
Contents

1	Introduction	1
	Why Projects?	1
	What Is a Project?	2
	What Is the Project Management?	3
	Benefits of Projects Management	3
	Risks Induced by the Project Management	5
	Project Management Method	5
	The Cybernetics of Project Management	6
	The L-Timer® Mental Model	9
	The Benefits and Advantages of the L-Timer®	12
	The Logic of L-Timer® Processes' Execution	12
	Bibliography	13

Part I Administrative Processes

2	07:00 Planning & Scheduling: P&S	17
	Quick Look	17
	Process	18
	07:10 The Goal of Planning and Scheduling	19
	07:20 Methods	19
	07:21 Project Goals and Project Objectives	19
	07:22 Product and Project Structuring	24
	07:23 Conceptual Models of Project Work Planning	28
	07:24 Activity and Cost Planning	29
	07:25 Costs/Benefits Evaluation	36
	07:30 Techniques and Tools	37
	07:31 Techniques of Project Objectives Identification	37
	07:32 Techniques of Structuring	39
	07:33 Scheduling Techniques	40
	07:34 Project Cost Estimation	43
	07:35 Project Business Case	45
	07:40 Templates	50
	07:41 Project Documents	50
	7:42 Documentation of the Project Results	50

07:50 Activities and Deliverables of Project Phases	50
07:51 Initiation Phase	50
07:52 Planning Phase	51
07:53 Implementation Phase	52
07:54 Closing and Evaluation Phase	53
Bibliography	53
3 08:00 Organization Management: OM	57
Quick Look	57
Process	58
08:10 The Goal of Organization Management	58
08:20 Methods	58
Organizational Efficiency Versus Effectiveness	58
ISO 21500:2012 Project Organization Management Processes	59
08:21 Objectives and Stakeholder Identification	60
08:22 Process Derived Organization	63
08:23 Cultural Adaptation	65
08:24 Team Extensions	69
08:25 Resources Assignment	70
08:26 Managing Complex Projects	71
08:27 Organizational Maturity Assessment	73
08:28 Project Coach	73
08:30 Techniques and Tools	75
08:31 Techniques of Roles Identification and Creation of Organizational Structures	75
08:32 Project Role Description	76
08:33 Techniques of Analyzing Goal/Solution Impact on Project Structure	78
08:40 Templates	79
08:41 Project Documents	79
08:42 Documentation of the Project Results	80
08:50 Activities and Deliverables of Project Phases	81
08:51 Initiation Phase	81
08:52 Planning Phase	81
08:53 Implementation Phase	82
08:54 Closing and Evaluation Phase	82
Bibliography	82
4 09:00 Procurement Management: PRM	85
Quick Look	85
Process	86
09:10 The Goal of Procurement Management	87
09:20 Methods	87
ISO 21500:2012 Processes	87
09:21 Procurement Process and Contract Management	87

09:22 Plan Procurement	89
09:23 Select Suppliers	97
09:24 Administer Contracts	100
09:30 Techniques and Tools	102
09:31 Content of Invitation to Participate or Call for Tenders	102
09:32 Evaluation Scales	103
09:33 Price/Cost Calculation Spectral Schemes	103
09:34 Contract Components	104
09:40 Templates	104
09:41 Project Documents	104
09:42 Documentation of the Project Results	105
09:50 Activities and Primary Outputs	106
09:51 Initialization Phase	106
09:52 Planning Phase	106
09:53 Implementation Phase	107
09:54 Closing and Evaluation Phase	108
Bibliography	108
5 10:00 Earned Value Management: EVM	111
Quick Look	111
Process	112
10:10 The Goal of Earned Value Management	112
10:20 Methods	112
10:21 Interrelationship Between the Project Scope Objectives	113
10:22 Analysis of Actual Project State	114
10:23 Forecast of Further Project Progress	116
10:24 Analysis of Discrepancies	116
10:25 Precautions	117
10:30 Techniques and Tools	117
10:31 Workbench	117
10:32 General Assessment Procedures	118
10:33 Estimation of the Level of Project's Goals Realization	123
10:34 Time Control Procedures: Trend Analysis	125
10:35 Cost Driven Management	130
10:36 Simulation Tools	133
10:37 Decision-Making Process	134
10:40 Templates	136
10:41 Project Documents	136
10:42 Documents of the Project's Results	137
10:50 Activities and Deliverables of EVM	137
10:51 Initiation Phase	137
10:52 Planning Phase	139
10:53 Implementation Phase	139
10:54 Closing and Evaluation Phase	140
Bibliography	141

