

# Restructuring Industrial Sites more Quickly

A Decision Support Model



Kjell-Erik Bugge

Restructuring Industrial Sites more Quickly

Kjell-Erik Bugge

# **Restructuring Industrial Sites more Quickly**

A Decision Support Model

**Kjell-Erik Bugge**

ISBN 978-94-6190-953-4

# **Restructuring Industrial Sites more Quickly**

A Decision Support Model

## **Proefschrift**

ter verkrijging van de graad van doctor  
aan de Radboud Universiteit Nijmegen  
op gezag van de rector magnificus prof. mr. S.C.J.J. Kortmann,  
volgens besluit van het college van decanen  
in het openbaar te verdedigen op dinsdag 29 januari 2013  
om 15.30 uur

door

**Kjell-Erik Bugge**

Geboren op 6 juli 1956  
te Oslo, Noorwegen

Promotor:  
Prof. dr. Barrie Needham

Copromotor:  
Dr. ir. Theo de Bruijn, Saxion

Leden van de manuscriptcommissie:  
Prof. dr. Erwin van der Krabben  
Prof. dr. Jacques van Dinteren, Rijksuniversiteit Groningen  
Prof. dr. Hans Bressers, Universiteit Twente

*This thesis is dedicated to my oldest son Olav (1986-2006)  
who lived so short, but still managed to teach me what  
really matters: Life is here and today and each encounter  
with new people at unexpected places and moments  
are unique and precious*

# Contents

List of Figures	x
List of Tables	x
List of Boxes	xi
Acronyms and abbreviations	xii
Preface	xv
Acknowledgements	xvii
<b>1. Rise and fall of industrial sites</b>	<b>1</b>
1.1. Introduction	1
1.2. Industrial sites and their importance	5
1.3. The lifecycle of industrial sites	5
1.4. Development of new sites	7
1.5. Ageing and decay	11
1.6. The variety of large scale interventions to influence quality on industrial sites	13
1.7. The changing role of authorities	15
1.8. Towards an improved understanding	17
<b>2. Operationalising the research</b>	<b>19</b>
2.1. Introduction	19
2.2. Focus on total duration of restructuring	19
2.3. Exploring key terms	20
2.4. Market, hierarchy, or interdependent actors and their interactions	23
2.5. Local authorities acting as planning agencies	24
2.6. Decision support model, and theory for spatial investments	25
2.7. Research design	25
<b>3. Current approaches to restructuring in practice</b>	<b>27</b>
3.1. Introduction	27
3.2. How the process description is addressed	27
3.3. Main activities, tasks and their relationships	29
3.4. Approaches to main tasks for the complete restructuring	30
3.5. Activities specific to the initiative phase and to the implementation phase	34
3.5.1. Initiative	34
3.5.2. Implementation	40
3.6. An assessment of current practice	44
3.7. An analysis of the practical obstacles to restructuring industrial sites	45
3.8. Conclusions	46

# Contents

<b>4. A theoretical framework for understanding complex, multi-actor processes</b>	<b>47</b>	<b>8. Contributions to knowledge and practice</b>	<b>141</b>
4.1. Introduction	47	8.1. Introduction	141
4.2. Approach to the development of the theoretical framework	48	8.2. A brief reflection	141
4.3. Searching for a suitable framework	49	8.2.1. Restructuring practice, and the decision support model	142
4.4. The Institutional Analysis and Development framework	51	8.2.2. Use of the model in other situations	143
4.5. Choice of a leading theory	53	8.2.3. Theoretical framework	143
4.6. Complementary theory on actors and action situations	55	8.2.4. Methods	144
4.7. Conclusions	62	8.3. How to proceed?	144
<b>5. Applying the theoretical framework to restructuring</b>	<b>63</b>	Afterthoughts	147
5.1. Introduction	63	Summary	149
5.2. Influencing actors	63	Samenvatting	157
5.3. Choosing the policy measures	65	Appendix I An analysis of Dutch literature on obstacles	165
5.4. Applying process management	65	Appendix II The MASURIN-project	181
5.5. The decision support model: choices and added-value	68	Appendix III Motives, resources, information, interdependency	183
<b>6. A decision support model for restructuring industrial sites</b>	<b>71</b>	Appendix IV Interview guide for moderators	199
6.1. Introduction	71	Appendix V Focus group participants	209
6.2. The main components of the model	71	Appendix VI Moderators and hosting organisations	211
6.3. The decisions to be taken by the planning agency and for which support is desirable	73	Appendix VII Invitation letter	213
6.4. Operationalising the concepts used in the model	74	Appendix VIII Procedure for identifying themes	215
6.5. Detailed design and application of the model	76	Appendix IX Quotes per theme	219
6.6. The detailed 'filled-in' model	78	Appendix X A brief reflection on trustworthiness and validity	235
6.6.1. The "Initiative Action Arena"	78	Bibliography	237
6.6.2. The Implementation action arena	81	Curriculum Vitae	269
6.6.3. Measures for influencing process performance	85		
6.6.4. An illustrative example of model application	91		
6.7. Addressing specific situations	92		
6.8. Developing the model further	95		
<b>7. Testing the model and operationalising it</b>	<b>97</b>		
7.1. Introduction	97		
7.2. Choice of approach, and the kind of conclusions we can draw	97		
7.3. Designing the Focus group sessions	99		
7.4. How the design and preparatory process worked in practice	106		
7.5. How the sessions worked in practice	109		
7.6. The thematic analysis	109		
7.7. Defining themes	112		
7.8. The 'story' the sessions tell	115		
7.8.1. How can preferred participants be chosen (Q1)?	116		
7.8.2. What is best sequence regarding improving motivation and information (Q2)?	120		
7.8.3. How to determine when information and/or motivation are satisfactory (Q3)?	134		
7.9. Conclusions	137		

# Contents

## List of Figures

Figure 1.1	Structure of book	4
Figure 1.2	Industrial site lifecycle as a function of demand	6
Figure 1.3	Industrial site lifecycle: effect of interventions	7
Figure 1.4	Impact on economic functions of different intervention options	14
Figure 2.1	Characteristics of three different perspectives on restructuring	23
Figure 2.2	Relationships influence planning agency and process duration.	25
Figure 3.1	Main tasks planning agency and relationship to main restructuring activities	30
Figure 3.2	Complex decision-making in 'rounds'	32
Figure 3.3	The Initiative: actor involvement and possible outcomes	37
Figure 4.1	Relationships role Planning Agency and restructuring	47
Figure 4.2	The IAD framework	51
Figure 4.3	Basic assumptions of (instrumental) rational action	54
Figure 6.1	Relationship between actors, stakeholders, and arena participants	72
Figure 6.2	Measures for influencing restructuring	86
Figure 6.3	Four specific 'extreme' situations	93

## List of Tables

Table 3.1	Main tasks and applied process approaches for complete process	33
Table 7.1	Location, time, and participants of all Focus group sessions	107
Table 7.2	Examples of difference between invited and actual participants	108
Table 7.3	Key themes for each question	112
Table 7.4	The importance of situation specific involvement of participants	118
Table 7.5	The impact of individual entrepreneurs	119
Table 7.6	Understanding the problem	121
Table 7.7	Focus on firms	121
Table 7.8	Development of vision and cooperation within the local authority	122
Table 7.9	The impact of creating realistic expectations	123
Table 7.10	How progress influences expectations and motivation	124
Table 7.11	Expectations, actor involvement and impact on process	124
Table 7.12	Effective use of quick-wins	125
Table 7.13	Importance of having the 'right' information	126
Table 7.14	Strategic use of threats	127
Table 7.15	Influencing progress, motivation and trust through taking the first step	129
Table 7.16	The impact of applying the "Fair shares" principle	130
Table 7.17	Creative ideas for financing site management	131
Table 7.18	Restructuring: Wait, proceed or stop?	132
Table 7.19	Preferred sequence for addressing motivation and/or information	133
Table 7.20	Satisfaction as indicator in restructuring	135
Table 7.21	Suggested "if ... then" decision guidelines	136

## List of Boxes

Box 6.1	An illustrative example of an approach to process management	76
Box 6.2	Model design principles: a summary	77
Box 6.3	Industrial site "Faded Glory"	91

# Acronyms and abbreviations

BCI	Buck Consultants International	Oost NV	Ontwikkelingsmaatschappij Oost Nederland ( <i>Development Agency East Netherlands</i> )
BHB	Brabantse Herstructureringsmaatschappij voor Bedrijventerreinen ( <i>Brabant Restructuring Agency for Industrial Sites</i> )	PPP	Public – Private Partnerships
BOM	N.V. Brabantse Ontwikkelings Maatschappij ( <i>N.V. Noord-Brabant Development Agency</i> )	PBL	Planbureau voor de Leefomgeving ( <i>Netherlands Environmental Assessment Agency</i> )
BZK	Ministerie van Binnenlandse Zaken en Koninkrijksrelaties ( <i>Ministry of the Interior and Kingdom Relations</i> )	RMNO	Raad voor het Milieu- en Natuuronderzoek
BWU	Bestuurlijke Werkgroep Uitvoeringsstrategie (her) ontwikkeling bedrijventerreinen ( <i>Administrative Working Group Implementation Strategy (re) development industrial sites</i> )	RPB	Ruimtelijk Planbureau ( <i>Spatial Planning Agency</i> )
CPB	Centraal Planbureau ( <i>Netherlands Bureau for Economic Policy Analysis</i> )	SER	Sociaal-Economische Raad ( <i>The Social and Economic Council of the Netherlands</i> )
EZ	Ministerie van Economische Zaken ( <i>Ministry of Economic Affairs</i> )	THB	Taskforce (Her)ontwikkeling Bedrijventerreinen ( <i>Taskforce (Re) development Industrial Sites</i> )
HMO	Herstructureringsmaatschappij bedrijventerreinen Overijssel NV ( <i>Overijssel Restructuring Agency for Industrial Sites</i> )	VNG	Vereniging Nederlandse Gemeenten ( <i>Association of Netherlands Municipalities</i> )
IAD	Institutional Analysis and Development (framework)	VRM	Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer ( <i>Ministry of Housing, Spatial Planning and the Environment</i> )
IBIS	Integraal Bedrijventerrein Informatie Systeem Werklocaties ( <i>Integral Industrial Site Information System Business Districts</i> )		
IPO	Interprovinciaal Overleg ( <i>Association of the Provinces of the Netherlands</i> )		
LHB	Limburgse Herstructureringsmaatschappij voor Bedrijventerreinen BV ( <i>Limburg Restructuring Agency for Industrial Sites</i> )		
LIOF	Limburgse Ontwikkelings – en Investeringsmaatschappij ( <i>Limburg Development and Investment Company</i> )		
MKB	Koninklijke Vereniging MKB Nederland ( <i>Dutch Federation of Small and Medium-Sized Enterprises</i> )		
Nicis	Nicis Institute		
NIMBY	Not In My Back-Yard (a concept that refers to people being positive towards a development, but against the same development if it takes place in their own neighbourhood)		

# Preface

## **“How interesting!”**

An often heard remark the past years when I told people I was studying restructuring of industrial sites. A remark they usually made just a second before the topic of the conversation elegantly, and very diplomatically, was manipulated towards something closer to ‘what really matters’ in society.

## **Value for society**

However, time changes and so do political priorities. The past years there has been an ever increasing attention towards restructuring. Politicians have acknowledged the value of well-functioning industrial sites for society. Restructuring has become an issue on the Dutch national political agenda: not only important, but even with some urgency. This urgency is even increasing, because in practice restructuring often lasts very long: too long according to national policy. A worst case scenario is actually still not completely unrealistic: it has been claimed that the restructuring challenge has been growing the past decade, and without substantial extra efforts it may grow even more.

Does this mean that nothing has been done? The opposite is actually the case. Practitioners have tried to initiate new processes of restructuring and a large number of reports have been written about the problems encountered. A diversity of obstacles that prevent successful processes has been reported, and, in particular, there is a perceived lack of effective regional cooperation, private involvement, ‘professionalism’, and, of course, (financial) resources. The essence seems to be that restructuring is perceived as complex, and therefore difficult to design and manage successfully.

## **The academic challenge**

And this is exactly what has been fascinating me about restructuring since I started this study (and actually long before that). I wanted to discover what was inside this black box called ‘complex and difficult’, and to search not only for scientific understanding but also for how this understanding could help practitioners in their real life management of restructuring. Discover something that not only would support such processes towards satisfactory outcomes, but preferably within a shorter time than now seems to be needed.

I knew that such an adventure was a very ambitious one, so it would be a highly explorative journey. On the other hand, as they say, you never reach your goal if you never start, and I had the advantage of a flying start based on more than fifteen years of experience in consultancy and applied research.

## **My beliefs**

This background has also strongly influenced my ideas about what to study and especially how I believe that reality can be understood. One of these essential beliefs is that “things” do not take any decisions: human beings do. Nothing will ever happen in a restructuring unless people decide so. Accordingly, discussions about ‘lack of money’ become somewhat meaningless to me, because I see money as an expression of human priorities and commitment.

This human perspective is the basis of the whole study. It means that actors and their interactions fascinate me, because I see the understanding of reasons for behaving in a certain way as the key to improving processes. However, at the same time I acknowledge the limitations of this approach, because there are just too many factors and too many relationships that determine how decisions are made. Although my journey was aimed at

understanding as much as possible, common sense at the same time told me that I would need to limit my scope, to simplify, and to focus.

#### **Who should read this book?**

If you are one of those persons who share my beliefs, who is fascinated by actors and their interactions, and who would like to see how a 'boring' topic like restructuring of industrial sites can be understood and modelled, then this is a book for you. You may find the ideas about arena-thinking fascinating; enjoy the line that starts with the simplicity of human rational behaviour and adds the affective ingredients that make life so rich, and perhaps most of all enjoy the views on how interdependency and informal rules work as invisible glue that binds us all together.

#### **How can it be viewed and used?**

There seems to be a strong need in society nowadays for making 'useful' things, and this book is no exception. This book intends to be useful in two ways. First, it intends to contribute to the development of an academic understanding of complex (restructuring) processes. Second, it intends to support practitioners in their daily struggle *within* exactly the same processes, in order to assist their decision making and to show how a human perspective on actors and interaction can improve and enrich their strategies.

Finally, this book is, and this may sound somewhat strange, certainly incomplete. It is not something that I would call "finished", but I believe it can be seen as a milestone: a provisional outcome of an explorative and qualitative search for understanding. It is therefore, in particular, intended to be used as a building block, as an argument in the ongoing academic (and policy) discussion, and as a small contribution to a creative process of growth and improvement.

## Acknowledgements

Although I wrote this book alone, it would never have become what it is now (or actually been written at all) without support from people around me. Different kinds of support, but all valuable and all highly appreciated.

First of all, I would like to thank Barrie Needham for his willingness to accept my adventure into restructuring as a suitable study topic, his almost endless patience with me, his subtle suggestions to explore new directions within the scientific body of knowledge, and his long term open minded perspective on what the complete study could become.

The next person to thank is Theo de Bruijn whose day-to-day support very much had a complementary function to that provided by Barrie. I always found an open door, somebody who listened to my worries, or served as an active and positive sparring partner in times when I got lost in my self-created labyrinths.

Next there is the large group of practitioners and colleague researchers who during the years have enriched, and partly formed, my ideas about real life problems, possible solutions and perspectives. I will not mention the brilliant ones I 'met' only virtually when consuming the large piles of scientific literature: there were just too many. Even the group of people I personally met is too large, so I have to select: hoping that those not explicitly mentioned will forgive me. First, I would like to thank my colleagues on the editorial advisory board of the magazine "Bedrijventerrein" for the stimulating, and certainly lively, discussions the past years. They have not only sharpened my ideas, but again and again made me remember the necessity of keeping in touch with the 'real world'. In particular, I want to thank Edgar van Ekel and Jan-Willem Wesselink not only for making me a member of this advisory board, but also for the multitude of other opportunities they have given me for keeping in touch with everything that goes on in the field of industrial site development. Next, I want to thank René Korenromp for inviting me to join a large research project about sustainable revitalisation of industrial sites. I was not difficult to convince! I am also grateful to his successor as a project leader, Roel Brand. It was a real pleasure working with him. Then, of course, Bill O'Gorman for his trust in my knowledge of process management and for inviting me to join the international team studying regional innovation processes. I very much enjoyed working with him and the rest of the team. Finally, I am grateful to all the professionals who took part in the focus-group sessions during the final part of my research, and in particular to Jacinta Simons for her tremendous job on the transcript of the first session and Jan-Willem Wesselink, Cees-Jan Pen, Han Wiendels, Joost Roeterdink and Jeroen Krijgsman who took on the considerable challenge of moderating the sessions.

My employer, Saxion, and the "Stichting Mobiliteitsfonds HBO" are acknowledged for making it possible to do this study at all.

Then I have come to the three people that have been the most important in my life, and the main reason that I was able to keep faith at all in completing this study. My sons Joris and Olav, because they were always proud of what their father did, although they did not exactly understand what it all meant. But especially my wife Antonietta: the one that kept believing in me and got me through the difficult moments of despair, the one that was ever-understanding, the one that supported me, the one that saw this study as an enormous opportunity for personal growth, the one that believed I had something special and valuable to bring to the world, and above all: the one that just kept loving me in times when only my body was at home and my mind drifting somewhere in the 'wastelands of industrial sites'.

Thank You All.

# 1. Rise and fall of industrial sites

*“[...] Although the positions of players can be quite conflicting, for instance ecology versus economy, it can be assumed that everybody strives towards better industrial sites with the best intentions [...]”*  
(authors translation of: Dinteren, van, 2008, p. 18)

## 1.1. Introduction

### **Decay of industrial sites is a major challenge in the Netherlands**

Industrial sites are important concentrations of economic activities, because approximately a third of all workplaces are there. Their development is a high priority for local authorities who are concerned with ensuring sufficient employment opportunities and other socio-economic benefits for local communities. Until a few years ago, attention was focused almost exclusively on the development of new sites. In The Netherlands the local authorities have a dominant position in this process, as planning agency as well as supplying the land. The emphasis on development of new sites was to make it possible to accommodate new as well as expanding (and therefore possibly relocating) firms.

Although new sites will still be needed in the future, there is a growing understanding of the importance of maintaining, and preferably improving, the quality of existing sites as well. Otherwise, ageing and decay usually lead to a variety of undesired effects, such as firms leaving older sites for new ones, and related problems, such as unused lots and unnecessary transformation of rural areas into new industrial sites. And this is exactly what is encountered, because decay on industrial sites is a significant problem in the Netherlands, and possibly, despite the considerable efforts in the past years, an increasing one.

### **A specific need for restructuring industrial sites more quickly**

This indicates that current approaches to restructuring are not working well enough. These approaches may be effective in the sense that they (eventually) lead to a desired final situation, but they are lasting too long. Unless better restructuring approaches are found, the situation will worsen. This serious problem has been acknowledged and has resulted in increasing policy attention in the past years for improving industrial sites, and in particular for accelerating improvements (EZ, 2004b; THBa, 2008; EZ and VROM, 2008). This important challenge is the focus of this study (see section 2.2 for a more detailed elaboration on this issue).

### **Current understanding of problems and solutions**

It is clear that an effective approach to this challenge – how can the problems on already decayed sites best be addressed – should build on an understanding of the processes of decay, the effects they cause, and how future decay can be prevented.

All those topics have been addressed in previous research. Insight into mechanisms of ageing

and decay has been developed (CPB, 2001), and this includes how ageing is identified in practice (PBL, 2009). However, most attention has been given to improvement processes (THBa, 2008; BWU, 2009; VROM et al., 2010a and b), and the problems encountered in practice during these processes (Algemene Rekenkamer, 2008; PBL, 2009; Nicis, 2009). In particular, emphasis has been on restructuring, which within this study refers to integral improvement of sites without changing their main economic function. The studies have provided a rich body of knowledge about improvement options (THB, 2008a; BWU, 2009), about consequences related to lack of regional cooperation (VROM-raad, 2006; THBa, 2008), about higher political emphasis given to developing new sites (Nicis, 2009), and about competition between different policy fields for financial resources (Algemene Rekenkamer, 2008).

#### **Who sees decay as a problem?**

The increased attention to research and policy for addressing decay is an acknowledgement of the need to act. This need is acknowledged by the national, provincial, and local authorities (VROM et al., 2009). All levels of government have together agreed to address decay through large scale restructuring (VROM et al., 2009). In addition, environmental interest groups also see the importance of addressing decay. They view restructuring as an important part of a strategy for better land use, where opportunities on existing sites can reduce land claims for development of new sites. Finally, some firms experience problems on existing sites. However, their views on the need to act and on what needs to be done are much more diverse, and they usually focus on specific problems that directly affect business opportunities.

#### **Why do local authorities accept problem ownership?**

Within this group of concerned actors, the local authorities fulfil an important role. They have a general responsibility for addressing community development in an integral way, and industrial sites are part of this responsibility, especially regarding how the presence of firms affects local employment opportunities. In particular, local authorities are responsible for the maintenance of their own land (i.e. streets and surrounding 'green') on the sites. It is therefore not surprising that local authorities often feel responsible for at least initiating and managing restructuring. They see the effects of decay, and they know that doing no more than developing more new sites cannot be a solution for all problems on existing sites. Local authorities face the 'real life' challenges of reaching a desired final quality of the site and of finding the necessary commitment and funding for doing this. These are no simple challenges, because the past decades have shown that such processes are complex, long lasting, and expensive, and the recent objective to accelerate restructuring in the whole country has made the challenge even greater (VROM et al., 2009). In practice, however, local authorities often act on an incomplete understanding of the situation so it "[...] is not possible to establish with certainty whether the approach they choose for restructuring will offer a real solution for the problems" (PBL, 2009, p. 97).

#### **The purpose of this study**

This uncertainty regarding the link between restructuring approaches and outcomes was the reason for undertaking this study. There are three important issues that have received insufficient systematic attention. First, although several studies identify problems and suggest solutions, the underlying understanding of how restructuring is performed in practice is predominantly implicit (i.e. current practices are not described). Second, most available studies have focussed on general problems and general solutions, which mean that they do not address how solutions can be selected, and used, depending on the specific local settings. Third, although these studies focus on influencing the process, they usually pay insufficient attention to the impact on progress and to the effects on commitment and final quality.

This leads to the purpose of this study, which is to understand such processes better, and based on this understanding, to develop a decision support model that should reduce the total duration of restructuring in specific situations without endangering the quality of the outcome (see chapter two for more details). The study intends to contribute to the body of knowledge within the social sciences, and in particular spatial planning, regarding how process design and management can be used in complex multi-actor decision-making.

#### **Scope, focus and some methodological issues**

The aim of this study is to understand better the relationships between applied process approaches and their effect on progress. Improving this understanding starts with descriptions of how industrial sites currently are developed, and how restructuring is designed and managed, including the kind of obstacles that are encountered. This description then enables an informed and focused search for, and development of, a theoretical perspective for understanding how such processes can be modelled and improved. This model is then developed, and subsequently tested and operationalised by practitioners. The limited systematic knowledge available puts severe constraints on the nature of the study and its conclusions. It is mainly explorative, and in that respect it is intended as a basis for future research. Finally, we do not want to argue that its conclusions are applicable outside the Dutch context.

#### **Structure and contents of the book**

This first chapter describes and positions the restructuring of industrial sites within the Dutch context. After a short introduction to the concept of industrial sites (1.2), the focus is on positioning the restructuring within a site life-cycle (1.3) and on describing the development of new sites (1.4), on ageing and decay (1.5) and on the large scale interventions that can be applied (1.6). Finally, the changing role of the public authorities (1.7) and the main challenges for industrial site development are introduced (1.8).

Chapter two operationalises the study. The choice is made for studying how the total duration of restructuring can be influenced, and key terms are introduced and defined. Then the chapter elaborates on the role of the local authorities as planning agencies, and concludes by merging all aspects into a research design that includes the specific research questions that are addressed in the following chapters.

Chapter three provides insights into restructuring processes in practice. It tells what we can learn from practice, for improving that practice. The range of approaches to restructuring currently applied are described. This includes the main tasks and activities encountered in restructuring, and how the local authorities, as planning agencies, tackle them during the whole process related to different 'phases'. Finally, it includes an analysis of the practical obstacles that are encountered in restructuring.

Chapter four presents a theoretical framework for understanding complex multi-actor processes, such as restructuring. First the Institutional Analysis and Development framework is chosen, and then rational choice is chosen a leading theory that is compatible with this framework. The limitations of rational choice are acknowledged, and micro-assumptions are made that enable useful complementary theory to be identified. This complementary theory focuses on how actors and action situations in complex processes can be understood.

Chapter five focuses on how the theoretical framework (developed in chapter four) can be applied to making policy for restructuring of industrial sites. The "Contextual Interaction theory" is presented as a useful theory for understanding and influencing individual actors and the interaction between them, and for making choices regarding specific measures for influencing the situation. Process management is then introduced as an integral approach

to how the interaction process can be designed and managed, and finally choices are made about the kind of model to be developed.

Chapter six presents the decision support model itself. The main components of the model, the decisions for which support is desirable, and the way these decisions are operationalised are first presented. Together they provide a set of design principles. These are combined in the question-based decision support process model that enables follow-up actions to be selected for specific situations during restructuring. A brief description of possible follow-up measures is given, and finally strategic options are presented for addressing a limited number of ideal-type situations that can be encountered in restructuring.

Chapter seven includes the testing and operationalisation of the model by practitioners in a series of “Focus group” sessions. A “Thematic analysis” of the results leads to (provisional) conclusions about the model.

Finally, chapter eight sets out the contributions of this study to knowledge and practice.

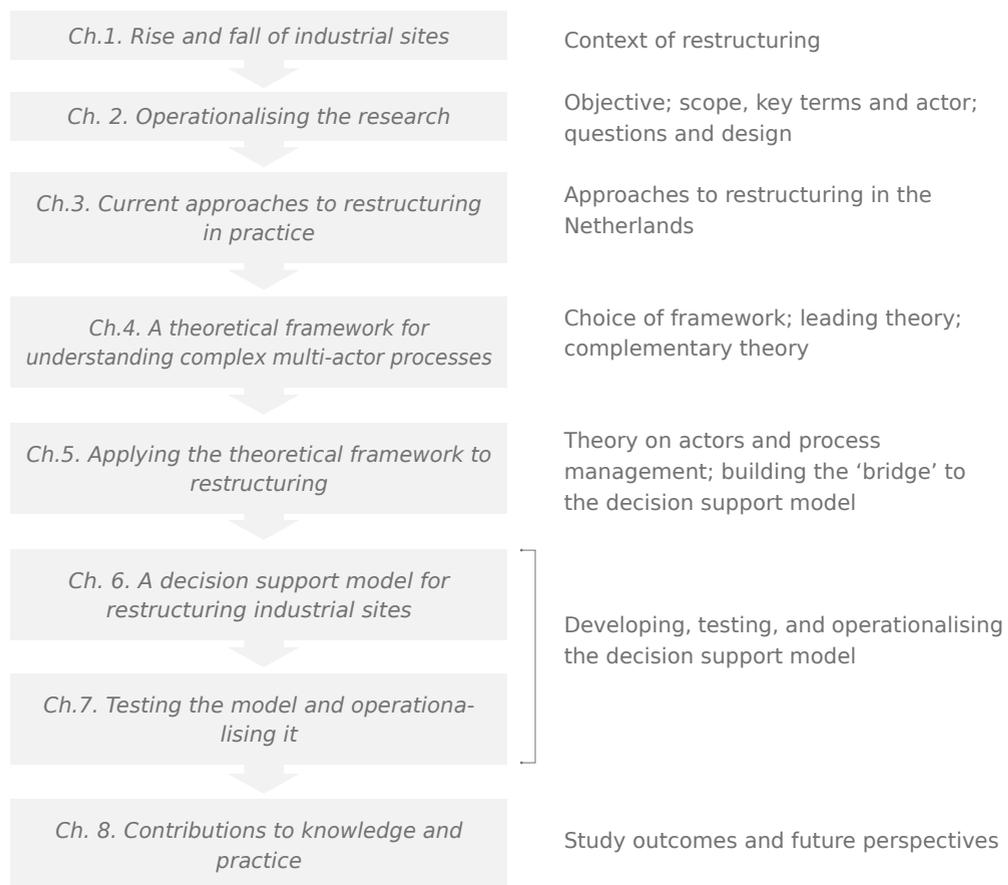


Figure 1.1 Structure of book

## 1.2. Industrial sites and their importance

What does the term ‘industrial site’ mean? This study uses the definition that an industrial site is an area “of a size of minimum 1 ha that because of its use has been designated and made suitable for trade, (manufacturing) industry, commercial and non-commercial service industry, including (parts of) sites partly designated and suitable for offices” (author’s translation of definition given in IBIS: the Dutch “Integral Industrial Site Information System”; note: the IBIS system explicitly excludes some specific production areas from the category industrial site).

This definition implies that an area has been designated in a ‘Zoning Plan’ (in Dutch: Bestemmingsplan) according to the ‘Spatial Planning Act’ (in Dutch: Wet op de Ruimtelijke Ordening) for use by specified economic functions only. The choices made in the zoning plan regarding the range of allowed functions, and the related spatially relevant regulations, will affect the possibilities for future site developments. However, the evolution of the site will be influenced also by the way the authorities act to ensure compliance to, or to adjust, the Zoning Plan.

Such designated industrial sites do not have a very long tradition in the Netherlands (Louw et al., 2004). Most of the older current sites started as mixed function areas close to city centres. Earlier, housing was quite usual on the sites or in the direct proximity, because people preferred to live close to their work and this was not restricted by regulations. During several decades, the characteristics of those older sites have gradually changed. New economic activities have replaced older ones, and living on the sites has generally been discouraged or even prohibited. The result has become what in the Netherlands is called ‘mixed industrial sites’: areas of a high diversity regarding type and size of activities.

However, active planning of industrial sites has been increasing, and currently new sites are usually both designated and designed solely for specific industrial activities. Besides the functional restriction to industrial activities, sites nowadays often have specific profiles (or themes) such as high-tech or logistics. This historical development reflects a shifting emphasis from predominantly autonomous growth processes towards deliberate (restrictive and directive) planning.

Although approximately two thirds (PBL, 2009, p.41; CPB, 2005, p.12) of all employment is still located outside industrial sites, there can be no doubt about the importance of these sites for the national, regional and certainly local socio-economic development. Current industrial sites are high-density concentrations of economic activities. A well-functioning area affects prosperity through employment possibilities and through indirect effects such as use of local suppliers and housing. Maintaining the attractiveness and vitality of existing sites, as well as offering sufficient locations for new, or expanding, firms are accordingly high priority issues for industrial site planning in the Netherlands (e.g. EZ, 2004a; EZ, 2004b; BZK, 2004; VROM-raad, 2006; THB, 2008a; Algemene Rekenkamer, 2008; PBL, 2009).

## 1.3. The lifecycle of industrial sites

This requires understanding, designing, and managing, long-lasting processes that reflect the changing needs not only of firms, but also of a wide range of other actors in the local community. The first step in the life-cycle is the development of a new industrial site. The average time needed for preparing a site with building plots that are ready for sale and construction (i.e. the necessary basic infrastructure and utilities are available) in the Netherlands is about 8 years (EZ, 2004b). Although industrial sites in principle are developed

to last 'forever', the attractiveness of the site will, for a number of reasons described below, change over time. Louw et al. (2004, p.131) present a hypothetical lifecycle, drawn in analogy with product lifecycles used in economics, showing the changes in demand for locations on the site (figure 1.2).

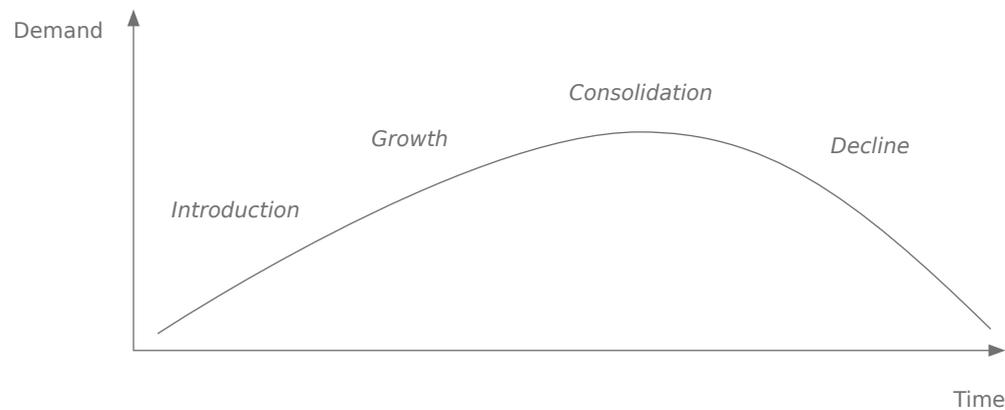


Figure 1.2 Industrial site lifecycle as a function of demand (Louw et al., 2004, slightly adapted).

The figure shows that, after the initial phases of introduction and growth, the demand will stabilise, and sooner or later, start declining. This decline indicates a growing gap between what the site offers and what firms need. Some firms therefore migrate to newer sites and are often either replaced by lower added-value activities, or the areas will be left unused. The authors link these changes in demand to indicators such as employment and property value, which reflect perspectives on how quality of site performance can be assessed. Decline in demand will ultimately be viewed as decay.

However, any assessment of quality always represents the view of one, or more, actors about what is desired at a certain location. Decay in that respect can mean more than just decreasing demand, employment and property value. In general, decay will be seen as a decreasing satisfaction about site performance, which may also include a variety of other quality issues such as infrastructure and environmental performance (see section 1.5 for a more detailed description of processes of ageing and decay, and the relationship between both terms). Decreasing demand, employment and property value are not always signs of decay. For example, if the development of a site is according to the planning, and if the firms remain satisfied with their location, a transition such as towards a site for lower added-value firms can better be viewed as an economic reprofiling than as a process of decay.

This example illustrates that in practice, quality and the related actor satisfaction can, and often will be, influenced by a wide range of interventions during all phases of the life-cycle. These can be divided into two groups. The first group contains efforts to actively (in a planned way) influence the performance of the industrial site. Currently, substantial efforts to extend the lifecycle of sites with a sufficient quality are initiated by authorities (see figure 1.3.; for a more specific view on effects of Park Management and restructuring, see Schapendonk and Van Enck, 2005). These planned efforts at integral improvements of the sites are the focus of this study (see chapter two). The second group contains a large variety of actions taken by individual firms that somehow affect the site performance either positively or negatively. Firms can for example invest in buildings and parking facilities, which can contribute in a positive

way to the overall quality of the area. On the other hand they can neglect maintenance, or they perform activities in such a way that they affect performance of neighbouring firms (such as nuisance caused by transport and parking). Together the effects of both groups will determine how the life-cycle evolves.

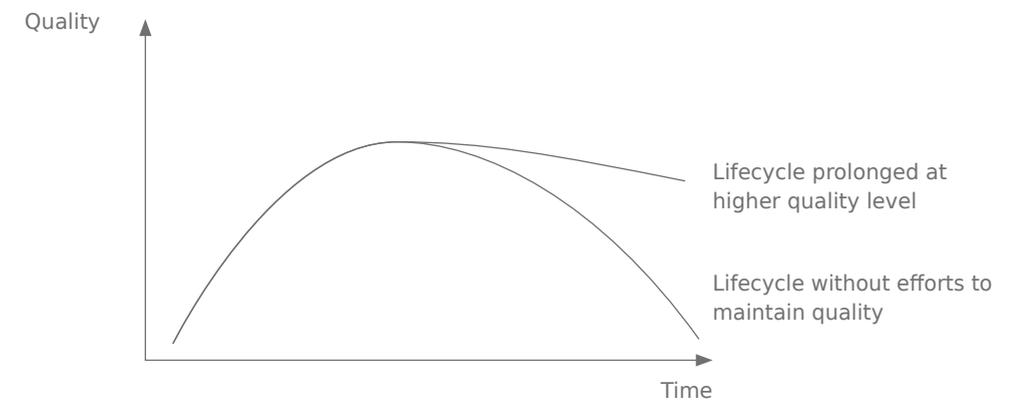


Figure 1.3 Industrial site lifecycle: effect of interventions

A problem is that, because the life-cycle of industrial sites extends over decades, it is difficult to plan and implement the 'right' set of actions at the 'right' moment. Any action should preferably take into account not only the needs of all currently involved actors, but also precaution and flexibility to accommodate future needs.

## 1.4. Development of new sites

The first step towards a better understanding of the context of restructuring is to focus on why, and how, new sites are developed.

The 'why-question' serves as the starting point. Industrial sites are specifically developed for accommodating new and, in practice especially, relocating firms (Louw et al., 2004). The needs of these firms should accordingly be the basis for determining where new sites should come, and the size and characteristics of the sites. This should influence choices about the actors that preferably should, and often will, be involved in the development process.

Although other parties may be involved, currently the local authorities are the dominant actors in the development of new industrial sites in the Netherlands (Louw et al., 2004, p.77, PBL, 2009). This is so for smaller sites designated for local industry, and for larger sites aimed at serving the regional market. The latter case implies at least some kind of agreement between the local authorities in the region regarding location of the site and its main function.

Effective long-term planning is vital, because the development takes several years. In Dutch planning practice, industrial site development passes through a number of more or less distinct phases, which can be characterised by sets of dominant activities. Although there is no widely accepted definition of these phases, steps such as initiative, planning, implementation, and management (in Dutch often referred to as "beheer"), in a variety of forms and sub-divisions, are encountered in most descriptions (DHV, 2000; Novem, 2001;

Novem and DÉCOR, 2003; Louw et al., 2004). Often a link is made between the separate phases and the spatial planning documents (DHV, 2000) such as a “Planning Brief” (in Dutch: Programma van Eisen) and the Zoning Plan. The following brief description of main activities within the general steps - initiative, planning, and implementation, - introduces a number of variables all of which can influence future needs for restructuring.

### **The Initiative**

The process usually starts by a growing understanding of, and support for, the need to develop a new site. No initiatives have yet been undertaken and there is still a considerable degree of uncertainty about the exact need for land over time. A diversity of factors creates this uncertainty. First, macro-economic trends, such as economic recessions, may change business growth opportunities drastically. On the level of individual firms, more specific market mechanisms also influence the development. Firms may decide to expand on their current location instead of relocating and, if they choose to relocate, the preferred location might be found in another municipality, region or even country. Even well-performing firms may be closed down or relocated for strategic reasons.

The challenge for a planning agency is to address this dynamic by reducing the degree of uncertainty. This means collecting information about market developments and needs. The normal approach combines elements of monitoring and statistical prognoses (for more details see: Louw et al., 2004, pp. 44-47 and references cited therein). Monitoring, in particular, focuses on knowing the needs of firms located within the municipality. Regular written surveys or personal consultation make it possible to develop an overview of emerging needs, and more or less elaborated plans, for relocation. Statistical approaches can focus on demographic as well as property market trends in order to support a prognosis for future needs. Traditionally, planning agencies have pro-actively provided, and maintained, strategic supplies of land for industrial site development. Considering the long time needed for the necessary legal procedures, as well as for making the sites ready for construction, such an approach is understandable (Louw et al., 2004, p. 73). Planning agencies often base their prognoses for new sites on high economic growth scenarios (PBL, 2009, p.16), and this can influence the need for restructuring quite significantly. For the availability of lots on new sites can stimulate firms to relocate instead of investing on existing sites, and that can influence ageing and decay of the existing sites (Gordijn et al., 2007; Algemene Rekenkamer, 2008). The accuracy of prognoses and the related strategic choices made by planning agencies will influence the estimates of the quantitative need for a new site.

Besides this focus on quantitative needs, the local authorities (often involving private actors as well) also start activities such as formulating site related objectives, searching for a suitable location, acquiring land, and initiating legal procedures such as making a spatial Zoning Plan and, if necessary, an Environmental Impact Assessment. This description may suggest a rather simple chronological process. However, in practice, the different activities will be performed partly in parallel, and conflicting actor interests will influence objectives, constraints and outcomes. An understanding of how different actors can influence the development of new sites is needed, because these choices also will affect the setting of restructuring.

Although a wide range of actors may be involved, it is especially the planning agency, (representatives of) firms, owners of land that may be developed for new sites, and interest groups that are involved in early phases. Again viewed from the perspective of the local authorities, the starting point is that they know that any choice regarding location and design of new sites will be perceived by some actors as a loss and by other actors as a gain. The local authorities therefore have to be cautious about how they interact with different actors and, in particular, about communication related to plans. The number of mutual dependencies in

this process is high, and only a few illustrative examples are presented here.

A first example is the question of ‘demonstrated need’ (in Dutch usually referred to as “nut en noodzaak”). As mentioned above, local authorities traditionally prefer to have reserves of land for industrial site development. Representatives of firms, such as Chamber of Commerce and employers, consider a generous availability of land to be an important factor for enabling entrepreneurship, and accordingly they in general stimulate (i.e. lobby for) development of new sites. Environmental interest groups on the other hand find that the current approaches by local authorities have led to a situation where too much land is claimed for new sites. They view the development of new sites as a ‘last solution’, which should be applied only if there is a real need and no opportunities can be found for accommodating this need on existing sites (Wagter et al., 2002, Blauw, 2007; Verhaak, 2007). The local authorities have, besides a general responsibility for local prosperity and quality of life, also a specific financial interest in the development of new sites. For the planning agency usually buys land, makes the area ready for construction, and finally, sells lots to firms. The end result is that any ‘demonstrated need’ will be the outcome of a process where not only the uncertainty of prognoses, but also the influence of local authorities, firms and interest groups matter.

Another example of this complex mutual dependency is the need to identify, and acquire, a ‘best-choice’ location. Such a location should satisfy the needs of firms, and at the same time be the best choice regarding environmental impact and social consequences. It should accordingly be a sustainable choice, viewing sustainability as the optimum regarding the “Triple-P” of People, Profit and Planet (Elkington 1997). The process of identifying such a sustainable optimum is not straight-forward. Not only is it very difficult, or maybe even impossible, to assess all effects reliably, but the choice may also be influenced by decisions made in the past. The municipality may for instance already own land at a location that earlier has been identified as a likely candidate for development. Also, the choice of location has effects on property prices. Widely communicated information about search locations can therefore attract private parties interested in speculating in land. The financial involvement of the planning agency means that it will have an interest in preventing this. Dutch municipalities do not need to buy all land immediately. Speculation can be prevented if the area is claimed for future development as an industrial site according to the “Pre-emptive Right of Municipalities Act” (author’s translation; in Dutch: “Wet Voorkeursrecht Gemeenten”). This intervention ensures that current landowners, if they want to sell, first have to offer their land for sale to the local authorities.

Besides estimating quantitative needs and searching for a suitable location, the initiative phase usually includes a variety of activities aimed at getting a clearer picture of the specific needs of potential buyers and of the objectives of other actors. It includes also the organisation of the local authorities themselves. In particular, this phase must identify the policy ambitions of the local authorities as well as the broader commitment of different actors to common objectives. These common objectives are sometimes presented in a Vision Document, which can be accompanied by a Letter of Intent that, to some degree, formalises the roles, and resource input, of the involved actors. The specific constraints and/or ambitions formulated by the planning agency are documented in a Planning Brief.

### **The Planning**

These documents together serve as a signal of a certain commitment and a change to producing more detailed planning documents. There is a gradual change into something that may be called a Planning phase. During this phase several activities, started in the Initiative phase, will continue. In particular, initial decisions may have to be reconsidered, changed or even discarded. This will be influenced by interaction between the various actors, and will be reflected in a number of documents such as a Spatial Design plan (in Dutch:

“Stedenbouwkundig plan”), an Environmental Impact Assessment, Financial calculations of feasibility (in Dutch: “Grondexploitatie”) and, finally, the Zoning Plan.

The process in this phase reflects the underlying challenge of developing a site that will at least be acceptable to all involved actors. The various individual actors will assess how individual measures and complete planning scenarios affect their interests, and any choice will be more satisfactory to some actors than other ones. The local authorities therefore need to search for commitment to solutions, taking into account all effects and the satisfaction with those effects. The main elements of the planning have been institutionalised in the procedures for, for example, the Environmental Impact Assessments and the Zoning Plan, where each step is coupled to criteria and to legal opportunities for influencing the development. These legally prescribed steps are the most important ones, but local authorities also, in parallel, apply less formal strategies to involve citizens and interest groups. These strategies range from one-way communication to voluntary participation in working or advisory groups. These approaches can deliver useful feed-back on commitment to different development options, which makes it possible to adjust plans in order to (hopefully) reduce local opposition and, in particular to make it less likely that citizens take disagreements to Court (In the Dutch context: “Raad van State”).

The planning process slowly moves towards ‘final’ decisions. Most of these decisions are ‘final’ only in the sense that there is a growing (felt, if not legal) commitment, and that the number of opportunities to influence the process outcomes declines. In practice, the answers to most of the questions regarding site location and site design come together in the Zoning Plan. Making this plan is a key activity, because it represents a continuous ‘translation’ of a large diversity of choices into a spatial design. The Zoning plan regulates issues such as the economic functions that will be allowed on the site, the specifications for constructing buildings and related land use, and the use of the area. In that sense it integrates economic, environmental and spatial issues into a coherent framework, which, depending on the definition used, may be viewed as reflecting choices regarding sustainability, or total quality, of the development. The only limitation of the Zoning Plan is that it regulates issues only as far as they are spatially relevant. The Zoning Plan is usually accompanied by a Visual Quality Plan (in Dutch: “Beeldkwaliteitsplan”) that specifies additional design requirements, or at least guidelines, for the quality of architecture and landscape. Finally, the planning also (increasingly) addresses the need to develop site management in order to maintain, and preferably improve, the quality of the site.

#### **The Implementation**

The combination of a Zoning plan, a Visual Quality Plan, organisation of site management, and a financial translation of the consequences of these documents, starts the Implementation phase. The first activity in this phase is the acquisition of land (if not completed in an earlier phase) and then making the area ready for construction by putting in the necessary infrastructure and services. Finally, lots will be marketed and sold. Because the local authorities are usually unable to sell all lots on a new site quickly, they often prefer, for financial reasons, to phase the development, servicing smaller parts of the area for use according to need. This approach can damage the perception of quality of the area if the infrastructure remains incomplete or if construction continues for several years. It also means that the Implementation-phase might overlap with the phases of stabilisation, and management, of completed parts of the site.

#### **The potential impact on restructuring**

All choices made during planning and development of new sites can, and usually will, influence the restructuring context in two main ways. First, the availability of new sites offers

an opportunity for firms on existing sites to relocate. The combination of the land price and the specific quality on the new site, compared to that on the existing site, can be influenced by the planning agency. In practice, there are “[...] continual pressures to provide new industrial [...] spaces and to transform and decommission old ones [which] affect patterns of property value [...]” (Healey, 1994, p. 192). Second, the choices regarding location, design, and management on existing sites can all influence how the quality of the site develops and accordingly the (perceived) need for relocation and restructuring.

## **1.5. Ageing and decay**

It is therefore important to get a better understanding of this relationship between time and quality. A starting point was already given in the description of the site life-cycle (in section 1.3), which showed that, after a time, decreasing demand, and possibly decreasing quality, follows. The first question is then, how the ageing of sites is related to decay.

Ageing, viewed in a traditional (restricted) sense, can be viewed as a normal process that affects all structural elements such as buildings and infrastructure (Gordijn et al., 2007). In this restricted sense, the term “ageing” does not necessarily have a negative connotation. Property value can for instance increase over time, which is quite often encountered with “ageing” in the housing market. Also on industrial sites, increase of the value of property can be found for instance on inner city locations. However, if ageing turns into perceived decay the situation may change drastically. The term “decay” has a clear negative connotation. It refers to a more or less continuous process of decreasing quality and, possibly, financial value. Medhurst, Lewis and Gittus (focusing more in general on decay in towns) describe the variety of meanings that writers have given to this term: there is a multitude of unpleasant images of declining attractiveness of the environment, decay of buildings, decline of activity, growth of ‘undesirable’ activity, or even the quality of administration (Medhurst et al., 1969).

In Dutch restructuring practice, the term “ageing” (in Dutch: “veroudering”) is usually applied (CPB, 2001) in a restricted sense, referring to a process that leads to decreasing quality of an industrial site. In other words ageing is here viewed as decay. Various attempts have been made to identify and categorise general mechanisms of ageing (CPB, 2001; Louw et al., 2004), but there is still a lack of clear, uniform, criteria (THBa, 2008).

Nevertheless, a general picture of how ageing is perceived can be given. A starting point is provided by a report that identified four different ageing mechanisms (CPB, 2001), which are still used in the annual survey of industrial site developments (IBIS 2010; PBL, 2009). These are “technical ageing”, “economic ageing”, “ageing caused by changing norms of the society” and “spatial ageing” (IBIS, 2010; CPB, 2001; all terms translated by author).

#### **Technical ageing**

Technical ageing is rather uncomplicated. Normal use and natural causes (weather etc.) will always affect the quality of buildings and infrastructure. Insufficient maintenance of buildings and infrastructure is the primary cause of technical ageing (by Korteweg, 2002, referred to as structural ageing). In the Netherlands, ownership of land on industrial sites is divided between the local authorities and the firms. This makes it possible that insufficient maintenance may be caused by just one actor, such as an individual firm or the local authority, or by more actors. In practice the term “decay” is normally used for situations where larger parts of the site, and accordingly several actors, are involved.

A second cause, or mechanism, of “technical ageing” is the establishment of new activities

that do not fit into the (desired) profile of the site, where this affects the perceived quality of the site. An example is the location of a car demolition firm in the middle of an area dominated by service-oriented or high-tech firms. The way these activities influence each other, and the surroundings, can damage the total image (reputation) of the site.

#### **Economic ageing**

Such developments can also influence the opportunities for firms to respond effectively to market demands. The core of the economic ageing process, accordingly, is that the site characteristics are no longer in accordance with the changing needs of firms.

Those needs can change for several reasons. First, there is increasing globalisation. International firms more or less continuously assess alternative locations worldwide to identify the best sites regarding factors such as required product quality, labour costs, availability of skilled personnel, and distance to markets. The outcome of such assessments is sometimes that manufacturing firms relocate their production activities to low-cost countries, possibly maintaining business centres and R&D in the Netherlands. This is a clear, still ongoing, trend in the Netherlands, with a gradual decrease of traditional manufacturing industry and parallel growth of the service sector. Secondly, firms in general change through increasing mechanisation and use of ICT, both of which influence the possibilities for adapting quickly to market demands and shorter product life-cycles. The result of such changes can be that firms need more office space (Louw et al., 2004), opportunities for flexible adaptation of buildings, and attractive surroundings often preferably situated close to motorways.

If these requirements are not fulfilled, firms will consider relocation as an interesting, or even the only acceptable, option for solving their problems. Relocations of 'strong' firms may accelerate the ageing process. There can be a relationship with the development of new industrial sites, which provide ready solutions to problems on the existing sites. This market effect, also referred to as relative ageing (Korteweg, 2002), may have a significant impact if there is much new land offered in a variety of attractive price - quality segments (Louw et al., 2004).

#### **Ageing caused by changing societal norms**

Ageing is also influenced by changing norms in society. For instance a growing concern for safety, health and environmental issues in the last decades has gradually changed perceptions of what is considered acceptable performance of firms on an industrial site. Citizens living close to the sites sometimes experience, or fear, negative effects such as noise or odour, and lower acceptance of these can lead to complaints. Even more important for ageing is how this change in social norms and values has been incorporated in laws and regulations. A clear trend the past decades has been the development of higher (i.e. stricter) standards for safety and environmental performance. Accordingly, specially firms situated on sites close to neighbourhoods or city centres have faced increasingly severe constraints on their operations. This can have a variety of consequences. Individual firms have voluntarily, or through enforcement of environmental permits, improved their safety and environmental performance through a combination of management and technological solutions. However, in some cases such improvement measures are insufficient. Some firms are then on locations viewed as less favourable by authorities and/or firms. Some of these high-risk firms are therefore stimulated, or even facilitated, to relocate to new sites. This process, again, can damage the performance of the existing site (as described above related to economic ageing).

Relocations also have an effect on land use more widely. If the land on the existing site remains unused and unusable after relocation, there will be a net loss of area available for industry. There is a growing concern, especially voiced by environmental interest groups, in the Netherlands regarding the scarcity of land and, in particular, regarding the need for

developing new industrial sites (Wagter et al., 2002; Blauw, 2007; Olden, 2007). This leads to an increasing pressure for a more sustainable use of land (Valk, van der, 2002), which requires that local authorities apply integral management of new and existing sites. Such an approach can have significant effects on ageing, although it is difficult to assess in advance what these effects will be.

#### **Spatial ageing**

The attractiveness of business locations can also be influenced by spatial changes in the vicinity. For example, sites previously situated at the periphery of the cities have in many cases gradually become completely surrounded by other activities such as housing. The close proximity of such 'vulnerable' functions may lead to conflicts and subsequent ageing as a result of changing societal norms (see above). However, this is not the only effect. The fact that the industrial site gets completely surrounded by other built-up areas restricts the expansion opportunities of existing sites. It can also reduce the access to regional main roads and motorways. Because firms consider good access a high priority, this may influence business performance and even stimulate firm relocation (Steen, van, 1998; Pen, 2002). Finally, the quality of surrounding areas can have an effect on the industrial site. For example, decayed neighbourhoods may negatively influence the attractiveness of the area (B&A-groep, 1998; Pen, 2002).

#### **The combined impact of ageing mechanisms**

Each of these ageing mechanisms separately may influence the development of an industrial site. However, the 'classical' problem situation encountered on most of the older industrial sites is normally a mix of the effects of all four ageing mechanisms (PBL, 2009). A complex pattern of interactions between spatial, legal and economic developments determines the rate, and gravity, of the ageing and decay. The situation will therefore continuously change. As actors attempt to find optimum ways to intervene, new problems may emerge and existing problems may worsen (THBa, 2008). Although no reliable quantitative information on ageing currently is available (Traa and Knobben, 2009), there are clear indications that the total restructuring challenge has increased considerably the past 20 years (Reesink and Van Aalst, 2003; Algemene Rekenkamer, 2008). It should be said that there are indications that current estimates are too high (THBa, 2008), possibly caused by local authorities who have an interest in getting industrial sites registered as in need of restructuring, because they hope this will increase the possibility of achieving funding from national or provincial authorities (PBL, 2009).

## **1.6. The variety of large scale interventions to influence quality on industrial sites**

However, even if the numbers are corrected for possible effects of such 'strategic behaviour', it is clear that the challenge remains large. The first step in addressing this challenge is to understand the specific problems on a site. This enables an appropriate intervention strategy to be selected. The question is then: which kind of interventions can best be used, depending on the ageing characteristics.

#### **Definitions related to impact on economic functions**

Despite attempts to develop a clear classification system for such interventions, there is still no widely accepted set of definitions in Dutch planning practice (CPB, 2001; Louw et al.,

2004). Terms such as modernising (Pen and Hiethaar, 1998), renewal and restructuring, have been used to describe the improvement of areas in general. However, within the context of industrial sites, *restructuring* is now well-established (e.g. IBIS, 2010). It has been defined as an approach that encompasses “[...] a coherent total of activities, consisting of all non-recurring interventions on the site not being part of regular maintenance, aimed at improving the quality of location factors [in Dutch the term “vestigingsklimaat” is used] on an existing industrial site [...]” (author’s translation of definition given in: EZ, 2004b, p. 69).

This definition is quite broad, because it includes everything except recurring interventions. The next step is to explore which kind of non-recurring interventions have been reported. Again there is a lack of a general agreement on the meaning of the terms used for different strategic options, although it is clear that the options are positioned within a range depending on their impact on the economic functions on the site. Figure 1.4 illustrates such a range, including four often-used terms for strategic improvements falling within the general category of restructuring.



Figure 1.4 Impact on economic functions of different intervention options

The following brief description of these four options therefore focuses on the differences regarding their impact on economic functions (ETIN, 2002; Louw et al., 2004; BCI, 2008; PBL, 2009).

A *face-lift* primarily addresses technical ageing and has no significant effects on the economic structure of the site. It focuses on buildings and infrastructure (BCI, 2008), and accordingly it addresses image (appearance) and functionality of public (EZ, 1996) and private property (Pen and Hiethaar, 1998; THBa, 2008). It has been argued that face-lifts do not belong to the “[...] core of the restructuring challenge [...]” (THB, 2008a, p. 4), because they should be addressed through continuous site-management as part of regular maintenance: they do not fall under ‘non-recurrent’. This task should be the responsibility of the private and public actors directly involved (THBa, 2008).

Revitalisation, on the other hand, is currently widely accepted as belonging to the group of restructuring interventions. It addresses ageing that cannot be counteracted through regular maintenance (Louw et al., 2004). Revitalisation implies a thorough integral improvement of the industrial site, whereby the existing economic functions are maintained (ETIN, 2002; Louw et al, 2004; BCI, 2008; PBL, 2009). It includes a variety of possible actions such as stimulating the use of vacant buildings and unused land, and improving infrastructure and access to the site. Revitalisation can be further divided into regular and ‘heavy’, based on how serious the problems are (BCI, 2008). This assessment is coupled to the level of necessary investments, and, in particular, the need for high investments for buying property, soil remediation, demolition of buildings, and constructing completely new infrastructure (BCI, 2008; IBIS, 2010).

*Reprofiting* has even more consequences for site design and performance. It specifically addresses economic ageing (Louw et al., 2004). Accordingly, maintaining the existing economic functions is not a necessary condition, although the area remains an industrial site (BCI, 2008; IBIS, 2010). Major structural changes to the area, and relocation of firms, are used to facilitate the establishment of new economic functions, such as new mixes of offices, firms and other activities.

Finally, with *transformation* the original (designated) function of the area is completely changed, which means that the site is no longer available as an industrial site (BCI, 2008; PBL, 2009). Transformations are not always viewed as belonging to the group of restructuring interventions (PBL, 2009), and they are sometimes split into sub-groups such as transformation into housing and transformation into other urban functions (PBL, 2009).

### Choice of intervention

There seems to be a growing consensus about how the range of possible interventions can be related to the consequences for economic functions and the financial investments needed. The choice for a specific strategy is strongly influenced by this combination of consequences and investments. To put it simply, high costs need to be matched by high incomes. Property developers may for instance be able to make a profit out of reprofiling or transformation (PBL, 2009). If, on the other hand, costs cannot be fully met in this way, national or provincial co-funding is required.

Currently there is equal emphasis on plans for revitalisation (1/3), transformation into housing (1/3) and, transformation into mixed urban functions (1/3) (PBL, 2009).

In practice, and certainly influenced by financial criteria as well, the choice of intervention is linked to location. For sites next to, or even completely surrounded by, areas having other economic functions such as housing or railway stations, transformation tends to be the preferred planned intervention, whereas sites close to motorways, and sites where large firms are situated are more likely to be revitalised (PBL, 2009).

The combination of the nature of ageing, the necessary investments, and the location characteristics (influencing potential return on investments) is important. The choice for a specific intervention should therefore be guided by a thorough understanding of the ageing mechanisms, individually and in combination, on the specific sites (see section 1.5).

## 1.7. The changing role of authorities

The problem is that nobody can know in advance how successful a chosen approach will be, because there are too many uncertainties. This is no excuse for not trying, and local, provincial and national authorities have certainly become increasingly active in industrial site restructuring the past decade. The ideas about what they *should* do are numerous, and most attention has been given to the role of the local authorities.

### What are local authorities recommended to do?

The essence seems to be that local authorities should become more professional, and there is a wide range of more or less strong recommendations about how this should be achieved (e.g. VROM-raad, 2006; THB, 2008a; Dinteren, van and Krabben van der, 2008; Algemene Rekenkamer, 2008; Nicis, 2009; PBL, 2009; BWU, 2009; Olden, 2010). Local authorities should improve cooperation with firms on the site, with investors and with other local authorities within a region, and they should reduce internal bureaucracy, get industrial site development onto the political agenda, and assess the need for new sites more realistically. They should also make better use of legal tools, link the development of new and old sites financially, and facilitate the development of site management organisations that maintain quality and prevent future decay. Furthermore, they should find sustainable solutions (VROM, 1997; EZ, 1998), improve spatial quality, and stimulate cooperation between firms by applying for example principles of industrial ecology (Frosch and Gallopoulos, 1989; VROM, 1997; RMNO, 1997; Konz and Van den Thillart, 2002). Actually, the situation is even more

complex, because the recommendations vary widely regarding their relative importance and expected success in improving industrial site development, and both recommendations and relative importance can change over time.

#### **What are local authorities doing?**

Regardless of how many well-intended recommendations local authorities receive, there are at least two important considerations. The first is that local authorities have to prioritize. They have limited resources, and accordingly they cannot implement all recommendations at once. The second consideration is that most options influence each other. This means that the local authorities, above all, are facing highly complex decision-making challenges, where they are supposed to manage processes in such a way that 'everybody' (meaning: all actors affected by, or able to affect, local decision making) stays, or becomes, satisfied.

It is not surprising that change has been gradual and cautious. The local authorities are increasingly experimenting with, and actually implementing, several of the recommendations mentioned above. They attempt to engage in open dialogue and active cooperation with external actors to achieve satisfactory results, and they try to professionalize their organisations. However, the results are seldom as good as desired, and there is need for a process that allows making mistakes, learning and improving. Moreover, most recommendations are not situation specific, and application should accordingly be much more than any simple 'copy-paste'.

There is a growing sense of urgency. The past decade has seen a surge of attention for industrial site development, and, in particular, for restructuring and its link with the development of new sites. This has led to more directive approaches and covenants, to a wealth of recommendations (VROM et al., 2009; BWU, 2009). In particular, local authorities are supposed to cooperate in regional programming regarding industrial site development, to develop better prognoses for forecasting the need for new sites, and to apply the "SER-ladder" (EZ and VROM, 2008; Gordijn et al., 2007; SER, 1999). The SER-ladder means that local authorities, in their assessment, first have to underpin the need for land, and specifically to take account of the impact of restructuring and more intensive land use on existing sites. Then they have to make use of the possibilities found on existing sites, and, finally, only if land is still needed, are they allowed to start the development of new sites. However, the effect of the use of the SER-ladder on total land claims for development of industrial sites is expected to be limited (Gordijn et al., 2007).

#### **Which challenge are local authorities facing?**

The local authorities are accordingly facing a complex decision-making challenge, and a considerable financial challenge as well. They are responsible for developing an (estimated) 11,000 ha new sites and at the same time for restructuring about 16,000 ha within ten years (VROM et al., 2009; BWU, 2009). Agreements regarding tasks and responsibilities for addressing the restructuring challenge were formalised in a covenant between local, provincial, and national authorities (VROM et al., 2009). An essential issue in this covenant was that "[...] the covenant gives room for own choices on a decentralised level [which in The Netherlands means local authorities / municipalities] regarding the industrial site policy. Also regarding the 'how-question' [...]" (BWU, 2009, p. 34)<sup>1</sup>. This 'how-question' is the key to success, because the real challenge is actually not a quantitative one. The real challenge for local authorities is to develop and maintain sites that continue to fulfil as well as possible the needs of a variety of actors. It is about design and management for quality and satisfaction.

## 1.8. Towards an improved understanding

This chapter has briefly introduced the main issues regarding the complexity and interdependencies of development processes on new and existing industrial sites. It has shown that, in restructuring, there is a wide range of factors that influence, and may constrain, the search for feasible improvement strategies.

It is accordingly important to know the possibilities for influencing restructuring, and to predict the probable consequences of (planned) interventions. This is the core of the 'how-question' regarding successful design and management of restructuring. The available diversity of improvement options and recommendations does not give enough guidance, because there still remains a significant uncertainty about *how* the 'right' mix of options can be chosen and subsequently implemented, and how this should depend on the specific local situation. Reducing this uncertainty is the aim of this study.

## 2. Operationalising the research

*“For the social scientist or researcher in applied fields, research is a process of trying to gain a better understanding of the complexities of human experience and, in some genres of research, to take action based on that understanding”  
(Marshall and Rossman, 2006, p. 23)*

### 2.1. Introduction

Restructuring is complex, so choices will have to be made regarding which questions to be addressed and from which perspective that will be done. There is a need for a clear scope and focus. The objective of this chapter is to develop a study framework for the inquiry (Schlager, 1999) into restructuring.

To reach this objective, a stepwise approach is applied. First, a focus for the study is chosen (2.2). This is followed by an exploration of key terms (2.3), actors (2.4), and how restructuring can be influenced through decision support (2.5), leading to a set of ‘building blocks’. These are combined and applied for constructing the main research question and for developing a research design (2.6).

### 2.2. Focus on total duration of restructuring

The challenge of restructuring is to ensure that industrial sites offer an appropriate quality. The term “appropriate” means fulfilling the requirements of those actors with an interest in the performance of the area. In practice the needs of the firms, and constraints set by laws and regulations, provide the main criteria for assessing quality. The general objective of any restructuring is to improve the total quality until a level is reached that is considered satisfactory by the involved actors.

Such processes take a long time (EZ, 2004b). An important objective is therefore to accelerate them (EZ, 2004b; THBa, 2008; VROM et al., 2009). It is assumed, by these authors and also for this study, that accelerating these processes can be achieved without loss of quality. Based on this assumption, the general objective for this study is formulated as:

*“Improve the understanding necessary for reducing the total duration of restructuring of industrial sites, without endangering the quality of the outcome”.*

Only limited attention in academic literature has been given to processes of industrial site development in The Netherlands. Studies have for example addressed the development of

new sites as being a process of interaction in strategic urban planning (Graaf, de, 2005), game-theoretic modelling of interactions and decision-making in restructuring (Blokhuys, 2010), and restructuring viewed from an industrial ecology perspective (Konz and Van den Thillart, 2002). More attention has been given to issues more indirectly related to integral site development processes, such as the relationship with supply of land (Olden, 2010), the impact of location factors on firm migrations and site planning (e.g. Pen, 2002; Steen van, 1998; Pellenburg, 2006), or sustainability (Pellenburg, 2002).

