Contents

1 Motivation and Introduction ........................................ 1
   1.1 Missing Software Quality, A Peccatum ................... 2
   1.2 Information and Communication Technology .......... 9
   1.3 Why Industrialisation Matters for ICT Product Quality .... 23
   References and Links ........................................... 25

2 The Four “P”s of Enterprise ICT ............................ 31
   2.1 Our View on Enterprise ICT ................................. 31
   2.2 First “P”: People ........................................ 34
   2.3 Second “P”: Processes .................................... 37
   2.4 Third “P”: Products ..................................... 40
   2.5 Fourth “P”: Projects and Portfolio ...................... 43
   References and Links ........................................... 48

   3.1 Determining Factors of Quality ........................... 52
   3.2 Relevance of Quality Characteristics ................... 58
   3.3 Quality Models in the Lifecycle .......................... 63
   3.4 Changing Quality Due to Time and Stakeholder Expectations . . 69
   3.5 Right Software and Systems Quality ...................... 73
   References and Links ........................................... 76

4 How Can We Establish Right Quality for an Enterprise? .... 77
   4.1 A Critical Acclaim of ICT Governance .................. 77
   4.2 Our Approach to Enterprise-Wide ICT Quality .......... 81
   4.3 Portfolio Management and Business Landscape .......... 83
   4.4 Application Portfolio and ICT Landscape ................ 88
   4.5 Project Execution ........................................ 91
   4.6 Operations ............................................... 95
   References and Links ........................................... 96
## 5 How Can We Implement a Framework for Right Quality?

- 5.1 Industrialisation of Quality Engineering ........................................ 98
- 5.2 Modularisation ........................................................................ 102
- 5.3 Standardisation ................................................................. 105
- 5.4 Specialisation ....................................................................... 108
- 5.5 Automation ........................................................................ 113
- 5.6 Continuous Improvement ..................................................... 119
- 5.7 The Resulting House of Quality ............................................. 122

References and Links ........................................................................ 125

## 6 The Quality Services Factory

- 6.1 Our Factory Approach ............................................................ 128
- 6.2 Cooperation with Business and ICT ....................................... 145
- 6.3 Transition and Transformation ............................................... 147

References and Links ........................................................................ 148

## 7 The Benefit of RiSSQ, Balancing Quality and Risk

- 7.1 Getting Transparency About ICT Product Risks ....................... 149
- 7.2 Balancing Quality and Risk ..................................................... 152

References and Links ........................................................................ 153

## 8 Summary and Conclusion

- 8.1 What Has Been Achieved ........................................................ 155
- 8.2 A Checklist for Establishing RiSSQ in an Enterprise ................. 160

References and Links ........................................................................ 163

### Appendix A: Quality Models and Verification Methods

Appendix B: Relevant International Standards

Glossary
Systems and Software Quality
The next step for industrialisation
Wieczorek, M.; Vos, D.; Bons, H.
2014, XXXII, 177 p. 108 illus., 102 illus. in color., Hardcover
ISBN: 978-3-642-39970-1