## Table of Contents

Background Introduction		XI
		1
1	Anatomy of a Project	5
	1.1 Cone of uncertainty	5
	1.2 Project life cycle	11
2	Project Environment and Key Players	23
	2.1 Project manager	23
	2.2 Project team	29
	2.3 Sponsor	30
	2.4 Functional managers	33
	2.5 Customers	33
	2.6 Suppliers	34
3	A Project Management Framework	35
	3.1 Defining the project strategy	36
	3.2 Project operational planning	37
4	Project Management Plan	39
	4.1 A management document	39
	4.2 A project management plan structure	40
	4.3 Other contents of the project management plan	42
5	Critical Success Factors	45
	5.1 Recurring CSFs	45
	5.2 Identifying factors unique to the project	48

6	Stakeholder Management	53
	6.1 Definition of stakeholder	53
	6.2 Stakeholder contribution	55
	6.3 Stakeholder management process	56
7	Defining the Project Scope and Objectives	65
	7.1 Importance of objectives	65
	7.2 A framework for describing objectives and scope	66
8	Scope Breakdown	79
	8.1 Breakdown of the scope through the WBS	79
	8.2 Defining the appropriate level of breakdown	81
	8.3 Breakdown criteria	85
	8.4 How to develop a WBS	89
9	Definition and Allocation of Resources	97
	9.1 Identifying competencies	97
	9.2 Planning and allocation human resources to activities	98
	9.3 Responsibility matrices	98
	9.4 Estimating resource use	104
	9.5 Planning and allocation of material resources	106
10	Communication Management	109
11	Time Management	113
	11.1 Inputs to time management	113
	11.2 Critical path method	116
	11.3 PERT	121
	11.4 Critical Chain Project Management	123
12	Cost Management	129
	12.1 Types of costs	129
	12.2 Project budget structures	133
	12.3 Costs over time	135
13	Risk Management	137
	13.1 Risk management process	137
	13.2 Identifying risks	139
	13.3 Risk analysis: a qualitative approach	142
	13.4 Risks analysis: hints on the quantitative approach	146

