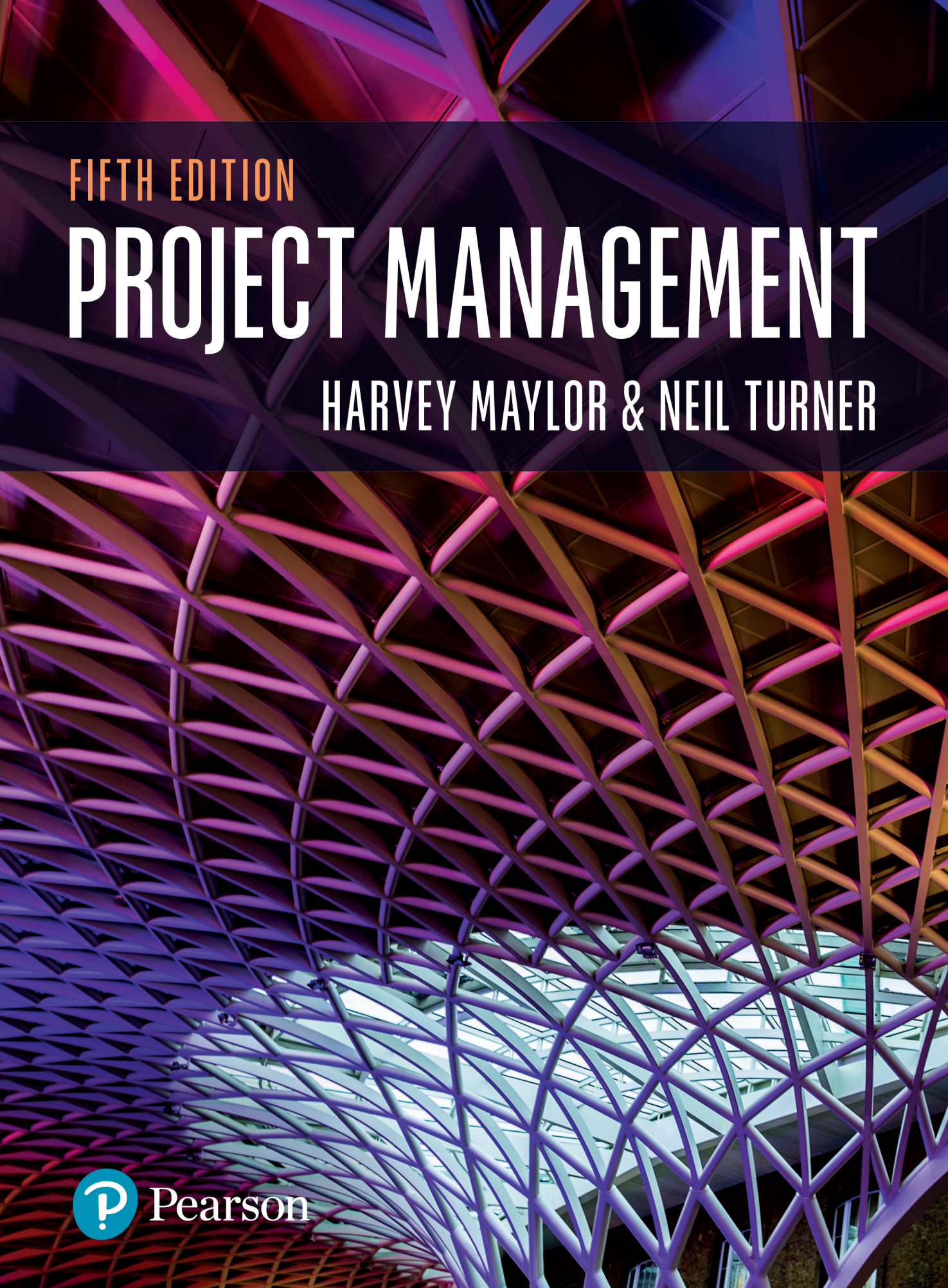
FIFTH EDITION
PROJECT MANAGEMENT
HARVEY MAYLOR & NEIL TURNER
Pearson

Project Management

this work is part of complex projects, the outputs from each sprint need integrating. This, though, is not always successfully achieved.

Do plans provide information or just data?

