MANAGING RISK
IN CONSTRUCTION PROJECTS

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Second Edition

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Blackwell Publishing Ltd, 9600 Garsington Road, Oxford OX4 2DQ, UK
Tel: +44 (0) 1865 776868
Blackwell Publishing Inc., 350 Main Street, Malden, MA 02148-5020, USA
Tel: +1 781 388 8250
Blackwell Science Asia Pty Ltd, 550 Swanston Street, Carlton, Victoria 3053, Australia
Tel: +61 (0)3 8359 1011

First published 1999
Transferred to digital print 2003
Second edition published 2006

ISBN-13: 978-1-4051-3012-7
ISBN-10: 1-4051-3012-1

Library of Congress Cataloging-in-Publication Data
Smith, Nigel J.
Managing risk: in construction projects/Nigel J. Smith, Tony Merna, Paul Jobling.–2nd ed.
p. cm.
Includes bibliographical references and index.
ISBN-13: 978-1-4051-3012-7 (alk. paper)
ISBN-10: 1-4051-3012-1 (alk. paper)
1. Building–Superintendence. 2. Building–Safety measures. 3. Construction industry–Management. 4. Risk assessment. I. Merna, Tony. II. Jobling, Paul 1955- III. Title.

TH438.S54 2006
690′.068–dc22 2005010452

A catalogue record for this title is available from the British Library

Set in 10/13 pt Times NR
by Newgen Imaging Systems (P) Ltd, Chennai, India
Printed and bound in India
by Replika Press, Pvt Ltd., Kundli

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Preface

Those of you wanting the answer to the problems of risk management might think of turning straight to the final chapter. Indeed, there you will find a summation of how risk management methods can empower the decision-making of the project manager. However, it is only a thorough understanding of the various concepts involved that can provide the real basis on which to make effective decisions.

The essence of the guidance is based on the interaction of concepts, user requirements and specific projects, and it is by obtaining a greater knowledge of the inherent nature of the project that improvements in performance can be found. Hence by examining the guidance in this context, the reader will be able to gain the maximum benefit from this book. The authors doubt many people will read this book from cover to cover but if key sections of the text serve to enhance understanding and to facilitate more effective project management then it will have achieved its purpose.

The second edition of this book has been extended to include the input of the Turnbull Report and to introduce the concept of corporate, strategic business project level risk. Nevertheless, the basic concept of risk management as a process for making better decisions under conditions of uncertainty remains.

This book is not intended as a definitive monograph on risk but as a guide for practitioners having to manage real projects. The authors have assembled a strong team of practitioners and leading academics and it is the blend of theory and practice which is the real message of this work.

Authors Biographies

Paul Jobling BSc, MSc, CEng, MICE, MAPM is a Senior Professional Associate of Parsons Brinckerhoff and Project Director for Project Risk Management. He has worked in the field of project and programme management since 1976. He was a member of the research team that produced the *Guide to Risk Management in Construction* published in 1986. At Eurotunnel he worked in the project control team developing procedures for risk analysis and contingency fund management. Further risk management and analysis work has included the Channel Tunnel Rail Link, major nuclear decommissioning programmes and several major rail programmes including the West Coast Route Modernisation, Train Protection and Warning System, Southern Region New Trains Programme and the European Rail Traffic Management System. Paul was a member of the working party responsible for the production of the *Project Risk Analysis and Management Guide* published in 1997 by the Association for Project Management, and a member of the review team for the revised edition published in 2004.

Anthony Merna BA, MPhil, PhD, CEng, MICE, MAPM, MIQA is senior partner of Oriel Group Practice, a multi-disciplinary research consultancy based in Manchester and a lecturer in the School of Mechanical, Aerospace and Civil Engineering (MACE), at the University of Manchester. He currently teaches risk management to MSc and MBA students at a number of UK and overseas institutions, and supervises MPhil and PhD students researching in risk management. He advises numerous organisations on the application of risk management at corporate, strategic business and projects levels.