The available literature on relationships between process approaches, progress, and the quality of outcomes of restructuring is mainly limited to policy documents, consultancy reports and management guides for practitioners. These documents seldom include any explicit description of the theoretical framework applied. However, they do provide a valuable source of information on how practitioners experience problems and how they suggest addressing these.

The formulated objective of this study introduces a number of key terms and related questions. First, the term “restructuring” in Dutch planning practice of industrial sites includes a wide range of different kinds of interventions in site performance (see section 1.6). It is therefore necessary to state what is meant by “restructuring” in this study, whereby we limit the scope of restructuring options that will be studied. Second, the objective explicitly links quality of the outcome to process duration. The question is then: how both terms are viewed in practice, and how they are related.

## 2.3. Exploring key terms

### **What we mean by restructuring**

The range of restructuring is quite considerable (see chapter 1). The three forms called face-lift, revitalisation, and reprofiling are (increasingly) comprehensive interventions to change the area, but all imply that the area keeps its main economic function. In that respect only transformation is significantly different, because the area gets another function and space is no longer available for industry.

This study has to make choices regarding scope and focus. The ‘face-lifts’ seem to be very different concerning process and financing. They were not included in recent national restructuring co-funding schemes. Furthermore, there is a growing agreement that a face-lift actually should be viewed as regular maintenance (THBa, 2008; PBL, 2009). Transformation, changing the main economic function of the area, also has quite different characteristics (Louw et al., 2004; THBa, 2008). It is therefore not surprising that the national government chose to focus on revitalisation and reprofiling (EZ and VROM, 2008). This study makes the same choice and therefore face-lifts and transformations are not addressed.

Although both revitalisation and reprofiling fall within the scope of this study, it is important to know that they can differ in their financial effects. In a revitalisation, the total costs usually exceed the profits (THBa, 2008). This means that additional financing is necessary to cover the ‘unprofitable part’ (in Dutch: “onrendabele top”, Algemene rekenkamer, 2008). Reprofiling, on the other hand, has a higher probability of becoming financially feasible, because it usually includes redevelopment with higher property value: it is easier to attract, and involve, private investors.

### **Quality of the outcome**

What is an ‘ideal’ quality level, and who finds it good enough and why? If there is no widely accepted agreement about the desired quality, why is that? This question is answered by looking into the involvement of actors and the evolution of the concept of quality.

The first issue is who assesses quality, and the reasons they have for stimulating and

initiating efforts towards restructuring. There is no restructuring policy without a perceived need to act: the current quality of an industrial site is viewed to be inappropriate and in need of attention. However, it is not clear how the national policy on this (e.g. EZ, 2004b; EZ and VROM, 2008; VROM et al., 2009) is related to the views of different stakeholders. Firms are certainly concerned with their opportunities for entrepreneurship, and they need sufficient supply of industrial sites offering appropriate quality. However, although there are several examples of restructuring where firms have been active, most initiatives in the Netherlands are started and managed by the local authorities. Their assessments of quality will be partly based on the opinions of firms, but also on additional objectives, in accordance with their integral responsibility for the local community. Finally, environmental interest groups (organisations) are quite active proponents of restructuring. We can conclude that policy on, and perception of, restructuring, is based on an aggregation of different views about the quality of existing sites. Included in this “aggregation” process are opinions regarding the impact of restructuring on a large variety of other more or less interdependent topics, such as land use for new sites, and quality of inner city areas.

Views on the relative importance of different quality aspects change over time. For example, change in the perception of environmental and safety aspects has actually ‘created’ problems on existing sites. First, laws and regulations have become increasingly strict. This has, through a mechanism that has been described (in chapter one) as ageing caused by changing societal norms, led to undesired situations. Second and related to the change in laws, nuisance aspects, such as noise, dust, and odour, have received increasing attention. There seems to be a decreasing tolerance of the experienced effects of such emissions by people living near to industrial sites. The perception of spatial quality also receives more attention. The result is that what is considered to be appropriate quality of existing sites cannot be taken to be constant during a long-lasting restructuring. Initial objectives may (have to) be adjusted during the process and the ‘picture’ of the desired final situation adapted.

Summing up, desired quality is the aggregated result of a complex, often implicit, continuous weighting process. As a consequence, the condition that processes be speeded up “without any reduction of quality of the final outcome”, needs to be addressed with caution. Applying a rigid pre-defined detailed ‘picture’ of a desired final quality based on a set of measurable indicators might be inappropriate for taking changing ideas and needs into consideration. Furthermore, the emphasis in this study is on improving the understanding of the processes and not on assessing the quality of the outcome itself. This study therefore views quality as exogenous, a normative framework mainly developed, used, and adapted, by the involved actors themselves.

### **Process duration**

The next question is how process duration is to be viewed within this study. The first part of the answer is that a restructuring normally lasts until the involved actors are satisfied with the quality of the industrial site. This means that process duration will depend on the site specific problems to be solved, and on the commitment of actors to invest in improvements. In practice, statements of the time needed for a restructuring (for example: EZ, 2004b) refer to an estimated ‘average’ time for something that is assumed to be a representative ‘average’ of all individual processes. The same applies to objectives for reducing total duration without endangering quality. Any quantitative objective referring to all industrial sites (for example an objective of reducing process duration by 20% was formulated in EZ, 2004b) will refer to some kind of ‘average’ process.

The importance of these assumptions for this study is that process duration is not addressed quantitatively. It is not measured in number of years, and no quantitative objective (percentage) is applied for reducing the duration. Process duration is simply viewed as something that

varies according to the specific situation, and this study searches for approaches that can reduce the time between a 'start' and a 'finish'. Measuring this duration may sound simple, but in practice efforts to improve an industrial site often have been going on for a long time prior to any restructuring initiative, and should continue after its completion. Defining any 'start' and 'finish' is not as easy as it may sound.

**Initial situation: local authorities formally starting restructuring initiative**

First, defining the initial situation, a 't<sub>0</sub>', means that some kind of change compared to the 'autonomous' developments prior to that moment needs to be identified. This is where the term "restructuring" is helpful. Restructuring has been defined (in chapter one) as "[...] a coherent total of activities, consisting of all non-recurring interventions on the site not being part of regular maintenance, aimed at improving the quality of (location factors on) an existing industrial site [...]". The definition tells us that such a restructuring implies more than addressing problems related to regular maintenance. It also specifically points to "[...] a coherent total of activities [...] aimed at improving the quality [...]". This suggests that some kind of coordinated approach is applied.

The initial situation - t<sub>0</sub> - is then the moment when certain actors acknowledge a need to act and start such a coordinated initiative. But who are these actors? The answer to this question influences the definition of the initial situation.

In practice there are usually two main (groups of) actors involved in a restructuring initiative: the local authorities and the firms situated on the site. An initiative could be taken by one of these actors individually or there could be a joint initiative, whereby a joint initiative will usually be the result of activities started earlier by one (or both) single actor(s). In this study, t<sub>0</sub> is taken to be the moment where the local authorities start an initiative. The main reason for this choice is that in The Netherlands the local authorities start most initiatives. Although prior to such a moment, significant efforts to improve the site may have been taken by local authority departments or officials, the 't<sub>0</sub>' will be defined as the moment when a formal (political) decision is made to start a restructuring.

**Final situation: site revitalised or reprofiled**

The final situation is reached when the site has been restructured. This implies that the quality of the site, and possibly its surroundings as well, has improved sufficiently to satisfy (at least a number of) the involved actors. Problems have been solved and objectives have been reached. In practice it is rather difficult to identify such a moment in time. A process may even last for decades, and during this period a large diversity of planned as well as more or less autonomous (defined as not planned within the context of an on-going restructuring) activities will influence the total quality of the site. To enable a final situation to be identified, a restructured site will therefore be defined as a site where two conditions have been fulfilled: a restructuring plan (or set of plans) has been implemented, and the local authorities consider the restructuring as complete.

The term "plan" may suggest something that is developed in an early stage of a development and subsequently implemented without any alterations. This would indicate clear ambitions that have been transformed into specific objectives, actions and related time-scales and allocated means. Although this study certainly acknowledges the value of plans in such a 'traditional' sense, it will focus on, and explore, planning rather than plans.

In line with the argumentation for defining the initial situation, a formal decision made by the local authorities that the process of revitalising or reprofiling is completed will be viewed as the t<sub>f</sub>: the endpoint.

## 2.4. Market, hierarchy, or interdependent actors and their interactions

The complexity of restructuring makes it necessary to make choices regarding how to view and study it. Such a process can be studied from different perspectives, each of which reflects a certain view on how such processes (may) function in practice and therefore suggests certain fields of theory. Here we introduce and explore the pros and cons of three possible perspectives: restructuring as something that can be understood and influenced as being driven by market mechanisms, as a process where results can be 'enforced' through position in a hierarchy, and as a process characterised by actions by, and interaction between, interdependent actors.

Applying the three suggested perspectives to the main characteristics of restructuring provides the following picture:

<i>Market mechanisms</i>	<i>Hierarchy</i>	<i>Actors &amp; Interactions</i>
Restructuring assumed to be market driven. Low degree of actor interdependency as well as low degree of influence (power to enforce) of individual actors.	Restructuring assumed to be (at least partly) enforceable by dominant actor(s).	Restructuring assumed to take place in interactive processes based on high degree of interdependency and complex patterns of influence. No dominant actor able to enforce desired changes.

Figure 2.1 Characteristics of three different perspectives on restructuring

Up to now, integral site restructuring has not functioned without active interventions by the local authorities. There does not seem to be any market mechanism (yet) that ensures sufficient progress as well as results that are satisfactory to all involved actors (THBa, 2008, pp.25-26; Adviescommissie Plabeka, 2011; see also Krabben, van der and van Dinteren, 2010, for an analysis of market failures and suggestions for new interventions). This phenomenon is usually referred to as market failure. There is seen to be a fragile real estate market, with private sectors cautious to invest, and a decline in level of economic activity (Amin et al., 2000). The lack of investments is caused by a perceived high risk and uncertainty for investing (McNamara, 1993). The importance of costs and the related problems of ensuring the necessary financing have repeatedly been stressed in literature on restructuring (see appendix I for a description and discussion of several reports referring to this issue). Usually, in practice, the costs associated with restructuring significantly exceed the resources of the local authorities and even the combined financing capacity of all local actors.

In practice, financing is only one aspect of a feasible development scenario for a site. Feasibility includes organisational, political, technical and, legal aspects as well. Achieving successful regeneration is accordingly a complex challenge that involves much more than property-led renewal (Hopkins et al., 1997). This indicates that a market perspective is not suitable for studying restructuring.

Because the involved actors have partly different objectives and interests, there is a growing understanding of the importance of involving both (local) authorities and firms in this process (THBa, 2008). This suggests focusing on actor involvement and influence. The key question is then whether one (group of) actor(s) can use a hierarchical position to significantly accelerate

the process. The local authorities do have some opportunities to enforce some actions through laws and regulations. However, for a significant part of the desired developments, successful voluntary cooperation between at least firms and local authorities is a necessity. This makes the 'command and control' approach to management unlikely to work (Battram, 1996). Complex actor interdependency is accordingly a key aspect of restructuring. All these characteristics and arguments indicate that a perspective focusing on actors, interaction, and cooperation is suitable for developing an improved understanding of restructuring, and better than a perspective from markets or hierarchy. Summing up, the choice for this actor-and-interaction perspective is based on the following characteristics of restructuring (which are described in more detail in the next chapter):

- It cannot be expected that market mechanisms alone will ensure sufficient progress and/or satisfactory outcomes of restructuring;
- Neither local authorities nor firms on the site are able single-handedly to implement, and in particular to finance and/or enforce, any integral restructuring of the whole industrial site;
- Development of feasible solutions requires an integral process approach to the interests and goals of, and to the interdependency between, different stakeholders regarding organisational, financial, political, technical and, legal aspects;

## 2.5. Local authorities acting as planning agencies

The next issue is: on which actors this study should focus. The previous description has pointed to firms and local authorities as being actors having significant interest in, and influence on, performance of most of the industrial sites in the Netherlands. However, initiating and managing the process is usually performed by municipalities (Louw & al., 2004, ch. 6: pp. 125-154, THB, 2008a, Algemene Rekenkamer, 2008; EZ and VROM, 2008; PBL, 2009). In that sense, the latter act as a planning agency, taking a certain responsibility for the spatial planning within a specified geographical area (Alexander and Faludi, 1996; Needham, 2000). The way planning agencies act, and in particular the way they interact with other actors, will accordingly influence progress and results (see e.g. Healey, 2007, for some reflections on the development of views on the 'planning agency'). Moreover, interaction (cooperation and coordination) between local authorities on a regional level is important (VROM-raad, 2006; THBa, 2008; BWU, 2009; Adviescommissie Plabeka, 2011). So, regardless of whether a local or regional perspective is applied, all situations will include the local authorities. Their way of cooperating, formalised or not, will direct and influence the restructuring progress and results. This study will include the interactions on a regional level, but will do so viewed from the perspective of a local authority in its role as planning agency. The term planning agency will therefore in this study be used to mean a local authority which takes a certain responsibility for the planning of the restructuring.

The role of such a planning agency has already been briefly introduced in chapter one as well as in the previous sections of this chapter. The planning agency takes a certain approach to starting a restructuring initiative, and subsequently to managing a process aimed at achieving results which are satisfactory enough to actors having an interest in the site performance. This requires at least performing a number of main tasks.

## 2.6. Decision support model, and theory for spatial investments

The planning agency needs to select an approach to choosing and performing certain main tasks, inherent in the way in which any restructuring is performed. This study aims to develop a decision support model that can help planning agencies to choose an appropriate and effective approach, taking account of the specific situation. A decision support model is here viewed as a tool that can help identifying key characteristics of a specific restructuring situation, and that then suggests appropriate follow-up actions to influence these characteristics in a desired direction. It does not prescribe these actions, but leaves the choice to the planning agency (and other actors possibly involved in the decision-making). Such actions enable planning agencies to get more insight into the process and, in particular, help in finding solutions that satisfy the needs of the involved actors more quickly.

Such a decision support model needs to build upon theory. The appropriate theory must fit the specific conditions surrounding spatial investments: in this case those surrounding industrial sites. The possible theories are investigated in chapter four, where we will also make a choice for the most appropriate theory.

## 2.7. Research design

The previous sections have delivered a number of 'building-blocks' for narrowing down the research scope and focus. Summarising and combining these elements, the main research question of this study is:

*"How can a decision support model be developed that enables planning agencies to identify appropriate situation-specific approaches that reduce the total restructuring duration without endangering the quality of the final outcome?"*

The assumption is that the current approaches can be improved, and that such improvements can be reached by applying process approaches that are adapted to the specific situation. The following figure visualises the main relationships, and the way in which a decision support model can assist planning agencies in this. It shows how the decision support model and situation-specific process approaches are applied in a continuous process of alternating steps of analysis and follow-up actions. At the beginning of a process, the decision support model is used for choosing an approach appropriate to the initial situation, an approach which takes into account characteristics encountered. This approach again affects the process, and accordingly leads to an altered situation and a new round of analysis and follow-up.

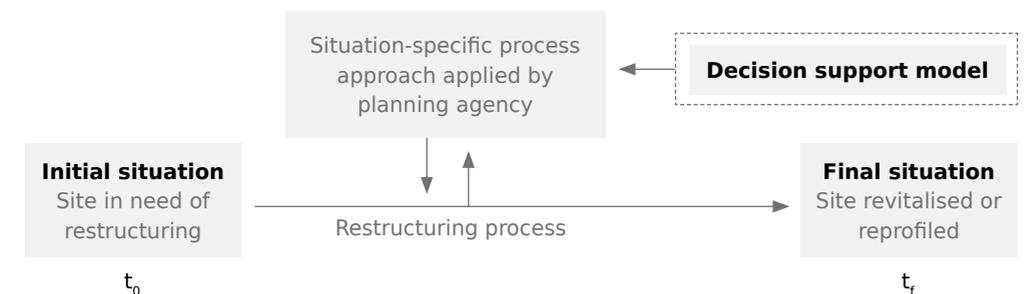


Figure 2.2 Relationships influence planning agency and process duration.

In order to answer this research question we must build upon existing knowledge and at the same time incorporate the assumptions about how restructuring can best be understood and studied.

Because restructuring industrial sites is not well understood, and, in particular, it is unclear which theory, or theories, is / are most suitable for studying such processes, an explorative step-wise approach is applied. This approach is mainly qualitative and is a gradual, iterative, process towards getting a clearer idea of the main aspects that can guide the selection, and development, of theory and of the decision support model. It supports the view of Flick when he says that “[...] designing methods open to the complexity of the study’s subject is also a way to study complex issues with qualitative research. Here, the object under study is the determining factor for choosing a factor and not the other way round [...]” (Flick, 2009, p. 15). On the other hand the explorative search within this study is informed, and to a certain degree focused, by previous experience (e.g. Lambooy, Spit and Bugge, 2002; Bugge, 2003; 2006; 2007; 2008; Brand, Bugge and Roelofs, 2004; Bugge et al., 2007; 2010).

The search therefore starts with a brief description of restructuring, focusing on the range of approaches currently applied by planning agencies to the main tasks. This phase is mainly descriptive and explorative. It has the characteristics of preliminary research and is used to develop a clearer idea about the full complexity of restructuring in practice. The next step is to apply this information in the search for frameworks and theory that fit the phenomenon being researched (i.e. restructuring) and which can be applied in practice (Dey, 1999). Next, the situation-specific approach for handling restructuring, which is called a ‘decision support model’, can be developed. This model, again acknowledging the explorative nature of this study and the importance of applicability, can then be tested and operationalised by practitioners. Finally, the significance of the outcomes for knowledge and practice can be discussed.

It is now possible to formulate the detailed research questions:

1. *What are the main activities and tasks in restructuring, and how are they currently being handled by planning agencies (addressed in chapter three)?*
2. *How can performance of complex multi-actor processes (such as restructuring) be understood (addressed in chapter four)?*
3. *How can the theoretical framework be applied to restructuring of industrial sites (addressed in chapter five)?*
4. *How can a model be developed for situation-specific process approaches chosen by planning agencies to influence progress (addressed in chapter six)?*
5. *How can practitioners test and operationalise the model, and what do the outcomes tell us about the model and restructuring (addressed in chapter seven)?*
6. *What do the outcomes contribute to knowledge and practice, and what do they tell us about the need for further research (addressed in chapter eight)?*

## 3. Current approaches to restructuring in practice

*“We consider the success of revitalization to be a function of the combined quality of stakeholder involvement, management and organization of the process and, finally, specific measures.”*  
(Brand, Bugge and Roelofs, 2004, “Preface” p. 5)

### 3.1. Introduction

Although each restructuring is different from all others, there is sufficient in common to make it possible to study how restructuring processes in the Netherlands are being tackled in practice.

The question is then whether these (commonly applied) restructuring approaches are effective in practice? However, planning agencies have limited, or no, previous experience with large scale industrial site restructuring. They are largely unaware of what they can expect, and they tend to view everything that occurs as new and special: they may even assume that what happens is incomparable to anything encountered elsewhere. They may even be unable to ask the ‘right’ questions, because they have no, or too limited, experience with causal relationships, for example between process interventions and effects on commitment.

The objective of this chapter is to describe how such complex processes are designed and managed in practice This chapter accordingly seeks an answer to the first detailed research question formulated in chapter two:

*What are the main activities and tasks in restructuring, and how are they currently being handled by the planning agencies?*

The first step is to choose how the description can be structured (3.2). The chosen structure is then filled in. First, restructuring processes are presented as possessing a limited number of common main tasks and activities (3.3). The approaches to both tasks and activities depend on the phase of the restructuring. Some tasks are repeated during the process, or they address the whole restructuring (3.4), whereas other approaches are applied for short-term objectives and activities (3.5).

### 3.2. How the process description is addressed

#### **Based on literature and personal experience**

An exploration of the literature on industrial site development reveals that although processes of ageing, decay and restructuring (CPB, 2001; Konz and van den Thillart, 2002; Louw et al,

2004; Olden, 2007; PBL, 2009; Blokhuis, 2010) have received considerable attention the past years, most efforts have been directed towards developing, influencing, or evaluating the impact of the policy of public authorities (e.g. EZ, 2004b; RPB, 2005; 2007; VROM-raad, 2006; THBa, 2008; Algemene Rekenkamer, 2008; PBL, 2009; Nicis, 2009; Adviescommissie Plabeka, 2011). These efforts were aimed at identifying problems and obstacles (see appendix I); at developing (mainly) plans for a large number of individual restructuring cases (e.g. Novem and EZ 1999; 2000; VROM et al., 2010a); and at a variety of more or less comprehensive guidelines (e.g. EZ, 1998; DHV, 2000; Provincie Flevoland, 2000; Novem, 2001; Novem and Décor, 2003; Brand et al., 2004; BOM, 2006; REVIT, 2007) and 'good practices' for specific themes such as land use, architecture, private involvement, and industrial site management (e.g. BCI, 2003; VROM, 2001; EZ, 1999; 2002). Although these documents are based on practitioners' experience, they rarely include any explicit descriptions of current approaches to restructuring, nor, in particular, how they are designed and managed by a planning agency. Instead they are usually normative, either telling what is perceived to be 'wrong', or providing a 'better' alternative. In short, although the literature includes a rich body of knowledge on how restructuring in the Netherlands is performed by planning agencies, this information is mainly implicit and can only be 'extracted' from literature cautiously.

The information used for this chapter is of the same sort as that used by Barrie Needham who says, for his description of Dutch land-use planning "[...] as the final piece of supporting evidence I give the general knowledge that I have of planning practice in the Netherlands [...]. This is no more – but also no less, being built upon many years studying practice [...]" (Needham, 2000, p. 451). In this chapter, the information from literature is complemented, and enriched, by more than fifteen years personal experience with industrial site development, process management, and decision support. This experience includes a wide range of activities such as applied research into decision support for regional innovation processes (Bugge et al., 2007; Welter et al., 2008; Bugge et al. 2010); into opportunities and obstacles for industrial ecology on industrial sites (Bugge, 1994); into the influence of planning agencies on revitalisation of urban industrial sites and the dilemmas they face (Bugge; 2003; Brand, Bugge and Roelofs, 2004; Bugge, 2006); into multifunctional land use (Lambooy et al., 2002); into development of management guides (Novem, 2001; Brand, Bugge and Roelofs, 2004) and visions for sites and cities (Bugge, 2000; 2004); into process interventions and evaluations (e.g. Bugge, 2007; 2008); and into a wide range of other contributions to Dutch industrial site practice and policy development.

#### **Elements of a structure**

Both literature and own experience indicate that in practice a large number of activities and tasks can be identified that, to a varying degree, are relevant to, and important for, the effect of restructuring. It is possible to distinguish between such tasks and activities according to their nature and importance. Some, which will be called main tasks and activities, are encountered during any restructuring. These can be used to order the description of the processes, and, in particular, to provide a framework for a description of more detailed tasks. To describe all possible process variations would, within the scope of this study, be infeasible. The limited description suffices to present the ranges which are encountered in practice. The variety suggests that planning agencies have reasons for choosing what to do and how to act, and that somehow this 'causal background' influences, and limits, their choices. However, this is only briefly addressed in this chapter (see chapter four for a theoretical perspective on how the actions of planning agencies can be understood).

#### **Any description represents a simplification and perception of reality**

Our aim is to make a description which is useful, taking the objective of this study into account.

This means that the scope of the description is limited to the role of planning agencies, and the focus is on how they address specific tasks and activities. Nevertheless, the high complexity of the processes implies that there are numerous possibilities for making such a description, varying from what loosely might be called 'telling a story' towards applying a predefined format. A structure represents a simplification and can accordingly never capture the full complexity of any real life process. On the other hand, the use of a structure means that selected relationships, differences, and importance of issues are made explicit. This ordering of issues makes it possible to discuss, refine and redesign restructuring processes on all levels, which is exactly how the following description of the processes is to be viewed.

### **3.3. Main activities, tasks and their relationships**

The basis for the chosen structure and description of restructuring activities is taken from a three year research project on sustainable revitalisation of urban industrial sites funded by the European Commission within the Fifth Framework program (Brand, Bugge and Roelofs, 2004; for a short summary of the project see appendix II). Within this project, a decision support approach was developed that incorporates experiences from six real life cases and from the body-of-knowledge on restructuring available at that time. These experiences showed that there is always a certain degree of interaction between the involved actors aimed at identifying, and subsequently implementing, feasible opportunities. Furthermore, restructuring seldom, or maybe in practice never, is performed as a single concerted set of actions according to a blueprint master plan. Instead a partly consecutive, partly parallel, approach is applied, where each improvement measure has its own more or less independent planning and financial exploitation. At the same time, this approach is used for building commitment for a follow-up, and it is also increasingly intended to enable some of the investments to be recovered through a partial revolving fund construction.

This short description implies that all processes have two other distinct characteristics in common. First, there must be a moment in time (see chapter two for a definition) where an organised intervention is started, which from that point in time is called a restructuring. Prior to this moment, improvements of the site may, and usually will, have occurred, but for some reason the process was not considered to be a restructuring. Second, any restructuring includes the activities of preparation, determination (or decision), and implementation (Voogd, 1995).

The total restructuring can accordingly be viewed as a set of *activities* which vary according to the phase of the restructuring (Brand, Bugge and Roelofs, 2004). First, awareness and acknowledgement of a need to act gradually develops. Then this awareness leads to one or more actors taking a step towards starting a restructuring, which usually gradually develops into joint efforts to take an organised initiative. Such an initiative builds on a first understanding of the problems, and usually it results in ambitions and a set of objectives being formulated. Next, solutions are sought and assessed, and then decisions to implement are made. Attempts are made to develop a continuous improvement process, and in successful cases such attempts lead to a situation where management has been organised, and monitoring of site performance has been implemented and/or improved.

This leads to a 'simplified' structure for describing how restructuring proceeds in practice, a structure which captures the fact that some activities partly overlap and are encountered several times during a process. First, there is an initiative 'phase', which leads to more or less specific goals for the restructuring, and subsequently there is a 'phase' aimed at ensuring that feasible and desired solutions are found and implemented.

The main tasks of the planning agency can be related to the activities in these two 'phases'. Planning agencies usually fulfil an important role in a restructuring. Besides often being the process initiator, they normally plan, organise and manage most of the activities. This implies that the planning agency more or less continuously needs to search for alternative approaches and solutions, assess their impact on the process, and decide how to proceed. This complex search is always aimed at finding feasible solutions, to which actors will commit themselves and to implement which the required means are available. Building commitment is accordingly another main task for the planning agency. To be able to develop and manage an appropriate process, and to identify and implement appropriate solutions, planning agencies therefore need to collect information about the motives which actors have, and about how commitment to allocating resources can be reached. The links between these main tasks and the restructuring activities are visualised in figure 3.1.

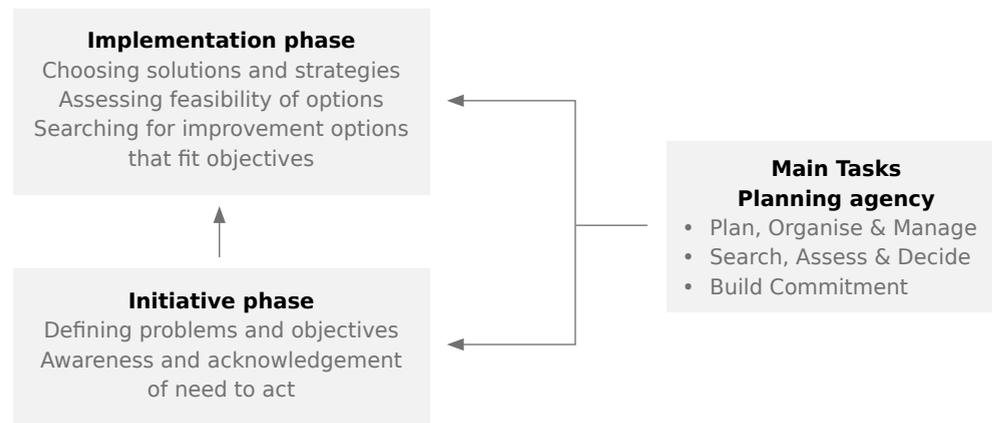


Figure 3.1 Main tasks planning agency and relationship to main restructuring activities

These tasks are encountered both related to the complete restructuring, and to the two separate activities of initiative and implementation. This implies that planning agencies continuously need to manage at the same time both the individual activities and the complete process. The way they address the main tasks are described in accordance with this division, starting with approaches applied to the complete process.

### 3.4. Approaches to main tasks for the complete restructuring

#### Plan, Organise & Manage

The first issue is how planning agencies plan, organise and manage a restructuring. Planning agencies link this to long term ambitions for developments of the local community. There is always at least general policy, regarding matters such as employment and environmental performance, which will have consequences for industrial sites. This policy, possibly also influenced by local complaints or by policy of higher authorities, leads to the development of a plan for the restructuring, which is translated into an organisational design and which to some extent governs the subsequent management of the process.

However, because restructuring lasts so long, changes might stimulate, or even often necessitate, adjustment of both plans and organisation. The situation on the industrial sites continuously changes through, for example, migration of firms and changes in business activities. Different ageing mechanisms operate, and generate new problems or make existing problems worse. At the same time, new insights provide more options and sometimes better solutions. Also trends and planned changes in policy, organisation and socio-economic situation influence the local situation.

Planning agencies therefore have to manage processes of change. Their strategies can be positioned on a range between two extremes. The first extreme would be a 'blueprint' approach where a plan is developed and subsequently implemented without any alterations. The opposite extreme would be continuously to adapt objectives, plans, and organisation to external and internal developments. In practice, planning agencies seem to prefer an intermediate approach: a continuous change strategy within a long-term framework of ambitions and general objectives, sometimes called a Master Plan.

Such a framework allows a considerable degree of flexibility. The planning agency can, and does, develop and execute separate projects according to need and opportunities. The start of any new project is the outcome of a process aimed at finding, or building, a solution that has sufficient support from the involved actors. This support is based on different things. First, a project design mirrors the needs, and ambitions, of planning agency, firms and possibly also other involved actors. Second, it is based on the availability of resources. This availability limits the opportunities. It is therefore not surprising that projects that get sufficient support are quite diverse, or that times of (seemingly) no activities alternate with times where major changes occur within a relatively short time. To plan, organise and manage this diversity and the changing availability of resources and commitment, the planning agency applies different reductionist approaches. These lead to a 'simplification' of a problem situation, which means that at least implicitly the planning agency accepts the related advantages and disadvantages. 'Simplifying' a problem can for example mean that its relationships with other problems on the site are excluded from assessment; and that can be viewed as an advantage. On the other hand, simplifying can mean that effects not assessed can negatively affect the restructuring in the future: a disadvantage.

The planning agency simplifies based on three partly interdependent criteria: spatial scale, content related themes, and actors. First it divides an industrial site into smaller parts that can be addressed either in parallel or consecutively. This makes it possible to separate areas based on importance, urgency and homogeneity of the problems, and this enables selecting improvement strategies that fit the problem in that particular area. Second it develops projects that address specific themes such as security, quality of infrastructure or land use. Finally, projects are sometimes limited to specific actors. There can be projects aimed at specific sectors, such as individual firms that are responsible for a significant part of the undesired environmental or safety effects, or at the property of the planning agency itself (i.e. public space). In practice, these three types of approaches are used together, such as addressing specific actors and themes related to smaller defined areas of an industrial site.

On the other hand, the planning agency sometimes makes the problem situation less simple by linking restructuring of industrial sites to comprehensive integral improvement strategies for the local, and sometimes even regional, community. Especially industrial sites located in urban areas often possess specific weaknesses and strengths that present threats and opportunities to the surroundings. The planning agency tries to address this complexity through an approach, which includes changing functional mixes and enabling spatial dynamics. In practice, this means working towards accommodating the 'right activity at the right place'. If a firm is situated on the wrong place, for example for safety reasons, it is stimulated to relocate. This often includes offering alternative locations on new sites. Such relocations then

create opportunities for new activities, and possibly different functions, on the now available vacant space. The planning agency usually tries to manage this interdependent relocation strategy in such a way that functional changes cover, at least partly, financial deficits from restructuring efforts. This objective is sometimes achieved through transformation of (parts of) industrial sites into housing or office areas: as long as such re-profiling and transformation concerns only a small part of the site, the restructuring still falls within the scope of this study.

### Search, Assess & Decide

The diversity of problems, opportunities, projects and time-related efforts is reflected in the way decision making is performed. The decision making process is composed of three activities: searching, assessing, and taking the actual decision. The planning agencies normally have a role in all of those activities.

In practice, it is often necessary to perform these activities several times before a satisfactory result has been achieved. This means that any decision, based on searching and assessing options, usually leads to some change, but not necessarily to the implementation of any real 'solution'. What often happens is that a new 'round' (Teisman, 1992) is started, which can include changes to the actors involved and to the topics that are discussed. These 'rounds' (see figure 3.2) continue until a satisfactory solution has been found, where "satisfactory" means that there is sufficient commitment to proceed towards implementation.

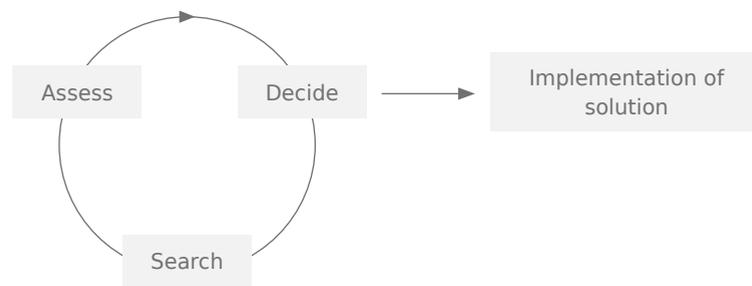


Figure 3.2 Complex decision-making in 'rounds'

In practice, the activities of searching, assessing and deciding are not always as separate as the visualization above may suggest. Sometimes complex decision making is performed in a 'garbage can' (Simon, 1957; 1960) where all three activities are addressed in parallel and intertwined during one short session.

The planning agencies can be involved in these activities in different ways, ranging from complete responsibility to no involvement at all. Their involvement may be compulsory, related to specific legal responsibilities. However, in most cases the chosen involvement is based on an assessment of the expected impact of different actions in the light of own resources and ambitions (more details on approaches to such 'search - assess - decide' rounds are given in the next section).

### Build commitment

Finally, a specific, and highly important, main task of the planning agencies is building commitment. This requires more or less continuous efforts directed towards both external and internal actors. Again different process strategies are applied. Sometimes a wide range of actors are involved in planning and, depending on the issues, even decision making. The

other extreme approach is to keep (especially) external involvement to a minimum. Such a minimum is dictated by considerations such as legal requirements, impact on financing, and land ownership. The choice for an approach depends on factors such as kind of decision, influence of actors, and the relationship between local industry and planning agency. Because all these factors can change over time, the approach during a restructuring often changes too. Also, different approaches to building commitment are sometimes applied at the same time for different kind of decisions.

Because quality of solution is related to the commitment of actors, this task is complicated. The planning agencies accordingly try to develop feasible solutions which balance, in a way acceptable to all actors, satisfaction, effects and available resources. In particular, this means acknowledging, and addressing, the fact that the degree of commitment will always be related to specific measures.

In practice this means that although planning agencies will attempt to find good solutions, the need for commitment (expressed through ability and willingness to invest) may lead to solutions that are feasible, but still far from being any 'best choice' regarding total effects. For example, the planning agencies sometimes choose, and implement, 'quick-win' solutions. These measures may have a very positive effect on short term satisfaction, but may on the other hand financially, or even physically, restrict future possibilities for site improvement. Therefore the planning agencies also try to combine, and to adjust according to need, long term and short term activities aimed at building commitment. This flexibility is also an important aspect of ensuring continuity and progress. The long duration of the restructuring can otherwise lead to a decrease in commitment.

### Relationships between main tasks

We have identified three main tasks which planning agencies perform regarding the complete restructuring. These three tasks all interact, and the approaches to these tasks taken by planning agencies accordingly (at least partly) overlap (see table 3.1). For example, the tasks of building commitment and performing searches can also be viewed as belonging to management and organisation activities. However, they have been described separately because they illustrate different aspects of how planning agencies address actors and interactions in their attempts to restructure industrial sites.

Table 3.1 Main tasks and applied process approaches for complete process

Main tasks	Applied process approaches
Planning, Organisation, and Management	Combination of global long-term ambitions and use of specific time-dependent opportunities
Search, Assess, and Decide	Choice of role in complex decision-making 'rounds' based on expected impact and available resources.
Build Commitment	Working towards solutions which are accepted by all / most actors regarding satisfaction, available resources and effects on site performance.

## 3.5. Activities specific to the initiative phase and to the implementation phase

The complete restructuring process just described can be divided into two 'phases', initiative and implementation (see figure 3.1). We now consider each of those separately, describing the activities specific to each phase.

### 3.5.1. Initiative

Even before the restructuring has been formally started, there will have been more or less organised attempts to influence commitment to, searches for, and implementation of, site improvement measures. However, these actions might not have led to acknowledgement of urgency and importance sufficient for starting an integral and comprehensive restructuring. Movement towards an organised initiative is accordingly characterised by a growing concern about the situation on the site. This concern is expressed in different ways by a variety of internal (i.e. originating from 'inside' the planning agency) and external actors, and it influences the perceived need for change. Developments in laws and regulations and policy, experienced negative socio-economic or environmental effects related to the site, and, of course, complaints can contribute to this growing concern.

#### **Impact of policy development of higher authorities**

The importance, and related urgency, of restructuring decayed industrial sites is stressed in national policy. This national policy serves as a framework for Dutch provinces in development of their own policy. Planning agencies functioning on a local (and usually in different ways also regional) level are confronted with policy of higher authorities through objectives and specific related instruments such as the (previously mentioned) use of the "SER-ladder", regional programming, and funding schemes.

This description might suggest a simple top-down approach. However, measures taken by higher authorities are often influenced by information from the local level, because both national and provincial authorities use, in their own policy development, input from local authorities and other relevant organisations, such as a wide range of interest groups.

#### **Satisfaction of firms and neighbourhoods**

Complaints, in particular, are symptoms of specific problems or of more comprehensive processes of decay. Firms leaving a decayed site or contacting the local authorities in search for new locations might indicate inappropriate quality on the existing site. Complaints can also come from a variety of groups and individuals involved in the local society, in particular those living near to the site.

#### **Internal developments of the planning agency**

Different departments, groups within the municipal council, or individual politicians or civil servants, may be aware of part of the problems and try to get these on the political agenda. This can happen without those actors having an overview of the problem situation or any common agreement about what needs to be done, and certainly no broad formal commitment. Nevertheless, a planning agency, viewed as a single entity, has to recognize, and subsequently underpin, any need for starting a restructuring initiative, and its subsequent, intertwined objective is to ensure that this need is acknowledged by sufficient actors to enable starting the initiative.

#### **Recognizing and underpinning the need for restructuring**

In practice, planning agencies apply approaches somewhere between pro-active and reactive. The most pro-active planning agencies typically monitor and evaluate information that is considered to be relevant for internal decision making and policy development. The planning agencies regularly collect information about satisfaction of the firms and about the technical - physical situation on the site. Satisfaction used to be monitored by written surveys, interviews, or regular meetings with representatives of firms. However, industrial site management organisations, in the Netherlands usually called "Park Management", are slowly becoming more important in a continuous interactive process between firms and local authorities. This interaction facilitates the development of a common understanding of problems and possible solutions, and as such creates the basis for initiatives for restructuring. Monitoring of (physical) site performance is partly based on the same approaches, but also often includes regular quick-scans.

Access to relevant information depends also on the internal communication within the planning agency itself. The results of the monitoring (i.e. data) will usually enter the organisation at different points. Detailed information, such as on environmental performance, quality of the infrastructure, and plans for firm relocation, may be known only to specific departments or even only to groups of civil servants. Pro-active planning agencies ensure that the internal communication is coordinated, to ensure that all parts of the organisation receive necessary information on time. This means that they are 'translating' data into management information in accordance with the diverse needs of internal target groups.

However, in practice, monitoring and subsequent assessment is often much less continuous and structured. Surveys are carried out, but irregularly as a reaction to such things as complaints about site performance, and they are not part of any continuous integral improvement approach. This situation is usually encountered in planning agencies applying a more reactive approach. The most extreme reactive strategy is that planning agencies wait until external developments (experienced as pressure) more or less force them to act.

#### **A parallel and intertwined process of building commitment**

Regardless of the approach to monitoring and assessment which the planning agency takes, there will be a moment where the need to act has been recognised by a limited number of civil servants and possibly individual politicians. The next task is to get the topic onto the local political agenda. This may be done in a number of ways. In practice a gradual approach to building commitment seems to be the favoured strategy.

Assuming that this process starts within the planning agency itself, the initiators first try to collect any necessary additional information about the necessity to act. This may include a whole range of activities including workshops, brain-storm sessions, surveys, measurements and visualizations of effects of problems, and site visits. Parallel to this, initial, often informal, assessments of feasibility of different improvement strategies are made. The possible effects of a restructuring initiative on existing plans and objectives in other policy fields, the opinions of local politicians, and funding options are explored.

This process is not limited to collecting information, and can be viewed as a continuous search and assessment of feasible developments aimed at discovering opportunities for starting an initiative. The tasks of collecting information and building commitment accordingly often run parallel and intertwined rather than consecutive.

At a certain moment, the results are presented to the responsible politicians as a coherent new policy initiative, or alternatively as an activity which may be considered as a continuation of current policy. This initiative will not come as a surprise, because it will have been thoroughly prepared as described above. Nevertheless, such proposals in practice provoke different reactions. In some cases, responsible politicians acknowledge the need for restructuring,

but for different reasons (e.g. other priorities or lack of resources) they choose to postpone starting any restructuring. The political consequences of launching an initiative at what might be the 'wrong' moment also influence such a decision. Another outcome may be that politicians still doubt the necessity to act. This may completely stop an initiative, or it may lead to new efforts to underpin the need and feasibility. There is accordingly a search for a well-balanced proposal about the importance and urgency of starting a restructuring initiative, about (potentially) available resources, and about commitment.

#### Acknowledgement of a need to act

Finally, this emerging awareness leads to an acknowledgement by at least the planning agency of a need to act. This acknowledgement means that some global objectives for a restructuring are formulated and ideally integrated into more comprehensive development programs for the local community. These then serve as the starting point for developing a joint restructuring initiative.

There is then some commitment, a general idea about the problems and related possible objectives and solutions, and a first global check of feasibility. However, usually there is still at this point much uncertainty regarding what needs to be done, by whom and when.

#### Strategy, actor involvement and possible outcomes

There are three possible initial situations regarding actor commitment and involvement: the first steps are taken by the planning agency, by firms, or by both. However, the first two approaches tend to develop into a joint initiative in time, because in such comprehensive and integral improvement, there is interdependency between planning agencies and firms that necessitates a certain degree of cooperation.

Planning agencies are always, and necessarily, involved, because they have specific and exclusive legal responsibilities for spatial planning (The Spatial Planning Act, and in particular, the Zoning Plan) and environmental performance (The Environmental Management Act). Any spatial developments either have to be in accordance with current regulations or will have to be incorporated in a modified (or new) Zoning plan. On the other hand, integral improvements of sites include both the property of the local authorities and that of the firms: this usually means that both sorts of actor need to invest.

Moreover, the investment needed for the total restructuring usually significantly exceeds the capacities of all local actors together. Often this leads to the involvement of higher authorities, and in particular, provinces. Besides this financial reason, provinces are often involved because they often actively stimulate restructuring initiatives as part of their policy on industrial site development.

A variety of other actors, such as representatives of residents of nearby neighbourhoods, interest groups and investors, may become involved as well. Some of these actors, such as a specific restructuring agency or a regional development agency, may (partly) be involved in performing the tasks of the planning agency as well.



Figure 3.3 The Initiative: actor involvement and possible outcomes

Such an initiative evolves along various lines and leads to various activities and outcomes, depending on actor involvement and the agenda (see figure 3.3). In practice, a joint vision for the site development is often encountered. This usually includes a more or less ambitious picture of the future accompanied by a set of (global) objectives. Often this vision is coupled with a Letter of Intent that confirms, and strengthens, the willingness of the involved parties to cooperate and invest in the site improvement. However, in some cases no vision is developed in this early stage: the involved parties first collect more information on problems and improvement options, and then develop a (Master) plan for (parts of) the area. Sometimes even the integral planning phase is accompanied by the parallel implementation of a limited number of feasible measures.

#### Collecting additional information about the situation on the industrial site

However, in both cases (vision or no vision) the planning agency needs to collect information to facilitate decision making on what the restructuring objectives should be. Although some information has already been gathered during the process, which has led to the acknowledgement of the necessity to act, in practice at this stage there is often still no overview available. A quick-scan might then be performed, which can address a wide range of topics. It may be limited to generating an overview of problems, but it will usually also, at least implicitly, include options for improvement. The quick-scan therefore normally addresses all aspects of ageing and decay (see 1.5), without all aspects necessarily receiving the same level of attention. Scope, focus and method are influenced by perceptions of

problem urgency and importance, as well as by resource constraints of the actors involved in the quick-scan. Consultancy firms usually perform these quick-scans, applying their own pre-developed research methods.

In practice a predominantly qualitative, or semi-quantitative, assessment is made, based on a mix of visual inspection of the area, data already available from measurements, and possibly feedback on satisfaction from firms or other actors. The visual inspection is aimed at getting a general idea of the quality of buildings and their surrounding areas, infrastructure, and image of the area. This makes it possible to create more detailed pictures of sub-areas of the site, and accordingly to locate problems and related problem owners. Buildings may be assessed regarding level of maintenance and the degree to which they fit into their surroundings. Use of space and tidiness are aspects that are checked in the unbuilt spaces. Special attention is often given to spatial symptoms of business efficiency, such as non-used buildings or firms having insufficient space for storage, parking or loading freight. Quality of infrastructure on the site and of access routes to the site is another important aspect. A quick-scan tries to assess whether the available infrastructure fits the needs of the firms. Phenomena such as regular traffic congestion can indicate serious problems. The increasing importance of "image" means that presence and maintenance of 'green' areas are included in the scan as well. Another issue is the environmental performance: certain activities of firms cause safety risks or nuisance for other firms or neighbourhoods. The quick-scan can provide information on risks related to laws and regulations, but also on complaints and potential conflicts related to nuisance aspects such as dust, odour or noise.

#### **Collecting additional information about actors**

Information on the physical - technical situation on the site is not sufficient as input for decision making. It is important for the planning agency to have information also about the actors that are, or could become, involved in the restructuring of the industrial site. This information is gathered in quite different ways. In some cases, the planning agencies include a brief analysis of actor involvement in a general site performance quick-scan: the scan is then limited to a survey of general satisfaction and experienced problems of all firms on the site. In other cases, more elaborate approaches are applied, including in-depth interviews with representatives of firms, but also with actors such as higher authorities, intermediary organisations, interest groups and citizens living close to the site. These approaches can include attempts to get a better view of the ownership situation on the site, of relocation or expansion plans of firms, of interests, influence, ideas, and willingness to invest in a restructuring. On the other hand, planning agencies for strategic reasons (such as lack of trust between firms and planning agency) sometimes choose not to contact external actors and, in this early phase, mainly rely on information already available within their own organisation. It is necessary to collect more information about the situation within the planning agency also. Different departments and policy fields will have partly conflicting interests, and it is accordingly valuable to know their willingness to participate in the restructuring, and constraints on that.

#### **Developing an internal vision on restructuring objectives**

Based on this information about the situation on the site and about the (potentially) relevant actors, the next task of the planning agency is to develop its own objectives for the restructuring. This is done in a variety of ways. Sometimes general visions are developed. These describe the desired situation on the site, linked to general objectives. The general nature of such visions allows considerable flexibility and adjustment to changing conditions. Planning agencies sometimes choose to combine specific objectives for areas owned by the municipality with general objectives for areas owned by the firms. This makes it possible,

if desired, to develop first a plan only for the improvement of public space, for which the decision-making process is simpler. The leading idea behind this strategy is the hope that such an initiative may stimulate firms as well to invest in the area, at a later stage. On the other extreme of the range of approaches, the planning agencies do not develop any specific internal vision, but prefer to react to external developments or to co-develop a joint vision in co-operation with a selection of actors who have an interest in the area. In both cases, an internal vision evolves, more or less explicitly, during the process.

#### **Choosing a strategy for involving actors in the choice of objectives**

An internal vision - what the planning agency wants - is a starting point for a dialogue with external stakeholders, but it may also set more or less hard constraints on any joint search for objectives. In any case, the initial ambitions for site improvement influence how actors will be involved. Planning agencies identify the actors which, they believe, should be involved, and what their role should be. Previously mentioned factors such as interests, influence, and expressed willingness to participate in the restructuring are then, more or less explicitly and consciously, taken into account.

Planning agencies know that integral restructuring requires at least the support, preferably active contribution, of firms on the site. How should an appropriate representation of these firms be organised? It is not only infeasible, but also unnecessary and even probably counterproductive, to get full involvement of all firms in all activities. If there is an employers' organisation, or Park Management organisation, this will normally be invited to represent the firms. Other ways used are representatives of employers' organisations at the level of the municipality or the Chamber of Commerce, but also active individual firms. The planning agency usually tries to identify specific individuals that are trusted by both 'sides' (i.e. planning agency and firms), who can 'build bridges' between the different actors. Such individuals (in Dutch sometimes referred to as 'olliemannen') are sometimes representatives of larger firms, but they may also be former (i.e. retired) entrepreneurs who have both sufficient time and the desired influence.

Depending on the outcomes of initial assessments, the planning agency might choose to involve other actors also in the restructuring initiative. The aim is to ensure that an appropriate mix of actors is developed, which means both problem owners and (potential) problem solvers. In both cases, the planning agency focuses on how the actors can contribute to the desired change through allocation of resources, and on their (potential) willingness to invest in the restructuring and its outcomes. Therefore the province is an often encountered actor in this early phase.

#### **Organising the decision making process on restructuring objectives**

The next task of the planning agencies is to design, organise and manage a process that leads to the desired agreement on restructuring objectives. In revitalisation and reprofiling processes this task is complex, because of the variety of different actors having quite different and sometimes conflicting goals, and because the necessary investments are high.

Depending on the way the planning agencies have addressed the previously described activities, they might already have a certain basis for organising the decision-making process. This consists of information on problems, possible solutions, actors and their preferences, and their own objectives and constraints regarding resources and solutions. The planning agencies then often invite the selected actors to participate in brainstorm activities aimed at developing a complete vision, or at least a set of objectives. This is usually organised as a mix of group and bi-lateral sessions. Depending on the situation, the creative activities start either from current problems, or they use a picture of the desired future situation as the starting point. Parallel, and more or less continuous, attention is paid to exploring the

feasibility of different emerging scenarios. The planning agencies are sometimes satisfied if they can achieve an acceptable compromise, but they try to reach a consensus which goes further than that. The degree of commitment, again, will influence the process and its outcomes. In practice a variety of results is encountered. There might be clear visions and objectives coupled to very concrete Letters of Intent even including specifications of financial investments for each individual actor. At the other end of the range, only general intentions to improve the area, mainly referring to follow-up actions to identify the best solutions, are formulated. Both situations, although different, introduce their own opportunities and constraints into a search for feasible improvement measures. Specific objectives narrow down the range of potentially feasible solutions, whereas global objectives make it difficult for planning agencies to choose where and how to search.

### 3.5.2. Implementation

Now the planning agency has to search for feasible solutions. To do this, it builds on the commitment to joint objectives achieved during the Initiative phase. In Dutch restructuring practice, the planning agencies traditionally play a dominant role in this highly complex and long-lasting phase. They usually initiate and manage a multitude of studies aimed at identifying possible solutions and their feasibility, and they use the results as input and arguments in their interaction with actors when developing plans and building commitment for decisions.

#### **Choice of organisation related to availability of resources**

The support, internal (political) and possibly external, has made it possible to allocate resources for planning and organising this process. The amount of available resources varies considerably, and this affects the choices about how to organise the process. Usually, a small steering group and a project team are formed that are responsible for coordinating the search for a feasible restructuring scenario and for specific improvement options. Planning agencies sometimes integrate (almost) all activities into the regular line organisation. However, if sufficient financial resources are available and the planning agencies lack either know-how or human capacity, they sometimes outsource part of the activities, or even engage specific organisations that handle (almost) the complete process.

#### **Continuous managing of process and project(s)**

A tendency to use such specific restructuring organisations indicates an acknowledgement of how difficult it is to manage a process that is very far from following a 'simple' step-wise sequence. In practice (as briefly introduced in 3.4), the process slowly evolves through a large number of 'rounds', consecutive and parallel, of searching, assessing and deciding, that often results in implementation of improvements, but also experiences temporary setbacks and non-activity. So although the process may be directed by initial integral visions or plans for site restructuring, the need for flexibility and the limited resources make the planning agencies split the process into smaller parts. There is a continuous long term process, and also several more or less independent projects. This enables a restructuring that is easier to organise, finance and manage.

The combination of high complexity and limited resources necessitates simplifying the challenge. It is infeasible to address all objectives and related possible options at the same time through in-depth searches and assessments. The planning agency can choose to divide its efforts equally between all objectives, or to select only one, or a few, and postpone the rest. In practice, a mix of both strategies seems to be preferred. The quality of the outcomes is also affected by this simplification. These issues of simplification are addressed in more

detail later, as part of the description of how such searches and assessments are performed. Restructuring should be viewed as a process of continuous efforts to achieve and maintain a desired quality. This is increasingly acknowledged by practitioners and reflected in approaches to restructuring based on program management instead of 'traditional' project management. Good program management should enable projects to be handled in such a way that all individual projects positively contribute to the desired final outcomes.

#### **Managing actor involvement**

This should be based on good knowledge of the actors who will be affected by the restructuring. Planning agencies know that each kind of involvement has its own effects. Excluding actors from the process sometimes leads to active opposition. On the other hand, although involvement can give positive results such as more and better ideas and more resources, it can also slow down the process, or even be 'abused' by some actors as a way of undermining it. In practice planning agencies always make choices based on limited information, and participants are also often primarily involved based on existing mechanisms for cooperation and coordination. There is not always a best fit between the challenge and the involved actors.

More specifically, the planning agency takes account of the fact that the actors who should be involved will change over time. Ideally there should be actor involvement that ensures continuity and progress, and at the same time there should be specific, focussed involvement related to well-defined problems. The absence of crucial actors can block, or at least postpone, specific projects. This is often encountered regarding the involvement of representatives of firms, because decisions on investments (unless there are joint funds available for site improvements) always have to be made by the individual firms. However, processes can also be delayed if representatives of local authorities do not have clear mandates.

Planning agencies focus on continuity in interaction and in communication. They try to organise structural communication with all actors who are affected by the restructuring, in order to maintain commitment. The aim is to demonstrate progress and to monitor how the developments are appreciated by different actors.

#### **Managing the interactions between the tasks of searching, assessing and deciding**

During these long-lasting processes, planning agencies have to plan, organise and manage a large number of 'search - assess - decide rounds', where the involved actors, problems and possible solutions vary. What may be regarded as feasible by one set of participants in one specific situation, does not necessarily have to be even acceptable by another group in another setting. Another complicating issue is that in practice there is not always a clear separation between the tasks of searching, assessing and deciding. Accordingly, although each individual task may look rather straightforward, a number of alternative approaches are possible, and also used, in practice.

#### **Searching for options**

Options can be physical, but also organisational and financial. Often both types are linked to each other. A physical change to an area will for example usually be linked to a set of 'best fit' financial and organisational options. Search activities are used to 'diverge' as well as to enrich. 'Diverging' is defined as activities aimed at finding new options outside the current process or content scope; whereas enriching is defined as activities aimed at collecting more information about already identified options. The chosen, more or less specific, objectives serve as a starting point. The search is for options that contribute to reaching the objectives. The objectives accordingly represent initial guidelines, or sometimes even hard constraints. Depending on the stage in the process, more or less detailed information on effects and

feasibility of each option is collected. Several complicating factors are encountered. First, planning agencies have limited resources. Those resources are not only financial and personnel, but also internal know-how. In practice, planning agencies address these constraints by narrowing down the scope of the search, or by out-sourcing (part of) the search activities to consultancy firms. A typical approach in an early stage of a process is to perform studies and/or organise creative sessions aimed at getting a more or less complete overview of different options. The collected information is often qualitative and limited to lists of pro's and con's of each option. This leads to quite different reliability, accuracy, and completeness. Later in the restructuring, more detailed information will be needed, especially on feasibility. Normally these searches are limited to the selection of a few promising options.

How do planning agencies actually search, and what kind of solutions do these approaches deliver? Four different main approaches can be distinguished (Nutt, 2000), and they are all encountered in Dutch restructuring practice. First, is the existing solution approach, which means that planning agencies make use of available fully developed options. This is a rather practical approach, because it reduces the costs and enables rapid implementation (March, 1994). A somewhat more time (and accordingly resource) consuming approach is to search for available ideas. This quite common approach means that the planning agency asks for proposals from external organisations, and the received ideas are then assessed regarding feasibility and effect. This approach is also applied in 'rounds' that gradually lead towards an improved understanding of what is needed. A third option applied is bench-marking. In its simplest form, the planning agency tries to identify 'best practices' by comparing approaches used (for example) in other restructuring cases. In a more complex form, the results from different bench-marking efforts are integrated into a new approach. The final option is innovation aimed at developing new solutions. Probably, the use of existing solutions and simple searches, or searches in 'rounds', are most common. Bench-marking does not seem to be widely applied, and innovation, although it does occur, is rarely done by the planning agency itself.

The complexity of the situation regarding number of problems, objectives and improvement options stimulates planning agencies to develop 'scenarios'. This means that they develop 'packages' of options. Such a 'package' is an attempt to provide a phased, integral restructuring solution for the area, addressing both current site characteristics and more or less uncertain factors such as trends and developments. Although the local authorities may not explicitly use the term scenario, one or more such 'packages' of options usually emerge during the process.

### Assessing options and scenarios

The next task is assessment. As mentioned above, the usual search-approach is to start from a broad orientation and then perform more in-depth searches for more information about a limited number of selected options. This requires assessments, implicit or explicit, which deliver input for decision making at each step in this process.

Planning agencies apply a variety of assessment approaches ranging between predominantly qualitative and predominantly quantitative. Each is based on a more or less explicit use of criteria. Especially during early stages of a restructuring, planning agencies often use qualitative approaches such as the SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis. This provides a basic understanding of a need to act and gives some direction regarding possible strategies. Furthermore planning agencies sometimes apply qualitative risk analyses and stakeholder analyses, which enable the possible effects of actions to be identified. Comparison of options, or even sometimes scenarios, is done through more or less elaborate and explicit multi-criteria analyses.

On the other end of the range, and to support the final decision making just ahead of

implementation of specific measures, more or less detailed quantitative assessments of feasibility are performed. The assessments can include any, or all, of the following aspects:

- Financial feasibility
- Organisational feasibility
- Political feasibility
- Technical feasibility
- Legal feasibility
- Effects

First, the assessment of *financial feasibility* is crucial. The planning agency usually has a leading role in developing feasible financial solutions. It explores and assesses the willingness of individual actors to invest in specific developments, which includes taking into account constraints linked to specific funding opportunities. Often a number of "search - assess - decide" rounds are necessary before an acceptable solution is found. An important aspect of financial feasibility is the link between investments in restructuring, and investments in developing new industrial sites. The planning agencies can influence the availability, and price, of land on new sites. So their task includes assessing the effects of land prices on the new sites on the feasibility of improvement options on existing sites. Increasing the price of land on new sites can result in firms choosing to improve their current location instead of relocating to a new site. The assessment must also take into account the fact that some investors may benefit only partly, or indirectly, from their investments. For example, the planning agency invests in restructuring a site, but the benefits are received by the firms. Finally, the assessment should take into account that financial feasibility usually changes over time. New co-funding schemes and increasing willingness of firms to invest are opportunities, whereas economic decline and firms leaving the industrial site may undermine the feasibility. The planning agency tries to monitor these changes and assess their consequences for financial feasibility.

In practice, *organisational feasibility* is strongly linked to the financial feasibility. The planning agencies assess what they can achieve, taking into account the available internal and external resources for the restructuring. This assessment is both quantitative and qualitative. Smaller organisations, in particular, may lack sufficient know-how to manage such complex processes. They therefore need to investigate the knowledge contribution from other actors such as firms and providers of services. Another consideration is whether the organisational structure and systems of the planning agency suffice. Finally, the assessment of organisational feasibility addresses the degree of organisation among the firms on the industrial site, and its impact on the improvement process or specific projects.

Although some political support for the restructuring has been reached in an earlier phase, the assessment of *political feasibility* is a more or less continuous task. During the several years which those processes can last, the political situation can change considerably. A new situation can provide new opportunities, but also new constraints and threats for specific developments. For example, shifts in emphasis from developing new industrial sites towards restructuring efforts may have a considerable impact. Assessing political feasibility is further complicated by the political structure of the local (and regional) authorities. The restructuring option will be assessed regarding how it fits the objectives of the political party of the responsible politician or political coalition.

Assessment of *technical feasibility* is quite a straightforward task. The planning agency can do this by carrying out certain technical studies with the desired scope and degree of detail. In the Netherlands the task of checking *legal feasibility* has environmental and spatial aspects. One of the reasons for restructuring industrial sites is the need to improve

environmental performance. This may imply very expensive remediation of polluted soil, but also solving environmental (including external safety) problems coupled to individual firms. Legal feasibility requires assessing whether, and to which degree, improvement options solve problems of non-compliance to laws and regulations. A comparable, but somewhat more complicated, situation is encountered regarding spatial developments. Improvement options may reduce non-compliance with the existing zoning plan or building regulations, but these are normally of minor importance for the restructuring. More important is to assess which consequences the possible changes have for the existing spatial Zoning Plan for the area. In the most extreme cases a new Zoning Plan will have to be developed.

Finally, planning agencies assess the effects of improvement options. The effects include physical or organisational changes, but also there is the expected impact on the satisfaction of different actors. An important part of this task is to take possible synergetic or antagonistic effects of different options into account. This includes not only how these options interact in a short term, but also the quite uncertain long-term effects.

#### **Decision making: Continuous, fragmented and a few formal moments**

The previous description shows that a decision-making phase, and certainly moment, is difficult to distinguish in Dutch restructuring practice, because a series of consecutive and partly parallel decisions are made during a period of several years. Although several of these decisions are viewed as preliminary, they do influence the subsequent development of ideas and commitment. The result is a slowly emerging scope and focus for the general process. However, some of these decisions result in immediate implementation of specific measures, and so the final outcomes, and related quality, are influenced already in very early stages of the process.

Although this description may suggest that practice is rather fragmented, pragmatic and uncoordinated, this is to some extent counteracted by the influence of higher authorities. Planning efforts of national and provincial authorities aim to coordinate the restructuring challenge and to improve the results. The development of a Master plan for a site is a requirement for access to specific funding programs (e.g. the Dutch "Topper" co-funding scheme for industrial sites of national importance). The completion of such planning documents is often linked to more formal decision-making moments. Accordingly, local initiatives have been strongly stimulated to follow a more integral step-wise planning approach.

However, if the decision thus made is limited to the plan itself and there are no time-constraints regarding implementation and financial commitments, then the effect of the decision can be quite limited. In such cases, the plan only serves as a mile-stone. This means that one or more new decision-making rounds may be needed for identifying and choosing solutions, and for achieving agreements about the distribution of costs (investments) among actors.

### 3.6. An assessment of current practice

The description just given is structured and rather abstract, but not more than a description. Crucially, it does not include any evaluation of the effects of that practice, such as the effectiveness or efficiency of a particular measure or packages of measures. This means that it does not lend itself to attempts to derive from it proposals for improving practice. In particular, we cannot use it *directly* in the search for ways to speed up the process of restructuring. This does not mean that we cannot use it *indirectly*, for in that search we look for approaches which are suitable for the process of restructuring industrial sites: so we must know the characteristics of that process. This will become clear in chapters 4 and 5.

In the meantime, we analyse what is known about the obstacles to restructuring industrial sites, for it is possible that that helps us in our search.

### 3.7. An analysis of the practical obstacles to restructuring industrial sites

For many years there has been general dissatisfaction with the slow progress in restructuring industrial sites (see section 2.2). The planning agencies have a complex task in addressing obstacles that they can actively influence, while taking account of 'external' factors that during a long-lasting restructuring can change. Most reports do not give explicit information on definitions, nor on relative importance of obstacles. Some people have tried to understand this better by analysing the obstacles to progress. These analyses have been studied, and the results are reported in appendix I. It shows that many different obstacles are reported but no systematic categorization has been made so far. From the analysis of reported obstacles, it can be concluded that the following can influence the performance of restructuring industrial sites:

- the way that the restructuring is organised;
- the way that the processes proceed, and are managed, within the chosen organisation form. This includes how actors try to influence each other, the process itself, and (possibly) the initial organisation in order to develop solutions that are as satisfactory as possible to themselves and at the same time 'bridge' diverging views (i.e. are acceptable to all other stakeholders);
- the availability of material resources (time, manpower, money) for both the processes and the investments, also how those resources are distributed between the various actors, the financial risks, and the agreements made about the distribution of costs and benefits and the distribution of the financial risks;
- the know-how available to the actors, which refers to the access to, as well as the ability to appropriately use, relevant information
- The way a planning agency makes use of its legal instruments, which refers to the use of opportunities provided by (i.e. within) the existing framework of laws and regulations

All those factors can be influenced by the planning agency, to some extent.

Other factors that can affect the performance of the restructuring, but which cannot be influenced by the planning agency, are:

- the existing laws and regulations themselves;
- the specific situation on the site to be restructured.

