

Contents

1	Introduction	
	<i>Kai Mertins, Peter Heisig, Jens Vorbeck</i>	1
1.1	Knowledge	1
1.2	Empirical Foundation: The Benchmarking Survey	3
1.2.1	Understanding of Knowledge Management: People and Processes	3
1.2.2	The Knowledge Management Core Process	5
1.2.3	The Knowledge Management Design Fields	7
1.3	The Reference Model for Knowledge Management	10

Part I: Design Fields

2	Business Process Oriented Knowledge Management	
	<i>Peter Heisig</i>	15
2.1	Knowledge Management is Business and Process Oriented	16
2.2	Approaches to the Design of Business Process and Knowledge Management	18
2.3	Integrated Enterprise Modeling for Knowledge Management	22
2.4	Method for Business Process Oriented Knowledge Management	23
2.4.1	The GPO-WM® Implementation Mode	24
2.4.2	KM Strategy	25
2.4.3	The GPO-WM® Analysis of Business Processes	29
2.4.4	KM Solutions	35
2.4.5	KM-Implementation Phase	38
2.5	Summary and Outlook	43
3	The Fraunhofer Knowledge Management Audit (FKM-Audit)	
	<i>Kai Mertins, Peter Heisig, Ina Finke, Christina Ulbrich</i>	45
3.1	Knowledge Management has to Build on Existing Circumstances	46
3.2	Audit Approaches for the Evaluation of Knowledge Management	47
3.2.1	The Knowledge Audit (According to Liebowitz)	47
3.2.2	Knowledge Management Assessment Tool (KMAT)	48
3.2.3	Knowledge Management Diagnostic (KMD)	49
3.2.4	Knowledge Audit (According to Pfeifer)	50
3.2.5	Knowledge Management Maturity Model (KMMM)	51
3.3	Developing the Fraunhofer Knowledge Management Audit	54
3.4	Case Studies	57
3.4.1	Knowledge Management in a Medium-Sized Software Company	57

3.4.2	Knowledge Management in a Research Institute	63
3.5	Outlook.....	64
4	Motivation for Knowledge Management	
	<i>Ina Finke, Markus Will</i>	66
4.1	Motivation and Change towards Knowledge Management.....	67
4.1.1	Incentive Systems, Extrinsic and Intrinsic Motivation.....	67
4.1.2	Barriers of Change and Change Management.....	69
4.1.3	The Role of Competencies	72
4.1.4	Summary	74
4.2	Pro-Active Change Management for Sustainable Behavioural Change	74
4.2.1	Analysis of Corporate Culture and Barriers	75
4.2.2	IPK Model of Intervention for Activating Sustainable Motivation.....	76
4.2.3	"Transparency" as an Area of Intervention	77
4.2.4	"Competencies" as an Area of Intervention	78
4.2.5	"Leadership" as an Area of Intervention	80
4.2.6	"Involvement" as an Area of Intervention	81
4.2.7	Summary	84
4.3	An Example of Putting Pro-Active Change Management into Practice	85
4.3.1	The Starting Point	85
4.3.2	The Comprehensive Change Programme	85
4.3.3	"Marketing" as a Package of Measures.....	87
4.3.4	"Consolidation" as a Package of Measures	88
4.3.5	"Realization" as a Package of Measures	89
4.4	Outlook.....	91
5	Role Models, Human Resources and Strategy	
	<i>Arne Jaitner</i>	92
5.1	Business Processes and Knowledge Strategy	92
5.1.1	Knowledge as an Object Class	92
5.1.2	Knowledge Management Strategies	94
5.1.3	Strategic Orientation	97
5.2	Codification vs. Personalization.....	99
5.2.1	Roads to Sharing Knowledge.....	99
5.2.2	Knowledge Management Approaches and Strategic Orientation.....	101
5.2.3	Knowledge Sourcing and Core Processes	102
5.3	Modeling Roles	104
5.3.1	Types of Roles	104
5.3.2	Generic Role Models.....	106
5.3.3	Specific Conditions of Generic Role Models.....	108
5.3.4	Defining Roles	110
5.4	Outlook.....	113

