

# 1 Key features and benefits

## 1.1 Why successful projects need value and risk management

Value and risk management enables organisations to succeed in the delivery of ambitious projects by defining their desired outcomes and then exercising processes that maximise value and minimise uncertainty. This applies equally to strategy and business change projects as it does to those in the built environment. A successful outcome requires that the value to the business is maximised through the delivery of a facility that gives them the benefits they need at a price they can afford at the time when they need it and to a quality that fulfils their expectations. It requires that the outcome is clearly defined and communicated to those who deliver it (the project team). It also requires effective delivery processes that minimise the impact of the unexpected and uncertainties.

Value management provides an effective process to maximise value in line with the owners' and end users' requirements, and fulfils the first of these requirements. Risk management fulfils the second requirement as part of effective project management, by providing a process for managing risk. Both processes should be applied on every significant construction project. This does not always happen. This chapter explores why this is and provides arguments for their systematic use.

## 1.2 Delivering success

The effective, formalised processes of value and risk management enhance the chances of project success for minimal outlay.

The Eden Project (see Figure 1.1), in Cornwall, inspired by Tim Smit and designed by Sir Nicholas Grimshaw & Partners is

a unique destination. It combines educational facilities, research and stunning tourist attractions within the overarching theme of sustainability. It is probably the most successful of all the millennium projects in the United Kingdom. It used value and risk management to great effect in overcoming seemingly impossible obstacles in fund raising, design and construction, to open ahead of schedule within the budget and exceeding expectations.

### ***Value management***

At the outset of a project, value management provides an exceptionally powerful way of exploring the client's needs in-depth by addressing inconsistencies and expressing these in a language that all parties, whether technically informed or new to the construction industry, can understand. This results in the following benefits:

1. It defines what the owners and end users mean by value, and provides the basis for making decisions, throughout the project, on the basis of value. It provides a means for optimising the balance between differing stakeholders' needs.
2. It provides the basis for clear briefs that reflect the client's priorities and expectations, expressed in a language that all can understand. This improves communication between all stakeholders so that each of them can understand and respect other's constraints and requirements.
3. It ensures that the project is the most cost-effective way of delivering the business benefits and provides a basis for refining the business case. It addresses both the monetary and non-monetary benefits.
4. It supports good design through improved communications, mutual learning and enhanced team working, leading to better technical solutions with enhanced performance and quality, where it matters. The methods encourage challenging the status quo and developing innovative design solutions.
5. It provides a way of measuring value, taking into account non-monetary benefits and demonstrating that value for money has been achieved.



**Figure 1.1** The Eden Project – the hugely popular humid tropics biome



**Figure 1.1** Continued

## **Risk management**

In his report – *Trusting the Team* – proposing improvements to the construction industry, Sir Michael Latham stated ‘No construction project is risk free. Risk can be managed, minimised, shared, transferred or accepted. It cannot be ignored.’

It is necessary to take risk if one is to maximise the benefits (or value) of an organisation. The first and major benefit of risk management, therefore, is that it enables senior management to embark upon projects in the full knowledge that they will be able to control risk and thereby maximise their rewards.

Engaging in fire fighting, while it may be exciting is not efficient. It concentrates management's attention on day-to-day matters while diverting attention from the wider issues. Risk management as described in this book helps the team to concentrate on the big issues and manage these in an orderly way.

A formal risk management process delivers the following benefits for the project team:

1. It requires that the management infrastructure is in place to deliver successful outcomes. This includes setting clear, realistic and achievable project objectives from the outset.
2. It establishes the risk profile of the project, enabling appropriate allocation of risk, so that the party best placed to manage it has the responsibility for doing so. Risk allocation is a key component of contract documentation.
3. It allows the team to manage risk effectively, concentrate resources on the things that really matter, resulting in risk reduction as the project proceeds. It also enables them to capitalise on opportunities revealed through the use of the process.
4. It improves confidence that the project will be delivered to the owners' and end users' expectations, within the constraints of time and cost and to the required quality.
5. Quantification of risk assists management in the task of raising the necessary funds and, later, controlling the project by judicious application and draw down of the risk allowances. Where the project forms part of a larger portfolio of projects, it enables the transfer of risk allowance from one project to another.