Summing up, planning agencies have to collect information, and design and manage the restructuring, in such a way that actors are willing to invest in the process and in specific industrial site improvements. In particular, they have to find ways to operate within constraints given by available resources (such as time, money, know-how) and information, and at the same time they need to develop interaction mechanisms that can influence access to (more) resources and information.

### 3.8. Conclusions

What can be learned from this description and analysis of current practice, that can be used by a planning agency for speeding up that practice?

First, some characteristics of the practice itself. It necessarily requires the involvement of many different actors, who have differing motives and interests, but who are dependent on each other for realising those. Also, there is great complexity, with the related uncertainty about the effects of applying measures.

Second, there is no reason to think that the activities currently carried out by the planning agencies are ineffective or counterproductive. This applies in particular to the division of those activities into two phases. What is clear, however, is that planning agencies often do not know how best to carry out those activities, so as to speed up the restructuring.

Third, that planning agencies should pay particular attention to the organisation of the restructuring, to the process of steering the parties through the restructuring, to the material constraints and arrangements, and to the use of the available laws and regulation, within the given context of those laws and regulations and of the situation on the site to be restructured.

What cannot be learned from current practice alone is how the conclusions just mentioned can be used to improve that practice. For that, we need more insight into how the various actors in interaction behave and how that behaviour can be influenced. For the complexity and related uncertainty regarding causes, effects, and relationships between factors leads to the conclusion that we need to better understand actors: their willingness to participate in the interactive restructuring process and to invest in specific solutions. This requires an improved understanding of how that willingness is influenced by actor interdependency, by the available resources, and by situation-specific constraints related to information and interaction mechanisms. In particular, a better understanding is needed of how the individual factors influence each other, and how this depends on the specific situations. The 'building blocks' for developing this improved understanding are sought (in the next chapter) in frameworks and theories about complex multi-actor interactive processes.

## 4. A theoretical framework for understanding complex, multi-actor processes

*“Actors are in the end, of course, always people”  
(De Boer and Bressers, 2011, p. 66)*

### 4.1. Introduction

The planning agencies have to design and manage interaction processes between interdependent actors in order to influence both progress and final outcomes. The relationships between the role of planning agencies and restructuring, and how a decision support model can help, are illustrated in figure 4.1. This is the same as figure 2.2, but filled in using chapter three.

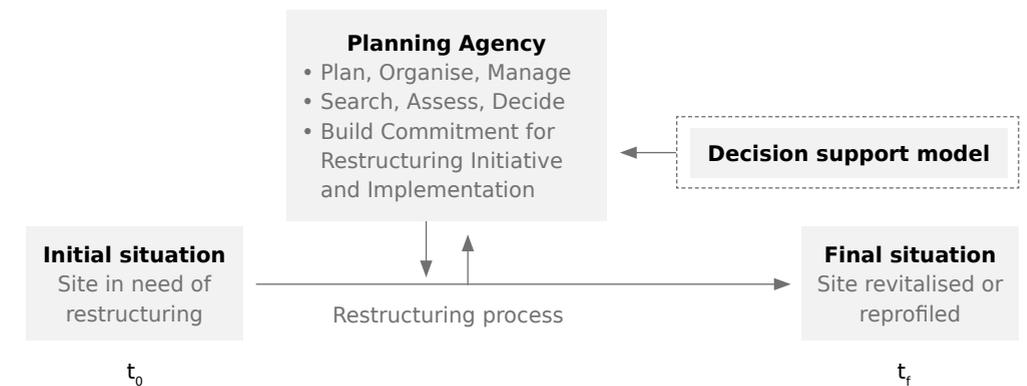


Figure 4.1 Relationships role Planning Agency and restructuring

The large number, and variety, of factors, dependencies, and uncertainties means that 'everything depends on everything', which might suggest that it is impossible for a planning agency to know how progress can be influenced. We do not agree. We argue that it is possible to understand a complex specific situation sufficiently to be able to address it appropriately. This is precisely what we need to do for restructuring. For we need to understand how performance and outcomes of processes can be understood related to how individual actors, and in particular the planning agency, act and interact.

The importance of this issue is that...

*"[...] because municipalities [as planning agencies] will act based on an incomplete understanding of the ageing and its consequences [...] it is not possible to establish with certainty whether the approach they choose for restructuring will offer a real solution to the problems [...]" (PBL, 2009, p. 97, author's translation).*

The objective of this chapter is to develop a theoretical framework on how to understand the complexity and dynamics of specific situations encountered during restructuring. This chapter is intended, as Astley so nicely expresses it, to be helpful as an interpretive tool that enables understanding and making sense of an otherwise confusing world (Astley, 1985). The key to improvement is accordingly to address that uncertainty. It is about 'demystifying' complexity and dynamics, terms that in practice often are used to express that something is too difficult to understand.

This chapter accordingly seeks an answer to the second detailed research question formulated in chapter two:

*How can performance of complex multi-actor processes (such as restructuring) be understood?*

That application of the theoretical framework is the topic of chapter 5. And in chapter 6, the application is worked out further in the form of a decision support model.

## 4.2. Approach to the development of the theoretical framework

### A policy process

Because this study focuses on the involvement of a planning agency, which is a public body, policy sciences provide particularly useful perspectives. Policy sciences are multidisciplinary, contextual and problem-oriented in nature, explicitly normative (Lasswell, 1951), and, in particular, "[...] concerned with knowledge of and in the decision process of the public and civic order [...]" (Lasswell, 1951, p.5; 1971).

### Making choices: complexity versus completeness

The complexity of restructuring, and the related uncertainty, produce a difficult choice. Ideally, an explanation of restructuring should address all relevant factors and all relationships in a coherent way. However, that is infeasible, probably impossible, due to constraints of bounded-rationality (Simon, 1982). There are just too many factors and too many possible relationships involved, and therefore selections have to be made (Luhmann, 1995). A choice has to be made about the basis for a theoretical framework that is as complete as possible (i.e. not over-simplified) and that integrates, and addresses, the most important characteristics (Haimes, 2004) of restructuring.

### Choosing a framework

What is a suitable framework that fits the most important characteristics of these processes? The framework chosen can then be used to organise diagnostic and prescriptive inquiry (Ostrom, 2005), and in that sense it serves as "[...] an orientation device and not a theory, [... and] as a checklist of those independent variables that [...] explain individual and group

behaviour" (Gibson, 2005, p. 229). However, such a framework "[...] is [even] more than a checklist: it situates variables into a causal schema while allowing great flexibility in the determination of exactly what factors should be included [...]" (Gibson, 2005, p. 229). This implies that the chosen 'best fit' framework makes it possible to select, and apply, factors in accordance with the characteristics of restructuring. This limited set of parameters and variables can then be linked to precise assumptions, which makes it possible to build the model (Ostrom, 2007).

### Theory and micro-assumptions

Frameworks combine the elements that any theory relevant to certain phenomena needs to include, and accordingly several theories will normally be compatible with a specific framework (Ostrom, 2005). After choosing a framework, we have to choose theory that can explain the performance from the perspective of actors and their interactions. The selection is based on a three-step approach (Lichbach, 1996). First, a 'thin' theory will be chosen as a baseline model. Then the extent to which the performance of restructuring can be explained by this theory is explored. Finally, micro-assumptions are made about issues that have not been well enough explained, and these assumptions enable choosing specific complementary theories.

## 4.3. Searching for a suitable framework

The previous chapters have high-lighted a number of characteristics of restructuring which should be taken into account when choosing a suitable framework. First, the framework should be applicable to a complex and dynamic decision-making process that can be influenced by a planning agency through appropriate planning, organisation and management. Second, a framework is needed that focuses on actors, and how actors act and interact aimed at solving problems and at reaching more or less well-defined, sometimes conflicting, goals. It therefore needs to address the reasons which individual actors have for acting the way they do in specific situations, including how they balance their own 'action potential' (Kooiman, 1993) with the motives of, and perceived dependency on, other actors for solving problems and reaching goals. Finally, the preferred framework should relate these (inter) actions to process performance (including progress), outcomes, and the external factors that belong to the 'environment' of the process.

Within the scope of this study any description, and certainly analysis, of the full range of available frameworks is not attempted (see e.g. Sabatier, 2007 for an overview and Schlager, 1999 for a comparison). Instead we begin the selection by choosing between two sorts of frameworks.

### Progress linked to "phases" or "rounds"

The previous description of restructuring shows elements of a 'linear', ordered, process in time, where certain sets of activities occur within something that may be called 'steps', 'phases', or 'stages heuristic' (Lasswell, 1951; 1956; Sabatier and Jenkins-Smith, 1993). Several attempts to divide a policy process into phases have been reported for activities such as environmental scanning, the structuring of a policy problem, agenda setting, search and assessment of policy alternatives, assembling feasible options, developing policy recommendations, formal decision making, implementation, accountability, and evaluation (Lasswell, 1956; Brewer and deLeon, 1983; Anderson, 1975; May and Wildawsky, 1978; Jenkins, 1978; Hogwood and Gunn, 1983; Rist, 1994; Lomas, 1997). The input-output approach introduced feedback as

a possible phase that ‘closes’ the policy cycle (Easton, 1957; 1965a; 1965b). The central question is to what extent different phases are identifiable within a specific (more or less cyclic) process, and in case they are, whether they can be used to explain, and subsequently, improve the process.

These questions are central to the use of the *policy stages framework* (Lasswell, 1951; 1956; Brewer and DeLeon, 1983; Hoogerwerf, 1998; DeLeon, 2007). As pointed out by Sabatier, the stages framework has its limitations. According to him it does not portray the policy process accurately. In particular, it oversimplifies the way processes usually include multiple, interacting cycles (Sabatier, 1999), which alternatively may be referred to as rounds in pluralistic decision-making systems, (Teisman, 1992), characterised by continual adjustment to problems, ideas, and actor involvement.

We agree with Sabatier’s view on the limitations of the stages framework, in particular when it is applied to understanding restructuring of industrial sites. As described (in chapter three), such processes are usually interactive processes taking place in ‘rounds’. This means that a suitable framework should focus on these interactions, and, in particular, on how certain conditions that structure actor behaviour, interaction, and choices influence process performance and outcomes<sup>2</sup>. Nevertheless, we retain the distinction between the two phases of initiative and implementation.

#### 4.4. The Institutional Analysis and Development framework

A framework that fits well the above description of key characteristics of restructuring is the Institutional Analysis and Development (IAD) framework (see figure 4.2). This framework is to a large extent credited to the work of Elinor Ostrom (Kiser and Ostrom, 1982; Ostrom et al., 1994; Ostrom, 1986a and b, 1990; 1999; 2005; 2007).

##### The key characteristics of the framework

The core (for a list of alternative core units of analysis, see: Ostrom, 2005, p. 14) of the IAD framework is the ‘action arena’, which consists of ‘actors’ and ‘action situations’.

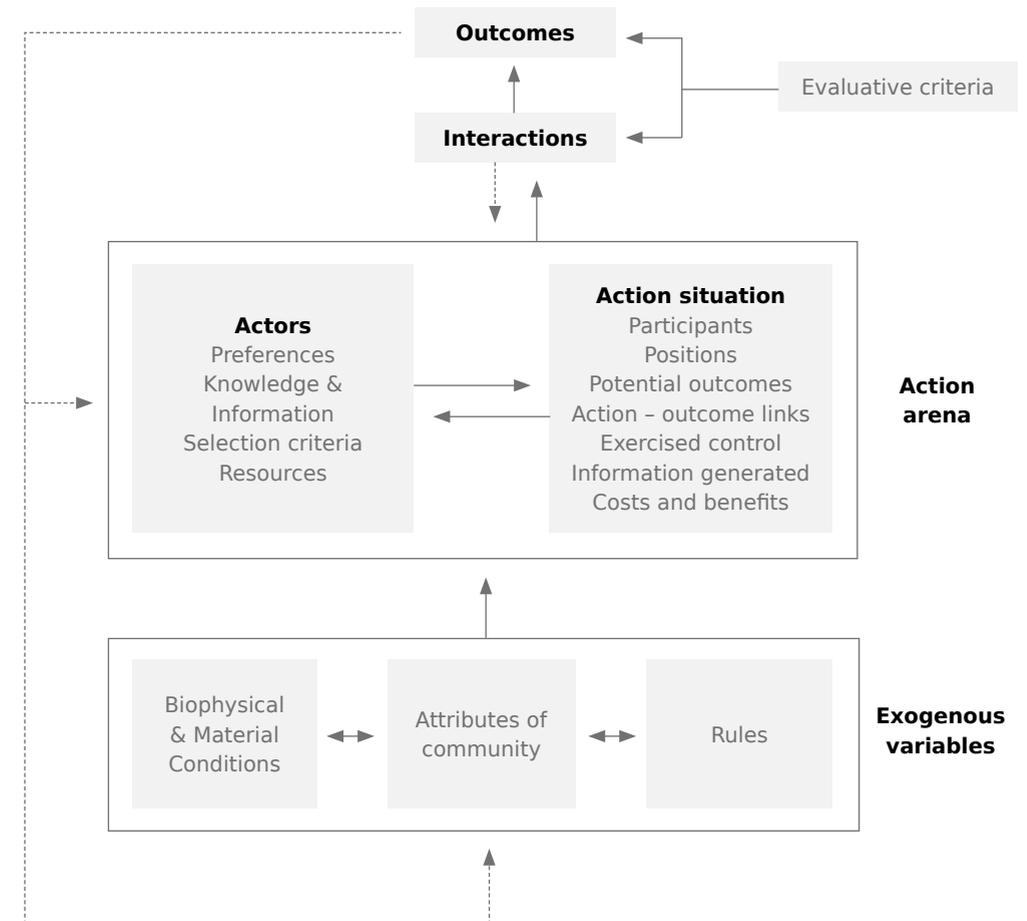


Figure 4.2 The IAD framework (slightly adapted from Ostrom, 2005, p.15).

Actors are the individuals, or groups functioning as corporate actors, who are involved in the action arena (Ostrom, 2007). Their involvement is characterised by “(1) preference evaluations that actors assign to potential actions and outcomes; (2) the way actors acquire, process, retain, and use knowledge contingencies and information; (3) the selection criteria actors use for deciding upon a particular course of action; and (4) the resources that an

<sup>2</sup> Those conditions are the institutions, defined as shared concepts used by humans in situations organised by rules, norms, and strategies (Crawford and Ostrom, 1995; the term institution has been interpreted, and applied, in several alternative ways: see e.g. Guy Peters, 1999). An interesting aspect is then “[...] how institutions themselves may transform the individuals who operate within them, and then changed in turn by these individuals [...]” (Gibson, 2005, p. 229).

actor brings to a situation" (Ostrom et al., 1994, p.33). An action situation, where actors meet each other, is then the "[...] social space where individuals interact, exchange goods and services, engage in appropriation and provision activities, solve problems, or fight [...]" (Ostrom, 1994, p. 28). Such a situation involves "[...] participants in positions who must decide among diverse actions in light of the information they possess about how actions are linked to the potential outcomes and the costs and benefit assigned to actions and outcomes [...]" (Ostrom, 1994, p.29). This means that the structure of a situation can "[...] be characterised using seven clusters of variables: (1) participants (who may be either single individuals or corporate actors), (2) positions, (3) potential outcomes, (4) action-outcome linkages, (5) the control that participants exercise, (6) types of information generated, and (7) the costs and benefits assigned to actions and outcomes [...]" (Ostrom, 2005, p. 14).

These characteristics show that such an action arena will always be part of a larger situation (or in simple words: it is part of 'real life'). The action arena influences interactions and the resulting outcomes. On the other hand, it is itself influenced by three categories of exogenous variables. The first category - biophysical and material conditions - includes the 'hard' factors. In restructuring, for example, the industrial site characteristics are particularly important, but this category also includes all other local and regional characteristics as far as relevant for the performance of the site. The second category, the attributes of community, "[...] includes generally accepted norms of behaviour, the level of common understanding about action arenas, the extent to which preferences are homogeneous, and the distribution of resources among members. The [...] term culture is frequently applied to this bundle of attributes [...]" (Ostrom et al., 1994, p. 45). Finally, the rules receive considerable attention in the IAD framework. Rules determine "[...] what actions (or outcomes) are required, prohibited, or permitted and the sanctions authorised if the rules are not followed [...]" (Ostrom, et al., 1994, p.38), and include shared understanding by participants about their use as enforced prescriptions (Ostrom, 2005). There can accordingly be rules about everything for everybody at any moment. Such rules may apply not only to day-to-day operational interaction and decisions, but can also cover higher-level decisions about eligibility, changing of operational rules, and design of collective choice rules. The rules can provide more or less complete sets of guidelines coupled to specific action arenas for addressing all the questions posed above regarding who becomes involved as participants and why, the distribution of influence and information among participants, choice of assessment, and decisions about long term versus short term goals. The rules vary according to physical factors and culture (Ostrom et al., 1994). This means that rules are linked to a sense of necessity and feasibility. They are considered relevant and applicable, taking into account the problems, desired outcomes, and previous experiences within more or less comparable local settings.

#### Critics

The IAD framework fits restructuring characteristics, but *how* useful is it? What are its weak points and limitations? Can it be applied in this study? Some critical remarks of others are helpful. Fenger addresses three issues (Fenger, 2001, pp.30-31). First, he points to a possible underlying assumption that actor characteristics remain stable within the framework. Second, he questions whether too much emphasis is given to structure. Third, he questions the comprehensiveness of the set of rules presented by Ostrom. He then adds his own interpretation and suggestions, which introduce other (i.e. at that time not explicitly described by Ostrom) influencing relationships. He suggests that actor characteristics may be subject to change within an arena, that rules may apply also to actor characteristics, and that actor strategies may also be aimed at changing rules or characteristics of an action situation. More recently Ribot criticised the IAD framework for the way in which it takes into account

how power and interests influence the development of institutions (Ribot, 2006). He stresses how institutions are created or supported by powerful interests.

#### The consequences for this study

These comments neither question the choice of factors, nor the main structure and the existence of relationships between factors within the framework. However, they do question the way each individual factor within the IAD framework interacts with other factors, their relative importance, and in what detail each factor should be addressed. The main point is that in real life action arenas, all factors and actors may change. For example, as mentioned by Fenger (see above), actors try to influence rules in the arena, and sometimes they are able to do so. This means that rules are not only exogenous to the arena. In this study we choose to view rules as partly endogenous, and accordingly these rules can be influenced by the actors, and in particular by a planning agency.

The interactions and the outcomes of any arena also affect future opportunities. This has been included in the more recent version of Ostrom's IAD framework, with the 'feed-back' cycles from outcomes to arena and to exogenous variables (Ostrom, 2005, see figure 4.2). This change is not random, but the result of (re) actions of, and interaction between, actors in a situation characterised by complex interdependencies.

In order to be able to understand how action arenas function in restructuring, we need to know why, and how, actors choose to interact. For this, we need a theory. According to Ostrom "[...] several theories are usually compatible with any framework [...]" (Ostrom, 2005, p.4). This applies, in particular, to the IAD framework. Ostrom has shown that there is a variety of compatible theories (Ostrom, 2005). First, we choose a leading theory. The characteristics of restructuring (see chapter 3) then inform the selection, and use, of complementary theory.

## 4.5. Choice of a leading theory

#### Rational choice as leading theory

The first step is to select a leading ('thin') theory that will be used as a baseline model (Lichbach, 1996). A key characteristic of a complex restructuring is that actor behaviour is crucial both for process performance and outcomes. The IAD framework assumes that actor involvement is the result of the preferences and selection criteria of the actors, which become manifest through communication and allocation of resources. How are these preferences 'formed', do they change, and how can this be modelled? This question can be explored from the perspective of the interaction itself, and from that of the individual actor. The first perspective focuses on the characteristics of the interaction process, the second on the characteristics of the actors. Kooiman says that because "[...] much emphasis on problem solving has been aimed at improving the interaction mechanisms between actors [...] the reasons for these problems are not sought within the actors themselves [...]" (Kooiman, 1996, pp.41-42). We agree in the sense that a focus on interaction should not mean that actor characteristics are forgotten. Actor characteristics are here used as a starting point for the choice of theory. However, at the same time it is acknowledged that the interaction perspective can provide valuable complementary information: interaction, structured by exogenous variables, influences the behaviour of actors: this is worked out in more detail below.

A first assumption is that individual actors would describe their actions, and decisions, as 'rational', and also that they attempt to act as close as possible to this 'ideal'. This 'rationality' is mainly implicit, but it is recognisable in practice. For example, the actors apply different

kinds of assessments such as SWOT-analyses, Multi Criteria Analyses, and cost-benefit analyses, and they document both intentions (plans) and results, thereby paying attention to their own accountability.

However, each individual actor, and even a group within one actor, can interpret rationality in its own way (e.g. Simon, 1982, Bouyssou et al., 2006). “[...] The present condition of the term rationality is that it has multiple personalities [...]” (Lupia et al., 2000, p.5; for an informative description and exploration of the term rationality and the diversity of proposed definitions, see e.g.: Lupia et al., 2000, ch.1). Nevertheless, it is argued that “[...] a rational choice is [at least] one that is based on reasons, irrespective of what these reasons may be [...]” (Lupia et al., 2000, p.7).

The reasons for actions are linked to the interests of the actors. This is the core assumption of rational choice (or action) theory (Parsons, 1977; 1978; see figure 4.3 for a view on its basic assumptions according to Monroe).

1. Actors pursue goals
2. These goals reflect actors' perceived self-interest
3. Behaviour results from a process that involves conscious choice
4. Individual is basic actor in society
5. Actors have preference orderings that are consistent and stable
6. Actors choose the options that are consistent with the highest expected utility
7. Actors possess information on both the available alternatives and the likely consequences of their choices

Figure 4.3 Basic assumptions of (instrumental) rational action

Rational choice theory is therefore applied as the leading ('thin') theory (but no more than that) for explaining actor behaviour in restructuring action arenas. It is assumed that all actors expect, and accept, that all other actors at least to a certain extent will try to maximise their own benefits and minimise costs (Heath, 1976; Elster, 1989; Guy Peters, 1999; Scott, 2000; Allingham, 2002), and that “[...] no exchange continues unless both parties are making a profit [...]” (Homans, 1961, p. 61). Or, as practitioners nowadays prefer to express this requirement: there is a need for “win-win solutions”.

#### How do actors 'calculate'?

The question is then how actors search for such acceptable 'win-win' solutions, and, in particular, whether this behaviour deviates from the basic assumptions of rational choice (see figure 4.3). According to Arthur Stein:

*“[...] Behaviour is a function of purposive calculated human choice. Actors' perceived interests matter. The alternatives actors think important and the calculations they make also matter. Thus, knowledge of aims and the nature of calculation become critical to explaining chosen behaviours. Explanation necessarily depends on the goals actors have and the nature of the calculations that they make [...]” (Stein, 2006, p. 196, emphasis added by author)*

What Stein says is that, although actors act purposefully to reach goals, their behaviour is influenced by perceptions, and by what they think is important. They pursue goals rationally, but their understanding of the situation influences how they do that. In other words, especially Monroe's assumptions five and seven (see figure 4.3) in practice rarely apply. Preferences

will change in time depending on the situation, and actors face considerable uncertainty regarding knowledge of options and consequences.

#### The limitations of rational choice

It is therefore assumed that rational choice can provide only part of the explanation for actor behaviour. The limitations of modern rational choice theory are that “[...] it invites both a simple model of the individual actor and a simple model of his or her interactions [...]” (Abell, 2000, p. 229). To reach socially robust outcomes (Pielke, 2003), which is what is needed in restructuring, a richer view on interaction processes is needed, and accordingly a richer model that takes account of the complexity of the process (Abell, 2000).

## 4.6. Complementary theory on actors and action situations

How rich should such a model be, and, in particular, how can choices be made for complementary theory? The complementary theory needs to be capable of covering the richness of the practice of restructuring, and at the same time suggest which variables are the most important to include in the decision support model.

#### Pluralistic approach is needed

A first observation is that knowledge of restructuring practice shows that a multitude of aspects needs to be addressed. This makes it possible to apply a multitude of perspectives and theories. The problem faced, as expressed by Möller and Wilson, is that...

*“[...] the economic perspective cannot penetrate the social aspects of exchange; resource dependency theory does not explain the cognitive aspects of organizational learning; social exchange theory does not cover the market and transaction specific factors addressed by transaction cost economics [...]” (Möller and Wilson, 1995, p. 46).*

Any single perspective or theory has its limitations, and Möller and Wilson take a pluralistic approach: in their case for developing a comprehensive understanding of relational exchange between businesses. We argue that in restructuring as well, a pluralistic approach is exactly what is needed for understanding actors and their interactions. In their decision making, these actors are taking into account transaction costs, resource (and accordingly actor inter-) dependency, and the social aspects of interaction in local settings.

The complementary theory needs to provide an explanation of how processes occur within (mainly) local settings where actors are dependent on each other for reaching goals, know each other, and have previous experiences with interactions and (possibly) cooperation, and expect to need each other also in the future. For this study, such theory specifically needs to focus on actors and their reasons for acting, and interacting, in certain ways.

#### Motives, information, and resources as actor characteristics

The Contextual Interaction Theory (Bressers, 2004; 2009; Boer de and Bressers, 2011) is suitable for explaining the influence of the individual actor characteristics. According to Bressers “[...] the course and outcomes of the policy process depend not only on inputs (in this case the characteristics of the policy instruments), but more crucially on the characteristics of the actors involved, particularly their motivation, information, and power [...]” (Bressers, 2004, p. 290). In more recent papers, Bressers refers to an arena where the actors possess the characteristics “motives”, “cognitions” (interpretations of reality, information held to be

true), and “resources”. “Resources” refer to how the available and accessible resources can function as both capacity to act and a source of power in an interaction process (Bressers, 2009; Boer de and Bressers, 2011). The Contextual Interaction Theory explains how these characteristics, working together, influence the choices which actors make for entering, and staying involved in, an action arena, and their willingness to invest in specific actions or outcomes.

These three actor characteristics (which encompass the four characteristics in the IAD framework – see figure 4.2) have, according to Bressers, proved to be exceptionally useful for explaining the dynamics of social interaction processes, and he mentions that there is also a long tradition of thinking about each individual perspective (Bressers, 2004). Some of this thinking – specific theory on each of the variables motives, resources, and information – is discussed in appendix III because it provides a deeper understanding of how each characteristic individually affects actor behaviour. There we shall see also that the motives, resources, and information of one actor can influence each other: they cannot be regarded separately.

Below we summarize our view on the actor characteristics:

### **Motives**

Rational choice theory assumes that actors pursue goals, and that these goals reflect their self-interest. Self-interest is the leading motive behind the goals that actors strive to reach: actors try to fulfil their needs.

Actors usually pursue several goals, related to different underlying motives and values, at the same time (Rhodes, 1997; O’Neill and Quinn, 1993), and they therefore take into account how their actions affect each individual goal. At the same time, they take into account how their general interests are affected, and the resulting choice and behaviour will represent a certain balance, and optimum, between all goals.

Goals are not static but change during the course of interaction with other actors. Goals in arenas are, therefore, both process inputs, and process outputs. Initial goals and preferences are modified, and new goals and preferences are constructed based on the decision context (Tversky et al., 1988; Slovic, 1995; Latham and Pinder, 2005; Krantz and Kunreuther, 2007).

### **Resources**

Resources can have a variety of meanings such as capital, labour, facilities, equipment, land, time, and materials, but also include less tangible aspects such as skills, access to distribution channels, legitimacy, power / influence, and (even) entrepreneurial energy (Crozier, 1964; Salancik and Pfeffer, 1988; Oliver, 1990; Rumelt et al., 1991; Peteraf, 1993; Browning et al., 1995; Kaiser et al., 1995; Rhodes, 1997; Bressers, 2009). Resources are something that actors possess, such as money and human capacity: there must be at least some resources “[...] that an actor brings to a situation [...]” (Ostrom et al., 1994, p.33, emphasis added). Actors use those resources for reaching their goals. They invest time and money in a process, and they use their skills in the action arena. Resources provide a capacity to act, and they are a source of power in the interaction process in the arena (Bressers, 2009). Actors can consciously choose which part of their resources they want to allocate to an action situation at a specific time, and they can choose also how they want to apply them.

### **Information**

Actors decide to enter an action arena (or refrain from doing so), and they act within the arena, based on the information they have, and the cognitions of that information. Actors collect, and use, data. Data are transformed into information when they are given a meaning.

We view information as something that changes, or reinforces, the understanding of a situation. Information, again, serves as input for building knowledge. More information can give a better understanding of a specific topic, but also of the relationships between different topics.

Actors can have information about a large variety of topics. This includes information about a specific action situation, and about other actors. Actors face uncertainty related to lack of information: there is a difference between the available information and the required information. The involved actors face such uncertainty, for example, regarding searches for information on improvement options (Nutt, 2000). An incomplete understanding can be caused by ‘simple’ (quantitative) lack of information, but also by ambiguity (March and Simon, 1958).

Any actor enters an arena ‘bringing’ its own information. During the interaction in the arena, information will to some extent be exchanged, and shared. However, actors usually choose to share only part of their information, and they also choose the specific moments when they believe using, or sharing, information will be beneficial to themselves. They use information strategically for reaching their goals.

### **Who are the relevant actors?**

Who are the actors in these processes, and which of them are most important for explaining process performance?

Ostrom describes actors as single individuals, or as groups functioning as corporate actors (Ostrom, 2007): but this is only one of several possible views on, and definitions of, actors (see e.g. Coleman, 1974; Jordan, 1981; Mayntz, 1986; Schneider and Werle, 1990; Scott, 2003). The term actor is here applied in a broad sense encompassing all entities, such as ‘formal’ organisations, networks of actors, or ad hoc interest groups that are, or attempt to become, actively involved in decision-making activities in action arenas.

The diversity of actors that can become involved in a restructuring is large. Different sorts of interest groups, higher authorities (in particular the provinces), organisations having a responsibility in policy implementation, providers of services or products, and investors and project developers, may all be involved in specific arenas, or during long periods. The only certainty is that a comprehensive restructuring always necessitates the involvement of at least the planning agency and firms situated on the industrial site.

The choice of other actors to be included in the explanatory model is not trivial, because it will affect the explanatory power (Lake and Powell, 1999). The selection here is based on an estimate of the importance that actors perceive, and express, about becoming involved, but also of their possibilities for influencing a process. These two criteria together identify actors that can affect or are affected by the restructuring: in other words these actors are, in Freeman’s definition, stakeholders (Freeman, 1994). Applying this definition should prevent excluding any stakeholders too early.

### **The importance of agents**

The formal actors are sometime represented by agents, who continuously have to act related to a “frame of reference” (Kaufman, 1986) provided by the organisation they represent. They need to find ways to bridge the gap between institutionalised initial expectations and strategic actions (Clemens and Cook, 1999). This means that they need a certain strategic flexibility in how they are allowed to act (their mandate), and at the same time they need to convince their principal that they are doing their best to ensure that its objectives are reached: they may even need to earn the support of the organisations they represent (Bruijn de et al., 2002). In restructuring, for example, this situation in particular applies to representatives of public authorities, firms, and semi-governmental organisations, and can explain why they try

to stay in close contact and not to get too 'far ahead' of their organisations (Susskind and Cruikshank, 1987). In particular, they have to make the right choices about how they handle information. It is both infeasible and usually undesirable to give the principal all information, and representatives select what they tell, and how they tell it. A particular challenge is then what to do with 'sensitive' issues addressed within highly interactive processes in decision-making arenas. This is often the case if negotiation is chosen as the interaction mechanism, such as when interests are incompatible and actors are interdependent (Mastenbroek and van der Meij, 2007). Representatives accordingly have a more complicated and important position in an action arena than they may think. They need to be cautious and entrepreneurial in what they do and say, and at the same time to be able to understand the potential strategic consequences of their actions. Often they even become the crucial means of producing action (Pierre and Guy Peters, 2005) by creating the basis for a decision (Edelenbos and Monnikhof, 1998). To reach their objectives they use time, personal power, and political skills for advocating their preferred solutions (Mintrom, 2000), and (more or less open and actively) for opposing alternative views. They may even be deliberately opportunistic (Christopoulos, 2006) within a long-term participation aimed at identifying, developing, and exploiting policy windows. Representatives judge their own capability to reach their goals, which leads to a perceived level of self-efficacy (Bandura, 2001). Both commitment and performance are dependent on self-efficacy, and normally high self-efficacy leads to better performance in difficult tasks (Stajkovic and Luthans, 1998; Locke and Latham, 2002). The high process complexity, and its interactive nature, implies that representatives can have a significant impact on both performance, and outcomes. Although this suggests paying specific attention to their selection, in practice representatives are often selected simply because they have specific responsibilities related to on-going programs within the organisations they represent (Hjern and Porter, 1981; O'Toole et al., 1997).

### **The importance of history**

Agents often carry within themselves the history of previous phases and settings, for some interests are sometimes repeatedly represented by the same person in different phases or in different settings. That history affects not only the motives, resources and information of the agent itself, but also how other actors relate to the agent. In a situation where actors have a common 'past', patterns can have developed that structure (both enable and constrain) how 'things are done', and in particular how the actors choose to interact. This phenomenon has been referred to as "path dependency" (David, 1985; North, 1989; Pierson, 1993) How do these common past experiences influence the design, and performance of action arenas? Such previous experiences can be positive or negative, and in both cases they will normally influence the initial willingness to participate, and the expectations regarding the process (Wickens and Hollands, 2000). Positive past experiences create a higher initial trust and they stimulate actors to enter processes open-mindedly. The actors expect that a satisfactory outcome is feasible, or even likely, because earlier processes in comparable action arenas turned out the way they desired. On the other hand, negative past experiences usually lead to a more cautious attitude. Actors are then often willing to get involved only if there is good risk 'protection' such as formal contracts. In other words, previous common experiences influence not only the willingness of actors to cooperate in action arenas, but also which degree, and form, of interdependency they will accept.

Actors (and, in particular, their representatives) in local settings have often known each other for a long time, and they have interacted, and cooperated, in several action arenas. This common 'past' can have resulted in relationships that make them (at least) feel interdependent. These complex patterns of relationships can also have resulted in more or less openly expressed, and conscious, preferences for cooperation with specific partners in

specific ways, which to some extent excludes the development of other settings.

There has, in particular, been an increasing interest in how different forms of path dependency can help understanding the decline of industrial areas, and according to Hassink many studies even point to the presence of lock-in as the main internal barrier to industrial restructuring (Hassink, 2005; Needham & Louw 2006). For example, political lock-in, aimed at preserving existing industrial structures, can negatively affect industrial restructuring, and indirectly also prevent creative opportunities. Political lock-in refers not only to institutional thickness (Amin and Thrift, 1994) regarding political administrations on different levels, but it can also include the influence of larger firms, business support agencies and underlying norms, rules and laws (Edquist, 1997). In such situations, actor interdependency can affect both performance and outcomes of action arenas negatively. Only if 'new' actors possess the influence and will to challenge such institutions, may a lock-in be deliberately broken.

### **Actor interdependency in specific action situations**

Because we use a perspective that focuses on actors and their interactions, we also acknowledge the importance of how actors can, and choose to, interact in specific action arenas, and accordingly related to specific action situations. The actors know that their ability to reach their goals depends on the actions that others take (Lake and Powell, 1999). They know also that they are dependent on each other for reaching their goals in specific action situations, and accordingly both the process and its outcomes are influenced by this actor interdependency: by both its nature and strength. We therefore argue that complementary theory on actor interdependency is necessary for understanding specific action situations.

This actor interdependency is a 'tricky' variable. Actors can feel more or less dependent on other actors for reaching specific goals. Interdependency is then something that exists as a perception of individual actors, and is characteristic of the relationship between actors. It is both a dependency and a bond. The fact that one actor is dependent on another can influence the motives, resources, and information of that first actor. Theories of actor interdependency provide complementary perspectives on the reasons why actors choose particular actions and mechanisms of interaction. This is worked out further in appendix III.

### **Endogenous rules**

Some rules are endogenous, and some are exogenous, to the process: the latter are discussed in a separate paragraph. Endogenous rules are those which apply within an action arena, but not necessarily outside it.

Rules can be embedded in informal arrangements, collective understandings, norms of behaviour, conventions, codes of conduct, procedures, and contracts, but also in formal laws (Giddens, 1984; North, 1990; DiGaetano and Strom, 2003; Manzavinos et al., 2005). Rules are related to institutions and norms, but the extensive literature on (especially) institutions does not present any agreement on what these relationships are (e.g. Hollingsworth, 2000; Ostrom, 2005). The position taken here is that both institutions and rules concern how actors are influenced by constructs that they can to some extent adapt, whereby rules are viewed as being more specific than institutions.

According to Ostrom, rules for arenas *can* be developed for entry and exit, positions, scope, authority, aggregation, information, and pay-off, and the cumulative effects of these rules affect the action situation (Ostrom, 2005). Entry and exit rules determine who is allowed to participate and the conditions that apply for leaving the process, and position rules together with authority rules tell which role these participants have and what they must, may or may not do. Scope rules regulate actions related to outcomes, and aggregation rules the level of control. Information rules regulate access to information, and pay-off rules focus on distribution of costs and benefits.

Rules are prescriptive and normative, and cover a range between “what must” and “what must not”, with “what may” somewhere in between, and they are applied both to change conduct and to prevent such change (Schauer, 2002). They are used, because they increase predictability, reliance and certainty (Schauer, 2002). They function as regulatory structures that provide both opportunities and constraints (Mayntz and Scharpf, 1995), and as such they can facilitate and even accelerate cooperation in arenas. Planning agencies can, for example, intentionally develop sets of such rules for arena design and interactions (Klijn, 1996; Bruijn de et al., 2002, Ostrom, 2005), rules that create a context for implementation and thus induce participants to cooperate even though there might be conflicts of interest (Cline, 2000). Planning agencies try to develop explicit rules that satisfy the needs of the arena participants, for example by applying the criteria simplicity, durability and concordance. Simplicity refers to how understandable the rules are, durability refers to how long these rules have been applied (which may be viewed as reflecting legitimacy) and concordance to how widely used they are (Legro, 1997).

Rules can be pre-designed by a single actor, or co-developed, or evolve in interaction with other actors. Whether explicit rules are actually developed depends on perceived need. This can explain why processes often start without any explicit rules, whereby the involved actors try to find out which behaviour is appropriate in a specific situation by interacting (March and Olsen, 1984; 1989). This implies a search process towards an inter-subjective common understanding. Growth models regarding rules imply that rules probably will have to be changed. Such changes are likely to have different consequences for the different participants (Knight, 1992), and the arenas will have to be adjusted to these new situations as well. This takes time. Still, although such changes can delay progress in the short term (organisations might even decide to leave the process), they may have a positive impact on the long term. In particular, they create clear action space for participants and enable learning processes.

Nevertheless, in such a situation implicit (also called informal) rules, and possibly coincidence as well, determine how the interaction takes place. This means that individual actors often apply their own interpretations of rules (as far as this is possible: allowed interpretations of formal laws and regulations are limited), and these rules can sometimes be changed without any traceable and transparent process. As Wittgenstein has pointed out, rules are structurally ambiguous and there are many ways to interpret and follow a particular rule (Wittgenstein, 1986). Furthermore there can also be conflicts between different sets of rules (Bueren van et al., 2003), and rules can be ‘nested’ within other (higher) rules (Ostrom, 2005). Because rules are often kept implicit and ambiguous, it is understandable that a process may appear to proceed well, but ‘below the surface’ conflicts are contained and suppressed, and emerge when ‘real’ decisions are to be made.

Even if rules have been agreed upon by all actors, this does not guarantee rule-abiding behaviour. In practice, actors deliberately break rules, refrain from compliance, or try to reinterpret and design new rules (Klijn and Koppenjan, 2006). Attempts to enforce them easily turn into a negotiation process.

There is also a dilemma. If contracts, varying between formal written documents and informal agreements based on expectations (Jones, 1995), are ambiguous regarding non-compliance they are difficult to enforce, but on the other hand designing and implementing complete, explicit, and easily enforceable contracts is costly (Blumberg, 2001) and may have undesirable effects on the process.

Explicit, formalised, rules are not always necessary. For example, the involved actors can view the rules as evident, unquestioned and even clear to all, although they may never have been openly discussed. There can also be something in the relationship between the actors that ‘compensates’ for the certainty of formal rules: here this is called trust. Trust provides an

underlying normative framework for actions. It includes confidence in an exchange partner’s reliability and integrity (Morgan and Hunt, 1994), and it allows actors to focus more on long term benefits of a relationship than on the fairness of each individual transaction (Kaufmann and Stern, 1988). The long term focus implies that actors expect each other to work towards equalizing the distribution of costs and benefits based on a sense of obligation and duty. Actors invest resources expecting reciprocity and a fair deal (Ring and van de Ven, 1994, Stoker, 1989). Trust is accordingly based on belief. It ‘compensates’ for formal rules because it reduces complexity and transaction costs (Chiles and McMackin, 1996), and it has been claimed to be a critical component of collaboration (Huxham and Vangen, 2005).

### **Exogenous factors**

Both Ostrom and Bressers recognise that how actors interact in specific action arenas is influenced by exogenous factors. What is within this present study used as the ‘border’ between exogenous and endogenous variables, and how are the exogenous variables viewed, and addressed? We take the combined effect of three aspects into account for viewing, identifying, and addressing, exogenous factors.

First, they must be relevant, in the sense that they can influence, and in particular structure, the process in the arena and its outcomes.

Second, they are exogenous in the sense that they are ‘far away’ and cannot (easily) be influenced by a planning agency or the other actors, and, on the other hand, the factors that are much ‘closer’ and can be influenced locally. Everything the local actors, including the planning agency, can do, is viewed as inside the arena. The difference can be illustrated by two examples. First, planning agencies can only indirectly influence laws and regulations, so those latter are regarded as exogenous variables. The way planning agencies choose to work within these laws and regulations, is then viewed as endogenous. Second, cultural norms are only slowly changing, and the planning agency has no direct effect on this process. However, the planning agency can (co)develop a set of rules that structure the interaction in arenas.

Third, we recognise that a factor which can change in one “round” of decision making can be exogenous to the following round. For example, industrial site characteristics are viewed as exogenous variables, because we view any changes to these characteristics as outcomes of a decision making ‘round’. A round leads to commitment to further action, and such an action can have an impact on the site characteristics: the new sites characteristics are then exogenous to the following round.

Ostrom (2005) specifies three (groups of) exogenous variables: biophysical and material conditions, attributes of community (in short: culture), and rules. The biophysical and material conditions include a variety of aspects such as the socio-economic and spatial characteristics of an area. The reason for developing an action arena is often to improve these characteristics, and the desired outcome of the arena is then commitment to a decision to implement measures that will affect one, or more, of them positively. Many such characteristics are quantifiable, and their initial value and subsequent effects on the arena are, compared to the effect of culture and rules, relatively easy to identify.

The common values and norms that together form a culture are less ‘tangible’. On the other hand, actors involved in local action arenas are usually all accustomed to working inside the same culture. They know that problem solving is sensitive to factors such as culture and local politics (Hogan, 2003), and at the same time they know, mostly unconsciously, how to handle these aspects.

## 4.7. Conclusions

In this chapter, a theoretical framework has been developed which can be used to understand complex, multi-actor processes such as restructuring industrial sites. This framework is, in essence:

- actors interact in action arenas;
- each actor behaves rationally in trying to achieve its own ends, according to its cognition of the situation;
- the behaviour of each actor is affected by factors external to the arena, such as the physical situation, the reigning culture, and the laws and regulation;
- the behaviour of each actor is affected also by factors internal to the arena. These are the motives of, and the resources and information available to, each actor separately;
- each actor is dependent to a greater or lesser extent on one or more of the other actors in the arena for achieving its own goals;
- the recognition of this interdependency affects how an actor behaves: it can lead the actor to modify its motives, it can affect the way it uses its resources, it can affect the way it uses its information and tries to get more;
- the process might consist of several rounds, each in a different arena, and the actors in one round might not be the same as in another round. The external and internal factors in one round will affect the external and internal factors in the subsequent round.

# 5. Applying the theoretical framework to restructuring

*“Activating the right players with the right resources is the crucial task of governing in cities [...]”  
(Agranoff and McGuire, 2001, p.14)*

## 5.1. Introduction

One of the actors in the ‘complex, multi-actor process’ of restructuring industrial sites is the planning agency. This is a public body which has powers and responsibilities for ensuring that an industrial site is of the required quality: usually it is a municipality, or the equivalent. The planning agency wants to speed up the restructuring. How can it use the insights provided by the theoretical framework worked out in the previous chapter in order to do that?

This chapter seeks an answer to the third detailed research question formulated in chapter two:

*How can the theoretical framework be applied to restructuring of industrial sites?*

The planning agency must be able to predict how the other actors will react to its policy measures (5.2), must choose those measures (5.3), and must choose an approach to managing and organising the restructuring (5.4). Finally, the chosen approach provides input for identifying design characteristics for the decision support model, and some remarks are given on its added-value (5.5).

## 5.2. Influencing actors

The contextual interaction theory was introduced in chapter 4, and we took from it the statement that the behaviour of actors depends on three characteristics: their motives, their resources, and their information. Now we can put this statement in the context for which it was developed by Bressers, namely to explain the course and outcomes of interaction processes when a public body applies policy instruments to achieve policy goals. Earlier versions of Bressers’ ‘instrumentation theory’ (Bressers & Klok 1987; 1988) stressed that public policy achieved its effects by influencing the actions of others: measures (the application of instruments) work only by changing how others act. The contextual interaction

theory takes that further by saying that the effects of measures on the actions of others depends on the three characteristics of the 'others' just mentioned.

The contextual interaction theory focuses on actor characteristics, implementation, interaction between (in particular) responsible implementers and target groups, and the use of policy instruments. Policy processes are viewed as social interaction processes, where both the course and outcomes are influenced by the participating actors. More specifically, as previously mentioned (in chapter 4), the theory assumes that three characteristics of the actors – within this study referred to as motives, information, and resources – are the crucial factors for influencing their behaviour, thus influencing the course and outcomes. This also means that explanations using only one or two of the three core characteristics, will lead to much less insight. It is further assumed that the core variables do not operate in isolation from each other, but influence each other, and the interaction process, in a complex (i.e. not simple additive) way (and see appendix III). The processes can then be explained in terms of combinations of values of the core factors. The resulting number of determined interactive settings remains limited, because there are only three core variables.

The theory focuses on the interaction between responsible government officials (in this study referred to as the actor “planning agency”) and target groups, aimed at implementing policy. Any new policy only adds a new element to an existing situation, where the actors often maintain contact related to several (policy) topics, and have been engaged in efforts to mutually influence each other for a long time. In such a situation, the “[...] implementation process is not only about achieving implementation, but also about attempts to prevent implementation or to change the character of what is implemented [...]” (Bressers, 2004, p. 290). The planning agency is not the only actor that employs strategies to influence others. All actors involved use a variety of strategies for interacting such as cooperation, opposition, and joint learning, and a variety of approaches for influencing the others and the process. Their choice of approach is influenced by their motives, information, and resources.

The use of policy instruments during such a complex process is not isolated from the situation in which they are used. The instruments themselves are viewed as being part of the ‘external circumstances’, but the decision to apply them is endogenous. When applied they have indirect influence on the process through their influence on the set of core variables (Bressers, 2009). There is a specific context (e.g. previous decisions), a structural context (e.g. networks and actors, responsibilities and resources), and a wider context (e.g. economic, technological and cultural). These three contexts overlap. The wider context encompasses the structural and the specific ones, and the structural one encompasses the specific context.

All the external circumstances are to be taken into account when estimating the value of the core variables, and those core actor characteristics can again change as a result of process experiences and exogenous factors. This means that an understanding of the nature of the interactive process between planning agency and target groups, including the knowledge about each core characteristic of the actors, is needed. This makes it possible to identify the policy instruments that preferably should be used, and how they can be used appropriately.

Chapter 4 has added the following statements about how actors react to policy measures:

- some actors are ‘agents’, that is, they represent other actors;
- some actors know each other from before the start of the process, and this ‘history’ affects their reactions to policy measures;
- many of the actors are dependent on each other to a greater or lesser extent, and this too affects their reactions to policy measures.

### 5.3. Choosing the policy measures

The key to successful restructuring is getting the actors to agree to commit their resources to physical measures (‘investments’) which will restructure the site in ways which satisfy actors’ goals. The commitment of actors to allocating their resources to a specific measure or action depends on the information they have, the resources they possess, how the specific solutions fit their motives, and how interdependent they feel in reaching their goals. This means that deliberate (planned) changes to any of these factors influence performance (including progress) and outcomes of an arena. First, the process towards satisfactory outcomes can be influenced through collection, distribution, and sharing of information about actors and potential solutions. This leads to changes to the quality and quantity of information available to a specific actor, and also to the information being jointly accessible to the whole group of arena participants. Second, potential solutions (options) can be developed that fit in varying degrees the motives of the involved actors, and, alternatively or additionally, influencing approaches can be used for changing how actors feel they should act (that is, using direct ‘face-to-face’ influencing approaches to change the actors’ motivation). Third, actions can be taken, and potential solutions developed, that have different cost-benefits, and different interdependency characteristics. Each possible solution can influence the need for resources from specific actors, the distribution of the related costs and benefits among the actors, and the joint (i.e. total) investment needed.

Since the outcomes of implementation processes depend on the behaviour of all the actors involved, the planning agency can try to influence their characteristics and/or manage the arena in which the interaction process takes place. This is called process management.

### 5.4. Applying process management

#### Process management

As De Bruijn, in’t Veld and ten Heuvelhof say: “In recent years, the management world has become increasingly perceptive to the process-related aspects of change” (Bruijn de, et al. 2010, p.1). This has led to a large number of studies into “process management”, and (particularly relevant for this study) management of governance networks (e.g. Bruijn de, et al., 2002; 2010 and references cited therein; Bueren van, 2009; Boer de and Bressers, 2011: in particular chapter four pp. 86-95; Klijn, 2008; Koppenjan and Klijn, 2004 and references cited therein). Process management and network management are closely related, and these approaches are often used together (Bueren, van, 2009). We use the term “process management”, but we include also knowledge of “network management”: in particular as far as it concerns the role of public actors in governance (e.g. Agranoff and McGuire, 2003). Process management is a form of governance that focuses on how interaction and decision-making in complex policy processes can be influenced by design and management (Bruijn de, et al., 2002; 2010). “Process management [...] aims to structure and facilitate the exchange of information and knowledge, of opinions and views, of goals and interests, resulting in interaction, negotiation, and decision-making.” (Bueren van, 2009, p. 55).

The process manager designs and manages a process aimed at creating conditions where interdependent actors are inclined to cooperate instead of getting into conflicts, and where specific attention is paid to contents, maintaining transparency and openness, protecting core values of participants, and using incentives for ensuring progress (Bruijn de, et al., 2010). In particular, trust in such complex processes seems to matter for outcomes, and can

be managed (Klijn et al., 2010).

Command and control incentives can also be used as part of the process management. They can for example function as driver of the process if they create a sense of urgency. However, in general they are not likely to be successful, because (as previously mentioned) the actors are interdependent (Bruijn de, et al., 2010) and those 'commanded' can withhold their cooperation.

### **The planning agency as process manager**

The planning agency, applying a process management approach to restructuring, focuses on actors, and how their interaction can lead to desirable outcomes. The following aspects of the approach are described: quality of information; commitment; design and management of arenas.

### **Information, problems, and solutions**

In complex multi—actor interactive processes (such as restructuring) there is often a lack of objective information, lack of consensus about the norms that should be applied in the problem solving process, and both problems and solutions are dynamic (Bruijn de, et al., 2010). Problems are "wicked" (alternatively called "unstructured"): there are different perceptions of problems and solutions, and there is uncertainty related to ambiguous information (Koppenjan and Klijn, 2004). This means that information and knowledge become partly 'negotiable', and actors try to convince each other about the quality of specific options. The information they use is to some extent 'coloured', and the actors use the information strategically based on an assessment of possible effects on their own interests. Information can therefore be unequally distributed among participants.

A process management approach implies that the planning agency uses a transparent and open approach to collection, distribution, and exchange of information, and to its use in the decision-making (Bruijn de, et al., 2010). Additionally, specific rules can also be developed about information access (Koppenjan and Klijn, 2004).

### **Commitment and actor satisfaction**

The decision-making process is dynamic and unpredictable, and there are regularly changes to agendas, participants, and perceptions. The planning agency designs and uses the interaction for reaching agreements to a "commitment package", which represents the most "authoritative" solution (Bruijn de et al., 2010). This solution must satisfy the different demands of the involved actors (Koppenjan and Klijn, 2004).

Typically, effectiveness of such a process (i.e. the outcomes) is therefore measured as the degree to which such an agreement has been reached, rather than whether (predefined) goals are reached (Woltjer, 2000). The planning agency must focus on commitment and specific improvement measures ('contents') at the same time, because "[...] a process without contents [...] is empty [...]" (Bruijn de, et al., 2002, p.169, author's translation). This means that the planning agency needs to ensure that both process outputs (e.g. knowledge 'produced' during a restructuring) and content outputs (e.g. selected physical improvement measures for a site) are satisfactory enough for each individual actor to participate in a specific arena. A planning agency can, and will, use 'simple' content measures, but the main question it has to address is "[...] how to sustain the process of continuous package improvement [...]" (Bruijn de, et al., 2010, p. 13).

### **Design of the arena**

The planning agency accordingly has to design and manage a dynamic process that can 'bridge' the distance between unstructured problems and satisfactory solutions.

The design is aimed at "[...] fostering organizational arrangements to facilitate and enable interactions between actors [...]" (Klijn, 2010, p. 132). The planning agency performs activities such as identifying problems and possible arena participants, identifying promising specific 'configurations' of actors and possible agendas (i.e. sets of participants related to specific challenges), identifying and addressing process and content dilemmas, defining the agenda, and making process rules (Bruijn de, 2010).

The planning agency collects information about individual actors. This includes information on opinions, interests, core values, perceived and actual risks, conditions for participation, opportunities and threats, incentives and disincentives.

The next activity is to look for configurations of actors. This means identifying relations between actors, how far apart their opinions are, what their resources are, and how the resources are distributed among the actors. It is possible that too many important actors (e.g. those having substantial resources) fall 'outside' a desirable configuration. In that case reframing the agenda can make participation more attractive to such influential actors.

Still, any agenda will be less attractive to some actors than other ones. Conflicting opinions can best be formulated as dilemmas. That makes them visible and acknowledged, which can serve as a starting point for negotiations and trade-offs in search of commitment. However, dilemmas are not only about content issues. There can also be process dilemmas such as the choice between progress and taking sufficient time for all activities (in Dutch: "zorgvuldig"), and between the involvement of many, or few, participants.

The planning agency needs to develop an organisation that gets accepted by the participants. Besides making choices about whom to involve and in which roles, this activity can also include the development of process rules on, for example, entry and exit of participants and decision-making in the arena.

### **Managing the arena(s)**

The process management includes making necessary changes to any (of the previously described) design aspects, and using specific incentives to influence progress and outcomes. The aim is to reach a decision that provides satisfactory benefits to each of the involved actors.

Access to sufficient information is an important aspect of the search for such decisions, because problem solving can fail because of insufficient information about problems or effects of solutions (Koppenjan and Klijn, 2004). This information is always related to specific arenas involving specific sets of participants. The planning agency therefore has to take into account that an "[...] actor scan is a continuous activity [...]" (Bruijn de, et al., 2002, p. 76). This means that changes to any of the above mentioned design aspects can occur, and that changes should be continuously monitored and appropriately addressed during a restructuring. In particular, the interaction in the arena can lead to new insights and new opinions.

The planning agency can redefine the process regarding issues at stake (i.e. the agenda), and it can be desirable, or even necessary, to bring in new actors to a specific arena or exclude existing ones (Boer de and Bressers, 2011). Changes to agenda and participants can also lead to the development of new arenas, and it can be desirable to 'move' decisions from one existing arena to another one.

Actors can for example initially refuse to participate, because they feel that the cost - benefit ratio of participation is unsatisfactory or that there is too much uncertainty about the process. Changes to the agenda, or to rules, can then make some actors become more willing to participate, and it can influence progress. An altered agenda influences also the 'menu' of improvement options, and accordingly also total costs and benefits, and the distribution of both sorts of effects among the participants. Risks must be addressed too, because if the

risks of (for example) joint action are too high, actors may not find these risks acceptable (Koppenjan and Klijn, 2004). The process is aimed at reaching a final complete understanding of, and agreement to, the content solution and the related distribution of costs, benefits, and risks (Koppenjan and Klijn, 2004).

Process management is very much about flexibility and “emergent” developments, and the ability of a process manager to quickly recognise opportunities, and adapt and use appropriate strategies is therefore important (Boer de and Bressers, 2011).

### Summing-up

Process management can deliver the desired ‘bridge’ between the theoretical framework (in chapter four) and the application to restructuring. The following aspects need to be taken into account:

- Information is needed about each individual actor (e.g. opinions, resources, interests), and in particular about how each actor is linked to specific problems or solutions;
- Information is also needed about specific configurations of actors related to specific arenas;
- Information and knowledge can be unequally distributed among participants, and it is possible to apply rules for access to information;
- The planning agency should focus on commitment: information is ‘negotiable’ (i.e. the information is ambiguous, and there is lack of objective ways to assess its quality), and therefore the planning agency needs to reach a level where the actors are satisfied with the available information
- Commitment of each individual actor is needed, and in particular this means that each actor must be satisfied with the agenda, the participants, the organisation (including process rules), what he can, or will, gain (i.e. costs, benefits, and risks, and the distribution of these same aspects among the other actors)
- Management of any arena in particular means continuously monitoring the satisfaction with agendas, available information, involvement and behaviour of participants, and process organisation (rules, agreements, roles etc.), also the ability to flexibly adapt and apply strategies according to need regarding effect on progress and/or commitment.

## 5.5. The decision support model: choices and added-value

The final question that needs to be answered before the model can be developed is: Which kind of decision support model is best suited to helping planning agencies manage restructuring as a complex multi-actor interactive process, and which added-value will it have compared to other models?

### Process model for decision support

If the problems encountered in restructuring had been ‘tame’ (well-structured), and if the decision process could be reduced to a single decision that is represented through a limited number of quantifiable variables and constraints, then it would have been possible to attempt mathematical modelling. However, in practice the problems which planning agencies face are ‘wicked’ (Rittel and Webber, 1973; Churchman, 1967, Conklin, 2005). For such complex and dynamic situations a process model is suitable (Vrolijk, 1996).

The process to be managed includes all the interactions between participants, and the goal is good decisions (Pielke, 2003). Therefore the planning agency needs to take an approach that can support decision-making processes under conditions of high uncertainty (Bouyssou et al.,

2000 provides an introduction to the variety of decision support methods and tools). Support is needed to facilitate the analysis of specific restructuring situations and the selection of appropriate improvement options. The model should combine explanatory and predicting power for, as Friedman argues, the only way to assess the quality of a model is whether it delivers predictions that are good enough for the purpose and whether it is better than predictions coming from alternative models (Friedman, 1953).

### Focus on applicability and socially robust outcomes

The challenge of developing something that is considered to be ‘good enough’ means that what is developed should be applicable and should produce socially robust outcomes (Pielke, 2003). Furthermore there are indications that the better the users understand the model and have confidence in its results, the higher the probability that the model will be applied in the processes (Hare, 2005).

### Balancing simplicity, completeness, and usefulness

Choices have to be made about factors and relationships (Luhmann, 1995), and the decision support model should be as complete as possible (i.e. not over-simplified) and address and integrate the most important characteristics (Haines, 2004) of restructuring.

### Guidelines and support for informed choices

The use of specific rules and measures in uncertain multi-actor interactive situations has to be based on an assessment of possible effects, which cannot be completely known in advance. In such situations, rules that condition the interactions within the arenas without completely determining them (Pennan van der, 2005) are suitable.

The model therefore needs to provide guidance, but also to leave room for freedom of choice. In practice, a whole range of options for delivering decision support for restructuring has been applied, and they vary in the degree to which they prescribe rules. An example of (almost) non-prescriptive approaches is ‘inspiration books’. These usually contain descriptions of projects or options for solving problems, sometimes including related success factors or pro’s and con’s. The user is completely free in choosing whether to apply any, or none, of the examples. A more prescriptive form is often used in management guides. These present guidelines in a descriptive form as success factors (e.g. Novem, 2001) or as questions that guide the planning agency through a process towards selection of measures (e.g. Brand, Bugge and Roelofs, 2004).

This range of approaches reflects a need for guidelines that not only allow, but in particular actively stimulate, planning agencies and other involved actors to make their own informed choices. However, these choices are actually never completely ‘free’. Management guides, in particular, include ‘hidden’ normative elements in the recommendations they include, and in the recommendations they exclude. They usually offer one (or a limited number of) recommendation(s) for handling any specific situation, and all other possible recommendations are accordingly, for reasons not disclosed, viewed as less important or not desirable.

In all cases, accordingly, an underlying normative framework enables the topics that are important, and the strategies that are appropriate for solving specific problems, to be selected, and possibly also the likely effects to be predicted. Such selections and predictions can, in their most simple form, be viewed as the result of gathering the correct information (Pielke, 2003). However, a decision support model for restructuring should not attempt to deliver ‘perfect’ information and, therefore, predictability, because that can ‘deaden’ a relationship (Heath and Bryant, 2000). Efforts to collect more information can also reveal more complexities and increase relevant uncertainties, which again can lead to increased political controversy (Sarewitz et al., 2000). The model should therefore acknowledge that

successful use of predictions depends more on a good process than just good information (Sarewitz et al., 2000).

#### Addressing specific situations

Restructuring processes possess common characteristics, but each case is different. The model should therefore include, and integrate, general 'good practices' and situation-specific approaches.

This applies in particular to the three selected factors: motives, information and resources. The complex relationships between these imply that a decision support model needs to include approaches for addressing specific situations that can be viewed as specific configurations of the three factors.

#### Question-based adaptive model

Planning agencies need to have a thorough understanding of restructuring situations and, in particular, of the possibilities for influencing them. This means that the model needs to support both diagnostic activities and the choice of suitable follow-up actions.

First, this means that the model needs to include the right diagnostic questions and the right actions. Basis for identifying both is provided by the earlier mentioned management guide, which was developed specifically for sustainable revitalisation of industrial sites within a three years research project called "Management of Sustainable of Industrial Sites (acronym: MASURIN), co-funded by the Fifth Framework Program of the European Commission (Brand, Bugge and Roelofs, 2004, for more information see appendix II). The structure and contents of the guide, focusing on an integral process-design approach for supporting complex decision making, reflect an integration of the then available body of knowledge and experience from interactive planning processes in six countries. The management guide is question-based, which facilitates actors in their own search for situation specific answers. It also includes suggestions for suitable follow-up actions linked to all questions and specific phases of the process.

Second, the model needs to fulfil the needs of (at least) the planning agency regarding satisfactory progress and outcomes, suitability in multi-actor processes, and adaptability to changing needs. Here, these issues are addressed based on 'lessons learned' in another large two-years research project (co-funded by the European Commission, FP6, "Regions of Knowledge 2"-program) that focused on how complex decision making in interactive multi-actor regional innovation processes could be facilitated (Bugge et al., 2007; Welter et al., 2008; Bugge et al., 2010). In particular, this study showed that an adaptable question-based decision support was favoured over blue-print approaches, and that such an approach should be simple, compact, transparent and understandable, and it should facilitate discussion.

#### Added-value

The model, presented in the following chapter, builds on and integrates the results of these two projects, and the improved understanding of restructuring reported in academic literature and developed within this study (see previous chapters). This model improves the MASURIN-model in several ways. First, MASURIN presented only general guidelines for restructuring, whereas this new model specifically addresses how those processes can proceed more quickly without endangering the final quality. Second, the new model is different in its focus on the way planning agencies can handle specific situations and in particular how actors are, and should be, involved depending on the three key factors motives, information, resources. Third, this model is much simpler and compact: both regarding number of 'phases' (only two arenas: initiative and implementation) and number of questions and suggested follow-up actions.

## 6. A decision support model for restructuring industrial sites

*"If an improvement model shall not only be useful, but also used, then it needs to fulfill the needs of stakeholders that want adaptive question-based decision-support, and no 'blueprint' solution, in their complex search for the 'right' strategy [...]"*

*(Bugge et al., 2010, p 94)*

### 6.1. Introduction

All 'building blocks' for the decision support model are now available. The model will focus on how the planning agency can influence interdependent actors that interact in initiative and implementation arenas, and will take into account how the decision-making will depend on the actor characteristics information, motives, and resources. It will be a question-based process decision support model, which addresses, and integrates, aspects of appropriate process management needed to reach a satisfactory "commitment package".

The objective of this chapter is to give an answer to the fourth detailed research question formulated in chapter two:

*How can a model be developed for situation-specific process approaches chosen by planning agencies to influence progress?*

First, the main components (6.2), and the key decisions (6.3) included in the model are described. The concepts are then operationalized (6.4), and the detailed design is described, (6.5) before the model itself is presented (6.6.). The chapter is concluded by giving some strategic options for addressing a limited number of specific ideal-type situations that can be encountered in restructuring (6.7.), and some reflective remarks on use of the model in practice.

### 6.2. The main components of the model

The model comprises sets of questions and selected follow-up measures that a planning agency can use for designing and managing restructuring with the objective of speeding up these processes. It focuses on specific situations, and sees the development and management of the 'right' action arena for addressing this situation as being the key process. This process is split into three main activities: identifying a specific challenge and its stakeholders; developing

an action arena around preferred participants; managing the resulting action arena towards desired outcomes. This requires first identifying the initial conditions, selecting (based on this understanding) follow-up measures that influence the process positively, and identifying the desired outcomes. The questions and follow-up address each activity separately.