<ul> <li>13.6 Risk monitoring</li> <li>14 Monitoring and Con 14.1 Monitoring, cor 14.2 Estimating prog 14.3 Earned Value m 14.4 Controlling</li> <li>15 Change Managemen</li> <li>16 Beyond the Single Pr Multi-Project Enviro</li> <li>17 Project Management 17.1 Origins of Agil 17.2 Interpreting and 17.3 Agile practices 17.4 An Agile frame 17.5 Backlog 17.6 Definition of pr 17.7 Customizing th 17.8 User stories 17.9 Estimates 17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A</li> <li>Checklist for Assessing th Throughout Its Life Cycle</li> </ul>				
<ul> <li>14 Monitoring and Con 14.1 Monitoring, cor 14.2 Estimating prog 14.3 Earned Value m 14.4 Controlling</li> <li>15 Change Managemen</li> <li>16 Beyond the Single Pr Multi-Project Enviro</li> <li>17 Project Management 17.1 Origins of Agil 17.2 Interpreting and 17.3 Agile practices 17.4 An Agile frame 17.5 Backlog 17.6 Definition of pr 17.7 Customizing th 17.8 User stories 17.9 Estimates 17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A</li> <li>Checklist for Assessing th Throughout Its Life Cycle</li> </ul>	anning and implementation	149		
<ul> <li>14.1 Monitoring, con 14.2 Estimating prog 14.3 Earned Value m 14.4 Controlling</li> <li>15 Change Managemen</li> <li>16 Beyond the Single Pr Multi-Project Environ</li> <li>17 Project Management 17.1 Origins of Agil 17.2 Interpreting and 17.3 Agile practices 17.4 An Agile frame 17.5 Backlog 17.6 Definition of pr 17.7 Customizing th 17.8 User stories 17.9 Estimates 17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A</li> <li>Checklist for Assessing th Throughout Its Life Cycle</li> </ul>	g and control	153		
<ul> <li>14.1 Monitoring, con 14.2 Estimating prog 14.3 Earned Value m 14.4 Controlling</li> <li>15 Change Managemen</li> <li>16 Beyond the Single Pr Multi-Project Environ</li> <li>17 Project Management 17.1 Origins of Agil 17.2 Interpreting and 17.3 Agile practices 17.4 An Agile frame 17.5 Backlog 17.6 Definition of pr 17.7 Customizing th 17.8 User stories 17.9 Estimates 17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A</li> <li>Checklist for Assessing th Throughout Its Life Cycle</li> </ul>	trolling	157		
<ul> <li>14.2 Estimating prog 14.3 Earned Value m 14.4 Controlling</li> <li>15 Change Managemen</li> <li>16 Beyond the Single Pr Multi-Project Enviro</li> <li>17 Project Management 17.1 Origins of Agil 17.2 Interpreting and 17.3 Agile practices 17.4 An Agile frame 17.5 Backlog 17.6 Definition of pr 17.7 Customizing th 17.8 User stories 17.9 Estimates 17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A</li> <li>Checklist for Assessing th Throughout Its Life Cycle</li> </ul>	ntrolling, and continuous planning	157		
<ul> <li>14.3 Earned Value m 14.4 Controlling</li> <li>15 Change Managemen</li> <li>16 Beyond the Single Pr Multi-Project Enviro</li> <li>17 Project Management 17.1 Origins of Agil 17.2 Interpreting and 17.3 Agile practices 17.4 An Agile frame 17.5 Backlog 17.6 Definition of pr 17.7 Customizing th 17.8 User stories 17.9 Estimates 17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A</li> <li>Checklist for Assessing th Throughout Its Life Cycle</li> </ul>	0 1 0	159		
<ul> <li>14.4 Controlling</li> <li>15 Change Managemen</li> <li>16 Beyond the Single Pr Multi-Project Enviro</li> <li>17 Project Management</li> <li>17.1 Origins of Agil</li> <li>17.2 Interpreting and</li> <li>17.3 Agile practices</li> <li>17.4 An Agile frame</li> <li>17.5 Backlog</li> <li>17.6 Definition of pr</li> <li>17.7 Customizing th</li> <li>17.8 User stories</li> <li>17.9 Estimates</li> <li>17.10 Scales in relativ</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> <li>Checklist for Assessing th</li> </ul>		163		
<ul> <li>16 Beyond the Single Pr Multi-Project Enviro</li> <li>17 Project Management 17.1 Origins of Agil 17.2 Interpreting and 17.3 Agile practices 17.4 An Agile frame 17.5 Backlog 17.6 Definition of pr 17.7 Customizing th 17.8 User stories 17.9 Estimates 17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A</li> <li>Checklist for Assessing th Throughout Its Life Cycle</li> </ul>		169		
Multi-Project Enviro 17 Project Management 17.1 Origins of Agil 17.2 Interpreting and 17.3 Agile practices 17.4 An Agile frame 17.5 Backlog 17.6 Definition of pr 17.7 Customizing th 17.8 User stories 17.9 Estimates 17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A Checklist for Assessing th Throughout Its Life Cycle	t	171		
Multi-Project Enviro 17 Project Management 17.1 Origins of Agil 17.2 Interpreting and 17.3 Agile practices 17.4 An Agile frame 17.5 Backlog 17.6 Definition of pr 17.7 Customizing th 17.8 User stories 17.9 Estimates 17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A Checklist for Assessing th Throughout Its Life Cycle	oject: Planning and Managing			
<ul> <li>17.1 Origins of Agil</li> <li>17.2 Interpreting and</li> <li>17.3 Agile practices</li> <li>17.4 An Agile frame</li> <li>17.5 Backlog</li> <li>17.6 Definition of pr</li> <li>17.7 Customizing th</li> <li>17.8 User stories</li> <li>17.9 Estimates</li> <li>17.10 Scales in relativ</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> <li>Checklist for Assessing th</li> <li>Throughout Its Life Cycle</li> </ul>		177		
<ul> <li>17.2 Interpreting and</li> <li>17.3 Agile practices</li> <li>17.4 An Agile frame</li> <li>17.5 Backlog</li> <li>17.6 Definition of pr</li> <li>17.7 Customizing th</li> <li>17.8 User stories</li> <li>17.9 Estimates</li> <li>17.10 Scales in relativ</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> </ul> Checklist for Assessing the Checkli	with the Agile Approach	183		
<ul> <li>17.3 Agile practices</li> <li>17.4 An Agile frame</li> <li>17.5 Backlog</li> <li>17.6 Definition of pr</li> <li>17.7 Customizing th</li> <li>17.8 User stories</li> <li>17.9 Estimates</li> <li>17.10 Scales in relativ</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> </ul> Checklist for Assessing the Checklist	e	183		
<ul> <li>17.4 An Agile frame</li> <li>17.5 Backlog</li> <li>17.6 Definition of pr</li> <li>17.7 Customizing th</li> <li>17.8 User stories</li> <li>17.9 Estimates</li> <li>17.10 Scales in relativ</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> <li>Checklist for Assessing th</li> <li>Throughout Its Life Cycle</li> </ul>	d generalizing the Agile Manifesto	186		
<ul> <li>17.5 Backlog</li> <li>17.6 Definition of pr</li> <li>17.7 Customizing th</li> <li>17.8 User stories</li> <li>17.9 Estimates</li> <li>17.10 Scales in relativ</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> <li>Checklist for Assessing th</li> <li>Throughout Its Life Cycle</li> </ul>		194		
<ul> <li>17.6 Definition of pr</li> <li>17.7 Customizing th</li> <li>17.8 User stories</li> <li>17.9 Estimates</li> <li>17.10 Scales in relativ</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> <li>Checklist for Assessing th</li> <li>Throughout Its Life Cycle</li> </ul>	ework	196		
<ul> <li>17.7 Customizing th</li> <li>17.8 User stories</li> <li>17.9 Estimates</li> <li>17.10 Scales in relativ</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> <li>Checklist for Assessing th</li> <li>Throughout Its Life Cycle</li> </ul>		200		
<ul> <li>17.8 User stories</li> <li>17.9 Estimates</li> <li>17.10 Scales in relativ</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> <li>Checklist for Assessing the Throughout Its Life Cycle</li> </ul>	riorities: the MoSCoW model	202		
<ul> <li>17.9 Estimates</li> <li>17.10 Scales in relative</li> <li>17.11 Estimation tech</li> <li>17.12 Where to use A</li> <li>Checklist for Assessing the</li> <li>Throughout Its Life Cycle</li> </ul>	e backlog	203		
17.10 Scales in relativ 17.11 Estimation tech 17.12 Where to use A Checklist for Assessing the Throughout Its Life Cycle	-	206		
17.11 Estimation tech 17.12 Where to use A Checklist for Assessing the Throughout Its Life Cycle		207		
17.12 Where to use A Checklist for Assessing the Throughout Its Life Cycle	re estimates	209		
Checklist for Assessing throughout Its Life Cycle	nniques in Agile	210		
Throughout Its Life Cycle	gile	216		
c ·	he Robustness of a Project			
D·1 1· 1	Throughout Its Life Cycle			
Bibliography				