One of the benefits of modern business systems is the ease and speed with which vast quantities of data can be generated. However, there is a tendency for managers to become overrun with data. **Data** are the numbers on the page. **Information** is the part or summary of that which can be usefully applied. The rest is just noise and clutters the thought and analysis process. One of the major roles of the project manager in projects, other than in the smallest pieces of work, will be to gather data from the relevant sources. Simply passing the data on is unlikely to be a value-adding activity. The project manager therefore needs to be both a collector of data and a provider of information.

The process of project planning – inputs, outputs and the process itself

The process of project planning takes place at two levels. At one level it has to be decided 'what' happens. This, the tactical-level plan, then needs to be converted into a statement of 'how' it is going to be carried out (or operationalised) at the operational level. Figure 5.6 shows an activity model as would be used to analyse systems of activity by considering the inputs, controls, outputs and mechanisms (ICOMs) for the activity. The inputs are the basis for what is going to be converted by the activity – in this case the project brief. The output is the project plan, or more specifically the project proposal. The controls provide the activation, the constraints and the quality standards for the planning process in addition to its outputs, and the mechanisms provide the means by which the process can happen.

At the operational level, the way in which the proposal is generated should not be viewed as a one-off activity but should go through many cycles of suggestion and review before the 'final' document is produced. The first cycles are to provide the major revisions, where significant changes are made. Once these have been done and the project team is happy with the basic format, the last stages are those of refinement, where small adjustments are made.

It is important for the **overview** to be verified first, before further effort is committed to planning at a detailed level, as discussed above. The lifecycle of planning in Figure 5.7 shows the stages that the plan should go through. Cases such as the one given below are examples where the detail was considered before the major issues. As the example shows, this is very wasteful of management time.