#### Actors, stakeholders, and participants

The model uses three different terms: actor, stakeholder and participant. Actors are those parties that somehow are, or can be, involved in a specific restructuring. They include the planning agency, firms situated on the site, and higher authorities. Depending on the challenge to be addressed, actors might also be stakeholders. For example, if there is unused land, this is a problem for the planning agency and some of the firms. A different example is site security, which normally will affect all firms. A stakeholder is therefore viewed as an actor that either is affected by, or has influence on, a specific restructuring challenge. Stakeholders are a subset of the group of actors. However, not all stakeholders are equally necessary, perhaps not even desirable, in an action arena. Preferred participants are those actors that the planning agency believes to be the 'best choice' for achieving progress and reaching a desired outcome. The preferred participants will normally be a subset of the complete group of stakeholders. Finally, not all these preferred participants will ultimately become, or stay, involved as participants. The action arena participants are the actors that are willing to invest in an interaction process for addressing a specific challenge. The arena participants can accordingly change in time. The development towards an 'ideal' arena regarding involvement of actors, viewed from the perspective of the planning agency, is visualised in figure 6.1.

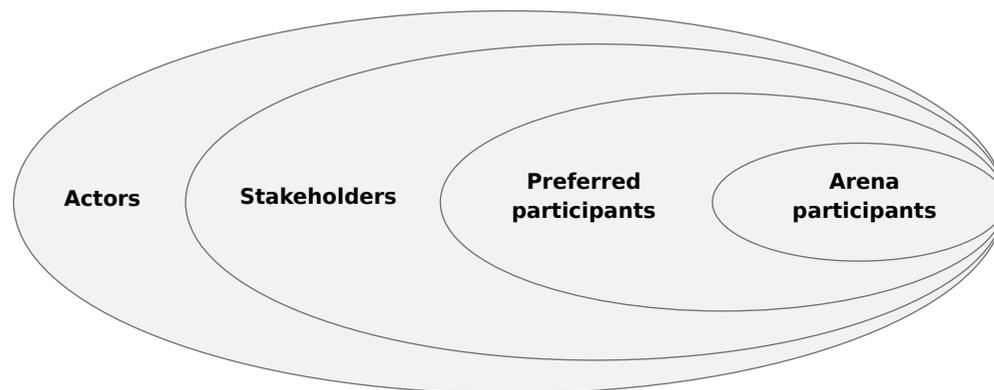


Figure 6.1 Relationship between actors, stakeholders, and arena participants

The model focuses on how the planning agency can develop and manage action arenas that have the 'right' combination of challenge and participants. The term 'right' refers to participant(s)' action potential: the ability to really solve the problems. The model accordingly assumes that knowledge about the actors is essential for a successful process, and that 'wrong' actor involvement negatively affects progress.

#### Main activities and challenges

The model divides the task of the planning agency into three activities.

First, the planning agency identifies the initial conditions regarding the challenge and its

stakeholders. These initial conditions include both the endogenous factors (actors, their motives, information, and resources, and the nature and extent of the interdependency between the actors) and the exogenous factors that structure the interaction in the arena. In particular, identifying the initial conditions means understanding the problems with the site performance and how the different actors perceive these problems. However, challenges can go much further than perceived problems. They can also include goals related to high ambitions (i.e. driven by visions) for the site development. A challenge can accordingly be any selected mix of problems and goals related to the restructuring, and it can be specified according to space, or content. Any challenge will have its own specific combination of these factors. The planning agency develops an overview of such challenges, links each challenge to stakeholders, and selects one challenge.

The second main activity is developing the action arena. This involves selecting the preferred participants (see above), assessing their willingness to become involved and, if necessary, trying to influence that willingness. The activity includes also setting up the working rules, the agenda, etc.

The third main activity is managing the interaction within the action arena towards outcomes that are acceptable to all the involved actors.

#### The two action arenas

In chapter 3 – current approaches to restructuring in practice – we saw that it was common practice to distinguish between two 'rounds': taking the initiative to start restructuring, and implementing the restructuring. The output of the first round is the input to the second. The decision support model follows that practice and accordingly distinguishes two action arenas:

- the initiative action arena;
- the implementation action arena.

The general activities (see above) are the same for each action arena, but the detailed activities vary between the arenas.

### 6.3. The decisions to be taken by the planning agency and for which support is desirable

#### In the initiative action arena

- 1) Does the planning agency know enough about the restructuring challenge and the relevant stakeholders?  
If not, how can it gather the necessary information (i.e. for identifying the initial conditions)?
- 2) Does the planning agency know who the preferred participants are?  
If not, how can it gather the necessary information (i.e. for developing the action arena)?
- 3) Are the preferred participants willing to spend time and resources (process costs) on developing a vision for the restructuring?  
If not, how can that be influenced (i.e. for developing the action arena)?

And then, when one or more possible visions have been formulated:

- 4) Is there sufficient commitment from the preferred participants to work out the vision / visions?  
If not, how can that be influenced (i.e. managing the action arena)?

### In the implementation action arena

For each of the possible visions put forward in the previous round:

- 1) Does the planning agency know enough about the vision(s)?  
If not, how can it gather the necessary information (i.e. for identifying the initial conditions)?
- 2) Does the planning agency know who the preferred participants are?  
If not, how can it gather the necessary information (i.e. for identifying the initial conditions)?
- 3) Are the preferred participants willing to spend time and money (process costs) on working out the vision into an action plan?  
If not, how can they be influenced (i.e. for identifying the initial conditions)?

And, when one or more action plans have been worked out:

- 4) Is there sufficient commitment from the preferred participants to spend (capital) resources on implementing the action plan / one of the action plans?  
If not, how can that be influenced (i.e. managing the action arena)?

## 6.4. Operationalising the concepts used in the model

The planning agency can investigate the initial site conditions and possible measures to improve them. In that way, it can estimate, for each possible vision or action plan, the total resources necessary for implementing it.

The planning agency can identify the actors involved and try to determine the relationships between them, also the motives, resources, and information for each actor. In this way, it can build up a picture of interdependencies, and thus select the preferred participants: those without whose participation the restructuring will not take place

The willingness of an individual actor to participate in working out a vision or working a vision into an action plan, depends on the motives and the information available to that actor and the resources available to him, where all three will be influenced (see chapter 4) by the context and more specifically by the role of other participants (interdependency). In particular, the commitment by an individual actor to investing in a specific restructuring activity or measure depends on the resources required from that actor, the distribution of costs, benefits, and risks between all actors, and the motives of the actor. That commitment is influenced by information about all those factors.

The answers gathered by the planning agency about the separate actors in relationship to each other and to a particular restructuring can be ordered along the dimensions of the actor characteristics motivation, resources, and cognitions of information available (see: Boer de and Bressers, 2011, p. 69). We view, and use, the term “motivation” as the result of person – situation interaction (Heckhausen, 1989). The motivation is expressed as a preference for acting in a specific way to achieve results in a situation, and the motivation is influenced by an actor’s motives (being his more long lasting dispositions) (Heckhausen, 1989; Heckhausen and Heckhausen, 2008). We use the term “information” instead of “cognitions” in the model only for the purpose of making the term more recognisable to practitioners (i.e. information includes cognition, and therefore it is important to focus on how satisfactory the information is to the actors).

- motivation, being the willingness of actors to participate / invest;
- the resources, being the things that actors possess, such as money, human capacity and power that an actor brings to a situation in order to reach his goals.
- information, being the information about the consequences for the actor of participating / investing (including cognitions of the information).

When the planning agency has assembled those answers for all the preferred participants, it makes a picture of the:

- aggregated motivation;
- aggregated resources;
- aggregated information.

This aggregated motivation, resources, and information, refer to a specific set of arena participants and a specific restructuring activity or “content” measure.

Then, taking account of those aggregates, also of how the motivation and information is distributed between the actors (e.g. is there an actor who can block the whole process and whose motivation is very low?), the planning agency can come to the decision:

- aggregated motivation is satisfactory, or not
- aggregated resources is satisfactory, or not
- aggregated information is satisfactory, or not.

According to chapter 5, the planning agency can influence this situation in different ways. If one or more of the aggregates is unsatisfactory, then the planning agency will have either to abandon the restructuring, or to change the vision / action plan, or to change the design of the arena, or to try to influence the motivation, resources, or information of one or more of the actors. One, or more, of these approaches can be used at the same time. The option of abandoning the restructuring is not further described, because we focus on improving progress in existing restructuring. Nevertheless, sometimes abandoning a restructuring is the best option to prevent unnecessary use of resources.

First, the planning agency can influence the situation by changing the vision / action plan. An altered agenda can be developed, and new options can be included in the search for feasible restructuring measures. Both changes can positively influence motivation, and altered or completely new solutions can be found for which sufficient aggregated resources are available (i.e. the set of actors is sufficiently satisfied with how a development affects their goals, and in particular about the distribution of costs, benefits, and risks).

Second, the planning agency can redesign, or create new, arenas. It can identify specific configurations of actors related to specific desired developments, and design and manage these configurations as arenas involving these actors. The planning agency can (partly) initiate changes to participants, positions / roles of participants, and process rules for interaction (e.g. entry / exit of participants, decision-making) that create trust and offer protection of “core values” for the participants. Changing participants can lead to a situation where the potential aggregated resources of all actors increase, and where the involved actors possess new information for making the restructuring successful. An altered (or new) design of the arena can also be more satisfactory to the participants if they for example get more influence on decision-making, or get the opportunity to interact with alternative actors that they trust more. Third, the planning agency can influence individual actors. It can for example use persuasive and negotiating approaches to influence motivation directly, or it can collect and distribute information that indirectly can influence motivation. In particular, the planning agency can provide information on problems, improvement measures and their effects on goals, specific configurations of actors related to problems and improvement measures, approach

to assessment / comparison of improvement options, agenda for the arena, other actors involved, feasibility, risks, and rules on for example decision-making. The planning agency can apply an open and transparent approach to collection and distribution of information, and at the same time it can develop rules about, for example, confidentiality of information that are satisfactory to the participants. The planning agency cannot influence the own “resources” of another specific individual actor directly. It can only, as mentioned above, either develop alternative solutions that are feasible to this actor (i.e. the resources asked from that actor do not exceed its limits), or it can develop alternative solutions that do not necessitate any contribution from this specific actor, or it can try to attract an alternative actor that can bring the necessary resources, or it can wait for a later moment where the financial situation of this actor has been improved.

**Box 6.1** An illustrative example of an approach to process management

Suppose that a joint initiative has already been started, and it has been decided to improve land use on the site. There are not enough resources and the planning agency is therefore dependent on firms, higher authorities (and possibly other investors). The objective for the planning agency is accordingly to develop and manage an action arena that leads to the implementation of selected improvements. This means identifying solutions, and ensuring that sufficient resources are allocated by actors, and at the same time ensuring that no actor (is able to) block the implementation. The planning agency therefore needs to change the initial situation (unsatisfactory access to resources), and it does so through interaction with the individual actors. Investments in land use improvements, to put it simply, then depend on what the actors know (information) and what they are willing to do (motivation).

The planning agency accordingly needs to select the right approach for influencing each of these two factors individually for each actor, at the same time taking into account the relationships with all other factors and actors.

## 6.5. Detailed design and application of the model

The model addresses complex situations. Situations where the actors have different opinions about what to do, where there is insufficient willingness to invest (i.e. lacking motivation of individual actors), and where insufficient information is available.

The model focuses on how influencing actors and/or choosing a different solution can lead to satisfactory commitment. Satisfactory commitment means that sufficient actors are willing to allocate resources to starting a restructuring initiative, or to implementing specific improvement measures.

The model helps the planning agency take appropriate action by asking questions about motivation, information, resources, and commitment. Although the questions address these characteristics, they do not always use these terms explicitly. Instead, to improve recognisability, the questions are formulated in such a way that they are as familiar as possible to restructuring practitioners.

The questions are incorporated in a decision-tree structure, where each question leads to an answer “yes” or “no”. The answer “yes” or “no” is based on an assessment of whether something

is regarded as satisfactory (enough). To make this assessment, the planning agency can involve other actors. In case of a positive answer, the planning agency moves to the next (main) activity and related question. However, because the decision-making process takes place in ‘rounds’, later changes might necessitate returning to ‘earlier’ questions and activities. In case of a negative answer, signalling an unsatisfactory situation (or at least unacceptable uncertainty), an “if .... then” link leads either to a follow-up question or to a suggested action. The follow-up action is always about motivation or information: whether actors’ willingness to do something is satisfactory, whether what is known about something is satisfactory, and how willingness and knowledge can be influenced. The choice regarding how to apply any of the follow-up questions or actions is always up to the model users.

The model focuses on two specific arenas: the Initiative arena and the Implementation arena. For each arena, four main questions are asked related to the main activities (one question for the first activity, two for the second activity, and one for the third activity) within the model. The number of sub-levels in the decision-trees is restricted to two. The suggested actions are described only briefly, because there is abundant information on such approaches in existing literature<sup>3</sup>. To make the questions as clear as possible to the user, they are accompanied by short introductory texts.

**Box 6.2** Model design principles: a summary

1. Progress is achieved by actors investing resources in the process and in concrete measures
2. Resource allocation is the outcome of decisions made by actors related to specific challenges
3. Actors’ decisions to invest in (i.e. allocate resources to) a specific restructuring challenge, characterized by high actor interdependency, depends on three factors: the information and resources they have, and their motivation
4. The planning agency influences progress within action arenas by applying instruments (rules and measures) that couple identified challenges to actors (as arena participants) so that the actors together have both the willingness and ability to invest and solve problems
5. A satisfactory aggregated total of the three factors motivation, information and resources for a specific challenge makes implementation possible (i.e. in the initial situation resources are always unsatisfactory, and in the final situation sufficient actors possess enough information, resources, and willingness to – together – invest those resources for implementing a selected solution)
6. Restructuring processes have two distinctly different action arenas: “Initiative” and “Implementation”. The model includes, and addresses, both.
7. A question based decision support to design and management is appropriate for a Dutch restructuring practice. It enables the planning agency to identify approaches that represent the ‘best’ choice regarding the balance between feasibility and desirability.
8. The set of questions serves as a coherent set of process rules for supporting decision making in design and management of arenas, and it also enables selecting more detailed measures for influencing progress
9. These detailed measures for influencing arenas, and more specifically for influencing the individual factors, are already well known as part of the existing body of knowledge, and therefore need only to be briefly described within the model

<sup>3</sup> These approaches are described in a separate par. 6.6.3 (i.e. not described in detail directly after the questions), in order to avoid repeating text, because the measures are applicable both for initiative and implementation arenas. However, the specific issues to be addressed and the degree of detail (need for in-depth study) vary for different situations, and accordingly these differences are addressed within the description of the measures.

## 6.6. The detailed 'filled-in' model

### 6.6.1. The "Initiative Action Arena"

*The planning agency needs to continuously assess how to address each activity and each question so as to affect progress and process outcomes. If answering a question or applying a specific measure has an expected positive effect on progress and no (foreseen) negative effect on quality of process outcomes, then these actions are performed.*

#### Identifying the integral restructuring challenge and its stakeholders

A starting point for the planning agency is to identify the restructuring challenge. This task is directly related to the industrial site performance, and in particular, how different actors view, and assess, this performance. The first main question for the planning agency is therefore:

**Q 1** *Does the planning agency know enough about the restructuring challenge and the relevant stakeholders?*

If the answer is positive, which means that satisfactory information about all initial conditions (both exogenous and endogenous factors) is available, then the planning agency can proceed with the next activity of developing the action arena (i.e. question 2).

If the planning agency does not have the information to answer this question, a global "Feasibility Analysis" and "Process risk analysis" are performed. The feasibility analysis can address both internal and external (viewed from the planning agency) issues. The internal part focuses on the information and resources available for the restructuring, the external analysis covers also process feasibility. The "Process risk analysis" focuses on potential risks regarding reaching the desired outcome, and specifically regarding progress. The combined outcome is used as input for an "Organisational (re) design" that is used to guide the subsequent "Identification of challenge and related stakeholders".

If the need for information is limited to information of the site related problems, effects and related risks, then a global "Site Performance Analysis" suffices. If, on the other hand, the site performance is known, but there is a lack of information about the actors and how they are affected by site performance, or about how they can and will influence this performance, then a "Stakeholder analysis" is applied. In practice, if no negative effects on process performance are foreseen, then both analyses can be performed at the same time.

#### Developing the action arena

The information about stakeholders and site performance serve as input for the development of the initiative arena. The next task for the planning agency is to identify which stakeholders should preferably be involved in the initiative. The question is therefore:

**Q 2** *Does the planning agency know who the preferred participants are?*

If the planning agency is uncertain about this, then a combination of a "Stakeholder analysis", a "Process risk analysis", and an "Identification of challenge and related stakeholders" can be applied. These measures are then used to obtain the extra information about actors and to add information on the potential consequences of involving an actor or not. If the planning

agency has satisfactory information about this, the main question for the action arena development can then be addressed, which is:

**Q 3** *Are the preferred participants willing to spend time and resources (process costs) on developing a vision for the restructuring?*

To answer this question, the planning agency uses the outcome of a "Process Risk Analysis". This informs about the potential consequences of proceeding with a specific set of participants. If the answer is positive (i.e. satisfactory enough), then the planning agency can proceed with designing the arena, using the "Organisational (re) redesign" measure, and subsequently managing the interaction towards a satisfactory outcome.

However, if willingness is unsatisfactory, the planning agency needs to choose a strategy taking into account the effects of several factors. The willingness of any individual actor is influenced by the choice for other potential arena participants (i.e.: how satisfied is an actor with having specific other actors involved), the ideas about how to structure the arena, and the way problems and suggested developments are framed. The willingness is, in particular, related to how each individual actor believes that these choices can influence his own interests and goals. Therefore, if the willingness is unsatisfactory, then the planning agency needs to seek answers to the following three follow-up (sub) questions:

**Q 3.1** *Is the draft set of preferred participants satisfactory to the actors?*

If the answer is negative, then the planning agency can carry out (informal) interviews for identifying the preferred change and the underlying reasons for opposition. The preferred change can be to involve additional, or to remove or replace current, actors. In all cases the planning agency can perform a "Process risk analysis" aimed at identifying the potential consequences of changing the group of preferred participants. Depending on the outcome, the planning agency can choose to proceed without the unsatisfied actor, can change the set of intended participants, or can attempt to influence the motivation of the unsatisfied actor (e.g. through "Organisational (re) design").

**Q 3.2** *Is the draft organisation of the initiative satisfactory to the actors?*

The organisation of the initiative structures the interaction between the actors. Satisfaction accordingly reflects how each actor views the informal and formal rules that either enable or constrain its ability to reach his goals, and the investment it expects to make. If actors are unsatisfied with the suggested organisation, then the planning agency can apply a combination of a "Process risk analysis" and an "Organisational (re) design" approach. Depending on the outcome, the planning agency can decide to maintain or change the organisation. This decision is based on expected effects related to the objective of the initiative.

**Q 3.3** *Is the draft agenda for the initiative satisfactory to the actors?*

The draft agenda can be more or less 'open', with respect to the topics that may be addressed. Satisfaction reflects how actors perceive that the agenda will enable them to reach their goals, and, in particular, whether actors' responsibilities, ideas and previous choices will constrain the process. In practice, firms and the planning agency can have quite different initial ideas about the restructuring, even if those ideas have been formalised in visions or plans. These ideas can reflect different sets of priorities. If external actors (i.e. external to the planning agency) are unsatisfied with the draft agenda, then the planning agency can use a

“Process Risk Analysis” to identify the potential consequences for process performance and for the outcomes of ‘opening’ (i.e. together reformulating) the agenda.

#### **Managing the action arena**

When sufficient preferred participants are willing to become involved, and there is satisfactory agreement on a draft agenda, participants, and organisation, then the planning agency can start managing the interactive process towards a desired outcome. This starting point will, in practice, often not represent an ‘ideal’ situation, but something that at least is found acceptable to the participants at that time. There can still be considerable uncertainty about how the process will proceed and what the outcomes will be, but the actors are willing (at least temporarily) to accept both the known risks and the uncertainty. The planning agency asks itself the following main question:

**Q 4** *Is there sufficient commitment from the preferred participants to work out the vision / visions?*

The answer to this question includes two main aspects: commitment and vision. Visions can vary considerably regarding the detail in which they are formulated, but they all provide some direction for future developments. The commitment is about the support of actors to this vision (or visions). If an actor gives enough tangible commitment for allocating its own resources (in a particular time) to search for feasible improvement options and/or to address a specific high-priority specific challenge, then the vision can be formalised in accordance with the needs of the participants in a “Final agreement”, and the planning agency can start an implementation process (see Implementation arena).

If there is unsatisfactory commitment, then the planning agency needs to identify the underlying reason(s) and decide what to do. This requires seeking answers to two follow-up questions. The first question is:

**Q 4.1** *Is the quality of available information satisfactory to the participants?*

Both lack of information and too much information can affect commitment. Furthermore, participants have different needs regarding information. If the quality of available information is the reason for lack of commitment, then the planning agency can provide information on a need-to-know basis. This means clarifying, and communicating, the issues that can cause uncertainty (and affect commitment) regarding, in particular, choices of goals. To identify the specific needs for information, the planning agency can apply the following detailed follow-up questions:

**Q 4.1.1** *Is the information about nature and structure of problems as a basis for selection of visions appropriate?*

**Q 4.1.2** *Is the information about the expected effects of goals on perceived problems appropriate?*

**Q 4.1.3** *Is the information about why goals have been selected, why they are formulated the way they are, and why alternative goals have not been included appropriate?*

**Q 4.1.4** *Is the information about expected feasibility and risks related to goals appropriate?*

The answers to each of these questions should give more clarity about goals and priorities. However, providing more information influences the way participants perceive the process. Therefore the planning agency also assesses the effects of providing (more) information using a “Process Risk Analysis”.

Quality of information is not the only aspect that influences commitment. It is also about actors’ satisfaction related to own interests and goals. The second follow-up question is therefore:

**Q 4.2** *Is the chosen set of goals satisfactory to the participants?*

This aspect of satisfaction cannot be influenced by providing more information, as it depends on the chosen priorities. If the participants are unsatisfied, then the planning agency can apply the following sub-questions for identifying a strategic approach:

**Q 4.2.1** *Is sufficient satisfaction achievable through influencing participants directly?*

**Q 4.2.2** *Is sufficient satisfaction achievable through changing goals, participants or both?*

**Q 4.2.3** *Is starting a follow-up implementation process (assuming that resources are available) without a clear joint vision the best option?*

Again the selected approach, which can be one specific measure or any mix, is based on a combination of a “Process Risk Assessment”, a “Feasibility analysis”, and an “Organisational (re) design” approach.

The outcome of this first round is a set of long-term and short-term goals, more or less hard constraints, and ideas (visions) about possible solutions. These solutions have to some extent the consent of the involved actors, what the solutions require is roughly known, and, therefore, the actors seem willing to spend their resources in further explorations.

## 6.6.2. The Implementation action arena

### **Introduction**

In this round, the planning agency needs to combine a long-term perspective with continuous attention to the development of good solutions that can be implemented. This implies focusing on actors and their motivation related to specific challenges, as the key to getting access to sufficient resources.

### **Objective, scope and focus**

The objective which the planning agency has for an implementation arena is to identify a solution that is (at least) acceptable to the involved actors, and that at the same time contributes satisfactorily to the long term goals. In that respect Implementation arenas are comparable to the Initiative arena.

However, there are some differences as well. First, implementation means that resources are allocated not only to a process (i.e. the transaction costs), but also, as an outcome of the process, to the implementation of specific improvement measures, and these will usually be much higher than the process costs. The process costs (i.e. especially time) of some participants are often partly covered by existing organisational responsibilities (e.g. Chamber of Commerce, Regional Development Agencies, Employers’ Organisations). However, investment costs are usually not. Second, there is much more emphasis on details of the

specific measures, and accordingly any conflicts of interests will normally become much more 'visible' during the search for, and comparison of, options. Third, each implementation will have (partly physical) consequences for parallel and future developments that influence the 'freedom of choice' for all following steps, all of which will have to be taken into account. There is a need to implement a 'package' of solutions that can be only partly identified in advance.

The focus for the planning agency is therefore on discovering and creating "golden moments", where the right solution is supported by the right actors who have the ability to allocate the right resources. It is accordingly especially about designing and managing commitment, which includes attention to feasibility, effects related to goals and actors, risk, trust, and uncertainty.

This description of the Implementation arena focuses on the aspects that are different from the Initiative arena, and therefore only brief descriptions are given of the common aspects.

*The planning agency needs to continuously assess how to address each activity and each question which can affect progress and process outcomes. If answering a question or applying a specific measure has an expected positive effect on progress and no (foreseen) negative effect on quality of process outcomes, then these actions are performed.*

### Identifying challenge and stakeholders

The starting point for the planning agency is that the initiative arena may have provided one or more visions, and there will be limited information available about any vision. The planning agency may therefore need to select one specific vision, and for any (selected) vision it needs to know enough about it. The first question for the planning agency is therefore:

**Q 1** *Does the planning agency know enough about the vision(s)?*

The planning agency needs to know enough to be able to identify the 'right' challenge. Such a restructuring "challenge" is a specific problem or goal (or a specific mix of problems and/or goals) that, for good reasons, should be addressed first (i.e. at that moment in time). The reasons for choosing a specific challenge, such as for example a specific problem, are always related to its stakeholders, and in particular, to how different actors view, and assess, the importance and urgency of improving specific aspects of the site performance. Choosing requires attention for not only the problems but also for the process. If this challenge is unknown, then an "Organisational (re) design" is applied that again serves as a basis for "Identification challenge and related stakeholders". If needed, this activity can be supported by any of the measures "Site performance analysis", "Stakeholder analysis", "Feasibility analysis" and "Process risk analysis".

### Developing action arena

The outcome provides input for identifying the preferred participants, applying the same approach as described for the Initiative arena. Again it is necessary to influence their willingness to participate by fine-tuning the organisation, agenda and set of participants. The questions, and the related suggested measures for the more detailed "if ... then" questions, are identical to the initiative arena (except, of course, that they address a specific selected challenge instead of the restructuring initiative):

**Q 2** *Does the planning agency know who the preferred participants are?*

**Q 3** *Are the preferred participants willing to spend time and money (process costs) on working out the vision into an action plan?*

**Q 3.1** *Are the actors satisfied enough with the draft set of preferred participants?*

**Q 3.2** *Are the actors satisfied enough with the draft organisation?*

**Q 3.3** *Are the actors satisfied enough with the draft agenda?*

The outcome is more or less 'ideal' regarding the probability of successfully addressing the challenge, or in other words: solving a problem.

### Managing action arena

When one or more action plans have been worked out, the main question related to the desired outcome is:

**Q 4.** *Is there sufficient commitment from the preferred participants to spend (capital) resources on implementing the action plan / one of the action plans?*

Again the approach to answering this question is comparable to the process during the initiative arena. However, there are some significant differences as well.

First, the planning agency can address commitment in two ways. Sufficient commitment can be viewed as enough for reaching a predefined specified goal, or as a situation that constrains what can be done. The planning agency focuses on both. There are accordingly always two approaches available: change the participants and their involvement or change the challenge that is being addressed.

Second, any search for a solution implies that several options may be, and often are, available, and each option will have its own set of costs, benefits and risks. Account needs to be taken of the fact that these are not only 'distributed' among the participants, but also between non-participants. This distribution is important for decision making in all activities, such as searching for options, assessing their individual feasibility, and designing and comparing 'packages' of such options. This is where the planning agency has to take into account its specific responsibilities towards 'society'. This means that developing commitment is not only about satisfaction regarding quality of information and the suggested solution, but there should also be a much stronger emphasis on the impact on the interests and goals of all stakeholders. Stakeholders are then viewed in a broad sense as including all actors that may be affected by, for example, changing the allocation of resources available to a local community.

If there is satisfactory commitment, then all issues are included in a "Final Agreement". However, if there is insufficient commitment, then the planning agency can ask the following questions:

**Q 4.1.** *Are the participants satisfied with the quality of available information?*

Again quality of information can influence the motivation of participants. If there is insufficient satisfaction with available information, then the planning agency needs to identify which parts of the information this concerns. This requires answering the following questions:

**Q 4.1.1** *Is the information about the challenge (nature and structure of problem) appropriate?*

Although the previous process will have led to a well-defined challenge, participants may have different information or perception about what the problem really is. If this is the case, then the planning agency can choose, depending on the outcome of a “Process risk analysis”, to ensure that all participants have access to the same information and, if needed, to facilitate a process towards developing a joint view of the challenge.

**Q 4.1.2** *Is the information about individual improvement options appropriate?*

The planning agency searches for feasible improvement options. If insufficient is known about such options, then the planning agency searches for more information about already known options, and/or searches for additional options that can contribute to reaching predefined goals. This search is focused on identifying those options that seem to be feasible.

**Q 4.1.3** *Is the information about the comparison and selection of options appropriate?*

Comparison requires applying a method that assesses each option. Any such method applies criteria with more or less explicit weights. The planning agency might need to decide which information on this assessment should be distributed (again using information on actors and process risks). This can even include detailed descriptions on why some criteria are chosen and other ones not, as well as the reasoning behind the allocated weights.

**Q 4.1.4** *Is the information about feasibility and risks of the selected solution appropriate?*

This is about having a clear picture of the consequences of implementing a solution, so that each participant can make its own choice. If there is insufficient information available, then the planning agency improves, and distributes, the (draft) “Final Agreement”. In general, the need for more detailed information increases as the participants get closer to really investing in a specific measure. Although there might be a large amount of trust, each participant will want to know what the chosen solution will mean for own goals and interests. Expressed satisfaction about quality of information can change drastically if the chosen solution turns out to be less positive than expected. This means that the planning agency has to ask the following question:

**Q 4.2** *Are the participants satisfied with the chosen solution?*

Satisfaction with a solution depends to a large extent on an assessment of effects on own interests and goals. These effects include costs, (expected) benefits, and known risks (and indirectly also the remaining uncertainty), which together deliver inputs for assessing both feasibility and desirability of solutions. Each participant focuses (at least) on its own situation. The planning agency needs to focus on more: on each individual participant, on the whole set of participants, and even on those stakeholders of the local community not involved in the process. If there is insufficient satisfaction, then two detailed follow-up questions are addressed:

**Q 4.2.1** *Are the participants satisfied with the distribution of costs and benefits?*

Each participant will normally know the direct implementation costs, especially related to ‘physical’ improvement measures, but less accurately the costs (in time) for the implementation. Own (potential) benefits of specific site improvements are more difficult to assess in advance. Especially for commercial firms, this influences their opportunities, and willingness, to invest. Besides assessing how attractive the balance between costs and benefits for itself appears to be, any participant also looks at the distribution of effects among participants. This means that a participant will expect any solution to reflect a ‘fair’ distribution of effects: any deviation from such a ‘fair’ distribution can cause dissatisfaction. However, expressed concerns about ‘fairness’ can also reflect negotiation tactics. If participants are unsatisfied with the distribution effects, then the planning agency first needs to assess the underlying reason(s) and then decide whether opportunities for changes to distribution or choice of solution should be explored.

**Q 4.2.2** *Do the participants find the risks acceptable?*

The second issue is about acceptance of risks. If the participants are unsatisfied with the risks and, in particular, with the actions that are planned for preventing or mitigating the effects on themselves, then the planning agency can assess the desirability and feasibility of changing the “Final Agreement” to address these issues.

### 6.6.3. Measures for influencing process performance

#### Introduction

There is a vast body of knowledge on measures for influencing processes. This study does not attempt to give any complete overview, or to make any thorough, underpinned, selection of such measures (some illustrative examples: Daft et al., 2010, Shelly et al., 2008; Bruijn de et al., 2002; 2010; Freeman, 2010; Loosemore et al., 2006, Geltner et al., 2007). Here we only give compact descriptions of such measures, which give guidelines on how to handle the “if ... then” situations identified using the decision-tree approach for each arena (see 6.5.1-2).

All the described measures are applicable in both arenas, and the descriptions attempt to capture the essence of how they can be applied depending on the situation. This means addressing the level of detail (accuracy etc.) needed, depending on an assessment of desirability versus feasibility. Generally, the need for more specific information will increase in the course of the process. This means that information needed for the Initiative arena will normally be less detailed than what is needed during the Implementation arena.

In practice, the planning agency often uses the same measures several times, depending on the needs of the process. The relationships between the measures and the process, somewhat ‘simplified’ (i.e. not taking into account decision making in rounds, nor the need to collect, analyse and apply additional information in continuous improvements to the process design), are visualised in figure 6.2.



Figure 6.2 Measures for influencing restructuring

### Organisational (re) design

The starting point for any main activity (i.e. identifying challenge and stakeholders, developing action arena, managing action arena) in restructuring is always that a planning agency has some information about actors, problems, effects, possible solutions, and risks associated with the current situation, but there is usually a perceived need for collecting more information. The planning agency therefore first assesses which information is needed at that moment, and which approach for collecting information and/or involving actors is feasible and appropriate. This process design is informed by a “Process risk analysis”, because any action performed by the planning agency has potential consequences regarding the motivation of actors. The process design is also informed by a “Feasibility analysis”. The planning agency assesses its own situation regarding available resources and priorities, and it also takes into account the feasibility of involving external actors, including aspects such as the quality of relationships with firms on the site.

These analyses together with the previously available information provide a set of ‘building blocks’ for organisational (re)design. This design determines scope and focus, and, in particular, it makes it possible to structure the interaction with actors. How this interaction is organised has an impact on progress and possibly on outcomes as well.

Any such design implies the use of (unwritten and often unconscious) informal and (written) formal rules. In particular, rules can influence the agenda, the options that are included, the way to assess, division of costs and benefits, risks and (perceived) uncertainty.

The organisational design focuses on developing rules and continuously adapting them according to need, for e.g.:

- participation (e.g. roles and responsibilities)
- changes to the set of participants (e.g. for exit, entrance);
- changes to agenda (e.g. challenges, goals, solutions)
- changes to allocation of resources (e.g. costs / benefit distribution, time, know-how)
- use of information (e.g. confidentiality, exchange, distribution);
- decision making (e.g. method, transparency, accountability, involvement, influence);
- handling conflicts (e.g. mediation, specific roles and responsibilities)
- non-conformity (e.g. use of laws and regulations in case process approach fails)
- interaction itself (e.g. codes of conduct)

The necessity of applying rules is related to trust. Often, high trust means that fewer rules are needed, or that rules can be applied in a less formalised form. However, trust never gives complete certainty, nor is it a guarantee for process success. Actors will make decisions depending on the situation, and that means that unexpected changes can occur. This calls for continuous (re)design, which includes having back-up plans and specific ‘curative’ measures if things go ‘wrong’. In particular, the planning agency has the possibility of (threatening to) use legal instruments such as expropriation. Process design in that respect supports the informed choice of measures over a wide range between ‘command and control’, financial, and interactive process tools.

### Site performance analysis

The planning agency must identify the problems and the desired, feasible, improvements of the decayed site, where the actors, and in particular stakeholders, are the link between problems and ‘best choice’ solutions. Site performance accordingly includes aspects that are measurable against external norms (such as traffic congestion), and also aspects that reflect perceptions, and opinions, of actors. This analysis focuses on the ‘content’ part, whereas the following “Stakeholder analysis” addresses the actor related aspects.

The (initial) process design provides the scope and focus of the site performance analysis. The scope can be limited to performance of the industrial site itself, but it can also include attention to the strategic position of the industrial site within a local community, region, province, or even country (i.e. the full range of the exogenous factor “biophysical and material conditions”). Depending on need, the analysis can address weaknesses, strengths, opportunities and threats, and include more or less elaborate measurements and multi-criteria assessments. It can deliver (quantitative) information, related to a variety of topics such as:

- economy (competitiveness of site, profile firm mix, ownership, brand / profile, image, site marketing, migration trends, employment, prices and availability of property, use of suppliers, maintenance level)
- environment (laws and regulations, energy, water, ecology, air quality, waste, noise, houses on site, safety, clustering)
- land use (laws and regulations, unused areas, opportunities for expansion inside site and outwards, design related to site surroundings, zoning)
- mobility and infrastructure (access, parking, infrastructure on site, transport modalities)
- social issues (links to local society, site security)
- organisation and facilities (Park management, organisation degree, collective facilities and utilities, ICT, public – private cooperation / partnerships, site improvement policy and plans, on-going activities and continuous improvement, monitoring)

Initially available information, such as complaints and identified safety risks, can limit the necessary scope and provide a clear focus. Information about actors and their opinions can also be helpful in choosing a method for information collection. For example, if desired, an initial analysis can be performed without any direct involvement of stakeholders.

### **Stakeholder analysis**

Information about actors is crucial at all times during the restructuring. The starting point for a stakeholder analysis is that there is an acknowledged problem situation related to the industrial site performance. The situation itself can affect actors both in positive and negative ways, but normally there is a perceived need for change. This change can be implemented by actors. The stakeholder analysis maps the individual actors that are (especially negatively) affected by a situation, and the actors that can influence change.

The information is therefore collected for actors that are expected to be crucial for progress. Such actors are for example those that are 'problem owners': that is they experience negative effects and the problem cannot be solved without their participation. Other examples are those actors that can contribute significantly to a solution (e.g. through co-financing or know-how), or that possess the power to significantly postpone (or even block) a development.

An important part of the process is therefore to estimate probabilities of success related to the influence of stakeholders (see also "Process risk analysis"). This means understanding the motivation (and underlying specific motives) of different stakeholders for supporting or opposing a development. A specific form of stakeholder analyses, called "force-field" analyses, can be used to (quantitatively) map motivational factors for individual actors, as well as for groups of (preferred) participants. In restructuring, the results of the analyses can be used for categorizing actors. If actors are likely actively to block, or postpone, a development, then they can be categorised as likely opponents. If they will probably contribute to the development, then they are viewed as likely supporters. Finally, if no active opposition or support is expected, then they can be viewed as 'neutral'. In all situations, the force-field analysis should preferably include attention to the underlying reasons (motives) for an expressed opinion. It is important to know whether these opinions can be influenced and how that can be done through, for example, process (re) design.

Although comprehensive information about all stakeholders is desirable (i.e. the analysis should cover all actor characteristics, and, in particular for the initiative arena, the initial conditions regarding the exogenous factors "attributes of society" and "rules"), resource constraints introduce limitations. The planning agency needs to prioritize. The situation specific "need to know" focuses on what actors know, how they can contribute to a process, under which conditions they will be willing to contribute, what their preferences are, and how these factors are related to specific challenges (see "Identification challenge and related stakeholders").

Depending on need, a stakeholder analysis can include detailed attention to topics such as:

- Motivation for supporting or trying to prevent a development (e.g. based on experienced effects related to site performance, interests, responsibilities, goals, preferred actions linked to expected distribution of costs and benefits, previous experiences, expectation regarding own role in process, and influence on process and its outcomes)
- Information that actors possess (problems, effects, improvement options, feasibility, risks)
- Resources they possess (influence, financial, time, know-how)
- How actors are dependent on other actors for achieving their goals (including access to resources and information, and the felt effect of the 'local setting' such as culture, formal and informal rules)

### **Identification challenge and related stakeholders**

The stakeholder analysis should be made for the various specific challenges. The starting point is that information is available on site performance and stakeholders. However, there is a need to link specific challenges to specific sets of stakeholders, and there is a subsequent need for selecting a 'best choice' challenge.

Such specific challenges can be related to content themes, to space, and to time. Theme-related challenges can be any of the topics described in the "Site performance analysis". In some cases, theme-related challenges are only weakly linked to perceived problems on the site (e.g. energy efficiency). However, addressing such themes can have a significant impact on cooperation and can initiate 'snowball effects'. Space is the second dimension for identifying challenges. Importance and urgency related to specific themes can vary significantly within an industrial site. Therefore the planning agency can divide the area into physical segments having common problems. Finally, time is a dimension for specifying challenges. Time is about urgency, but also about making use of snowball effects regarding finances (e.g. buy land - improve - sell, but also about how improvements affect property value) and process (e.g. initial improvements can stimulate stakeholders to invest). Finally, phasing developments in time is a way to ensure that developments do not endanger future opportunities.

If challenges are well defined in time and space and related to themes, then it is possible to link them to the stakeholders that are most affected and/or have most possibilities to improve the situation. Within this group, a set of preferred participants for addressing the challenge can be identified.

The planning agency therefore first creates an overview of challenges and related stakeholders. This serves as input for selecting the 'best choice' challenge regarding expected impact on restructuring performance, which includes selecting a set of preferred participants for addressing the challenge. In the Initiative arena, this means identifying the stakeholders that are needed for developing a more or less comprehensive and coherent set of goals for the complete restructuring. In any subsequent Implementation arena, challenges will have a more narrow scope, and accordingly the list of preferred participants will be shorter.

### **Process risk analysis**

Management of interaction is about continuously balancing structure and flexibility. It is about identifying opportunities for and threats to the restructuring and its desired outcomes. It is accordingly about understanding and addressing risks.

An understanding of actors is the basis for assessing risks. Risk is the probability of a certain event multiplied with the effect of that event. Risk is something that can be assessed, and even, in some situations, quantified. Knowledge of risk creates more certainty for all participants.

Risk analysis focuses on discovering potential changes that can affect progress or outcomes. This enables mechanisms to be introduced that can prevent the occurrence of such developments, and mechanisms that can mitigate the effects if they emerge.

Investors, in particular, are concerned not only about feasibility (see Feasibility analysis), but also about risks. In restructuring, these risks are linked to behaviour of actors, and to the effects on progress and process outcomes. Risks that can be identified, assessed, and addressed therefore include issues such as:

- actors initiating proceedings in court (e.g. blocking or postponing progress);
- actors withdrawing from the process (e.g. loss of resources);
- actors changing opinions or new actors entering process (e.g. agenda can change and process may even have to start all over);
- actors getting into conflicts (e.g. process break-down or at least negative impact on progress)

In all cases, such events will normally affect the process performance, and, in particular, progress and/or (transaction) costs for participants. The risk assessment assesses the probability of any such event. This assessment is used not only for creating rules, but also for positively influencing the process.

The output of risk analyses is used as input for “Organisational (re) design”, and, finally, (indirectly) serves as an important input for developing a “Final agreement”.

### Feasibility analysis

Feasibility, within this model, means that the aggregated motivation of all participants makes it possible to implement a specific change. Therefore this aggregated motivation is central in the feasibility analysis. The participants have sufficient knowledge about what they prefer to do, and together they are willing to invest sufficient resources.

A feasibility analysis therefore should include different aspects. First, there is technical feasibility. A specific measure is needed that can solve a problem in such a way that stakeholders are sufficiently satisfied with the effects. Second, there is financial feasibility. There must be resources available for implementing the measure, which means that the investing actors are sufficiently satisfied with the costs and benefits as well as the division of both. Third, there is organisational feasibility. The project organisation must be able to handle the implementation. This feasibility can be influenced through “Organisational (re) design”. These three aspects of feasibility are all linked.

### Final Agreement

The desired outcome of a restructuring arena is a more or less specified agreement about what to do, and sufficient commitment for implementation. The outcome of an Initiative arena might be quite different from the outcome of an Implementation arena. However, in both cases any (formalised) agreement has at least financial consequences for the actors who are part of the agreement.

The outcome of an *Initiative arena* can be formalised as a Vision, Letter of Intent, Covenant or Master Plan. This can include anything between a set of global goals and, on the other extreme, a specified agreement about allocation of resources to actions. These agreements can be more or less ‘hard’ regarding whether actors are obliged to deliver, or only express their intention to attempt to deliver.

As the restructuring moves towards implementation of specific measures, such agreements are replaced by more formalised versions. A final agreement for a specific Implementation arena includes topics such as the:

- content
- distribution of costs and (if known and relevant) benefits;
- distribution of (financial) risks;
- distribution of tasks and responsibilities;
- time-frames for activities;
- rules that apply to non-conformity regarding any of the previously mentioned aspects;

The agreement can be worked out in detailed contracts related to specific issues.

## 6.6.4. An illustrative example of model application

The application of the model is briefly illustrated using the fictive case described in the following box.

### Box 6.3 Industrial site “Faded Glory”

The physical, technical, quality of the site is inappropriate. This is in particular encountered as insufficient capacity of infrastructure and maintenance level of streets and buildings. Furthermore the organisational degree of enterprises on the site is low, and there is a lack of trust between firms and the local authorities. Environmental performance is unsatisfactory: there are several complaints from neighbourhoods about noise and odour. Some companies represent safety risks as well and should preferably be relocated. Well-performing firms increasingly leave the site, leaving (mostly) abandoned plots. These relocations are facilitated, and accelerated, by the parallel development of new industrial sites within the region. The reputation (and image) of the area is not good and the crime-rate is high compared to other industrial sites. Finally, there is a high degree of uncertainty regarding funding, how to address the problems and human capacity available.

The planning agency has acknowledged the need for a restructuring process.

### The Initiative

The description of the industrial site indicates that the planning agency has some information about the situation there. This information was serious enough to stimulate starting a restructuring initiative. However, there is a high degree of uncertainty regarding what to do and who to involve. So, the restructuring challenge and its stakeholders (Q1) are partly unknown. There is lack of trust between planning agency and firms, which affects both feasibility and process risks. The resources of the planning agency are limited, in particular, human capacity. It therefore chooses to outsource a quick-scan of site performance, while itself analysing the stakeholders. The results are analysed. They suggest that some larger firms and the province are among the preferred participants (Q2). The planning agency therefore makes a design for the Initiative arena, but both the firms and the province are reluctant to participate (Q3). Informal talks with the different stakeholders show that neither the suggested participants (Q3.1) nor the draft organisation (Q3.2) are experienced as problematic. However, the province views the draft agenda as too narrow, whereas the firms have exactly the opposite opinion and feel that focus should be much more on urgent problems (Q3.3). The planning agency applies a combination of a “Process risk analysis” and a “Feasibility analysis”, and the outcome supports drafting a new agenda with a mix of specific short term issues, at the same time giving attention to long term policy goals of the province.

Based on this agenda, the participants agree to contribute to an initiative. However, the lack of trust is still an issue that influences discussions. The firms are concerned whether the planning agency is going to invest at all, and fear that there will be attempts to make them pay for improvements that are the responsibilities of the local authorities. This distrust means that any information provided is regarded as possibly manipulative or wrong, and there are frequent requests for more details on all aspects in order to achieve more certainty (Q4.1.1-4.1.4). This situation dominates, and slows down, the process, so the planning agency decides

to assess the desirability of providing more information. The outcome is that the planning agency decides to refocus the process towards a discussion about the satisfaction with goals (Q4.2.), and at the same time to announce a single measure (Q4.2.1 and 4.2.3) aimed at improving the infrastructure. This combination has a positive impact on the process, and it turns out that any change to goals or participants is actually unnecessary (Q4.2.2). Finally, a set of goals is formalised in a Letter of Intent.

### Selecting, developing and managing an Implementation arena

This Letter of Intent reflects priorities, and it includes some global commitment to investing time in the restructuring, but there are no 'hard' agreements about exactly what should be done first and by whom. The planning agency therefore needs to translate these goals into a plan. This plan needs to include attention to both short and long term actions, building on the existing commitment.

The plan focuses on identifying a 'best choice' challenge (Q1). The planning agency decides to combine two aspects. It develops a long term 'Master' plan, which is used to get co-funding from higher authorities and to get investment in time and know-how from firms. Parallel, it develops a short term plan for addressing a selected specific site-related problem, where financial investments from firms, planning agency and possibly other investors are needed. On the industrial site "Faded Glory", site security is chosen as the 'best choice' short term challenge. It is expected to have a substantial impact on satisfaction, and it can contribute to the development of better cooperation, and trust, between firms and also between firms and the planning agency. The preferred participants are quickly identified (Q2) being the firms, the planning agency as initiator and facilitator, and private firms providing the security control itself and the possible security certification of the site. Unfortunately not all preferred participants are willing to invest (Q3). About half of the firms do not express any interest at all. The planning agency assesses the process risks of proceeding without these firms, and decides to continue because all other actors are satisfied with the draft set of preferred participants, organisation, and agenda (Q3.1-3). The involved participants together develop, and compare, different options for the site security, and ensure that the available information is disseminated to the non-involved firms also. The information and related discussions attract some more firms, but still a substantial number of firms remain passive. An option is jointly developed that is satisfactory to all involved participants (Q4). This option is formalised in a "Final Agreement" and subsequently implemented. The issue of 'free-riders' remain a continuous point of attention for future developments, and the planning agency tries to identify specific options for influencing remaining firms to take part in the site security

## 6.7. Addressing specific situations

### Selection of situations

Our model holds three key variables: motivation, information and resources. Restructuring industrial sites can require many resources, sometimes more than what is available from all the involved actors. Our model, however, does not address this challenge. Instead, the model helps to find situations which fall within the available resources. Next to financial constraints, we have argued that it is the organisation of restructuring itself that complicates and delays the process. Our model is intended to optimise the organisation of the process. Therefore, in addressing specific situations we focus upon two of our key variables: motivation and information. We have argued that the situation on an industrial site can be expressed in terms

of the initial satisfaction (in the range between satisfactory and unsatisfactory) concerning aggregated motivation and aggregated information. It is not possible to provide detailed guidelines for *all* possible specific restructuring situations. However, it is possible to give some strategic options for addressing ideal-type situations. We do this by focusing on the two extreme scores within each range: satisfactory and unsatisfactory. This leads to four situations (see figure 6.3).

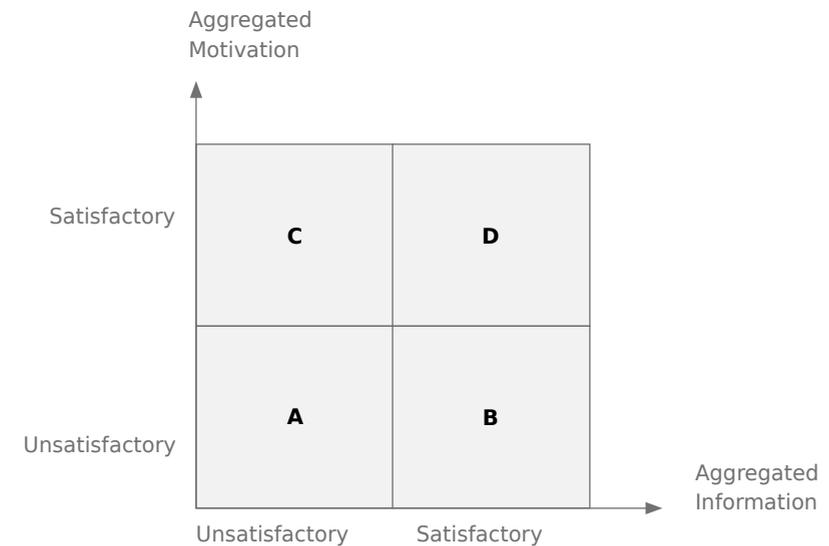


Figure 6.3 Four specific 'extreme' situations

In all situations, all factors together influence the decisions that actors take, and in all situations the objective of the planning agency is to reach a sufficient level for all factors related to a specific challenge. This means that two options are available to the planning agency: influence the factors or change the challenge.

Therefore, there are two distinctly different ways of viewing, and addressing, the situations in figure 6.3. They can be viewed as 'frozen' situations, where the planning agency has to find an appropriate solution without having the ability to influence any of the factors. This is especially the case if actor motivation for some reason cannot be improved. Then the only possible strategy is to focus not on what is impossible, but on what is possible.

Alternatively, the configurations can be viewed as 'dynamic', where the planning agency can influence any of the factors, and has to decide how that best can be done. This approach will always, ultimately, be aimed at influencing motivation, because that is the key to allocation of resources. However, the approach can include, or may even start, with efforts to collect, and distribute, more information.

We are here focusing on 'dynamic' situations, and how they can be handled. Starting from situation A, the key decision for the planning agency is then which 'route' to choose: moving towards situation B or C, attempting an integral 'jump' towards situation D, or redesigning the arena around an altered problem definition or solution. The choice made by the planning agency always focuses on effects on process, outcomes, and progress.

The following short descriptions give suggestions for how such representative specific situations can be handled by the planning agency. The four situations are presented in a

sequence that moves from both factors being insufficient towards both being sufficient. Because motivation is viewed as the key to allocation of resources, situation B (unsatisfactory motivation, satisfactory information) is addressed before situation C (satisfactory motivation, unsatisfactory information). Each approach to a situation starts with a brief introductory text intended to make it more recognisable for restructuring practitioners.

### Strategic options for addressing four selected situations

#### *Situation A. "Alone in a hostile unknown environment"*

Although the planning agency has clear ambitions for the restructuring, its starting point for initiating improvement is weak. Neither the firms on the site nor higher authorities are convinced about the necessity to act, and there is certainly no agreement about what needs to be done. The planning agency lacks information that can be used to influence actor motivation, but also lacks the necessary resources for collecting this information. There is a 'vicious circle'. The planning agency has to find a way out of this situation, but does not know where and how to start.

Such a situation, viewed from the perspective of the planning agency, possesses high uncertainty, and therefore usually also high risk regarding the effects of actions on actor motivation. The relationship between actors is then important. If there is sufficient trust, an option is to start a small scale open process, which, if well facilitated, at the same time can improve both motivation and access to information (and subsequently resources). This is an example of a strategy to move directly from situation A to situation D. Another option for the planning agency is to implement an improvement measure (such as the quality of the public space) as a single actor action. This action, if well chosen, can attract the attention of firms, higher authorities and other investors, can show the good intentions of the planning agency, and can initiate a snow-ball effect towards more actor motivation and involvement. This strategy is mainly effective for moving from situation A towards situation C. If, however, even the resources for any such small-scale approach are lacking, then there is a risk of setting back the process. This suggests starting by focusing on improving the knowledge of the actors (stakeholders as potential participants) related to the variety of challenges: this is a move from situation A towards situation B. If the views of different stakeholders on what should be done are known, then this can be used to develop a follow-up process design. There are accordingly different options for addressing situation A, which (if it is well managed) may lead to any of the other three situations B, C, or D.

#### *Situation B. "Route to destination set, but willingness to move absent"*

The planning agency is fully aware of all problems on, and available improvement options for, the industrial site. This has enabled clear detailed plans for necessary improvements to be made. There is no, at least expressed, disagreement about the content of the plans. However, there is a lack of motivation of firms, higher authorities and other potential investors for investing in the process and specific planned improvements.

If there can be no doubt about the improvements that should be implemented, and if the reasons for lack of motivation are unknown, then these reasons need to be identified. If they are linked to a disturbed relationship between the planning agency and the firms, and if it is highly unlikely that it can be improved, then the planning agency can either limit its activities to its own property, or start negotiations. The option of improving own property (as mentioned in option A) can have a positive influence on motivation. If the lack of motivation is restricted to higher authorities and possibly other investors, then it is likely that the improvement plans include elements that either make them unattractive to investors, or less attractive than alternative investments. The planning agency then needs to identify these elements,

and then search for alternative solutions. This means redesigning the arena, focusing on (partly) different improvement measures, or different (financial) arrangements, or different participants. It means a change from situation B via situation A towards situation C, accepting a temporary setback, or re-opening the process, as a necessary step.

#### *Situation C. "No idea where to go and how to get there, but let's conquer the world together"*

Both planning agency and firms are willing to act. They have no overview of effects of the current situation, no common formulation of problems, and no clear idea about how the situation should be improved, but there is sufficient commitment for starting a small-scale joint initiative aimed at finding (more) resources and the right solutions. The planning agency needs to develop a process that builds on, and at the same time maintains, this commitment. This situation can be quite simple initially, but it does not always stay that way. If there is real commitment to investing resources in an initiative, then the planning agency needs to focus on progress within, and outcome of, this arena. Attention to progress is vital for ensuring that firms stay involved and motivated, whereas focus on the outcome is vital for achieving commitment to the follow-up implementation arena(s). If the 'wrong' participants are involved as participants in the arena, then progress can be delayed. If the planning agency wants to maintain commitment, then it also needs to remember that a broad initial commitment gives no guarantee of commitment to specific goals or solutions. If motivation in the Initiative arena is to be kept, or improved, during follow-up Implementation arenas, the planning agency needs to collect, and distribute, information that clarifies the general costs, benefits, and risks related to different problems and goals. The planning agency needs to support the group process of agreeing to priorities. This implies moving from situation C towards situation D. However, it is possible that conflicts emerge when specific decisions have to be made. This may necessitate moving 'back' to situation A (re-opening the process), and restarting the process coupled to a new arena design.

#### *Situation D. "All ready to go and route set: now we only need to find a vehicle"*

There is not only agreement about what should be done, but also an expressed willingness of all involved actors to invest. In other words, all arena participants have agreed to allocate resources, but these aggregated resources may still be insufficient related to the challenge to be addressed.

This situation is much easier than the previous ones, and there are different strategies available. If there is a high perceived need to act (e.g. application for co-financing must be made on time, or if firms that are important for the site performance threaten to leave the site), then the question is whether a part of the solution can, and should, be implemented immediately, or whether efforts should first be made to get access to the necessary extra resources. If a 'part solution' has a positive effect on motivation and site performance, (possibly) generates some new funding, and does not prevent reaching the final desired situation, then it can be implemented immediately. If no such solution is available, the planning agency can either start searching for a different (better) option, or start a follow-up process towards involving additional participants related to new opportunities.

## 6.8. Developing the model further

These suggestions on how to handle specific situations show the need for flexibility. Both motivation and information depend on the situation and on time. The effect of focusing a process (i.e. selecting) may therefore look attractive for achieving progress in the short term,

but the effects in the long term may sometimes profit more from 'opening' the process. Although this may appear as one step backwards, it may facilitate the subsequent, quicker, two steps forwards. On the other hand, keeping a process 'open' too long may delay progress. Actors can for example continue an open solution-seeking process for a long time, without addressing difficult aspects such as division of costs, benefits and risks related to specific solutions. Postponing, or even avoiding, these difficult discussions can mean that a process needs to start all over again later.

The need for flexibility is accordingly a need for an *informed* flexibility. The planning agency in particular needs to understand how actors' motivation is influenced by the way in which problems and solutions are framed. If the aggregated motivation cannot be changed, then the challenge needs to be redesigned.

## 7. Testing the model and operationalising it

*“Real world” problems cannot be solved by individuals alone; instead, they require rich and complex funds of communal knowledge and practice  
(Kamberelis and Dimitriadis, 2005, p. 903)*

### 7.1. Introduction

A model has been developed that supports decision making when restructuring industrial sites. The next step is to test and operationalise it. This step can be seen as building a bridge towards the users: an approach is needed that delivers as much valuable information as possible and at the same time is experienced as useful and meaningful to the practitioners involved. This bridge is to be built by the potential users themselves: restructuring practitioners. This chapter accordingly seeks an answer to the fifth detailed research question formulated in chapter two:

*How can practitioners test and operationalise the model and what do the outcomes tell about the model and restructuring?*

First, a choice is made for a specific approach for collecting data, that fits the objective of testing and operationalizing the decision support model(7.2). Then the approach is worked out in detail (7.3) before it is applied. The experiences with how the design and preparation (7.4), and approach (7.5) worked in practice, are then presented. Second, a choice is made for how the data should be analysed, namely, “Thematic analysis”, (7.6). It is used for defining themes (7.7), and the results are presented (7.8) before some (provisional) conclusions are drawn (7.9).

### 7.2. Choice of approach, and the kind of conclusions we can draw

We use a qualitative approach to testing and operationalising the model, because it allows the significant complexity, and perceived ambiguity, of such processes to be handled, at the same time gaining in-depth (rich) information about, and understanding of, specific factors. In particular, the operationalising is aimed less at testing what is already known, than at discovering new insights (Flick, 2009). Or as Judith Langer says, “[...] the complexity of qualitative research

is what makes it fascinating, difficult and, ultimately, very useful [...] (Langer, 2006, p. 166). There are several different qualitative approaches available for testing and operationalising the decision support model. Probably the best way would have been comprehensive case studies. However, for three reasons such studies were not performed. First, time constraints made longitudinal, or multiple, studies infeasible. Second, it was desirable to have a broad representation of restructuring experts involved, because rich input and experiences were needed for testing and operationalising the model. This would have been difficult to achieve through only one or a few case studies. Third, the objective was also to investigate whether the model could reveal extra themes that need to be addressed in restructuring, themes which should focus the application and further testing of the model in subsequent (future) case study research and restructuring practice.

Because case studies were not feasible, we chose an indirect approach to testing and operationalising the model. The approach was to design a number of key questions about the model, and to present these to a representative group of professionals. The professionals were asked to help to improve the model by suggesting how restructuring can be accelerated without endangering the quality of the outcomes.

They were also specifically asked to tell if the model was a good representation of the practice of restructuring industrial sites. In particular, we were interested in whether the key process issues; choice of influential actors; the choice for an appropriate approach to influencing motivation and information access towards a satisfactory situation; and how to recognise when such a situation had been reached, were all satisfactorily addressed. It is in that respect that the model was tested.

Taking into account these issues, and in particular aiming to facilitate an open and meaningful process involving restructuring practitioners, an interactive research method for collecting verbal data known as “focus groups” is used (Roulston and Liljestrom, 2010; Walden and Morgan, 2008; Krueger and Casey, 2008; Barbour, 2007; Stewart et al., 2007). “[...] Focus group interviews [...] is the most widely utilised data gathering technique that researchers adopt when deciding on qualitative group interviews [...] (King and Horrocks, 2010), and they have been increasingly used the past decades (Nagy Hesse-Biber and Leavy, 2010)<sup>4</sup>. Focus groups are “[...] stripped down to its basics [...]” focused group depth interviews (Stewart et al., 2007, p.8). Focus groups are characterised by being focused on a topic that all participants have knowledge about, interaction within the group is seen as a means for eliciting information, and there is a moderator present who facilitates the discussion (Denscombe, 2007).

They have been used for a variety of purposes (Roulston and Liljestrom, 2010), and are effective for research that is either exploratory or phenomenological (Werner, 2004; Calder, 1977). In particular, they are “[...] often used to qualify or explore issues in depth that have been raised elsewhere in the research process [...]” (Lloyd-Evans, 2006, p. 156): this is precisely what is needed for testing and operationalising a new model for restructuring industrial sites. Focus groups “[...] are ideal for exploring people’s experiences, opinions, wishes and concerns [...]” (Kitzinger and Barbour, 1999, p.5), and are used for identifying and refining issues in a setting that is less structured than those to which many other methods are applied (Stewart et al., 2007). However, the degree of structuring can be varied according to the needs of the researcher (Rubin and Babbie, 2009). Focus groups enable getting access to a concentrated amount of data on a specific topic of interest within a short time, and the collected information is rich in the sense that both consensus and diversity in opinions, and underlying arguments, can be gathered (Morgan, 1997). The best focus groups “[...] not only provide data on what the participants think but also explicit insights into why they think the way they do [...]” (Jupp, 2006, p. 121) Focus groups are indeed ‘focused’: they provide rich information on a specific topic within a short time through an interactive group interview and simultaneous group process.

Focus groups have both strengths and limitations (Laws et al., 2003). As Morgan puts it, focus groups “[...] offer something of a compromise between the strengths of participant observation and individual interviewing [...]” (Morgan, 1997, p.16). Focus groups have their own characteristics, and should be used only for the situations where they are suitable.

An alternative method might be participant observation which can offer in depth information on how practitioners act in real life situations. On the contrary, what happens during a focus group session cannot uncritically be viewed as representing what would happen in real life (Jupp, 2006). Focus groups are perceived by participants as “safe spaces” and “social spaces” (Denzin and Lincoln, 2005), and in such situations participants tend to express more ‘extreme’ views than they would in their ‘own’ professional surroundings. So, stronger opinions can be expected, as well as polarization among participants (Morgan, 1997). However, participant observation has its weaknesses. It is difficult to organise for long processes, such as a restructuring, because the ‘rich interaction’ moments to be observed are scarce and separated by long intermediary periods.

Individual interviews or questionnaires are other methods. Both provide a more controlled setting for getting access to data, and they give more time for extracting information from each person than during a group interview. However, compared to focus groups they have their weaknesses. Focus groups can produce data and insights that may not emerge in individual interviews (Rubin and Babbie, 2009; Stewart et al., 2007; Morgan, 1997) or through questionnaires, and, in particular, they make it possible to get insight into group norms and how views are formed, in a way that cannot equally easily be achieved through individual interviews (Barbour and Schostak, 2005). Focus groups can not only elicit individual views, but also collective views about specific topics (Denzin and Ryan, 2007). In particular, the safe setting in focus groups facilitates ‘snowballing effects’, spontaneity, and group processes of mutual stimulation, which together can provide results better than individual interviews (Stewart et al., 2007).

We conclude that focus groups are an appropriate approach for testing and operationalising the model. As Barbour and Schostak puts it, “[...] it is better to get as close as possible to the real-life situations where people discuss, formulate and modify their views and make sense of their experiences [...]” (Barbour and Schostak, 2005, p.43), and that is exactly what focus groups can do.

### 7.3. Designing the Focus group sessions

These strengths and weaknesses of focus groups have to be taken into account both in the design of the sessions, and in the way the sessions are performed and the results analysed. According to Morgan there are two guiding principles: researcher neutrality and applying systematic procedures (Morgan et al., 1998). This means answering a number of questions regarding both content and process (Rubin and Babbie, 2009; Stewart et al., 2007; Kamberellis and Dimitriadis, 2005; Barbour and Schostak, 2005; King, 2004; Shaw, 1999; Crabtree and Miller, 1999; Krueger, 1998; Morgan et al., 1998; Morgan, 1997):

- What is the role of the researcher?
- What is the exact purpose of the sessions and which questions are to be asked?
- How ‘open’ versus pre-structured should the session be?
- Which data are collected, and how should they be documented and analysed?
- Who should participate, how should the groups be composed, and how many group sessions should be organised?
- What is the role of the moderator?

### Role of researcher

The researcher determines the focus group agenda (Morgan, 1997), aimed at getting the data needed for testing and operationalising the model. An agenda is developed as an interview guide, which contains the research questions that are to be addressed (Stewart et al., 2007). This interview guide structures the focus groups and, in particular, serves as a guide for moderators (included in appendix IV). The researcher ensures that moderators and participants have all necessary information.

