

TABLE OF CONTENTS

I. Preface	9
II. System Dynamics – a Strand of Systems Theory	17
1. Systems Approach	18
2. Systems Dynamics and System Thinking	20
3. Model Building	24
4. Is It a Way Away?	26
5. Conclusion	27
III. Business Flight Simulators	29
1. Principles of Business Flight Simulators	30
2. The Structure of a Simulator	30
3. Design in Simulator Development	32
4. Modeling Tools	34
5. ILE in Teaching Process	36
6. Conclusion	37
IV. Cases of Management Flight Simulators	39
1. Introduction	40
2. Case 1 – The Simulator in Small Business Companies	41
3. Case 2 – The Simulator of Dynamic Balanced Scorecard	42
4. Conclusion	43
V. Black Boxes × Semitransparent Boxes	45
1. Two Types of Possible Applications	46
2. Black Box Simulator Use	47
3. Semitransparent Box Simulator Use	47
4. Examples	48
5. Conclusion	48

VI. Computing and Philosophy Context	49
1. Thinking and Reasoning	50
2. Computing and Philosophy – Synergistic Effect of Interconnection	51
3. Philosophical Feedback of Systems Thinking	53
4. Double-loop Learning	54
5. Simulation to Overcome Mental Barriers	55
6. Virtual Laboratory	56
7. Conclusion	58
VII. Survey	59
A. Complexity Management	60
B. Knowledge Management	61
C. Competitive Advantage	63
D. Application Limits	63
E. Change Management	64
VIII. Business Dynamics in Czech Companies	67
1. Business	68
2. Business Models	68
3. Non-profit Systems	70
4. Decision Support	72
5. Managerial Trends	73
6. Conclusion	76
IX. Dynamic Balanced Scorecard – Strategy Dynamics	77
1. Dynamic Balance Scorecard	78
2. Introduction to Strategic Management	80
3. Introduction to City Strategy	80
4. Conclusion	83
X. System Dynamics Towards Management Complexity	85
1. Complex Environment	86
2. Management Complexity	86
3. Critical Success Factors	88
4. Conclusion	91

XI. Knowledge Management	93
1. The Role of Knowledge	94
2. SECI Model	95
3. Conclusion	98
XII. Data Management	99
1. Data	100
2. Integrated Solution	100
3. Conclusion	102
XIII. Modeling Market Dynamics	103
1. Introduction	104
2. Assumptions and Inputs	105
3. Behavioural Market Model from a Company's Viewpoint	106
4. Conclusion	108
XIV. Modeling Market Dynamics – Cases and Models	109
1. Case 1 – Market Dynamics of Durables	110
2. Case 2 – Market Dynamics of Fast Moving Consumer Goods	113
3. Additional Possible Extensions of Market Models	114
4. Conclusion	115
XV. System Dynamics Applications in Czech – Summary	117
1. Economic and Environmental Dynamics	118
2. Integration Access to the Methodology	122
3. Diversification of Data Resources	122
4. Conclusion	123
XVI. Summary	125
Literature	127
Acknowledgements	135
Authors	137