

Contents

1	Introduction	1
	Reference	5
2	Introduction of Central Terms and Concepts	7
2.1	Central Concepts	7
2.1.1	Digital Transformation	7
2.1.2	Agility	12
2.1.2.1	Mindset and Principles of Agility	13
2.1.2.2	Agility in Management	15
2.1.2.3	Self-Organization	15
2.1.3	New Ways of Working	17
2.1.3.1	New Understanding of Work	18
2.1.3.2	Implications for Management	19
2.1.4	What Does Understanding Mean?	20
2.1.5	Architecture Decisions in the Digital and Agile World	23
2.1.6	Enterprise Architecture	25
2.1.7	Enterprise Architecture Management	28
2.2	Central Concepts	29
2.2.1	Thinking and How the Subconscious Influences Our Understanding	29
2.2.1.1	Fast Thinking and Slow Thinking	31
2.2.1.2	The Human at the Center	34
2.2.2	Understanding from the Perspective of the Semiotic Model and the Semiotic Enterprise Model	35
2.2.3	Digital Transformation of Business Models	38
2.2.4	Digital Ecosystems	41
2.2.5	Agility for Enterprise Architecture Management	44
2.2.5.1	Agile Organizations Using SAFe as an Example	44
2.2.5.2	Architectural Concepts in SAFe	46
2.2.5.3	Architect Roles in SAFe	49
	References	51

3	Understanding Companies in the Age of Digitalization	55
3.1	Enterprise Architecture in the Energy Industry	55
3.1.1	Brief Portrait of EnBW AG	56
3.1.2	Value Creation Stages and Market Roles Using the Example of EnBW AG	57
3.2	Digital Transformation of the Energy Industry	61
3.2.1	Digital Products and Services Using the Internet of Things	62
3.2.2	Digital Business Models Using the Example of Tenant Electricity	63
3.2.3	Digital Ecosystems Using the Example of Smart EVU	64
3.3	The Semiotic Enterprise Model in a Nutshell	67
3.3.1	The Four Perspectives of Understanding	68
3.3.2	Business Capability as a Sign of a Company	70
3.3.3	Working with the Four Perspectives of SEM	73
3.4	Understanding the Strategic Level	78
3.4.1	Understanding the Macroeconomic Environment	80
3.4.2	Understanding the Influences from the Competitive Environment	83
3.4.3	Mapping the Strategy in Enterprise Architecture with Business Capability Mapping	84
3.5	The Strategic Planning of Enterprise Architects	88
3.5.1	Creating Transparency and Understanding the Current State	88
3.5.2	Developing and Understanding the Target Landscape	90
3.5.3	Understanding Executives and Stakeholders in the Environment	92
	References	95
4	Cognitive Attention: How Enterprise Architects Master the Pitfalls of Our Perception and the Noise of Our Intuition with Cognitive Techniques	97
4.1	BIAS—The Pitfalls of Our Perception	97
4.2	NOISE—The Roar of Intuition	102
4.3	How We Can Improve Our Architectural Decisions	103
4.4	Common Misunderstandings about Bias	106
4.5	How We Can Improve the Environment of Our Architectural Decisions	108
4.6	Providing the Space for Genuine Dialogue	109
4.7	Countering Biases with Divergence	115
4.8	Changing the DNA of Architecture Decision Processes and Culture	126
	References	132

5 Enterprise Architecture in the Agile Project Everyday Life 135

5.1 Supporting Business and Software Development Tactically 135

5.2 Understanding Challenges in the Agile Environment 138

5.3 An Agile Target Operating Model Based on SAFe 140

5.3.1 Basic Concepts for the Target Operating Model 141

5.3.2 Portfolio Level—Setting the Strategic Framework
for the Further Development of the IT Landscape. 145

5.3.3 Solution Level – Tactically Advancing IT Landscapes 151

5.3.4 Program level – Ensuring the basic architecture with the
Architectural Runway 156

5.4 Management of Standards in the Age of Digitalization. 158

5.5 Use of Standards for Digital Ecosystems Using the
Example of the API Economy 159

5.6 Conclusion: The Enterprise Architect in the Agile Framework 162

References. 163

6 Future Skills of an Enterprise Architect in the Digital World 165

6.1 The Primal Abilities of Humans as a Starting Point 171

6.1.1 Communication Skills and the Importance of Language. 172

6.1.2 Adaptability and the Principle of Self-Organization 174

6.1.3 Organizational Ability and the Interplay of Individuality
and Communality. 176

6.1.4 Reflective Ability and the Uniqueness of Thinking
About Oneself 178

6.2 Images and Narratives for Architectural Work 179

6.2.1 The Power of Inner Images 179

6.2.2 The Dynamic Self-Image as the Core 181

6.2.3 A Positive Image of Humanity as a Basic Attitude 182

6.2.4 An Evolutionary Organizational Image as a Basic Idea 184

6.2.4.1 Self-organization. 185

6.2.4.2 Wholeness. 185

6.2.4.3 Purpose and Meaning 191

6.2.5 Sustainability as a New Guiding Principle for Architectural
Work. 194

6.2.5.1 Sustainability in Strategic Architecture Management. ... 195

6.2.5.2 The Shared Value Concept by Porter and Kramer 200

6.2.5.3 Architecture of Sustainability-oriented
Business Models 202

6.2.5.4 Outlook on Further Topics 204

6.3	Core Roles	205
6.3.1	Sources of Inspiration for the Core Roles	206
6.3.2	EA-Team	208
6.3.3	EAM-Leader	208
6.3.4	Lead Enterprise Architect.	212
6.3.5	EAM-Enabler.	213
6.3.6	Capability Architect—Architect of Business Capabilities.	214
6.3.7	Solution Architect—Solution Architect.	215
6.4	The Future of Enterprise Architects.	216
	References.	216
	Final Consideration	219