Nigel J. Smith BSc, MSc, PhD, CEng, FICE, MAPM is Professor of Project & Transport Infrastructure Management and Head of School, at the School of Civil Engineering, University of Leeds. After graduating from the University of Birmingham, he gained practical experience with Wimpey, North East Road Construction Unit and the Department of

Transport. Since returning to academia he has researched and published widely in the field of risk management and regularly teaches on MSc and CPD Risk Management Courses. He has presented papers on risk at many international conferences including Trondheim, Budapest, Florence, Moscow, Bonn and Brisbane.

Acknowledgements

I am particularly grateful to my co-authors in this second edition, Tony Merna and Paul Jobling, for helping to update, modify and improve the existing text blending theory and practice. I would also like to acknowledge the assistance of Tony Merna Jr and Douglas Lamb for their expertise in drafting new sections of the text. In addition I would like to recognise the work of all the original authors of the first edition, namely Dr Chris Adams, Dr Denise Bower, Mr Otto Husby and Ms Trina Norris.

I would like to express my thanks once again to Ms Sally Mortimer of the School of Civil Engineering for processing, checking and questioning the book text and for her help with all aspects of the administration of the writing and editing process.

Nevertheless, as was the case with the first edition, I take the responsibility for any residual risks associated with any errors in the book.

Professor Nigel J Smith

Chapter 1
Projects and Risk

This book concentrates on aspects of risk management and also clarifies the practical procedures for undertaking and utilising decisions. Risk management is beset by a dark cloak of technology, definitions and methodologies, often maintained by analysts and specialist consultants, which contributes to the unnecessary mystique and lack of understanding of the approach. It discusses a number of general concepts including projects, project phases and risk attitude before introducing a number of risk management techniques. The book concludes with some brief case studies and guidance on good practice.

This book offers for the first time – in the opinion of the authors – the distilled knowledge of over a hundred man-years of project experience in working on aspects of project risk management and contains information which most of us would have liked to have had – had it been available and collated. To all students and practitioners using this book, follow known procedures as outlined in the book, avoid *short-cuts* and remember to keep records of everything you model, simulate or assume.

1.1 Construction projects

Change is inherent in construction work. For years, industry has had a very poor reputation for coping with the adverse effects of change, with many projects failing to meet deadlines and cost and quality targets. This is not too surprising considering that there are no known *perfect* engineers, anymore than there are *perfect designs* or that the forces of nature behave in a *perfectly* predictable way. Change cannot be eliminated, but by applying the principles of risk management, engineers are able to improve the effective management of this change.

Change is normally regarded in terms of its adverse effects on project cost estimates and programmes. In extreme cases, the risk of these time and cost overruns can invalidate the economic case for a project, turning

a potentially profitable investment into a loss-making venture. A risk event implies that there is a range of outcomes for that event which could be both more and less favourable than the most likely outcome, and that each outcome within the range has a probability of occurrence. The accumulation, or combinations of risks can be termed *project risk*. This will usually be calculated using a simulation model (see Chapter 7). It is important to try to capture all the potential risks to the project even if they are not strictly events or a calculation of project risk.

In construction projects each of the three primary targets of cost, time and quality will be likely to be subject to risk and uncertainty. It follows that a realistic estimate is one which makes appropriate allowances for all those risks and uncertainties which can be anticipated from experience and foresight. Project managers should undertake or propose actions which eliminate the risks before they occur, or reduce the effects of risk or uncertainty and make provision for them if they occur when this is possible and cost effective. It is vital to recognise the root causes of risks, and not to consider risks as events that occur almost at random. Risks can frequently be avoided if their root causes are identified and managed before the adverse consequence – the risk event – occurs. They should also ensure that the remaining risks are allocated to the parties in a manner which is likely to optimise project performance.

To achieve these aims it is suggested that a systematic approach is followed: to identify the risk sources, to quantify their effects (risk assessment and analysis), to develop management responses to risk and finally to provide for residual risk in the project estimates. These four stages comprise the core of the process of risk management. Risk management can be one of the most creative tasks of project management.

The benefits of risk management can be summarised as follows:

- project issues are clarified, understood and considered from the start;
- decisions are supported by thorough analysis;
- the definition and structure of the project are continually monitored;
- clearer understanding of specific risks associated with a project;
- build-up of historical data to assist future risk management procedures.

