1] It's all there, the masterful gaze saying 'I know the way', the hand pointing the direction, the troops in the background dutifully marching as directed, and steed and all clothing immaculate, as you would expect from a perfectly led project. Of course, this image is a total fiction. The whole reason for the invasion was that France had created a large army but had no money to pay it; hence the need to go to Italy to rob the defenceless states of the peninsula.

In any case, Napoleon was ultimately unsuccessful, being finally routed by British, Dutch and German troops led primarily by the Duke of Wellington. Wellington was much closer to a successful project or programme manager than Napoleon would ever be. All the Duke of Wellington's campaigns were dominated by the need to ensure adequate supplies. To this end, he was ever ready to berate the clerks in Whitehall responsible for his supplies – as demonstrated by the letter in Box 7.1. Of course, it was a big help to Wellington that his brother was in the Cabinet. The rest of us, however carefully we arrange sponsorship and however diligently we manage our stakeholders, must work hard to receive such high-level support.

Box 7.1 Excerpt from a letter from the Duke of Wellington to the War Office

My officers have been diligently complying with your request … We have enumerated our saddles, bridles, tents and tent poles, and all manner of sundry items for which his Majesty's Government holds me accountable. I have despatched reports on the character, wit, spleen of every officer. Each item and each farthing has been accounted for, with two regrettable exceptions for which I beg your indulgence. Unfortunately, the sum of one shilling and nine pence remains unaccounted for in one infantry battalion's petty cash and there has been hideous confusion as to the number of jars of

raspberry jam issued to one cavalry regiment. This reprehensible carelessness may be related to the pressure of circumstances since we are at war with France, a fact which may come as a bit of a surprise to you gentlemen in Whitehall.

(This is an extract from a letter reputedly written by the Duke of Wellington in 1812, but its provenance is somewhat unclear.)

In any case, civil project management is usually very different from the military manoeuvres managed by generals. There are normally fewer bullets and, typically, the focus is on creating business value – although I've often felt a deep-seated urge to shoot some of my more ignorant and self-obsessed stakeholders. In addition, programme and portfolio managers ordinarily have less-direct control over colleagues and subordinates than do their military counterparts. They cannot rely so much on giving orders, but must use less-direct means of commanding those involved in their initiatives.

7.1.1 A definition of leadership

Because of its illusive nature, there are lots of definitions of leadership. Try this one:

> Leadership is about enabling colleagues to achieve more of agreed outcomes than they could have done if the leader had not been there to help.

This definition emphasises three points:

1 It's not necessarily about a master–servant relationship, but about colleagues working together on a common endeavour, although in many cases it is better if clear roles, responsibilities and hierarchies are laid down (as described in Chapter 4), but this is not always necessary.
2 The purpose of leadership is the outcome – usually the business benefits that the programme or portfolio is intended to deliver (see section 1.8).
3 We need formal leadership arrangements only in order to achieve more than would be the case without such leadership, and this is commonly best achieved through helping colleagues rather than through ordering them about or bullying them.

It's worth pointing out that some organisations seem to function very happily without any formal leadership or management structures at all. A good example of this would be the Hash House Harriers. This is a

world-wide group of mad runners, consisting of thousands of groups, each made up of from a dozen to hundreds of runners in a city somewhere on planet Earth. Runners meet regularly to take part in a form of 'hare and hounds', with 'hares' laying a trail of paper or flour and the 'hounds' following it. The runs typically start and end at a bar, a park or a barbecue site and there are usually copious amounts of beer drunk afterwards. Hashers describe themselves as 'a drinking club with a running problem'. These groups prosper for years with no formal organisation; if that is not enough, you should know that various Hash groups frequently organise national and global get-togethers for thousands of hashers. If you are interested in taking part in a Hash, key 'Hash House Harriers' into your internet browser and see what comes up!

However, although groups of Hash House Harriers show that large-scale projects can be undertaken on a totally informal and leaderless basis, this is not the normal pattern for business in the modern world. The need for clear lines of accountability, for the management of risk, and for programmes and portfolios to interface with business-as-usual activities requires formal structures and requires leadership roles and responsibilities to be defined. With these in place, most people will find work reasonably satisfying and enjoyable and will seek to get on with their understanding of the job; without them, work will likely seem chaotic and a waste of time, with frequent interruption, due to internal obstacles and politics.

7.1.2 Leadership – a model for those of us without charisma

All of us know people who have such natural charisma that others want to follow them. In some cases, it's the person who stole our first girl/boyfriend. In others, it's the person who 'pipped us at the post' for the job that we really wanted. A list of people famous for their charisma would be long, including Bill Clinton, John F. Kennedy, the Dalai Lama and Nelson Mandela. Whatever, they seem to be able to motivate others without effort and to convince others (again without effort) that success is on account of their leadership. I'm assuming that you are not one of these lucky souls: if you were, you wouldn't really need to be reading this.

All of us probably also know people who, through luck, judgement, or just being in the right place at the right time, have been appointed to positions of leadership within an established hierarchy. The rest of us are required to follow these position holders because that is the rule of the organisation. Here, no particular skills are required; the position holder merely has to don the appropriate uniform and make his/her wishes known and the rest of us will do our best to implement them. Again, I'm assuming that you are not one of these fortunate souls.

The rest of us, who have neither natural charisma nor a sufficiently senior position in the hierarchy, have to work harder to understand and to fulfil our leadership obligations and these frequently depend upon our position within the organisation.

However, Figure 7.1 seems to apply to all leadership situations and summarises the various elements that make up successful leadership.

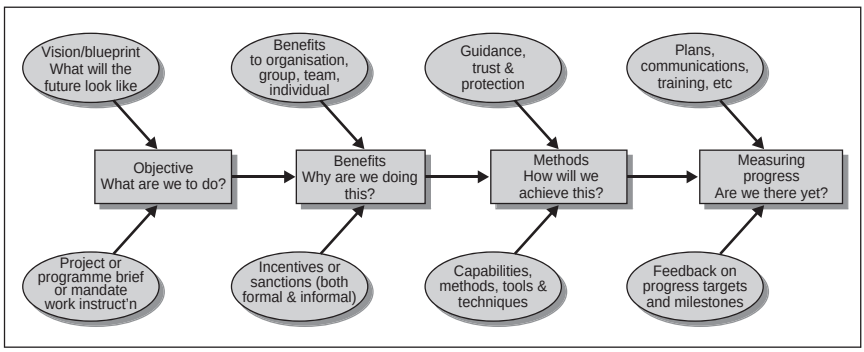

Figure 7.1 Key elements of leadership

7.2 Leadership development

7.2.1 Overview

At the time of writing this we are at a fascinating point in the development of both project and programme management. A number of drivers are combining: the push for professionalism, the growing ranks of full-time and some-time project and programme managers, a greater understanding of the underlying reasons for success and failure, the growing acceptance of the importance of projects to business success, the differentiation of programmes and therefore programme management, an economic downturn, growing customer expectations, and organisations demanding more leaders.

Why the increased demand for programme leadership?

In difficult times it is the people with leadership skills who can engage all those around them to create success. As success becomes harder to achieve, so the demand for more such capable leaders inevitably grows. The discipline of programme management, following in part on the acceptance and adoption of project management, is becoming increasingly valued in both the private and public sectors for delivering change. In the

organisations we work with and speak to there is a growing expectation that programme managers will move from being responsible for managing the process of programme management to taking role of leader – taking the necessary action to ensure that benefits are delivered and the programme is perceived as a success in the eyes of key stakeholders. There is therefore a need to identify and develop effective programme leaders capable of rising to this challenge.

Much has been written about leadership, and increasingly within the projects world, as organisations aim to identify those people who can not only manage but also lead a project to a successful outcome. If important for projects, it is even more so for those who must set the direction, develop the myriad relationships and take the key decisions on programmes or as part of managing a portfolio. This last chapter describes and provides examples of these often elusive, indefinable qualities that make a leader.

Given this demand for more leaders, the challenge most organisations are now facing is how to meet these requirements and develop these leaders. Those who are tasked with filling the leadership gap are asking some recurring questions, which form the structure of this chapter. The discussion then finishes by outlining a practical framework for putting this thinking into action. This chapter will consider pertinent questions that we believe must be answered by those responsible for the development of programme leaders and those who would benefit from their success. It will also provide an overview of some of the key techniques for and routes to achieving this development for practising programme managers. As we will find, due to the unique nature of every organisation, there is no single development route and therefore no one-size-fits-all solution that can be provided. This is even more true for the individual, who has different needs (immediate and long term), expectations, learning style, etc. – in fact a myriad of different requirements that can never be met by a single solution.

> For every complex problem there is an answer that is clear, simple, and wrong.
>
> (H. L. Mencken)

7.2.2 What are the benefits of developing leadership?

The programme leaders who show leadership are the most successful because they inspire people to 'put their hearts' into their work and create teams that somehow, magically, are 'more than the sum of their parts'. Below are some of the ultimate benefits we believe come from investment in the development of programme leaders, courtesy of Team Animation Ltd.

- Stakeholders 'on side'
  - clearing the way – 'top down' on complex issues
  - suggesting alternatives and opportunities
  - influencing and 'politicking' for the team
- Programme and project teams willing to:
  - 'go the extra mile'
  - show above-duty commitment
  - resolve problems together
- Suppliers/partners committed to each other
  - resolving issues quickly and fairly
  - creating opportunities together – mutual success focus
- Customers gaining confidence
  - easing change control and problem resolution
  - generating repeat business
  - creating opportunities
- Respect for the programme team.

7.2.3 Are PM leadership skills an inherent quality individual programme managers either do or do not have?

We all know people who just seem to be natural leaders. Those who have it stand out and inspire all around them. These are the leaders who nurture relationships even when under extreme pressure, who retain the strategic perspective even as problems are erupting. These 'just seem to' qualities, that the best leaders operate with, encourage the theory that leaders are 'born not made' and that no amount of development can give even very competent managers the ability to truly lead.

There is scope to argue the fundamentals of this assertion, but in a practical setting we are unlikely ever to see enough attention devoted to supporting everyone through leadership development. The fact that training budgets are still predominantly devoted to traditional training for programme managers, with courses on the tools, processes and procedures of project and programme management, is a telling sign of the lack of understanding in this area.

7.2.4 Can PM leadership skills be taught?

The short answer is 'no'. Traditional competency training provides the building blocks by teaching 'what' needs to be done. It misses the

subtlety of the 'how'. Since it is the 'how' that differentiates the best leaders (as identified above), teaching the traditional skills on their own simply cannot impact on the required leadership skills. Our experience and research clearly demonstrates that programme leaders can be enabled to emerge, but that this requires an entirely new learning process and focus. Given the unique context within which each organisation operates, any educational programme must be aligned to equip participants with the necessary development opportunities to best deal with these challenges. Further to this, creating a cadre of leaders requires cross-functional planning within the organisation to link such elements as career planning/assignment management, appraisal/recognition, capacity/demand management and rewards.

For any effective development to occur, those few talented individuals with the potential to become leaders must first be identified. Then the relational, behavioural and emotional intelligence skills so pertinent to leadership must be developed in ways that enable the new programme leaders to demonstrably change 'how' they operate.

It is the 'how' qualities like trust, respect, commitment and passion that are the keys to great leadership capability. Unlike the 'what' skills, these leadership competencies are more art than science and are undertaken in individual ways by every leader. They can inspire these heartfelt qualities in others because they have been challenged, usually by other great leaders in their careers, to discover these 'how' qualities in themselves. Suddenly it becomes obvious why it is impossible to teach leadership prescriptively, why leadership must be encouraged to emerge, in individual ways, from those with talent. A flexible framework is presented later in the chapter, and is provided as a basis for discussion.

7.3 The challenges faced by programme managers

Every organisation has a different definition and expectation of the role of the programme manager. There is therefore a need to understand what is expected of a programme manager in order to allow the distinction of leadership to be identified. Below are some of the main challenges that programme managers must face and that help to distinguish what is expected of a leader. This is included here with the agreement of Team Animation Ltd.

1 *Translate the political into a reality* – understanding and then transforming organisational strategies and expectations into not only technical but also politically feasible, suitable solutions that are supported by stakeholders.
2 *Deliver across multiple organisational cultures and models* – adapting the way in which the programme is structured, managed and perceived.

