

# Table of Contents

Preface.....	V
List of Figures.....	XI
List of Tables.....	XV
<b>1 Introduction.....</b>	<b>1</b>
<b>2 Transport systems and transport services.....</b>	<b>3</b>
2.1 Consolidation of transport streams .....	4
2.1.1 Learning objectives.....	4
2.1.2 Transport optimization in procurement logistics .....	4
2.1.3 Case study: Optimization of procurement logistics at an automotive plant (MOBILITY POWER, Rastatt).....	9
2.2 Worldwide, multimodal transport chains .....	17
2.2.1 Learning objectives.....	17
2.2.2 Formation of transport chains .....	17
2.2.3 Case study: Soccer World Cup 2010 .....	17
<b>3 Warehouse management.....</b>	<b>27</b>
3.1 Optimization of warehouse and picking processes.....	28
3.1.1 Learning objectives.....	28
3.1.2 Process analysis in picking.....	28
3.1.3 Benchmarking.....	36
3.1.4 Case study: Process design in picking (PHARMAGAN, Pfinzthal).....	38

3.2	Increasing efficiency in picking.....	45
3.2.1	Learning objectives.....	45
3.2.2	Paperless picking.....	45
3.2.3	Case study: Implementation of pick-by-voice (SNOWMAN FROZEN FOODS DELIVERY SERVICE, Stuttgart) .....	46
3.3	Material flow automation .....	50
3.3.1	Learning objectives.....	50
3.3.2	Implementation of automated guided vehicle systems .....	50
3.3.3	Case study: Automated guided vehicle systems in the automotive supplier industry (TRONIC, Göppingen) .....	54
<b>4</b>	<b>Logistics network planning .....</b>	<b>63</b>
4.1	Distribution planning.....	64
4.1.1	Learning objectives.....	64
4.1.2	Planning and evaluation of distribution structures .....	64
4.1.3	Case study: Centralization of distribution structure (ELTOOL, Paris).....	68
4.2	Spare parts logistics .....	74
4.2.1	Learning objectives.....	74
4.2.2	Inventory management in spare parts logistics .....	74
4.2.3	Case study: Optimization of spare parts supply (FLUIDEX, Offenburg).....	79
4.2.4	Case study: Delivery time optimization in spare parts supply (PRINTING SOLUTIONS, Worms).....	84
<b>5</b>	<b>Information technology in logistics .....</b>	<b>89</b>
5.1	Computer-supported freight cost accounting.....	90
5.1.1	Learning objectives.....	90
5.1.2	Strategic and operational shipping processes .....	90
5.1.3	Case study: Computerized freight cost accounting (ZENZORIX, Biel) ....	93

5.2	Shipment tracking and tracing systems.....	99
5.2.1	Learning objectives.....	99
5.2.2	The tracking and tracing concept.....	99
5.2.3	Case study: Shipment tracking and tracing systems in practice (MILLER FORWARDING, Waldbronn) .....	101
<b>6</b>	<b>Logistics controlling.....</b>	<b>105</b>
6.1	Logistics cost and performance assessment .....	106
6.1.1	Learning objectives.....	106
6.1.2	The basics of logistics cost and performance assessment .....	106
6.1.3	Case study: Truck fleet cost optimization (ROOFIT, Freiburg) .....	107
6.1.4	Case study: Key performance indicators in distribution (BEST DAIRY, Düsseldorf).....	111
6.1.5	Case study: Distribution logistics for kitchens (COOK AND MORE, Pforzheim).....	116
6.2	Logistics controlling and activity-based costing.....	122
6.2.1	Learning objectives.....	122
6.2.2	Activity-based costing methodology .....	122
6.2.3	Case study: KPI systems in distribution logistics (AGROCOOL, Karlsruhe).....	130
6.2.4	Case study: Activity-based costing in logistics for printed material (BBFP LOGISTICS, Potsdam) .....	132
6.2.5	Case study: Activity-based costing in the mail-order business (MAILORDERWORLD, Berlin).....	136
6.3	Supply chain controlling.....	142
6.3.1	Learning objectives.....	142
6.3.2	Supply chain controlling methodology .....	142
6.3.3	Case study: Supply chain controlling in printer production (TEC-PRINT, Dresden).....	146

*Table of Contents*

<b>7</b>	<b>The logistics market</b> .....	157
7.1	Trends in logistics .....	158
7.1.1	Learning objectives.....	158
7.1.2	Basics.....	158
7.1.3	Case study: Trade fair booth logistics (GLOBALTRANS, Coburg).....	161
7.2	Alternative modes of transport.....	167
7.2.1	Learning objectives.....	167
7.2.2	Basics.....	168
7.2.3	Case study: Transport mode selection (SH, Hamburg).....	172
7.3	Reverse logistics.....	176
7.3.1	Learning objectives.....	176
7.3.2	Basics.....	176
7.3.3	Case study: Reusable transport bins (AUTOMOBILE, Landshut).....	180
7.4	Environmental aspects of transport logistics .....	185
7.4.1	Learning objectives.....	185
7.4.2	Basics.....	185
7.4.3	Case study: Parcel service logistics (PACKIT LOGISTICS SERVICE, Frankfurt) .....	186
7.5	Mergers in logistics.....	199
7.5.1	Learning objectives.....	199
7.5.2	Basics.....	199
7.5.3	Case study: Mergers in retail logistics (CONSUMER GOODS HOLDING, Berlin).....	204
	<b>Bibliography</b> .....	213