However, opinions about *how* researchers should be involved in selection of participants and during the sessions vary. This study agrees with Morgan et al. in taking researcher neutrality as one of the guiding principles for focus groups (Morgan et al., 1998), and therefore it supports the view that focus groups should “[...] decenter the role of the researcher [...]” (Kamberelis and Dimitriadis, 2005, p.904). To do this, two choices have been made. First, the researcher can specify the profile of the desired focus group participants, but should not choose them. Second, the researcher should take no active part in the discussions in the focus groups. His role is limited to an initial introduction of the model at the beginning of each individual session, and subsequently collecting data.

### Purpose of session guides the design of questions

In a focus group approach, data is collected by bringing together a group of practitioners for a (usually) once-only session, and asking them to comment on and discuss a specific topic within their common experience: in this case the restructuring (model). The scope of the data collection is determined by the purpose of the study. It is accordingly about exploring whether the model is considered to be a complete and appropriate representation of restructuring practice and whether it is useful and applicable as decision support, and about exploring how the somewhat abstract model can be operationalised in such a way that it becomes more useful in practice. The general purpose of the sessions is to give the practitioners an opportunity to test and operationalise the model in order to make it more effective as a decision support for planning agencies in restructuring.

However, any focus group session about the model can be expected to ‘reintroduce’ the full complexity of real life restructuring, and there is insufficient time for that. Therefore the scope of the sessions needs to be limited to a selection of topics, and related questions. In practice, focus group sessions often have between two and five questions (Krueger, 1998), although they may have up to a dozen (Stewart et al., 2007).

The model combines three crucial issues: it focuses on (1) actors who (2) interact in processes aimed at (3) reaching satisfactory outcomes. Because all detailed aspects of the model could not be addressed (within the limited time) in the focus group sessions, we chose to explicitly address these three crucial issues.

### Actors

Because actors and their interactions are at the core of the model, it is important to explore how the selection and involvement of actors can influence progress. Hence the first question to be explored in the focus groups is:

#### 1. How can preferred participants in restructuring be chosen so as to accelerate the process?

Some participants preferably could have important and ‘stable’ roles during the whole restructuring, whereas other participants could be involved only during a specific arena or even only during a specific activity. This requires exploring the advantages, disadvantages, and risks for progress related to the involvement of individual actors.

### Interaction

The second important topic to explore is how a planning agency should organise the interaction starting from a ‘worst case scenario’ where the two crucial factors of motivation and information are perceived as unsatisfactory. The model gives some suggestions for handling these situations, but they need to be worked out further in detail and the participants can suggest more options. This leads to the second question to be addressed in the focus group sessions:

#### 2. What is the best sequence for accelerating the process (without endangering quality of the outcomes) when moving from the ‘worst case’ situation towards a situation where both the aggregated motivation and information are viewed as satisfactory?

There are several options available in such situations and each has its own advantages and disadvantages. The focus groups can reveal whether restructuring experts recognize the different situations (i.e. configurations of motivation and information, see for example figure 6.4) from their own practice, and whether the operationalisation can reveal more options and relationships for handling specific situations, as well as indicating their relative importance and value.

### A good result

Finally, the model leaves the decision to the planning agency itself regarding how to decide whether motivation or information is “satisfactory” for convincing participants to invest in restructuring the site to the required level. A third key topic is accordingly how the planning agency can determine when such a moment has been reached. This means exploring what ‘satisfactory’ can mean, and how progress can be affected by different views. The third question for the sessions is therefore:

#### 3. How can a planning agency determine when information or motivation is satisfactory (enough) for achieving an acceleration of the process?

The questions are all open-ended, which requires a semi-structured approach to the sessions (Barbour and Schostak, 2005). This approach gives ample room for exploration, discussion and the intended operationalisation. However, there is still a need to determine the sequence and relative importance of the questions. Two often applied rules for focus groups are that questions should be addressed in the order from general to specific, and from most important towards least important. In practice, these rules can conflict, and therefore the researcher has to exercise judgement in finding a suitable ‘trade-off’ between both rules (Stewart et al., 2007). In our case, the questions are applied in the order presented above, which reflects a certain ‘trade-off’. The first question is rather general. It is intended as a short and rather simple ‘warming up’ exercise, which leads the participants towards the second question. This question is the most important, because it covers not only the full complexity of the model but also specifically focuses on the relationship between the two key variables and progress. Therefore it is allocated most discussion time. Finally, the question about what ‘satisfactory’ means sounds very specific, but actually it builds on the results of the discussion on the previous questions. So, the ‘trade-off’ regarding sequence is to start ‘easy’ and move towards increasing complexity and difficulty. This is expected to help to make the participants gradually more ‘comfortable’ with the model and with the group process. The questions explore the model, and relationships with restructuring progress, from three different perspectives: the involvement of the individual actor, the specific situations defined by the two variables, and the assessment of what satisfactory means.

These perspectives, and accordingly the questions as well, partly overlap. This contradicts the need for applying questions that are both exhaustive and mutually exclusive (Rubin and Babbie, 2009). However, again the choice of questions is the result of a 'trade-off' based on judgement. Using questions that are exhaustive is simply not possible within the time-frame of a focus group. And mutual exclusiveness is possible only as long as questions are discussed without taking the relationships on a more detailed level into consideration, while it is exactly these relationships that need to be explored for operationalising the model.

#### Approach to data collection and analysis

The overlap on 'deeper levels' presents a considerable challenge regarding data collection, documentation, and, in particular, analysis. The previous description (in 7.2) indicated that any session is likely to deliver a diversity of opinions, arguments, underlying reasons, and experiences that can be contradictory and inconsistent, but also that the session can sometimes produce consensus. Also, it is possible that the same issues, and even the same options for addressing a problem, can be mentioned repeatedly during the discussions by the same or different participants and related to any of the three questions. It is also possible that participants adapt, or even change, their opinions based on feed-back from other participants. As a result, it can be expected that a wide variety of data will emerge in a rather unstructured form. Data are collected chronologically during the session in a transcript, a conversion of verbal data into text (Crabtree and Miller, 1999). A specific problem during 'lively' interactive sessions is to document data in such a way that what each individual speaker says is identifiable and, in particular, to enable differentiating between several parallel speakers (Flick, 2009). It is necessary to make notes in such a way that it is possible to distinguish the remarks of each individual participant as well as the moderator, in order to establish a clear trail of evidence (Morgan et al., 1998; Krueger, 1998). The data collection, and documentation, includes quotes, questions, summary points and ideas.

The next question is then, what the unit of analysis should be, and how the data can be analysed. The unit of analysis is what the participants say (Wilkinson, 2004), and includes both the level of individuals and of groups (Nagy Hesse-Biber and Leavy, 2006). There is a variety of approaches available for addressing data analysis in qualitative research in general (e.g. Outhwaite and Turner, 2007), and also for analysing interviews (e.g. Roulston and Liljstrom, 2010). However, for focus groups in particular, there is little literature on this (Wilkinson, 2004; Morgan 1997). The literature often suggests (or implies) that analysis can be performed with the same techniques that are applied for one-to-one interviews, and researchers often fail to place their chosen method within a clear theoretical framework (Wilkinson, 2004). Most focus group studies apply some form of content analysis, in the sense that they more or less systematically report recurring instances. However, the frequent use of quotes sometimes makes it difficult to recognize them as content analyses (Wilkinson, 2004).

Again the choice of method is informed by the purpose. Because the purpose is largely explorative and intended to provide a basis for more structured research, simply listing the major and significant themes emerging in the focus group discussions (Howitt and Cramer, 2005) often suffices.

This leads to the follow-up question, which is how such 'major and significant themes' can be identified within the transcript. A useful link between data collection and data analysis is data coding. Codes are labels that represent some aspect of the data that the researcher applies to (in this case) the focus group transcript, and they can be related to research questions, but also for example to topics of talk (Roulston and Liljstrom, 2010).

In both cases they refer to some kind of 'theme', which in these sessions will be related to restructuring arenas. The approach that is applied for analysing the data is therefore "thematic analysis": perhaps one of the most commonly used approaches for analysis of

qualitative data (Roulston and Liljstrom, 2010). According to Roulston and Liljstrom (2010) thematic analysis includes:

- Data reduction e.g. through application of coding in order to define conceptual categories;
- Categorization through sorting and classification of data or codes into thematic groups;
- Reorganisation of the data into thematic representations of findings through a series of assertions and interpretations

"[...] These themes are supported by evidence from the data set in the form of excerpts from interviews that link the researcher's assertions to what was said by speakers in interview contexts [...]" (Roulston and Liljstrom, 2010, p.151). The first step is to identify suitable codes, where 'suitable' is partly defined by the research questions and partly by the interactive process that occurs within the focus group session. This means identifying, and grouping, recurrent instances (Wilkinson, 2004; Crabtree and Miller, 1999).

However, a pre-defined structure for collecting data can influence how the researcher views the data. Any structure introduces a risk of unconsciously, and unintentionally, misinterpreting data as irrelevant or 'forcing' data into available schemes. On the other hand, the choice to work without any pre-defined structure has important consequences, because the 'burden' of analysis after data collection will be (much) more complex. The approach to developing and using codes is accordingly part of the strategy for analysis, and it influences its outcomes.

An approach that fits the explorative nature of testing and operationalising the model is the following: no coding scheme was made prior to the first focus group session. This approach is consistent with the research aim to interpret meanings in contexts, as a result of which it is not only inappropriate, but even impossible, to finalize research strategies before data collection has started (Lincoln and Guba, 1985; Patton, 2002). So, for the first focus group, the transcript was read systematically and all observations were organised into categories (or codes)<sup>5</sup>. These text segments were then reread to enable further interpretation (Crabtree and Miller, 1999). The codes were then assembled in a code scheme, which was applied for coding the transcripts of the following focus group sessions. However, contrary to more formal pre-designed content analyses, the code scheme, categories, and concepts are allowed to evolve during the following sessions as well. This means that rereading and reanalysing the results of the initial sessions might be necessary after completing all sessions. Through an iterative process, empirical data (from later sessions) are compared with the initially developed set of codes, categories and concepts, and the initial set is improved and enriched (Denscombe, 2007). This reanalysis can also influence the decision regarding whether sufficient sessions have been held.

The question regarding how 'major and significant themes' should be identified has still not been completely answered. For it is also very much about understanding why an issue is salient and *what* is salient about it (Morgan, 1988). A quantitative approach to salience would suggest measuring how often an aspect is mentioned by the same or different participants. However, although this can be done to identify codes, frequency of mentioning cannot be assumed to signify salience (Krueger and Casey, 2000). For that, it is necessary also to take into account when and how something is mentioned. First, salience experienced in a focus group setting is not necessarily the same as in 'real world' situations. Another issue is that salience can be the result of a consensus process, and the reason for consensus is then the important "why" issue that Morgan (1988) points to. It can be an effect of certain individuals dominating a group process (Laws et al., 2003), but also the result of establishing a common language and discovering that different words may have the same meaning. What is seen to be salient can accordingly come from views which the individual participants brought to

the session, but it can also emerge during the session. Finally, it needs to be remembered that what emerges as 'salient' need not include the most important issues. Single remarks can remain unnoticed, or for some reason not discussed, but still be the most important contribution to a session.

Therefore it is essential to collect, and analyse, data for all individual participants, for each group and its interactive process, and, finally, for all groups. At the level of the individual, the analysis can link ideas, opinions, arguments and reasons to specific participants, and can identify whether, and hopefully why, views are adapted during the session, and whether inconsistent, or even completely contradictory, views are expressed. At the level of the group(s), data can be analysed, and can be expected to give a diversity of answers. This diversity can signal different opinions and alternative options, but also uncertainty. On the other hand the answers may indicate consensus regarding solutions and their importance. The results on both collective opinions and on diversity are important, as is how the interaction reveals the underlying reasoning and logic used by the participants (Denscombe, 2007).

### **Selecting participants and group composition**

To ensure maximum operationalisation of the model within limited time, and also to ensure that methodological and ethical concerns about researcher neutrality are appropriately addressed, the "[...] selection and recruitment of participants for a focus group is a critical part of the design process [...]" (Stewart et al., 2007, p. 67). The term 'selection' may suggest that the population of 'ideal' participants is known, and subsequently a purposive or random sampling procedure is applied for identifying and involving participants that fulfil the profile. However, real life imposes constraints on the possibility for selecting in that way (Barbour and Schostak, 2005), and accordingly the challenge is to get as close as possible to an 'ideal' group of participants.

Designing a focus group therefore requires determining the participant profile and the homogeneity of the group. The participants should have a common background related to the topic (Jupp, 2006), in this case an intimate knowledge of, and experience with, restructuring in practice. Actually, as Jupp says "[...] the most effective focus groups consist of participants who are just as interested in the topic as the researchers are [...]" (Jupp, 2006, p.121). Therefore a purposive sampling approach is applied (Rubin and Babbie, 2009). The main target group is therefore planning agencies, because they are the intended users of the model. However, in Dutch restructuring practice the target group is not limited to public authorities. The reason is that consultants, representatives of regional development agencies, and specific restructuring agencies are often actively involved in the process: performing parts or even the complete process on behalf of the planning agency. Besides these intended users of the model, other actors also are actively involved in restructuring. Provinces have a role in industrial site planning and they often allocate resources (co-financing, but also influence and know-how) to specific projects. The national government too sometimes stimulates and facilitates pilot projects. Finally, firms, their organised representatives (Chamber of Commerce and Employers' organisations), and a diversity of organisations such as real estate agents and property developers, are involved in restructuring. The preferred focus group participants are representatives of such organisations.

How can these individuals be identified and 'selected' for participation in focus group sessions? Identifying the population to be sampled is difficult, because there is no easily available overview of specialists in this field. On the other hand, it is known that relatively few processes of restructuring have been completed (and probably even less if 'complete' was used in accordance with the definition applied in chapter two), and accordingly comprehensive experience and/or overview can be expected in only a few organisations. Therefore an approach was applied where initially seven representatives of such organisations (where an

overview of, and a strong network in, the field of restructuring was expected to be present) were contacted in different parts of the Netherlands. These representatives, who were all active in the field of industrial site developments, were asked to suggest other specialists in their own network that fit the 'profile' developed by the researcher. This approach increases the probability of reaching participants who are representative of all target groups across the whole country. This 'snowball' sampling also implies that the researcher initially is unaware of who the participants might be (Barbour and Schostak, 2005), which reduces the probability of biased selection. The approach is purposive in the sense that only people fitting the profile are invited, but, viewed from the perspective of the researcher, it includes a certain randomness. How big should a group be, and how many focus group sessions should be held? There are no clear 'rules', but most authors indicate that groups usually are between 6 and 15 participants (Rubin and Babbie, 2009; Stewart et al., 2007; Morgan, 1997), although for practical reasons they may be smaller. Some say six to nine members (Denscombe, 2007), others eight to twelve members (Roulston and Liljstrom, 2010). For this study, the range between six and twelve is applied. This range reduces the effects of undesirable group processes such as dominance and lack of discussion richness in small groups, and uncontrollable processes in large groups. However, more participants were invited, because in practice a significant percentage may not accept.

Regarding the appropriate number of groups, a large variety is encountered in studies. In practice, sometimes only one group is appointed, between four and fifteen groups is quite usual (Babbie and Benaquisto, 2009; Crabtree and Miller, 1999), but there are examples where up to 50-60 sessions have been held. One group alone could deliver atypical results as well as limited information richness, and therefore more are desirable. The best (theoretical) approach is to continue holding sessions with new groups until the point where almost no new information comes out of a session, and comments and patterns are beginning to be repeated (Babbie and Benaquisto, 2009; Lunt and Livingstone, 1996). Another criterion for 'saturation' is when the researcher is able to anticipate quite well what the next group is going to say (Calder, 1977). However, desirability and real world constraints (mainly available time) have to be balanced. In practice, five groups seem to be the most favoured, with three being a minimum and twelve a maximum (Cragan et al., 2009). This study, also taking into account previous experience with the target group, initially aimed at five sessions.

### **Role and choice of moderator**

The interactive, mainly explorative, dynamic group process is supported by a moderator, who helps to extract tacit knowledge of participants in a situation characterised by a high level of contextual information (Hogan, 2003). There is no accepted standard for the tasks of a moderator, and therefore his role can vary depending on the situation (Greenbaum, 2000). The moderator leads the group towards appropriate and useful answers, and, in particular, tries to unravel the reasons behind the expressed opinions (Puchta and Potter, 2004). He is interested and positive, he does not participate or express personal opinions (Krueger, 1998), and he has good interpersonal communication skills and is able to quickly gain confidence of the group. The moderator takes the (possible) common history of group participants into account, and, in particular, watches out for effects of 'pecking order' and animosities (Barbour and Schostak, 2005).

The role of the moderator in this study was to apply a reflective approach, which means that he used a variety of active interventions. If there was doubt about the interpretation of what a speaker said, he asked for clarification. He also used paraphrasing to restate main aspects, he summarised, and he asked for confirmation. Finally, he asked for reflection in order to identify intensity, using words like "you seem to feel that" (King and Horrocks, 2010). The moderating style was active in the sense that the moderator used his knowledge of the topic

for intervening in the discussion. He provided information (e.g. if discussion was based on wrong facts) and stimulated exploring new topics, but did not dominate the discussion as the ‘authority’ (Langer, 2006). The moderator tried to establish the right balance between formality and informality in the discussion, and ensured that all participants became involved, and that the discussion did not drift too far away from the questions to be addressed (Flick, 2009, Puchta and Potter, 2004). How this balance is made is linked to the need for control and standardization in the research (Nagy Hesse-Biber and Leavy, 2006). In this study, the purpose of operationalisation and the use of quite complex open questions meant that an open form was applied regarding contents of the discussion. This enabled participants to develop their own concepts and ideas (Nagy Hesse-Biber and Leavy, 2006).

It is essential that the moderator be compatible with the group (Stewart et al., 2007), and has the right qualifications for performing group interviews and for understanding the topic, and questions, being discussed. This person could be the researcher. However, because this study supports the view that researchers should avoid influencing the content of the data collection, other moderators were chosen. Five sessions were planned at different locations - in the cities of Amersfoort, The Hague, Zwolle, Arnhem, and Tilburg - and most of the moderators were chosen from these regions. It was not only the moderator that was chosen, but also an organisation to host the session. Usually, that was the organisation where the moderator worked. The moderators that were invited are well-known in, and have strong links to, the field of industrial site development in The Netherlands. This means that they will often know many of the participants personally, which can facilitate creating the desired safe and social space that is beneficial to an open group process. It also means that they will be more familiar than the researcher with specific situations in the different regions.

The exception was the first session. The reason is that it had to function as a ‘pilot’. To counter the uncertainties, a highly trained interviewer (who also was well familiar with the field of industrial site developments) moderated this first session. Furthermore this hosting organisation provided a second person for recording the session and taking notes. A third difference is that this specific hosting organisation used its nation-wide network in industrial site development in recruiting for this first session, whereas participants from specific regions were invited for the other sessions.

## 7.4. How the design and preparatory process worked in practice

This description of how the Focus group sessions were planned illustrates the complexity of the process.

Initially seven professionals active in the field of industrial site development and working for organisations located in five different parts of the Netherlands were contacted. They were asked whether they would be willing to contribute to this study in four ways.

First, they were asked to suggest participants for the five sessions. All agreed to do so. In some cases they chose close colleagues in identifying potential participants, and they may have asked contacts in the field for additional names (whether they did is unknown to the researcher, because of his chosen ‘decentered’ approach). A short profile of the desired participants for the sessions, as well as an indication of group size, served as basis for the invitations and selection. The applied profile indicated that participants should have experience in practice with industrial site development processes, either as employees of public organisations (e.g. local or regional authorities, restructuring agencies, and regional development agencies), or of consultancies, property developers, or representatives of

industry (e.g. Chamber of Commerce, Federation of SME’s, industrial site organisations). A limited number of representatives of higher authorities and intermediary organisations could be invited as well, as long as they had own experience or could contribute through bringing in results from (e.g. pilot) projects within their administrative area.

Second, these professionals were asked whether they would be willing to provide a location for organising the sessions. Again there was a very positive response and five locations were quickly found. The main data about each session are given in table 7.1, and detailed lists of participants, moderators and hosting organisations are included in appendix V and VI.

**Table 7.1** Location, time, and participants of all Focus group sessions

Location and date	Local Authorities	Consultants	Property developer	Repr. of Industry	Higher Authorities	Regional Dev. Agency	Total
Amersfoort 28-4-2010	3 <sup>a</sup>	3	0	1	2	1	10 (11) <sup>b</sup>
The Hague 19-5-2010	1	3	0	1	1	0	6
Zwolle 8-6-2010	1	1	1	0	5	0	8
Arnhem 10-6-2010	4	1	0	0	1	1	7
Tilburg 7-6-2010	2	1	0	1	0	3	7
Total	10	9	1	4	9	5	38 (39) <sup>b</sup>

<sup>a</sup> One participant contributed based on his experience as a former employee of local authority.

<sup>b</sup> One participant neither belonged to the target group of organisations nor had practical experience.

Third, moderators needed to be found, and again the same contact people were asked if they personally would be willing to moderate a session. All seven had been selected in advance based not only on their knowledge of the field of restructuring, but also on an assessment of their capacity as moderators and on their willingness to contribute. Again the necessary five moderators were quickly found. The two remaining professionals chose to contribute to the sessions as participants. The first session was different from the rest because it was unknown in advance how the interview guide (and accordingly research questions) and the interaction process during the sessions would function. As earlier mentioned, the profile for the moderator of this session was somewhat different. He was selected based on his comprehensive experience as an interviewer, which includes experience in group interviews and moderating discussion sessions.

The fourth issue was whether the moderators were willing also to contact and invite the participants they had suggested. In four cases they agreed to do so, in the fifth case this was done by the researcher.

The detailed procedure for organising the sessions was as follows. The focus was on attracting participants with experience with restructuring at a local level. They received a

short introductory invitation letter (see appendix VII). Even after repeating the invitation, which included the specific question whether they would be able to attend (see appendix five), in one case 50% did not reply at all. There were also last minute cancellations and a few cases of no-show, where participants that were supposed to be present did not turn up. Table 7.2 gives two examples that illustrate differences encountered between invitations sent out and actual participation.

**Table 7.2** Examples of difference between invited and actual participants

Location and date	Local Authorities	Consultants	Property developer	Repr. of Industry	Higher Authorities	Regional Dev. Agency	Total
Zwolle	1 (11) <sup>a</sup>	1 (3)	1 (1)	0 (2)	5 (8)	0 (0)	8 (25)
Arnhem	4 (10)	1 (1)	0 (1)	0 (1)	1 (2)	1 (2)	7 (17)

<sup>a</sup> Numbers before brackets are actual participants, and between brackets are invited participants.

The interview guide developed for the moderators was sent out well in advance, and the moderators were invited to comment on its contents and ask questions if anything seemed unclear. This did not lead to any suggested changes to the interview guide. All registered participants received their version of the interview guide (i.e. without the specific guidelines for the moderator) one week ahead of each session, and again opportunity was given (but never used) for asking questions.

There were some differences in preparation between the sessions. This especially concerns the first versus the following four sessions. One difference was the way potential participants were contacted. For the first session, people were invited from all across the country. Besides attracting participants to the first session, this approach had two additional effects. It served as a 'marketing tool' through snowball effects (i.e. people suggesting other people if they were unable to attend themselves), and it made it possible to suggest attending alternative sessions. Although the profile of desired participants had been determined, a few people were invited, especially for the first session, who did not fit the profile. Because the names and affiliation of all registered participants were communicated to the researcher, some of these 'unfit' participants were discovered in time and could be contacted. Fortunately, they understood the reasons for limiting the composition of the target group, and voluntarily offered not to attend the Focus group session. The invitations to the other four sessions were more focused. They were based on short-lists of people that fitted the desired profile, and covered geographical and administrative regions, situated relatively close to the Focus group locations.

A second difference between the group sessions concerns the way notes of the sessions were made. During the first session the researcher made hand-written notes of the session. Also the whole session was recorded, and a complete written transcript was worked out afterwards. This was done for two reasons. The outcome of the first session was particularly important for identifying possible salient themes; and comparison of a shorter hand-written transcript with the complete transcript could indicate whether the first option would suffice for the next four sessions. The results indicated that handwritten notes would suffice, and this approach was applied for the next four sessions.

The planning and organisation of all sessions was completed in less than a month, and resulted in five sessions, each to last two and a half hours, to be held between April 28th and June 17th 2010. The second session was planned three weeks after the first, to have sufficient

time for making any necessary changes to the interview guide or the approach to process moderation, based on the outcomes of the first session. No such alterations were suggested by participants or moderators.

## 7.5. How the sessions worked in practice

Although utmost care had been taken in the preparation, it was still expected that in particular the first session would bring some surprises. The 'selection' of participants had for example been quite open, and the attempts to ensure that all participants fitted the desired profile proved to have been insufficient. Two participants came to the session based on interest, and not experience, regarding industrial site restructuring, and one participant neither fitted the desired profile regarding organisations nor had any practical experience. These two chose roles during the session that contributed to the interaction process in a positive and 'non-contaminating' way regarding results.

In all other respects, the first session proceeded in full accordance with the interview guide. The moderator ensured that all participants were given the opportunity to give their opinions and experiences regarding each question, and interaction between the participants was stimulated and at the same time guided towards giving answers to all questions. There were no observed problems related to any single participant trying to dominate the session, and the interaction was positive, constructive, and certainly lively the whole time.

The other four sessions proceeded in a comparable way except that participants having no experience at all with restructuring were not present. In all cases the participants had sufficient opportunity to contribute, and no single participant dominated any session.

In each session, differences were observed in how the discussions on the three separate questions developed. The restructuring professionals had no problem understanding the first question (on preferred participants), and the discussions always started immediately. However, for the two next questions (on 'best' sequence, and identifying what a satisfactory level of information or motivation is) the moderator usually had to give a few examples or an extra explanation to get the discussion started.

There were also some differences between the sessions in the way moderators fulfilled their role. Although in general they all tried to facilitate the process, there were variations in how, and how actively, they tried to control the interaction, to explore topics in more depth, and to clarify ambiguous issues. The moderator affected the interaction process, but did not seem to have any major impact on its outcomes. Another difference was the nature of the interaction. Three of the sessions (having 11, 8 and 7 participants) were quite 'lively', whereas during the two last (having 6 and 7 participants) the interaction was much more 'calm'.

## 7.6. The thematic analysis

The data collected from each session (i.e. the results) all had the same form: verbal information that had been written down chronologically in transcripts (the original transcripts, in total ca. 65 pages in Dutch, are available on request from the author).

The transcript from the first session is based on an audio-recording and contains in exact words everything said. All remarks in the transcripts are linked to individuals (i.e. written as quotes: "Participant no. X: remark"), which makes it possible to trace all data and, if desired, perform detailed analyses of specified subsets of data.

The data were analysed using thematic analysis. This approach, in particular, “allows a researcher using a qualitative method to more easily communicate his or her observations, findings, and meaning to others who are using different methods” (Boyatzis, 1998, p.6). The approach to the thematic analysis applied here (as earlier mentioned) did not make use of any pre-developed coding scheme, but inductively generated the themes from the raw information (Boyatzis, 1998). According to Boyatzis (1998) the inductive, data driven, approach can be performed as follows:

1. Decide on sampling and design issues
2. Select sub-samples
3. Reduce raw information
4. Identify themes within sub-samples
5. Compare themes across sub-samples
6. Create a code
7. Determine reliability
8. Apply code to remaining information
9. Determine validity
10. Interpret results

The first step has been described related to the design of the focus group sessions. The transcripts, and the focus on content and answers to questions, were the basis for defining sub-samples (the second step). Three sub-sets were defined, being the complete discussion on each of the three research questions.

The third step was to carefully (and repeatedly) read the sub-sets of the transcript of the first session, trying to identify text segments about the answer to the questions. Such text segments were first simply underlined. They were either single quotes or consisted of several quotes linked to topics that were discussed for a specific length of time (the time itself was not measured, but the beginning and end was identified as moments where the discussion changed to another topic). Each such piece of information was marked in the text as a ‘group’. These groups, numbered according to chronological appearance during the session, were copied to a separate document and, whenever needed, additional ‘bridging’ text was added to ensure that as far as possible the sentence and discussion context remained intact. This led to ‘summaries’: short pieces of information.

The fourth step was to compare all “[...] summaries to determine similarities among the pieces of information within each sub-sample [...]” (Boyatzis, 1998, p.46). This “[...] is also called pattern recognition and is defined as the ability to perceive patterns of themes in seemingly random or previously unorganised information [...]” (Boyatzis, 1998, p.32); identifying (preliminary) themes by “[...] bringing together components or fragments of ideas or experiences, which sometimes are meaningless when viewed alone [...]” (Leininger, 1985, p.60).

The next step (5) was comparing themes across sub-samples. Because a set of preliminary (draft) themes was developed based only on the first session, this comparison was restricted to a check across the two other sub-samples (i.e. parts of the first transcript addressing the two other questions) for possible overlap. After this check, each resulting theme was defined as a preliminary code, using as a guideline that “[...] a good code is one that captures the qualitative richness of the phenomenon [and] is usable in the analysis, interpretation, and presentation of the research [...]” (Boyatzis, 1998, p. x).

It therefore preferably should have (Boyatzis, 1998):

- A name / label;
- A definition of what the theme concerns;
- A description of how to know when the theme occurs;
- A description of any qualifications or exclusions to the identification of the theme;
- Examples, both positive and negative, to eliminate possible confusion when looking for the theme

In short, the code should make as reliable as possible the identification of text segments referring to specific properties that ‘belong’ to a theme. In thematic analyses this is referred to as consistency of coding (Boyatzis, 1998). Reliability is particularly important if more coders are working on the same material, or if the data are being coded to make them useful for statistical analysis. In this study, reliability was increased by checking the preliminary codes across sub-samples of the first session and later across all four subsequent sessions, in particular looking for whether they remained meaningful and well defined. This led to the discovery of (some) additional properties of the themes, and this enabled the definitions and descriptions of the codes to be improved.

The codes were used for coding all remaining transcripts (step 8), and the resulting text segments for each theme were combined. This resulted in sets containing a variety of text segments related to different properties of the themes. In this way the themes were broken down into sub-themes that reflected specific properties.

The question of validity (step 9) had already been addressed in the rules for the set-up and performance of the Focus group sessions. Validity was sought also by the structured approach to analysis of data, which included iterative steps such as rereading and repeated comparison of text segments, themes and sub-themes. This was done to give a clear traceable line from the questions asked towards the answers, and in particular to identify the relevance and importance of issues (for a brief reflection on trustworthiness and validity of this study: see appendix X).

Finally (step 10), the results needed to be interpreted. As earlier mentioned it was decided not to make a statistical analysis of the information (text segments / quotes). The aim of the interpretation was to find meaningful, and good, answers to the questions. First, the results (i.e. structured information on each question, theme and sub-theme) were presented in such a way that a coherent and consistent picture was created that “[...] closely approximates the reality it represents [...]” (Strauss and Corbin, 1990, p. 57). This provided the basis for (i.e. a second distinctly separated step) drawing conclusions. The information should preferably be presented in a way that ensures that the ‘main message’ comes across as clearly as possible to others, because this allows them to develop their own understanding and interpretation. If the other people reach the same conclusions as the researcher, this increases the trustworthiness of the outcomes. To help such an improved understanding, it is useful to “[...] provide them information in the form they usually experience it [...]” (Lincoln and Guba, 1985, p. 120).

To do this, short ‘stories’ were constructed using the text segments (i.e. quotes put between brackets and as such identifiable as results) as core elements connected by short text ‘bridges’, and accompanying these stories by tables that illustrate the full richness of remarks related to specific topics. These tables also visualize the support for certain ideas, although the importance cannot be deduced in any simple way based on frequency (a topic that will be discussed somewhat more in detail in appendix X).

## 7.7. Defining themes

The first step was to read the transcript of the first session, looking for text segments, to see if ideas or arguments ‘emerged’, and underlining these as potential themes. The term ‘emerged’ may suggest some kind of spontaneous and unconscious process. However, this is not the case. The texts were read consciously searching for text segments that as specifically as possible said something about accelerating processes.

Initially, such text segments often gave a fragmented impression, but then more segments introduced additional properties of, or perspectives on, such themes. By rereading and comparison, an understanding of how they were connected gradually developed. This enabled some text segments to be clustered into smaller groups that usually represented a topic that had been discussed for a certain time. The next step was to label (code) each ‘group’, which could be an individual quote or a longer text. These labels were repeatedly compared in order to identify similarities and differences, and gradually a more precise understanding of the relationships between properties enabled identification of themes. The result is presented in table 7.3, and each theme is discussed below (see also appendix VIII for an example of this stepwise and iterative procedure).

**Table 7.3** Key themes for each question

Question	Theme
How can preferred participants be chosen?	Actor Representation
	Time-dependent Involvement
	Characteristics of Individuals
What is the best sequence moving from the ‘worst case’ situation towards a situation where both the aggregated motivation and information are viewed as satisfactory?	Understanding the Problem
	Joint Vision & Coordinated Actions
	Managing Expectations, Motivation, and Continuity
	Strategic use of Information
	Interaction & Mutual Influence
	Fair shares & Trust
	Flexibility & Adaptation
How can a planning agency determine when information or motivation is satisfactory (enough)?	Experience & Intuition
	Indicators

### How can preferred participants be chosen?

The analysis of the text identified three themes.

#### Actor Representation

Actor representation is defined as the preferred composition of a group of actors involved in the restructuring at a specific moment. It includes issues such as which actors should be contacted and why. It also focuses on the reasons for wanting to involve specific actors in

specific roles, and, in particular, how the representation of firms can be addressed. Finally, it addresses how the right group composition can affect progress.

#### Time-dependent Involvement

Time-dependent involvement is defined as ensuring that the involvement of actors is adapted according to the needs of the process. This includes issues such as timing, understanding how to intervene in ‘disturbed’ processes, and the advantages and disadvantages of applying specific sequences regarding actor involvement.

#### Characteristics of Individuals

Finally, a human perspective was repeatedly stressed in a variety of ways, referring to characteristics of individuals. This theme concerns the impact of personal skills and personality on performance. It includes a variety of issues such as enthusiasm, empathy, integrity and influence.

### What is the best sequence regarding improving motivation and information?

A large variety of aspects were discussed, which made ‘discovering’ well-defined themes difficult (appendix VIII, included as an illustrative example, shows how this was done with the transcript of the first session). Seven themes were identified.

#### Understanding the Problem

The first theme was already mentioned (from a different perspective) during the discussion on choosing preferred participants. It concerns the knowledge and understanding of the nature of problems, their effects, and how problems are related to actors and possible solutions. This theme includes not only facts related to understanding the problem, but also how understanding is linked to acknowledging the need to act.

#### Joint Vision & Coordinated Actions

The next theme addresses how and why joint visions and actions can be reached. It includes the variety of organisational and individual issues that can prevent or slow down the development of a common vision, their effects on the restructuring, and how communication, cooperation, and visualization can influence the willingness to contribute to the vision development process. This theme focuses in particular on the internal processes of the local authorities.

#### Managing Expectations, Motivation and Continuity

Because restructuring takes several years, it is necessary to design and continuously manage the process towards a successful implementation of feasible improvement measures. This requires attention for the actors, and this theme is therefore described as the approaches for influencing the expectations about, and motivation of actors for, participating and investing in the process and its outcomes. This includes managing the level of expectations, searching for acceptable and feasible options, delivering what you promise, and ensuring visible progress and successes.

#### Strategic use of Information

The strategic use of information refers to how selective access to, and use of, information can influence the motivation of specific actors to (re)act in a desired way. This theme includes aspects such as the information that should be given to any stakeholder at any moment,

the effect of quantification, and how suggesting possible developments and withholding or providing information may influence motivation and progress.

#### **Interaction & Mutual Influence**

All interaction (or lack of it) influences both access to information and motivation, so the chosen interaction form and the behaviour of individuals are aspects that need to be addressed. This theme refers to how interaction influences the process, and how interaction can be designed and intentionally used to improve progress and the motivation for participating and investing in the restructuring. It includes aspects such as how to develop the interaction between the local authorities and firms, the effect of personal contact, and how to address communication.

#### **“Fair shares” & Trust**

If stakeholders engage in a restructuring and they depend on each other for making it successful, there are also mutual expectancies regarding efforts and results. This theme refers to how actors’ opinions and perceptions about fairness and trust influence their actions, and how local authorities can handle, and influence, situations characterised by specific combinations of these aspects. Fairness is described here as “fair shares” (in Dutch the expression “voor wat, hoort wat” is applied), meaning that costs and benefits, advantages and disadvantages, should be shared in an acceptable way between all those involved, even if some of the costs and benefits occur only later. Lack of trust between firms and local authorities, not delivering what is promised, the need for formal agreements, the effect of taking a first initiative, and interdependency are important aspects of this theme.

#### **Flexible & Adapting**

Finally, the whole restructuring needs to be managed in a way that acknowledges and addresses change and opportunities. This theme is about how changing situations can be addressed, and how creative, and flexible, options can be used to influence progress. It includes a large variety of aspects such as the need for stepwise and iterative processes, discovering and having sufficient freedom for addressing opportunities, creative financial arrangements, and choosing the right moment.

### **How can a planning agency determine when information or motivation is satisfactory?**

Satisfactory implies enough for taking the next step in a process, that is for taking the action that at that moment has the best effect on progress (in both short and long term) and on final quality. Two themes were identified, which reflect complementary views on how ‘what is satisfactory’ can be assessed.

#### **Experience & Intuition**

This theme refers to how experience and intuition influence the ability to discover what is satisfactory related to a specific challenge. Aspects such as empathy, common ‘language’ and being able to interpret expressions are included in this theme.

#### **Indicators**

Although the above approach based on ‘tacit’ knowledge may suffice in some cases, other participants felt that more data were needed, and also that it is possible to acquire it. This theme refers to the total set of indicators addressing ‘soft’ process issues and ‘hard’ content issues, and how such indicators can be applied in decision-making. Aspects that belong to this theme include firm characteristics (such as interests, plans, investments etc), satisfaction (its

importance, ways to monitor), and how different situations can be coupled to guidelines for action (such as when to stop and when to act).

This identification of themes was the starting point for the systematic detailed analysis of the transcripts of all five sessions. The next step was therefore to use these as codes for identifying all text segments (quotes / summaries) that ‘belonged’ to specific themes, and to place (‘move’ / reorder) these text segments within these themes (see appendix IX). This was also done for all text segments for each theme individually: specific properties of themes were identified as sub-themes, and text segments were structured within these sub-themes.

## **7.8. The ‘story’ the sessions tell**

The final step was to present the information in a way that ensured that the main message - the answers to the three questions presented in a meaningful and readable form - comes across to the reader.

As Andrew Brown and William Gibson express it “[...] analysis is, in many respects, about storytelling and as any novelist will attest, themes are a useful device for narrative construction [...]” (Gibson and Brown, 2009, p.129). The main message is here presented in accordance with this view as a ‘story’, a story which is constructed around the themes and sub-themes as structuring elements.

To ensure that the ‘story’ comes as close as possible to the meaning expressed by the session participants, it is uses quotes (text segments) from all five sessions for transmitting the core ideas and opinions: additional ‘bridging’ texts are added only as far as deemed necessary for ensuring readability or clarifying the context for the discussion (for a short ‘story’ / paper on preliminary impressions of all sessions see: Bugge, 2010). The bridging texts are used, because quotes have the limitation that they are extracted from an ongoing interactive process, so the detailed context of any individual remark will be partly ‘lost’. The homogeneity of the groups made the use of bridging texts easier, because both the contents discussed and the presence of a ‘common language’ of both participants and researcher, decreased the danger of misinterpretations. The original quotes are all in Dutch, which means that the ‘richness’ of any quote could be lost in translation. This is especially important regarding Dutch words that have specific connotations (e.g. the term “beheer” that has a specific connotation that is somewhat more limited than the term management) and regarding typical expressions or sayings. To address this problem, the original Dutch text (whenever deemed necessary) is provided between brackets (although the added-value of this approach is limited to Dutch-speaking readers).

For each question, the themes are presented in a certain order. This order is neither intended to suggest any chronological sequence nor any relative importance. On the other hand, the order does have consequences for how the themes are described, because it affects the need for bridging texts.

Finally, the choice of presenting the results as a ‘story’ has limitations. It does not lend itself to visualizing, or communicating, conflicting opinions and levels of agreement, so the ‘story’ is accompanied by illustrative tables. All quotes in the tables are linked to identifiable (coded) numbers of sessions and participants. This makes it possible to identify whether, for example, different opinions or support for certain ideas were limited to participants of one or more sessions. Because the questions use the term “participant” to mean a participant in ‘real

life' restructuring, the focus group participants are distinguished (and consistently referred to) in the text as "professionals". A final textual issue is that the focus group participants consistently used the Dutch term "gemeente", which literally means municipality. This has been translated into "local authorities" where the reference is to local authorities as an actor (as distinct from a municipality as an administrative area).

### 7.8.1. How can preferred participants be chosen (Q1)?

The involvement of preferred participants is always situation dependent, but the question was whether there are any good practices and guidelines that can support the decision-making.

#### Theme "Actor Representation"

##### Who do you contact?

For "restructuring or specific theme" you need a variety of actors, and "you do not need them all initially", but there may still be good reasons for contacting a wide range. Regional development agencies are for example "working with internal guidelines on how to start such a process together with the local authorities, with [the departments of] spatial planning and economic affairs" and they especially involve local associations of firms. However, they also "approach inhabitants, environmental groups, province, region, and national authorities", or even "actually anyone that would be interested in getting involved in the site development". An interactive approach for "seeking stakeholders [is to] organise an evening for everybody to discuss and see where there is commitment".

##### Who do you preferably involve and why?

This does not mean that all actors actually get involved in the restructuring, and certainly not that their roles should be identical. A starting point for identifying preferred participants is to apply a stakeholder analysis. This is particularly useful "if restructuring is part of a larger area development. Then a stakeholder analysis leads to many more actors that want, can, or must do something". It is about knowing "which actors do I need", and, in particular, "who has the keys that work". This means involving "people that can invest" as well as "actors that have the real power to decide". These 'keys' are the different kinds of influence that individual actors can exert, and they are linked to motivation and interdependency because "a single actor achieves nothing on his own" in a restructuring.

The specific actors you need "within the organisation of the local authorities are those that are involved in the problems", which "depends on the contents", and responsibilities. A topic to take into consideration is then that "if you talk about motivation, then the management level is not always consciously involved [...] despite the fact that they have to allocate the financial means, and have to have a positive view on the developments". This means acknowledging that "many civil servants have considerable power, such as the municipal secretary and sector managers, and time is needed to discover this". The power balance between managers and responsible politicians can vary between different local authorities, and it was suggested to "always start trying to get the strongest actor involved in the process". Finally, the municipal "council is very important, because it must allocate means", which another participant acknowledged when remarking that the "municipal council should possibly have been better involved regarding extra budgets and maintenance budgets". Choosing the internal actors is not just focussing on decision-makers, but on process and content related issues also. For all actors involved it is "important that they have a mandate, which means a situation with freedom to act". This means civil servants that are involved in the problems, and, from a process

perspective, "account managers for firms", because they know the second influential group of preferred participants: the firms located at the industrial site. A slightly different situation applies to involving representatives of a Site Management (in Dutch: Park management) organisation that may have both information and positive relationships with firms, because they "do part of the work for firms and it pays off too", or involving "ambassadors", a concept applied in the province of Gelderland, because "entrepreneurs told them about their problems, and did not [want to] contact the local authorities".

The opinions about how firms should be involved were more diverse (this topic is addressed more in detail later: see How to handle representation of firms?). One view was that "the large employers, we ensure that we at least get these involved". There is also a need to focus on "property owners that should come into action in the area" including those that are "located somewhere else in the Netherlands". But feasibility also is important and therefore one should "talk especially to entrepreneurs that really will and can" invest. Sometimes the choice is constrained in the sense that "to some extent there is no deliberate choice of actors, but it is a given fact, such as regarding property owners". This means that some developments are impossible without involving these actors.

There is a variety of other actors that can contribute to the process. For example the "Chamber of Commerce can help articulating [the needs of the firms], but not financing". Other opinions about the Chamber of Commerce question its role and added-value. Once it was mentioned that the "Chamber of Commerce does not have a good reputation among individual firms", and another session participant adds that this organisation is "interesting on site level, and not for individual firms". Whenever relevant, it is also important to "not exclude influential inhabitants". Finally, the involvement of the province is important. According to a representative of a local authority, the role of the province is "supporting" and its "participation is restricted to providing means". Provincial civil servants had a somewhat different view, stating that their role is "not only money", but that they also can "assist regarding whom to involve in process", "facilitate through attention and communication", and "stimulate in a dynamic process". On the other hand, it was said that local authorities have to manage the process themselves, which implies "avoiding the role of the province in concrete projects". "If local authorities do not know how [to design or manage the process], or if they, or firms, want a neutral actor" they can involve an external organisation that "selects participants".

##### How do you handle representation of firms?

This is a specific question that came up during several sessions. First, "individuals must be viewed by other firms as their representatives" (this remark refers to the situation on industrial sites where an individual working for a specific firm needs to be recognised and trusted as really representing the interests of all firms), but on the other hand it is emphasised that "they can represent a part of the firms, but not all". An individual representative (of all firms) needs to be "able to communicate the collective feelings and problems of the firms" and be "influential towards the rest of the entrepreneurs", which means selecting him based on an understanding of the "difference between those who love to talk, and those who have influence (in Dutch these influential entrepreneurs were sometimes referred to as "onderkoningen" or "smaakmakende ondernemers)". A specific point of attention is "to find the right representatives of an industrial site that are willing to contribute with ideas and act, and not only pursue own interests".

If there is a local association of firms on the site, does this represent the firms on the site? There is "often large difference between board members of associations of firms versus individual entrepreneurs" and the "legitimacy of associations of firms [is] sometimes not good: old-boys network [and] individual entrepreneurs do not see what they [i.e. the

associations of firms] do as relevant". If several firms are not members, or if the association is not seen as a good representative, then one "must contact all [firms] individually, otherwise no commitment". The essence seems to be that local "associations of firms can best communicate developments to individual entrepreneurs "[and here another professional immediately added] "if the associations function well". A possibility for identifying the right representatives is to "make entrepreneurs ask other entrepreneurs".

#### What is the right mix of participants?

How should the group of preferred participants be composed? In particular, the importance was expressed of having a "right ratio of entrepreneurs versus rest" and the "right mix of property owners and tenants". The group size was another salient issue, and the opinions about this issue diverged. One opinion [of a consultant] was that the "group of actors [should be] as compact as possible [and] too often local authorities create large groups and the process slows down", and therefore a "project group that reports to a core group of around three important actors, can give high rate [interaction] process". This led to a reaction [from a local authority civil servant] stating that it is "strange that broad representation of firms [...] is viewed as obstacle".

#### Theme "Time-dependent Involvement"

You need the combination of the right people, the right moment, the right place, and the right conditions (table 7.4 illustrates the diversity of views on this issue) in order to influence progress.

**Table 7.4** The importance of situation specific involvement of participants

Participant	Session	Quote
36	4	"choose your moment"
23	4	"timing is important [and it can therefore be] too early or too late"
38	3	"right people and moments"
20	3	"if process cannot be accelerated with these people [...] involve somebody else: right person at the right place"
30	1	"those we really need for getting project implemented"
38	3	"if all conditions have not been fulfilled then it does not work" and there will be "gaps / lacuna in the joint process"

The right sequence is, for example, to "first talk to association of firms, [and ensure that] Chamber of Commerce also [is] involved, and not to property owners and other firms": those latter are contacted later. On the other hand, others said that important property owners needed to be involved from the beginning. A growth-model approach had been applied in another case where "during process, actors [were] involved, [and that] worked very well". The question is also whether actors should be required or able to leave the process, and how this influences the process. It was said that "if you cannot cooperate with people at crucial positions, you still need them, so you need to apply a specific approach regarding information and motivation". However, in other cases "if it does not work, you have to intervene", because "if a process cannot be accelerated with these people, e.g. [from] local authorities, [you can better] involve somebody else". The essence is that "one place it works, other place it does not", and you need the "right person at the right place". Daring to change is accordingly

important, and substitution of people is only one of the options. Another possibility is to "ask for [not one but] two representatives [e.g. of Board of association of firms], or if somebody is very dominant, split actors into steering group and project group".

This theme includes the movement from an Initiative-arena towards Implementation, and again the key role of firms was repeatedly stressed. One opinion expressed was that it is "best if firms take over the initiative" and therefore that the local authorities should not "immediately take control". It was said that "if the Initiative leads to concrete follow-up, then projects are defined and you are much better searching for those we really need for getting project implemented" and therefore you should "only proceed with firms that are willing to invest, because then the process goes faster".

#### Theme "Characteristics of Individuals"

The willingness of an actor to invest is influenced not only by facts (which will be addressed later regarding information) but also by the interaction with other individuals. It is about achieving "success through the right combination of individuals from local authorities and firms". To get "from [the discussed situations] A to D you need to have the right person, right connection with other actor".

Involving the right individuals is therefore important. For example, "people can very negatively influence the on-going process. Then very much depends on the chairman of the steering group or process manager, regarding if he recognizes what happens, and then takes action". The role of individual entrepreneurs in the process can be important as well (as illustrated in table 7.5).

**Table 7.5** The impact of individual entrepreneurs

Participant	Session	Quote
38	3	"told enthusiastic story and got support from other entrepreneurs"
17	1	[somebody] "who could tell a story"
26	1	"entrepreneur that is a good speaker and can tell about the bottlenecks he sees" [and] "is able to put the topic on the agenda of the municipal Council"

Entrepreneurs use personal skills to influence other actors. Finally, there is the most difficult to define, but the most important, actor. This "man with the worn-out shoes is needed for transferring, and translating, information", and such "influential individuals (in Dutch: "olliemannetjes"), [are] often retired entrepreneurs, that have sufficient time for the process, know practice very well [...] and do not have too large an ego".

Conclusion on question 1: How can preferred participants be chosen: Interpreting the results What the restructuring professionals tell is that choosing preferred participants is not simple. Although there are several success factors that can be included in guidelines and checklists, there is also a need for situation specific approaches. This is reflected in the large diversity of ideas, experiences and opinions provided during the Focus group sessions.

Is it then possible to find any single answer to the question about preferred participants, or is it more sensible to look for a consistent 'package' of several answers, or is a combination of both options possible? A starting point is that all the sessions indicate that restructuring is complex, and that the main key to influencing progress is understanding, and handling, this complexity. This has two aspects.

First, it is possible to identify the right actors related to specific challenges, such as starting an Initiative or addressing a specific project (this is partly about access to information: a topic that will be addressed more in detail in the next question). A process manager can identify the stakeholders and their characteristics such as influence, personal skills, and willingness to participate and invest. This information can be used for developing a process design.

Second, the sessions illustrate that handling complexity is about flexibility and time-specific involvement (explored in detail in the next question). This means accepting that progress with a specific challenge can be influenced positively if the complexity is reduced (meaning focussing on a limited number of factors and actors related to a specific challenge), but at the same time understanding and acknowledging that such an approach may have significant, often unpredictable and undesirable, effects on other challenges. It also means acknowledging that a too rigid approach to actor involvement can slow down progress. In particular, there may be a tendency to maintain the same 'core' group too long: even when it should be evident that processes have got stuck due to lack of ability, or courage, to change 'the team'.

### 7.8.2. What is best sequence regarding improving motivation and information (Q2)?

This, second, question was about identifying strategies for moving to a situation where aggregated levels of information and motivation were both satisfactory. As the variety of themes illustrates, the professionals addressed this question from different perspectives.

#### Theme "Understanding the Problem"

An interesting point is that it is "important that actors are aware of the problem, and for this certain information is needed, [and] as soon as the problem has been widely acknowledged, then the motivation to address it develops". This remark introduces four aspects: awareness, specific information, acknowledgement of problem, and a causal link to motivation.

Awareness of a problem can emerge or be deliberately created. In one case "firms were afraid of the development of another industrial site, and of threat of decay through firm migration", and approached the local authorities about their concerns. The local authorities used this situation as an impulse for restructuring. In another case "in the Initiative there was a phase where the city was prepared for the term restructuring [i.e. people working for the local authorities were informed about the meaning and importance of restructuring, which was needed because] the value and necessity of industrial sites was not much recognised", and this was a "quite systematic approach". A third professional described how a study showed that over the past decades on a specific site there had been a gradual "loss of jobs, and at the same time politicians had said that 10,000 jobs would be created", and this served as a real "eye-opener". Actually in an early stage of this process, the problem situation "was a black box", and, as the professional mentioned, "I have encountered that in several municipalities". There are accordingly several questions related to problems and their relationships to specific actors (see table 7.6).

**Table 7.6** Understanding the problem

<i>Participant</i>	<i>Session</i>	<i>Quote</i>
12	1	"What is the scope of the problem?"
5	3	"What do you include in the restructuring"
12	1	"What is the scope of the restructuring? Public space or also private property, users and owners."
9	5	"What was the reason for the restructuring? Who has largest problem? Who is problem owner? What are actors sensitive to?"
23	4	"What urgency has problem? Who are stakeholders?"
4	1	"Is motivation not fragmented?"

There are different, partly complementary, ways to seek answers. Applying a "force-field analysis both internally and externally" enables identifying the stakeholders and their characteristics, and a "quality scan [is important for] knowing what we are talking about". The way of extracting information affects the outcomes too. There "needs to be commitment to the scan from firms". An option is also "not starting saying there is a problem, but asking firms: what is your opinion of the site", or, if there is already an intention to start a restructuring, more specifically ask "what are your bottlenecks, which opportunities do you see for the area, and what should the result be if we start developing". Local authorities should also ensure that there are "identifiable civil servants and politicians [where firms can] deliver complaints". A third approach is to "perform a risk analysis in advance", and its impact on the process was indirectly mentioned as "I believe it is insufficiently done".

The next step is to apply information about the situation in such a way that (other) actors acknowledge that there is a real problem and are motivated to act. First, local politicians are important, because "if there is no political urgency, then it [i.e. the problem] will not be addressed", and accordingly the higher the urgency of the problem "the sooner it will be addressed". However, again it was stressed how important it is to focus on the firms (see table 7.7) and their interests and opinions.

**Table 7.7** Focus on firms

<i>Participant</i>	<i>Session</i>	<i>Quote</i>
3	5	"starting from firms' general interests"
25	2	local authorities "should not put problem on the agenda"
3	5	"who are we as local authorities [that we believe] that we can determine necessity"
5	3	"translating policy themes into something that affects [and is understandable to] firms"
18	3	"local authorities motivated and see advantages, other actors need to see advantages too"
3	5	"Local authority is for all inhabitants [and for them it] must be a joint problem. Firms have a functional problem. Completely different entities"

Although a planning agency will do its best to take all these aspects into account, “each situation is unique” and “a number of things stay unclear”, which makes it “difficult [to communicate] towards external actors that ask for clarity”. This makes the step towards the “wide acknowledgement and motivation to address the problem” quite a challenge.

### Theme “Joint vision & Coordinated Actions”

This requires more than providing ‘cold’ (written) data. It is much more about focusing on *how* the information is provided, and this includes paying attention to questions about who, where, when and what.

First, “seeing with your own eyes” is a “trigger” to success (explicitly mentioned by 8 professionals in different sessions using almost similar words, and widely supported as well), and it stresses that being on location is needed. One professional even claimed that “the only thing that motivates an entrepreneur is seeing what really happens on a site”. This approach works regardless of target group: entrepreneurs, local council, responsible politicians, and members of steering groups and working groups. Taking different actors at the same time to see a site contributes to developing a joint perception of the situation.

Although the need to focus on firms is clear, there was only one clear reference to problems associated with their involvement in developing joint visions: if important owners “are not involved in planning, then their motivation to contribute will be lower too [...] and it will not address their wishes”. Much more attention was paid to discussing the difficult internal processes within the organisation of the local authorities, somewhat radically expressed as not feeling that “we all work for the same boss”. Still, it is clear that “ambitions must be linked”, and “real internal cooperation is crux”. It was even stated that “first everything [should be] internally discussed, then external action” can be taken (although, as will be discussed later more in detail, opinions about this issue varied). Anyway, there is a need to address the variety of internal problems (see table 7.8) regarding coordination and priorities.

**Table 7.8** Development of vision and cooperation within the local authority

Participant	Session	Quote
24	4	“Convincing internal organisation is difficult”
33	2	“Different parts of the organisation were active, but had their own priorities”
3	5	“Internal departments are not working coordinated [which leads to undesired effects later in the process such as that] this development is impossible”
21	5	“Fragmentation at different levels. Agreements are made at operational level, and management level above has other interests”

There are many ways to achieve this internal coordination, and they all can be combined. To “make drawings, create picture of future” can support an interactive participatory process towards a joint vision. Another option is to trigger curiosity, such as asking the “local Council if they e.g. know how many firms there are or how large sites are, [which] worked positively regarding motivation”. Building commitment also means to “inform everybody to avoid accusations” such as “if I had known that” and “I have not been asked”. The information should also preferably address the core policy themes (i.e. interests) of internal actors, and ensure that it is understood that they are affected by the restructuring. As an example it

was mentioned that if you “tell the department of Social affairs that on industrial sites many vulnerable employees are working”, it will influence their willingness to become involved. Finally, external stimuli can affect the development of a vision. For example, “the opportunity for getting provincial co-funding serves to get people moving in the same direction” (in Dutch the expression used was: “neuzen dezelfde kant op”).

### Theme “Managing Expectations, Motivation, and Continuity”

Having a vision is only a starting point, and a main challenge is to manage the process in such a way that the ‘right’ package of improvements is actually implemented. Motivation is then crucial, because “if there is a will, then there are [financial] means [...] based on a good plan for site development” and therefore “motivation is an aspect that needs continuous attention”. One professional had experienced that “implementation failed because finally the firms did not have the drive to act”.

To prevent actors from becoming disappointed, it is important to “perform management of expectations”. An often mentioned point is that the joint expectations should be realistic, which means taking into account feasibility and not being too optimistic (see table 7.9).

**Table 7.9** The impact of creating realistic expectations

Participant	Session	Quote
1	4	“realistic implementation program: [it] must be feasible”
9	5	“Searching for what may be possible, and what cannot be achieved. Searching for what is acceptable”
26	1	“sometimes it can be in interest of local authorities not to make a problem out of a situation, because [then] you also have to do something about it”
27	1	“Moderate expectations, create sober expectations”
19	5	“Creating expectations can have negative effects”
27	1	“if you quantify too much you create expectations and the motivation can completely disappear”
19	5	“Are you able to fulfil expectations? Good [for local authorities] to take this into consideration”
34	2	“are financial means available or not” “Prevent disillusion among entrepreneurs”
39	4	“Completely infeasible recommendations [affects process and therefore remember that] a bit lower ambition level is also possible”

Expectations also need to *stay* realistic and shared. This applies, in particular, to the relationship between local authorities and firms, and it is important to communicate when actions will be taken, and to show, achieve, and mark progress and results (see table 7.10).

**Table 7.10** How progress influences expectations and motivation

Participant	Session	Quote
8	3	"show results to firms"
24	4	"show progress"
23	4	"something must happen"
39	4	"Most deadly [for the process] is if it looks like nothing is happening"
38	3	"Initiative has been started and local authorities focus on identifying actors and means. If this lasts too long the motivation of firms decreases"
23	4	"important that project does not last too long, because then the interest of firms decreases"
7	4	"now and then celebrating successes"
25	5	"Communicate when you really are going to act [as local authorities]"
12	1	"need to allow people to gain successes [...] and show concrete results [...] otherwise [you are] increasingly losing credibility"

Furthermore, both expectations and the willingness to participate in a process can be severely damaged if the local authorities do not deliver what they promise. One professional referred to an example when "during a visit to a site [...] a lot of bad situations were identified, but the local authorities could not deliver what they had promised". More in general, another professional (in another session) claimed that local authorities "perform much half-completed work [and they] are [accordingly] not completing the work on several industrial sites".

This means that management of expectations needs to be included in the initial design of a restructuring. It is not only about having realistic expectations and ensuring that progress is shown and promises kept, but also about whom to involve, how and when. Firms and local authorities have different responsibilities and often different expectations regarding how fast decisions can be made, and the opinions regarding how (and when) the local authorities should involve firms in the process were quite diverse (as briefly illustrated in table 7.11).

**Table 7.11** Expectations, actor involvement and impact on process

Participant	Session	Quote
17	1	"you must not make all kinds of plans for other actors internally, because those plans were not used and there was no money [for implementing them]"
34	2	"not immediately involving all actors: first a vision that can be used to seduce other actors", the "plan is used to entice and get process moving"

How can the local authorities actively influence the expectations and motivation of other actors during such a long process? The importance of choosing the right initial approach was often mentioned, which includes "enticing" and being selective about the right actions and actors.

One option is to start by "introducing something that attracts the interest of the firms", and local authorities can for example implement "measures close to own 'world' [of responsibility / tasks] to get process of enticement moving". The use of quick-wins (see table 7.12) is one option, and it also needs to be recognised that "enticing is selectivity [so] you have to develop [a few] feasible business cases". Selectivity also means that the process can be accelerated if you "start with street where there is commitment", and maybe at the same time "put entrepreneurs that are unwilling at the end of the row". One professional even expressed that "if you are able to activate a couple of entrepreneurs, you have reached your objective". Selectivity, finally, also affects decisions regarding what you need to know, because "if you have part of the information, you have to [start] work on motivation".

**Table 7.12** Effective use of quick-wins

Participant	Session	Quote
3	5	"use quick-wins [and] start with small things, which are important for motivation"
12	1	"Quick-wins [...] is a way for making people interested, [and] it is a method for reaching involvement"
7	4	"define some quick-wins in the master plan"
17	1	"through quick-wins show a number of results on short term [...] then it is our experience that it leads to a follow-up"

Influencing expectations and motivation is not restricted to influencing firms, and should include influencing actors within the local authorities. It was stressed that although external actors can support the restructuring, the internal "project leader must drive the process himself". Again, showing results has a clear impact, and in one case it was mentioned that "there is [internal] commitment [from management], because it [i.e. the restructuring] goes well". Specifically, it was claimed that the motivation of the municipal council can be influenced if it "knows that firms support a development, then it almost becomes something that is accepted without discussion" (in Dutch the term used is "hamerstuk"). Local elections might pose a threat to progress and continuity. It was stated that "if an alderman [in Dutch: "wethouder"] enters or leaves the process, it is important for motivation", and two professionals (in different sessions) referred to the need for getting new aldermen involved as soon as possible.

Continuity requires understanding that it is "important that there are enough people in the organisation [...] that can maintain the collective memory", and ensuring that this is taken care of. It is also about accepting that "you are in a process of learning and you learn from your mistakes", and "expectations can therefore be adjusted". Adjusting, in particular, means that "continuously switching between two levels is important: Local authorities regarding policy and long term developments, and firms regarding when things are going to happen".

### Theme "Strategic use of Information"

An important part of effective management is the use of information, and "providing information is often where it starts, and then confronting the right, depending on their influence, players [i.e. decision makers] with this information". The idea is that "first information for motivating is necessary" (i.e. it is important to give sufficient information initially: this can positively

influence motivation), and one professional even stated that “acceleration is never through B [i.e. improving motivation without using new information]: regardless of how necessary it is, motivation decreases” (in Dutch the expression used is “zakt weg”).

What is needed is “enough information, but especially good information”, and that means taking into account that “what is relevant information for you, is not necessarily so for me”. It is therefore about collecting, and effectively using, information according to the needs of the target group. Information for local inhabitants can for example initially be limited to “explain the problem and approach [to the restructuring] in general terms, whereas local authorities and firms need to understand and acknowledge importance, urgency, and feasibility of plans much more in detail because “everything has a price”. It is about simultaneously “calculating and drawing [...] in order to involve actors in process [...] towards increasing accuracy” (this refers to the need to effectively combine calculations of feasibility of specific measures with attempts to visualise how these measures will look in practice). Table 7.13 illustrates the variety of ideas and opinions addressing these issues.

**Table 7.13** Importance of having the ‘right’ information

Participant	Session	Quote
23	4	“clarify importance, then you have commitment”
10	2	“underpin urgency of need to accelerate: what can be won regarding property value and employment”
1	4	“when firms see advantages, they will join the Initiative”
14	2	“must be an advantage for firm, otherwise process will not work”
7	4	“Firms need to see feasibility. This must be underpinned”
18	3	“calculating [costs and benefits] in advance [is] smart”
1	4	“Real estate agents invited for calculating increased property value”
25	5	“real estate agents invited to tell about industrial site”
23	4	“know the reasons for financial shortages in projects: [for example] calculating costs for buying land [were] based on expropriation”
36	4	“make a good integral analysis including all costs and benefits for society as an eye-opener”
14	2	“first calculate, using [as starting point] where the power is situated”
39	4	Regarding possibilities within an existing industrial site: “first check what can be done on own area and are there opportunities for transfer of land”

The way information is presented is important, because “effectively presenting the problem creates motivation and leads to allocation of means”. It is necessary to move “from information towards motivation”, and therefore local authorities can “use information for enticing firms”. It was suggested to “not actively contact stakeholders [but] start working [as local authorities and then] stakeholders hear that”. This approach had a positive effect in one case, because it made the stakeholders “come to you”.

However, more ‘strategic’ uses of information were also mentioned. Local authorities can “initially keep information within the organisation” regarding for example “whether they have sufficient financial means” (a topic that was previously discussed related to its effect on expectations). When there is insufficient progress, firms can be influenced in different ways. One option is to “trigger firms through other games: not only restructuring” (“other games” referred to influencing options such as enforcing laws and regulations), and presenting plans for NIMBY-functions can also have a strong effect on motivation (see table 7.14).

