

# Table of Contents

|                                                                             |           |
|-----------------------------------------------------------------------------|-----------|
| <b>Acknowledgements.....</b>                                                | <b>11</b> |
| <b>1 Introduction.....</b>                                                  | <b>13</b> |
| <b>2 Management summary: More projects in less time .....</b>               | <b>17</b> |
| 2.1 Initial situation .....                                                 | 17        |
| 2.2 New approach for multi-project organizations .....                      | 22        |
| 2.3 Challenges in the change process .....                                  | 26        |
| <b>Part 1 Current Reality in Multi-project Organizations.....</b>           | <b>29</b> |
| <b>3 Unreliability and long delivery times .....</b>                        | <b>31</b> |
| 3.1 Damages through unreliability in project management.....                | 31        |
| 3.2 The implications of long project lead times .....                       | 35        |
| 3.3 Losses on internal projects.....                                        | 35        |
| 3.4 Are costs/specifications more “valuable” than time? ...                 | 36        |
| 3.5 Benefits and uses of improvement .....                                  | 37        |
| <b>4 Variability, Murphy’s Law, and harmful management mechanisms .....</b> | <b>39</b> |
| <b>5 WIP and resource allocation.....</b>                                   | <b>43</b> |
| 5.1 The matrix (resources/ projects).....                                   | 43        |
| 5.2 Scarce resources/ efficient use .....                                   | 44        |
| 5.3 Fighting for resources.....                                             | 50        |
| 5.4 The resource manager’s pressure to decide .....                         | 53        |
| 5.5 Bad multitasking .....                                                  | 53        |
| 5.6 Thinly spread resources .....                                           | 54        |
| 5.7 Desynchronization.....                                                  | 57        |
| 5.8 Lack of focus and multitasking in management and support functions..... | 59        |
| 5.9 High WIP creates long project durations and high costs...               | 61        |
| 5.10 Immediate project launches.....                                        | 63        |
| 5.11 WIP vicious circle.....                                                | 64        |
| 5.12 Poor preparation and mistakes .....                                    | 66        |
| 5.13 Ailing projects have priority .....                                    | 69        |

|           |                                                                          |            |
|-----------|--------------------------------------------------------------------------|------------|
| <b>6</b>  | <b>Project planning and management .....</b>                             | <b>71</b>  |
| 6.1       | Deadlines and milestones .....                                           | 71         |
| 6.2       | Safety buffers in the project plan .....                                 | 73         |
| 6.3       | Parkinson's Law .....                                                    | 76         |
| 6.4       | Resource allocation according to plan .....                              | 81         |
| 6.5       | Student syndrome.....                                                    | 83         |
| 6.6       | Vicious circle of safety buffers .....                                   | 84         |
| 6.7       | Delays at points of integration .....                                    | 85         |
| 6.8       | Early deliveries? Late deliveries! .....                                 | 86         |
| <b>7</b>  | <b>Operation and decision conflicts.....</b>                             | <b>89</b>  |
| <b>8</b>  | <b>Worksheets and templates.....</b>                                     | <b>93</b>  |
| 8.1       | The organization's current situation .....                               | 93         |
| 8.2       | Project reliability .....                                                | 95         |
| 8.3       | Implications: Damage to your business.....                               | 96         |
| 8.4       | Potential benefits.....                                                  | 98         |
| 8.5       | Need for action and obstacles .....                                      | 100        |
| 8.6       | Management mechanisms .....                                              | 101        |
| 8.7       | Operation and decision conflicts .....                                   | 112        |
| 8.8       | Cause and effect .....                                                   | 116        |
| 8.9       | Conclusion .....                                                         | 126        |
| <b>9</b>  | <b>Summary and outlook .....</b>                                         | <b>127</b> |
| 9.1       | Variability .....                                                        | 127        |
| 9.2       | Projects compete for resources, vicious circle of WIP ..                 | 128        |
| 9.3       | Efficiency before effectiveness .....                                    | 129        |
| 9.4       | Parkinson's Law .....                                                    | 130        |
| 9.5       | Conclusion .....                                                         | 131        |
| 9.6       | Requirements for effective project and multi-project<br>management ..... | 134        |
|           | <b>Part 2 The Future in Multi-project Management.....</b>                | <b>135</b> |
| <b>10</b> | <b>Core problem: Local optimization.....</b>                             | <b>137</b> |
| <b>11</b> | <b>Solution: Top priority!?</b> .....                                    | <b>145</b> |