1.2 Decision making

Risk management is a particular form of decision making within project management, which is itself the topic of many textbooks and papers. Risk management is not about predicting the future. It is about understanding

your project and making a better decision with regard to the management of your project, tomorrow. Sometimes that decision may be to abandon the project. If that is the correct outcome which saves various parties from wasting time, money and skilled human resources, then the need for a rational, repeatable, justifiable risk methodology and risk interpretation is paramount. Nevertheless, the precise boundaries between decision making and the aspects of other problem-solving methodologies have always been difficult to establish.

In essence, decisions are made against a predetermined set of objectives, rules and/or priorities based upon knowledge, data and information relevant to the issue although too often this is not the case. Frequently decisions are ill-founded, not based on a logical assessment of project-specific criteria and lead to difficulties later. It is not always possible to have conditions of total certainty; indeed in risk management it is most likely that a considerable amount of uncertainty about the construction project exists at this stage.

The terms risk and uncertainty can be used in different ways. The word risk originated from the French word *risqué*, and began to appear in England, in its anglicised form, around 1830, when it was used in insurance transactions. Risk can be, and has been, defined in many ways and assessed in terms of fatalities and injuries, in terms of probability of reliability, in terms of a sample of a population or in terms of the likely effects on a project. All these methodologies are valid and particular industries or sectors have chosen to adopt particular measures as their standard approach. As this book concentrates on engineering projects, risk is defined in the project context, and broadly follows the guidelines and terminology adopted by the British Standard on Project Management BS 6079, The Association for Project Management Body of Knowledge, The Association for Project Management Project Risk Analysis and Management Guide, the Institution of Civil Engineers and the Faculty of Actuaries Risk Analysis and Management for Projects Guide and the HM Treasury, Central Unit on Procurement Guide on Risk Assessment.

A number of authors state that uncertainty should be considered as separate from risk because the two terms are distinctly different. Uncertainty can be regarded as the chance occurrence of some event where the probability distribution is genuinely not known. This means that uncertainty relates to the occurrence of an event about which little is known, except the fact that it may occur. Those who distinguish uncertainty from risk define risk as being where the outcome of a event, or each set of possible outcomes, can be predicted on the basis of statistical probability. This understanding of risk implies that there is some knowledge about a risk as a discrete event or a combination of circumstances, as

opposed to an uncertainty about which there is no knowledge. In most cases, project risks can be identified from experience gained by working on similar projects.

Risks fall into three categories; namely known risks, known unknowns and unknown unknowns. Known risks include minor variations in productivity and swings in material costs. These occur frequently and are an inevitable feature of all construction projects. Known unknowns are the risk events whose occurrence is predictable or foreseeable. Either their probability of occurrence or their likely effect is known. Unknown unknowns are those events whose probabilities of occurrence and effect are not foreseeable by even the most experienced staff. These are usually considered as force-majeure.

In some situations the term risk does not necessarily refer to the chance of bad consequences, it can also refer to the possibility of good consequences, therefore, it is important that a definition of risk must include some reference to this point. Risk and uncertainty have been defined as:

- *risk* exists when a decision is expressed in terms of a range of possible outcomes and when known probabilities can be attached to the outcomes;
- *uncertainty* exists when there is more than one possible outcome of a course of action but the probability of each outcome is not known (frequently termed estimating uncertainty).

A particular type of decision making is needed in risk management. Consider Figure 1.1 which compares the probability of occurrence of an event compared with its impact on the construction project. Events with a low impact are not serious and can be divided into the elements of trivial and expected. For the high impact and low probability, these

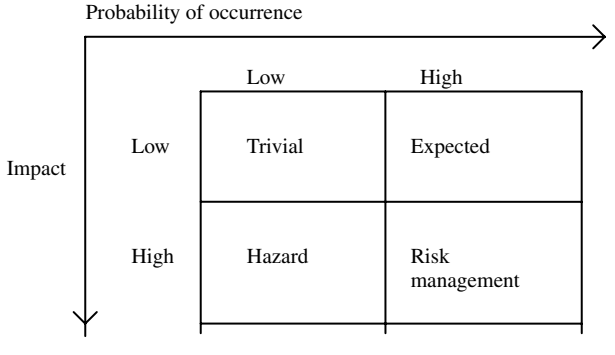

Figure 1.1 Classification of risk sources.

events are a hazard which could arise but are too remote to be considered. For example, there is a finite probability that parts from an old satellite might re-enter the atmosphere and crash on any building project in the United Kingdom, but very few buildings need to be designed to withstand that event. In project management however, high impact risks should not be ignored even if their probability is low. Fallback and response plans should be put in place even if the financial impact is too large to be covered by contingencies. The use of risk management is to identify, assess and manage those events with both a high input and a high probability of occurrence.