6	Knowledge Management Tools	
	<i>Kay Alwert, Ingo Hoffmann</i>	114
6.1	Definition of KM-Tool and the IPK Approach	115
6.2	Structuring Knowledge and Information.....	117
6.2.1	Definition of Knowledge Structure	117
6.2.2	Search Strategies and Knowledge Structure	118
6.2.3	Methods of Structuring Knowledge and Information	119
6.3	Knowledge Technologies	126
6.3.1	Various Classifications of Knowledge Management Tools	126
6.3.2	Technology Enablers.....	129
6.3.3	Visualization	134
6.4	Choosing the Right KM Tool.....	135
6.5	Outlook.....	139
6.6	List of Knowledge Management Tools	141
7	Intellectual Capital: Measuring Knowledge Management	
	<i>Robert Schindler, Arne Jaitner</i>	151
7.1	Efforts of National and International Organizations.....	153
7.2	Methods for Measuring IC	154
7.2.1	Measuring IC by Financial/Quantitative Indicators	155
7.2.2	Measuring IC by Non-Financial Indicators.....	158
7.3	Evaluation of KM Measures.....	172
7.4	Outlook.....	174

Part II: Survey

8	Delphi Study on the Future of Knowledge Management – Overview of the Results	
	<i>Wolfgang Scholl, Peter Heisig</i>	179
8.1	Objectives and Methodical Approach of the Delphi Study.....	179
8.2	Results on Theoretical Issues and Approaches.....	181
8.2.1	Most Challenging Theoretical Research Issues for KM.....	182
8.2.2	Most Promising Theoretical Approach for KM	183
8.2.3	Most Important Theoretical Advancements in KM.....	184
8.3	Results on Practical Issues and Approaches.....	185
8.3.1	Most Challenging Practical Problem of KM.....	185
8.3.2	Most Promising Practical Approaches for KM	186

8.3.3	Most Important Practical Advancement in KM	187
8.4	Conclusions and Recommendations	188
9	A Survey on Good Practices in Knowledge Management in European Companies	
	<i>Rob van der Spek, Geoff Carter</i>	191
9.1	Introduction	191
9.2	What Do We Mean by Knowledge Management?	192
9.3	What were the Issues Addressed in the Study?	193
9.4	General Information on Respondents	194
9.5	Knowledge Management in Respondent Organizations.....	194
9.6	Strategies for Knowledge	197
9.7	Enablers for Knowledge Management	198
9.8	Cultural and Motivational Issues.....	201
9.9	Leadership and Involvement of Management	202
9.10	Competency Building in Knowledge Management.....	203
9.11	Communication about Knowledge Management	204
9.12	Results and Metrics	205
9.13	Conclusions	206
10	How German Companies Employ Knowledge Management. An OECD Survey on Usage, Motivations and Effects	
	<i>Jakob Edler</i>	207
10.1	Introduction: Context and Scope	207
10.2	The Sample.....	208
10.3	Usage of KM Practice	209
10.4	Motivation Patterns	213
10.5	Reported Effects of KM	215
10.6	The Institutional Commitment for KM	217
10.7	Conclusions	219