**Table 7.14** Strategic use of threats

Participant	Session	Quote
33	2	“creating a common enemy e.g. through sending bad plan to firms: motivates participation in process”
36	4	Rumour of plan that “brothel is to be situated at site [...] immediately led to creating association of firms”
27	1	“politicians suggested to allow NIMBY-function on site, and then firms were motivated [...] and was the move from C to D”
17	1	A similar approach “turned out to be a very good means” that resulted in increase of firms joining local association of firms

The commitment of the local authorities also is important for progress. A survey addressing how firms perceive the quality of their site leads to a “kind of ranking-list [and] no local authorities want their industrial site to score the lowest”. Using this information to influence the motivation to address the problem “is a clear strategy”. Commitment and involvement can be influenced also by telling internal actors of the local authorities that “if you do not join, we will continue” anyway, and in order to ensure that nobody can complain about too limited information, one professional stated that it is “better overloading with information”. In particular, higher authorities can influence progress by “coupling significant co-funding opportunities to conditions”, and based on such clear constraints “if nothing happens, [the authorities can] say that co-funding will stop”.

### Theme “Interaction & Mutual Influence”

The effects of providing information depend on how other actors react: not only to the information content, but also to each other: “how you communicate is important”.

Restructuring is, as one professional expressed it, “the work of human beings and about cooperation”, and in such a process “you just have to hope that information is interpreted in the same way” by different actors. In particular the question was asked “how do you reach the entrepreneur?”. Important for local authorities is then “not so much telling [things], but especially listening to what they [i.e. firms] want and what their interests are, and together explore what do you want, what do I want, and where can we find common grounds”. An issue is then that “communication with firms is [perceived as] difficult [because they] do not read Newsletters [and] are not coming to gatherings”. Therefore “you need to visit them personally”. Or, even better, “local authorities should visit firms, and not the other way round” (a view supported by two other professional in a different session). However, it is a problem that local authorities and firms are “not speaking each other’s language”, and therefore a ‘bridging’ role can be fulfilled by ‘ambassadors’ (people from external organisations facilitating the process).

Nevertheless, “meet each other and get to know each other is very important” both for firms and local authorities. It can even be “deliberately facilitated that the most important entrepreneurs [are] brought into contact with the responsible politicians”. There is a need for “much information [because] commitment is important”, and, in particular there should be “regular meetings [...] to inform each other about progress” and “open and clear communication on objectives” as well as “open discussion about all options”. The local authorities should also specifically be “formally informing about: this is what we have done, or are going to do, with the money”. The need for continuous interaction was summarised as “keeping on talking is important for motivation”, and as part of this interactive process “the informal is an important additional perspective” and therefore it can work well “to organise a session [specifically on the restructuring] coupled to informal gatherings of entrepreneurs”. This also makes it easier, because there can be a “certain fear of the unknown [and such settings make entrepreneurs] feel safe among fellow entrepreneurs”.

Informal interaction between firms on the site is important. They can “appeal to each other” and “mutually influencing each other” regarding addressing the problems of the site. This may not be as easy as it appears, because “entrepreneurs on the site believe they know each other, but that is [often] not so”, which again stresses how important it is to really get to know each other.

There are also more direct (planned / intentional) ways of applying influence. As one professional working for a local authority expressed it, “we are doing it with respect, but we are using influence”. However, it was cautioned not to “use threatening as an instrument”, because “entrepreneurs do not forget that, and at a later stage you face the consequences”. Finally, if restructuring gets stuck, it can be helpful to have “talks with officials with managerial responsibilities to get process moving” (this remark refers to the importance of getting the internal managers involved, because they often can decide about allocating resources). That is, involving decision makers at the right moment can be crucial for progress.

### Theme “Fair shares & Trust”

If an industrial site is to be restructured, both firms and local authorities have to act. However, initially it is unknown exactly what each ‘side’ can, should, and will do. Nevertheless, there are some underlying notions that influence expectations, and serve as a mainly implicit and non-quantified framework for actions. The process should be ‘fair’ and if one side invests then it is expected that the other side should, and will, do so. These expectations are influenced by trust, and the level of trust is linked to the need for formalizing agreements.

To a large extent it all revolves around trust, because “if there is no trust between the actors then there will be no solution” and “the process will stop”. Actually, “the essence is whether people trust each other”. A problem is then that sometimes at the beginning of a process “authorities are not exactly trusted”, and in one case the firms even “thought it was a fake process and that plan [of local authorities] was already made”. There is often “so much distrust that first must be addressed”.

“Why is there so much distrust from firms?”. “Trust is linked to satisfaction”, and “investing in trust [means] doing what you have promised and showing progress”. If the previous experiences (related to effects on expectations) are that “the local authorities could not deliver what they had promised” or do not “do the tasks they are responsible for” such as maintenance of the site infrastructure, then it is understandable that trust is low. Continuity is important, because “trust is [often] damaged through local elections” and change of responsible politicians. On the other hand “entrepreneurs are sometimes exaggerating in telling that it is all the fault of the local authorities”.

One option for the local authorities, and provinces, for getting the process moving is then to take the first step, and show that they are serious about addressing the restructuring (see table 7.15).

**Table 7.15** Influencing progress, motivation and trust through taking the first step

<i>Participant</i>	<i>Session</i>	<i>Quote</i>
23	4	“when firms notice that local authorities are taking initiative and understand that something really is going to happen, then they want to talk”
3	5	“if firms see that something is happening then this leads to motivation”
1	4	“local authorities are now acting: when entrepreneurs saw this they were joining, turned out to work”
7	4	When local “association of firms acknowledges that local authorities mean what they say, then they are taken seriously”
29	3	“province and local authorities must be viewed by firms as serious”

Nevertheless, this is no guarantee for success, and it can have undesired effects. “You are hoping for firms to act, but that does have to happen”. “If firms believe [results] will be achieved anyway, then they will not come” to join the process. They may “just wait and see what the local authorities do”. Because they know that investments in site improvements affect property value and can lead to higher local taxes, they may even think that “local authorities, you pay, because you profit”. This applies not only to the local authorities, because “in other case there was no trust, because some players [i.e. individual firms] had large own interests and pursued those”.

The question is accordingly who pays, who profits, and are these costs and benefits matched and distributed in a fair way. If a development is perceived as unfair, it is difficult to get firms involved. In such a situation “you can present a lot of information, but that does not necessarily mean that motivation increases. Knowing more does not mean that they [i.e. the firms] will join in something that is in only your [i.e. local authority’s] interest.”

Two issues were discussed regarding how a joint process can be developed, and in both cases trust is important. The first is that both local authorities and firms trust that both sides really will (be able to) invest. This means applying “the fair shares (in Dutch: “voor wat hoort wat”) principle for accelerating [the process e.g. through] enticing firms to invest in private areas, [by public authorities promising to invest] in public areas” (see table 7.16). Applying this principle is important for the relationships between all the interdependent actors.

**Table 7.16** The impact of applying the “Fair shares” principle

Participant	Session	Quote
17	1	“if there is no realistic chance that local authorities will invest in the future, then I believe that firms in general will quit the process”
9	5	Applied the approach that “only if firms do so and so, then local authorities invest”
34	2	“Ask firms to take their own responsibilities. Local authorities and firms moving together”
31	1	“telling representatives of firms that “if you improve this, then the local authorities are willing to implement certain actions too”
18	3	“authorities’ too high ambitions is OK, but firms have to act too”
29	3	“you want this, but we also want something: firms want something, then own wishes [of local authorities] (this remark refers to the need to take fair shares into account by knowing and addressing needs of both local authorities and firms)
29	3	Fair shares? (voor wat, hoort wat): “Yes, firms are also afraid that rest of firms [on site] will not co-invest”
20	3	“to get co-funding for public areas, quality scan must be performed”
9	5	“if local authorities are unwilling to invest, then the regional development agency will not invest either. This creates clarity.”

The second issue is to develop a joint process, and “create joint objectives”. In one case, for example, “entrepreneurs were involved in the steering group to study [site problems and possible solutions] and there trust was built”. “When there is trust [one can move] towards Letter of Intent [...] that signals trust and satisfaction”, “substantiates motivation”, and shows that the actors “believe in this development”. “This is formally sufficient for a next step, but it is not ideal”. In particular, to “make site management (in Dutch: “beheer”), co-responsibility for firms is an important condition for [being able to] accelerate the process”.

### Theme “Flexibility & Adaptation”

Although some general guidelines may work in all situations, it remains highly important to be flexible and adapt the process to changing needs. This applies to all actors involved in restructuring.

The diversity of expressed ideas and opinions for addressing flexibility in processes was considerable. First of all “it is a puzzle”, and “there is not always a recognizable clear line (in Dutch: “rode draad”) in restructuring”. Local authorities therefore have to “think strategically about what they can achieve”, and because “different challenges need different approaches” there is a need for “adapting strategies according to what is considered important at that moment in time”, “use opportunities”, and “think about temporary solutions”. A process design should “include the not-expected”, and in particular the “crux is to think about alternatives if something does not go through” and “even better is to have an alternative second best option ready if e.g. the best option turns out to be financially infeasible”. The need for adaptation means that it can be useful to work “stepwise and iterative” and “split challenge into small parts, instead of [applying a] comprehensive approach”. This is necessary also, because “you cannot do everything at the same time”. Furthermore, to be

able to seize opportunities, “timing is important” and it is “important to have a mandate” and “agreements on sufficiently high level of abstraction” to have room for manoeuvring. In some cases, even this is insufficient for finding the right solutions, and then actors must “dare to make political changes based on [an analysis of] effects on the society”. This can even imply that it is accepted that “maybe everything cannot be done, and maybe you have to be less ambitious”.

On the other hand, change and flexibility should not lead to ‘ad hoc’ decisions and low quality solutions. It is therefore important to “facilitate the choice process for site developments”, and “take time for sparring”. This means searching for specific solutions on a site level, but also to “know how to place the topic of restructuring within a broader context and involving other actors”. As one professional expressed it, they had “stayed too long on a detailed level [when they] should have been thinking on a structural level”.

Specific ideas mentioned often referred to financing. In particular, there are various ways of financing site management (see table 7.17).

**Table 7.17** Creative ideas for financing site management

Participant	Session	Quote
3	5	“Which part of maintenance budget for e.g. ‘green’ or sewage can be allocated to industrial site”
37	5	“Maintenance budgets can also be allocated to streets”
10	2	““Reversing: management phase [should be] more focused on what is needed, and not on budget”
26	1	“Can maintenance budgets be moved forward in time”
25	5	“There are budgets for [both] investments and maintenance. Budgets for investments can also be applied for firms. Integrate systems for quality control and investments [and use] labelling of budgets”
14	2	“Investments of local authorities in ‘green’ and park management etc. can be coupled to value in m2 and local taxes (in Dutch: OZB). Suggested to plough back possible future [effects of] higher local taxes to current situation” (i.e. future increased income through taxes, could be invested today)

More flexibility was also propagated in linking the development of new and of existing industrial sites, transformation to other functions, and the use of compensation. In particular it was said that “much can be reached through mixing functions”.

Although there were more than enough ideas and recommendations about how flexibility can be addressed in restructuring, the discussions also showed that real life does not always work in accordance with these ideas. In practice “everybody is to some extent re-inventing the wheel” and, in particular, there are (at least some) “consultancy firms using same approach everywhere”. It is said that local authorities are “too rigid sticking to maintaining the function as industrial site”, and if a relocation of a firm is needed there can be a “lack of ability of local authorities to indicate where a firm can migrate to”. Also, the flexibility of the province is an issue. In one case there was “agreement on the project in the past, and it has to proceed against all current rules”, (this remark referred to a situation where the province,

according to the professional, was unwilling to make any changes to previous plans although implementation would not be in accordance with current policy) and “sometimes conditions linked to provincial co-funding present bottlenecks”.

The last, but certainly not least, main issue regarding flexibility is to know when to wait, proceed or stop. Here the opinions were quite diverse (see table 7.18).

**Table 7.18** Restructuring: Wait, proceed or stop?

Participant	Session	Quote
11	3	“Be patient and wait for the right opportunity”
1	4	“Let problem get worse, when it is big enough you will immediately have political support”
9	5	“If there is no commitment: stop and let it slowly simmer”
26	1	If something does not work “then it may not yet be the time to act. Maybe you can just wait ten years and then the [right] moment may be there”
19	5	“Sometimes decision to really stop”
3	5	“Better to continue talking, and temporize”
3	5	“Process must not stop: change phases and priorities”

**Conclusion on question 2: What is the best sequence for improving motivation and information: Interpreting the results**

First, it is quite clear that each situation has its own characteristics, which should be continuously known and taken into account. The sessions have produced a coherent picture of the information which is needed, the variety of options for strategic use of information, and they have linked these to flexibility in process approaches.

However, the issues mentioned related to the themes “Joint vision & coordinated actions”, “Managing expectations, motivation, and continuity”, “Interaction & Mutual influence” and “Fair shares & Trust” show that the motivation of actors to participate and invest in the process and outcomes of a restructuring is influenced by much more than having access to data. In addition there is a need to manage expectations, and individuals act (and interact) according to a complex mix of stimuli and incentives, and related to multiple goals. Motivation is influenced by perceptions, previous experiences, the need to prioritize among multiple goals, and simple, but very important issues such as whether the actors know, and trust, each other. Although information can influence these aspects, especially important is how information is transferred and whether it is accepted as trustworthy.

The sessions show that both ‘routes’ (A via B to D, and A via C to D) can be followed. Information is needed, but so is specific attention to motivation. Information can be used to influence motivation, and motivation influences the need for, and perception of the value of, information. This means also that the combined (direct) route addressing motivation and information at the same time seems to be the best option. The results indicate that a temporary emphasis on one of the two issues (i.e. information or motivation) can be appropriate, but that a successful approach to accelerating processes should address them both at the same time and continuously.

The results also indicate that this full complexity seems to be recognised by most of the participants of the sessions. Only a few professionals had very pronounced preferences for

specific sequences (see table 7.19 that includes all remarks made explicitly expressing an opinion about, or experiences with, alternative sequences).

**Table 7.19** Preferred sequence for addressing motivation and/or information

Participant	Session	Quote
7	4	“All strategies applied: A via B, C or directly to D”
35	5	“From A to D [directly] you need to have the right person, right connection with other actor”
3	5	“New alderman, dramatic for process, back from C to A, had to talk a lot to get him involved”
19	5	“Back from C to A happens in practice, everybody is often happy during the planning phase being free of obligations, but when it gets concrete they leave the process”
34	2	“Believe A to B and then D”
28	2	““Not work via C: work via B formulating challenge well towards motivation [and] finding solution to financial problems”
3	5	“Acceleration is never through B, regardless of how necessary it is, motivation decreases”
30	1	“I am sure you can influence the amount of information in such a way that it influences motivation and leads to stage D”
22	2	“A to C without [extra] information is about exchange of knowledge”
14	2	“A to C to D is good approach. Too much information decreases attention. Motivation why to act not found” (refers to the negative impact on motivation that can be caused by providing too much information)
35	5	“How you get from A to C without going through B is something you learn from experience”
23	4	“So much distrust that first must be addressed [...] A to D then very difficult [...] first to C then to B and then D”

Interestingly, even the most ‘extreme’ conflicting opinions (of participants 3 and 28) link the preference for focusing on either information or motivation quite explicitly to both factors. Participant 28 expresses that *information* is used for influencing *motivation*, whereas participant 3 says that *information*, regardless of how necessary it is, negatively affects *motivation*. Both professionals acknowledge that these factors influence each other, but they have different views on the best sequence, emphasis, and the effects of these on progress. Interdependency remains an important, almost completely implicit, factor. The emphasis on ‘fair shares’, joint visions, expectations, interaction, and mutual influence are all examples of how important it is to integrate actor interdependency into process design and management. This needs to be addressed from a clear perspective on feasibility. If investments are perceived as feasible and fair, actors can accept that they have a shared responsibility for site restructuring, and they will take action. However, the combination of feasibility and fairness is important. An improvement measure may be feasible, but still be blocked because actors

perceive the division of costs and benefits as unfair, or they are afraid that only one ‘side’ will deliver what is promised. This can be interpreted as a need for clear formal agreements, especially where there is a lack of trust and where investments are related to long term ambitions that go further than what belongs to each actors’ ‘normal’ responsibility (e.g. for regular maintenance).

### 7.8.3. How to determine when information and/or motivation are satisfactory (Q3)?

When has the right ‘mix’ of motivation and information been reached, so that it can be translated into a next step or a formal agreement? This question was somewhat indirectly addressed regarding the need to know when a process can better be postponed or even stopped (see table 7.18). However, the question is important enough to be asked explicitly. Two different, and complementary, views on this question were expressed: experience and intuition versus ‘hard’ indicators.

#### Theme “Experience & Intuition”

This refers to what may be called tacit knowledge. Although only few remarks explicitly addressed this issue (see also the previously described theme “Characteristics of Individuals”), it is particularly important. A problem is that local authorities and firms are “not speaking each other’s language”, and more in particular, local authorities do “not understand what entrepreneurs want”. This is not simply about the quality of communication skills. It is about “feeling what goes on in the room”. As one professional said “you will know if there is insufficient motivation if you have to make a lot of effort (in Dutch: “sleuren en trekken”)", and knowing whether something is unsatisfactory “is feeling, experience, it is seeing people looking with expressions telling you that regardless [of what happens] they will not cooperate with you”. Or, in short, “ultimately it’s about intuition”.

#### Theme “Indicators”

This ability to recognize the ‘right’ moments intuitively is the key characteristic of the gifted process manager. However, even the most gifted will usually not rely on intuition only. How can indicators assist the decision-making?

The discussion during the sessions showed that the professionals had difficulty defining exactly when something is satisfactory enough, and they actually seemed to (although this question was not explicitly asked) experience this way of looking at information levels as quite unfamiliar. On the other hand, they had clear ideas about what should be measured, how, and when. Their ideas about indicators are divided into two groups: indicators for general informational needs, and specific indicators for measuring satisfaction.

The first category requires “knowing the local dynamics”. A risk is then, as one professional expressed it, that “we sometimes believe we know [what can and needs to be done] as local authorities, but we do miss things”. In restructuring, this risk of missing essential things is understandable. The problem is that “these investments and area developments are so complex that you can actually not express anything in terms of satisfactory or unsatisfactory”.

Still, this complexity actually is an extra argument for having access to the right information. First, there is a need to know what should be done and who to involve, because “if the best choice challenge is not known, then it goes wrong there, and for example the solution does not fit”. The basis for identifying a best challenge is provided through “continuously

communicating with firms about dynamics” and monitoring developments, and for local authorities this in particular means to “know your entrepreneurs” and “what they are doing”. There were clear ideas about the information that is needed related to a restructuring. The local authorities should know “the financial-economic importance of a site, who are the large employers, and who works there”, and property value. They also need to know the “plans for expansions, stopping, and investments” of all firms. Although one might expect such information to be available, one professional claimed that “9 out of 10 local authorities do not know which plans firms have”. More in detail related to specific challenges, it is “important to know all interests”; “what can be won in economy and employment”; “where money can be found”; whether specific “actors are necessary for success”; “which developments they desire”; “which entrepreneurs are willing to invest” and able to do so and “the conditions linked to their willingness to invest”, but also why specific actors are unwilling to invest because this “can have a very good reason”.

What are the indicators for how actors value (potential) outcomes, and for their willingness to invest? Or, in other words, what are the specific indicators for what is satisfactory? One person said: “look at functionality, and measure satisfaction”. The importance of measuring, and managing, processes focusing on satisfaction was widely recognised, and there are several ways to do this (see table 7.20).

**Table 7.20** Satisfaction as indicator in restructuring

<i>Participant</i>	<i>Session</i>	<i>Quote</i>
3	5	“Actually you should be assessed based on satisfaction: firms and local authorities”
21	5	“Do you ask actors enough whether they are satisfied [and] include [questions about this] in surveys on satisfaction”
35	5	“Do we ask everybody if they are satisfied”
19	5	“If you conclude that stakeholders are satisfied [...] then you have had a good process”
23	4	“Local authorities can be very satisfied with process, but firms very unsatisfied with results”
32	1	“Maybe you could get to know what satisfactory is, if you monitored and compared several projects on information and degree of satisfaction”
12	1	“When do we have to address something and when not: in advance we are insufficiently defining what is satisfactory, and if we can achieve it”

Satisfaction can also be measured ‘indirectly’ (i.e. without asking the firms). One indicator is that “if firms invest, then it [i.e. the restructuring] is successful”, because “a firm that invests in its buildings, surroundings or employees, probably has confidence in it”. Other useful indicators are “the number of requests for building permits compared with streets where no revitalisation has been done”, “decrease in unused buildings”, and “development in property value [although it was mentioned that it] is difficult to calculate”. Satisfaction can also be measured as willingness to sign a Letter of Intent, and during a process “an indicator is how many people attend events”. Each of these measurements can be performed during a restructuring, and

each intermediary outcome can then serve as valuable input for a next step in the process. It was said that, during restructuring, local authorities need to be “continuously checking feasibility”, “monitoring constraints”, and “anticipating problems”. This information makes it possible to identify when and how to act. In particular, the professionals suggested a variety of more or less explicitly expressed “if ... then” guidelines that can help identifying when, and how, to act related to progress on specific indicators such as investments by firms and access to information (see table 7.21).

**Table 7.21** Suggested “if ... then” decision guidelines

Participant	Session	Quote
29	3	“invest [in implementation of specific measures] if firms take the initiative ”
8	3	“you can calculate everything, but if I [“I” being a firm on the site] will not sell [e.g. I will not sell my land, needed for e.g. an improvement measure, regardless of what you offer]: [then a planning agency can better] stop [its efforts]”
36	4	“some firms really do not want to move, in that case recommended to do nothing”
31	1	“if something does not work then [tell that] we are temporarily stopping”
8	3	“local authorities develop site design [and then] firms [are] satisfied because they know what is allowed and not allowed”
14	2	“always behind reality [...] relocation of firms can [take place not earlier than] when new sites are available”
14	2	“industrial site interesting for restructuring when value low enough”

Finally, how should this information be gathered? “Somebody is needed that oversees the whole site and addresses smaller parts within this whole”. This “somebody” needs to know the firms and be able to anticipate problems, and needs to use both ‘hard’ indicators and personal experience and intuition in this process.

**Conclusion to question 3: How to determine when information and/or motivation are satisfactory: Interpreting the results**

The professionals mention a rich variety of possibilities for monitoring progress, which, if well applied, can be used for identifying the ‘right’ decision moments when the involved actors are satisfied enough to take a next step.

Then it is important to ask *why* in some cases information is unavailable, and *why*, if it is available, it is not used or used inappropriately. Unfortunately, the sessions do not give any clear answers to these questions.

However, the remarks on satisfaction (see table 7.20) suggest that in practice too little emphasis is given to defining what is needed in advance, and that during the process too little attention is given to actively monitoring satisfaction. Many remarks actually refer both to how the professionals feel that things *should* be done and to how they are done, which suggests that they have a clear idea, or at least opinions, about how improved monitoring can influence progress; but reality is quite far from such an ideal situation.

## 7.9. Conclusions

The combination of open questions to guide the sessions and a group of passionate and outspoken restructuring professionals delivered valuable, very detailed and diverse, insights into ideas, opinions, and experiences about current restructuring practice (a brief reflection on the trustworthiness of the results is included in appendix X). This is exactly the “[...] rich and complex funds of communal knowledge and practice [...]” Kamberelis and Dimitriadis claim to be necessary for solving real world problems (Kamberelis and Dimitriadis, 2005, p. 903), and the interpretation can accordingly deliver the useful new insights that are needed (Langer, 2006; Flick, 2009).

**What do the results of the Focus group sessions tell about the model? Do the practitioners recognise the model as a good representation of processes of restructuring, and how complete and appropriate is it?**

A part of the answer is that the participants could have said that they did not recognize the model and its components as representing restructuring practice, or that they were unable to work with the model. But: they did not say this! They suggested neither removing or adding any specific part of the model. Although the structure of the sessions did not explicitly invite such comments, it can be expected that such comments would have been given, taking into account the outspoken nature of most of the participants. The completeness and appropriateness of the model can also be tested in another ‘indirect’ way, namely whether the discussions during the sessions revealed any additional issues or suggested modifying existing ones. The answer is no.

The model seems to be complete. But is it? Do the results of the sessions indicate that particular questions or measures should have been formulated differently? At a first glance there do not seem to be any reasons for changing the model. Nevertheless, there were signals that some issues deserve more attention. One such is the impact of individuals. The results indicate that the choice of representatives is important, in particular whether the individual has experience, influence, charisma, intuition, and whether somebody is respected, trusted and liked. This issue needs to be addressed in organisational design and as a potential process risk. A second issue is what can be referred to as “strategic behaviour”. Actors involved in restructuring do not always tell all they know, and they can choose to use information to their own benefit. The results indicate that if such “strategic behaviour” is perceived as manipulative, it can damage trust and future opportunities for cooperation. The same applies to “fair shares”. Actors expect that the principle of “fair shares” should apply, and not fulfilling expectations can influence the willingness of actors to invest. The results can be interpreted as a clear signal to not underestimate the importance of a long term perspective on process risks.

There was much discussion of “importance” and of paying “specific attention” to a topic. The decision support model, however, says nothing about this, leaving to the users the decision about the relative importance of the topics in the model. Is it possible to improve the model in this respect, based on the outcomes of the focus group sessions? One option would be to make all the questions in the model more detailed: by including more sub-questions and more detailed measures. However, this would make the model much larger, and our previous model development experience show that users prefer compact ‘user friendly’ models (Bugge et al., 2010). Another option is to look for clear indications from the focus group sessions of how relative importance is viewed and should be addressed in practice. However, there were only a few comments about relative importance (see also the discussion in section 7.8). Such remarks were limited to matters such as giving emphasis to information or to motivation (especially table 7.19), whom to involve in the initial stages of a process (table 7.11) and

whether it would be wise for the planning agency to take a first initiative (e.g. table 7.7). However, all these remarks are about relative importance in general. They are not linked to known sets of process characteristics. So they cannot be used to improve the model in this respect.

The sessions indicated no important new (i.e. not included) main issues, nor were there any main issues included in the model that were not discussed. In that respect it seems to be complete, and it integrates and addresses the most important characteristics (Haimes, 2004). Another test of the model is whether the professionals were able to work with it. The highly interactive and lively discussion during the sessions showed that the participants recognised and understood the key issues addressed in the model and were able to work with the questions addressed (this topic is addressed more in detail below).

#### **Will the model help speeding up restructuring?**

The next question is whether this model can help to reduce the total duration of restructuring of industrial sites without negatively affecting final quality? The professionals were (as described in 7.2) explicitly instructed to direct their answers to how this can be achieved.

We have asked the participants three key questions derived from the model about how the process could be accelerated. The participants had abundant suggestions for how to do so, but none of these challenge the core of the model nor its claim for accelerating the process.

We can conclude from this that the model should help accelerating the process.

The suggestions for improving the process and accelerating it are as follows.

The professionals suggested a large number of ways for identifying preferred participants, situation-specific approaches, and identifying when satisfactory aggregated levels of information and motivation have been reached, all of which should accelerate the process.

Taking account of these facts (mentioned above) about model completeness, appropriateness, and usefulness, the provisional conclusion can be drawn that the model developed within this study will help speeding up restructuring without endangering the final quality.

#### **Operationalising the model**

What do the results say about applicability of the model? Is it easy and unambiguous to use in practice, and how should it be improved?

As mentioned above, the starting point for drawing conclusions about applicability is that the restructuring professionals were able to work with the model in all five sessions. However, the results also show that not all parts of the model were experienced as equally easy and unambiguous in use.

In particular, the way the discussions on each of the three questions developed during the sessions illustrates this. The first question was about identifying preferred participants. There was no confusion about the meaning of this question, and all professionals recognised the relevance and importance from their own practice. This familiarity with the topic, and question, meant that nobody asked for any extra explanation, and the professionals had no problems giving useful, well-focused, answers. The second and third questions (on the 'best' sequence and identifying satisfactory level of information and motivation) were experienced as a bit more difficult: both to understand and to answer. The moderators often had to help getting the discussion started and focused by, for example, providing a couple of examples. However, only a very short time was needed for this, and afterwards both questions worked well for stimulating the discussions and finding answers.

Does this mean that the model should be enriched by adding more explanatory text or examples for (especially) these two questions? Would that make it easier for professionals to use the model?

The provisional conclusion drawn here is that the degree of familiarity (based on previous experience) with the different aspects of the model and its way of addressing decision support for restructuring, is the reason why professionals experienced different degrees of difficulty in applying it during the focus group sessions. The model introduced some (to most of them) new ways of looking at the restructuring challenge. However, in all cases it took a very short time to make the professionals familiar with the model and the underlying way of thinking. As soon as they understood why the model focused on achieving satisfactory levels of the two factors motivation and information, and why the relationship between the factors are so important, they had no problems working with it.

Adapting the questions, or adding more examples or explanations, therefore, does not seem to be necessary for improving the applicability of the model. This would (as mentioned above) make the model larger, which can be expected to damage its 'popularity' among practitioners. A better, much simpler, solution is to give to restructuring professionals brief trainings on how to apply the model, preferably linked to testing in real life cases.

## 8. Contributions to knowledge and practice

*“The experiences gained in the course of the journey(s) are the prize, not some final Shangri-La of knowledge at the end of the road.”*

*(Alvesson and Skjöldberg, 2009, p.122)*

### 8.1. Introduction

Restructuring of industrial sites is complex and not well understood. This observation served as a starting point for an explorative journey towards an improved understanding of how a planning agency can influence progress, and in particular reduce total duration of such processes without negatively affecting the quality of the final outcomes. The journey was explorative in the sense that it started with an open question regarding *how* restructuring performance can be influenced, and it was initially focused only by its emphasis on process duration and target group. However, the choice for a specific human perspective on actors and their interactions, offered a clear direction. This choice informed the way restructuring practice was described, and the development of the theoretical perspective and decision support model.

This final chapter seeks an answer to the sixth detailed research question formulated in chapter two:

*What do the outcomes contribute to knowledge and practice as well as tell about the need for further research?*

This question is split into two parts. First, the contributions to knowledge and restructuring practice (8.2) are discussed. Second, some recommendations for future research and policy development are given (8.3).

### 8.2. A brief reflection

What has this study contributed to our understanding of complex interactive processes, and, in particular, of restructuring? During the study, a large number of choices, and assumptions, have been made. Each choice has influenced the scope, focus, and final outcomes of the study. Here we present a brief reflection on four topics: restructuring in practice and the decision support model, the opportunities for applying the decision support model in other specific

situations (i.e. other than restructuring of industrial sites), the theoretical framework, and the methods applied. These reflections are intended as contributions to on-going discussions by both academics and practitioners about how complex processes can be understood, and improved.

### 8.2.1. Restructuring practice, and the decision support model

What has this study contributed to the understanding of complex multi-actor processes, and in particular restructuring?

In our opinion it indicates how important it is to appropriately address the relationships between actors, and their motivation for investing in specific measures.

Much attention in the past has been given to resources as the key factor. Lack of financial resources has repeatedly been mentioned as a main obstacle in complex processes, and in particular in restructuring. We acknowledge that resources themselves are important, but this study has indicated that focusing on the decision-making process that leads to allocation of resources is important too.

Because these decision-making processes are complex, they are difficult to manage by, for example, a planning agency. This study suggests that a decision support model can have a significant impact by making the complexity more manageable, and it can specifically do so by identifying appropriate ways for influencing stakeholder satisfaction, progress, and duration of processes. The development of the decision support model within this study has indicated that some issues of complex multi-actor processes deserve more attention: aggregated characteristics (motivation, information, and resources); distribution of (the same) characteristics among involved actors; how acceptable solutions can be developed. We now describe the specific contribution to knowledge about these issues.

#### **Sufficient aggregated motivation, information, and resources**

One aspect of the complexity of working with many actors with partly conflicting goals is that any specific measure can only be implemented if the actors are sufficiently satisfied. It is therefore important for a planning agency to focus on the aggregated characteristics. Enough actors must be willing to invest (and no actor must use 'blocking power' to prevent implementation), they must together be able to allocate sufficient resources, and they must have sufficient information about the chosen measure and alternative options.

#### **Individual motives, distribution and 'fair shares'**

Each actor focuses on the (potential) impact of a specific measure on its own situation. The decision about allocation of resources to a specific measure is based on an assessment of own costs, benefits, and risks. On the other hand, each actor also takes account of the distribution of the total costs, benefits, and risks. If this distribution is perceived as unfair, then the actor may not be willing to invest.

#### **Developing acceptable solutions**

A planning agency accordingly needs to focus on the motivation, information, and resources of each individual actor, the distribution of costs, benefits, and risks among (at least) the involved actors, and the aggregated motivation, information, and resources related to investments in specific measures: all at the same time. During a process these characteristics can all change, and the planning agency needs to manage this process towards a satisfactory solution.

The processes included in this study, and the decision support model developed, are those where actors are interdependent for reaching solutions, where 'simple' use of legal instruments will not suffice, where one single actor cannot 'enforce' an integral solution for a

complete area, and where insufficient resources are available initially.

The planning agency can influence, and improve, this situation in different ways. It can focus on collecting, and distributing, information that can serve as input for assessing the value of specific measures: on the level of individual actors and on the level of the group of involved actors. It can additionally, or alternatively, influence motivation, for example, by developing solutions that are more satisfactory to the actors (i.e. regarding effect on own interests and goals, and a fair distribution of costs, benefits, and risks among actors).

This study suggests that three relationships between motivation and information are important. First, giving more information can influence motivation both positively and negatively: the 'right' quantity and quality is always needed. Second, motivation can influence the willingness to provide more information. Third, attention to both information and motivation at the same time is needed in any successful 'route' towards sufficient commitment to a solution. However, the relative emphasis on efforts to influence information versus motivation can vary.

It is possible that none of the influencing approaches leads to sufficient commitment to a specific solution and/or to sufficient resources. The study suggests that in such situations a planning agency can start a new 'round' searching for an alternative ('second-best') solution that can be supported by all actors. Alternatively, or additionally, it can redesign the decision making arena, including (partly) new preferred participants that – together – can allocate sufficient resources.

This study suggests that a decision support model can be a valuable tool for planning agencies, and in particular a question-based approach that can serve as a 'check-list' for monitoring progress and at the same time can be used for selecting influencing approaches, thus overcoming some of the difficulties that planning agencies run into.

This study has, in particular, resulted in a decision support model, that can help planning agencies identify situation-specific approaches that reduce the total duration of restructuring without endangering the quality of the final outcomes. By focusing on the characteristics, and relationships between, the actors involved, a planning agency will be able to address appropriately the issues to be tackled. We recommend the use of the model to planning professionals involved in restructuring.

### 8.2.2. Use of the model in other situations

Can the decision support model be applied in other complex (policy) processes? Two of the most important building blocks of the model, the IAD framework and the Contextual Interaction Theory, have already been used for understanding other processes (see e.g. Bressers, 2009; Ostrom, 2005; 2007 and references cited therein). Furthermore, the three key variables of the model can be applied to any process involving two or more actors who, more or less, depend upon each other, and the same applies to (almost all) questions included in the "if ... then" structure and the related instruments. Although we can draw from this study conclusions only about the use of the model in restructuring, we believe that, after rather moderate adjustments, it has potential for use in a wide range of other complex interactive policy processes

### 8.2.3. Theoretical framework

How useful was the theoretical framework, and its 'building blocks', for understanding restructuring, and, in particular, for developing the decision support model?

First, we experienced the combination of simplicity and clear structures in both the IAD-framework and the Contextual Interaction Theory as a specific strength. They both acknowledge the full complexity of the interactive processes in the arenas, but at the same time they use only a few variables, and that makes handling this complexity possible. Another

strength is that they both recognize explicitly the importance of specific situations. They do so by stressing that any action arena will possess its own characteristics, and that design and management of such arenas should continuously take account of how the characteristics change, and how they can be actively influenced. Both strengths provided a good basis for the development of the decision support model.

Second, for this study we experienced the Contextual Interaction Theory as being compatible with the IAD-framework. Its core variables fit the key actor characteristics of the IAD-framework, and the theory gives a useful explanation of how these variables affect actor behaviour in action arenas.

On the other hand, we also experienced challenges (more or less reflecting the 'shadow-side' of the strengths mentioned above) in applying the theoretical framework. Motives, information, and resources are all complex conceptual variables, and the theoretical framework could have given more attention to how actors 'combine' and 'prioritise' such variables in specific situations. In particular, this suggests focusing on how an appropriate balance between 'simplicity' and completeness can be found. Or in other words: how the splitting of a problem into its components (the key variables) and explaining these separately, can be appropriately combined with a subsequent step of integrating the understanding of each component into a complete understanding of the situation.

#### 8.2.4. Methods

Focus groups and thematic analysis were experienced as appropriate methods for this study. The experiences confirm that the Focus group method is indeed useful for explorative studies and, in particular, for getting access to rich information from interactive settings in a relatively short time. The experiences also confirmed that thematic analysis of the data (the transcripts from focus groups) is an effective approach for discovering main themes, and ordering data into these themes. The use of both methods did not lead to any new insights, but supports (and accordingly reinforces) the applied theory.

### 8.3. How to proceed?

First, because we have concluded that the model provides a useful approach for influencing restructuring, applying it in real life cases is the most logical follow-up. This would enable it to be improved, in particular by getting a better understanding of how the decision making works in specific situations, and by identifying the relative importance of topics, questions and measures in the model. The model should be applied both to analysing completed processes and to supporting the management of new, and on-going, processes.

Second, more research is needed on how expectations, trust, informal rules, "fair shares", and risks influence process, progress, and outcomes of restructuring. This should include research on the effects of making informal rules explicit in open discourse, and on the long-term effects of applying approaches such as 'enticing' and threatening with NIMBY developments. The results suggest that these aspects (i.e. expectations, trust, informal rules, 'fair shares', use of enticing and threats) are closely related, and that addressing them explicitly in process design and management will improve the understanding and management of complex interactive processes.

Third, the results of this study indicate that individuals, acting as representatives (agents) of actors, can have a significant impact on process performance and outcomes. More research is needed on how their role in interactive settings can be understood and optimised. This should include how the individuals should be chosen according to the specific needs of a situation.

Fourth, restructuring is so complex that it is very difficult for policy makers to predict the

effects of applying particular methods. For that reason, policy makers should shift the emphasis from what can be done (the specific e.g. financial and organisational measures) to how measures can be selected and implemented in specific situations. This is where the decision support model developed in this study comes in. Its starting point is that decisions are made by human beings, and the model has been developed with the purpose of making this decision making in local settings more manageable. Both decision support and good specific measures are necessary, and they complement each other.

# Afterthoughts

*“What I like in a good author is not what he says,  
but what he whispers.”  
(Pearsall Smith, “Afterthoughts”, 1933)*

I believe any study deserves a real ending: Something that ‘closes the cycle’, maybe shows how initial intentions and ambitions worked out, and at least includes a few personal reflective remarks.

## **Any conclusion is always the beginning of something new**

As a starting point I would like to borrow the words of Mark Twain. He once said that “[...] the time to begin writing an article is when you have finished it to your satisfaction. By that time you begin to clearly and logically perceive what it is you really want to say [...]” (Twain, 1903). My interpretation, and personal experience, is that writing indeed always represents only a step in a process towards improved understanding, and this process never ends, and can never be repeated.

## **Journey towards understanding**

Inside his words is in my opinion also the idea that writing as a “[...] journey may not only lead to new knowledge; the traveller might change as well. The journey might instigate a process of reflection that leads [...] to new ways of self-understanding [...]” (Kvale, 1996, p. 4). Such a process is never simple, because “[...] good qualitative research includes critical moments, struggles, resistances, pleasure and a personal journey [...]” (Horsfall et al., 2001, p.12). My own journey was certainly no exception, and I hope, and believe, the ‘hard seas’ and sometimes painful self-reflection I had to face, have not only enriched the outcomes but also made them more robust.

## **The writing experience**

It is difficult to find words for summarizing the complete journey, and therefore I take the opportunity to let the rich metaphors of Winston Churchill express my own experience: “[...] Writing a book is an adventure. To begin with, it is a toy and an amusement; then it becomes a mistress, and then it becomes a master, and then a tyrant. The last phase is that just as you are about to be reconciled to your servitude, you kill the monster, and fling him out to the public [...]” (Churchill, 1949).

Finally, I would like to express my hope that this book may serve its intended purpose. It is now indeed “flung out to the public”, and it is my hope that in particular its ‘whispered message’ is understood and appreciated.

# Summary

## Restructuring Industrial Sites more Quickly A Decision Support Model

### Chapter 1: Rise and fall of industrial sites

#### **Challenge and general aim**

Decay of industrial sites is a major challenge in the Netherlands, and it is current national policy to tackle this by restructuring such sites in such a way as to improve their quality and durability. The challenge is perceived as being both important and urgent, and this has resulted in a national programme to accelerate the restructuring in the whole country by a one-off 'catching-up' operation.

The practical problem is: the restructuring of industrial sites is taking too long. How can that be speeded up without loss of quality? Local authorities usually play key roles in these processes. However, they often have an incomplete understanding of the situation, with the result that it cannot be predicted whether the approach they choose will offer a real solution to the problems. This incomplete understanding of the relationships between the approaches to restructuring and the effects provides the reason for this study. In particular, there is insufficient knowledge about how an approach can be chosen which will speed up the restructuring, without sacrifice of final quality and taking account of the local situation. The academic problem is: how can the practice of restructuring be understood in a way which gives policy makers the knowledge that they need in order to develop an approach which could be effective? The aim of this study is to improve this understanding and to incorporate that into an approach that would do just that. The policy problem is: how can, using that knowledge, an effective approach be developed?

#### **Context of restructuring**

This study positions restructuring within the lifecycle of industrial sites. New sites are developed to accommodate new firms, or existing firms looking for a new location, and the initial quality is usually as far as possible in accordance with the requirements and expectations of the involved stakeholders (firms and local authorities, but also possibly higher authorities, investors, employers' organisations, environmental interest groups, and representatives of neighbourhoods) and with state-of-the-art knowledge about design. However, as soon as the site has been developed, it starts to age. Regular maintenance and effective site management can prolong the period in which quality is acceptable, but at a certain moment ageing will be perceived as decay. Firms then often choose to move to other new sites, and that can accelerate the decay.

Public authorities and/or firms can take the initiative to improve the situation. If the problem is limited to technical ageing caused mainly by lack of maintenance, a 'face-lift' might suffice. In other situations (parts of) the sites can be transformed into areas with other functions such as housing. Yet another approach is restructuring, which has been defined as "[...] a coherent package of activities, consisting of all non-recurring interventions on the site not

being part of regular maintenance, aimed at improving the quality of location factors on an existing industrial site [...]". The scope of the term restructuring is limited to activities which maintain the main economic function of the area as an industrial site. Two types are distinguished: revitalising, which keeps the existing types of firms, and reprofiling, which makes the site suitable for other types of firms. Both are especially difficult because they, in particular revitalisation, usually cost more than the value increase they produce. This study is of restructuring, not of face lifts or transformations.

In the few past years, the increased attention to restructuring has resulted in a large number of policy recommendations, studies of problems and solutions, and new policy initiatives. These have focused on the need for a more restrictive policy for new industrial sites, on regional cooperation, on 'professionalizing' the restructuring processes, and on achieving more private involvement.

## Chapter 2: Operationalising the research

That increased attention to restructuring indicates that policy makers acknowledge the importance of addressing the decay of industrial sites, and also – specifically – of accelerating the process of restructuring. This leads to the general objective of this study, which is to *"Improve the understanding necessary for reducing the total duration of restructuring of industrial sites, without endangering the quality of the outcome"*.

This study is of the process of restructuring, rather than of the quality of the outcome, so it takes the quality as exogenous, a normative framework that is developed and used by actors. It is assumed that quicker processes are achievable and can be achieved without affecting final quality. The study requires therefore that "process duration" be measurable. It is assumed that, although such processes often do not have clearly identifiable beginnings and ends, more or less formal decisions made by local authorities for starting an initiative, and for viewing the restructuring as completed, can be identified.

The question is how such processes can best be studied. Restructuring processes are characterised by high interdependency between firms, and between firms and local authorities; by the absence of a well-functioning market for industrial sites; and by the fact that no single actor is able to implement all desired improvements on its own. This leads to the choice of applying an "actor and interactions" perspective, and more specifically to a focus on how planning agencies (public bodies with this responsibility) can influence the actions of and interactions between the actors. This perspective is chosen because it is actors who make the necessary decisions. This suggests that the planning agency would be helped by an appropriate decision support model.

These choices regarding how restructuring can be studied lead to the following main research question: *"How can a decision support model be developed that enables planning agencies to identify appropriate situation-specific approaches that reduce the total restructuring duration without endangering the quality of the final outcome?"*

## Chapter 3: Current approaches to restructuring

To answer this question, we need to understand better how restructuring is currently performed. This description is to a large extent built on the experience which the author has of industrial site development in the Netherlands. Although in practice a large variety of approaches is encountered, some main activities and tasks can be identified. Planning agencies have to plan, organise, and manage the process, and they need to build both an understanding of what needs to be done and commitment to doing that.

Choosing the appropriate actions takes place within a complex decision-making process, which consists of several 'rounds', each round having partly different participants, interests, problems, solutions, and insights, and each round including the activities of searching for

solutions, assessing their value, and making decisions. Such decision-making rounds will in practice often be experienced as linked to 'phases' consisting of more or less coherent sets of activities of a specific nature and having specific outcomes.

There will always first be a growing awareness of the problems and their urgency and importance. The awareness of the planning agency is influenced by policies of higher authorities, external complaints, and internal processes, whereas the awareness of firms is mainly influenced by the effects of problems related to site performance. Usually a small initiative group tries to get restructuring on the (political) agenda, collecting information and exploring opportunities for starting a restructuring. At a certain moment comes the acknowledgment of the need to act, and one or more actors take a first organised step towards something that – in time – develops into a joint initiative for revitalisation or reprofiling. The scope and focus of the initiative 'phase' is to collect information on actors and the problem situation, to perform an interactive search aimed at identifying and possibly formalizing a vision that will mobilize and join stakeholders, and to establish more or less global goals.

Based on those goals defined in the Initiative phase and on commitment to them, a series of activities are undertaken all aimed at ensuring that suitable improvement measures are taken. This implementation 'phase' accordingly (and as in the initiative phase) includes decision-making rounds aimed at searching for improvement options, exploring and assessing feasibility and commitment to these options, and, finally, making decisions.

This means that the restructuring can be viewed as consisting of two decision-making 'phases' and that the challenge facing a planning agency is to manage both.

During such complex restructuring processes, actors face a large diversity of obstacles, which they refer to as "problems", "bottlenecks", or "failure factors", or suchlike. In the past 15 years, several studies have attempted to identify and categorize such obstacles and they arrive at more or less different results regarding the nature of the obstacles, their relative importance, and the relationships between them. From an analysis of reported obstacles, it can be concluded that the planning agency to some extent can influence restructuring performance through: the way the process is organised and managed; the availability of resources; the know-how available to actors; the use of the legal instruments available to the planning agency.

## The result of chapters 2 and 3.

The conclusion based on the description of 'real life' restructuring processes and on the exploratory analysis and interpretation of obstacles, is that we need to understand better how interdependent actors, working within complex decision-making processes, are influenced by the willingness of each of the actors to invest, by the available resources, and by information availability and the available (institutional) interaction mechanisms. All these vary according to the specific situation. Moreover, we need to understand better how the separate factors influence each other, and how this too depends on the specific situation. We look for the 'building blocks' for developing such an understanding in existing frameworks and theories that focus on multi-actor interactions in complex processes.

## Chapter 4: A theoretical framework for understanding complex, multi-actor processes

First, a policy framework was sought that fitted the restructuring characteristics and chosen perspective of this study. The "Institutional Analysis and Development" (IAD) framework of Elinor Ostrom was found suitable, because it focuses on how actors address complex problems through interactions in what Ostrom calls action arenas. The IAD framework includes both exogenous variables and endogenous variables linked to the specific actors and the action

situation. Also, it allows flexibility in choosing those variables that are the most important, and in selecting theories that can explain how such variables interact under specific sorts of circumstances (in this case, restructuring industrial sites).

So the next step was to select a leading (baseline) theory which is compatible with this framework and which fits the characteristics of restructuring. Actors involved in restructuring pursue goals that reflect their self-interest (as they themselves see it), and they make conscious choices. These are characteristics that fit rational choice theory, so that was chosen as the leading (baseline) theory. It has been criticised for presenting the actions of and interactions between actors too simply. Therefore additional micro-assumptions are made.

These enable 'filling in' the variables of the IAD framework by focusing on the specific characteristics of restructuring in practice, and at the same time they inform the choice of complementary theory that can explain how these variables influence each other as well as the restructuring.

First, the "actors" can be characterised by their motives, information and resources. Motives influence willingness to invest in a restructuring, but such decisions are also influenced by the information and resources which actors possess. Second, the variety of actors that can become involved in restructuring is large, and at least all those actors who are stakeholders should be taken into consideration. Third, actors are represented by agents, and these agents are important for creating the basis for decisions, and producing action. Fourth, the involved actors (and their agents) often have a 'common history', which can influence how the interaction in an arena takes place. Fifth, when industrial sites are restructured, the various actors are usually dependent on each other for reaching their goals. This interdependency is viewed as characteristic of specific "action situations". Sixth, some rules are endogenous to the arena. They can be influenced, and changed by the actors 'inside' the arena.

Finally, the arenas, and their outcomes, are influenced by exogenous factors, which by Ostrom are called "biophysical and material conditions", "attributes of community" (in short: culture), and "rules". Variables that stay constant during one 'round' in an arena, and cannot easily be influenced by a planning agency, are assumed to be exogenous.

## Chapter 5: Applying the theoretical framework to restructuring

The next step is to use the insights provided by the theoretical framework for developing the basis for the decision support model to be used for restructuring processes. In particular, this means focussing on how a planning agency can influence actors, and their actions and decisions.

The "Contextual Interaction" theory is used. This theory acknowledges that the course and outcomes of a policy process depend not only on the inputs (the characteristics of the policy instruments applied), but also on the strategic behaviour of involved actors, which in turn depends on three core variables: their motives, their resources, and the information which they have.

In particular, this means that commitment of individual actors to a specific restructuring measure will depend on the resources and information they possess, and on how the 'solution' fits their motives. The planning agency can accordingly influence commitment through collection and distribution of information about the effects of (potential) solutions, and/or developing solutions that possess a different fit to the motives and the need of resources of the actors involved. It needs to take account of how any measure affects the commitment of each individual actor to a specific solution, which means to focus on the distribution of costs, benefits, and risks. At the same time the planning agency needs to review whether the aggregated level of motivation, information and resources leads to sufficient commitment for implementing a specific option.

To influence the interactive process towards commitment to specific 'solutions', the planning agency can apply "process management", which focuses on how interaction and decision-making can be influenced by design and management of the process. Its aim is to reach agreement to a "commitment package", and it develops organisational arrangements that facilitate and enable interaction towards this aim. In particular, the planning agency uses information about the actors to develop an acceptable agenda, organisation, and set of participants in an arena, and it manages (and adapts) these aspects in its search for satisfactory solutions.

For such processes, a process model for decision support is applicable. This model should facilitate participatory and exploratory processes that lead to socially robust outcomes. In particular, a simple, compact, transparent and understandable question-based model is suitable.

## Chapter 6: A decision support model for restructuring

The model focuses on specific situations. For each situation it facilitates identifying the initial conditions, and then selecting appropriate follow-up measures that influence the process positively towards desired outcomes. It gives indications to the planning agency about the actions it should take.

In particular, the model helps to identify the actors that preferably should be involved in a specific arena, and given the characteristics of the specific restructuring situation. Also, a distinction is made between the two arenas - 'Initiative action arena' and 'Implementation action arena'. The same model is applied to each, but separately.

The model addresses key decisions to be made by the planning agency for which support is desirable. For the Initiative arena these decisions focus on the answers to the following four main questions: 1. Does the planning agency know enough about the restructuring challenge and the relevant stakeholders? 2. Does the planning agency know who the preferred participants are? 3. Are the preferred participants willing to spend time and resources (process costs) on developing a vision for the restructuring? 4. Is there sufficient commitment from the preferred participants to work out the vision / visions?

For the implementation arena the following, slightly different, main questions are: Does the planning agency know enough about the vision(s)?; Does the planning agency know who the preferred participants are?; Are the preferred participants willing to spend time and money (process costs) on working out the vision into an action plan?; Is there sufficient commitment from the preferred participants to spend (capital) resources on implementing the action plan / one of the action plans?

The model is further operationalised by focusing on the commitment of actors to invest in a specific restructuring. The planning agency therefore needs to focus on the motivation, information, and resources of each individual actor, and at the same time on the aggregates (the 'sum') of the same characteristics that tell whether an investment is feasible.

If one or more of the aggregates is unsatisfactory, then the planning agency will have either to abandon the restructuring (sometimes the best choice, but outside the scope of this study), or to change the vision / action plan, or to change the design of the arena, or to try to influence the motivation, resources, or information of one or more of the actors.

The previously mentioned decisions (formulated as questions) are included in the model itself as main questions for the Initiative and for the Implementation arenas. There are sub-sets of specific questions coupled to each main question. These questions focus on the level of motivation, information, and resources present among the participants, in particular whether this is high enough for restructuring to take place satisfactorily and without too much delay. The model uses questions that via "if ...then" links are coupled to follow-up actions. Any follow-up action is either a set of more detailed questions or the application of a method or instrument

that can help to improve the situation. There are standard techniques and methods already existing which can be used to answer those questions, and they can be used to change the organisational design; to identify the challenge and the related stakeholders; to determine the content of the final agreement; to analyse the stakeholders, the site performance, the process risks and the feasibility. With the answers to those questions, the planning agency can, using its existing powers, manage the arena towards the desired outcomes.

Finally, some strategic recommendations are given for addressing a limited number of ideal-type situations, and that focuses on how satisfactory a situation is regarding the two aggregated variables "motivation" and "information". There are four (extreme) possibilities: (A) information unsatisfactory, motivation unsatisfactory; (B) information satisfactory, motivation unsatisfactory; (C) information unsatisfactory, motivation satisfactory; and (D) information satisfactory, motivation satisfactory. The decision support model can be used to choose routes from situations A, B and C towards D. However, even in situation D the aggregated resources may be insufficient for addressing all goals. In that case there may be a need for (re)prioritizing goals, and postponing activities until sufficient additional resources have been found, or for choosing and implementing 'second best' choices.

## Chapter 7: Testing the model and operationalising it

The best way of testing this model (seeking the answer to the question: does it in fact help to speed up restructuring without loss of quality?) is to apply it in a number of cases. However, for three reasons, appropriate case studies were not performed. First, time constraints made longitudinal, and certainly multiple, case studies infeasible. Second, input as rich as possible was desirable for testing and operationalising, and therefore the focus was on involving many experts with a rich experience of restructuring: this would have been difficult to achieve through one, or a few, case studies. Third, it was desirable to 'pilot' the model to discover whether the questions in the decision support model are suitable for revealing specific themes should the model be applied in subsequent case study research and in restructuring practice. These arguments led to choosing Focus group sessions as a method of testing and operationalising. Five Focus group sessions were held at five different locations with 39 restructuring professionals as participants. The professionals were asked whether, in their opinion, the model would provide good answers to the three questions: How to choose preferred participants? How to choose the best sequence starting from a situation having unsatisfactory motivation and information towards the completely satisfactory situation? How can such a satisfactory situation be identified?

The answers provided an indirect test of the model itself, for the participants could say that from their practical experience they did not recognise the model, or that they could not work well with it. In addition, the answers of the professionals allowed the somewhat abstract model to be made operational, so that it could be better used in practice.

This operationalisation was done by subjecting the records of the moderated sessions to a thematic (text) analysis. The analysis led to the identification of twelve themes (three for question one, seven for question two, and two for question three), after which the results for each theme were presented as 'stories' accompanied by illustrative tables. The stories were composed of quotes (text segments), using bridging texts only where necessary for communicating the context.

It is considered that the results from the Focus group sessions are trustworthy, because a 'trail of evidence' could be established, a 'detached' researcher strategy was used (the author did not participate directly), the results from the analysis and from the interpretation were separated, and experienced practitioners were asked open questions at five different places. The final interpretation of all results then led to conclusions.

The conclusions are of three types: 1. Do the practitioners recognise the model as a good

representation of processes of restructuring, and how complete and appropriate is it? 2. Will the model help to speed up restructuring without loss of quality? 3. How can the model be made operational?

Regarding the first question, all the professionals found the model useful, considered the core questions about the model appropriate, and mentioned no new themes that should be included, nor suggested omitting themes which the researcher had included.

Regarding the second question, the provisional conclusion can be drawn that the model will indeed help to speed up restructuring without loss of quality. This conclusion can be drawn from the fact that we have asked the participants three key questions derived from the model about how the process could be accelerated. The participants had abundant suggestions for how to do so, but none of these challenge the core of the model nor its claim for accelerating the process. Of course, the 'real' test will be in using the model in practice.

Regarding the operationalisation, the results for each individual question asked in the Focus group session showed that it is indeed possible to identify a set of preferred participants related to a specific challenge. It showed also that the tendency to oversimplify complexity must be guarded against, because it could cause unexpected negative effects in the long term. The ideas of the Focus group participants were more divided about how to find the best sequence of moves towards the situation in which both aggregated motivation and aggregated information were satisfactory. Information is necessary for formulating the challenge and finding solutions to financial problems, but on the other hand too much information can damage motivation. The results indicate that motivation and information can influence each other, so although a strategy may emphasise one of those two, it should nevertheless address both together. Finally, it is indeed possible to say when a situation (regarding motivation and information) is satisfactory, but such situations should preferably be defined in advance, and progress towards satisfaction should be actively monitored.

## Chapter 8: Contributions to knowledge and practice

This study has indicated that accelerating restructuring is not only about allocating more resources. It has indicated that appropriate use of decision support, based on process management principles, can accelerate restructuring without, perhaps using even fewer, extra resources.

In particular, this study has indicated that a decision support model can be helpful, if it addresses aggregated actor characteristics (motivation, information, and resources) related to a 'solution'; if it addresses distribution of actor characteristics among the involved actors; and if it addresses how acceptable solutions can be developed. This includes paying particular attention to actor satisfaction; distribution of costs, benefits, and risks, and how fair this distribution is perceived to be.

The model, after relatively small adjustments, also looks promising for use in other complex interactive processes.

We see four issues regarding how to proceed based on the outcomes of this study. First, the model should be applied for analysing real life completed processes, and for supporting design and management of new and on-going processes. Second, more research is needed on how expectations, trust, informal rules, "fair shares", and risks influence process, progress, and outcomes of restructuring. Third, more research can address how the role of agents in interactive settings, and as a function of the specific needs of a situation, can be understood and optimised. Fourth, it is suggested that policy makers shift the emphasis from what can be done (the specific e.g. financial and organisational measures) to how measures can be selected and implemented in specific situations.

# Samenvatting

(translation of "Summary" into Dutch)

## Versnellen van herstructurering van bedrijventerreinen Een beslissingsondersteunend model

### Hoofdstuk 1: Opkomst en ondergang van bedrijventerreinen

#### **Uitdaging en algemeen doel**

Het aanpakken van veroudering van bedrijventerreinen is in Nederland een belangrijke uitdaging. Het huidige nationale beleid is gericht op het aangaan van deze uitdaging door de kwaliteit van de terreinen te verbeteren en de levensduur te verlengen door middel van herstructurering. De uitdaging wordt zowel belangrijk als urgent ervaren en dit heeft geresulteerd in een nationaal programma voor het versnellen van de herstructureringsopgave voor Nederland in de vorm van een eenmalige inhaalslag.

Het praktijkprobleem is: herstructurering van bedrijventerreinen duurt te lang. Hoe kan herstructurering versneld worden met behoud van kwaliteit? Gemeenten spelen meestal een sleutelrol in deze processen. Daar staat tegenover dat zij vaak onvolledig begrip hebben van de situatie, en daarom kan het niet voorspeld worden of de aanpak die ze kiezen tot een echte oplossing voor de problemen zal leiden. Het onvolledige begrip van de verbanden tussen de gehanteerde aanpakken voor herstructurering en de effecten geeft de aanleiding tot deze studie. In het bijzonder is er onvoldoende kennis over het kiezen van een aanpak dat de herstructurering kan versnellen en ook rekening houdt met de lokale situatie, zonder dat de uiteindelijke kwaliteit van de herstructurering wordt opgeofferd. Het academische probleem is: hoe kan de praktijk van herstructurering begrepen worden op een manier die beleidsmakers de kennis geven die ze nodig hebben voor het ontwikkelen van een effectieve aanpak? Het doel van deze studie is om deze kennis te verbeteren en te integreren in een aanpak dat dit doel (het versnellen met behoud van kwaliteit) realiseert. Het beleidsprobleem is: hoe kan, gebruikmakend van dit inzicht, een effectieve aanpak ontwikkeld worden?

#### **Context van herstructurering**

Deze studie positioneert herstructurering binnen de levenscyclus van bedrijventerreinen. Nieuwe terreinen worden ontwikkeld voor het accommoderen van nieuwe bedrijven of bestaande bedrijven die op zoek zijn naar een nieuwe locatie. De initiële kwaliteit van deze terreinen is normaal gesproken zo goed mogelijk passend bij de eisen en verwachtingen van de betrokken stakeholders (bedrijven en gemeenten, maar ook mogelijk hogere overheden, beleggers, werkgeversorganisaties, milieuorganisaties en vertegenwoordigers van wijken) en state-of-the-art kennis over design. Zodra het terrein gereed is, begint het verouderingsproces. Regelmatig onderhoud en effectief 'Park management' kunnen het terrein langer op een acceptabel kwaliteitsniveau houden, maar op een gegeven moment zal het terrein als verouderd worden ervaren. Bedrijven kiezen dan vaak voor het migreren naar nieuwe terreinen en dat kan de veroudering versnellen.

Overheden en/of bedrijven kunnen initiatief nemen voor het verbeteren van de situatie. Als het probleem is beperkt tot technische veroudering (vooral vanwege achterstallig onderhoud) kan een “facelift” voldoende zijn. In andere situaties kunnen (delen van) terreinen getransformeerd worden tot gebieden met andere functies, zoals wonen. Nog een optie is herstructurering. Herstructurering wordt gedefinieerd als “[...] een samenhangend geheel van activiteiten, zijnde alle eenmalige ingrepen in het bedrijventerrein die niet onder regulier onderhoud vallen, gericht op de verbetering van het vestigingsklimaat op een bestaand bedrijventerrein [...]”. Herstructurering wordt gezien als beperkt tot activiteiten waar het terrein zijn primaire economische functie als bedrijventerrein behoudt. Twee soorten herstructurering worden onderscheiden: revitalisatie, waar de bestaande soorten bedrijven behouden blijven, en herprofilering, waar het terrein geschikt wordt gemaakt voor andere soorten bedrijven. Beide soorten herstructurering zijn bijzonder moeilijk omdat ze beide - en in het bijzonder revitalisatie - meestal meer kosten dan ze opleveren aan baten. Deze studie is beperkt tot herstructurering; face-lifts en transformatie worden niet meegenomen.

De toegenomen aandacht voor herstructurering de afgelopen jaren heeft geresulteerd in een groot aantal beleidsaanbevelingen, studies naar problemen en oplossingen, en nieuwe beleidsinitiatieven. Deze hebben de nadruk gelegd op de behoefte aan een meer restrictief beleid voor nieuwe bedrijventerreinen, regionale samenwerking, professionalisering van herstructurering, en het bereiken van meer private betrokkenheid bij het proces.

## Hoofdstuk 2: Operationaliseren van het onderzoek

De toegenomen aandacht voor herstructurering duidt erop dat beleidsmakers het belang inzien van het aanpakken van veroudering van bedrijventerreinen en - in het bijzonder - het versnellen van herstructureringsprocessen. Dit leidt tot het algemene doel van deze studie, namelijk het “Verbeteren van het inzicht dat nodig is voor het verkorten van de totale doorlooptijd van herstructurering van bedrijventerreinen, zonder de uiteindelijk gerealiseerde kwaliteit in gevaar te brengen”.

Deze studie richt zich op het *proces* van herstructurering en niet op de uiteindelijk gerealiseerde kwaliteit. Kwaliteit wordt gezien als een exogene factor: een normatief kader dat ontwikkeld en gebruikt wordt door actoren. Er wordt aangenomen dat snellere processen mogelijk zijn en bereikt kunnen worden, zonder de uiteindelijke kwaliteit (negatief) te beïnvloeden. Het is daarom nodig dat de doorlooptijd van het proces meetbaar is. Er wordt aangenomen dat - hoewel zulke processen vaak niet gemakkelijk identificeerbare start en eindpunten hebben - het mogelijk is om min of meer formele beslissingen van gemeenten te identificeren voor het starten van een initiatief, of een herstructurering als afgerond te beschouwen.

De vraag is dan hoe zulke processen het best onderzocht kunnen worden. Herstructureringsprocessen zijn gekenmerkt door hoge afhankelijkheid tussen bedrijven, en tussen bedrijven en gemeenten; door gebrek aan een goed functionerende markt voor bedrijventerreinen; en door het feit dat geen enkele partij alleen ertoe in staat is om alle gewenste verbeteringen te implementeren. Dit leidt tot de keuze voor het hanteren van een “actoren en interacties” perspectief, en specifiekere focus te leggen op hoe “planning agencies” (overheden met verantwoordelijkheid voor het planproces: in een Nederlands context is dit meestal de gemeente en daarom wordt in deze samenvatting “planning agency” verder vertaald als gemeente) de acties van - en interacties tussen - actoren kunnen beïnvloeden. Dit perspectief is gekozen omdat het actoren zijn die de noodzakelijke beslissingen nemen. Dit suggereert dat de gemeente geholpen zou zijn door een passend beslissingsondersteunend model.