1.3 Risk management strategy

Most commonly, the client, the project owner (e.g. companies, organisations, etc.) has an overall risk management strategy and policy included in the strategic documents and quality management system. Main issues concerning project owner risk strategy are risk ownership (which party owns the risk; risk exposure and transfer) and risk financing (how to include and use budget risk allowance or contingency). The client's risk management policy includes the risk management procedures or guidelines, responsibilities and reporting.

Both client (employer, promoter) and contractor are concerned with the magnitude and pattern of their investment and the associated risk. They desire to exert control over the activities which contribute to their investment. This type of risk is now covered by the term corporate and project governance (see Chapter 10).

There are two significant axioms of control: (1) control can be exercised only over future events and (2) effective control necessitates prediction of

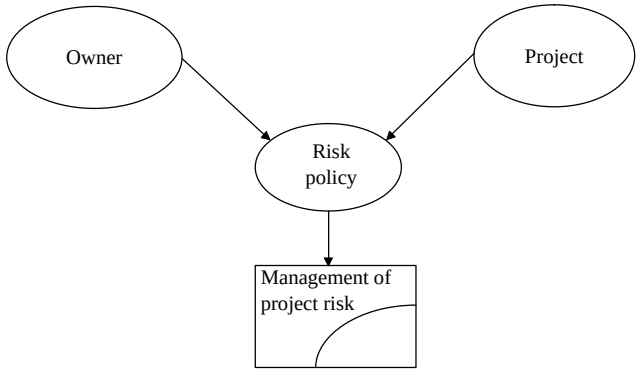

Figure 1.2 Risk management strategy.

the effects of change. The past is relevant only so far as past performance or events can influence our predictions of the future. The scope for control diminishes as the project proceeds. There are two key events at which control can be exercised; (1) sanction commitment to a project of particular characteristics and (2) contract award commitment to contractors and major cost expenditure. It should be noted that there will also be opportunity to influence even if direct control cannot be exercised.

It follows that prior to these two commitments clients have great opportunity for control. They make decisions to define the organisation and procedures required for the execution of a project. These decisions affect the responsibilities of the parties; they influence the control of design, construction, commissioning, change and risk; hence they affect cost, time and quality.

1.4 Project planning

The control of time cannot be effected in isolation from resources and costs. Project planning methods should be utilised to communicate to all parties in a project, to identify sequences of activities and to draw attention to potential problem areas. The successful realisation of a project will depend greatly on careful planning and continuous monitoring and updating. The activities of designers, manufacturers, suppliers, contractors and all their resources must be organised and integrated to meet the objectives set by the client and/or the contractor. In most cases the programme will form the basis of the plan.

Sequences of activities will be defined and linked on a timescale to ensure that priorities are identified and that efficient use is made of expensive and/or scarce resources. Remember, however, that because of the uncertainty it should be expected that the plan will change. It must therefore be updated quickly and regularly if it is to remain as a guide to the most efficient way of completing the project. The programme should therefore be simple, so that updating is straightforward and does not demand the feedback of large amounts of data, and flexible, so that all alternative courses of action are obvious.

The purposes of planning are therefore to persuade people to perform tasks before they delay the operations of other groups of people, and in such a sequence that the best use is made of available resources and to provide a framework for decision making in the event of change. It is difficult to enforce a plan which is conceived in isolation, and it is, therefore, essential to involve the individuals and organisations responsible for the activities or operations as the plan is developed.

In developing a plan which is to be used for purposes of control, it is vital to distinguish between different categories of change and to fully instigate the monitoring and formal aspect of the project. Typically, the main categories are: adapted, fixed (e.g. for mobilisation); time related (e.g. for resources and overheads) and quantity-proportional (e.g. for materials). Their relative importance will differ with the project and it is interesting to note the importance of time-related costs and the implications of delay in plant-intensive construction projects.