6	11:00 Quality Management: QM	143
	Quick Look	143
	Process	144
	11:10 The Goal of Quality Management	145
	11:20 Methods	145
	11:21 Quality in a Company	145
	11:22 Project's Quality	145
	11:23 Responsibilities for Quality Management in Project	146
	11:24 Quality and Results' Assessment	148
	11:25 Quality Assurance Plan	150
	11:26 Method of Quality Control	150
	11:27 Accepted Norms/Standards and Their Directives	150
	11:30 Techniques and Tools	151
	11:31 Quality of Project Management System	151
	11:32 Quality Management in Project	153
	11:40 Templates	157
	11:41 Project Documents	157
	11:42 Documentation of Project's Results	157
	11:50 Activities and Deliverables of QM	157
	11:51 Initiation Phase	157
	11:52 Planning Phase	157
	11:53 Implementation Phase	160
	11:54 Closing and Evaluation Phase	161
	Bibliography	161
7	12:00 Problem Management: PBM	163
	Quick Look	163
	Process	164
	12:10 The Goal of Problem Management	164
	12:20 Methods	164
	12:21 Problem Management Focus	164
	12:22 Problem Solving Procedure	165
	12:30 Techniques and Tools	168
	12:31 Techniques of Information Acquisition	169
	12:32 Techniques of Searching Solutions	172
	12:33 Solution Assessment and Selection Techniques	173
	12:40 Templates	175
	12:41 Project Documents	175
	12:42 Documents of the Project Results	176
	12:50 Activities and Deliverables of Problem Management	176
	12:51 Initiation Phase	176
	12:52 Planning Phase	177
	12:53 Implementation Phase	178
	12:54 Closing & Evaluation Phase	178
	Bibliography	178

8	13:00 Risk Management: RM	179
	Quick Look	179
	Process	180
	13:10 The Goal of Risk Management	180
	13:20 Methods	180
	13:21 Terms	181
	13:22 Preliminary Risk Analysis, Plan and Risk Detection System Design	182
	13:23 Probability and Impact Risk Evaluation	183
	13:24 Countermeasures Elaboration	185
	13:25 Countermeasures Efficiency Assessment Procedure	186
	13:26 Risk Detection System	187
	13:27 Risk Handling Procedure	187
	13:30 Technique and Tools	187
	13:31 Risk Identification	187
	13:32 Assessment of Risk Rate	189
	13:33 Assessment of Precautionary Measures	190
	13:40 Templates	192
	13:41 Project Documents	192
	13:42 Documentation of Project's Results	193
	13:50 Activities and Deliverables of RM	194
	13:51 Initialization Phase	194
	13:52 Planning Phase	194
	13:53 Implementation Phase	195
	13:54 Closing and Evaluation Phase	195
	Bibliography	195
9	14:00 Change Management: CM	197
	Quick Look	197
	Process	198
	14:10 The Goal of Change Management	199
	14:20 Methods	199
	14:21 Change Management Organisation	199
	14:22 Change Request Handling	199
	14:23 Change Request Handling Phases	200
	14:30 Techniques and Tools	201
	14:40 Templates	201
	14:41 Project Documents	201
	14:42 Documents of Project's Results	204
	14:50 Activities and Deliverables of CM	204
	14:51 Initiation Phase	204
	14:52 Planning Phase	205
	14:53 Implementation Phase	205
	14:54 Closing and Evaluation Phase	205
	Bibliography	206

10	15:00 Integration Management: IM	207
	Quick Look	207
	Process	208
	15:10 The Goal of Integration Management	208
	15:20 Methods	208
	15:21 Implementation of Project Results	211
	15:22 Migration from the Present State to the Target State	211
	15:23 Fall-Back Scenarios	212
	15:24 Synopsis of Tests' Options	213
	15:25 Operations and Maintenance	213
	15:30 Technique and Tools	214
	15:31 Product Integration	214
	15:32 People Integration	215
	15:33 Process Integration	216
	15:40 Templates	217
	15:41 Project Documents	217
	15:42 Documents of Project Results	217
	15:50 Activities and Deliverables of IM	217
	15:51 Initiation Phase	217
	15:52 Planning Phase	218
	15:53 Implementation Phase	220
	15:54 Closing and Evaluation Phase	220
	Bibliography	221
11	16:00 Knowledge Management: KM	223
	Quick Look	223
	Process	224
	16:10 The Goal of Knowledge Management	225
	16:20 Methods	225
	16:21 What Is Knowledge?	225
	16:22 Tacit and Explicit Knowledge	226
	16:23 Tacit – Explicit Knowledge Management Model	226
	16:24 Structure of Knowledge Management Levels	227
	16:25 Operational Knowledge Management	227
	16:26 Externalization	229
	16:27 Combination	230
	16:28 Internalization	231
	16:29 Socialization	232
	16:30 Technique and Tools	233
	16:31 Document Structure and Tagging	234
	16:32 Data Repository and Retrieval Tools	234
	16:33 Knowledge Evaluation Tools	235
	16:34 Tools Supporting Workflow	235
	16:35 Project Management Office	236
	16:36 Project Management Handbook	236