3 *Balance the need for flexibility with the need for control* – allowing the business to adapt to external events and innovate as appropriate while ensuring sufficient governance.
4 *Satisfy a broad range of stakeholder needs* – leveraging these relationships for the success of the programme by selling the vision and accepting the subjectivity of success.
5 *Create synergies between projects* – to ensure that the collective is 'greater than the sum of its parts', therefore justifying the investment in programme management.
6 *Accept and work with the inevitable resistance to change and complexity* that is inherent in many programmes, given the number of relationships and the uncertainty within them.
7 *Make resource allocation trade-offs* –in terms of both risk and opportunity costs – among a collection of competing projects.
8 *Be responsible for finding answers to any conflicts*, clashes of assumption or lack of resources associated with the execution of strategic plans that they had little input into but are constrained by.
9 *Accept responsibility and accountability* without having the organisational authority over what must be accomplished.
10 *Ensure that projects are controlled and governed* and do not affect current operations or future strategic positioning – balancing the risks of the programme against the benefits that each project brings individually and collectively.
11 *Be both advocates for and sceptics of the projects within their programmes* – tirelessly supporting their projects with senior management while guarding against being over-optimistic of any project's benefits and progress.
12 *Ensure that the projects work well with other projects in other programmes* – with organisations moving toward system-of-systems solutions, it is imperative that whatever is implemented is flexible and adaptable to future, yet unspecified, requirements.
13 *Finally, and potentially most importantly, consider and satisfy end-customer requirements* where programmes are the product of the organisation – delivering not only the agreed benefits but also success in the eyes of the key stakeholders.

Let's examine those pesky programme management challenges in a little more detail.

7.3.1 Objectives

It is amazing how often those working on projects and programmes have an incomplete or even completely wrong idea of what the initiative is

supposed to deliver, especially once a few change requests have been accepted. Achieving consistent focus, amongst all involved, on delivering what is required is the biggest single thing that a project, programme or portfolio leader can do.

Focus seeps away in a variety of ways. For example, project managers don't fully understand what is required, project teams working amidst a plethora of changes, use the wrong version of the specifications, and one group's understanding of what the words mean is completely different from that of another – even though everybody thinks that they are in exact agreement. To counteract such problems, which can occur at any level – portfolio, programme, project, team – it is essential to create a common vision. This can be built around visions, definitions and blueprints, as discussed in Chapter 5. The idea here is to enrich the details in the specification with additional background material that will help the project manager or team leader to envision and then explain to their teams what the initiative is intended to deliver.

One specific aid to understanding objectives is a blueprint – a document that explains how the objectives will be achieved. In former times in the construction and engineering industries, 'blueprints' were the engineering drawings to which everyone worked, and the process used to copy them resulted in drawings with a predominant blue colour, hence the name. Now blueprints typically consist of a written document supported by diagrams and charts – as per section 5.10.3.

It is all very well if every member of the project team understands the overall picture, but what most people need to know is exactly what their contribution will be. Here specific written instructions are beneficial. Different methods tend to have different names for such documents – mandate, brief, etc. – but the idea is the same; all project managers have clear and unambiguous instructions for what they must do, and all team leaders have the same for the work of their team, usually along the lines of a work instruction or work package definition. One way to help specify the work that is to be done, i.e. *within* the scope, is to refer to work that you know is *outside* of the scope.

All such documents should be subject to configuration control, and a key part of the programme or portfolio manager's role is to ensure that everyone knows and is using the correct version. As described in section 6.2, the PMO manager also has a vital role in maintaining configuration control.

But whatever form the instruction takes – words, diagrams, pictures or hieroglyphs – it is vital that it helps everyone working on the project or programme to understand exactly what they have to do. Programme and portfolio managers must ensure that team members' understanding of the words is correct.

7.3.2 Benefits

In spite of all the emphasis in recent conferences and writings, the benefits that projects and programmes are expected to deliver are often forgotten – even by those responsible for their delivery. In a survey taken some years ago amongst a group of active programme managers, nearly half were unable to quote a single specific and measurable benefit.[2] Indeed, as Figure 7.2 shows, 13% said that, as far as they knew, their programme would deliver no benefits whatsoever. This could be because their programmes were misconceived, or it could be because they had been careless in establishing their programme; either way, it bodes ill for those programmes. Part of the answer to this sort of problem is to confirm that the benefit realisation activities outlined in Chapter 2 are undertaken, and that investment is directed only to the 'right' projects and programmes, as described in Chapter 3.

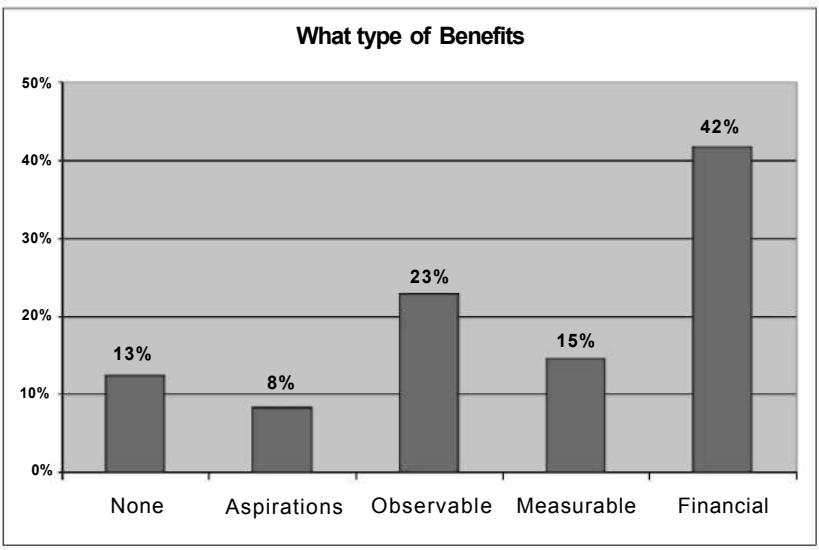

Figure 7.2 Survey results on benefit types

7.3.3 Methods

As you stick your feet under your new desk and admire the badge saying 'Programme Manager' hanging around your neck, it would be delightful

to find that your teams are staffed with experienced people who have done this sort of work before, who are fully trained and who are all eager to start work. With such staff, the pride that comes from doing a good job and living up to the highest professional standards is often enough to drive everything forward to success. Project and programme managers can then leave their teams to get on with the work whilst they manage the stakeholders and guide the initiative to success.

This hardly ever happens. More often than not, teams are inadequately resourced with untrained staff who have little understanding of what is involved. Moreover, they have often been previously subjected to the 'dream and bully' school of management – i.e. the manager first dreams up an impossibly small budget in order to gain a personal bonus; he then tries to bully everyone in to achieving what is clearly impossible, and finally blames the project team(s) when failure becomes too difficult to hide.

Repeated surveys of staff attitudes show that trust between management and staff is vital, yet often missing. Staff at all levels generally have a strong distrust of the managers to whom they report. And this is sometimes picked up by customers. For example, one survey of customer satisfaction contained the response: 'It is no use reporting difficulties to senior [supplier] management. All that happens is that they require the project manager to write yet more internal reports, taking [the project manager's] attention even further away from managing [our] project.'

So, building trust at all levels is vital. Fortunately, even if not blessed by charisma or a natural willingness to lead, project and programme managers can easily assist this process by setting an example along the lines of 'Do unto others as you would have others do unto you'. Part of this might involve working sensible hours – the same as you would expect your staff to work – remembering that they may have family or home commitments that you don't have. It might also involve sharing with them your understanding of what is going on elsewhere in the programme, portfolio or organisation. You may feel that you know little of value, but it is still probably a good deal more than any of your project teams know. And part should be behaviours that others will be proud to follow – unlike the county council chief executive who stayed in a £205 hotel room whilst attending a conference: the rest of her team were booked into £85-a-night rooms, at a time when she was trying to lead a major reorganisation involving thousands of redundancies.[3] To make matters worse, this behaviour followed thousands of pounds of spending on 'leadership advice'. The genuine leader usually seeks to show empathy with their colleagues by 'mucking in' and working in a similar environment.[4]

Should leaders need to be able to do the work of those they lead? Definitely not, but it helps if they understand what is involved, why it is sometimes difficult and what can be done to make it easier. It also helps if leaders are sufficiently knowledgeable to detect when they are being misled by colleagues and team members. In fact, a key ability of project, programme

and portfolio managers is to bring together the much more detailed skills of others – risk managers, change managers, estimators, planners, etc. – for the overall benefit of the initiative. Because of this, good project, programme and portfolio managers tend be 'jacks of all trades', able to coordinate the efforts and outputs of others in a way that creates success.

But merely combining the deliverables and capabilities of others is not usually enough. Leaders may have to convince their staff that they have the capability to succeed, that they have the skills and ability to deliver adequate quality. Nevertheless, motivation and fine words are sometimes not enough. A key task of the leader is to ensure that their project and programme teams have the tools and technical expertise that they need – such as planning and estimating resources, adequate PMOs, document repositories, etc. – all the things necessary for project/programme managers and their teams to do their jobs properly. It may also be necessary for members of project and programme teams to receive additional training, for example in the use and deployment of special items of technology; and good leadership involves gaining a good understanding of the capabilities of project teams and their members. Here, as described in section 5.3, the determination of leaders to ensure that their initiatives succeed is vital, as is their ability to persuade sponsors and governing boards to provide additional tools, budgets and resources when necessary.

Repeated surveys, such as that summarised in Figure 7.3, show that 'internal obstacles and politics' are the biggest pain facing those engaged in managing projects and programmes.[5] This survey also shows that the

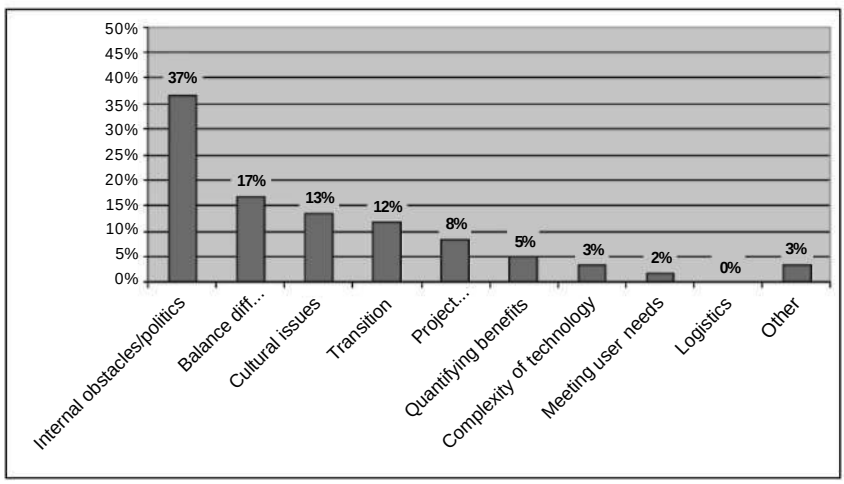

Figure 7.3 Diagram of biggest pains – all those involved in managing projects and programmes

top three issues are all people or organisation focused, suggesting that project professionals are generally comfortable with the technical issues of their initiatives or with handling customers, but have the greatest difficulty when handling internal management or placing their initiative within the context of their organisation.

This is where programme or portfolio leaders can make a real difference. By understanding the corporate politics and the organisational context, they can provide an 'umbrella' against these, freeing those doing the work to focus on delivery. This is demonstrated by Figure 7.4, where survey responses were divided between those regarding themselves as programme directors and those who regarded themselves as holding other posts. (Equivalents of programme director were deemed to include programme sponsor and senior responsible owner (SRO).)

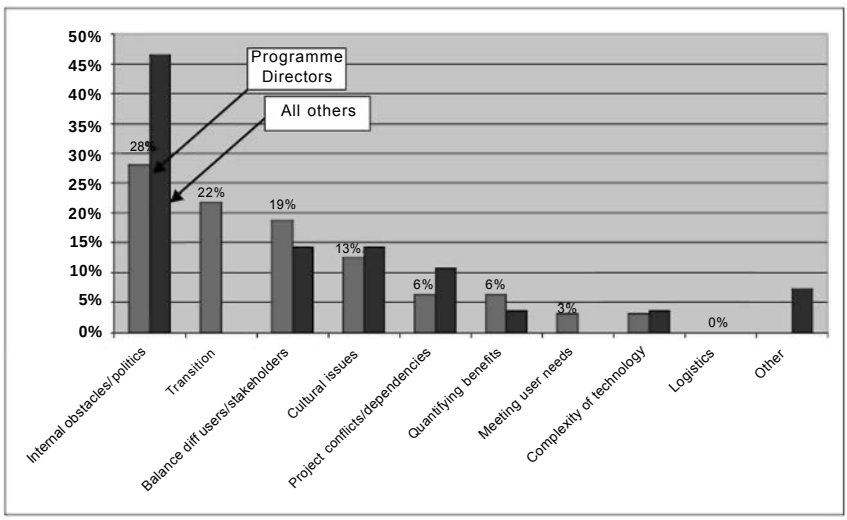

Figure 7.4 Comparison of programme directors with other groups

This shows that, whilst concern about 'internal obstacles and politics' amongst programme directors is still high, the degree of concern is substantially lower than that of other groups. This reflects the greater understanding of context and internal politics possessed by more senior management, such as programme directors. Employing this understanding for the benefit of the initiative, and thus protecting those lower down the hierarchy from organisational politics and other internal obstacles, is a vitally important aspect of programme or portfolio leadership. Protection from politics tends to be sought by all. I remember a conversation with a successful salesman who seemed to be going through a particularly bad period.

