



European Series  
in Industrial Management

Editor: Prof. Gert Zülch  
University of Karlsruhe

**Henri Muller(-Malek)  
Yuri Merkuryev  
Irena Silinevicha  
Gert Zülch (edts.)**

## **Cases in Industrial Logistics Management**

Supported by the European TEMPUS Programme

**Volume 2 - 1999**

**Shaker Verlag**

Die Deutsche Bibliothek - CIP-Einheitsaufnahme

**Cases in Industrial Logistics Management : Supported by the European TEMPUS Programme**/Henri Muller(-Malek); Yuri Merkuryev; Irena Silinevicha; Gert Zülch (eds.).

- Als Ms. gedr.  
Aachen : Shaker, 1999

(Esim - European Series in Industrial Management ; Bd. 99,2)  
ISBN 3-8265-6369-7

The work described here was funded by the European Training Foundation in  
the framework of the TEMPUS programme of the European Union  
(S-JEP 11064/96)

Layout: Oliver Strate

Copyright Shaker Verlag 1999

Alle Rechte, auch das des auszugsweisen Nachdruckes, der auszugsweisen oder vollständigen Wiedergabe, der Speicherung in Datenverarbeitungsanlagen und der Übersetzung, vorbehalten.

Als Manuskript gedruckt. Printed in Germany.

ISBN 3-8265-6369-7

ISSN 1437-7675

Shaker Verlag GmbH • Postfach 1290 • 52013 Aachen  
Telefon: 02407 / 95 96 - 0 • Telefax: 02407 / 95 96 - 9  
Internet: [www.shaker.de](http://www.shaker.de) • eMail: [info@shaker.de](mailto:info@shaker.de)

## **Introduction**

Learning Industrial Logistics Management  
*Henri Muller(-Malek)*

3

## **Cases A: Inbound Logistics**

Simulating Airport Ground Services  
*Oliver Strate*

15

Analysis of Queuing Problems at a Car Park  
*Thorsten Vollstedt*

37

Multiperiod Scheduling of Timber Production  
*Irena Silinevicha, Vladimir Visipkov, Yuri Merkuryev*

47

## **Cases B: Inside Logistics**

The Riga Bakery Analysis  
*Liene Auzina, Oliver Strate*

57

The Bicycle Factory Outsourcing Case  
*Gert Zülch, Oliver Strate*

73

Organisational Restructuring of an Assembly System  
Using Simulation  
*Gert Zülch, Bernd Brinkmeier*

83

Analysis of Inside Logistics Systems with the  
Simulation Tool ARENA  
*Yuri Merkuryev, Andris Smits*

99

Distribution Economics And Financial Needs for an  
Added Value Logistics Case  
*Henri Muller(-Malek), Rik Van Landeghem*

115

A Micromodel of the Container Transportation Process  
*Juri Tolujev, Tatyana Zmanovska*

135

The Belgian Metal Factory Operations Management Case <i>Rik Van Landeghem</i>	157
--	-----

## Cases C: Outbound Logistics

Distribution Strategy Case <i>Henri Muller(-Malek), Nicolas Muller, Patrick Martens, Peter Willen</i>	185
Distribution Operations Planning and Control Case <i>Henri Muller(-Malek), Henrick Vanmaele, Heidi Van Dorpe, Peter Willen</i>	201
Distribution Management Synthesis Case <i>Henri Muller(-Malek) et al.</i>	215
Value Assessment of a Take-Over Bid for a Competitor's Logistics Operations <i>Henri Muller(-Malek) et al.</i>	223

## Cases D: Logistics Projects

Logistic Service Around a Developing Special Economic Zone in Rezekne <i>Irena Silinevicha</i>	241
Container Terminal Operation Strategies <i>Galina Merkuryeva</i>	251
Distribution Node Reconstruction Project <i>Henri Muller(-Malek), William S. Lovejoy, Ostap Hawaleska</i>	265
Diet Planning Using a Linear Programming Model <i>Girts Vulfs, Janis Grabis</i>	271
The Authors	277