Deze keuzes met betrekking tot hoe herstructurering onderzocht kan worden, leiden tot de volgende hoofdonderzoeksvraag: *“Hoe kan een beslissingsondersteunend model worden*

*ontwikkeld die het mogelijk maakt voor gemeenten, om passende situatieafhankelijke aanpakken te identificeren, die de totale doorlooptijd van herstructureringsprocessen reduceren zonder de uiteindelijk gerealiseerde kwaliteit in gevaar te brengen?”.*

## Hoofdstuk 3: Huidige aanpakken van herstructureringsprocessen.

Om deze onderzoeksvraag te kunnen beantwoorden, moeten we beter begrijpen hoe herstructurering momenteel wordt gedaan. De beschrijving daarvan is voor een groot gedeelte gebaseerd op de ervaring van de schrijver (van deze studie) met bedrijventerreinontwikkeling in Nederland. Hoewel een grote diversiteit aan aanpakken bestaan in de praktijk, kunnen enkele hoofdactiviteiten en - taken geïdentificeerd worden. Gemeenten moeten het proces plannen, organiseren en managen. En ze moeten inzicht krijgen in wat er moet gebeuren, en commitment krijgen voor de uitvoering.

Het kiezen van passende acties gebeurt in een complex besluitvormingsproces bestaande uit meerdere ‘ronden’, waarbij elke ronde gedeeltelijk verschillende deelnemers, belangen, problemen, oplossingen en inzichten heeft. In elke ronde wordt er gezocht naar oplossingen, wordt de waarde van de oplossingen beoordeeld, en worden beslissingen genomen. Zulke besluitvormingsronden worden in de praktijk vaak ervaren als ‘fasen’ die bestaan uit min of meer coherente sets van activiteiten met specifiek karakter en uitkomsten.

Er zal altijd eerst een groeiend besef zijn van urgentie en belang van problemen. Het besef wordt bij de gemeente beïnvloed door beleid van hogere overheden, externe klachten en interne processen, terwijl het besef bij bedrijven vooral beïnvloed wordt door effecten van problemen met betrekking tot het bedrijventerrein. Meestal probeert een kleine initiatiefgroep om herstructurering op de (politieke) agenda te krijgen, en wordt informatie verzameld en mogelijkheden voor het starten van een herstructurering verkend. Op een bepaald moment wordt de noodzaak tot handelen onderkend, en neemt een of meerdere actoren een eerste georganiseerde stap richting “iets” dat - in de loop van de tijd - zich ontwikkelt tot een gezamenlijk initiatief voor een revitalisatie of herprofilering. Bereik en focus van deze ‘initiatieffase’ is gericht op het verzamelen van informatie over actoren en de probleemsituatie. Verder: het uitvoeren van een interactief zoekproces gericht op het in identificeren - en mogelijk formaliseren - van een visie die de stakeholders kan mobiliseren en verenigen, en het vaststellen van min of meer globale doelen.

Gebaseerd op de doelen die gedefinieerd zijn in de Initiatieffase - met bijbehorend commitment - wordt een serie activiteiten ondernomen, die gericht zijn op het implementeren van passende verbeteropties. Deze “implementatieffase” bevat daarom opnieuw (net zoals in de initiatieffase): besluitvormingsronden, die gericht zijn op het zoeken naar verbeteropties; verkennen en beoordelen van de haalbaarheid en commitment tot deze opties; en tenslotte het nemen van beslissingen.

Dit betekent dat de herstructurering beschouwd kan worden, als bestaande uit twee besluitvormingsfasen. De uitdaging voor de gemeente is om beide fasen te managen.

Gedurende zulke complexe besluitvormingsprocessen worden de actoren geconfronteerd met een diversiteit aan obstakels, die ze onder andere “problemen”, “knelpunten”, “faalfactoren” noemen. De afgelopen 15 jaar hebben vele studies geprobeerd om zulke obstakels te identificeren en categoriseren. De studies komen gedeeltelijk tot verschillende resultaten met betrekking tot het karakter van de obstakels, relatief belang en onderlinge verbanden. Gebaseerd op een analyse van gerapporteerde obstakels, kan geconcludeerd worden dat de gemeente herstructurering in bepaalde mate kan beïnvloeden door: de manier waarop het proces wordt georganiseerd en gemanaged; toegang tot middelen; kennis beschikbaar voor de actoren; en gebruik van de instrumenten die vanuit vigerende wet - en regelgeving beschikbaar zijn voor de gemeente.

## Resultaten van de hoofdstukken 2 en 3.

De conclusie (gebaseerd op de beschrijving van 'real life' herstructureringsprocessen en van de verkennende analyse en interpretatie van obstakels) is, dat we een beter begrip nodig hebben van: hoe onderling afhankelijke actoren die actief zijn binnen complexe besluitvormingsprocessen beïnvloed worden door de bereidheid van elke actor om te investeren, door de beschikbare middelen, en door de beschikbare informatie en (institutionele) interactiemechanismen. Deze factoren variëren allemaal, afhankelijk van de situatie. Verder, hebben we een beter begrip nodig van hoe de verschillende factoren elkaar beïnvloeden, en hoe dit proces afhankelijk is van de specifieke situatie. We zoeken naar 'bouwstenen' voor het ontwikkelen van beter begrip in bestaande raamwerken ("frameworks") en theorieën die gefocust zijn op de interactie tussen actoren in complexe processen.

## Hoofdstuk 4: Een theoretisch kader voor het begrijpen van complexe multi-actor processen

Ten eerste werd een raamwerk ("framework") gezocht, dat past bij de karakteristieken van herstructurering en het gekozen perspectief voor deze studie. Het "Institutionele Analyse en Ontwikkeling" (afkorting IAD naar de Engelse naam) raamwerk van Elinor Ostrom werd passend geacht, omdat het zich richt op hoe actoren omgaan met complexe problemen in wat Ostrom "Actiearena's" noemt. Het IAD raamwerk bevat zowel exogene als endogene variabelen gekoppeld aan specifieke actoren en de actiesituatie. Het staat flexibiliteit toe in het kiezen van de variabelen, die als meest belangrijk beschouwd worden, en voor het selecteren van theorieën die kunnen verklaren hoe zulke variabelen elkaar beïnvloeden in specifieke situaties (in dit geval: herstructurering van bedrijventerreinen).

De volgende stap was daarom om een leidende (basis) theorie te kiezen die compatibel is met dit raamwerk en past bij de kenmerken van herstructurering. Actoren betrokken bij herstructurering streven naar doelen vanuit eigen belang (zoals zij dat zelf beoordelen) en ze maken bewuste keuzes. Dit zijn kenmerken die passen bij de "Rationele keuzetheorie" en daarom werd deze als leidende theorie gekozen. Deze theorie is echter ook bekritiseerd voor het geven van een te simpele weergave van actoren en hun interacties. Daarom zijn aanvullende microaannames gemaakt.

Deze aannames maken het mogelijk om de variabelen in het IAD-raamwerk 'in te vullen' door te focussen op specifieke kenmerken van herstructurering in de praktijk. Tegelijk ondersteunen deze aannames de keuze voor aanvullende theorie, die gebruikt kan worden voor het verklaren van hoe de variabelen zowel elkaar - als de herstructurering beïnvloeden.

Ten eerste kunnen de actoren gekarakteriseerd worden door hun motieven, informatie en middelen. De motieven beïnvloeden de bereidheid tot het investeren in een herstructurering, maar deze beslissingen worden ook beïnvloed door de informatie en middelen die de actoren hebben. Ten tweede zou een grote diversiteit aan actoren betrokken kunnen worden bij de herstructurering. De betrokkenheid van de actoren die stakeholders zijn, dient tenminste overwogen te worden. Ten derde zijn de actoren betrokken via vertegenwoordigers, en deze vertegenwoordigers zijn belangrijk voor het ontwikkelen van de basis voor beslissingen en voor het bereiken van actie. Ten vierde hebben de betrokken actoren (en hun vertegenwoordigers) vaak een 'gezamenlijke geschiedenis', die van invloed kan zijn op hoe de interactie in de arena verloopt. Ten vijfde zijn de actoren bij een herstructurering van een bedrijventerrein meestal afhankelijk van elkaar voor het bereiken van hun doelen. Deze afhankelijkheid wordt gezien als een kenmerk van specifieke "Actiesituaties". Ten zesde zijn sommige regels voor de arena endogeen. Ze kunnen beïnvloed - en veranderd worden door de actoren 'binnen in' de arena. Tenslotte zijn de arena's en hun resultaten beïnvloed door exogene factoren die Ostrom

"biofysische en materiele omstandigheden", "attributen van de samenleving" (kort gezegd: cultuur), en "regels" noemt. Variabelen die constant blijven gedurende een 'ronde' in een arena en niet eenvoudig beïnvloedbaar zijn door de gemeente, worden als exogeen beschouwd.

## Hoofdstuk 5: Toepassen van het theoretisch kader op herstructurering

De volgende stap is om de inzichten - gegeven door het theoretisch kader - te gebruiken voor het ontwikkelen van de basis voor het beslissingsondersteunend model voor herstructureringsprocessen. Dit betekent in het bijzonder: te focussen op hoe een gemeente actoren, interactie en beslissingen kan beïnvloeden.

De "Contextual Interaction" theorie wordt hiervoor gebruikt. Deze theorie erkent dat het verloop en de resultaten van een beleidsproces niet alleen afhankelijk zijn van input (de karakteristieken van de toegepaste beleidsinstrumenten), maar ook van het strategische gedrag van de betrokken actoren. Dit gedrag is weer afhankelijk van drie kernvariabelen: motieven, middelen en beschikbare informatie.

Dit betekent in het bijzonder dat commitment van individuele actoren voor een specifieke herstructureringsmaatregel zal hangen van de middelen en informatie die ze hebben, en hoe de 'oplossing' past bij hun motieven. De gemeente kan dienovereenkomstig commitment beïnvloeden door het verzamelen en distribueren van informatie over de effecten van (mogelijke) oplossingen en/of oplossingen ontwikkelen die op verschillende manieren passen bij de motieven en waarvoor verschillende behoefte is aan middelen. De gemeente moet rekening houden met de invloed van een maatregel op commitment van elke individuele actor voor een specifieke oplossing, en daarom focussen op de distributie van kosten, baten en risico's. De gemeente moet tegelijk beoordelen of het geaggregeerde niveau van motivatie, informatie en middelen leiden tot voldoende commitment voor het implementeren van een specifieke optie.

De gemeente kan "procesmanagement" toepassen voor het beïnvloeden van het interactieve proces richting commitment voor specifieke 'oplossingen'. Procesmanagement is gericht op hoe interactie en besluitvorming beïnvloedt kunnen worden door ontwerp en management van het proces. Het doel is om overeenstemming te bereiken over een 'commitment pakket', en de gemeente ontwikkelt organisatorische arrangementen die interactie richting dit doel faciliteert en mogelijk maakt. De gemeente gebruikt in het bijzonder de informatie over de actoren om een acceptabele agenda, organisatie, en set van deelnemers aan de arena te ontwikkelen. De gemeente gebruikt verder management (en aanpassing) van deze aspecten bij het zoeken naar bevredigende oplossingen.

Voor zulke processen past een procesmodel voor beslissingsondersteuning. Dit model zou participatieve en verkennende processen gericht op sociaal robuuste resultaten moeten faciliteren. In het bijzonder is een eenvoudig, compact, transparant en begrijpelijk vragen-gebaseerd model geschikt.

## Hoofdstuk 6: Een beslissingsondersteunend model voor herstructurering

Het model (ontwikkeld in deze studie) focust op specifieke situaties. Het faciliteert voor elke situatie het identificeren van de initiële kenmerken en vervolgens het selecteren van passende follow-up maatregelen, die het proces richting wenselijke resultaten positief beïnvloeden. Het geeft indicaties aan de gemeente met betrekking tot te nemen acties.

Het model helpt in het bijzonder bij het identificeren van de actoren die bij voorkeur betrokken zouden moeten worden in een specifieke arena, en de kenmerken van een specifieke herstructurerings situatie. Verder wordt er een onderscheid gemaakt tussen twee verschillende arena's: de 'Initiatief actie arena' en de 'Implementatie arena'. Het model wordt afzonderlijk toegepast voor beide arena's.

Het model richt zich op 'sleutel'-beslissingen die de gemeente moet nemen en waarvoor steun wenselijk is. Voor de Initiatief-arena richten deze beslissingen zich op de antwoorden op de volgende vier hoofdvragen: 1. Weet de gemeente genoeg over de herstructureringsuitdaging en de relevante stakeholders? 2. Weet de gemeente wie de voorkeursdeelnemers zijn? 3. Zijn de voorkeursdeelnemers bereid om tijd en middelen (proceskosten) te investeren in de ontwikkeling van een visie voor de herstructurering? 4. Is er voldoende commitment van de voorkeursdeelnemers voor het uitwerken van de visie / visies?

Voor de implementatiearena zijn de volgende, iets aangepaste, hoofdvragen: Weet de gemeente voldoende over de visie(s)? Weet de gemeente wie de voorkeursdeelnemers zijn? Zijn de voorkeursdeelnemers bereid om tijd en middelen (proceskosten) te investeren in het uitwerken van de visie naar een actieplan? Is er voldoende commitment van de voorkeursdeelnemers voor het investeren van (financiële) middelen in de implementatie van het actieplan / een van de actieplannen?

Het model is verder geoperationaliseerd door te focussen op commitment van actoren voor het investeren in een specifieke herstructurering. De gemeente moet daarom focussen op motivatie, informatie en middelen van elke individuele actor, en tegelijk: op de totalen ('optelsommen') van dezelfde kenmerken (die vertellen of een investering haalbaar is). Als een of meer van de totalen onbevredigend is, dan kan de gemeente: de herstructurering stoppen (soms de beste oplossing, maar buiten de afbakening van deze studie); de visie / het actieplan aanpassen; het ontwerp van de arena aanpassen; of proberen om de motivatie, middelen of informatie van een of meerdere actoren te beïnvloeden.

De eerder genoemde beslissingen (geformuleerd als vragen) zijn verwerkt in het model als hoofdvragen voor de Initiatief en Implementatie arena's. Er zijn sub-sets van vragen voor elke hoofdvraag. Deze vragen focussen op het niveau van motivatie, informatie en middelen beschikbaar bij de deelnemers, en in het bijzonder met betrekking tot of dit niveau voldoende is om de herstructurering tot tevredenheid en zonder te veel vertraging te laten verlopen. Het model gebruikt vragen die via "als ... dan" links zijn gekoppeld aan vervolgacties. Elke vervolgactie is een set van meer gedetailleerde vragen of de toepassing van een methode of instrument dat de situatie kan verbeteren. Er zijn bestaande technieken en methoden die gebruikt kunnen worden voor het beantwoorden van deze vragen. Zij kunnen tevens gebruikt worden voor: het veranderen van het organisatieontwerp; het identificeren van de uitdaging en de bijbehorende stakeholders; het identificeren van de inhoud van de uiteindelijke afspraak; en het analyseren van stakeholders, terreinprestatie, procesrisico's en haalbaarheid. De gemeente kan - gebruikmakend van de antwoorden en eigen invloed - de arena managen naar de gewenste uitkomsten.

Tenslotte zijn enkele strategische aanbevelingen gedaan voor het omgaan met een beperkt aantal ideaaltypische situaties, waar de nadruk ligt op hoe bevredigend een situatie is met betrekking tot de twee geaggregeerde variabelen "motivatie" en "informatie". Er zijn vier (extreme) mogelijkheden: (A) informatie onvoldoende, motivatie onvoldoende; (B) informatie voldoende, motivatie onvoldoende; (C) informatie onvoldoende, motivatie voldoende; (D) informatie voldoende, motivatie voldoende. Het beslissingsondersteunend model kan worden gebruikt voor het kiezen van routen tussen de situaties A,B, en C naar D. Echter, zelfs in situatie D kunnen de geaggregeerde middelen onvoldoende zijn voor het aanpakken (bereiken) van alle doelen. In dat geval kan het noodzakelijk zijn om: (nieuwe) prioriteiten te geven aan doelen; het uitstellen van activiteiten tot voldoende aanvullende middelen zijn gevonden; of het kiezen en implementeren van 'op een na beste' keuzes.

## Hoofdstuk 7: Testen en operationaliseren van het model

De beste manier om dit model te testen (het antwoord zoeken op de vraag: helpt het in feite om herstructurering te versnellen zonder verlies aan kwaliteit?) is, om het toe te passen in

een aantal cases. Echter, vanwege drie redenen werden passende case studies niet gedaan. Ten eerste maakte de beschikbare tijd longitudinale - en zeker meerdere - case studies niet haalbaar. Ten tweede was er een zo rijk mogelijke input voor het testen en operationaliseren wenselijk, en daarom lag de focus op het betrekken van veel experts met een rijke ervaring met herstructurering. Dit was moeilijk geweest om te realiseren via één - of enkele - case studies. Ten derde was het doel ook om te ontdekken of de vragen in het beslissingsondersteunend model geschikt zijn voor het vinden van specifieke thema's als het model later toegepast zou worden in case studies of in de praktijk van herstructurering.

Deze argumenten leidden tot het kiezen van Focusgroep sessies, als methode voor het testen en operationaliseren. Vijf Focusgroep sessies werden gehouden op vijf verschillende locaties met in totaal 39 herstructureringsdeskundigen als deelnemers. De deskundigen werden gevraagd of - naar hun mening - het model goede antwoorden zou geven op de drie vragen: Hoe kies je voorkeursdeelnemers? Hoe kan de beste volgorde gekozen worden - startend vanaf een situatie met onvoldoende motivatie en informatie - naar een volledig bevredigende situatie? Hoe kan deze bevredigende situatie geïdentificeerd worden?

De antwoorden gaven een indirecte test van het model zelf. Want de deelnemers hadden kunnen zeggen dat zij het model niet herkenden vanuit hun praktijkervaring, of dat zij niet goed konden werken met het model. Verder maakten de antwoorden van de deelnemers het mogelijk om het wat abstracte model te operationaliseren, zodat het beter gebruikt kan worden in de praktijk.

Deze operationalisatie werd gedaan door middel van een thematische (tekst) analyse van de verslagen van de begeleide sessies. De analyse leidde tot het identificeren van twaalf thema's (drie voor vraag een, zeven voor vraag twee en twee voor vraag drie) en daarna werden de resultaten voor elk thema gepresenteerd als 'verhalen' met bijbehorende tabellen ter illustratie. De 'verhalen' werden opgebouwd uit citaten (tekst segmenten) met gebruik van tekst-'bruggen' alleen waar dit noodzakelijk was voor het overbrengen (begrijpelijk maken) van de context.

De resultaten van de Focus groepen sessies worden geloofwaardig ("trustworthy") geacht omdat een 'spoor van bewijs' vastgelegd kon worden, een 'afstandelijke' strategie voor betrokkenheid van de onderzoeker werd toegepast (de schrijver participeerde niet actief in de sessies), de resultaten van de analyse en de interpretatie werden gescheiden, en ervaren praktijkdeskundigen werden open vragen gesteld op vijf verschillende plaatsen. De uiteindelijke interpretatie van alle resultaten leidde daarna tot de conclusies.

Er zijn drie soorten conclusies voortgekomen: 1. Herkennen de herstructureringsdeskundigen het model als een goede weergave van herstructureringsprocessen, en hoe compleet en geschikt is het? 2. Zal het model herstructurering helpen versnellen zonder verlies aan kwaliteit? 3. Hoe kan het model geoperationaliseerd worden?

Met betrekking tot de eerste vraag vonden alle herstructureringsdeskundigen het model bruikbaar, vonden de kernvragen over het model geschikt, en ze noemde geen nieuwe thema's voor het model en stelde ook niet voor om bepaalde thema's in het model weg te laten.

Met betrekking tot de tweede vraag kan de voorlopige conclusie getrokken worden dat het model inderdaad herstructurering zal helpen versnellen, zonder verlies aan kwaliteit. Deze conclusie kan getrokken worden gebaseerd op het feit dat we hebben alle deelnemers drie vragen, afgeleid van het model, gesteld over hoe het proces versneld zou kunnen worden. De deelnemers hadden veel voorstellen voor hoe dit zou kunnen, maar geen van deze voorstellen vormt een 'uitdaging' ("challenge") voor de kern van het model of de aanspraak die het model maakt op het kunnen versnellen van het proces. Uiteraard zal de 'echte' test de toepassing in de praktijk zijn.

Met betrekking tot het operationaliseren gaf de interpretatie van de resultaten voor elke

individuele vraag voorgelegd in de Focusgroep sessies aan, dat het inderdaad mogelijk is om een set van voorkeursdeelnemers gerelateerd aan een specifieke uitdaging te identificeren. Verder liet de interpretatie zien, dat men waakzaam moet zijn ten aanzien van de tendens om complexiteit te veel te vereenvoudigen, omdat dit onverwachte negatieve effecten kan hebben op de lange termijn. De ideeën waren meer verdeeld met betrekking tot hoe de beste volgorde van stappen tot de situatie met zowel voldoende geaggregeerde motivatie als informatie gevonden kan worden. Informatie is nodig voor het formuleren van de uitdaging en voor het vinden van oplossingen voor financiële problemen, maar aan de andere kant kan te veel informatie een negatief effect hebben op motivatie. De resultaten duiden erop dat motivatie en informatie elkaar kunnen beïnvloeden, en daarom – hoewel de nadruk gelegd zou kunnen worden op één van de twee – hoort een strategie gericht te zijn op beide factoren tegelijk. Tenslotte is het inderdaad mogelijk om te herkennen of een situatie (met betrekking tot motivatie en informatie) bevredigend is, maar zulke situaties dienen bij voorkeur vooraf gedefinieerd te worden, en voortgang richting voldoende tevredenheid dient actief gemonitord te worden.

## Hoofdstuk 8: Bijdrage aan kennis en praktijk

Deze studie geeft indicatief aan dat het versnellen van herstructurering om meer dan het toewijzen van meer middelen draait: adequaat gebruik van beslissingsondersteuning, gebaseerd op procesmanagement principes, kan herstructurering versnellen zonder, of tenminste met minder, extra middelen.

In het bijzonder heeft deze studie indicatief aangegeven dat een beslissingsondersteunend model hierbij kan helpen, als het zich richt op: geaggregeerde actorkenmerken (motivatie, informatie en middelen) gerelateerd aan een 'oplossing'; de distributie van (dezelfde) kenmerken tussen de actoren; hoe acceptabele oplossingen ontwikkeld kunnen worden. Dit includeert: extra rekening houden met actor-tevredenheid; distributie van kosten, baten, en risico's; en hoe eerlijk ("fair") deze distributie wordt ervaren.

Het model lijkt, na relatief kleine aanpassingen, veelbelovend ook voor toepassing in andere complexe interactieve processen.

We zien vier aspecten met betrekking tot hoe men verder kan gaan met de resultaten van deze studie. Ten eerste dient het model toegepast te worden voor het analyseren van real life afgeronde processen, en voor het ondersteunen van ontwerp en management van nieuwe en lopende processen. Ten tweede is meer onderzoek nodig met betrekking tot hoe verwachtingen, vertrouwen, informele regels, "voor wat, hoort wat" en risico's het proces, voortgang en resultaten van herstructurering beïnvloeden. Ten derde kan meer onderzoek zich richten op hoe de rol van vertegenwoordigers in interactieve settingen – en als functie van de specifieke behoeftes van een situatie – begrepen en geoptimaliseerd kan worden. Ten vierde wordt voorgesteld dat beleidsmakers de nadruk verschuiven van wat er gedaan kan worden (de specifieke bv. financiële en organisatorische maatregelen) naar hoe maatregelen geselecteerd en geïmplementeerd kunnen worden in specifieke situaties.

# Appendix I

## An analysis of Dutch literature on obstacles

First, the method for selecting and analysing relevant literature is described, including some remarks about the quality of the available information. This is particularly important for understanding the limitations of the subsequent description and exploration of general and situation-specific obstacles. The outcome serves as a basis for exploring the evolution of views on, and understanding of, obstacles. This is used to develop a picture of how restructuring obstacles are currently perceived.

### 1. Method for selecting and analysing the literature

We cannot hope to give a complete overview or comprehensive analysis of all relevant literature. The choice of literature has been limited to reports published in the period 1996-2009 that address problems encountered in improving industrial sites. A number of the reports published during the first decade (1996-2006) will be described in detail to create a coherent picture of the range of obstacles encountered: other, and in particular more recent, reports are analysed only as far as they add new perspectives.

The reports have been selected using the following criteria. The reports should preferably cover information about obstacles encountered in general in all processes, and information on the relative importance of obstacles in specific cases. They should preferably also explicitly focus on obstacles experienced by planning agencies, be as comprehensive as possible, identify relationships between obstacles, have an explicit methodological framework, reflect the evolution of views on obstacles, and be widely cited in academic publications and/or policy documents.

The initial exploration of literature revealed some weaknesses, or at least uncertainties, when applying these criteria. A first observation is that only a few documents explicitly link obstacles to the planning agency. However, we can assume that when the authors of these reports, being mainly authorities or semi-governmental organisations (or consultancy firms working for such organisations), refer to problems 'in practice' this usually means obstacles viewed from the perspective of the planning agency. A second issue is that reports do not always make a clear distinction between obstacles in restructuring, and obstacles when developing new sites. Third, the reports seldom include any explicit discussion on either the nature, or the relative importance of obstacles. Most reports list obstacles without giving weights to each individual obstacle or explicitly analysing interdependencies. However, these lists usually are structured into something that will be referred to as "categories". It can be assumed that each category contains individual obstacles having certain common characteristics. It can be argued that this structuring to some extent reflects the perceived importance of the various obstacles. Financial obstacles have for example always been mentioned as a separate category (more details on how the views on obstacles have changed in time are given in section 4 of this appendix), and much policy attention and means have indeed been allocated to attempts for finding appropriate solutions to these obstacles. "Knowledge", on

the other hand, is an example of how perception of importance seems to have changed in time. In one case (EZ, 2004b) it is mentioned as a category, whereas in other cases it is included only as an individual obstacle within other categories (Novem and EZ, 2001) or related only implicitly to a variety of individual obstacles. Defining “knowledge” as a separate category indicates that policy makers have acknowledged its importance, and in particular that they have acknowledged that having, and being able to appropriately use, information is a key to successful restructuring. Finally, very few reports give good complete information on definitions and methodology. A variety of terms such as ‘problem’, ‘bottleneck’, ‘failure factors’, ‘constraints’, and even ‘success factors’ and ‘causes’ have been used to describe phenomena which accord with the definition of obstacles applied in this study. In the case of success factors, these may ‘mirror’ such obstacles and accordingly allow ‘translation’ into (i.e. redefinition as) obstacles.

## 2. Introduction to general obstacles

To start building a picture of current views on obstacles, a chronological approach is chosen.

### **New opportunities for existing sites**

Awareness about the existence and importance of problems on decayed sites in The Netherlands was significantly influenced in 1996 by a report called “New Opportunities for Existing Sites: A Study into the Problems and Solutions for Decayed Industrial Sites in the Netherlands” (EZ, 1996, author’s translation). This report mentions that the following bottlenecks (in Dutch the term “knelpunten” is used) are encountered on decayed sites:

- Access to the site, and internal infrastructure on the site
- Spatial design / structure of the site
- Environmental performance (including constraints given by laws and regulations)
- Presentation (image) of the site
- Political-administrative and policy
- Cooperation and communication with firms
- Financial

The bottlenecks on the sites – in particular the four first bottlenecks – are the problems that have to be solved during a restructuring. On the other hand, lack of resources, insufficient political commitment, and insufficient cooperation are bottlenecks that are encountered during restructuring (EZ, 1996, p. vi): they make it more difficult to address the problems on the sites. This difference between site problems and obstacles that hinder improving the situation is not discussed in the report. However, the relationships between both categories of bottlenecks are described.

### **Towards sustainability and more involvement of private actors**

The growing awareness about the importance of ensuring sufficient quality of existing industrial sites was reflected in the choice for sustainable industrial sites as a key policy theme (in Dutch: “boegbeeld”) in 1997 (VROM, 1997). This stimulated a diversity of activities that covered approximately the years 1998 – 2004. In particular, the Ministry of Economic Affairs facilitated several studies, which focused on topics such as management of site developments and how to improve the involvement of private actors in restructuring. Some of these studies are analysed below.

### **Integral area-focused process approach is essential**

Strategic management of development processes was specifically addressed in a publication

that presented a comprehensive set of guidelines for developing sustainable industrial sites (EZ, 1998). The steering group that supervised the report states in the foreword “[...] an important conclusion [...] is that the involved actors view the process as the critical success factor, because sustainable development touches core business of both firms and authorities [...]” (EZ, 1998, p.7). Furthermore, the report stresses that an area-focused (in Dutch: “gebiedsgericht”) and integral approach that includes all stakeholders on the industrial site is important.

This emphasis on integral processes is also encountered in the list of what the authors refer to as “important success and failure factors” (EZ, 1998, p. 35). It is not clear whether success factors can be reformulated as failure factors. However, we agree with Pellenburg when he states that “[...] we can safely assume that the absence of [success] factors [...] may be considered as failure factors [...]” (Pellenburg, 2002, p.74). The report makes no explicit distinction between issues that relate to new and those that relate to existing sites. Nevertheless, the list does present both new and enriching perspectives on obstacles (compared to EZ, 1996).

First, there is the explicit acknowledgement of process complexity as a critical factor. The authors view this complexity as mainly related to the large number of actors with an interest in the process, the efforts needed for building commitment, the variety of influential developments, and establishing the necessary cooperation between the involved actors. The authors do not relate the complexity to the size of the investments or process duration. A successful management approach to this complexity accordingly focuses on ideas, interests and objectives of stakeholders, potential win-win solutions, and their feasibility. The authors state that 90% of the risk of process failure is linked to these three interdependent issues. More specifically, the authors point to the need for a good ‘climate’ for cooperation: starting the process from the perspective of the firms, and trust, are factors that are important for commitment. It is equally important to build and maintain political commitment. The report emphasises the importance of getting the right issues onto the discussion agenda, and of ensuring that the right balance is achieved between quick implementation of initiatives, and getting good information about feasibility. Visualizing results is important for ensuring that initiatives remain on the (political) agenda, and marketing can communicate the specific quality of the site. Finally, the report stresses the need for appropriate use of legal instruments (such as contracts and Zoning Plan). They are to be integrated into the final design and not applied as ‘blueprint’ constraints on the process. The lack of such success factors can (as mentioned above) be regarded as obstacles.

### **Private involvement as an opportunity**

A report published a year later focused specifically on how more private involvement in restructuring can offer opportunities (EZ, 1999). The authors argue that “[...] restructuring is often a difficult process, partly because of problems regarding financing. Because of [financial] deficits, projects proceed slower, or they are partly or not at all implemented, [and] increasing the involvement [of private actors] can accelerate projects both financially and regarding process [...]” (EZ, 1999, p. 5). In other words, the authors (indirectly) argue that insufficient (or inappropriate) involvement of private parties is an obstacle. More specifically, public-private cooperation is viewed as a means for achieving added value, and a planning agency needs to decide in advance whether such cooperation is a realistic option and whether added value can be reached.

The report also includes an extensive list of quite detailed success and failure factors, divided into the categories Organisation, Financing, and Project External Factors (EZ, 1999, p.14). The failure factors included in the categories “Organisation” and “Project External factors” stress the importance of addressing the interests of the actors. Processes can fail if the choices made for actor involvement are not based on appropriate analyses of their

interests and related risks (these risks are not specified, but we assume they especially point to potential financial effects), in particular taking into account those actors that have long-lasting interests in the area. Involvement can include joint development of plans that can lead to a commitment to particular ambition levels. Rigid use of environmental laws and regulations, and long and uncertain spatial regulation procedures, can weaken the willingness to cooperate. A disturbed relationship between local authorities and firms, or lack of political commitment, can have a significant impact on process performance. This can result in actors not respecting each other's interests, and also not recognizing each other's contributions to the process, or even not keeping agreements. More generally, inappropriate coordination and communication can lead to "frozen" processes: if neutral intermediaries are not set in as mediators, this is regarded a specific obstacle. Insufficient progress and inappropriate use of key leverage-projects can lead to a loss of investment perspective. Progress and commitment are also influenced if restructuring has to compete with other projects of the planning agency. Probably this competition refers to political commitment and the allocation of finances. Finally, during the process, it should be clear that the interests of political actors and of market actors are kept separate.

These obstacles are closely linked to the financial ones, because the process should lead to financial agreements that couple profitable and non-profitable activities in an appropriate way. Specific financial obstacles are therefore encountered if the cost scenarios are not market conform, not transparent, or known too late in the process, but also if planning agencies are unwilling to work with the profit requirements of private investors, or if there are no agreements about financial losses on specific projects and how they can, or should, be covered by co-funding by for example higher authorities.

Besides these organisational and financial obstacles, there is the category referred to as "Project external factors". Those obstacles are related to unfavourable market developments. A general economic recession may have severe consequences for the possibilities that firms and planning agencies have for investing in industrial site restructuring. However, these developments are outside the influence of the planning agency and will accordingly not be considered as obstacles within this study, but as situational factors that constrain or enable process opportunities.

### Focus on sustainability

A significant effort to address this complex relationship between perceived organisational, process, and financial obstacles was undertaken by Novem (currently part of "Agentschap NL"), an organisation that was operating as an agency of the Ministry of Economic Affairs. Novem between 1999 and 2004 developed and managed a comprehensive program called "Sustainable Industrial Sites" that addressed the full variety of challenges in industrial site development. Besides co-funding a large number of projects (e.g. Novem and EZ, 1999; 2000) and facilitating the development of management guides, 'inspirational' brochures and other process support documents (e.g. Novem and EZ, 2001; 2003a and b; Novem, 2001; Novem and Décor, 2003), this program also specifically included attention for failure factors (Novem and EZ, 2001).

This program delivered probably the most comprehensive, or at least most detailed, list of failure factors ever made for industrial site processes in The Netherlands. The report also makes clear how failure factors are viewed, namely as "[...] reasons or conditions that make an initiative to realize a sustainable industrial site partly or wholly unsuccessful [...]" (Novem and EZ, 2001, p. 6, author's translation). The report defines solutions (in Dutch the term "oplossingsrichtingen" is used) - "[...] ways to avoid (prevent) or remedy these reasons or conditions [...]" (Novem and EZ, 2001, p.6) - as ways of overcoming obstacles.

The report structures the failure factors into three levels: the first level consists of four

categories, which each again are divided into subcategories (see fig. 1), and, finally, each subcategory contains a large number of specific failure factors. The factors were discussed in in-depth interviews with stakeholders involved in two case studies as a way of validating the findings. The two cases were however quite different. One was a new site being developed; the other was an existing site being restructured. Based on the interviews, an attempt was made to identify the case-specific relative importance of the factors. The chosen semi-quantitative approach was to register how (and how often) a certain obstacle was mentioned in the interviews. The results are quite different for the two cases. However, the authors conclude that, according to stakeholders interviewed in both cases, the important factors are: commitment to, involvement in, and influence on decision making. The stakeholders involved in the restructuring case most often refer to lack of commitment and clear communication, and to financial risks as specific failure factors. The combined results of the literature study and the case studies were presented to, and discussed by, representatives of industry, and local, regional and national authorities, during a workshop. This resulted in further specification of some of the factors, and to prioritizing. Figure 1 presents the failure factors of the two 'highest' levels and includes information on priority / importance ("+++" means highest priority).

### Process and Organisation

- Failure factors caused by type of process: complex, innovative (+++);
- Lack of involvement, commitment, trust (++);
- Lack of clear communication / agreements (+++);
- Long duration and slow progress caused by kind of project (++)

### Contents

- Lack of experience and knowledge (+);
- Lack of clarity regarding what is meant by the objectives of the project (+);

### Financing

- Lack of understanding, knowledge and experience (+);
- Financial risks (++)

### External factors

- Impediments caused by laws and regulations (+);
- Insufficient adaptation to developments in the (close) surroundings (++)

Figure 1. Failure factors in development of sustainable sites (adapted from Novem and EZ, 2001).

Besides introducing a new category called "Contents", this report introduces the process as an aspect separate from organisation. This indicates an understanding that performance and outcomes of restructuring are determined not only by the nature of the (project) organisation itself. The process is described as complex and innovative, and a large number of individual failure factors are described as characteristics of such processes (for more details: see Novem and EZ, 2001).

According to the authors, the participants of the workshop considered all categories and failure factors relevant. However, the failure factors regarding process, organisation, and financial risk (++) , and the 'external' factor of taking developments in the surroundings into consideration, were viewed as high priority issues.

### Complementing and enriching

Only a few additional obstacles were suggested in the next couple of years. Konz and van den Thillart in their study on opportunities for industrial symbiosis on existing sites use the list developed by Novem and EZ (2001), but introduce a few additional aspects (Konz and van den Thillart, 2002, p.50). Regarding the lack of clear communication and agreements, they add the aspect of 'competence'. Unfortunately no definition of this term is provided, but they may be referring to the mandate carried by participating actors. Konz and Van den Thillart also stress the aspect of financial interests within the sub-category of financial risks. Although the importance for process and organisation of taking interests into account has been repeatedly stressed, the explicit link with finances is new.

Pellenbarg mentions a few other aspects (Pellenbarg, 2002). Reformulated as obstacles, they point to the importance of the lack of success in the short run, insufficient "financial means for the plan" (i.e. a specification of the more general lack of financing for processes), and insufficient use of existing management capacity of firms. He includes factors taken from earlier studies (van der Veeken, 1998; Kolpron Consultants 1998). He is the first to mention the importance that all cooperation is voluntary, and that projects need to be integral regarding attention to environment, ecology and spatial quality.

Lambooy, Spit and Bugge mention the problem regarding costs and cost distribution between authorities and private actors (Lambooy et al., 2002), which is considered to be especially problematic if private contributions are expected for integral (collective) site improvements (Decisio, 2003). Not being willing to acknowledge and address dilemmas can also be an obstacle, because "[...] an open discussion about the relative importance of interests, norms and values [...] is needed in the search for good solutions (Bugge, 2003, p. 48). The assumption is that lack of clarity can damage process performance and discussions about a fair distribution of costs. An open dialogue can also be helpful in bridging the culture differences between firms and authorities (SenterNovem, 2004). An obstacle is also encountered if firms are not appropriately involved in managing existing sites, and this can hinder the efficient use of space (BCI, 2002).

### Policy for restructuring: a step towards quantifying and understanding

This study of attention to obstacles in restructuring in "the early years" has delivered extensive lists, but not much about the relationships between individual obstacles and progress. This latter was addressed in the "Actionplan Industrial Sites 2004-2008": a national policy document with the goal of reducing the total duration of restructuring in the Netherlands (EZ, 2004b). The action plan also states that the Dutch industrial site development "[...] still experiences bottlenecks regarding organisation, financing, laws and regulations, and knowledge [...]" (EZ, 2004b, p.16), and that these bottlenecks (in Dutch the word "knelpunten" is used) prevent quicker processes (EZ, 2004b).

### Organisational

A bottleneck is poor (in Dutch: "gebrekkig") organisation and process approach. This is often manifested as:

- Absence of an area-oriented strategic vision;
- Insufficient regional fine-tuning of (activities and) cooperation;
- Low level of organisation of firms on industrial site;
- 'Free-riders' on sites where there is Site Management (in Dutch: "Park Management") ;
- Poor communication (in Dutch: "overleg") between local authorities and industry;
- Highly fragmented management of site

### Financing

In particular, the financing of restructuring is a major problem. Bottlenecks are for example:

- High costs of soil remediation, improvement of site [road] access, and relocation of firms;
- Sub-optimal use of alternative income-generating uses (in Dutch the term "alternatieve kostendragers" is used);
- No use of the possibility to transfer financial surplus generated through development of new sites to the restructuring of existing sites [in Dutch: applying "verevening"];
- Local politicians giving higher priority to the development of new sites than to structural maintenance and management of existing sites;
- [lack of] Co-financing by private actors;
- [lack of] Structural financing of 'Park Management'

### Laws and regulations

The accumulation of, sometimes incompatible / contradictory, rules and (quality) specifications, which leads to long procedures, increasing costs, and uncertainty for local authorities and private investors. Issues that can occur are:

- Accumulation of thematic [in Dutch the term "sectoraal" is applied] assessments such as concerning water, mobility, habitat, and architectural aspects;
- Lack of integral assessment and appropriate coordination;
- Insufficient use of flexibility within legal constraints in order to achieve tailor-made solutions

### Knowledge

- Not only lack of knowledge, but in particular poor access [in Dutch the term 'ontsluiting' is used] to knowledge;
- Lack of appropriate instrument for dissemination of knowledge

*Figure 2. Bottlenecks in restructuring (translated and slightly adapted: EZ, 2004b, pp.16-17)*

At a first glance, the bottlenecks (see figure 2) seem to be clearly structured into four categories. However, the short explanatory text below the heading "Organisation" in the figure states that "a bottleneck is poor organisation *and* process approach" (emphasis added by author). How these two aspects are defined is unclear, but the text indicates that they are viewed as closely linked but still distinguishable.

Although most of the individual obstacles have been described earlier, the emphasis on laws and regulations, and especially on knowledge, is new. The way the obstacles are described suggests that substantial knowledge is available, but insufficiently accessible (regarding Knowledge) or at least not used (regarding Laws and regulations).

Finally, this policy paper stresses that "[...] the long duration [...] is caused not only by

these bottlenecks. Decisive are often the conflicts of interests that are part of industrial site developments [because], in the Dutch culture, which is aimed at reaching consensus, overcoming these conflicts costs significant time and energy [...]” (EZ, 2004b, p.16). Conflicts of interests are accordingly not defined as a bottleneck, but viewed as something that deserves special attention. The wording suggests that these conflicts of interest are one of the main reasons why industrial site (re) development processes last (too) long. Furthermore these conflicts of interest are described as *being part* of industrial site developments. This suggests that they will be encountered in all site development processes. It is therefore not surprising that several of the bottlenecks mentioned are closely linked to this key issue. Insufficient (which probably may also be interpreted as “inappropriate”) regional fine-tuning of cooperation, and local politicians giving higher priority to the development of new sites, indicate underlying conflicts of interest. Both examples accordingly implicitly stress the importance of decision making and management of interactions between actors.

Also Louw, Needham, Olden and Pen stress the importance of conflicts of interests in their comprehensive book on planning of industrial sites in The Netherlands (Louw & al., 2004). The authors argue that “[...] two important bottlenecks that local authorities face in restructuring are: the extensive costs [...] and] the fragmented ownership [situation on the site]”. The link between the fragmented ownership and conflicts of interests is given in the fact that “[...] to be able to implement their plans, the local authorities need to cooperate with the entrepreneurs on the site [...]and] entrepreneurs have different interests than the local authorities [...]” (Louw & al., 2004, p.147). In the Netherlands it is normal that the local authorities own the infrastructure on the site, whereas the rest of the area will be owned by a (large) number of individual firms. Any integral improvement will therefore involve several stakeholders, which implies difficult discussions on the measures that should be implemented and on how these should be financed. Especially financing is a recurring obstacle. Although a planning agency can choose to transfer a financial surplus from one activity to another (in Dutch: “verevening”), this is rarely done.

#### **A risk perspective on restructuring and obstacles**

Another obstacle is the uncertainty about risks, and about who should be responsible for them. This has been stressed in a ‘knowledge compendium’ (in Dutch: “kennisbundel”) stating that “[...] in restructuring projects we [...] seldom encounter a thorough risk analysis. Unfortunately this is often the cause of uncontrolled (in Dutch: “uit de klauwen lopen”) costs in a project [...]” (BOM, 2006, p.35). A list of risks inherent to restructuring, and of the relevant issues that should be addressed in project and process management, is also given. The risks regarding *cooperation and process* are viewed as linked to trust and mutual respect. If these disappear, cooperation stops or slows down. The same can be expected if the *organisation* of the restructuring is inappropriate regarding roles, tasks, responsibilities and mandates, if *political* changes or preferences change, or if the planning agencies make inappropriate (e.g. too late) use of *specific legal instruments*. There is also a considerable risk that *actors in the society* might try to block or postpone developments, and of unexpected *technical complications*. Finally, there is a whole range of risks related to *finances*, such as higher costs for the planning process, less profitable development of the land, problems with selling (re) developed land, higher costs for site management, and higher interest rates.

#### **Recent developments**

In 2007 the national authorities again stressed the need for accelerating restructuring, and they appointed a special taskforce to address this (VROM and EZ, 2007). This taskforce

concluded (in an intermediary progress report) that the restructuring challenge is still large, complex, and poorly defined and analysed, and that obstacles are encountered because “[...] the goals of the many involved actors, public and private, are very different. Responsibilities are unclear. Legal instruments are fragmented and insufficient. There is only limited money available for covering the non-profitable part of the restructuring challenge [...]” (THB, 2008b, p.1). Furthermore the “imperfect market” for industrial sites (van der Krabben and van Dinteren, 2010) needs to be improved through a professional business-approach to site development and management (in Dutch: “verzakelijking”), and site developments need to be an integral part of urban renewal and regional coordination (THB, 2008a). The urgency and importance were acknowledged by the national authorities, and led to agreements between all levels of authorities (EZ and VROM, 2008; VROM et al., 2009), to more concrete recommendations on how these challenges should be addressed (BWU, 2009), and to a number of pilot projects (VROM et al., 2010a).

A number of other studies have contributed to understanding the obstacles that planning agencies face. Lack of knowledge and experience, and complicated laws and regulations lead to extremely slow and difficult processes (Algemene Rekenkamer, 2008), and also unnecessary bureaucracy, low political priority, and complexity (Nicis, 2009). Planning agencies are still rarely analysing problems and solutions systematically, and progress still to a large extent depends on the availability of co-funding by provinces and national authorities (PBL, 2009).

Project leaders involved in actual restructuring claim that what is needed is more attention to the local practice and, in particular, more in-depth understanding of the obstacles that are encountered in these projects (Nicis, 2009). There is accordingly a need for case-specific understanding of obstacles in order to improve policy intervention instruments and to support processes locally.

### **3. Situation-specific obstacles**

Are all reported obstacles encountered in all processes? And what are the relationships between, and the relative importance of, obstacles, and how does this differ according to the situation?

The literature that explicitly addresses this topic is quite limited. It is ‘limited’ also in the sense that it is mainly based on one-to-one interviews or on various kinds of group sessions, and the reports usually lack any traceable line of evidence. Nevertheless, it is possible, with caution, to use the available information. Two selected studies are analysed here.

#### **Process and organisation**

The first study describes a number of restructuring projects briefly and discusses the importance of process and organisational factors (EZ, 1998). The way different failure and success factors are described is quite diverse and sometimes difficult to interpret. First, it is not clear whether the reported perception of importance is related to a certain period (or phase) in the restructuring, or whether it refers to the complete process. Actors may have chosen to stress factors that have been particularly important in reaching a current situation, factors that are crucial at the moment or factors that are thought to be important for achieving final objectives. Second, the separation of process and organisational factors is unclear. Taking these uncertainties into account, the following table presents a range of topics that are experienced as most important in these projects analysed.

**Table 1.** Process and organisational success factors (based on: EZ, 1998)

Industrial Site (case)	Success factors					
	Active individuals / firm stimulating process	Participation of relevant actors in process	Joint understanding of importance continuity and long-term perspective	Common interests, respecting ideas and wishes	Political & industry commitment	Trust between local authorities / firms
AICD	+	+	+	+		
Wavin		+		+		
Kleefse Waard	+					
Rietvelden / de Vutter	+				+	
IJmond N.	+			+		
De Hurk		+				
De Krogten		+			+	+

**Commitment, communication and financial risks**

The second study, of the “Moleneind / Landweer” industrial site, focused on ten failure factors related to process and organisation, contents, financing, and external factors (Novem and EZ, 2001). The study was performed by in-depth interviews with four key actors reported to have thorough knowledge of the local situation. The results point to three important failure factors: Lack of commitment, unclear communication, and financial risks. All are put into the category “process and organisation”. The factors “long total duration and slow progress” and “inherent to this sort of process” (the Dutch expression used is “voorkomend uit type proces”) were considered by the interviewed actors to be less important, and using the opportunities within existing laws and regulations, and know-how, were not mentioned at all. The frequency of mentioning a certain issue was applied as indicating importance. The authors state that the relationships between different failure factors, between failure factors and solutions, and the relevance of the role (position) of the interviewed persons, have not been addressed within the study.

**4. How the views on obstacles have evolved**

The above shows that there is still much uncertainty about the relationships between obstacles and about their relative importance, and about how this varies with the situation. On the other hand, one report says that the general picture of problems currently encountered in restructuring is quite clear and unanimous (THB, 2008a).

What is this picture? It is not explicitly described in the report mentioned above, so we try to ‘construct’ it. The first step (taken in this section) is to explore how the views on obstacles have changed over time. This exploration, in particular, looks also at whether obstacles can be directly influenced by a planning agency, and whether the obstacles really ‘belong’ to the restructuring.

We use four selected reports for examining how the views have changed over time (EZ, 1996; 1999; 2004; Novem and EZ, 2001). These reports have been selected because they all apply complete and explicit typologies. The following table presents the categories of obstacles used in each report.

**Table 2.** Categories of obstacles (based on EZ, 1996; 1999; 2004; Novem and EZ, 2001)

“New opportunities for existing sites” EZ, 1996	“More private involvement” EZ, 1999	“Learning from failure: achieving success” Novem and EZ, 2001	“Action plan Industrial Sites” EZ, 2004
<ul style="list-style-type: none"> <li>• Policy and political administrative</li> <li>• Cooperation and communication with firms</li> <li>• Financing</li> <li>• Access to site and infrastructure</li> <li>• Spatial design</li> <li>• Environmental performance</li> <li>• Image / site presentation</li> </ul>	<ul style="list-style-type: none"> <li>• Organisational</li> <li>• Financing</li> <li>• Project external factors</li> </ul>	<ul style="list-style-type: none"> <li>• Process and organisation</li> <li>• Financial</li> <li>• External factors</li> <li>• Contents</li> </ul>	<ul style="list-style-type: none"> <li>• Organisational (organisation and process approach)</li> <li>• Financing</li> <li>• Laws and regulations</li> <li>• Knowledge</li> </ul>

**Organisation & Process**

All four reports include organisational and process obstacles: there is considerable agreement about the relevance of these issues for successful restructuring. However, the way the terms have been interpreted varies and changes.

For example, the category “Cooperation & Communication with firms” (EZ, 1996) was later in the Actionplan Industrial Sites (EZ, 2004b) put as an obstacle in the category “Organisational”. The situation regarding the category “Policy & Political-administrative” (EZ, 1996) is more complex. The category contains three obstacles (not shown here): “Organisation”, “Lack of Know-how”, and “Low priority of existing sites compared to new sites”. This early report considered organisation not as a separate category of obstacles, but (only) as an individual obstacle. In the following decade, the importance of organisational aspects was recognised, which resulted in the use of “Organisation” (or process and organisation) as a separate category. The second individual obstacle, lack of know-how, is later (EZ, 2004b) included as a separate category. The third obstacle - low priority of existing sites compared to new sites - was later considered to be financial (EZ, 2004b).

Finally, there is the question how the two aspects of organisation and process interact. The large diversity of individual obstacles, and the way they are categorised, indicates limited agreement about where they belong, and indicate a big ‘overlap’ between them. Nevertheless, they are seen as separate issues. This is understandable, because for planning agencies there is a significant difference between organisation and process. Planning agencies attempt to develop and maintain well-functioning organisational structures, and they apply process management within these structures in order to influence actors and their interactions. Also, they use processes for changing the organisation. Organisation and process are different and complementary perspectives, and should be viewed as separate categories.

**Financing**

The situation regarding financial obstacles is much clearer. All reports view financing as a separate category and there is no doubt about its high importance in restructuring. Generally, the net costs of restructuring (costs minus any income from sales) substantially exceed the

financial means of the planning agencies, and all the local actors together. Although the financial obstacles listed vary considerably, the content of this category is clear. The obstacles mentioned focus on two interdependent financial aspects: the high costs, and the distribution of costs and benefits among actors (i.e. financial agreements). There is nevertheless some overlap with other categories. In particular, the obstacles that refer to know-how and to the process for developing suitable financial agreements, such as “Lack of understanding, knowledge and experience concerning issues such as liability risks, cooperation-contracts and win-win situations” (Novem and EZ, 2001) and “Difficult to achieve overview of subsidies because of complex terms and fragmentation” (EZ, 1999), have effects on financing. Here, however, we place them in the category knowledge.

#### **Laws and regulations**

Sometimes laws and regulations are viewed as an external obstacle (e.g. Novem and EZ, 2001). For example, the Action Plan Industrial Sites (EZ, 2004b) mentions procedural delay caused by the cumulative effects of, sometimes, incompatible and/or contradictory rules. Laws and regulations are then experienced as an ‘external’ factor that is a constraint and has to be handled as such, and not as an obstacle that can be actively influenced by planning agencies in a restructuring.

However, planning agencies do not always fully take advantage of the opportunities that can be found within the frameworks provided by current laws and regulations. Then, obstacles arise, such as inappropriate use of legal instruments and, in particular, the insufficient use of flexibility within legal constraints in order to achieve tailor-made solutions (EZ, 2004b; BOM, 2006).

#### **Knowledge**

The views on obstacles related to process, organisation, financing, and laws and regulations reveal three different perspectives on knowledge. First, knowledge can be considered a separate category of obstacles (EZ, 2004b). Second, it can be explicitly mentioned as an individual obstacle within other categories (Novem and EZ, 2001). Third, it can be viewed as an implicit part of all other obstacles. In all cases, the importance of knowledge in such processes is clearly acknowledged.

The formulations show that knowledge is experienced as a complex issue. The individual obstacle “Lack of understanding, knowledge and experience regarding issues such as liability risks, cooperation-contracts and win-win situations” (Novem and EZ, 2001) illustrates this. Knowledge is mentioned separately from understanding and experience. This suggests that knowledge means having access to information. The added value of understanding and experience is then that the potential user will know how to act. Together these are referred to as know-how. It is therefore argued that the term “know-how” better fits how planning agencies experience the category of obstacles related to getting access to, and subsequently appropriately using, knowledge.

However, even if this *know-how* is available (Novem and EZ, 2001; 2004), it does not give any guarantee of success. As stated in the Action Plan for Industrial Sites: “Often the wheel is re-invented” (EZ, 2004b, p.17). It is accordingly necessary to take into consideration whether planning agencies actively search for, and apply, innovative solutions in a restructuring. Even if sufficient know-how is available, a lack of human resources and/or willingness can prevent effective use of it.

#### **Site characteristics and (perceived) quality**

The aim of restructuring is to solve the problems on decayed industrial sites. Although these problems were included as bottlenecks in an early report (EZ, 1996, p. iv), more recent views on obstacles focus on the financing and high costs of issues such as soil remediation,

relocation of firms, and improvements of access to sites (EZ, 2004b). The ‘physical’ problems are in that sense viewed as situation characteristics that need to be improved and not as obstacles to this process of solving these problems more quickly.

#### **Contents**

This category was introduced in the report on failure factors in the development of sustainable sites (Novem and EZ, 2001). It included two subcategories. The subcategory “lack of experience and knowledge”, has already been discussed and put into the category “know-how”. The second subcategory, “the substantive objectives are unclear” (in Dutch: “onduidelijkheid over inhoud doelen van project”), might seem to take a completely new angle. However, the separate obstacles mentioned under this (Novem and EZ, 2001, p.24) address issues related to actor interdependency and cooperation, monitoring and adjustment of visions, and active external communication. All these obstacles have, in different forms, been viewed as belonging to the categories “organisation” and “process”. A separate category “contents” is neither necessary nor does it reflect a current view on obstacles.

#### **External factors**

How are “external factors” to be viewed? The reference to something as being “external” suggests a systems approach for identifying obstacles. Certain factors are viewed as not belonging to a system called restructuring. It is accordingly necessary to explore how the term external has been applied, and whether any such system borders are recognizable in the two reports that make explicit use of a category “external factors”.

The first report refers to “project external factors” (EZ, 1999). The restructuring is viewed as a project, and some failure factors are ‘external’ to the project. Four obstacles (including one success factor, in this study reformulated as an obstacle) are placed in this category. The first concerns the inflexible use of environmental laws and regulations, especially regarding how to address soil pollution. As mentioned above, more recent reports (e.g. EZ, 2004b; BOM, 2006) view the inflexible way that planning agencies work *within* the frameworks of existing laws and regulations as “internal” to the restructuring. The same applies to the failure factor: long and uncertain spatial planning procedures (in Dutch: “lange en onzekere RO-trajecten”). In both cases, part of this obstacle is related to the way planning agencies operate, and there is also an ‘external’ part that is linked to the quality of the laws and regulations themselves. Viewed from the perspective of a planning agency and its possibilities for influencing progress, this second part is not an obstacle within the restructuring itself, but a more or less constant factor that has to be handled. The third obstacle included under “external factors” concerns the competition with other internal or external projects. Again, the same argument applies: if the outcome of this competition can be influenced through process design and management applied by the planning agency, then this obstacle is not external but internal. The fourth failure factor concerns the effect of general macro-economic development, which clearly is an external factor that cannot be influenced by the planning agency.

The second report (Novem and EZ, 2001) contains two subcategories of ‘external’ obstacles. The first, laws and regulations, has already been explored. The second is called “Insufficiently taking developments in the (close) surroundings into consideration” (in Dutch: “onvoldoende afstemming”). Again, the key question here is, whether the planning agencies can influence this. The formulation used can be interpreted as referring to the specific perspective of the planning agencies. This is, therefore, internal and belongs to either organisational or process obstacles. Summing up, there are indeed factors that are ‘external’ to the possibilities that planning agencies have for directly influencing the performance and progress of a specific restructuring. These factors (e.g. laws and regulations, macro-economic developments) function mainly as frameworks that direct and limit action, or as uncontrollable inputs for local opportunities, and have to be handled as such.

## 5. (Re) ordering obstacles to reflect current views and understanding

The planning agencies have a complex task in addressing obstacles that they can actively influence, while taking account of 'external' factors that during a long-lasting restructuring can change. This complexity is clearly reflected in the way obstacles have been reported. Although most reports do not give explicit information on definitions, nor on relative importance of obstacles, some 'building blocks' for ordering individual obstacles emerge:

- Categories, as reported, reflect attempts to group obstacles having certain characteristics in common;
- In the literature, obstacles have been interpreted and ordered in different ways, depending on the perspective used and assumptions made. Making these perspectives and assumptions explicit makes it possible to construct categories in a way that can be justified;
- This study focuses on identifying and influencing obstacles that can be actively influenced by the planning agency as a part of the restructuring. However, this does not exclude the necessity to identify and handle the 'external factors' also that are 'outside' the direct influence of planning agencies.

The evolution of the views about obstacles reflects a growing understanding of their meaning, and changing perceptions about how they best can be addressed;

This evolution shows a slowly emerging agreement about the categories of obstacles (see figure 3). This especially concerns financing, organisation, and process. Other categories are less frequently reported and there is less agreement about their contents. However, there seems to be a growing acknowledgement of the importance of know-how: an issue that is widely encountered, either implicitly or explicitly, in almost all reports (e.g. EZ, 2004b, Algemene Rekenkamer, 2008; THB, 2008a; BWU, 2009). Finally, failure to exploit the possibilities offered by laws and regulations is an issue that has received increasing attention (EZ, 2004b; BOM, 2006; VROM and EZ, 2007; Algemene Rekenkamer, 2008; THB, 2008a). This results in the following five categories of obstacles:

- Organisation
- Process
- Financing
- Laws and regulations
- Know-how

Figure 3. Five categories of obstacles

The next step is to define each category in accordance with the current view on obstacles.

### Organisation

This category is defined as "the structure of the planning agency, region, firms on the site, and coordination mechanisms in place as far as relevant to the restructuring". This refers to the quality of the organisational structures and mechanisms in place, not to the way actors act and interact within these frameworks (which is viewed as process). Neither would the absence of specific documents be regarded as organisational obstacles, but as an outcome of a process, or in other words as an effect.

Many reported individual organisational obstacles can alternatively be viewed from a process perspective. For the presence of organisational obstacles can be seen as the result of the willingness (and therefore motives) of actors to act in a certain way. Know-how also plays a role. Nevertheless, it is useful to distinguish a separate category of organisational obstacles. There is overlap between other categories of obstacles also, as we shall see.

### Process

This is defined as "how actors involved in, or affected by, the restructuring act, and, in particular, interact". The 'organisation' (as defined above) enables and constrains the process, and the process influences the organisation.

### Financing

This has been defined as "availability of feasible cost-benefit arrangements". Financing is accordingly about the financial resources of the various actors and about how willing those actors are to spend them on specific challenges (problems and possible solutions). Process, organisational and know-how aspects (obstacles) will therefore influence whether financing is successful.

### Laws and regulations

This is defined as "the existing legal framework that applies to problems and solutions related to the restructuring". This category of obstacles refers to how the planning agency is able to use the range of opportunities provided by the existing framework of laws and regulations.

### Know-how

This is defined as "access to, as well as the ability to appropriately use, relevant information". Any planning agency will act based on available information, but at the same time its ability to collect and use information appropriately will influence process, progress, and outcomes of a restructuring. The planning agencies need to know how to use information for reaching goals. This is part of the capacity of an actor, and it affects how the actor uses information for developing interaction mechanisms (see organisational obstacles), for influencing the process (see process obstacles), for developing feasible financial arrangements (see financial obstacles), and for working within existing laws and regulations (see laws and regulations obstacles).

## 6. Reflecting on the current importance of obstacles

One important question remains. The obstacles reported above have been taken from reports written over many years. What is the current situation? How important are obstacles now?

A complication is that obstacles are related to the initial situations, the objectives, and the chosen approaches for restructuring, all of which have changed in that period.

Nevertheless, obstacles to progress are still highly relevant, because the need to accelerate revitalisation and reprofiling processes has received growing attention the past years (EZ, 2004b; VROM and EZ, 2007; THB, 2008a; EZ and VROM, 2008; VROM et al., 2009). This has been translated into quantitative objectives for restructuring (THB, 2008a), and has been presented as a non-structural 'catching-up' (in Dutch: "inhaalslag") operation (EZ and VROM, 2008; VROM et al., 2009). The motivation given for the recent additional political emphasis is that "[...] the overdue [need for] restructuring cannot await the structural effects of 'professionalizing' (in Dutch: "verzakelijking") [through more, or different, private involvement in the restructuring], because this can lead to an undesired process of social, spatial and economic neglect (in Dutch: "verwaarlozing") [and decay]" (VROM, 2008, p.6, author's translation). This has served as the basis for agreements about extra efforts to be

## Appendix II

### The MASURIN-project

*Note: The following text is mainly based on the project document "Description of Work".*

The research project called Management of Sustainable Revitalisation of Urban Industrial Sites (MASURIN) was co-funded by the European Commission within the Fifth Framework Program (FP5), Key Action "City of Tomorrow". The three-year project lasted from 2002 – 2004, was led by the Dutch organisation TNO, and was executed by in total 15 participants from the Netherlands, France, Italy, Poland, Austria and Norway.

The main objective of the project was "to provide authorities with knowledge and practical tools to create a new partnership with industry and the public, based on awareness, transparency and openness to dialogue in order to improve and maintain optimum sustainability, in both environmental and socio-economic terms" (DOW, p.4).

The project was performed in close cooperation between research institutes and city partners. In particular, the interaction and five in-depth case studies in different countries served as input for the main output of the project: a comprehensive Management Guide for local authorities (Brand, Bugge, and Roelofs, 2004).

The Management Guide includes 8 parts: process guidance; supporting (process) tools; models for identifying and assessing socio-economic impacts, effects on the environment, best practices, and approaches for encouraging industry to adopt environmental measures; (improvement) measures; examples (of successful cases in different countries), (description of the five) cases; master plans (developed for the five cases), and references.

The Process Guidance and Supporting Tools together provide a decision support approach for processes: it is this that has served as the basis, and inspiration, for this study.

made by national, provincial and local authorities (VROM et al., 2009).

Another question is whether any new - categories of - obstacles have recently been introduced. Our literature study has not found any. This is no guarantee for completeness, but it suggests that the presented categories cover the relevant issues.

Another possibility is that the relative importance of obstacles has changed radically. If so, some (categories of) obstacles may even have been completely removed. Starting with obstacles related to financing, there is no disagreement about the conclusion that restructuring is very expensive, and that the total costs usually significantly exceed the benefits (THB, 2008a; Algemene Rekenkamer, 2008). In particular, this is the case if remediation of soil pollution, buying (unused) private property, demolition of buildings, or improvement of access (infrastructure) is needed (Louw et al., 2004). The importance of financing as an obstacle is also underpinned by the recent policy and related allocation of (co-) funding for restructuring (EZ and VROM, 2008), by the reported impact of funding on progress (PBL, 2009, p. 98), and by the policy recommendations regarding financial instruments (Algemene Rekenkamer, 2008; THB, 2008a).

However, still "[...] the question is whether authorities always have to apply only financial interventions [...]" (PBL, 2009, p. 111, author's translation, emphasis added by author). The main reason for arguing that finance is not the only, or the main, obstacle is that the opportunities to counteract ageing processes are "[...] also determined by the money that we collectively are willing to invest in restructuring [...]" (THB, 2008a, p. 26). The finance available reflects the aggregated willingness of individual actors, public as well as private, to participate, interact, and invest, in restructuring. The extreme solution of having 'one side paying for all' is neither acceptable nor feasible. "[...] Restructuring without any public money presently is not considered to be an option [...]" (THB, 2008a, p. 26), but on the other hand authorities expect that "[...] firms [on the site] and other private actors should contribute significantly to make restructuring successful [...]" (Algemene Rekenkamer, 2008, p. 48, see also PBL, 2009).