Naively, I asked if he need any help with his customers. His response was prompt. He looked me in the face and stated, 'I don't have any problems with my customers', and then he turned and pointed towards the row of management offices that occupied the far wall of our open-plan office and continued, 'All my problems come from over there.'

7.3.4 Measuring progress

One of the simplest but most effective motivational tools is to set team targets and then to publish progress against them. Like all motivational techniques, targets are subject to abuse. However, wisely set targets, the significance of which is understood by those who must meet them, are a great help to all.

Similarly, using regular feedback to teams to demonstrate that they can achieve the targets, even difficult ones, is a classic element of leadership. Various types of target can be used, depending upon the nature and circumstances of the project or programme.

An example of monitoring targets is indicated by Figure 7.5. This shows how usage of an organisation's website might be monitored. Here, the objective of the programme is to maximise the usage by customers of the organisation's new website, instead of traditional methods such as telephone, catalogue and post. This chart shows how usage of the website has increased, with a substantial number of 'hits'. However, it also shows that there is a big discrepancy between the number of customers who have tried the site and the number who are regular users, suggesting that the programme still has extra work to do to achieve the expected business benefits.

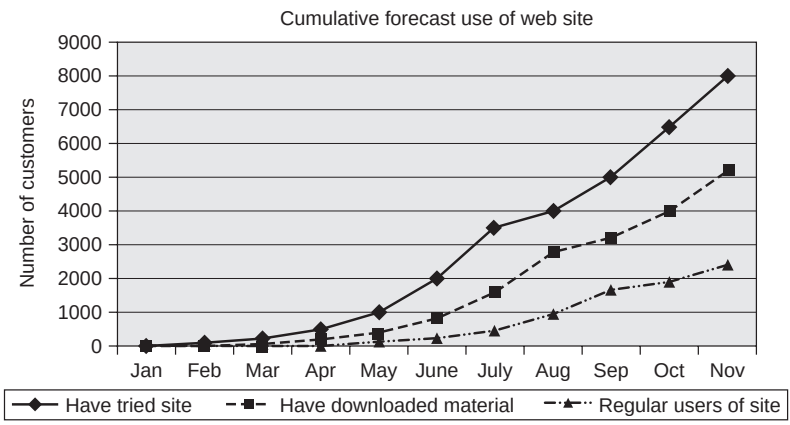

Figure 7.5 Possible benefit profiles for accessing a new website to provide product information

Another example of progress monitoring, that seems particularly appropriate to IT-based programmes of organisational change, is the selection and monitoring of milestones, as shown in Case study 7.1.

The key thing, however, is not the cleverness of the technology or the diagramming used to model the targets and milestones, but the way that it is communicated to relevant groups and the 'message' that is attached to that communication. In Case study 7.1, the message to project teams may be that we are a month overdue and that we have six months in which to bring everything back to the original schedule; leading to a discussion of what other tools, time or resources may be needed to achieve such a recovery. The message to senior management may be that, with extra effort, this time can be recovered, but with the rider that it will be worth doing that only if user departments will be ready to complete factory and site acceptance tests (FAT and SAT) on time.

7.4 Leading programmes and portfolios

In principle, leadership is a generic attribute that applies to all situations involving people working together. On this basis, it applies just the same to project management as it does to programme or portfolio management. However, the different issues that confront leaders of programmes or portfolios as opposed to those who lead projects tend to make some difference to the way that leadership skills are applied.

Chapter 1 of this book describes some of the differences between projects, programmes and portfolios and makes the point that most projects are intended to deliver a specific set of deliverables according to agreed specifications, timetables and budgets. By contrast, programmes are intended to permit the realisation of a set of business benefits, whilst portfolio management is intended to permit the maximisation of benefits from the organisation' s investment in projects and programmes.

Thus, leaders of programmes and portfolios need to be more aware of business issues, of the context in which the projects and programmes operate, and of the relationships between different programmes that may be on the go at the same time. This, in turn, means that they tend to focus more on stakeholder management, on benefit realisation, on communication, and on ensuring effective governance, leaving leaders of projects free to focus on motivating and guiding their team(s) to create the required deliverables. The exact division of responsibilities between project, programme and portfolio managers should be described in a programme or portfolio plan or initiation document or charter.

Note that, in practice, the structures of projects, programmes and portfolios is often blurred. All are created to meet the needs of the organisations that they serve and every organisation is different, with its own set of issues and problems. For example, there may be some large 'stand-alone'

projects where the leadership needs are the same as those of programmes. Also, many programmes are structured in exactly the same way as portfolios and thus use many portfolio management techniques to ensure success. Case study 7.2 is an example of this.

Note also, that, whilst projects and programmes are temporary arrangements, with anticipated end-points, portfolios and portfolio management have no defined end-point and typically continue for as long as the organisation is investing in projects and programmes.

7.5 Other elements of leadership

7.5.1 Communication

The Project Management Institute (PMI) in the USA estimated in its PMBoK publication that 90% of a project manager's time is spent in communication activities of one sort or another. This estimate recognises that most of the activities of any project leader are related to explaining things to others, for example:

- presenting progress to senior management and persuading them not to interfere;
- showing exactly what needs to be done by each project team or work group;
- demonstrating the progress that has been achieved so far and (perhaps more importantly) what needs to be done next;
- reminding people why this is being done and the benefits that will be realised, especially those of interest to individual teams and groups.

In well-organised projects and programmes, all such activities will be recorded in a communications plan – as per the example in Figure 7.12. But effective communication plans can be prepared only once a comprehensive analysis of stakeholders has taken place (see section 7.7).

The importance and complexity of communication issues is increasing as projects and programmes become larger. This is demonstrated by my own experience. In 2001 I worked on a successful bid for a programme valued at £13 million. All work was undertaken in the UK and four external sub-contractors were involved (all UK based). This was the second-largest bid that my employer had ever undertaken (the largest had been £21 million). I recently worked on a successful bid worth in excess of £250 million. Over 40 different countries were involved as users, and elements of services came from the multiple countries, including the UK, the Netherlands, Sweden, the Czech Republic, India and the Philippines.

In such vast programmes, managing communication is a vital activity in its own right. Indeed, the programme leader will usually be assisted by a

communications specialist to keep communication plans up to date and to ensure that all activities are correctly carried out. However, this in no way removes overall responsibility from initiative leaders to integrate communication activities with the other activities that lead to project success.

Multinational projects introduce new issues of working in foreign languages. Many UK-based project and programme managers take a rather imperialistic view of these matters and assume that if they shout loudly, in English, overseas colleagues will do what is required. Apart from being rude and condescending, it can lead to many misunderstandings. Recently, I spoke to a German colleague and complimented him on his English. 'No, no', he responded, 'I still have so much to learn.' He went on to explain how he had recently travelled to the UK to describe to a potential customer in the finance sector how, in Germany, they had solved a particular problem. After the presentation, the customer had responded by saying that it was 'all very interesting'. My German guest explained that he was delighted by this response until the UK salesman explained that 'It's a British thing. Actually, [the prospect] isn't interested at all; it's just that he's too polite to say so.'

Such cultural misunderstandings pepper international communication – one reason why two-way communication channels and feedback arrangements at all levels are essential. Otherwise, we will spend our days thinking that customers and others are 'really interested', when, in fact, they are not interested at all.

One approach to all this is to ensure that key documents, such as vision statements, blueprints, etc. are translated into the various languages of the team, whilst also recognising that in most countries, educated people all have a reasonable understanding of English and can usually operate to a reasonable level in English. This avoids any sense of language arrogance on the part of native English-speakers, whilst effectively complimenting non-native speakers on their language skills. Again, 'doing unto others as you would have others do unto you' seems to work well. This approach was practised very successfully in the Global Client Satisfaction Measurement Programme described in Case study 7.2.

7.5.2 Sharing experience

Research at Cranfield University has shown that the biggest single differentiator between organisations that generally succeed with their projects and programmes and those that don't is that the former are more than twice as likely as the latter to 'transfer lessons learnt'.[6] This requires a readiness to identify what could be done better and to share details of mistakes, which, in turn, requires a culture of openness.

If done properly, the documentation of lessons learnt by those engaged in every project and programme creates a repository of knowledge, which

can be of great value to anyone taking on the leadership a new project or programme. Such repositories are especially valuable when they enable the reader to see things in the context of the organisation, for example, when it enables them to say 'Wow, now I see why doing it that way is so difficult here! Now I understand why that design compromise was made'.

7.5.3 Two-way communication and feedback

Within most project teams there is a wealth of knowledge and experience, much of which could be relevant to the project. In an ideal world, team members would readily volunteer this to others but, in practice, they often will not. This is particularly the case when they have previously experienced poor leadership from management who are dishonest, who seek to micro-manage, who fail to provide support or protection, or who have demonstrated that they care little for the views of their teams. Also, in some business cultures, it would be deemed inappropriate for relatively junior members of staff to do or say anything that might imply some criticism of more senior colleagues.

Good leaders recognise this and do all they can encourage the feedback of views from their teams. Many techniques can be used, from regular team get-togethers at a pub or restaurant, to project websites where people can contribute, whatever their geographic location. The simplest way, as always, is for the leader to be open to comment, to questions, or even to challenges from team members as to why the selected approach is the best. Every such interaction is an opportunity for the leader to 're-sell' the vision, the benefits, the ability of the team to succeed and the progress that has been made.

7.5.4 Determination

Sadly, however the project and programme leaders organise things, the initiative will not make progress on its own. The job of the leader is to ensure that obstacles and difficulties are overcome. This requires determination on their part. Determination is that personal urge to see things done and to ensure that they are done right. It does not require inbuilt charisma but it does require the moral courage to commit the initiative to a course of action that others might be criticising.

There will always be issues and difficulties which, if not addressed promptly, will cause hold-ups or cause the initiative to diverge from its planned path. A key function of the project or programme leader is to ensure that these are addressed, and in a way that maintains the vision of the initiative. Therefore the leader must be ready to make decisions, and must also maintain the vision.

Most experienced business leaders will tell you that, when confronted by a choice of actions, it is often less important what decision was made than that it was made quickly and then was communicated to all involved. That's because it's often impossible to make a perfect decision; instead we must aim for one that is 'good enough'. If, as leaders, we make sure that we have sought to understand the issue, asked colleagues and team members who might know something about it for their views, and considered how it might affect the achievement of the initiative's vision and objectives, then we are likely to make a decision that is 'good enough'. At this point the decision may then be subject to criticism by others who know more about that particular subject (or who claim to know more). Here the leader needs to maintain composure. In all probability the decision was good for the initiative as a whole, and there is little worse for team morale than a series of decisions followed by counter-decisions. So the good leader will listen to the complainant, explain why this was the correct decision in the interest of the project or programme as a whole and, depending on circumstances, make arrangements for the team member's future role when similar issues arise.

Whilst most team members are committed to ensuring project or programme success, there may be some who have personal agendas. For example, they may wish to draw themselves to their leaders' attention so as to be in line for promotion. Some may just be 'bloody minded' and enjoy seeing their nominated leaders make fools of themselves. Obviously, leaders should form opinions about the team members' motivation and how they should be dealt with in the future.

Sometimes, maintaining the vision is not easy. In some situations stopping or changing the project or programme may make sense. However, in many cases the real reason for criticism may be less honest. Other vested interests within the organisation may wish the initiative to fail, perhaps so that their pet project can gain funding. In these circumstances, the initiative's leader will need to remind key stakeholders of the benefits that they and their department or business unit will realise as a consequence of the initiative – in other words, urge all to work to success. If this fails, then the leader should seek support from their sponsor or board. Whatever mechanisms are used, the leader must 'maintain the vision', demonstrate their personal enthusiasm for the initiative and be prepared to commit some of their own credibility and reputation to urge on others.