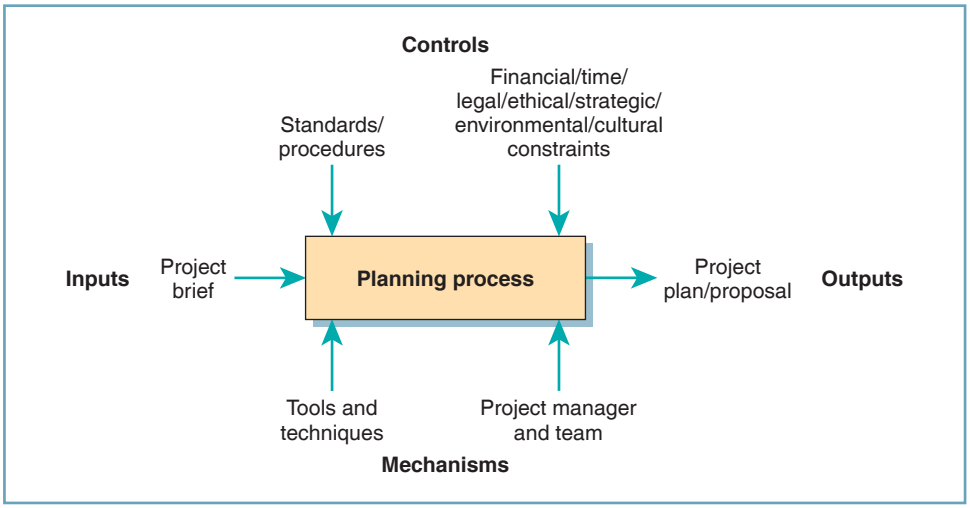

Figure 5.6 Activity model using ICOMs

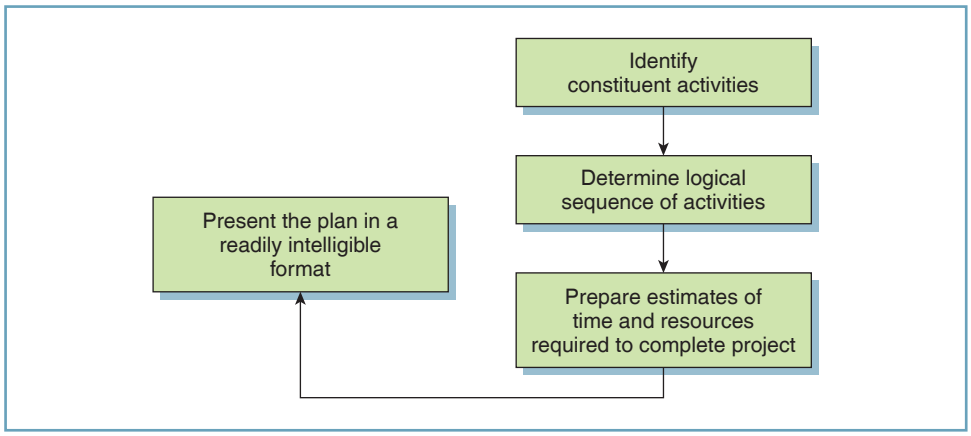

Figure 5.7 The project planning process

The upside-down business plan

Business plan meetings were serious affairs – they always were. The concept was quite attractive: to set up an exclusive nursery school with an appealing teaching method in a smart area of the city. So far so good. This was, however, where the rough planning stopped and the group succumbed to the virus that plagues so many projects at this point – *detailitus*. The discussions were then waylaid by the need to have safety tyres on the school minibus and by the detailed wording of the liability insurance. No matter that the lag between the money being spent on the buildings and equipment and any income from fees received would create interest payments that the company could never hope to meet . . .

Planning accuracy or precision?

So, would you rather be roughly right or precisely wrong? Often, what is termed a 'quick and dirty' approach (with the objective of being as accurate as possible) may be far more beneficial than months of painstaking planning (with the objective of being as precise as possible). There is clearly a role for detailed planning, but not before an overview plan has been worked through. Evaluating the overview reveals fundamental flaws in assumptions. Until this level of plan satisfies basic criteria such as financial or technical feasibility, detailed plans are inappropriate.

The revision/refinement process considers the necessary sub-projects (if any), the results of any numerical analysis (may be financial, resource, risk analysis or some form of mathematical simulation), the element of 'gut feel' (also referred to as the subconscious or back-of-the-mind element) as well as experience. The sponsor and other stakeholders will usually have some input to be considered in this process.

Managing the planning process

Most projects of low complexity will bias the ratio of planning:action heavily towards the action. As complexity increases, so does the necessity for a formalised plan. This is both a systematic analysis of the project (which provides its own set of benefits) and an opportunity to show that the project manager has been systematic in the planning process (by showing the level of consideration that the project manager has given to issues). '**Traceability**' has become a major issue in many companies, allowing products to be traced back to records of their constituent parts. The same is required of a project plan. In the event of an unsatisfactory result, for whatever reason, a good plan can show that the

planner took every possible precaution to ensure that the result was positive. Conversely, should the project go particularly well, you will have an assignable cause for this – namely your planning!

The benefits of using a **systematic approach** to planning include:

- breaking down complex activities into manageable chunks (see Chapter 6);
- determining logical sequences of activities;
- providing an input to subsequent project management processes, including estimating the time and resources required for the project;
- providing a logical basis for making decisions;
- showing effects on other systems;
- filtering frivolous ideas and activities;
- providing a framework for the assessment of programmes (the post-project review process relies on comparing the achieved result with the original plan, particularly for the purpose of improving the planning process);
- being essential for the revision/refinement process;
- allowing lessons to be learned from practice;
- facilitating communication of ideas in a logical form to others.

What follows shows how these benefits can be achieved through the application of tried and tested methods within a systematic framework.

Formalised project overview documents

A common format in industries where projects are undertaken for external clients involves the customer or client providing a **brief** or **terms of reference** and the project manager replying with a **proposal** or project initiation document **(PID)**. In process terms, the PID is the output of the overview planning process.

PRINCE2 (2017) provides detailed requirements for a PID, which include the following contents:

1. Project definition – explains what the project needs to achieve. This should include: background; objectives and desired outcomes; scope and exclusions; constraints and assumptions; the user(s) and interested parties; interfaces.
2. Project approach – the choice of solution and delivery approach, taking into consideration the operational environment.
3. Business case – a justification of the project based on estimated costs, risks, and benefits.
4. Project management team structure chart.
5. Role descriptions – the roles of those in the project management team, and other key resources.
6. Quality management approach – the quality techniques and standards to be applied.
7. Change control approach – how and by whom changes will be controlled.
8. Risk management approach – describes the risk management techniques and standards to be applied.
9. Communication management approach – defines the interested parties and the means and frequency of communication.
10. The project plan – a basic time plan showing the major activities to be undertaken, their sequence, duration, and required resources.
11. Project controls – summarises the controls such as stage boundaries and monitoring and reporting.
12. Tailoring of PRINCE2 – a summary of how PRINCE2 will be implemented on this project.