Part III: Case Studies

11 Knowledge Management – Results of a Benchmarking Study

Cornelia Baumbach, Anja Schulze225

11.1	Project Overview.....	225
11.1.1	Demographic Background and Organization.....	226
11.1.2	Strategic Positioning of Knowledge Management and Integration of Knowledge Management into the Organization.....	226
11.1.3	Knowledge Management Processes.....	227
11.1.4	Knowledge Management Tools.....	227
11.1.5	Motivation and Acceptance of Knowledge Management.....	227
11.1.6	Conclusion.....	228
11.2	On the Road.....	228
11.2.1	Is there a Common Understanding?.....	228
11.2.2	Where to? – Vision, Strategy, Goal, and Measurement.....	230
11.3	Not Re-Inventing the Wheel.....	232
11.3.1	Building on the Existing.....	232
11.3.2	KISS – Keep it Small and Simple!.....	234
11.4	The Recipe.....	234
11.4.1	Sound Decision-Making Preparation.....	235
11.4.2	Step by Step!.....	235
11.4.3	“Implementing Knowledge Management – The Long Road”.....	236
11.5	Branding + Marketing = Positive Attraction.....	237
11.5.1	Branding – Beating the Big Drum.....	237
11.5.2	Marketing.....	237
11.5.3	Attractive (Knowledge) Management Ensures Utilization.....	238
11.6	Who Does Knowledge Management Belong to?.....	238
11.6.1	Who is Suited for What?.....	238
11.6.2	A Change of Direction Requires Caretakers!.....	240
11.7	A Toolbox for Knowledge Management.....	241
11.7.1	Building Gateways to Knowledge.....	241
11.7.2	Opening up Sources of Knowledge.....	243
11.7.3	Learning, Learning and Learning.....	244
11.7.4	Raising the Competency Level.....	247
11.7.5	Preserving Treasures.....	248
11.8	Summary.....	249

12 Knowledge Management: The Holistic Approach of Arthur D. Little, Inc.

Peter Heisig, Frank Spellerberg, Patricia Spallek.....251

12.1	Distributed Teams as the Starting Point.....	252
------	--	-----

12.2	Content, Context and Culture are in the Permanent Process of Being Assessed.....	252
12.3	ADL-Link: A Straightforward Intranet Approach.....	254
12.4	Elaborated Knowledge Roles Complement the Knowledge Management Process.....	255
	12.4.1 The Process	255
	12.4.2 The Roles	256
12.5	The Knowledge Steward	257
12.6	Principles and Qualitative Success Stories.....	260
13	The Aventis Approach to Knowledge Management: Locating Inhouse Expertise for Immediate Anytime, Anywhere Availability	
	<i>Jürgen Oldigs-Kerber, Alla Shpilsky, Stephen Sorensen</i>	262
13.1	Facilitating Knowledge Management at Aventis DI&A Using KnowledgeMail	262
13.2	Low Workload Expertise Ascertainment (Profiling).....	265
13.3	KM Approaches from the Standpoint of Planned Organizational Change and the Balanced Scorecard	266
13.4	User Experiences.....	269
13.5	Business Benefits	271
	13.5.1 Calculating the Business Benefits	271
13.6	Summary of Results	271
14	Cultural Change Triggers Best Practice Sharing - British Aerospace plc.	
	<i>Peter Heisig, Jens Vorbeck</i>	273
14.1	The Cultural Change Programme: Benchmark BAE.....	274
	14.1.1 From Values to Operational Goals.....	274
	14.1.2 Monitoring and Coaching	276
14.2	British Aerospace Virtual University	277
14.3	Best Practice Sharing at British Aerospace	278
14.4	Best Practice Sharing in 1998.....	278
	14.4.1 The Benchmarking & Best Practice Center Acts as Knowledge Broker	280
	14.4.2 How to Structure Knowledge and Best Practices.....	281
14.5	Moving forward to 2000.....	281

15	Knowledge Management and Customer Orientation Hewlett Packard Austria	
	<i>Jens Vorbeck, Peter Heisig</i>	283
15.1	Customer Knowledge and Customer Orientation as the Main Motivation for Knowledge Management	283
15.2	Challenges in the Process of "Understanding Customers and Markets" ..	285
15.3	Corporate Culture: A Traditional Strength of HP	285
15.4	Customer Voice: If You Want to Know the Customer's Needs – Ask Him and Don't Presume You Already Know the Answer	287
15.5	New Project Management in the Business Field "Professional Services"	290
15.6	An "Evolutionary" Knowledge Management Approach	291
16	Knowledge Management in a Global Company – IBM Global Services	
	<i>Jens Vorbeck, Peter Heisig, Andrea Martin, Peter Schütt</i>	292
16.1	Introduction of Knowledge Management	293
16.2	The Important Dimensions of Knowledge	293
16.3	IBM's Approach: Intellectual Capital Management	295
16.4	Intellectual Capital Management at the Unit Infrastructure & Systems Management	296
16.4.1	ShareNet	298
16.4.2	ICM Tool to Support Knowledge Exchange	298
16.4.3	IC Seekers	300
16.4.4	Knowledge Cafés	301
16.4.5	Methodology Repository	301
16.4.6	Communications	302
16.5	Intellectual Capital Management at the Unit Automotive Services	303
16.6	Achievements	303
17	Open Minded Corporate Culture and Management Supports the Sharing of External and Internal Knowledge – Phonak	
	<i>Peter Heisig, Christian Berg, Peter Drtina</i>	305
17.1	Knowledge as Part of the Corporate Philosophy	306
17.2	Internal and External Cooperation to Create, Acquire and Share the Best Know-How	306
17.3	Corporate Culture to Foster Cooperation and Communication	307
17.4	Management Actions to Support the Exchange and Generation of Knowledge	308

