

Contents

- 1 Introduction 1**
 - 1.1 Purpose of This Project 1
 - 1.2 Whom Do These Books Address? 2
 - 1.2.1 SAP-Beginners 2
 - 1.2.2 Ambitious Users 2
 - 1.2.3 Managers and IT-Decision-Makers 2
 - 1.3 Operational Significance of Logistics 3
 - 1.3.1 Supplementary Logistics Services 3
 - 1.3.2 Customer-Oriented Logistics 3
 - 1.3.3 Definition of “Logistics” for This Book 4
 - 1.3.4 Differentiation from Materials Management 4
 - 1.3.5 Functional Classification of Logistics 5
 - 1.3.6 Classic Logistics Core Areas 5
 - 1.3.7 Expansion of the Traditional Core Areas 5
 - 1.3.8 Objective: As Comprehensive a Portrayal As Possible 5
 - 1.3.9 Related Literature in the Appendix 5
 - 1.3.10 Logistics Functional Areas 6
 - 1.3.11 Procurement Markets 6
 - 1.3.12 Sales Markets 7
 - 1.4 Structure of This Book 7
 - 1.4.1 Transport Logistics 7
 - 1.4.2 Warehouse Logistics and Inventory Management 8
 - 1.4.3 Trade Formalities 8
 - 1.4.4 Controlling and Reporting 8
 - 1.4.5 Overview of Volume 1 9
 - 1.4.6 Appendix 9
 - 1.5 Thanks 9

2	Transport Logistics	11
2.1	The Fundamentals of Transport Logistics	11
2.1.1	Business Significance	13
2.1.2	Transportation from the Shipper View	13
2.1.3	Transportation from the View of the Logistics Service Provider	14
2.1.4	Shipper and Service Provider Hybrids	15
2.2	SAP Systems and Applications	16
2.2.1	Subprocesses and Components of SAP Transportation Solutions	17
2.2.2	Transportation Processing Scenarios and Their Integration in Procurement and Distribution Logistics	19
2.3	Master Data in Transport Logistics	28
2.3.1	Customers and Vendors in SAP ERP	30
2.3.2	Plants, Storage Locations, Shipping Points and Loading Points in SAP ERP	31
2.3.3	Business Partners in SAP SCM	31
2.3.4	Materials in SAP ERP	33
2.3.5	Products in SAP SCM	36
2.3.6	Transportation Network and Transport Equipment in SAP ERP	37
2.3.7	Transportation Network and Resources in SAP SCM	38
2.3.8	Organizational Data in SAP ERP and in SAP SCM	42
2.4	Transportation Management with SAP ERP	44
2.4.1	Types of Transportation Processing	44
2.4.2	Shipment Documents	45
2.4.3	Transport Packaging	48
2.4.4	Important Functions in the Shipment Document	49
2.4.5	List Processing and Planning Functions	52
2.4.6	Freight Cost Calculation	53
2.5	Transportation Planning with SAP APO	59
2.5.1	Transportation Optimization with SAP APO (TP/VS)	60
2.5.2	Documents and Transportation Optimization	61
2.5.3	Scenarios with APO Transportation Planning	62
2.6	Transportation Management with SAP TM	65
2.6.1	Document and Process Overview	66
2.6.2	Cross-Divisional Functions	69
2.6.3	Business Objects and Functions Illustrated in a Sample Process	70
2.6.4	Order Management	74
2.6.5	Transportation Planning and Optimization	82
2.6.6	Booking Freight Space	89
2.6.7	Subcontracting	91

- 2.6.8 Transportation Charge Management 94
 - 2.6.9 Integration with SAP Event Management 97
 - 2.7 Summary 98
- 3 Warehouse Logistics and Inventory Management 99**
 - 3.1 The Fundamentals of Warehouse Logistics 99
 - 3.1.1 Management-Related Significance 100
 - 3.1.2 Systems and Applications 101
 - 3.1.3 Organizational Structures and Master Data 103
 - 3.2 Inventory Management 105
 - 3.2.1 Goods Movement 109
 - 3.2.2 Inventory Valuation 116
 - 3.2.3 Special Stock and Special Procurement Forms 119
 - 3.2.4 Handling Units 125
 - 3.3 Warehouse Management with WM 128
 - 3.3.1 Warehouse Structure and Integration 131
 - 3.3.2 Inbound Delivery 137
 - 3.3.3 Transfer Order and Quantity Deviations 141
 - 3.3.4 Goods Issue 143
 - 3.3.5 Warehouse-Internal Processes 151
 - 3.4 Warehouse Management with SAP EWM 155
 - 3.4.1 System Integration 156
 - 3.4.2 Warehouse Organization and Stock Movement 157
 - 3.4.3 Goods Receipt 173
 - 3.4.4 Warehouse-Internal Processes 185
 - 3.4.5 Goods Issue 192
 - 3.4.6 Cross-Warehouse Functions 206
 - 3.5 Summary 213
- 4 Trade Formalities: Governance, Risk, Compliance 215**
 - 4.1 The Basics 215
 - 4.2 Process Risks 216
 - 4.3 SAP Applications for Logistics Processing According to Trade Formalities 217
 - 4.4 Foreign Trade Processing with SAP ERP 219
 - 4.4.1 Master Data and Integration 220
 - 4.4.2 Legal Control 222
 - 4.4.3 Preference Determination 222
 - 4.4.4 Documentary Payments 224
 - 4.4.5 Communication/Printing 226
 - 4.4.6 Periodic Declarations 226
 - 4.5 Governance, Risk and Compliance with SAP BusinessObjects Global Trade Services 226
 - 4.5.1 General Process and Integration in SAP ERP 227

- 4.5.2 Compliance Management: Sanctioned Party List Check 228
 - 4.5.3 Compliance Management: Import/Export Control 231
 - 4.5.4 Customs Management 234
 - 4.5.5 Risk Management 235
- 4.6 Summary 237
- 5 Controlling and Reporting 239**
 - 5.1 SAP Event Management (SAP EM) 239
 - 5.1.1 Basic Characteristics of SAP EM 240
 - 5.1.2 Application Interface 243
 - 5.1.3 Event Handlers and Event Messages 245
 - 5.1.4 Event Handling 247
 - 5.1.5 Information Input and Output 249
 - 5.1.6 Data Entry for Event Messages 250
 - 5.1.7 Web Interface 251
 - 5.1.8 Standard Processes in Event Management 252
 - 5.2 Auto-ID Infrastructure and Object Event Repository 258
 - 5.2.1 Basics of RFID and EPC Technology 259
 - 5.2.2 Auto-ID Infrastructure 262
 - 5.2.3 Object Event Repository 266
 - 5.3 Reporting and Determining Key Performance Indicators 268
 - 5.3.1 SAP NetWeaver Business Warehouse 269
 - 5.3.2 The Information System in SAP ERP 269
 - 5.3.3 The SCOR Data Model 271
 - 5.3.4 Reports and Dashboards: Examples 272
 - 5.3.5 Data Extraction from SAP Logistics Applications 275
 - 5.4 Summary 276
- Glossary 277**
- Bibliography 283**
- Index 285**