To this, it is useful always to add key statements from the stakeholder analysis (what's in it for the PM, the team, the customer, the sponsor, etc.) and key performance objectives – what would constitute success in this instance? An example of the use of a PID is included in the Project Management in Practice case at the end of this chapter.

PMI suggest the use of a **project charter** to set out the requirements for the project. The emphasis is different from a PID – the PID is normally prepared by the project team in answer to a brief or specification. The charter is then the official notification of the start of the project. It is defined as:

> *'A document issued by the project initiator or sponsor that formally authorises the existence of a project and provides the project manager with the authority to apply organisational resources to project activities.'*

Formalisation

A PID, followed by a project charter, is one way to capture the requirements of a project and formally authorise its progress to the next stage – D2 project design. As such it is a useful device and one that should have near universal application. We see in many organisations a resentment of such devices; people perceive them as 'needless bureaucracy'. Herein lies an interesting tension: to formalise processes and actions through devices such as a PID, incurring cost and time in doing so, or to allow individuals flexibility in determining what needs to be done as the project progresses and risk important issues being missed.

The level of **formalisation** required differs between organisations and often between projects in those organisations. We have two issues to consider here in determining the level of formalisation required. The first is the level of complexity, as described in Chapter 2. At one level it is useful to consider that the higher the level of complexity, the higher the level of systemisation that is required. The second factor is custom and practice in the industry or organisation in which you are working, whether these are appropriate or not. For instance, in the UK, suppliers of IT systems to government were at one time required to run all their projects using PRINCE2 processes regardless of the utility or benefits of that approach.

Where a formal proposal is required it should be considered in the following light:

- Who is the proposal for – the investment decision-maker or a third party?
- Why is the proposal being requested?

The first part of the analysis in the proposal development should consider the potential customers for the work – are they internal to the organisation or external? In addition, are the customers end-users, investment decision-makers or a third party acting on behalf of one of these? The degree of formalisation will need to be tailored, a bid to an external organisation usually requiring a much higher degree of formality.

In addition, if the project is:

- for an internal customer, there needs to be consistency with the organisation's stated goals or aims;
- for an external customer, the most basic requirement is that they will be able to pay for the work to be carried out. It is pointless generating detailed proposals only to find that the customer is insolvent or the transaction cannot be completed for other reasons. Where the customer is from overseas, it is worth investigating at a very early stage whether or not they are eligible for export credit guarantees, for example;
- going to be appraised by a set of people, it is useful to know their backgrounds. For example, where a client has a detailed knowledge of the subject area, more detail of the nature of the work to be carried out should be included, or for an investment decision-maker, details of the cost–benefit analysis.

The reason for the proposal being requested should also be examined to ensure that the result is appropriate:

- If it is to be part of a full competitive bid for funding, then it is probably worth investing the time to prepare a detailed proposal.
- If it is to be a first examination of the possibilities of such a project, with the customer deciding to find out what would be involved if the project were to be undertaken, then an overview proposal should be submitted.
- If the proposal has been requested as part of organisational policy to consider more than one supplier for any product or service, it is worth finding out whether or not an existing supplier already has the contract before investing your time. Providing a very rough proposal can be dangerous as the impression that is left with the customer may not favour you in the future. It may be worth in such a case declining to put in a proposal, though this again should be determined by the aims of the organisation.

Other scenarios where the supplier may decide not to submit a proposal (also called a 'bid') include when the capability (organisational capability), resource (e.g. if capital is already tied up in other projects) or desirability (e.g. moving into direct competition with an existing customer) is questionable.

The process of preparing and submitting the proposal is the organisation's opportunity to sell itself to the potential customer. You only have one chance to make a good first impression, so basics like ensuring that the proposal document reaches the customer on time, is presented in a way that demands attention and is free from stupid mistakes (particularly spelling and grammatical errors) are essential. This is only part of the process. A 'pre-sell' to a client can involve visits, informal discussions and general information gathering by both parties. The intention, as set out in describing the project environment, is to foster partnership relationships between the two parties.