### *Value and risk management*

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6. It provides a mechanism for reporting risk on a regular basis to the appropriate levels of management, escalating severe risks in an orderly manner to obtain direction from the highest levels.

### ***Integrated value and risk management***

Combining value and risk management studies into a single integrated process enables the project team to enjoy all the benefits outlined above. In addition the combination delivers other benefits.

1. The processes are complementary enabling each to augment the other.
2. Both disciplines require a deep understanding of the project. The discipline of acquiring this deep understanding helps the team to make better-informed decisions and improves communications between them. Improved communications lead to improved understanding. The process is cyclical.
3. The framework provided by the value and risk management processes improves communication between the members of the team and external stakeholders, so that they can arrive at better solutions faster.
4. The records of value and risk management studies provide an audit trail to demonstrate that activities that add value and reduce risk were actively managed. This enables third parties to understand the basis for decisions that have been made.
5. The existence of good records provides the basis for learning from past experience and continuously improving performance.

### ***Alignment with construction industry improvement initiatives***

In recent years there has been an increased requirement for good corporate governance. This has filtered down to corporate activities, including project management. Clients and customers are becoming more demanding. At the same time, construction projects are becoming ever more complex. In these circumstances, the formal processes of value and risk management when

rigorously applied provide a structured route for the team to arrive at optimum solutions and demonstrate good project governance.

Recent initiatives to improve performance in the construction industry have focused mainly on the delivery processes. These are embodied in the key performance indicators (KPIs) that are supported by the Department of Trade and Industry (DTI) and Constructing Excellence. Important though these are in improving the project delivery process, less emphasis has been placed on ensuring that the outcome results in a product that meets, or exceeds, the expectations of the organisation that commissions the project. Value and risk management is focused firmly on delivering successful outcomes.

The contribution that they make in delivering successful outcomes is acknowledged and promoted in the Organisation for Government Commerce (OGC) Achieving Excellence Guidelines. These identify value and risk management as key contributors to successful project delivery.

The National Audit Office, responsible for checking that taxpayers get value for money, has, with the support of the Council for Architecture in the Built Environment (CABE), published guidance to its auditors under the title 'Getting Value for Money in Construction Projects through Design'. This publication is based on value management principles.

### **1.3 Summary**

Formal value and risk management maximise value, reduce uncertainty and maximise return on investment.

Between them they enable the project team to put in place the conditions for successful projects:

*Clarity of purpose.* Value management provides the means to express the long-term project objectives in terms of the benefits expected by the owner and end users, unambiguously and in language that is clear to all. This includes a clear statement of business needs and a definition of value to provide the basis for the project and design briefs. Risk management enables the team to minimise uncertainty in delivering the benefits.

*People.* The processes used encourage clear leadership by providing a structure for making decisions to increase value and reduce risk. At the same time, people are encouraged to build a culture

## *Value and risk management*

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in which they work together towards a common purpose. Roles and responsibilities are clearly defined, assisting the selection of the right people for the job. External and internal stakeholders are consulted so that their views are taken into account and reconciled.

*Communication.* The processes involve extensive consultation and workshops, encouraging effective communications through agreed channels. Good communications improve decision-making and problem resolution.

*Realistic and affordable budgets.* Systematic application helps clients to set realistic, affordable and achievable budgets based upon the expected benefits flowing from the project. Demonstration of budget realism, together with an appreciation of the risks involved, contribute to the development of a sound business case. Active management of value and risk enable the supply chain to deliver the required quality within the budget.

*Appropriate procurement.* Appreciation of the project risk profile and allocation of risk to the appropriate parties best able to manage them provides the basis for selecting the most appropriate procurement strategy.

*Achievable programme.* Application of the processes from project inception encourages the adoption of realistic programmes with enough time allowed for design and adequate preparations before construction is committed, enhancing the ability to predict completion dates.

*Efficient delivery.* Optimisation of delivery processes leads to improved performance during design and construction and a minimisation of abortive time and waste. Coupled with the clear articulation of the required outcome, this maximises efficiency in terms of cost, time and quality.