Finally, it is important that, as a leader, you maintain your enthusiasm for the project or programme. This can sometimes be difficult; not every initiative is pushing forward the frontiers of technology or business: some can seem very boring. Nevertheless, you should try at all times to act as if you are enthusiastic, *because, if you act enthusiastic, you will be enthusiastic* and this will help you to motivate both yourself and your team.

Case study 7.1 Monitoring milestone trend charts to assist with the prediction of progress, time to completion and milestone achievement

Every project and programme should have a plan identifying the various activities that are needed to achieve a satisfactory completion. Some of these activities will represent the achievement of key objectives or completion of key deliverables and will mark important check points, or 'milestones' for the initiative. By monitoring these milestones, rather than the detailed activities themselves, the leaders of the project or programme can obtain a better overview of how the project is progressing than they could by examining detailed activities.

Figure 7.6 is an example of a milestone trend chart, showing how things might appear after ten months of project progress. At this stage, milestones

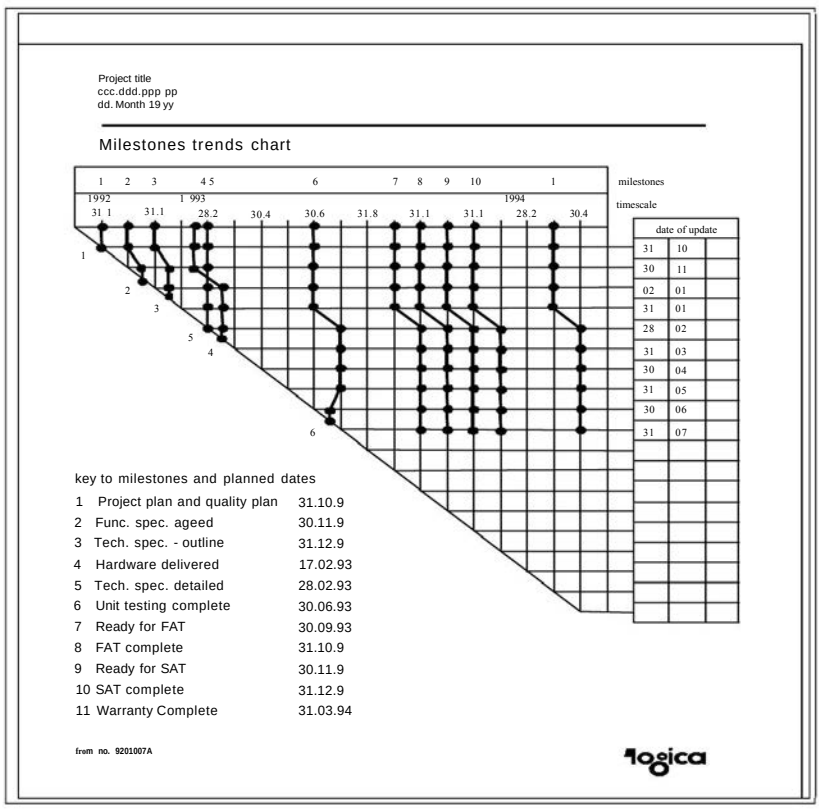

Figure 7.6 A milestone trend chart

1 to 6 are complete and the remaining five (7 to 11) are all estimated to be running one month late. The horizontal axis of the trend chart shows time forward and the vertical axis shows reporting dates. The dots represent the expected completion dates for each milestone.

At the start of a project, the planned dates for each milestone were marked in the top of the chart. At each subsequent review point, e.g. each monthly progress meeting, a new set of dates are marked with dots and then the two sets of dots are joined together with trend lines. If all lines are vertical, then all is progressing to the original plan. However, if there have been changes or delays, the lines will trend to the right.

Of course, milestone monitoring has prerequisites, for example:

- a comprehensive project plan, based upon a practical work breakdown structure;
- an intelligent selection of milestones to monitor;
- regular and effective monitoring of the progress on each set of activities, leading to realistic estimates of when each milestone is likely to be achieved.

Milestone trend charts are a simple but effective tool for monitoring such milestones. One of their great advantages is that they make any project or programme 'slippage' glaringly obvious – encouraging informed discussion and corrective action. Furthermore, they provide a quick visual display of when milestones are expected to be achieved. Finally, over time, they provide a complete history of their projects in terms of schedules and milestone achievement.

7.6 Stakeholder engagement

7.6.1 Introduction: what is a stakeholder

Almost everyone involved with your next programme is going to be a stakeholder. The term comes from those who have a 'stake' or 'interest' in the initiative. It does not refer to the kind of stake used on vampires.

Here are some authoritative definitions:

> Individuals or organisations whose interests may be affected by the program outcomes, either positively or negatively.

That comes from the PMI's *Standard for Program Management*.

> Individuals or organisations that are actively involved in the project, or whose interests may be affected as a result of project execution or project completion.

And that comes from the same organisation's PMBoK, 3rd edition.

A simpler definition is:

Someone who can make or break my day.

You may meet people who use the term 'stakeholder management' for the whole topic of dealing with the programme's stakeholders

We have headed this section 'stakeholder engagement', which is a term used by the gurus in the topic. The argument goes like this: you cannot *manage* your stakeholders, many of them do not work for you and some will think that you are currently covering your horns and wonder where you hide the brimstone. You can, however, *engage* with your stakeholders, even your enemies.

Some use the term 'stakeholder management', proposing various stages in the stakeholder management process. Under this general heading there may be a stage called 'stakeholder engagement', just to confuse things even more.

We will stick with stakeholder engagement for the whole process.

Stakeholders vary a lot. Nearly all stakeholders share membership of the human race – although you may wish some of them didn't. Their level of interest in what you are doing will vary, as will the power they can exert, plus their attitude to the initiative. A stakeholder's attitude to the initiative can vary from wild enthusiasm to downright hate. Your stakeholders' attitudes will depend on their background and their perception of how the initiative will work out for them and their team, both personally and professionally.

Your project team, colleagues, competitors, neighbours, the media, suppliers, trade unions, professional associations, and other interest groups are all stakeholders. All these people may be affected by your programme or may affect it.

It might be worth putting extra care into your dealings with a special group of stakeholders, including your customer or client, your boss, programme board and board of directors. These people can contribute to the programme's success, but they will additionally judge your personal success. And your perceived success in programmes is going to be a great deal more emotional and less quantifiable than it is in the world of projects.

The first thing to establish is that stakeholders can make or break a programme and that money, resources and time must be set aside to deal with them. At one point the largest single team within the London Olympic programme organisation was the stakeholder group. The programme organisers had to deal with a hungry press, local environmental, residential and business groups in East London, the various mayors in the London area, the UK government and a number of ministries, transport bodies of all kinds in the area, the sporting bodies of every sport and the International Olympic Committee in their chateau in Lausanne.

I hope that you have far fewer stakeholders, but you will still need time, money and resources to spend on looking after them and, incidentally, your own career.

Often project and programme managers will not identify either the products that engaging and communicating stakeholders require or the work associated with their creation and use. As an example, a communication plan does not appear out of thin air: it must be drafted, consulted on, developed to completion and then understood by all those with a role in its success, and successfully implemented. If not planned for, it is either not created or developed in the spare time that project and programme managers will tell you they have little of.

If you do not properly communicate with your stakeholders an information vacuum will quickly develop. Nature abhors a vacuum, so it will fill with an influx of rumour, conjecture and misconceived information.

We watched in admiration the high quality of stakeholder engagement when a new supermarket opened in our area. The project team mailed every householder and every business in the neighbourhood with a simple leaflet telling us what was planned, how it would all work out and whom to contact with problems. They organised open meetings and invited the local council, highways and neighbours. The hoardings around the building site had little windows for the nosey, and artistic impressions of the planned building for passers-by. Local groups were given tours. Later the project team issued another newsletter with planned opening dates and invited local groups for a look around the building. They set up a procedure for selecting and funding local charities. They did a great job. Not everyone liked the idea of the new supermarket, but most were impressed and nearly every local fridge is packed with its goodies.

There is a very simple process and we can tour through these key stages:

- identification
- analysis
- mapping (matrix)
- engagement
- communication.

7.6.2 Identification

Firstly, you need to know who your stakeholders are. You could draw up a list.

In large organisations there are both formal and informal networks. The formal network follows the shape of the organisational chart, and this is very helpful. Informally, certain people wield enormous power through force of personality or because of the great many years of experience. A

senior manager's secretary who has been there ever since the Pyramids were built will often be pivotal, especially if they control the manager's diary.

So the deliverable in Step 1 in the stakeholder process is a list. Well, it is a start.

7.6.3 Analysis and engagement

Now let's sit down quietly in a dark room and think about each stakeholder. We can ask ourselves some useful questions:

- How will this initiative impact on them?
- How interested might they be?
- How much power might they wield?
- Do I really need this job at all?

There are a number of models that help us to understand our stakeholders as individuals and a Google search on 'strength deployment inventory' and 'iMA strategies' will lead into this large area.

Of course we will be guessing some answers here, but next of all we are off to see the important stakeholders, to *engage* with them. This means listening. Of course you will introduce yourself, your programme and perhaps your team, but you key role at this stage is to listen. You need to know what they feel about the programme, and that will depend on a wide range of factors.

Engaging with your stakeholders may cover a wide range of activities. You might invite them to meetings face-to-face, one-on-one; you might email or telephone. You might have public meetings and rehearsed presentations. Just remember that these must be two-way discussions and your job is to set the scene and listen.

One group that will be hard to deal with will be those who are going to lose their jobs as a direct result of your programme. It is a fact of life that many programmes are designed to reduce running costs, aka overheads. Your wonderful, new, automated mortgage application system will no doubt help the business enormously, but the people who will be 'let go' as a result will be very much less likely to buy you a drink at the local pub.

We'll talk about these stakeholders later on, but for the time being please accept that Step 2 in the stakeholder process is chatting to and, more importantly, listening to, your stakeholders. You get to know where they are coming from.

There are three key dimensions we can use to analyse and describe a stakeholder:

1 *Position*: how they think about the initiative – ranging from championing or supporting through to opposition or rejection.
2 *Interest*: how interested they are in the programme – comments like 'not really very interested' to 'vital for my organisation's future growth'.
3 *Power or influence*: how much power each stakeholder could wield over the programme. Do they have the authority to stop it or change its direction? Do they have the power to say 'yes' rather than just 'no'? Many people can say 'no', few can say 'yes' and have the power for that to mean something on a programme. Perhaps their views are interesting but inconsequential.

We can then classify our stakeholders. This works well with a large group of people. You can invent your own classifications but there are some popular groupings around. We are grateful to Prendo Systems for this list of stakeholder responses. The list starts off with the most supportive and ends with the least:

- championing
- support
- approval
- commitment
- cooperation
- compliance
- neutrality
- inertia
- obstruction
- antagonism
- opposition
- rejection
- mutiny
- sabotage.

Sabotage is worse than mutiny, as you don't even know that it is going on until it is too late. At least you should be only too painfully aware of a mutiny.

So you can categorise your stakeholders in a system like the one shown above using a simple word like 'ally', 'obstructive', 'opposer' or 'very influential' or 'as friendly as a cornered rat'. These factors could be represented by a word, for example, supporter, opposer; or use some form of measure, such as, 100% powerful and 75% interested. Such subjective assessments are best made by wetting a finger and waving it in the air.

So now we have a list of stakeholders, each with some descriptive notes or measures.

7.6.4 Mapping (matrix)

We can then map our stakeholders. There are simple methods for stakeholder mapping that you can adopt, adapt or ignore. Here they are.

7.6.4.1 Stakeholder mapping technique no. 1

In this first, simple table the stakeholders are listed and a colour scheme is used to indicate the amount of influence they have over the work (Figure 7.7). You could use the colours to represent their level of interest or power; for example, red for the greatest level of power.

It is the red opposers that you really need to worry about. Red allies are your champions and key supporters.

Remember that it is useful to carry out this initial mapping, but its value slips down the toilet if there are no actions associated with it: for example, if stakeholder 12 is Neutral but needs to be an Ally, who is to be tasked with engaging and influencing? Also, this type of analysis should be carried out on a regular basis as part of normal monitoring and control measures and should be treated in the same way as cost or risk.

Stakeholder	Ally	Neutral	Opposer
Stakeholder 1			
Stakeholder 2			
Stakeholder 3			
Stakeholder 4			
Stakeholder 5			
Stakeholder 6			
Stakeholder 7			
Stakeholder 8			
Stakeholder 9			
Stakeholder 10			
Stakeholder 11			
Stakeholder 12			
Stakeholder 13			
Stakeholder 14			
Stakeholder 15			
Stakeholder 16			

Figure 7.7 Simple stakeholder matrix

7.6.4.2 Stakeholder mapping technique no. 2

You can use one of those famous little quadrant thingies. The example in Figure 7.8 has been kindly donated by ESI International – an international project and programme training company.