16:40 Templates	239
16:41 Project Documents	239
16:42 Documentation of Project's Results	239
16:50 Activities and Deliverables of KM	240
16:51 Initiation Phase	240
16:52 Planning Phase	241
16:53 Implementation Phase	241
16:54 Closing & Evaluation Phase	242
Bibliography	242
12 17:00 Documentation Management: DM	243
Quick Look	243
Process	244
17:10 The Goals of Documentation Management	245
17:20 Methods	245
17:21 Documents Elaboration	245
17:22 Service Documentation	246
17:23 Operator Documentation	246
17:24 Users' Documentation	247
17:25 Efficiency and Quality Criteria	247
17:26 Documentation Manager	248
17:27 Deployment of Document Management System	248
17:30 Technique and Tools	248
17:31 Document Structure and Tagging	249
17:32 Data Repository and Retrieval Tools	249
17:33 Data Management Systems	249
17:40 Templates	249
17:41 Project Documentation	249
17:42 Documentation of Project's Results	250
17:50 Activities and Deliverables of DM	250
17:51 Initiation Phase	250
17:52 Planning Phase	251
17:53 Implementation Phase	252
17:54 Closing and Evaluation Phase	252
Bibliography	253
13 18:00 Balanced Scorecard: BSC	255
Quick Look	255
Process	256
18:10 The Goal of Balanced Scorecard	257
18:20 Methods	257
18:21 Balanced Scorecard Concept	257
18:22 BSC Balanced Scorecard Evaluation	258
18:23 Kaplan and Norton Balanced Scorecard	258
18:24 Project Excellence	260

18:25 Kaplan and Norton Balanced Scorecard and the Project Excellence Model Interrelation	261
18:30 Technique and Tools	262
18:31 Clients' Perspective Techniques and Tools	262
18:32 Financial Perspective Techniques and Tools	263
18:33 Process Development Perspective Techniques and Tools	264
18:34 Personal Development Perspective Techniques and Tools	264
18:40 Templates	265
18:41 Project Documents	265
18:42 Documents of Project's Results	265
18:50 Activities and Deliverables of BSC	265
18:51 Initiation Phase	268
18:52 Planning Phase	268
18:53 Implementation Phase	269
18:54 Closing and Evaluation Phase	270
Bibliography	270

Part II Human Factor

14 20:00 Human Resource Management: HRM	273
Quick Look	273
Process	274
20:10 The Goal of Human Resource Management	274
20:20 Methods	274
20:21 Human Resource, HRM, HR System	274
20:22 Role Assignment	276
20:23 Recruitment and Evaluation	276
20:24 Role Performance Improvement	279
20:25 Formal to Informal Role Adjustment	281
20:26 Role Owner Satisfaction	284
20:30 Techniques and Tools	285
20:31 Target Personal Resource Capacity	285
20:32 Complete Demanded Profile Definition	286
20:33 Candidates Evaluation Techniques	287
20:34 Internal Recruiting	289
20:40 Templates	289
20:41 Project Documents	289
20:42 Project Results' Documents	289
20:50 Activities and Deliverables of HRM	290
20:51 Initiation Phase	290
20:52 Planning Phase	291
20:53 Implementation Phase	292
20:54 Closing and Evaluation Phase	292
Bibliography	292

15	22:00 Team Management: TM	295
	Quick Look	295
	Process	296
	22:10 The Goal of Team Management	297
	22:20 Methods	297
	22:21 Social Networks, Group and Team	297
	22:22 Team Integration Phases	300
	22:23 Team Building Process	300
	22:24 Team Performance Improvement Procedure	302
	22:25 Team Culture Adjustments	305
	22:30 Techniques and Tools	307
	22:31 Johari Window	307
	22:32 Team Integration Measures	308
	22:40 Templates	310
	22:41 Project Documents	310
	22:42 Documentation of the Project Results	311
	22:50 Activities and Deliverables of Particular Project Phases	312
	22:51 Initiation Phase	312
	22:52 Planning Phase	313
	22:53 Implementation Phase	313
	22:54 Closing and Evaluation Phase	313
	Bibliography	314
16	00:00 Conflict Management: CFM	315
	Quick Look	315
	Process	316
	00:10 The Goal of Conflict Management	316
	00:20 Methods	316
	00:21 The Definition and Indices of a Conflict	316
	00:22 Potential Sources of Conflicts	318
	00:23 Conflict Impact on Performance	319
	00:24 Conflict Solution Approaches	320
	00:25 Conflict Solving Procedure	323
	00:26 Management of Crisis Situation	326
	00:27 Conflicts Prevention	327
	00:30 Techniques and Tools	328
	00:31 Conflict Prevention Techniques	328
	00:32 PACTAR	329
	00:33 Feedback in Conflict Management	331
	00:34 Constructive Dispute	332
	00:35 Negotiations	332
	00:40 Templates	333
	00:41 Project Documents	333
	00:42 Documents of the Project Results	333