Project management information systems (PMISs) should forecast the outcome of a project in terms related to achievement of its objectives. Integrated cost models link time with money. They provide project managers with forecasts to completion in terms of cost, time resource usage and cash flow. Decisions about future actions can be made with the best available forecasts in these terms. Cost models also help to overcome an implementation gap between monitoring systems and the manager's action. Risk management software (RMS) is the term used to denote a specialist software, which can be used to apply one of the many risk assessment methodologies.

Project control and information systems should be conceived and adopted to suit the needs of a particular project. The project should not be forced to fit the control system; rather the control system should fit the project. Software needs to be selected with due regard to the resources that will be required to operate it and its data requirements.

1.5 Summary

All projects are subject to risk. The world is in a state of constant change and survival relies on the ability to adapt to changes. Unfortunately, many project managers have not yet realised that there is a need to include project risk as a key process.

It is a well known fact that managing risk has two major objectives: to avoid the downside risks and to exploit opportunities. Experiences so far show that the risk avoidance part of the risk management philosophy has attracted too much management attention, while the potential opportunities have been neglected.

The risk avoidance strategy helps you to secure your project objectives, which for many organisations is a giant step ahead and may be the single biggest opportunity. However, the major leaps in project cost and time reduction are results of innovative thinking with focus on exploring opportunities by challenging the risks. The trend today is to establish ambitious goals, to seek for new technological solutions

and concepts and to look for effective ways of organising and managing projects.

The difference between project success and disaster is of course more complex than managing or not managing the risk, but it appears that the number of successful projects would have been far higher if more companies had included risk as an integral part of their project management.

The following chapters present a framework against which a practicable and rational approach to the process of managing risk in construction projects can be developed.

Chapter 2
The Project Environment

2.1 Projects

Projects do not exist in isolation. They are initiated to fulfil a need or exploit an opportunity. The needs and opportunities exist before the project. They are products of the world at large. Projects are therefore heavily influenced by external factors and they also influence the world outside them to an extent that is largely, but not entirely, dependent upon the size of the project.

These external factors can be termed the project environment. Other names are also given to it such as the project world. Perhaps the single most important influence on any project is whether or not it is carried out by the public or private sectors. Public sector projects are those undertaken by central and local government whereas private sector projects are those undertaken by individual companies or consortia which are usually entirely privately owned. The aims and objectives of these two sectors are different and projects are undertaken by them for different reasons. The main aim, if not the sole aim, of projects undertaken in the private sector is to make a profit, whereas for projects undertaken by the public sector it is whether the project provides a public service and is also of benefit to the community.

In the United Kingdom in recent years, however, this distinction has become blurred. The increasing burden upon the state of large commitments, including publicly-owned enterprises, coupled with significant increases in funding costs, has meant that increasingly the public sector is looking to the private sector to finance projects. This has led to the trend in recent years for projects to be procured under the Design–Build–Finance–Operate (DBFO) alternatively known as Build–Own–Operate–Transfer (BOOT) or Build–Operate–Transfer (BOT). In the United Kingdom, all projects of these types are now known as public-private partnerships (PPP) or private finance initiative (PFI) projects. This is intended to reduce public expenditure on both the capital and running costs by transferring

them to the private sector. This is perceived to have the dual advantage of: first, reducing the requirements for public expenditure on capital projects; and second, producing projects which can be operated more efficiently thereby reducing the requirement for public funding of the operating costs. It is also perceived that such projects have the further advantage of reducing capital costs by reducing the incidence of overspecification and overdesign, and by reducing conflict between the various parties to the project by creating a single entity, which combines the consultant, contractors and operators. In such projects, public need is serviced only where it can generate a profit during the operation phase. In fact, audits have begun to question the value for money and long-term benefits of this approach to procuring projects and concerns have been raised about the long-term commitment the public sector now has to continue payment for the services provided.