We can position each stakeholder on this simple matrix and decide how much effort we plan to devote to this person or group. Your programme board or steering committee is likely to be in the 'Key player' quadrant, as it has a great deal of power and is very interested to know what is going on.

Silvia, the company's HR director, has little power but wants to keep in touch because she will have to make the redundancies happen. We had better keep her informed. Again, this diagram may impress your boss, but it won't help much unless you do something about it.

7.6.4.3 Stakeholder mapping technique no. 3

In Figure 7.9 a graph shows a degree of influence over the programme against the stakeholder's position on a university expansion programme. The stakeholders' levels of interest are used to roughly size the bubbles.

In this case, for example, the academic and non-academic staff have lots of influence and fortunately are very supportive. The oblique line points in the general direction of worry and concern.

This is about as complex as stakeholder engagement gets. The only more advanced stage is a three-dimensional graph showing all three factors: power, interest and position.

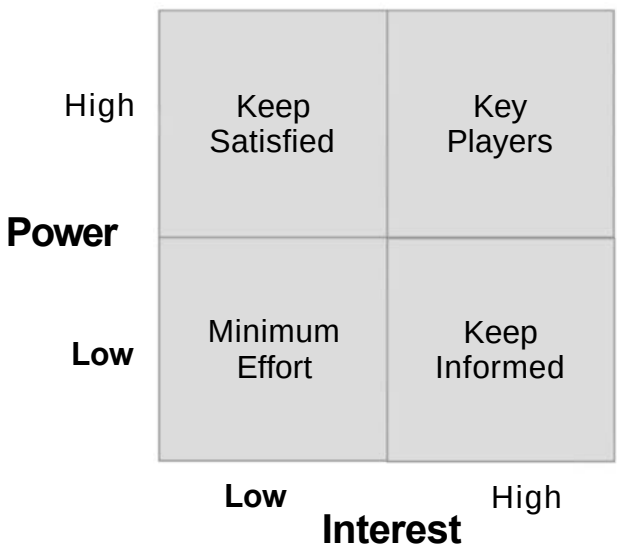

Figure 7.8 A stakeholder quadrant

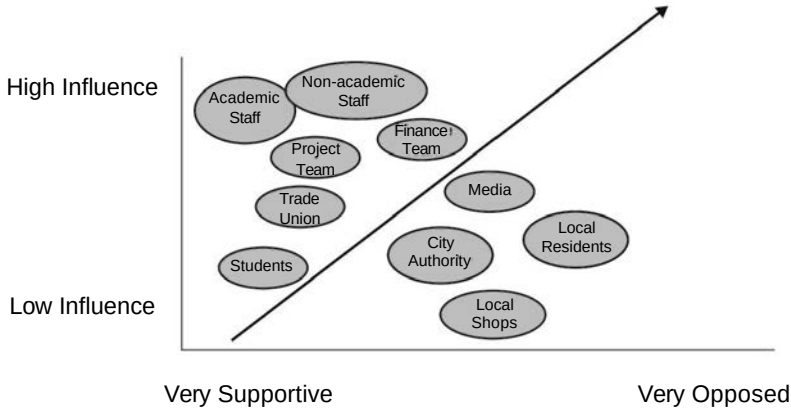

Figure 7.9 A stakeholder diagram

Another good question: how confidential is this stakeholder analysis? You may not want the staff representative to know that you see him as a major opposer with a great deal of power. You may not want the staff that will eventually be made redundant to know how short their future with the company actually is. You might decide to keep the whole thing in a locked safe hidden behind a toilet with a sign on the door saying 'out of order'.

Some organisations are so terrified by the implications of the UK's Freedom of Information legislation that they freeze up at the mere mention of stakeholder documentation. These tend to be public sector organisations like the NHS where this legislation applies.

7.6.5 Communication

At last we come to the output of stakeholder engagement: communication. Now that we know our stakeholders and their characteristics we can decide how we wish to engage and influence them. A main activity is to fill that potential information vacuum with proper information. Another aim is to listen to the stakeholders and bring them on side as much as possible. This may mean explaining the benefits to those who think predominantly negatively about the programme, explaining why the whole thing is a great idea and calming fears.

It is very hard to give everyone the right amount of information, to find a perfect balance. Many of your stakeholders will be very busy people, or at least, people who prefer to look busy. If you overload them they will think you are covering your behind with sack-loads of emails and reports. This will not endear them to you or your programme.

On the other hand, we said that ignorance leads to suspicion. So we have to find the best balance: not too much, not too little. It would be easier

if their needs stayed fixed throughout the programme's life cycle, but the chances are that there will be certain phases where they become more interested, they may develop more power or change their position.

An army programme manager told me, with a smile on his face, that his team communicated on a 'need to know' basis, which I thought was fine. The problem was that *he* decided what *the stakeholders* needed to know.

It is much better to go to the key stakeholders and ask them what they would like to know. You can offer them status reports, intranet or internet displays, dashboards, newsletters, mailings, tablets carved in stone and meetings, amongst other forms of knowledge-transfer techniques. Remember that there is nothing more important than offering them that limited and precious resource we all have to offer – our time. This approach will probably endear you to them and help them appreciate your efforts.

You need to build relationships and demonstrate understanding and sympathy, as inevitably people will be impacted on by the programme, potentially in a detrimental fashion.

This approach will help you to communicate:

- in an appropriate form;
- at appropriate intervals;
- with the appropriate content.

As Abraham Lincoln said: you can fool some of the people all of the time and all of the people some of the time but you can't fool all of the people all of the time. So it is with programme communications. You cannot satisfy everyone. There are often people who are opposed to your ideas, don't want them to proceed or, even worse, succeed.

That doesn't mean you can't listen, communicate, be polite but at the same time be firm.

7.6.6 Stakeholder management on programmes

It is very likely that there will be a wider range of stakeholders on a programme than a project. Programmes in general have a wider scope and impact on more people than do individual projects. Therefore stakeholders are likely to be a bigger headache for programme managers than project managers. Also the programme manager must agree with the project managers within the programme how stakeholders are to be dealt with. Some programme managers often take responsibility for stakeholders across the whole programme; others allow some of the project managers to take responsibility for their own project's stakeholders. Most arrangements will be fine, but they must be discussed and agreed, along with the many other allocation of accountabilities and responsibilities key to making the function of programme management effective. The London Olympics

Table 7.1 Part of a communication plan

OBJECTIVES	AUDIENCES	KEY MESSAGES	TIMING	MEDIA
Win support for business case	All stakeholders	Clarify benefits to company	Now	Briefing paper
		Risks of not off-shoring	Week before board meeting	Direct briefing by finance and programme director
	CEO CIO	Impact on margins Potential positive impact on share price		Briefing paper Market analysis
	Finance director Non-executive director Investment analyst for major stockholder			
Neutralise opposition	Financial journalist	Programme is enabler for more investment in customer services	Now and week before board meeting	Press release and interview
	Director, customer operations		Now and weekly	Proposition paper and meeting(s) to ask for suggestions
	Director, customer operations	New international role	Now	Proposition paper and meeting(s) to ask for suggestions
	Staff association representative	Redeployment opportunities, no enforced redundancy and generous voluntary redundancy package.	Now and monthly to board meeting	HR briefings

programme organisers centralised almost all stakeholder work except local issues between the construction projects and their local neighbours.

Programmes are judged even more subjectively than projects. Projects tend to have much clearer objectives and measures of success. If you deliver the right thing at the right time and under the agreed budget you should be seen as a success. However, programmes often have vague visions and objectives.

Not only must uncertainty be accepted, but also strategies must be found to work with this inherent uncertainty. Even if these are balanced with decent benefits (by no means always the case), the programme team's success will usually be decided long before the jury returns with a verdict on the benefits.

So your judgement, dear reader, is likely to be much more subjective and emotional on a programme than it is on a project. It is therefore a really good plan to deal with or engage with the key stakeholders who will judge your success as carefully and as caringly as you can manage. And finally, remember that nothing will happen unless effort is made, so adequate resources and governance should be applied to this.

7.7 Developing programme management capability

In this section we will discuss ways in which an organisation can build its programme management capability by developing the skills and abilities of its programme leaders.

Although many programme managers are promoted through a number of roles, typically from the role of a project manager, few make the transitions necessary. So, while their positions become bigger, more prestigious and more influential, they do not undertake any change in how they manage their work and lives. There is also a danger that simply because of a person's age and experience they are promoted to a programme manager role when they have changed little about what they do or how they do it. This issue is aggravated by the addition of words like *'senior' or 'director'*. So it is not infrequent to find project, programme or even portfolio directors enthusiastically rolling up their sleeves to show project contributors how to do the tasks they once did – doing what they are comfortable doing rather than what the role demands.

The PM Transition Model™, developed by Team Animation (www.teamanimation.com), is shown in overview in Figure 7.10, highlighting the kinds of steps individuals must make if they are to become programme leaders. Making these transitions requires a number of fundamental shifts to be made by the individuals making the change. The programme leader must not only make the personal shift but also help others to identify and relate to the transition they are making.

Transition is not a matter of doing more of what was done before; it is more about doing things differently. Some of the key changes that must be made are around:

- *Skills*. Individuals must leave behind the familiar and be challenged to welcome the discomfort that undertaking new ways of doing things will bring. Others must accept that when undertaking new things people will need time to learn; they cannot be fully effective immediately. For project managers moving into programme management there are

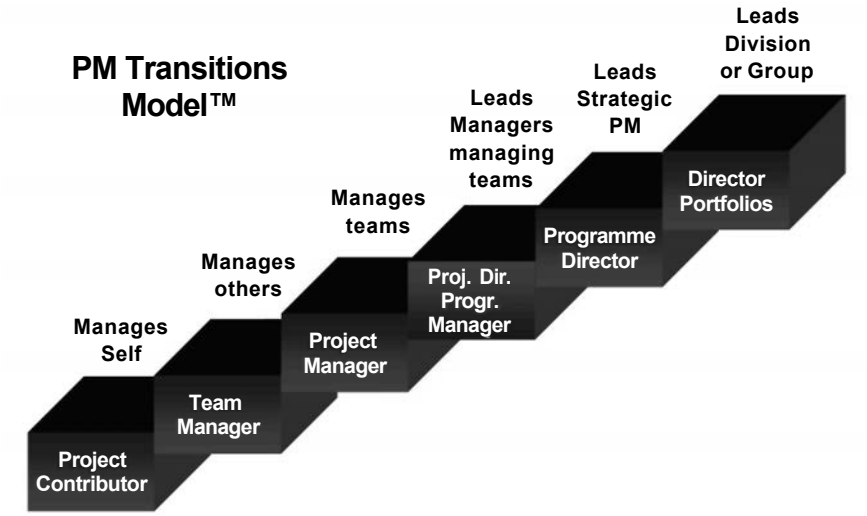

Figure 7.10 Transition to programme manager. © Team Animation Ltd. Reproduced with permission.

additional structures, processes and procedures required for the effective delivery of programmes

- *Time*. Two changes of perspective are needed:
  - *What the PMs spend their time doing.* As a PM, there is much that will occupy them that is focused on the completion of task content. While they are moving up the steps the focus increasingly shifts to enabling others and understanding more about the business strategy that the programme is playing a part in achieving.
  - *The horizon over which the PM is looking*. So an early-entry PM is focused predominantly on the end of the project, while a portfolio director needs to be surveying the whole market-place several years ahead. Leadership requires vision; therefore the programme leader must be looking months out and shaping future delivery and anticipating bumps along the road.
- *Values*. On the basis that 'what you value is what you focus on', programme leaders must change what they value about their individual contribution and hence what they do. As a programme leader transitions upwards, their value is more about how they enable others and not what they personally deliver. For example, if delivering a quality product and being an expert in a particular area is important to the person and has stood them in good stead in their career, becoming a programme leader may be challenging, as their role will demand that they focus on other aspects making them feel uncomfortable. Support during this transition is critical.

It is important to note that this model does not identify the transition from other functions into programme management. For example, an operations manager may move into a programme leadership role without a robust knowledge of project management. This could be seen as a disadvantage, but what they bring is an understanding of the business and potentially a longer-term view. Project management skills can be learnt, or at least to a sufficient level to allow the person to understand and appreciate the role and function being undertaken by project managers.