|           |                                                                                      |            |
|-----------|--------------------------------------------------------------------------------------|------------|
| <b>12</b> | <b>Managing WIP .....</b>                                                            | <b>151</b> |
| 12.1      | Staggering projects at the constraint .....                                          | 152        |
| 12.2      | Management as a constraint.....                                                      | 155        |
| 12.3      | Virtual Drum .....                                                                   | 163        |
| 12.4      | Benefits .....                                                                       | 167        |
| 12.5      | Summary .....                                                                        | 171        |
| <b>13</b> | <b>Planning explicit safety buffers.....</b>                                         | <b>177</b> |
| 13.1      | Bundling safety buffers .....                                                        | 179        |
| 13.2      | Relay runner principle .....                                                         | 180        |
| 13.3      | How much safety buffer?.....                                                         | 181        |
| 13.4      | Project and integration buffer .....                                                 | 181        |
| 13.5      | An aside: Critical path and critical chain.....                                      | 182        |
| 13.6      | In practice.....                                                                     | 184        |
| 13.7      | Summary .....                                                                        | 185        |
| <b>14</b> | <b>Operational management with robust and synchronized tactical priorities .....</b> | <b>187</b> |
| 14.1      | The necessity of tactical priorities.....                                            | 187        |
| 14.2      | Requirements for tactical priorities .....                                           | 190        |
| 14.3      | Identifying tactical priorities .....                                                | 191        |
| 14.4      | Task management.....                                                                 | 197        |
| 14.5      | Project management .....                                                             | 201        |
| 14.6      | Effects on atmosphere and working relationships .....                                | 206        |
| 14.7      | Top management intervention.....                                                     | 206        |
| 14.8      | Project status.....                                                                  | 208        |
| 14.9      | Warnings and cautions .....                                                          | 211        |
| 14.10     | Summary .....                                                                        | 212        |
| <b>15</b> | <b>PROJECTSFLOW® – Summary.....</b>                                                  | <b>217</b> |
| <b>16</b> | <b>Worksheets and templates.....</b>                                                 | <b>225</b> |
| 16.1      | Cause & effect.....                                                                  | 225        |
| 16.2      | Resolved operation and decision conflicts .....                                      | 233        |
| 16.3      | Benefits .....                                                                       | 244        |
| 16.4      | Negative side effects.....                                                           | 245        |
| 16.5      | Obstacles/stumbling blocks during implementation.....                                | 245        |

|                                                                             |            |
|-----------------------------------------------------------------------------|------------|
| <b>Part 3 Transformation .....</b>                                          | <b>247</b> |
| <b>17 Introduction: Transformation .....</b>                                | <b>249</b> |
| <b>18 From a conventionally run to a high-performance organization.....</b> | <b>253</b> |
| <b>19 Phase 1: Reducing WIP.....</b>                                        | <b>261</b> |
| 19.1 Step 1.1: Freezing projects.....                                       | 266        |
| 19.2 Step 1.2: Accelerating projects.....                                   | 274        |
| 19.3 Step 1.3: Defrosting projects .....                                    | 280        |
| 19.4 Step 1.4: Starting new projects .....                                  | 285        |
| 19.5 Phase 1 Summary.....                                                   | 288        |
| 19.6 Conclusion .....                                                       | 292        |
| <b>20 Phase 2: Good Preparation.....</b>                                    | <b>293</b> |
| 20.1 Step 2.1: Thoroughly prepare active projects.....                      | 297        |
| 20.2 Step 2.2: Defining good preparation .....                              | 303        |
| 20.3 Step 2.3: Dealing with worried clients .....                           | 305        |
| 20.4 Phase 2 Summary.....                                                   | 307        |
| 20.5 Conclusion .....                                                       | 309        |
| <b>21 Phase 3: Transforming Planning .....</b>                              | <b>311</b> |
| 21.1 Step 3.1: Creating project network plans.....                          | 313        |
| 21.2 Step 3.2 Explicit safety buffers, critical chain .....                 | 323        |
| 21.3 Step 3.3: Staggering projects.....                                     | 328        |
| 21.4 Step 3.4: Integrating new projects.....                                | 332        |
| 21.5 Phase 3 Summary.....                                                   | 334        |
| 21.6 Conclusion .....                                                       | 336        |
| <b>22 Phase 4: Transforming management.....</b>                             | <b>339</b> |
| 22.1 Step 4.1 Progress reporting.....                                       | 342        |
| 22.2 Step 4.2: Task management .....                                        | 348        |
| 22.3 Step 4.3: Project management.....                                      | 350        |
| 22.4 Step 4.4: Top management.....                                          | 353        |
| 22.5 Step 4.5: Adjusting speed.....                                         | 358        |
| 22.6 Phase 4 summary .....                                                  | 360        |
| 22.7 Conclusion .....                                                       | 363        |

|           |                                                                   |            |
|-----------|-------------------------------------------------------------------|------------|
| <b>23</b> | <b>Phase 5: Clients and suppliers .....</b>                       | <b>365</b> |
| 23.1      | Step 5.1: Mitigating and reducing harmful client influences ..... | 366        |
| 23.2      | Step 5.2: Outsourced sub-projects.....                            | 368        |
| 23.3      | Step 5.3: Fast and reliable suppliers .....                       | 371        |
| 23.4      | Phase 5 Summary.....                                              | 373        |
| 23.5      | Conclusion .....                                                  | 374        |
| <b>24</b> | <b>Phase 6: Increasing capacity .....</b>                         | <b>375</b> |
| 24.1      | Step 6.1: Improving processes.....                                | 380        |
| 24.2      | Step 6.2: Developing resources .....                              | 386        |
| 24.3      | Step 6.3: Sprint.....                                             | 389        |
| 24.4      | Phase 6 Summary.....                                              | 393        |
| 24.5      | Conclusion .....                                                  | 394        |
| <b>25</b> | <b>Transformation process – Summary .....</b>                     | <b>395</b> |
| <b>26</b> | <b>QuiStainable Change.....</b>                                   | <b>399</b> |
| 26.1      | Resistance to change.....                                         | 399        |
| 26.2      | Requirements for significant improvement initiatives ....         | 400        |
| 26.3      | WIP improvement .....                                             | 402        |
| 26.4      | High speed implementation.....                                    | 403        |
| <b>27</b> | <b>Summary and Outlook.....</b>                                   | <b>405</b> |
| <b>28</b> | <b>References.....</b>                                            | <b>409</b> |
| 28.1      | Reference list.....                                               | 409        |
| 28.1      | Further reading .....                                             | 409        |
| <b>29</b> | <b>Index .....</b>                                                | <b>411</b> |