17.4.1	Off-Shore Meetings	310
17.4.2	Debriefings	310
17.4.3	Expert Meetings	310
17.5	Summary and outlook	310
18	Sharing Process Knowledge in Production Environments – Roche Diagnostics – Laboratory Systems	
	<i>Jens Vorbeck, Ina Finke</i>	313
18.1	Knowledge Management and Organizational Development: Two Complementing Efforts	313
18.2	Team Building and Team Empowerment as a Basis for Cultural Change.....	315
18.3	It is not the Technology that Allows Access to Data but a Trusting Culture.....	316
18.4	A Company Specific Conceptual Framework for the Realization of Knowledge Management.....	317
18.5	Informal Interviews for the Identification of Knowledge and the Setting of Knowledge Goals.....	318
18.6	Continuing Education as the Basis for the Creation, Spread and Storage of Knowledge	318
18.7	Roche's Experience with Knowledge Management at the Production Level	320
19	KnowledgeSharing@MED – Enabling Knowledge Sharing by Turning Knowledge into Business	
	<i>Manuela Müller</i>	321
19.1	Corporate Context	321
19.2	Strategy and Approach of Knowledge Management at Siemens Medical Solutions	322
19.2.1	Strong Top Management Integration and Support	323
19.2.2	Taxonomy – Creating the Right and Common Context	324
19.2.3	Best Practice Networks – Working in Multiple Collaborative Environments	324
19.2.4	Creating a Flexible and User-Friendly IT Landscape.....	325
19.2.5	Designing Support Structures and Processes.....	325
19.2.6	Integrating Incentive Structures	326
19.3	Turning Ideas into Practice – The KnowledgeSharing@MED Solutions	326
19.3.1	Knowledge Square	327
19.3.2	People@MED	328
19.3.3	Communities of Practice	328
19.3.4	Mobile Business Solution.....	330

19.3.5	Balanced Scorecards (BSC)	330
19.4	Globalize Local Knowledge and Facilitating Change	331
19.4.1	Knowledge Sharing Managers Network as Multipliers.....	331
19.4.2	Brand Building for the Initiative	332
19.4.3	European Award 'Solution of the Year 2002'	332

Part IV: KM – Made in Europe

20 Building Communities. Organizational Knowledge Management within the European Commission's Information Society Technologies Programme

*Paul Hearn, Agnes Bradier, Anne Jubert.....*336

20.1	Introduction	336
20.2	The History of Knowledge Management Research at the European Commission.....	337
20.3	Major Challenges Ahead in the Field of Knowledge Management.....	338
20.4	Building Strong Constituencies and Networks.....	339
20.5	Future and Promising Research Areas to be Addressed in Framework Programme VI.....	342
20.6	Research Views	343
20.6.1	Strategic View	343
20.6.2	Organizational View	344
20.6.3	Product/Service View	344
20.6.4	Infrastructure View	345
20.7	The Road Ahead.....	345
20.8	Abstract	346

List of Figures	347
------------------------------	-----

References	352
-------------------------	-----

Recommended Further Readings	369
---	-----

Editors	374
----------------------	-----

Contributors	376
---------------------------	-----

Index	380
--------------------	-----

Knowledge Management

Concepts and Best Practices

Mertins, K.; Heisig, P.; Vorbeck, J. (Eds.)

2003, XXXI, 384 p., Hardcover

ISBN: 978-3-540-00490-5