Generally speaking, in publicly funded projects, the government or local authorities have taken many of the risks. This has been true in the past of private sector projects too. Recently however, private companies and consortia have sought to transfer more of the risk for the design and construction of their project to the consultants and contractors who design and construct them. This has come about because the private sector is increasingly concerned at the incidence of delayed completion and increased costs brought about by the more traditional ways of procuring and implementing capital projects. The consequence has been the development of a number of alternative types of procurement strategy, the most common of which is some form of turnkey contract where one entity is responsible for both the design and the construction. This is believed to put greater responsibility upon that party and remove some of the potential conflict, thereby reducing the incidence of cost overspend and programme delay.

This is an example of the transfer of risk from the owner to a contractor. Nevertheless, in such arrangements, the owner would retain the risk of the viability of the project and that of the operating and maintenance costs. Those projects that are being carried out under PFI, seek to transfer these risks to the private sector by combining the designer, contractor and operator into a concessionaire organisation. The latter is responsible for raising the capital, managing the project and is then responsible for the operation and maintenance of the asset to a predetermined specification for which it receives some form of fee as income from the public sector or from users, for providing the service.

The importance of distinguishing between these types of project is that they fundamentally determine the attitudes towards risk assessment, risk transfer and risk management which must be adopted in the

initiation and implementation of such projects. It should be noted however that the National Audit Office (NAO) now questions whether or not risk transfer has really taken place from the public sector to the private consortia.

2.2 The project constitution

The next most important influence on a project is its governance arrangements or constitution, namely who the members of the owners (client/promoter/concessionaire) organisation are, other stakeholders and third parties such as government or statutory authorities; what their relationships are, how the relationships are structured and where the authority lies. The owner may be a single entity, a private company or a government department, or it may be a group of private or public organisations, which combine in some form of partnership or consortium to promote the project. Clearly, a single entity provides a simpler constitution than a multientity owner. Indeed, for a single entity working in a clearly defined business, such as, a supermarket chain building a new store, the term constitution is probably unnecessary and the term organisation is adequate. However, for the multiparty owner it is essential that it be recognised that the term organisation is inadequate to define the context within which the project will be executed. All projects will have some form of organisation – which may be quite simple – but it is the way in which the owner/promoter organisation is put together or constituted, which is important. For example, oil production facilities in the North Sea require the combined resources of several oil companies each of whom then takes a stake in the revenues. One of the companies is given the responsibility for managing the project on behalf of the other stakeholders. Contrast this with the way in which the constitution of the owner/promoter/concessionaire for the Channel Tunnel evolved. The original intention was that a concessionaire consisting of construction contractors, designers and bankers would create an operating company to operate and maintain the project, constructed, designed and funded by the consortium. However, shortly after being awarded the concession, the consortium split into its constituent parts creating in the process a new entity that came to be known as Eurotunnel the concessionaire. The banks became purely funding institutions and the contractors formed a consortium to design and construct the project. The governments also continued to influence the project by way of the inter-governmental commission who had overriding responsibility for ensuring that the project met the concession specification. Lessons learned from the Channel Tunnel led to

a different approach by the successful bidder for the Channel Tunnel rail link concession, which is described in Chapter 11.

These examples illustrate the different types of constitution, which projects can have: a simple constitution, a more complex but nevertheless clearly defined constitution or a complex constitution with split responsibilities and ill-defined authority.

The constitution is important because the owner is responsible for making the key decisions, and any constraints on his ability to do so must be clearly identified and understood. This is essential because the speed and decisiveness, which the owner brings to decision making, is crucial to the success of projects. The more complex the constitution – and the less clearly defined the hierarchy – the slower will be the speed with which decisions are made which could result in delays to the project. If decisions lack certainty, confusion will result, and there will be a need to make further decisions to clarify earlier statements. This will result in changes to the project that will usually have adverse impacts. The later the change the greater the impact. Delays to the programme are the most obvious consequence but inevitably these also lead to increased costs and possibly to changes to the functionality and quality.

It is probably true to say that public projects usually have the most complex constitutions when the Treasury, at least one government department and probably more, have interests in a project and influence over its conception, design and execution. The British Library was an example and became notorious for huge delays and cost overruns. In the case of the private sector, complex constitutions may also be common, but the importance of achieving agreement of the project's objectives, the need for a clear hierarchy and single point responsibility and certainty are better understood as essential to the success of projects; hence the adoption of the constitution for the North Sea projects as described above.

