## CONTENTS

*List of Figures* vii  
*List of Tables* ix  
*Foreword* xi  
*Preface* xv

### CHAPTER 1 Uncertainty and Risk: Current Sources of Uncertainty

- Responding to uncertainty 2  
- Distinguishing between uncertainty and risk 4  
- A pragmatic distinction 6  
- Three refinements 8  
- Not all uncertainty is risk; all risks are uncertain 10

### CHAPTER 2 Risk And Projects: What’s Wrong with Projects

- Why are projects risky? 14  
- Why manage risk in projects? 16  
- ‘Risks’ or ‘risk’? 17  
- Why is risk management important to projects? 19

### CHAPTER 3 Managing Risk in Practice

- Towards a risk management process 23  
- From narrative to reality 26  
- Describing the risk process 30  
- Not ‘one-size-fits-all’ 48  
- More than a process 49

### CHAPTER 4 Risk and People

- Understanding risk attitude 54  
- Influences on the risk attitude spectrum 58  
- Risk attitudes and decision-making 59  
- Risk attitudes and the risk process 60  
- Managing risk attitudes 62  
- People plus process 64
### CHAPTER 5  Integrating Risk Management with Wider Project Management  65
- Managing risk throughout the project lifecycle  65
- Contribution of risk management to other project management disciplines  70
- ‘Built-in not bolt-on’  72

### CHAPTER 6  The Bigger Picture  75
- Strategy, tactics and projects  75
- Hierarchy of objectives, hierarchy of risk  78
- Project risk management in the programme context  80
- Enterprise risk management as an integrative framework  82

### CHAPTER 7  Making Risk Management Work  83
- Risk energetics  83
- Internal factors  86
- External factors  88
- Risk energetics across the project lifecycle and beyond  91
- Proving it works  92
- Why bother?  93
- And finally…  95

References and Further Reading  97
Index  101
LIST OF FIGURES

Figure 1.1  Old World – New World 3
Figure 2.1  Linking projects to strategy 12
Figure 2.2  Standish CHAOS data on project success 1994–2006 13
Figure 2.3  Relationship between Risk and Reward/Loss (indicative) 16
Figure 2.4  Risk management as a CSF for project success 20
Figure 3.1  Risk process 28
Figure 3.2  Defining terms for probability and impacts to reflect project risk thresholds 32
Figure 3.3  Example Risk Breakdown Structure (RBS) 33
Figure 3.4  Risk Management Plan sample contents list 34
Figure 3.5  Typical Risk Register data 36
Figure 3.6  Double Probability-Impact Matrix 38
Figure 3.7  Example probability-impact scoring scheme 38
Figure 3.8  Example Bubble Diagram 39
Figure 3.9  Example Risk Prioritisation Chart 40
Figure 3.10  Example S-curve from Monte Carlo analysis 43
Figure 3.11  Overlaid S-curves 43
Figure 4.1  The risk attitude spectrum 56
Figure 4.2  The triple strand of influences on risk attitude 59
Figure 4.3  Factors influencing groups making risky and important decisions 60
Figure 4.4  The Six As model for managing risk attitude 62
Figure 5.1  Alternative views of project start and end points 67
Figure 6.1  Strategy-Vision-Benefits and Tactics-Project-Deliverables 76
Figure 6.2  Link between risk management and business benefits 77
Figure 6.3  The organisation as a hierarchy of objectives 77
Figure 6.4  Sources of risks at programme level 81
Figure 7.1  Risk energetics – Decay and Damped curves 84
Figure 7.2  Risk energetics – Desired curve 85
Figure 7.3  Attitude, Behaviour and Culture 89
Figure 7.4  Risk energetics – Updates and reviews 91
Figure 7.5  Risk energetics – Rising trend 92
**LIST OF TABLES**

| Table 1.1 | Dictionary and thesaurus definitions of uncertainty and risk | 5 |
| Table 1.2 | Definitions of ‘risk’ | 7 |
| Table 2.1 | Definitions of ‘project’ | 12 |
| Table 2.2 | ‘Risks’ vs. ‘Risk’ in project risk management guidelines | 18 |
| Table 3.1 | Informal and formal risk process steps | 26 |
| Table 3.2 | Mapping generic risk process to risk standards | 29 |
| Table 3.3 | Roles and responsibilities within the risk process | 50 |
| Table 4.1 | Risk attitude definitions and characteristics | 57 |
| Table 4.2 | Influence of risk attitude on key points in risk process | 61 |
| Table 7.1 | Benefits of risk management (from APM PRAM Guide, 2004) | 94 |
| Table 7.2 | Cost-benefit analysis for project risk management | 95 |