

TABLE OF CONTENTS

List of Figures 9

List of Tables 10

Foreword 11

Acknowledgements 13

General introduction 15

Part 1 Research framework 21

Introduction 23

Chapter 1 Setting the scene: Spatial Data Infrastructures 25

1 Introduction 25

2 Background of SDI development 26

3 Definitions: charting the SDI landscape 27

4 What defines an SDI? 30

4.1 Objectives 30

4.2 Components 30

5 Conceiving SDI in systemic terms 31

5.1 The intermediate role of SDI 31

5.2 The objectives of SDI 32

5.3 The components of SDI 33

6 Conclusion 33

Chapter 2 Spatial enablement of processes 35

1 Introduction 35

2 SDI and processes 35

3 Spatial enablement 36

4 Process structure 37

4.1 Concepts 37

4.2 Application to SDI 39

5 Effectiveness of process structures:
a modern socio-technical systems approach 41

6 Positioning the current study in the MSTs research tradition 42

7 Changing demands 44

8 Process structures in SDI research 47

9 Research questions and propositions 51

9.1 Research questions 51

9.2 Propositions 52

10 Conclusion 53

Chapter 3 Research design	55
1 Introduction	55
2 The study area	56
3 The unit of analysis: the process	57
4 Case selection	58
5 The embedded cases	59
6 Interviews	61
7 Qualitative analysis	62
8 Operationalisation	63
8.1 The inter-organisational level	64
8.2 The intra-organisational level	67
9 Evaluation of the research design	72
9.1 Validity and reliability	72
9.2 Strengths and limitations	74
10 Conclusion	76
 Part 2 Case studies	 77
Introduction	79
 Chapter 4 The Zoning Plans case	 81
1 Case description	81
2 The inter-organisational process	84
2.1 Spatial enablement	84
2.2 Process structure	84
2.3 Demands for flexibility	85
3 The intra-organisational processes	86
3.1 RWO	87
3.2 Limburg	90
3.3 West-Vlaanderen	93
3.4 Genk	96
3.5 Kortrijk	99
3.6 Leuven	102
4 Comparative analysis	105
4.1 Process structure and spatial enablement	107
4.2 Demands and spatial enablement	107
4.3 Organisational structure, process structure and spatial enablement	109
 Chapter 5 The Addresses case	 113
1 Case description	113
2 The inter-organisational process	115
2.1 Spatial enablement	115
2.2 Process structure	115
2.3 Demands for flexibility	116
3 The intra-organisational processes	116
3.1 Antwerpen	118
3.2 West-Vlaanderen	120

3.3 Leuven	123
3.4 Mechelen	125
3.5 Zwijndrecht	127
4 Comparative analysis	129
4.1 Process structure and spatial enablement	131
4.2 Demands and spatial enablement	132
4.3 Organisational structure, process structure and spatial enablement	133
Chapter 6 The Traffic Accidents case	137
1 Case description	137
2 The inter-organisational process	139
2.1 Spatial enablement	139
2.2 Process structure	139
2.3 Demands for flexibility	140
3 The intra-organisational processes	141
3.1 PZ Het Houtsche	142
3.2 PZ VLAS	143
3.3 PZ Leuven	145
3.4 Federal Police	147
3.5 ADSEI	149
3.6 MOW	150
3.7 Vlaams-Brabant	152
3.8 West-Vlaanderen	154
4 Comparative analysis	156
4.1 Process structure and spatial enablement	156
4.2 Demands and spatial enablement	158
4.3 Organisational structure, process structure and spatial enablement	159
Chapter 7 The Flood Maps case	163
1 Case description	163
2 The inter-organisational process	165
2.1 Spatial enablement	165
2.2 Process structure	166
2.3 Demands for flexibility	167
3 The intra-organisational processes	167
3.1 Flemish Environment Agency	168
3.2 Flanders Hydraulics Research	171
3.3 Limburg	173
3.4 Vlaams-Brabant	175
3.5 Leuven	177
3.6 Sint-Truiden Water Board	179
4 Comparative analysis	180
4.1 Process structure and spatial enablement	181
4.2 Demands and spatial enablement	183
4.3 Organisational structure, process structure and spatial enablement	184

Chapter 8 Comparing the four inter-organisational processes	187
1 Overview of the variable values	187
2 Process structure and spatial enablement	188
3 Demands and spatial enablement	189
4 Conclusion	191
Chapter 9 Discussion	193
1 Introduction	193
2 Research questions, propositions and conceptual framework	193
2.1 The inter-organisational level	193
2.2 The intra-organisational level	197
2.3 Conclusion	204
3 Inter-organisational chains of intra-organisational subsystems	206
3.1 Introduction	206
3.2 Spatial enablement as an aspectsystem	207
3.3 Combinations of multiple production structures	208
3.4 Aligning objectives: mind the gap!	214
General conclusion	217
Afterword	
by Joep Crompvoets	221
Afterword	
by Geert Van Hoote gem	223
Annex 1: Collected definitions of SDI	227
References of the collected definitions	234
Annex 2: List of the interviews	236
The Spatial Planning Case	236
List of case study interviews	236
List of explorative interviews	237
The Addresses Case	238
List of case study interviews	238
List of supporting interviews	239
List of explorative interviews	239
The Traffic Accidents Case	240
List of case study interviews	240
List of explorative interviews	241
The Flood Maps Case	241
List of case study interviews	241
List of explorative interviews	242
References	243