Asking programme leaders to accept that when they transition they 'should' feel uncomfortable and be trying to do unfamiliar things is a real challenge. Yet this is of particular significance to them, since at the very core of complex programmes is the need to shepherd others through the inevitable discomfort of change. Of course a programme leader may equally come from an operation or business perspective that creates a different set of transitions, as discussed above.

In our experience, it is particularly important to ensure sufficient support is provided during the first 90 days of a person's making a transition, e.g. from project to programme manager or to a clear leadership role. This is typically supported through coaching, which is discussed in the next section when we put forward a framework for discussion.

7.7.1 Developing programme managers

Until now we have discussed some of the important features of leadership for programme management and 'what' can be done. However, the most important discussion is around 'how' leadership can be developed. This section is broadly based on the model used by Team Animation to develop project and programme leaders. The aim of sharing this framework is to provide you with a basis from which to understand the scale of the task, the elements involved and the real commitment necessary for unlocking the latent potential of your organisation. You are encouraged to view this as a point of discussion, rather than an attempt to prescribe a definitive approach.

There is no one-size-fits-all solution for developing programme leaders in an organisation. As well as the differences in organisational requirements and objectives, programmes must also be flexible enough to allow for the individual requirements of the person being developed, for example learning styles, personal circumstances, availability, etc. Through answering the questions discussed earlier you are then in a position to:

1 set clear goals about what you want from such a programme;
2 select those with the talent to participate;
3 obtain senior-level buy-in.

The first stage in the design of the programme is carrying out a robust discovery process to allow the overall structure and initial content and focus to be defined. You must accept that the content of the programme cannot be fully defined at the start. Identify through working with the participants what are the priorities for them as individuals and as a group, and react accordingly, thereby modelling the flexibility you are encouraging them to adopt.

Programmes should be based on tested leadership development principles that are now generally well understood, while keeping in mind the peculiarities for programme managers. Every programme will be different precisely because every organisation will have specific needs. Programmes are at their most effective with eight-plus participants who 'buy in' to both the opportunity and the commitment, supported by the organisation's business leaders.

7.7.2 The structure of an idealised programme

Below we will describe an idealised best-practice programme. Most organisations will choose to focus on only a sub-set of these activities, but it has been described as a whole.

Programmes last around 18 months: shorter timeframes are unlikely to provide any lasting results, as new behaviours may not yet have become habits. Some time must be spent encouraging the active support of senior key stakeholders, for example assignment owners, as planning the most appropriate learning positions for these participants is important for the success of the programme. Interventions should be fundamentally coaching based (individual and team) and focus on how participants work rather than on what they do. This provides support to the individuals in the most effective way possible and models their move into leadership.

An idealised programme structure is presented in Figure 7.11.

7.7.3 Routes to developing programme management skills

7.7.3.1 Work assignment

Research has shown that the most effective means of learning is through doing – for leadership more so than anything else. Therefore it is critical that if leadership is to be developed, then these leaders must be working on the types of programmes that will challenge them and provide them with the opportunity to test.

Key to this is a robust approach towards the balancing of resource capability, demand and capacity, and the needs of individuals to develop their

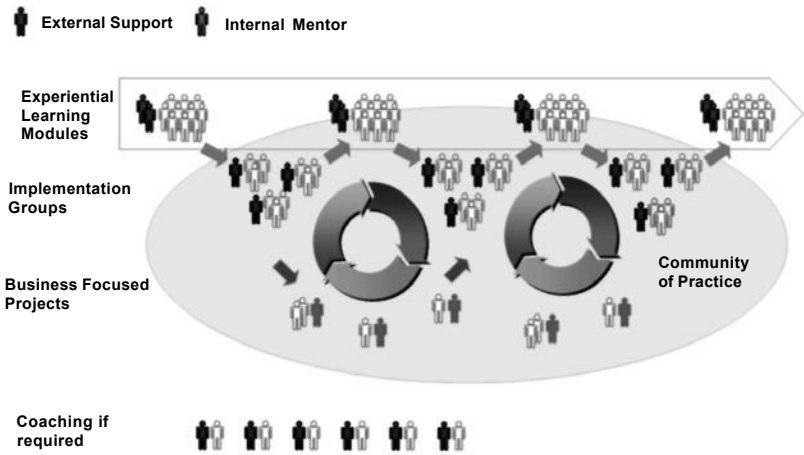

Figure 7.11 The idealised programme structure. © Team Animation Ltd. Reproduced with permission

careers. A process must be in place to regularly monitor and make decisions that meet the needs not only of the programme but also of the business and the professionals who wish to progress.

An effective career development framework should build professionalism by identifying programme management as a valued structured career path that meets future delivery needs of the business by ensuring capable resources are available. Also it should provide a clear career path and direction, and guidance and support on how to meet personal development needs.

An effective performance management process will build on an existing annual appraisal system and provide a fair process that balances the individual's development and the objectives of the business. It should create a positive environment, more objective performance measurement and provide clarity around status and expectations.

7.7.3.2 Experiential modules

The most visible aspect of most programmes are the experiential modules. These are typically designed and facilitated by external parties who can bring experience and knowledge from other programmes and industries if these are thought to be of value.

Group learning occurs in experiential workshops that encourage reflection. This enables individuals to shift 'how' they operate and to begin to get the feel for best practice on the key programme management leadership topics such as optimising team performance and change management. The behavioural learning is both challenging and supportive. Topics like

emotional intelligence are learnt as an integral component of programme management topics like stakeholder management, discussed earlier in this chapter. Such topics often require work to be done prior to and shortly after sessions so as to gain maximum value from the time. This should, ideally, be built into the 'implementation groups', which will be discussed next.

The modules themselves must be designed to meet the requirements of the programme, although in our experience, typically, the first two modules would have the following focus:

Module 1 – Understanding oneself and the business context typically includes:

- emotional intelligence (EI) with a focus on personal awareness and self-control;
- risk management;
- vision and strategy;
- customer management;
- business understanding and alignment.

Module 2 – Influencing others (team, client and stakeholders) typically includes:

- EI with a focus on awareness of others and relationship skills;
- team performance;
- coaching approach;
- stakeholder management.

In terms of delivery, planning should include multiple varied interventions to best support a change in behaviours. This multi-pronged approach greatly increases the chance of behavioural change as different people learn and put it into practice in different ways.

You must use an appropriate set of tools, such as inventories or psychometrics, to provide insight to the individuals about themselves and others. Choosing the right tool for the job will depend on the objectives of the programme. You need to ensure that the programme adds to what has already been invested in by the organisation. The use and intelligent application of previous work on methodologies, systems and processes can be enhanced by focusing on the 'how' as well as the 'what'.

7.7.3.3 Implementation groups

Peer learning should be a key part, as people will fail and need peers round them for support and to discuss alternative strategies. The greatest learning will come from working through issues with peers in small groups. These are typically set up with about four people to encourage

personal implementation as the group works with issues like resistance and risk. Groups should be facilitated, at least initially, by an experienced team coach, with the aim of meeting at least twice between modules. Meetings can be used to:

- challenge and support participants to implement what they have learnt and to encourage them to model a mentoring approach, flowing the learning into their teams;
- create a peer group that is a powerhouse of new programme management initiatives for the organisation. Groups can support community of practice initiatives such as cascading of knowledge across the community to share learning and experiences. This ensures that the maximum number of people gain from the exercise and it openly demonstrates the business's commitment to development;
- focus on 'how' they are operating and implementing their learning and not just 'talking about' operating differently. This creates a high-cadre group to lead effective programme management strategic change;
- focus on working with such programme management-specific leadership topics as implementing programme change, risk attitudes, lack of hierarchical power and team creation/dispersal.

7.7.3.4 Community of practice

A community of practice is focused on developing skills and capability and is designed to use the expertise and enthusiasm of programme management champions who will take ownership of key areas of knowledge. As defined by Etienne Wenger, communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly. There are therefore three elements that constitute a community of practice. A shared domain of interest, commitment to that domain and a shared competence that distinguishes members from other people. Members engage in joint activities and discussions, help each other and share information and build relationships that enable them to learn from each other (but do not necessarily work together on a daily basis). Also, members are practitioners and develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems – in short, a shared practice. This takes time and sustained interaction.

7.7.3.5 Coaching and mentoring

Growing bodies of evidence suggest that the key differentiator of successful programme leaders is the quality of their relationships, particularly relationships with key stakeholders as discussed earlier in this chapter.

Coaching and mentoring is recognised as the ideal way to learn these skills because it takes place through the relationship with the coach/mentor enabling learning through:

- modelling best practice by the coach/mentor;
- challenge and support from someone who 'knows the ropes'; holding up the mirror of reality to the participant's performance.

Immediate benefits in performance can be anticipated as the individuals become more effective in their relationships with others:

- Stakeholder relationships will be enhanced as the participant develops more capacity to work with the subjectivity of success.
- Teams will feel the difference through enhanced resolution of conflict, working with resistance and creating teams that 'are more than the sum of their parts'.
- Individuals will experience the participant adopting a coaching approach that is widely accepted as a vital aspect of leadership.

We find that there is additional benefit to the wider organisation when the coaching/mentoring is integrated with the participant's line and HR managers to enable fit with the organisation and increase the probability of the participant's sustaining change.

Coaching can be particularly effective when participants are making a significant transition to a new leadership role. Coaching and mentoring provide the personal challenge and support that will identify the individual's style and enable them to make the transitions that were discussed earlier. It is critical that new programme leaders get this support early on, as typically management is expecting the person to start delivering value in a new role after 3 months but it often takes between 6 and 12 months to be effective; therefore the temptation is to go back to what you were doing previously.

Ninety per cent of people surveyed during a programme management coaching and mentoring survey conducted in Q1 2009 by Team Animation believed that as a project or programme manager moves into a leadership role, coaching/mentoring could enable the transition. The results are shown in Figure 7.12.

The survey also asked 'If a programme manager is moving into a leadership rather than a management role, do you think coaching/mentoring could enable the transition?' The responses are shown in Figure 7.13.

One option we have found to be of particular value in the work by Team Animation is *structured coaching* that combines personally focused development with key programme management content. This appeals to both the participant and the organisation, as it provides a predefined structure to work through. It contains:

Answer Options	Response Frequency	Response Count
No	1.5%	2
A little	3.1%	4
Some	14.5%	19
A reasonable amount	32.1%	42
Lots	48.9%	64
Comments		38
	answered question	131
	skipped question	2

Figure 7.12 Mentoring survey results: coaching/mentoring enables transition into leadership role

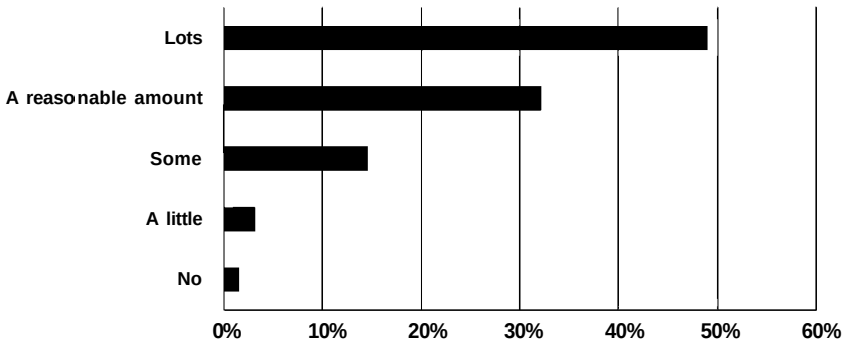

Figure 7.13 Mentoring survey results: coaching/mentoring enabling a programme manager to transition into a leadership role

- coaching to accelerate development of participants' leadership skills, capability and performance;
- content designed to challenge participants to focus on the key aspects of programme management success;
- focus on outcomes to ensure less 'talking about' change and more 'coal face' change.

Structured coaching satisfies the demand for developing programme management leadership by leveraging the more traditional skills of the 'what' of programme management tools, methodologies etc., onto the 'how' of programme management leadership. A typical response by programme managers to accessing their greater leadership capability is, 'I achieve

much more by doing less!' The approach engages all to deliver individual, team and organisational shift. Through pre-formatted structure and content the known essential elements of programme management leadership success are developed, while delivery through coaching enables the individual's own leadership style to emerge.

Organisational fit for purpose is designed into the process by first establishing the organisation's requirements and within this the individual's needs. Content, number of sessions, feedback can all be shaped to fit context. Figure 7.14 gives an overview of how structured coaching typically works.