00:50 Activities and Deliverables of Conflict Management Process . . .	333
00:51 Initialization Phase	333
00:52 Planning Phase	334
00:53 Implementation Phase	335
00:54 Closing and Evaluation Phase	335
Bibliography	335
17 02:00 Communication Management: COM	337
Quick Look	337
Process	338
02:10 The Goal of Communication Management	338
02:20 Methods	338
02:21 Project Team Communication Model	340
02:22 Dynamic Model of Transaction Analysis	343
02:23 Sender Priorities in Communication Management	345
02:24 Sender Network	346
02:25 Medium Channel Types	347
02:26 Medium Channel Environment, Cultural Impact	348
02:27 Receiver Transition Model	348
02:28 Receiver Information Distortions	349
02:29 Special Communication Procedure	350
02:30 Techniques and Tools	350
02:31 Sender MBTI-Oriented Communication	350
02:32 Visualization Techniques	350
02:33 Verbalization Techniques	352
02:34 Oral (Spoken) Communication: Controlled Dialog	353
02:35 Oral (Spoken) Communication: Negotiations	354
02:36 Oral (Spoken) Communication: Moderation	354
02:37 Non-Verbal (Body Language) Communication	356
02:38 Active Listening	357
02:39 Feedback	358
02:40 Templates	359
02:41 Project Documents	359
02:42 Documentation of the Project Results	360
02:50 Activities and Deliverables of Particular Project Phases	360
02:51 Initiation Phase	360
02:52 Planning Phase	361
02:53 Implementation Phase	361
02:54 Closing and Evaluation Phase	361
Bibliography	362
18 04:00 Self Management (Work & Life Balance): SM	365
Quick Look	365
Process	366
04:10 The Goal of Self Management (Work & Life Balance)	366

04:20 Methods	366
04:21 Personality Entities Interrelation Chain	366
04:22 System of Personal Values	367
04:23 Personal Goals	369
04:24 Intrinsic Motivation	371
04:25 Personal Immaterial Resources	372
04:26 Personal Material Resources, Time	375
04:30 Techniques and Tools	377
04:31 Assessing Own Values	377
04:32 Evaluating Own Goals	377
04:33 Assessment of Own Intrinsic Motivation	378
04:34 Assessment of Personal Psychical Energy Focus	379
04:35 SWOT Analysis	383
04:36 Unsatisfactory 10 % Rule	385
04:37 Setting the Priorities	387
04:38 Individual Diurnal Physiological Performance	389
04:39 Stress Symptoms and Stressors	390
04:40 Templates	391
04:41 Project Documents	391
04:42 Documentation of the Project Results	391
04:50 Activities and Deliverables of Particular Project Phases	393
04:51 Initiation Phase	393
04:52 Planning Phase	394
04:53 Implementation Phase	395
04:54 Closing & Evaluation Phase	395
Bibliography	395
19 06:00 Leadership: L	399
Quick Look	399
Process	400
06:10 The Goal of Leadership	400
06:20 Methods	400
06:21 The Leadership Model	400
06:22 Launch	402
06:23 Engage	405
06:24 Act	407
06:25 Deliver	411
06:30 Techniques and Tools	414
06:31 Leadership Practices Inventory	414
06:32 Multifactor Leadership Questionnaire	414
06:33 Motivational Factor Inventory	415
06:34 ACE Self-Reflection	415
06:35 Mindfulness	416
06:40 Templates	419
06:41 Project Documents	419

06:42 Documentation of the Project Results	419
06:50 Activities and Deliverables of Particular Project Phases	419
06:51 Initiation Phase	419
06:52 Planning Phase	420
06:53 Implementation Phase	423
06:54 Closing and Evaluation Phase	423
Bibliography	423
Index	427



<http://www.springer.com/978-3-642-32503-8>

Cybernetic Approach to Project Management
Lent, B.

2013, XXVI, 431 p., Hardcover

ISBN: 978-3-642-32503-8