The proposal itself should contain:

- an executive summary – provides the basic information in a few words, ideally one that can be read in one minute;
- the main body of the report – diagrams and pictures convey information much better than reams of text. In order to ensure that the presentation is consistent, a standard set of forms is often used which also makes it far more difficult to leave items out.[9] Checklists are also of great value in compiling documents;[10]
- appendices – any information that is summarised in the main report can be included in longer form here, along with supporting evidence for any major points made.

The plan is the first step in providing the means of satisfying the requirements of the project owner (the person wanting the outcome) or sponsor (the person in charge of the funding for the outcome). It is the beginning of the project manager's input to ensuring that, wherever possible, potential problems are identified and solved in advance. The plan is an explicit statement of the intended timing of project activities and the basis for estimating the resource requirements. Problem and error prevention, rather than rectification, is one of the main drivers of the planning process.

5.3 Basic project landscapes: stages and gates, activities and maps

At the overview stage in the project it is part of the role of the planner to determine the nature and objectives of each **phase** or part of the project. The use of checkpoints or *gates* between the phases provides the most basic opportunity to review progress (or otherwise). More importantly, you do not have to wait until the project budget or time allowance

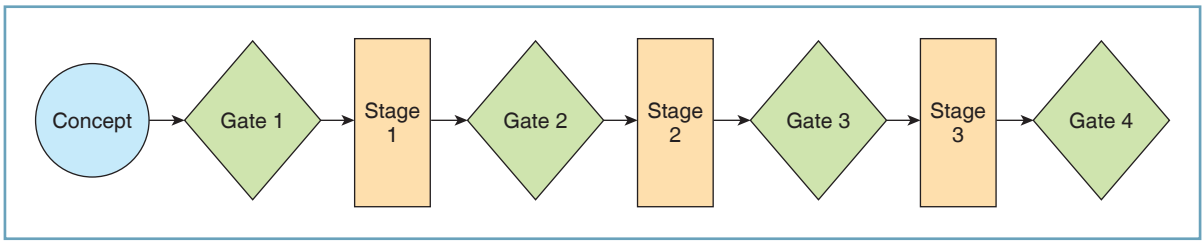

Figure 5.8 Stage-gate model of projects

Source: After Cooper, R.G. (1988) 'The new product process: a decision guide for management', *Journal of Marketing Management*, 3(3): 238–55 but not originating there. Widely applied.

expires to find out that there is a fundamental problem.[11] Figure 5.8 shows the basic arrangement of the checkpoints.

The criteria for passing to the next stage must be laid down in advance. Calling a halt to activities can save future expenditure and must never be discounted as an option, particularly where:

1 the majority of the benefits from the activities have already been achieved by the organisation;
2 the initial plans and estimates have turned out to be wildly inaccurate;
3 a new alternative that is more attractive has materialised;
4 organisational strategy changes and the project outcomes cease to be in line with the new strategy;
5 key personnel leave the organisation;
6 the project requires a higher level of capability than the organisation possesses;
7 to continue would endanger the organisation financially.

All projects require such gates as a fundamental discipline. Some, such as where the project is delivering to a contract, are unlikely to be stopped where problems arise. Others can and should be. The nature of a 'failure' at a gate therefore differs between projects. The options include the winding-up of the activities (which often causes bad feeling among the project team and can lead to future disenchantment) or finding ways of maximising the potential benefit while minimising the risk or expenditure. Many development projects have got to the point where they were about to be commercialised and the large amount of finance required (hundreds of millions of pounds for pharmaceutical products) could not be provided by the originators. Taking on joint partners and licensing are possible remedies in such a case.

Two examples illustrate the broad utility of this approach.

Know when to quit

A scientific research company had been engaged by another company to carry out some work. At the second gate review, it became apparent that the deliverables of the project were never going to be achieved and as a result the research company suggested that the project should be terminated. The client insisted that the research continue with the development efforts in accordance with their contract. The research firm finally bought itself out of the contract, paying a fee to the client to end the work. This was a pragmatic move based on a business case analysis – it was cheaper to do that than to continue and have to pay inevitable penalty clauses at the end of the project. It was also a first for the firm – implementing the stage-gate approach meant that it could have a business discussion about the basis for continuation of the work.