Of course, a simple constitution on its own does not guarantee success. There is a multitude of other factors to consider, many of which will be discussed in this book, but without a constitution created with the express intent of delivering a successful project, the chances of success are greatly reduced.

Another facet to the successful management of projects, that was often ignored in the past but is now being increasingly recognised, is the influence of third parties such as regulatory agencies and single issue pressure groups, most notably the environmental lobby. These groups can wield significant influence and exert significant pressure on the project to the point of forcing major changes, such as the re-routing of highways schemes, or cancellation of waste disposal projects. It is essential that the views of these groups are canvassed, understood and wherever possible

accommodated. Management time and effort must be directed towards these organisations otherwise there is the risk of their intervention at a time, which is disadvantageous to the project. The establishment of clear lines of communication and good working relationships are a prerequisite of managing these groups, the ultimate objective of which is to establish a situation of mutual trust and understanding.

These third party influences are part of the project's environment and the project world. If their influence cannot be accommodated by the project in its concept or design, provision must be made in other ways, such as allowing time for public enquiries and contingency budgets for any modifications, which are required as a result.

Decisions concerning the way in which the project is constituted, the roles of the stakeholders; roles and influence of the third parties; the way in which these relationships are structured, by written or by other means; and the channels and frequency of communication, must be considered extremely carefully. The objective must be to arrive at a constitution, which is geared up to the delivery of a successful project, not a constitution that suits the preferred *modus operandi* of the parties, but fails to address the needs of the project.

2.3 Project organisation

Organisation means the way in which the project's implementation team is organised and who the participants are.

Projects can be split in single discipline and multidiscipline. The traditional civil engineering sector has been single discipline, while the building and process engineering sectors have been multidiscipline but as projects have become larger and more complex it is becoming more likely that projects are multidiscipline. For example, many highway projects contain sophisticated traffic signing, information systems and speed cameras. Similarly, the signalling and control systems for rail projects are becoming more sophisticated and expensive. Hence, they are now a larger proportion of the project than they used to be, such that these projects are now clearly multidiscipline.

Single discipline projects

By their nature, these projects are annually undertaken by one project team, frequently staffed by one consultant with a single client and executed by a single contractor. The number of interfaces between individuals and organisations are relatively few and easily managed.

The most complicated relationships exist between the contractor, his sub-contractors and suppliers (i.e. the contractor's supply chain). However, these relationships and the structure required to manage them is relatively simple, although in recent years it has been recognised that significant savings can be made by dedicating effort to managing the supply chain. Hence, these projects usually represent a lower risk than multidiscipline projects, even though they can be large and have high values.

Multidiscipline projects

Despite the greater organisational complexity, projects can be quite small. For example, even quite small buildings may require:

- civil engineering input if the foundations are complex;
- a structural engineer for the building superstructure;
- a building services engineer;
- an architect to lead the team and prepare the overall design;
- a mechanical and engineering (M&E) or a process contractor;
- a fitting out contractor.

Other specialists involved may include telecommunications engineers, lift specialists and cladding specialists. The contractor's organisation may be equally complex with specialist trade sub-contractors for civil works, structural works, brickwork, carpentry, plumbing, installation of services, telecommunications and so on. To complicate matters further, the specialist sub-contractors may also have impact into the design process, for example the sizing of lift shafts and machinery rooms.

Traditional procurement methods often split responsibility in an unrealistic and arbitrary way that cuts across work packages. For example, the overall design of electrical systems and HVAC (heating, ventilation and air conditioning) may be the responsibility of a design consultant; the co-ordination of M&E services may be the responsibility of the main contractor; while the detailed design of the HVAC installation may be the responsibility of a specialist supplier. The structural engineer meanwhile is responsible for the design of the building frame, although detailing may be the responsibility of the fabricator.

Clearly, this type of organisational structure increases the risks and likely results in poor communications, delays and incorrect information leading to claims and disputes. It is for this reason that clients in the building sector – especially developers – have moved to other forms of procurement including design and build, because, though different disciplines are still present, they are all part of a single organisation.