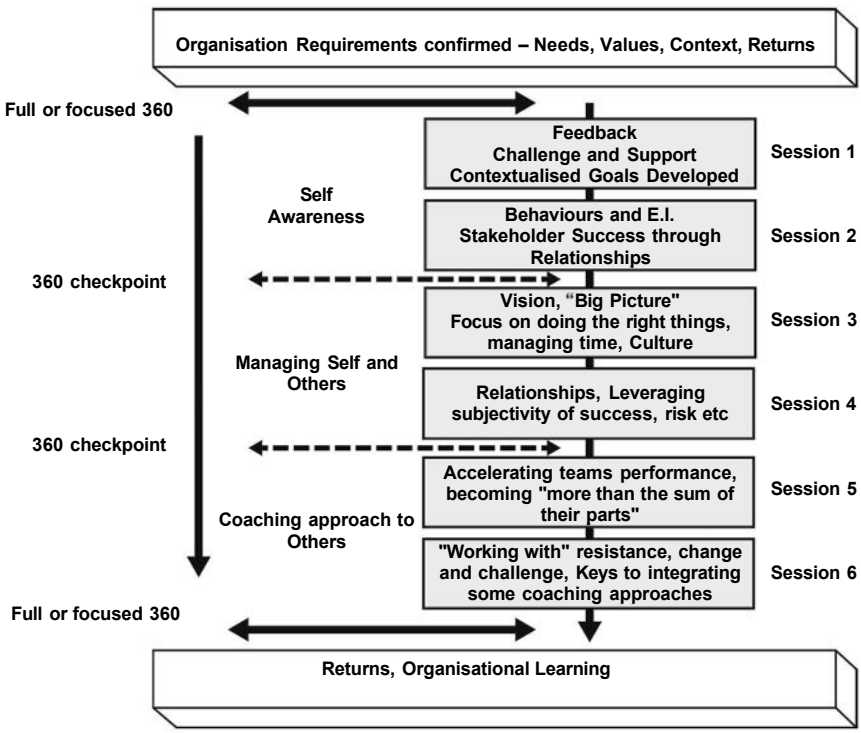

Figure 7.14 Structured coaching. © Team Animation Ltd and Brenda Hales. Reproduced with permission

7.7.4 Conclusion

All the evidence from our research across multiple projects, programme managers and markets demonstrates that it is 'how' programme leaders engage with individuals, teams and organisations that is the real differentiator of success.

Case study 7.2 Global Client Satisfaction Measurement Programme

Introduction

Over a ten-year period, a business services company had grown through multi-national mergers and acquisitions from a largely UK-based organisation to one where 75% of business came from continental Europe and elsewhere. It now sought to adopt common practices across all countries and subsidiaries, in order to reduce operating costs and to gain additional business from multi-national clients.

The Global Client Satisfaction Management Programme was established to meet both of these objectives. It used expertise gained in one set of countries and made it available to all through a common, centrally provided survey facility. In so doing, it strongly supported other company initiatives aimed at enhancing client understanding and intimacy. It also established a group-wide but cost-effective approach to measuring and improving client satisfaction.

Programme achievements

The programme established a series of annual client surveys, operated primarily by existing sales and marketing personnel, who are scattered across multiple time zones from Sydney, Australia, in the east to Houston, Texas, in the west. Each year, these surveys involve the management and staff in over 20 different countries, as well as more than 4,000 individual client contacts, representing over 700 organisations and using twelve different languages.

By focusing the attention of country management, sales staff and account representatives on client satisfaction, the programme has generated measurable improvements, which are fully described in the company's annual report to shareholders.

Strong sponsorship

The programme was one of the first of its type to be undertaken by the company, and several of the concepts were new to those involved. Amongst the most critical of these was organising effective governance and sponsorship.

The programme was also seen as a mechanism for changing the focus of all levels of management within the company to understanding client needs better. This has required many to adjust attitudes and behaviours. As a consequence, solid sponsorship from the group's chief executive and senior directors has been essential.

The complexity of the Group also created difficulties – some subsidiaries

had never had any formal approach to client satisfaction, whilst others had long-established and well-developed systems. With strong sponsorship, it was possible to engage with the senior management in each country, allowing a common approach to be agreed that met the needs of all, without weakening the systems of those subsidiaries that had been doing this for a long time.

Stakeholder management and communication

Effective stakeholder management and communication was critical to gaining consensus amongst the company's management and sales staff, as well as amongst clients. Many different teams and groups were involved and a complex, multi-layered communications approach was adopted that used a variety of channels – including email, teleconferences, newsletters, intranet and shared workspaces.

With only limited budgets available to the programme, keeping everything simple was critical. To help in this, local representatives were appointed within each country. With their enthusiasm and personal commitment, they were able to organise all those activities that had to take place at country level, helping to accommodate the local variations in organisation, working practices and business needs.

This emphasis on local representatives helped the programme to overcome the problems of a world-wide geography, without the need for extensive travel and the expenses which that would involve. Much use was made of teleconferences, but the geographic spread of the Programme meant that it was virtually impossible to get all country representatives together on the telephone at the same time – lunchtime in London was too late for Sydney, Australia, and too early for São Paulo in Brazil. Accordingly, success depended greatly on the willingness of country representatives to give up their evenings or to get up extra early in the morning in order to take part.

A specially important activity was translating the survey into the relevant local language. Whilst company representatives in each country could all be assumed to understand English to a reasonable level, this could not be assumed for those within client organisations who were asked to complete the survey. Accordingly, all survey questions, advanced warnings, invitations to take part and thank-you letters were translated. Also, all survey participants were invited to give qualitative responses – i.e. general text comments on what they thought of the company, its services and its relationships. In many cases, these comments provided vital intelligence, and all needed to be translated back into English in order to gain a global overview.

Client cooperation

No survey can work without the cooperation of those being surveyed, so great care was taken by the programme to inform clients, in a language

of their choice, of what was required and to keep everything as simple as possible. Furthermore, clients had the options of choosing complete confidentiality for their responses and of not taking part at all.

As a result of these measures, a high response rate was regularly achieved by the surveys, greatly contributing to the credibility of the results.

Conclusion

The programme has now been running for several years. Using third-party technology, it has created a comprehensive set of measures, covering all of the company's client-facing operations and backed by common business processes. The programme has provided a model for many aspects of programme and organisational change management that can usefully be applied elsewhere within the company.

The results appear to fully support the benefits map that was included in the initial business case for the programme.

In the meantime, the company's client-facing staff throughout the world are continuing to use the information provided by the programme to improve the ways in which they work with clients and to raise levels of client satisfaction even further.

Case study 7.3 Improving training and development opportunities for project management professionals

A global supplier of IT services employs almost 4,500 people in the UK. Over 10% of these are engaged in some form of project management. Almost all client development work is organised on the basis of projects, all headed by project managers or their equivalent. Effective project management skills are deemed fundamental to the company's success.

This case study describes a recent UK initiative to ensure that these skills continue to be appropriate to the challenges of the twenty-first century.

Project management challenges

The company had successfully completed many thousands of projects, but it recognised that things were changing. Projects were growing in size. Increasingly, they involved multiple proficiencies (such as software development, change management and infrastructure provision) and often involved teams working out of multiple countries. Client expectations were also changing: often it was no longer enough just to deliver what was agreed in the contract. Instead, clients were seeking a 'business partner' who would proactively give practical advice on using technology to enhance their business success.

The company's project managers have had to accommodate all these extra demands, whilst being ever more concerned to deliver exceptional value for money. Thus the range of skills needed for success has increased. As a consequence, the company decided to review the skills that were currently available and to enhance its training and development opportunities in order to support this increase.

The Project Excellence Initiative

A starting-point was the creation of a PM Community to build a sense of fellowship amongst the 500 UK-based project managers and related project professionals. Through this, a series of activities were initiated to transform the perception of project management within the company – for example:

- A set of career pathways and roles definitions were agreed that recognise the different interests and experiences of all project management staff, including those interested in programme management and PMO management (Figure 7.15).
- The competence model of the UK's Association for Project Management (APM) was adopted.[7] This model is consistent with that of the International Project Management Association. As a consequence, many of the initiatives could be adopted by subsidiaries in other countries.
- The APM model was adjusted to suit the culture and experience of the company's project managers. For example, terminology was changed to make the model more understandable and more relevant to individual roles.
- A self-profiling tool was adopted as the basis for measuring project management skills. This tool was based on the APM's competence model but adjusted to suit the company's role definitions. Following tests, all members of the PM Community were invited to use it to create personalised reports showing their levels of skill across all APM competences.
- To help close skill gaps, a 'Development Guide' was created showing how skill levels for each competence could be improved through reading, e-learning and classroom-based courses. In addition, 'Competence Champions' were appointed to provide personal guidance and mentoring on individual competences.
- A policy of continuous professional development was introduced to encourage members of the PM Community to proactively upgrade their skills. This was supported by the individual reports generated by the profiling tool, used in discussions with staffing managers to agree personal development plans.

Figure 7.15 shows the project management career structure envisaged by the company. It recognises that, whilst related, programme and project

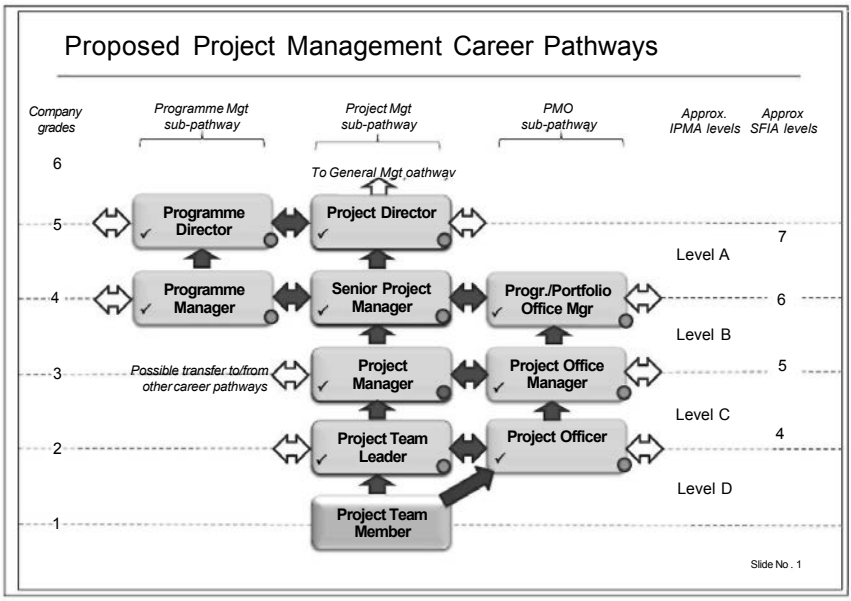

Figure 7.15 Career pathways for project management professionals

management are different. It also recognises that managing programme offices (PMOs) is a vital role with its own issues and career progression needs. The various roles are correlated to the existing company grading structure (on the left) and with leading external grading structures (viz. International Project Management Association (IPMA) and Skills Framework for the Information Age (SFIA), on the right). Also, the pathways are not rigid and there can be movement between them and to/from other equivalent pathways within the company.

Each of the roles shown is supported by:

- a formal definition of what it involves;
- a 'scenario' or word picture to help aspiring project professionals understand what the role means in practice;
- a set of expected levels of competence in each of the individual competences within the APM's competence model. For example, whilst all project professionals need to know something about stakeholder management, the levels of knowledge and experience may vary:
  - that of project team leaders need only be at the 'Aware' level, which maps approximately to IPMA level D;
  - that of project managers need be only at the 'Developing' level, which maps approximately to IPMA level C;

- that of senior project managers should be at 'Practitioner' level, which maps approximately to IPMA level D;
- that of project directors should be at the 'Expert' level, which maps approximately to IPMA level D.

The benefits

The initiative has already delivered valuable business benefits, including:

- a clear view of the company's project management capability, giving a better focus for future improvements training and through training and other ways of developing capabilities;
- enhanced visibility of existing training and development opportunities, resulting in greater take-up by members of the PM Community;
- improved morale amongst project professionals of all types, with greater recognition of their skills and better understanding of the support that they need.

Furthermore, the initiative has laid the foundation for further improvements in project and programme delivery, and the resulting increase in ability to meet (or exceed) client expectations should be picked up in the near future by the company's next formal review of client satisfaction.

7.8 Summary and reflection

All portfolios, programmes and projects involve people, and dealing with the wide range of individuals involved can often be the making or breaking of any initiative. This chapter has looked at the enigmatic nature of leadership and the more predictable but still challenging area of stakeholder management.

Finally, ways of developing organisations' strengths in portfolio and programme managers are discussed.

Notes

Chapter 1

1 Only you can find a satisfactory answer to this last question.
2 'Sliced bread' is an English expression that refers to a brilliant idea.
3 A *sphygmomanometer is* a device used to measure blood pressure. I just knew you would be curious.
4 Quoted on AQA website at www.aqa.org.uk.
5 See 'Inquiry into the Failure of Part of AQA's GCSE, AS and A level Script-marking Process in the Summer 2010 Examination Series – Final Inquiry Report', Office of Qualifications and Examinations Regulation, Coventry, UK (2011). Available at http://www.ofqual.gov.uk/files/2011-02-21-aqa-inquiry-report.pdf.
6 See O'Sullivan, L., 'AQA Internal Inquiry Report – Non-marking of candidate responses in the summer 2010 examination series', AQA (November 2010). Available at http://store.aqa.org.uk/news/pdf/AQA-INTERNAL-INQUIRY-DEC2010.pdf.

Chapter 2

1 We may have been very lucky. We've spent most of our careers in or near IT working alongside enthusiastic, intelligent and committed colleagues who, as well as earning a living, have generally wished to create a better world through the use of new technology. Our experience is that, once you scratch the surface, the same pattern applies in most organisations and all business sectors. At least, that is what they tell you.
2 See 'How Companies Spend their Money – a McKinsey Global Survey', *The McKinsey Quarterly*, April–May 2007, p. 2.
3 See Killen, C. P., Hunt, R. A., Kleinschmidt, E. J., 'Portfolio Management Practices in Australia', Management Policy & Practice Group, Faculty of Engineering, University of Technology, Sydney, Australia, May 2005. Available at http://catalogue.nla.gov.au/Record/3582614.
4 See 'How Companies Spend their Money – a McKinsey Global Survey', *The McKinsey Quarterly*, April–May 2007, p. 7.
5 See Russell Jones' presentation on 'London Transport Portfolio Management Framework', given at Portfolio Management in the Public Sector conference, 2009, London, UK.
6 Virgin Galactic tickets cost $200,000 at early 2011 prices.
7 'Doo doo' is a euphemistic term for excrement.
8 Projects in a Controlled Environment – a Cabinet Office standard – see section 5.2.

Chapter 3

1 Is the collective noun for projects a lateness?
2 'Discrete' means 'separate' and does not suggest that the plans will look the other way whilst you adjust your underwear. That's discreet.
3 Distemper is the name of next-door's rabbit.
4 Just practising for a copywriter's job.
5 A guestimate is a cross between a guest and an inmate, therefore a Blackpool bed-and-breakfast resident.

Chapter 4

1 MSP stands for *Managing Successful Programmes*, a standard for managing programmes. It has been adopted for all change-management programmes within the UK public sector and is widespread in the private sector throughout Europe. The third edition was published in 2008 by The Stationery Office, Norwich, UK.
2 Prince2 is a standard for managing projects. It has been adopted for all projects within the UK public sector and its use is widespread in the private sector throughout Europe. The latest version was issued in 2009 and is available from The Stationery Office, Norwich, UK.
3 See 'Common Causes of Project Failure', available from the Office of Government Commerce, London, UK or at http://www.ogc.gov.uk/documents/cp0015.pdf.
4 See, for example, the report by Chris Sauer and Christine Cuthbertson, 'The State of IT Project Management in the UK 2002–2003', Templeton College, University of Oxford.
5 See Cabinet Office Report, 'Successful IT: Modernising Government in Action', The Stationery Office, London (2000).
6 'Gloucestershire cheese-rolling off due to safety fears', BBC News, 12 March 2010. Available at http://news.bbc.co.uk/1/hi/england/gloucestershire/8563692.stm.
7 See Sir Roy McNulty, 'Realising the Potential of GB Rail', Office of Rail Regulation, London (2010). Available at http://www.rail-reg.gov.uk/upload/pdf/rail-vfm-detailed-report-may11.pdf.
8 Tessa Jowell, Minister for Culture, Media and Sport, quoted in 'Third Report of the House of Commons Culture Media and Sport Select Committee on the London Olympic Bid for 2012' (January 2003).
9 Department of Culture, Media and Sport, 'Our Promise for 2012' (2008).
10 Olympic Delivery Authority, 'Lifetime Corporate Plan' (2007).
11 Benefits profiles and benefits realisation plans are recommended by *Managing Successful Programmes*, the government's recommended guide to the delivery of successful programmes. Such profiles are intended to quantify each benefit, whilst the realisation plan is intended to provide a complete view of all the benefits, their dependencies and timescales.
12 PricewaterhouseCoopers LLP, 'London 2012 Olympic and Paralympic Games Impacts and Legacy Evaluation Framework Final Report' Department of Culture, Media and Sport, London, UK (2009).
13 Department of Culture, Media and Sport, 'Plans for the Legacy from the 2012 Olympic and Paralympic Games' (December 2010).
14 National Audit Office, 'Preparations for the London 2012 Olympic and Paralympic Games: Progress Report' (February 2011).

Chapter 5

1 The Isle of White Ferry of course.

Chapter 6

1 For a range of alternative definitions, see 'PMO Definitions', in the *Good PMO* blog at www.goodpmo.com/project-management-office/pmo-definition.
2 See Ward, J., Illingworth, T. and Piplani, A., 'To Have or Not to Have a PMO – is that the right question?' Cranfield University (2009). Available at http://www.som.cranfield.ac.uk/som/dinamic-content/media/ICPM/PMO%20(to%20have%20or%20not%20to%20have).pdf.
3 See Rayner, P., 'How Big Should a PMO Be?' Available privately from Stamford Global Budapest, Hungary, tel +36-23-805-600.
4 This benefits map is based on one contained in the Cabinet Office's P3O Online Repository. Available from Office of Government Commerce (Cabinet Office) at http://www.best-management-practice.com/gempdf/P3O_Appendix_D_Version_1_2009.pdf.
5 See 'The State of the PMO 2010', PM Solutions Inc., Glen Mills, PA, USA (2010).
6 See Rayner, P., 'PMOs and Portfolio Management – What Leads to Success', *Project Magazine*, January 2010. A similar spread of services was found in North America. See Hobbs, B., 'The Reality of Project Management Offices', University of Quebec (2006).
7 See Ward, J., Illingworth, T. and Piplani, A., 'To Have or Not to Have a PMO – is that the right question?' Cranfield University (2009). Available at http://www.som.cranfield.ac.uk/som/dinamic-content/media/ICPM/PMO%20(to%20have%20or%20not%20to%20have).pdf.
8 At a presentation given in London, on 10 November 2009, to the Programme Management Special Interest Group of the Association for Project Management, John Ward, of Cranfield School of Management, claimed that the effective dissemination of lessons learnt was the biggest single differentiator of organisations that were generally successful with their projects and those that were not.
9 See *The Centre of Excellence – A Pocket Guide*, Office of Government Commerce (Cabinet Office) (2009). Available at http://www.ogc.gov.uk/documents/TheCentreOfExcellencePocketbook.pdf.
10 ProgM is the Programme Management Special Interest Group of the Association for Project Management (APM). The results of this research were described by Paul Rayner under the title 'PMOs and Portfolio Management – What Leads to Success', *Project Magazine*, January 2010.
11 ESI International, 'The Challenges to Success for Project/Programme Management Offices', by ESI International, London, UK (2009), www.esi-intl.co.uk.
12 See Hobbs, B, 'The Reality of Project Management Offices', University of Quebec, Montreal (2006).
13 See Project Management Institute, Newtown Square, PA, USA, which epresents many project managers, in all sectors, in North America.
14 See Machiavelli, N., *The Prince*, Penguin Books, London, UK (2003).

Chapter 7

1 David's famous picture of Napoleon leading his troops across the Alps can be seen at: http://www.napoleonicsociety.com/english/tarttellin13a.htm.

2 See Rayner, P., 'Current Research in Programme Management', presentation to APM SIG Committee, London (October 2005).
3 See Flintoff. J.-P., 'Hurting Bad: the council cutting itself to shreds', *Sunday Times*, London (12 June 2011).
4 Leaders may, of course, choose superior accommodation when the project or programme needs it – for example to provide meeting rooms for confidential discussion.
5 See Rayner, P., 'Current Research in Programme Management', presentation to APM SIG Committee, London (October 2005).
6 See paper presented by Professor John Ward to meeting of ProgM (Programme Management Special Interest Group of the Association for Project Management), London (10 November 2009).
7 See *APM Competence Framework*, Association for Project Management, Princes Risborough, UK (2008).

Further reading

Programme management standards

Association for Project Management (APM)

APM Project Management Body of Knowledge (APMBoK)
Available from http://www.apm.org.uk/IntroductiontoProgramme-Mangement.asp

Program Management Institute (PMI)

PMI Project Management Body of Knowledge (PMBoK)
Program and Project Portfolio Management Standards
Both available from http://www.pmibookstore.org/PMIBookStore

UK Cabinet Office programme management standards

Prince2, Office of Government Commerce, http://www.prince-official-site.com/
Managing Successful Programmes – Delivering Business Change in Multi-project Environments, The Stationery Office Books (2003), ISBN: 0113309171. Available as a book or CD-ROM. http://www.tso.co.uk/programme_management.html, http://www.theprojectshop.co.uk/index.html
The Management of Portfolios, http://www.mop-officialsite.com/
Portfolio, Programme and Project Offices (P3O), http://www.p3o-officialsite.com/

Microsoft Enterprise Program Management

Microsoft Advice on managing multiple projects with MSProject, http://office.microsoft.com/en-us/project-help/CH010066719.aspx

Other publications

Bartlett, John, *Managing Programmes of Business Change*, Project Manager Today, 2002
Bartlett, John, *Managing Risk for Projects and Programmes*, Project Manager Today, 2002
Billows, Dick, *Managing Cross-functional Projects*, 2002
Buttrick, Robert, *The Project Workout*, Financial Times/Prentice Hall, 1997

Central Computer and Telecommunications Agency, *An Introduction to Programme Management*, Stationery Office Books, 1993
Kor, Rudy and Wijnen, Gert, *50 Checklists for Project and Programme Managers*, Gower, 2000
Marsh, David E., *The Project and Programme Support Office Handbook, Vol 1 Foundation*, Project Manager Today, 2000
Marsh, David E., *The Project and Programme Support Office Handbook, Vol 2 Advanced*, Project Manager Today, 2000
Reiss, G., Anthony, M., Chapman, J., Leigh, G., Pyne, A. and Rayner, P., *The Gower Handbook of Programme Management*, Gower, 2006
Reiss, Geoff and Leigh, Geof, *One Project Too Many: A Novel Approach to the Management of Projects, Portfolios and Programmes*

Organisations

The Association for Project Management (APM)

150 West Wycombe Road,
High Wycombe,
Buckinghamshire HP12 3AE
Tel: 01494 440090 Fax: 01494 528937
www.apm.org.uk

The Project Management Institute (PMI)

www.pmi.org
UK Chapter of PMI, http://www.pmi.org.uk/

Internet discussion groups

APM programme and portfolio-related groups: http://www.apm.org.uk/group/portfolio-management-sig; http://www.apm.org.uk/group/apm-programme-management-specific-interest-group; http://www.apm.org.uk/group/apm-benefits-management-specific-interest-group; http://www.apm.org.uk/group/portfolio-management-sig; http://www.apm.org.uk/group/apm-pmo-specific-interest-group

International Development Special Interest Group: The International Development Special Interest Group is for people who sponsor, execute, participate in or are directly or indirectly affected by projects funded by organisations such as the World Bank, Asian Development Bank, UN Projects Office, WHO, OXFAM, Red Cross, or other NGOs. http://www.groups.yahoo.com/group/IDSIG_Potential_Members

International Project Management Association: http://www.linkedin.com/groups?home=&gid=41222&trk=anet_ug_hm

PM Forum: http://www.pmforum.co.uk

ProgM – The programme management Special Interest Group (LinkedIn Group): http://www.linkedin.com/groups?gid=1858851&trk=myg_ugrp_ovr

Project and Programme Management (LinkedIn Group): http://www.linkedin.com/groups?gid=93702&trk=myg_ugrp_ovr

StrateXecution – Strategy Execution with Project, Program and Portfolios (LinkedIn Group): http://www.linkedin.com/groups/StrateXecution-Strategy-Execution-Project-Program-2548095?trk=myg_ugrp_ovr

The PMI® Program Management Office Specific Interest Group (PMO-SIG): http://www.pmi-pmosig.org/

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