This complex situation regarding financing means that interaction is important. In The Netherlands, industrial site development is a decentralised responsibility: the local authorities are responsible for "[...] a successful restructuring" (Algemene Rekenkamer, 2008, p. 10), and it is therefore also "[...] the task of the local authorities [serving as planning agency] to ensure that sufficient capital is secured [...]" (Algemene Rekenkamer, 2008, p. 14; in Dutch the term "bijeen krijgen" is used, which emphasizes the process leading to a co-financing agreement). The (local) planning agency accordingly is responsible not only for 'finding' sufficient own means (which is often a considerable challenge regarding internal prioritizing processes), but also for getting support from provincial and national authorities and preferably from private parties also.

This latter refers to a process perspective. The national government acknowledges the importance of process obstacles by stimulating the development of non-financial instruments for accelerating restructuring (VROM and EZ, 2007). This is in accordance with recent reports that state that, in restructuring projects, bottlenecks still exist in the areas of coordination, cooperation, capacity / knowledge, organisation, and laws and regulations (Algemene Rekenkamer, 2008; PBL, 2009; Nicis, 2009). In particular, people responsible for leading restructuring projects still mention laws and regulations, bureaucracy, low political priority, and the complexity of the problems as obstacles that slow down progress (Nicis, 2009).

# Appendix III

## Motives, resources, information, interdependency

### 1. Motives

We focus first on the core actor characteristic “motives”. What are motives, and how do motives influence the decision making of actors, and the way they choose to act, and interact, in specific action arenas? What is the ‘thin’ explanation of how motives work, offered by rational choice, and which additional aspects can be included in a ‘richer’ explanation? We will not attempt here to give any complete overview of the extensive body-of-knowledge regarding motives, and how motives are translated into motivation for specific actions (for informative papers regarding the variety of theories that have been developed on motivation, see for example: Ambrose and Kulik, 1999; Steers et al., 2004; Latham and Pinder, 2005), but only briefly introduce the variety of motives encountered.

#### **Using self-interest as a starting point**

Rational choice theory assumes that actors pursue goals, and that these goals reflect their self-interest. Self-interest is the leading motive behind the goals that actors strive to reach. What is self-interest, and how can actors know whether, and to which extent, goals, measures, and actions actually contribute in a positive way to their self-interest? We start by observing that self-interest is no ‘simple’ motive. Rational choice theory (at least implicitly) acknowledges its complexity by saying that behaviour results from conscious choices. This implies that there must be alternatives to choose between, and actors choose the option that is consistent with the highest expected utility. So, there are other alternatives that contribute less to self-interest. Any highest expected utility will also usually be less attractive than the optimal utility. Furthermore, each alternative has many consequences, which mean that an actor has to assess how all consequences for all alternatives affect his self-interest. Rational choice theory assumes that such assessments are possible, because all actors possess the necessary information, and they have stable preferences. On the other hand, such assessments can be difficult to perform. What are the consequences that actors face, and what are the more specific motives that influence the way a ‘rational choice actor’ pursues self-interest? All actors focus on gain and loss. They continuously try to maximize gain and minimize losses at the same time, and any decision takes the expected consequences for both gains and losses into account. One level ‘deeper’ contains the diversity of possible gains and losses, and how they are related to more specific motives.

#### **Needs and responsibilities**

One perspective on motives is that actors try to fulfil their needs. Firms, for example, need to ensure their own continuity. Their actions are aimed at making profit, and possibly firm growth, but all their actions can be viewed as originating in their need for continuity. The effects of this motive are encountered in how actors try to get access to resources and information, and how they proactively, and reactively, choose to interact with other actors.

A second perspective on motives is that actors have responsibilities. The motives of planning agencies, for example, are linked to a general responsibility towards the local community (Sirgy, 1986). Their 'self-interest', as an actor, is to ensure that the local community prospers. Responsibilities are based in a structural context (Bressers, 2009). They influence the willingness of actors to enter an action arena, and they influence the choice of actions within the arena. Actors, and in particular the individuals representing them, see their actions as part of their responsibilities. These actions are only partly prescribed. The actors therefore try, more or less consciously, to assess how their specific actions can influence their situation. This assessment includes an interpretation of the available information about consequences, but also an interpretation of how far they feel their responsibilities reach, and which freedom of choice they feel they have.

#### **Motives include more than only pursuing 'simple' self-interest**

How are such assessments made? What are the specific motives that make actors behave in other ways than 'simple' self-interest would predict? First, the actors that are involved in local action arenas often know each other. They have both a common history, and a common future. In particular, this means that they have to interact, and probably cooperate, in other arenas. This situation influences the way they act. They take into account how their actions can influence their future opportunities, and they are at the same time influenced by their past experiences with (representatives of) other actors. Their choices, and actions, are therefore 'moderated' by a variety of topics such as expectations about process performance and outcomes, trust, ideas, and even affective motives such as personal likes and dislikes. Second, actors in local settings try to act in such a way that they maintain, and strengthen, (social) relationships. In other words: actors include other normative considerations into their decision making. Such a normative frame, which operates together with frames of gain and loss, is, for example, concerned with expected effects related to 'doing the right thing' (Lindenberg, 2000). The behaviour of the actors is influenced by (especially their core) values, and they sometimes even choose altruistic actions that have a short-term negative impact on profit. On the other hand, they can consciously take into account that such actions can positively influence their reputation, and in that case their decisions are motivated by an expected positive contribution to long term gains. There may accordingly be an underlying general self-interest motive that drives all actions, which continuously operates on the background, and which has a long term orientation. On the other hand, individual actors may also act based on genuine altruistic motives, or, at least, motives aimed at, for example, creating collective benefits for a variety of local actors.

#### **Goals make motives 'tangible'**

Identifying the precise relationships between such underlying motives and specific actions is difficult. Actors need to know how they can translate general motives into the 'right' actions. In particular, actors therefore need something that can facilitate, and structure, their day-to-day decision-making. This 'something' should make it possible to assess the effects of their actions in specific situations on their own general needs and responsibilities, but also how their chosen actions affect other actors. This is where goals are used. Goals regulate how specific preferences are developed, and how decisions are made in interactive settings (Kruglanski, 1996). What are these goals? The diversity of goals that can be encountered in complex interactive processes is large. There can be long-term and short-term goals, general aims and specific objectives, and joint goals and individual goals. Regardless of the nature of the goals, actors always choose actions that they believe are best suited for reaching them. In particular, they make decisions about whether to enter specific action arenas or not, their roles and actions within the arenas, and whether to leave the arenas. The first

choice is whether to get involved in an action arena at all. There must be good reasons for getting involved, and these reasons must be perceived as stronger than the reasons that would make an actor decide to not enter the arena. Actors, in general, want to be involved in action arenas, if they believe they can use the participation as a way to influence a process, and its outcomes. They have specific objectives such as to influence the shaping of the discussion agenda (Friend and Hickling, 2005), and to influence other participants (Wrong, 1979; Kirschner, 2007). Firms, for example, can view high perceived urgency and importance of problems as motives for taking action (Mitchell et al., 1997). Their goals are simply to solve these problems, and they can view interaction with other actors as the best way, or even necessity, for reaching their goals. Goals may also be of a completely different nature, because involvement is not always aimed at changing a situation. Actors can also be opposed to change, because they fear the negative effects. Their goal can then be to prevent, or at least postpone, decision making (Holmes, 1988; Bourne, 2009), and that is their motive for getting involved in an action arena. Citizens, for example, sometimes choose this approach, if they fear that quality of life or property value of their houses will be negatively affected by developments close to their homes. There can be a purely self-interest motive behind this "NIMBY"- (Not In My Back Yard) effect (Oskamp and Schultz, 2005), because these actors may not be against the proposed developments in general, but only opposed to them because they expect the developments to affect the close proximity of their homes. This NIMBY-effect, in particular, influences the perception of risk more than objective risk (Cutter, 1993), and actors will therefore often fear a 'worst-case' development. However, such behaviour is no 'simple resistance', because the way the motives are interpreted depends on the applied perspective (Lidskog and Elander, 1992). A planning agency, for example, can view such goals and behaviour as reflecting purely self-interest driven motives, but the motives can alternatively be viewed as based on different opinions about which assessment criteria, and which weights, should be applied for making the 'right' decision. Actors may also want to participate even if they do not expect to be able to have any direct influence on the action arena. Their goal is then to get access to important information that otherwise would be more difficult, or impossible, to get. The possible benefits of participation are not the only aspects they take into consideration. Availability of resources can also be a motive for decisions about participation. A specific goal of participation, for example, can be to get access to (more) financial resources. On the other hand, actors also try to estimate the transaction costs (Williamson, 1979; 1985; 2000; Coase, 1937), which are the costs related to (especially) the time they believe they will have to invest in the process preceding decisions on implementation of solutions. The assessment of possible benefits versus transaction costs, and own available resources, leads to decisions about the nature of involvement. In particular, citizens face resource limitations that influence their possibilities and willingness to participate in a process (Grant, 1994). Actors can also assume that their goals will be reached without any own active contribution, and for that reason choose not to enter the arena. This can also lead to 'free-riding' opportunistic behaviour where, for example, firms try to maximise benefits through avoiding costs (Olson, 1965; Scott, 2000; EZ, 2004b).

#### **Goals influence behaviour, and behaviour influences goals**

The diversity of initial motives, and of goals, that make actors decide to enter an action arena, keep on influencing their actions within the arena. However, the way they are perceived in specific situations is also influenced by actions taken by other actors. The underlying general motives stay the same, but the perceived importance of specific goals and actions, especially in interactive situations where quick decisions have to be made without having any possibility for checking their consequences, can vary. This means that preferences, contrary to what is assumed by rational choice theory, are not always stable in such situations. Goals in arenas

are therefore both process inputs, and process outputs. Initial goals and preferences are modified, and new goals and preferences are constructed based on the decision context (Tversky et al., 1988; Slovic, 1995; Latham and Pinder, 2005; Krantz and Kunreuther, 2007). Actors continuously assess how the developments affect their goals, and they act in accordance with their perception of what they expect these effects to be. Developments that initially are perceived as occurring within a gain frame, for example, can abruptly transfer into loss frames if 'golden opportunities' are missed (Lindenberg, 2000). Actors perceive potential losses as more important than potential gains (Kahneman et al., 1991), and actions within a loss frame are usually taken quickly (Loewenstein, 1996). This means that actors, often without any prior 'warning', can choose to leave the arena, if they feel 'threatened' by the developments. The specific nature of goals influences also how motivated actors will be to strive to reach these goals (Locke, 1968; Bandura, 1986; 1991; Kanfer, 1990; Locke and Latham, 1990; Mitchell and Daniels, 2003), and accordingly their actions. Usually specific, difficult, goals lead to better "performance" than general, less difficult, goals. However, in situations characterised by high pressure for immediate results, and limited available skills, general, less difficult, goals can lead to better performance (Latham and Pinder, 2005). Both situations are encountered during long-term complex interactive processes, and the arena performance depends on how each specific situation, and goal, is perceived. This perception of situation, and goals, is influenced by the interaction with other arena participants, and, in particular, also by the feedback received. Actors apply feedback as a basis for correcting own performance (Stajkovic and Luthans, 2001; Locke and Latham, 2002). The feedback can stimulate adapting, abandoning, or changing efforts to reach, goals (Austin and Vancouver, 1996). For example, in situations where actors view goals as (too) simple, unimportant, or not attainable, and where there is no appropriate feedback mechanism operating, actors often lack motives for accepting the goals initially, and certainly for staying committed to reaching them (Locke and Latham, 2002).

#### **Actors pursue several goals at the same time, and have to prioritise**

What happens when several goals influence performance of actors, and the arena? How do individual actors choose? Actors usually pursue several goals, related to different underlying motives and values, at the same time (Rhodes, 1997; O'Neill and Quinn, 1993), and they therefore take into account how their actions affect each individual goal. At the same time, they take into account how their general interests are affected, and the resulting choice and behaviour will represent a certain balance, and optimum, between all goals. This means that in any specific situation, actors prioritise among multiple goals (Krantz and Kunreuther, 2007). For example, although a stakeholder perspective emphasizes that firms should take the legitimate interests of all relevant stakeholders into consideration (Donaldson and Preston, 1995), firms will need to determine which stakeholders, and accordingly goals, matter most (Harrison and St. John, 1996). In practice, such a prioritising process often leads to the selection of one most important goal that dominates over other goals (Lindenberg and Frey, 1993; Lindenberg, 2000). The choice of one dominant goal affects the way all other goals are viewed, and pursued (Chaserant, 2003). The prioritising process leads to a distribution of resources, which implies a quantitative and possibly also qualitative (referring to cognitive efforts) trade-off between the goals (Erez, 2005). Less effort is taken to reach the goals that are perceived as less important, and these goals are also pursued with less persistence (Mitchell and Daniels, 2003). Actors face a particularly difficult situation if specific goals are perceived as incongruent (Thomsen et al., 2004), competing (Rhodes, 1997), vague, or conflicting (Seijts and Latham, 2000; Bozeman, 1984; Nutt, 2000). In particular, "performance" is undermined if goal conflicts motivate incompatible actions (Locke et al. 1994; Seijts and Latham, 2000). The chosen dominant goal can in such situations receive

disproportionately much attention, and the time needed to reach other 'difficult' goals, and the quality of the outcome, can both be negatively affected. Finally, the situation within an action arena will change during a long-lasting process, which means that relative attention to specific goals can change too. In particular, perceived urgency of goals influences short-term attention to goals. Actors, at any moment in time, try to make a profit, avoid losses, and behave in a socially acceptable manner. They try to make sense of their complex environment (Weick, 1990), and at the same time they work towards some kind of general quality that is linked to many different goals (Krantz and Kunreuther, 2007). Although actors may attempt to use multi-criteria models and presume that all alternatives can be ordered with respect to utility functions in such a way that better alternatives receive higher values (Tanguiane, 1990), the trade-off between multiple goals includes more than only a revealed, calculated, utility maximization result (Krantz and Kunreuther, 2007). Goals, choices, and behaviour are also influenced by the specific situation, and, in particular, the interaction with other arena participants.

## **2. Resources**

*What* are the resources that actors use, and *how* are they applied in interaction between actors for reaching goals? Defining the term "resources" is a not simple (Miller and Shamsie, 1996). Resources can have a variety of meanings such as capital, labour, facilities, equipment, land, time, and materials, but also include less tangible aspects such as skills, access to distribution channels, legitimacy, power / influence, and (even) entrepreneurial energy (Crozier, 1964; Salancik and Pfeffer, 1988; Oliver, 1990; Rumelt et al., 1991; Peteraf, 1993; Browning et al., 1995; Kaiser et al., 1995; Rhodes, 1997; Bressers, 2009). Resources are something that actors possess, such as money and human capacity: there must be at least some resources "[...] that an actor brings to a situation [...]" (Ostrom et al., 1994, p.33, emphasis added). Actors use those resources for reaching their goals. They invest time and money in a process, and they use their skills in the action arena. Resources provide a capacity to act, and they are a source of power in the interaction process in the arena (Bressers, 2009). Actors can consciously choose which part of their resources they want to allocate to an action situation at a specific time, and they can choose also how they want to apply them. The importance of the resources money (or financial capacity, or command over material goods such as land) is clear, especially in relation to restructuring industrial sites. The following discussion will, therefore, concentrate on those (often non-material) resources possessed by actors and which are relevant to, and used for, *influencing* process (including progress) and outcomes of restructuring. This means that we can focus on exploring how resources are used for affecting restructuring.

#### **The relationship between information and resources**

The broad definition of resources just introduced does not exclude the possibility of viewing information as a resource. However, following the Contextual Interaction Theory, information and resources are viewed as different variables, while at the same time recognising that they influence each other (Bressers, 2004). Motives form the link between both parts, because motives affect how resources and information are used.

#### **Influencing developments**

Actors try to improve their situation and reach their goals by influencing the approaches taken. They do this by using their resources. There is a wide range of views on power and influence (e.g. Willer et al., 1997; Turner, 2005; Zimmerling, 2005; Clegg et al., 2006; Haugaard and Clegg, 2009). The multitude of perspectives is partly contradictory and partly overlapping. "[...] Power and influence are not properly distinguished in the standard theory

[...]” (Turner, 2005, p.8), and there is no consensus regarding the exact meaning of the terms (e.g. Hillier, 2002, pp.47-48; Turner, 2005; Zimmerling, 2005), nor, in particular, regarding how they are related to each other and to other terms such as authority and control. The term influence is usually preferred to power. Power is often associated with a coercive way of influencing a development, which is inappropriate within a democracy, unless used as the very last option in an otherwise unsolvable conflict. Still, although “[...] power has had a bad press [...]” (Turner, 2005, p. 29), power is, as a wide range of scholars have pointed out, more complex and not a priori ‘wrong’. Power has even been called “[...] the most important single idea in political theory, comparable perhaps to utility in economics [...]” (Elster 1976, p.249). However, literature on influence and power seems to revolve around the same key questions and issues. Therefore the term “influence” is used here as the ‘leading term’, but at the same time information is drawn from the rich literature on “power”.

### **Influence as something actors possess and bring to arenas**

To which degree should influence be regarded as a possession of an individual actor? An actor can assess its power as the probability of reaching his, goal taking into account any resistance (Weber, 1922), that is, to get activities or objectives accomplished (Lovell, 1993; Magenau and Pinto, 2007) by using its resources (e.g. Mintzberg, 1983; Pfeffer and Salancik, 1978). The relationships between actors can then be explained as exchanges, where resources are used to exert influence (Ulrich and Barney, 1984), and power dependencies are measured as asymmetries (Skvoretz and Willer, 1993). This ‘standard’ theory on power as the capacity for influence through resource dependency (Turner, 2005 and references cited therein) provides a base-line explanation of why, actors, for example those involved in restructuring, focus on the need for financial resources and know-how. Such power bases are then ‘simple’ attributes or possessions (Kotter, 1977; Barnes, 1988) present in fixed relations (Clegg, 1989) and can be viewed as some kind of commodity that actors can acquire, exchange, share or even delegate. However, this ‘classical’ view on resources as the base of power has been criticised as being incomplete. It largely neglects the effect of a variety of underlying and much more complex additional power bases. The work of French and Raven (French and Raven, 1959) and Wrong (1979) introduces us to this complexity. French and Raven mention five different power bases. First, there is the positional (or legitimate power: see Wrong, 1979) which refers to a formal authority (Barnes, 1988; Turner, 2005). Second, there is coercive power, which refers to the threat or actual use of ‘punishments’ to ensure compliance. This is mirrored in the reward power, which includes the possibilities of offering something needed by another actor. Wrong applies the term ‘induced authority’, which refers to the possibilities of influencing developments through for example financial measures. The expert power base is quite different: it refers to the skills (know-how) that an actor possesses. Finally, French and Raven include a power base called “referent power”. This is based on personal charisma and interpersonal skills. All these five power bases can be distinguished in complex interactive processes such as restructuring. For example, the role of formal (legitimate) authority during restructuring of industrial sites reserved for the planning agency and higher authorities: government is a very powerful actor (Klijn and Koppenjan, 2000). However, the legitimate formal authority-based influence of planning agencies on processes and outcomes of restructuring is limited. Planning agencies can apply coercion related to their responsibilities and opportunities given by laws and regulations, and they can also offer ‘rewards’ such as co-funding to induce change (Wrong, 1979). These two power bases function as the ‘stick and carrot’. However, understanding influence must also take account of skills, and in particular, interpersonal skills and charisma. There is much more to the use of influence than simple hierarchical approaches or (economic) exchange relationships.

This is where Wrong’s work adds some new perspectives. He introduces manipulation and

persuasion as intentional ways of influencing. This means that “architectures of capabilities” (Grant, 1996) can affect the probability of reaching goals, including the process and the outcomes of an action arena. The sum of capabilities can be viewed as aggregated possessed influence. An actor possesses capital and information, but also bargaining power, legitimacy, and claims that have a certain perceived level of urgency (Mitchell et al., 1997; Friedman and Miles, 2006). If all these characteristics score high related to an action situation, then this stakeholder has a potentially high impact on the process and outcomes of an arena. The different power bases can also be positioned on a range between a “power over” and a “power to” (Elliott, 1980; Clegg et al., 2006). The “power to” adds a particularly interesting perspective, because it links the use of influence to a desired outcome. In most situations, a “power to” (see also “power through” e.g. in Turner, 2005 and “indirect power” in Stone, 1980) is more important than a “power over”. The “power to” refers to an “action potential” (Kooiman, 1993), “capacity to act” (Stone, 1989), “ability to bring about the outcome you desire” (Salancik and Pfeffer, 1988), or “implementation capacity” (Sørensen and Torfing, 2007). It focuses on both the distribution of influence and the aggregated influence, and as such it acknowledges and links influence as a possession of individual actors to a somewhat intangible capability that evolves and flows within an arena. This view on a “power to” means that if a certain group uses a mix of persuasion, authority, and coercion, it can exert its will to gain control over resources (Turner, 2005).

This is an example of shared power, viewed as “[...] shared capabilities exercised in interaction between or among actors to further achievement of their separate and joint aims [...]” (Bryson and Crosby, 1992, p. 13). Although “shared” suggests the presence of a common utility that is distributed among the actors that have power over a situation and in relationships (Dyrberg, 1997), shared power does not mean that all actors have equal power or that power is shared equally (Crosby and Bryson, 2005). This concept of shared capabilities is particularly interesting if some actors have reached a joint vision on the desired developments, but they still need to involve, and convince, other actors. This situation is common in the initial phase of a process. The purpose is always to seek feasible solutions. This requires focusing the influence of the involved actors. Accordingly, the way influence is distributed, shared and ‘added’ up within the arena can be more important than what actors individually bring. Furthermore, what actors bring to an arena can depend on processes that take place before the arena is ‘designed’, so influence is something that is applied continuously in a variety of more or less interconnected arenas, and at certain moments is coupled to specific developments. Influence is accordingly not something that remains constant within any action arena. It is affected by the interaction processes, agenda, and exogenous factors. The position taken here is in agreement with Giddens (1979; 1984) and his theory of structuration. Giddens sees power as something that is both exercised, and created, by agents, but also influences and limits their actions. Power relations are always two-way, and actors are dependent and possess autonomy. It is therefore necessary to understand how influence is actually used within the arena.

### **Intentional use of influence**

The use of influence can be divided into intended and unintended (Wrong, 1979; Turner, 2005). The unintended part is not unimportant, because, for example, a ‘bad first impression’ in interaction between actors has consequences not only for that moment, but also for future opportunities for cooperation. The ‘unconsciously unskilled’ actor can cause much harm both to himself and the process. However, here the discussion is limited to how actors intentionally use their influence for reaching their goals. It should be added that the intention can be not to use one’s influence, if this would help actors reaching their goals. There are several ways to influence strategic decision-making (Friend and Hickling, 2005) intentionally. We view the

restructuring as an overt arena having an open agenda and open access. This means that those actors that participate have all decided to do so, and the reasons for non-participation are sought in passiveness or indifference and not in the influence these actors possess.

In an ideal case, all stakeholders would then be represented in an open and democratic decision-making process. However, this one-dimensional model, as Lukes calls it, (Lukes, 1974) does not explain why in practice some actors are invited to participate and others are not, nor why the processes within an arena are not always completely open and transparent. This deviation from an open negotiation model has been viewed as the impact of a second 'covert' dimension of power (Bachrach and Baratz, 1962). It is encountered as a form of resistance when actors for their own advantage try to prevent decision-making, seriously postpone processes (Bourne, 2009), or exclude topics from the discussion (Holmes, 1988). To reach these goals they can make use of biases that maintain or create situations that favour certain interests, and they try to influence perceptions of what is regarded as important and unimportant. Firms can for example try to move attention towards the quality of the infrastructure or security, whereas an environmental interest group can try to shift the focus towards intensive land use. A variety of outflanking techniques is also applied (Mann, 1986). Actors can intentionally be kept in ignorance, and powerful actors can be divided and kept unaware of other actors in the same situation. This can prevent effective organised resistance, and ensure that only non-effective episodic resistance occurs (Clegg, 1989). For example, both planning agencies and firms have some freedom in choosing how and when they will communicate with other actors regarding developments that interest these other actors. Besides influencing what actors know and what may be discussed, these influencing approaches are also aimed at preventing actors from participating in the decision-making arena, and at obtaining compliance of these actors to the developments (Gaventa, 1980). Any influencing approach may lead to an outcome somewhere between commitment, compliance and resistance (Barnes, 2007). Outflanking approaches are, for example, encountered in restructuring regarding the involvement of project developers, local inhabitants and environmental interest groups. Project developers can be perceived by a planning agency as a threat, because they can use acquired knowledge for speculating in property, whereas environmental groups and inhabitants are 'feared' because they can use participation as a way to collect information intended for future resistance and opposing developments in court. Because these approaches are covert, they are what Wrong refers to as manipulation (Wrong, 1979). Firms involved in a restructuring can for example suggest that they lack the financial means for investing in certain options. They can do this by not saying anything at all, or by saying that they cannot contribute to a complete restructuring challenge, thereby not mentioning that a smaller contribution might be possible. It can be true that firms really lack resources, but it can also be a matter of prioritizing or even be used as a stalling strategy, hoping that the planning agency will find the necessary resources elsewhere. Also planning agencies can use such approaches. They can present plans that suggest developments that are perceived as threats to firms on the site, solely for the purpose of stimulating (re) action and active participation in a restructuring. Finally, interest groups can say that they will not prevent the development of a new site if sufficient attention is given to restructuring. There is no guarantee (unless an agreement in the form of a contract has been made) that this informal 'trade-off' between goals will work.

All these approaches may be called negotiation strategies, but an outside spectator may well find such approaches manipulative. How such approaches are viewed accordingly depends on the normative framework applied. Besides the overt and covert dimensions Lukes found that the role of interpersonal interaction was insufficiently taken into account (Lukes, 1974). He saw how one actor can influence, and determine and shape the will of another actor to the extent that this second actor even does something that is harmful to himself. This way

of influencing is particularly interesting in that it refers to how communication occurs and who is involved in the interaction. It is about how actors involved in an interactive process can influence each other's' behaviour through persuasion (Wrong, 1979), but also about how actors experience a situation and each other. Especially trust matters (, because "[...] when people trust you, they are [more] open to being persuaded by you [...]" (Kirschner, 2007, p.3). An actor's reputation for achievements also matters, and how actors show self-confidence and commitment to ideas (Barnes, 2007), just as enthusiasm, ability to relate well to others and to communicate powerful and attractive ideas in compelling ways. These factors are important both for interaction and the quality of outcomes of a process such as restructuring. There are many examples of 'unexplainable' sudden positive breakthroughs in real life projects that are linked to a charismatic politician, an influential entrepreneur, or a process manager that 'speaks the language of both authorities and firms'. Influence is not only about formal decision-making and negotiations, but also about having the right person at the right place at the right moment: somebody who listens to feed-back, understands the different perceptions of importance, and builds bridges between actors linked to feasible proposals.

### 3. Information

The above shows the importance of the use, and understanding of, information. What is information, and how does it influence decision making, and behaviour? The interest in the field of information collection, processing, and distribution has resulted in a vast body of literature. It includes a wide range of topics such as management of information, and more specific perspectives on group interaction and communication, learning and knowledge, and cognition and relationships with attitudes and behaviour (see e.g. Burnstein and Holsapple, 2008; Clegg et al., 2006; Albarracin et al., 2005; Holsapple, 2003; Frey, 1999; Daft and Lengel, 1986; Pimmler and Eppinger, 1994; Flynn and Flynn, 1999; Thomsen et al., 2004; Premkumar et al., 2005). We will here (as we did regarding motives and resources) not attempt to give any comprehensive overview of the body-of-knowledge, but focus on the information which actors can 'bring' to action arenas, and on how information is used, and developed, within the arenas.

#### **The relationships between data, information, and knowledge**

Actors collect, and use, data. Data are transformed into information when they are given a meaning. An important link between data and information is therefore the information richness, which is the capacity of data for transferring information. We view information here as something that changes, or reinforces, the understanding of a situation. Information, again, serves as input for building knowledge. More information can give a better understanding of a specific topic, but also of the relationships between different topics. Although we only use the term information here, we acknowledge at the same time that the term information includes the (preceding and underlying) steps of data collection, analysis, and interpretation, and that all information is used within, and linked to, the complete knowledge that actors possess (see e.g. Holsapple, 2003 regarding views on knowledge versus information).

#### **Sources, quantity, and quality of information**

Actors decide to enter an action arena (or refrain from doing so), and they act within the arena, based on the information they have. How do they get access to information, and what kind of information do they have?

Actors use a variety of sources of information such as documents, and other actors. Each source has its own specific characteristics, which affect the perceived quality, credibility, and the range of possible interpretations. For example, information from other actors includes

both written and oral communication. Oral, face-to-face, communication has specific advantages, because it is possible to use direct feedback for controlling and correcting one's own interpretations. However, it also introduces additional challenges, caused by the interactive process itself, which will be discussed below. Actors can have information about a large variety of topics. This includes information about a specific action situation, and about other actors. Actors face uncertainty related to lack of information: there is a difference between the available information and the required information. The involved actors face such uncertainty, for example, regarding searches for information on improvement options (Nutt, 2000).

An incomplete understanding can be caused by 'simple' (quantitative) lack of information, but also by ambiguity (March and Simon, 1958). Ambiguous information means that it is impossible to perform an 'objective' analysis, and collecting more of such information will not help improving this situation.

#### **Distribution of information among actors, and the effect of interaction**

Any actor enters an arena 'bringing' its own information. This means that different actors will, at least initially, normally have access to different information: the information is unequally distributed among the actors. The initial difference in 'possessed' information can be large, and it affects how actors behave, and also what they expect from their involvement. During the interaction in the arena, information will to some extent be exchanged, and shared. However, actors usually choose to share only part of their information, and they also choose the specific moments when they believe using, or sharing, information will be beneficial to themselves. They use information strategically for reaching their goals. There is accordingly a continuously changing situation about access to information for individual actors, and about the shared information. The interaction within the arena produces new information too, and the involved actors have to decide how this new information affects their situation, and how it is to be distributed.

#### **Sufficient information versus the concept of 'bounded rationality'**

Each actor continuously assesses whether the available information is sufficient, meaning complete and accurate enough, for making a decision about what to do. All actors, together, also regularly ask themselves whether they have sufficient shared information for decisions about joint actions. Sufficient information is accordingly always related to a specific combination of one or more actors, and a decision. Furthermore, the term "sufficient", implicitly, indicates that the available information at any moment can be less than all information that can be collected about a specific topic. It also indicates that sufficient may also be less than what is desirable. Ostrom (2007) links the problems associated with access to, and use of, information to the concept of "bounded rationality" introduced by Herbert Simon. According to Simon, every attempt to comprehensive decision making will fail, because it is impossible to take all choices and solutions into consideration. He further states that if this should be possible, there will in practice always be lack of problem solving ability or resources (Simon, 1957; North, 1990; Ostrom, 2005). In other words: actors make decisions based on an incomplete understanding of a specific situation.

#### **Available information needs to be satisfactory, and actors are 'satisficing'**

How do they make these decisions? How do they view, and assess, information completeness? Actors collect information on a variety of decision related aspects such as uncertainty, risks, investments, and effects of possible solutions, and each actor has its own specific information needs. For example, politicians are particularly interested in information about how collective interests are affected (Massam, 1993), and interest groups seek information about effects on

their specific objectives (Klaassen, 1995).

The total assessment of possible decisions includes aspects such as possible effects on relationships with other actors. This means that, although information will be used as input for 'hard' calculations, 'soft' aspects are also taken into consideration. Each actor collects information until a satisfactory level has been reached. This satisfactory level reflects a complex aggregated total of information on all specific aspects such as investments and effects.

New information affects what initially is perceived as satisfactory information related to a specific decision. Or, in other words, new information can change both information needs, and the decision itself, considerably. Firms will, for example, continuously assess effects of different developments on profitability, which implies that they often prioritise internal investments (Rhodes, 1997) above investments in, for example, restructuring (EZ, 2001). An urgent internal investment, such as a necessary replacement of crucial production equipment, is an example of how priorities can influence a decision. The same applies to planning agencies that have to prioritise among multiple goals in a local community. Restructuring of industrial sites, for example, is only one of a multitude of issues that 'fight' for a position on the agenda of a planning agency. Information that indicates a higher urgency, or importance, of another existing problem, can change the view on a (preliminary) decision about such a restructuring, and lead to an altered distribution of financial means.

Both new information, and lack of information, can lead to increased uncertainty about what to do, and any increase in uncertainty has consequences for an organisation (Kukalis, 1991; Clark et al., 1994). Uncertainty can influence the willingness to take decisions. For example, "[...] in an environment of increased uncertainty due to lack of adequate information, program managers [of public organisations] will rationally avoid decision making due to an unacceptable level of risk they perceive to be associated with the probability of making an incorrect decision [...]" (Fuller and Roffey, 1993, p.154).

#### **Cognition, affect, and interaction all matter**

Actors interpret information, and their decisions are based on these interpretations. Their decisions do not fulfil the assumptions of rational choice theory, because they rarely (or maybe never) possess all necessary information, and their preferences are influenced, and changed, by the information they receive. How do actors interpret? What kind of 'truths' are the outcomes of these interpretations? Stein (as earlier mentioned) says that calculations, and behaviour, of actors are based on *perceived* interests and the alternatives which they *think* are important (Stein, 2006). Actors interpret reality, and their interpretations are mediated by frames of reference (Bressers, 2009). Their cognitions (interpretations of reality held to be true) are not only based on 'facts' (see e.g. Corr, 2010 for an introduction to the complexity of the term "cognition" and its relationships to behaviour). They take into account the credibility of the actor that provides the information, and also the (personal) relationship with this actor, into their assessment of the value of information. We therefore agree with Lupia when he says that "[...] our treatment of how people reason should be informed by modern scholarship about how *cognition and affect* affect information processing [...]" (Lupia et al., 2000, p.12, emphasis added by author). This shows that the interaction between actors in a specific action arena influences how information is used, and given meaning. Actors use information within the arena for a variety of purposes such as influencing roles, decision-making and participation (Arnstein, 1969; Friedmann, 1973; Pröpper and Steenbeek, 1998), negotiation and bargaining for resources (Bekkers, 1996; Salet and Faludi, 2000), and attempts to reach consensus (Driessen and Vermeulen, 1995; Innes, 1998; 2004; Woltjer, 2000). These, and more, processes often occur at the same time, and they can often not be distinguished as separate activities. To some extent the change is socially constructed (Berger and Luckmann,

1973; Guba and Lincoln, 1990), and the outcome is not only uncertain, but the ‘truth’ is also locally and politically situated (Popkewitz, 1984). It is therefore not surprising that getting results other than expected seems intrinsic to such complex interactive (consensus) processes (Woltjer, 2000). Information and meaning are both ‘created’ in the discourse process, and the actors involved “[...] fall short of the ideal model of rational choice [...]” (Lake and Powell, 1999, p. 216), which also means acknowledging that actors to a certain extent are fallible (Ostrom, 2005).

#### 4. Action situations and interdependency

*“Interdependence is the reason why nothing comes out quite the way one wants it”  
(Pfeffer and Salancik, 2003, p.40).*

Actors participate in specific action arenas because they want to protect their own interests. In addition, they know that their efforts to maximize benefits and minimize losses are to some extent dependent on others (Scott, 2000; Immergut, 1998, Lupia et al., 2000; Woltjer, 2000), and that they might need to cooperate to reach their goals (Bruijn de and ten Heuvelhof, 2000).

The degree of interdependency is a characteristic of specific action situations and it influences the way actors choose to act. An action arena can be quite complex, because there can be several actors involved, and the interdependency between (pairs of) actors varies. The actors often experience this ‘tangle’ of interdependency relationships as a situation where “[...] no single actor, public or private has all knowledge and information required to solve complex, dynamic and diversified problems; no actor has sufficient overview to make the application of needed instruments effective; no single actor has sufficient action potential to dominate unilaterally [...]” (Kooiman, 1993, p.4). It is also experienced as a situation where “[...] a variety of actors [are] making decisions in a web of relationships [...] and] there is neither a purely private nor a purely public realm” (Freeman, 2000, p. 673). The actors involved are at the same time interdependent and operationally autonomous (Sundström, 2010), and they are regularly confronted with dilemmatic decisions (Sorge, 2005) in their goal-seeking process towards largely unknown “zones of agreement” (Raiffa, 1982; Raiffa et al., 2002). What is this complex phenomenon called interdependency, and how does it affect arena performance and outcomes?

##### **What is interdependency and how can it be characterised?**

Interdependency (alternatively referred to as mutual dependency) is something that characterizes a relationship between two or more aspects. There are two distinct perspectives available on what these ‘aspects’ can be.

One possibility is to focus on activities or tasks. In restructuring, for example, all activities are related to overall progress and outcomes. In that sense interdependency means a contingent relationship between (tasks or) activities (Thompson, 1967).

The other perspective, and the one taken in this study, focuses on the actors involved and their interdependency. Interdependency influences how actors behave, and make decisions: there is a felt need for joint decision-making (March and Simon, 1958). Interdependency stimulates interaction in search of commitment to solutions. As Woltjer expresses it: “[...] In answering the question ‘why to engage in a consensus process’, the mutual dependence or interdependency of actors turns out to be essential [and such] mutual dependence usually materialises because of a joint problem or because lower government levels are responsible

for the operationalisation of a plan [...]” (Woltjer, 2000, p. 149).

Such joint problems can be either actual or perceived, in the sense that actors are unable to solve the problems without cooperation, or they can feel a certain obligation to involve other actors in order to, for example, give solutions legitimacy and to create broad commitment. In practice, a mix of actual and perceived interdependencies is usually encountered, and actors more or less consciously, and continuously, take them all into account. Actors do so, because they know they have influence through relationships and mutual obligations (Barnes, 2007). Firms, for example, in general try to minimise their dependency on others, while maximising the dependency of others on themselves (Salancik and Pfeffer, 1988, Scott, 2003; Straub et al., 2008). On the other hand they (and other actors as well) deliberately develop and maintain trust-based interdependency relationships as a strategy for reaching their goals. Sometimes an individual actor can implement change, such as improvements that are limited to its own property and are not restricted by laws and regulations. On the other hand, an actor’s willingness to make this investment is often influenced by other perceived or actual interdependencies.

The cognition of interdependency, and the actual interdependencies, can both be actively influenced, because “[...] the way individuals interact depends on how interdependence is structured in the situation [...]” (Johnson and Johnson, 2005, p. 319). Interdependency is accordingly more than a constant, or a ‘simple’ constraint that limits freedom of choice. It is at the same time a variable that can be integrated in arena design and management, and it can be used for influencing arena performance.

What are the characteristics of interdependency relationships? Actors can take a variety of dependency characteristics into consideration in their decision-making, such as importance (criticality and magnitude) and legal necessity (Oliver, 1990); tightness, or strength, of couplings (Granovetter, 1973; Weick, 1976, Orton and Weick, 1990; Sanchez and Mahoney, 1996); symmetry and power (Pfeffer, 1981; Pfeffer and Salancik, 2003); reciprocity (Thompson, 1967; O’Toole, 1988; Oliver, 1990); vertical (hierarchical) versus horizontal in networks (e.g. Hanf and Scharpf, 1978; Kooiman, 1993; Rhodes, 1997; Klijn, 1997; Sørensen and Torfing, 2007); exchangeability of alternatives (Scharpf, 1978). Finally, there are also “contingent interdependencies”, which refer to situations where timing is a major uncertainty (March and Simon, 1958).

Given this diversity, some interdependency-relationships may even be too complex, or subtle, to be identified (Siggelkow, 2002), and completely understood through rational analysis (Weick, 1990). To counter this, it is sometimes possible to simplify by viewing interdependencies as existing only in cases where such a relationship has been “consensually validated” (Gresov and Stephens, 1993).

##### **Actor interdependency regarding motives, resources, and information**

In spite of this complexity, it is possible to explore actor interdependencies. We do this from the three perspectives established earlier: the motives, resources, and information that characterise the actors in the process. Each of these perspectives sheds different light on dependency relationships between actors. The different perspectives do not lead to the same single ‘solution’ for understanding interdependency, but can be used in a complementary manner to provide an expanded view on performance, and outcomes, of action arenas.

##### **Motives: goal interdependency**

Interdependency influences which goals actors choose, and how they are pursued, and the actors take interdependency into account when assessing the potential effects of their behaviour both on current and future opportunities. For example, firms and planning agencies

in restructuring know that they will need each other for a variety of issues at different moments in time (Bueren van and ten Heuvelhof, 2005, p. 63), and this influences their willingness to cooperate (de Bruijn and ten Heuvelhof, 2000). Actors take into consideration a wide range of additional strategic goals linked to establishing, and maintaining, inter-organisational relationships (Dyer and Singh, 1998; Barringer and Harrison, 2000). Firms, for example, accept the interdependency of cooperative agreements in order to reach goals such as better access to know-how, sharing of risks, and influencing governing bodies ((Powell, 1990; Barringer and Harrison, 2000).

This complex interdependency makes actors experience the interaction in the arenas as strategic interactive choice processes: the ability of actors to reach their goals depends on the actions that others take (Lake and Powell, 1999). These interaction processes accordingly include a diversity of 'strategic choices' (Friend and Jessop, 1969) where the interdependent actors pursue goals by shaping the decision making context, and by influencing choices of other actors (Collier and Norden, 1992). The way actors choose, and pursue, such goals is addressed within the social interdependence theory, which posits that the outcomes for actors are affected by each other's actions (Deutsch, 1949; 1973; for a comprehensive overview see: Johnson and Johnson, 2005). If goals can be achieved solely through one's own actions, the actor in a relationship is independent. If, in order to achieve one's goals, one's own actions have no effect but the other's actions do, then an actor is dependent. There is interdependency when the actions of both sides are necessary to achieve goals. The theory further posits that actors therefore view goals as cooperatively, competitively or independently related. When actors cannot benefit without reaching some kind of agreement, their interests, and goals, are complementary: they cooperate. The interests are opposed if benefits (e.g. resources) have to be divided between actors, and the more one gets, the less the others get (Willer et al., 1997). In such a case the actors compete.

Although the social interdependency theory was first developed based on the assumption of a single goal, "[...] in the real world, each person always has multiple goals and, therefore, situations are always mixed motive, with individuals often having cooperative, competitive, and individualistic goals in the same situation [...]" (Johnson and Johnson, 2005, p. 295). Actors therefore choose their strategy for pursuing each goal based on an assessment of its nature, and at the same time they focus on the total effect on all their goals.

Ideally there is a situation of reciprocity in the arena, when actors are cooperating to reach mutually beneficial goals (Oliver, 1990). However, in particular, some of the more traditional public goals may be incompatible with traditional private goals. In such situations "[...] a complicated exchange (the original Dutch text applies the terms "uitruil en uitwisseling") of goals is necessary [...]" (Teisman et al., 2001, p.51).

The actors accept the interdependency (and hence the necessity to cooperate) in a specific action arena only as long as they believe it is beneficial to reaching their various goals. The key question they ask themselves regarding the interdependency relationships "[...] is the simple notion of whether [they] make sense and whether the advantages outweigh the disadvantages [...]" (Barringer and Harrison, 2000, p. 368). Actors take both long-term and short-term effects into account. They can participate because they expect future benefits to (more than) compensate for current (transaction) costs (Blau, 1964). On the other hand, if a short term perspective dominates, they cooperate only as long as both parties are making a profit (Homans, 1961). Planning agencies, for example, often have a long-term perspective on restructuring whereas firms tend to be more focused on short-term improvements, which suggests that an appropriate combination of 'quick-win' goals and long-term ambitions is needed.

Finally, goal interdependency is not limited to one specific action arena. Actors usually participate in more arenas (more or less) at the same time, and they need to take into

consideration how the performance of the different arenas affect each other. The effectiveness, for example, can depend on policy-making in one specific arena, but the results have to be approved in another arena (Benz, 2007). This interdependency can affect both outcomes, and, in particular, progress.

### **Resource interdependency**

Resource dependency is one of the main reasons why actors participate in specific action arenas. They need each other's' resources for reaching their goals.

The extensive literature addressing resource dependency has focused both on inter- and intra-organisational relationships (e.g. Ulrich and Barney, 1984, Ancona and Caldwell, 1990; Malone and Crowston, 1994; Roth, 1995; Barringer and Harrison, 2000; Casciaro and Piskorski, 2005). In particular, inter-organisational studies are increasingly addressing resource dependency in complex situations, such as encountered in internal 'networks' of subsidiaries of multinational corporations (Ghoshal and Bartlett, 1990; Birkinshaw et al., 1998; Birkinshaw et al., 2001, Mudambi and Navarra, 2004), and in networks involving firms (Scharpf, 1978, Thorelli, 1986; Johanson and Mattson, 1987; Medcof, 2001), and in networks involving other actors also (Teisman, 1992; Rhodes, 1997; Klijn, 2008).

Resource dependency theory tries to explain the success of organisations in maximizing their 'power' in an uncertain environment (Pfeffer and Salancik, 1978; Pfeffer, 1981; Emerson, 1962; for an attempt to summarize the basic tenets of research dependency theory, see Brandsen, 2004, p.31). The term power in this case refers to the control that an entity has, or tries to get, over scarce and essential resources in order to ensure a sustainable competitive advantage (Mintzberg, 1983; Barney, 1991; 1995), and dependency is accordingly related to asymmetries in exchange relationships (Pfeffer and Salancik, 1978; Mintzberg, 1983; Ulrich and Barney, 1984; Barney, 1991; 1995). The more important a certain resource is, the more control is desired (Pugh and Hickson, 1996).

Finance, for example, is generally viewed as the most important example of such scarce and essential resources in restructuring industrial sites (e.g. EZ, 2004b; THB, 2008a). Separately, the planning agency and firms on the site have insufficient control over, or access to, the necessary finance for integral site improvements, and accordingly there is high resource interdependency. So resources need to be shared, or used in a complementary way, in different forms of cooperative partnerships (Mitchell and Singh, 1996). This can be a way of reaching sufficient capacity for addressing the major challenges encountered (Dyer and Singh, 1998).

### **Information interdependency**

Developing such cooperative partnerships means building commitment and trust, and a key factor in this process is the exchange, and sharing of, information.

The specific problems regarding dependency on information are central to the organisational information processing theory (Galbraith, 1973; 1977). The basic assumption of this theory is that organisations need information for performing activities, but always have limited capacity to access and subsequently process it. Action arenas present opportunities for getting access to the needed information. However, although arenas may be effective, or even the only option for reaching goals, they are not necessarily efficient. This depends on the willingness of actors to share information.

Actors can face two different kinds of information interdependency. First, they can be dependent on each other for access to facts about, for example, the existing situation in a specific area (e.g. an industrial site). These facts can be more or less 'confidential', and the willingness to share the information is influenced by the value it can have both inside, and outside, the arena. For example, information on production processes of firms

can have strategic value for competitors, and information about plans of planning agencies (e.g. for development of land) can be valuable to property developers. Second, actors are interdependent regarding information about the commitment to specific potential outcomes of the arena. This interdependency is even more complicated, because actors have certain preferences and they use their information to bargain for solutions that fit these preferences as well as possible. There are usually also several options available, and the gradual, cautious, exchange of information can change the total pattern of interdependency between the actors. This means that the interdependency remains an important factor during each 'round' in the action arena.

#### **Understanding interdependency as aggregated one-way dependencies**

The interdependency relationships between actors such as planning agencies, firms and other actors are complex. There is an underlying notion of perceived reciprocity (Thompson, 1967; O'Toole, 1988), because many involved actors are aware of their mutual long term dependencies. Although each of the individual dependencies has different strengths (Granovetter, 1973; Weick, 1976, Orton and Weick, 1990; Sanchez and Mahoney, 1996) and power distribution (Pfeffer, 1981; Pfeffer and Salancik, 2003), they all have in common that one of the actors to a large extent is dependent on the other one. There are aggregated 'intangible' interdependency relationships between the actors, which consist of several different one-way dependencies.

For example, firms have a legal dependency (Oliver, 1990) on planning agencies for permits, and at the same time planning agencies have a dependency on firms for their contribution to the local community. These relationships are often characterised by a lack of exchangeability of alternatives (Scharpf, 1978), which means that one actor cannot simply be exchanged for another one. The actors involved are 'bound' to each other. For example, no other actor can replace the planning agency in its legally defined role regarding permits. Furthermore, it is not always possible to 'trade' such individual dependencies. For example, a planning agency cannot use its power 'resource' regarding permits legitimately in any explicit bargaining game (Axelrod, 1984; Osborne and Rubinstein, 1990).

Accordingly, actors, such as firms and planning agencies, can find it difficult to know how to address these interdependencies related to specific problems. They need to share resources for reaching joint goals, and also to translate interdependency into clear agreements on division of costs and benefits. They need to interact not only in general, but more specifically they need to find the right way of cooperating related to the complete process and to individual situations. If they perceive their interdependency as strongly asymmetric, then these (resource) imbalances may result in power struggles in (otherwise) cooperative situations (Powell and Exwonhy, 2002), which again can affect process performance. This combination of a perception of an 'intangible' complex interdependency and pursuit of multiple goals can explain why actors are willing to participate in action arenas, but there is no guarantee that actors will be willing to make any substantial investment in specific solutions. The effects of interdependency are different for process participation than for investment in solutions. Planning agencies therefore have to address both issues at the same time.

## Appendix IV

### Interview guide for moderators

#### Notes:

- This appendix contains a translation of the original version written, and applied, in Dutch. The original Dutch version is available from the author on request.
- All Focus group participants received the same interview guide: only the specific remarks for the moderators were not included

#### Interview-guide for moderators of Focus group sessions

*“Accelerating restructuring without negatively affecting quality of the final outcomes”*

Kjell-Erik Bugge  
Centre for Urban and Environmental Development  
Saxion

#### Introduction

This is the version for moderators! A separate version (without the specific parts for the moderator) will be made available to participants prior to each session.

It is, of course, quite important that the research is not 'polluted'. In other words: the sessions must be performed in a scientifically correct way. In this respect you – as moderators – are crucial. Your role in approaching and selecting participants, applying the participant profile described below, is a first important element. Second, it is, of course, important that information about, and in particular results of, sessions are not communicated to anybody before all sessions have been completed!

#### The objective of the sessions

A model for accelerating restructuring without negatively affecting the quality of the final outcomes is presented. The objective of the sessions is that the participants enrich (test and operationalise) the model based on their experience in practice.

#### The ideal participant

The ideal participant has extensive experience in practice with restructuring (or at least extensive experience with industrial site development). He / she works for authorities, Chamber of Commerce / industry, consultancies or a regional development agency.

This group does accordingly not include people with interest in the topic, but without experience. And also not people having significant theoretical knowledge, but no experience.

## Procedure (structure of the session)

The model is first briefly introduced (by me). Then the moderator takes over responsibility for the session. The applied approach is a group interview (Focus group session) based on three questions regarding the use of the model.

## What is a group interview (Focus group)?

The most important difference between individual and group interviews is that group processes will occur. These are accordingly acknowledged as an explicit part of the interviews. The composition of the group will therefore affect both the (interaction) process and the outcomes. The more homogenous the group, the more 'controllable' (in theory) the process will be.

The groups being brought together are selected by you based on two criteria: involvement in, and know-how about, industrial site development. In that respect these groups are quite homogenous, but there are also differences between the participants such as regarding role in the process, interests regarding outcomes and influence. There are also differences on a personal level (is somebody dominant or not, level of experience, educational level, ability for abstract thinking etc.).

In practice (according to literature) especially two mechanisms occur during sessions. An argument (opinion) often leads to a reaction such as a counter argument, given by somebody else in the group having a (partly) different opinion. On the other hand, discussions usually tend to lead to some kind of consensus result.

## What is the role of the researcher?

The role of the researcher is limited to the initial presentation providing basic information. During the rest of the session he is only taking notes and observing.

## What is the role of the moderator?

In short he is the leader of the discussion, but also the one who facilitates that people (are able to) give their opinions. The moderator determines - in essence - the difference between success and failure of the sessions.

The main tasks of the moderator are to:

**1. Facilitate that individual participants express clear quotes (opinions, arguments) and (as far as relevant) facilitate that widely supported opinions (i.e. consensus opinions) per question are discovered.**

(I will not know all participants personally and also have limited time for taking notes. It is therefore important that the moderator always uses the name of the participant when addressing him or her. That makes it easier for me to link name to quote.

If there is doubt about the exact meaning of something said: ask for clarification and write down high-lights on a flip-over, repeat and ask for confirmation whether this is what the person meant etc.)

**2. Ensure that all questions are addressed within the available time.**

(all sessions must have identical structure and content. This also means that time spent on each question as far as possible should be identical for each session.)

**3. Ensure that everybody is heard and at the same time try to avoid that (a couple of) people dominate the session.**

(this is an often encountered 'problem'. Group processes are allowed, but at the same time the researcher needs to hear the full range of opinions)

## 5. Follow up interesting topics of discussion

(this is again an important activity for the moderator: understanding the importance of a remark and addressing it.)

### Structure

Each session has an identical structure.

1. Short introduction (10 - 15 min.) about research results and (especially) the model.
2. Group interview (ca. 2,5 h) led by moderator
3. Summary (5 - 10 min.) where the moderator tries to sum up the most important issues and asks for 'confirmation' from the group.

## Ad 1. Short introduction (K-E Bugge)

(Besides providing the texts for moderator and participants, a Power-Point presentation is used)

### The challenge and the obstacles

The role of the local authorities is to design and manage a restructuring, first towards a vision and subsequently towards the necessary measures. The actors involved in the process usually have different opinions about priorities regarding problems and possible solutions. The local authorities therefore have to deal with complex decision making: in 'rounds' including partly new participants, improvement options are sought, options are compared and, finally, decision are taken. During this process the local authorities encounter many 'obstacles'. Summarised (based on an analysis of reports) five main groups of obstacles are recognizable: process, organisation, financing, laws and regulations, and know-how.

## The model

### Decision making in 'arenas'

The model is intended to support decision making for the restructuring of industrial sites, having as objective to accelerate the processes without compromising the quality of the final outcomes. The model is based on theory about actors and their interactions.

The restructuring is viewed as an 'arena' where participants are the stakeholders that a) have an interest in addressing the 'challenge' (a problem and/or an objective that goes beyond problems: i.e. for instance linked to a long term vision) and b) have influence on (enabling) the implementation.

The model assumes that there are only two kinds of arenas: linked to a restructuring *initiative* and linked to an *implementation* of specific improvements. The Initiative-arena focuses on getting the process started and formulating goals, whereas the Implementation-arena always aims at choosing and implementing specific improvement measures. The following issues apply to both arenas.

### Important activities and factors during a restructuring

The model splits restructuring (regardless of kind of arena) into three main activities. First the local authority (or other 'planning agency': see below for an explanation) identifies a specific 'challenge' and its stakeholders. A 'challenge' can e.g. be to reduce the extent of plots not being used. Then the stakeholders that have the highest interest in, and influence on, a development are identified, and the local authority tries to involve these stakeholders as participants in the arena. The final activity is to manage the arena towards commitment to implementation of results.

During this process four factors are addressed: motivation, information, resources and interdependency. Motivation is the willingness of an actor to invest in a process and/or measures. Information is the knowledge about problems, effects and improvement options, and, in particular, the related costs, benefits and risks. Resources are not only financial, but also include influence, know-how and time. Interdependency means that an actor needs a contribution from one (or more) actor(s) for reaching his own goals.

It is furthermore assumed that initially there will always be insufficient resources available AND (partly caused by this) there is always a high degree of interdependency between actors. These two variables are accordingly viewed as constant in an initial phase and accordingly only the factors "information" and "motivation" are addressed as variables.

Furthermore the following issues are included in the model:

1. Resources are never available unless actors are willing to give them (e.g. resources are allocated from budgets of the local authorities OR a province is willing to co-fund a development). In other words the factor 'resources' is always dependent on (i.e. 'follows') the factor motivation.
2. Information can influence actor motivation, but sufficient information as such is never sufficient (an actor can e.g. know everything there is to know about a measure, but still have good reasons for not wanting to invest in it).

The model accordingly focuses on motivation, and views information as an important factor for influencing motivation.

#### Role of the local authorities and supporting the choice of process measures

The model is primarily intended for supporting how the "planning agency" (= the actor that normally initiates and manages the process: usually a local authority) can accelerate the process through 'smart' use of process measures. These individual measures are all well-known by practitioners: problem analyses regarding performance of the sites, analyses of risks and feasibility, selection of a 'best choice' challenge (e.g. applying a multi-criteria analysis), stakeholder analyses, measures for (re) design of a process, and how agreements can be formalised.

'Smart' use of measures means making choices depending on the specific characteristics of the situation. The model supports decision making through simplifying and structuring the complexity of restructuring.

To achieve this goal, the planning agency uses decision supporting questions that enable identifying the situation regarding both of the factors motivation and information, and subsequently (depending on the answers) that enable planning and implementing actions. The planning agency accordingly chooses an approach depending on whether the available motivation and information is considered to be satisfactory.

The decision support questions are all "yes / no" questions that always lead to a follow-up through a "if ... then" link. If the answer is positive, then it is possible to move on to a next question. If the planning agency is uncertain of the answer (or the answer is negative), then EITHER follow-up questions are asked (i.e. more in detail regarding aspects) to gain more clarity OR measures are applied for improving the situation.

#### Specific situations

Although the model enables managing all possible situations, a planning agency will prefer to know how to act in specific situations. Even having only two variables (motivation and information) there are still an infinite number of such situations. The model therefore, to make this challenge manageable, restricts itself to suggestions for handling four 'extreme'

situations. The planning agency considers the aggregated motivation either satisfactory OR unsatisfactory, and the same for information. In both cases an assessment of satisfaction is linked to a specific challenge. The aggregated motivation is what all participants together are willing to allocate c.q. invest. This leads to four possible situations:

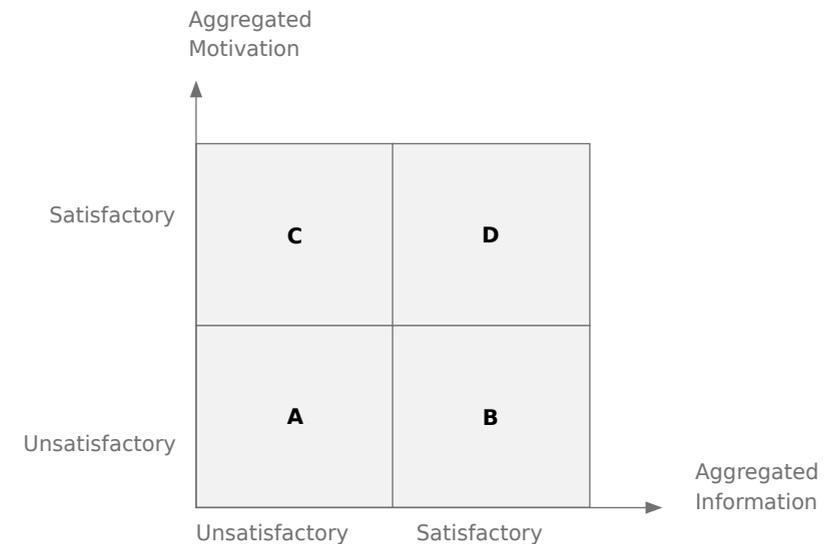


Figure 1. Four specific 'extreme' situations

#### Ad 2. Group interview led by moderator

The objective of the session is **ENRICHMENT OF THE PRESENTED MODEL**. This implies e.g. to add issues or make issues more clear, and accordingly the moderator is to prevent discussions about alternative models (i.e. comparisons).

A first starting point for the discussion is that (it is assumed that) the local authorities have already decided to initiate, design and manage a restructuring, but they are dependent on other actors for a successful process and, in particular, they have insufficient resources.

The second starting point is that all questions are about **HOW THE PROCESS CAN BE ACCELERATED WITHOUT COMPROMISING THE QUALITY OF THE FINAL OUTCOMES**.

The questions focus on some main issues of the model (i.e. not all parts of the model are addressed explicitly in detail).

## Question 1 (duration: short exploration of ca. 20 min.)

### Introduction

The model views restructuring as complex decision making ('rounds' of searching, assessing, deciding who the participants should be, problems and solutions) in arenas. The model aims specifically to help the planning agency to accelerate the process by influencing actors and their interactions.

Specifically, the challenge for the planning agency is to couple the right actors to a well-defined (qua scope) challenge / problem.

A 'best choice' challenge is selected by the planning agency (usually based on the outcome of interaction with other actors) through an estimate of impact on progress of the restructuring. This may imply that a 'small' problem be handled first OR alternatively a larger, more complex, problem is addressed.

The 'right actors' are those that have an interest in, and/or influence on, improving the situation. These actors can accordingly be 'problem owners' as well as actors that possess the necessary resources. The model refers to these crucial actors as "preferred participants".

### Question for discussion:

*How can preferred participants in restructuring be chosen so as to accelerate the process?*

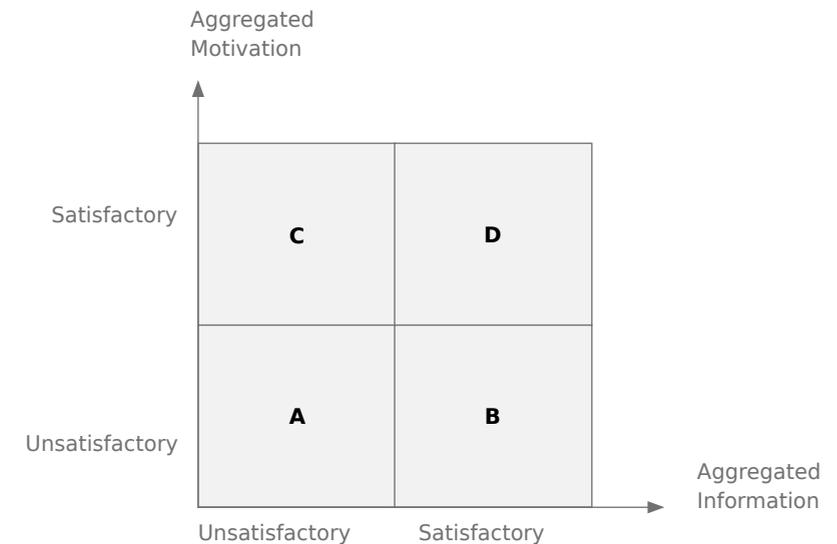
Explore e.g. through:

*Dependency on kind of arena and time. In other words: who are particularly important in an Initiative arena, who in an Implementation arena, and who during the whole process?*

*How do the choices regarding participants affect progress on a short respectively long term (i.e.: advantages and disadvantages and risks)?*

## (Main) Question 2. (duration: until ca. 30 min. before end of session)

Four extreme (initial) situations A-D are possible:



### Situation A.

**Example:** Firms on the site, the Provincial authorities and other potential investors (contrary to the planning agency / local authority) are not convinced about the necessity of any restructuring. There is no overview of problems and effects and certainly no agreement about what needs to (should) be done.

### Situation B

**Example:** The planning agency has developed a plan based on satisfactory insight into problems, effects and improvement options. There is unsatisfactory (broad) commitment to the plan.

### Situation C

**Example:** Firms and local and provincial authorities all have satisfactory motivation for starting a restructuring initiative, but it is unknown what problems and effects exactly are and, especially how they can, and should, be addressed.

### Situation D.

**Example:** There is satisfactory motivation (i.e. resources allocated) for implementing a chosen solution / approach. (NB. The situation can in practice also be different: namely that the aggregated resources are insufficient for implementing the first choice solution. The question then arises whether a 'second choice' option should be chosen OR e.g. try to involve (partly) other actors and work towards making the first choice option feasible).

*What is the best sequence for accelerating the process (without endangering quality of the outcomes) when moving from the 'worst case' situation (A) towards a situation (D) where both the aggregated motivation and information are viewed as satisfactory?*

(Note for moderator: ensure that all 'routes' are discussed)

**Are you moving directly from A to D, and in case you do: how?**

(e.g. careful start, joint initiative, small scale improvement options having positive effect on future process aimed at stimulating a 'snowball' effect)

**Are you moving from A to B and then towards D?**

(e.g. First gaining insight into problems, effects and solutions, then a process towards building commitment OR is it better to acknowledge that the different actors will never support the plan which, therefore, needs to be discarded: i.e. moving back to A and then on to C?)

**Are you moving from A to C and then towards D?**

(e.g. First building motivation, then together searching for solution. But: Conflicts can emerge during the second step when more specific solutions have to be sought and compared, so how can that be prevented?)

### Question 3 (duration: short exploration of ca. 20 min.)

#### Introduction

For the implementation arena the model applies decision support through questions about the variables motivation and information. Below some examples are given of applied questions:

**Is the 'best choice' challenge known?**

(i.e.: has the planning agency been able to select the problem / challenge that is expected to have the most positive effect on progress of the process)

**Are participants satisfied enough with the draft organisation of the initiative?**

(i.e.: regarding how different actors are involved in the arena)

**Are the participants satisfied with the chosen solution?**

(i.e.: how does the planning agency know when the process is 'completed')

An essential issue regarding these questions is that the planning agency has to assess whether the available information is satisfactory and/or whether actors are satisfied enough. This assessment can have significant consequences for both progress and process outcomes.

#### Basis for discussion:

"Satisfactory" is always linked to a specific situation. The local authorities, as process manager, can e.g. strive to reach satisfactory motivation for implementing a pre-selected measure. Then the desired end determines what satisfactory means: namely the aggregated resources allocated are sufficient for implementing the specific measure, and there is nobody that wants to (or can) block this development.

"Satisfactory" often also means something else: sufficient for continuing the process and at that specific moment in time the 'best choice' regarding progress. This 'best choice' is accordingly no 'ideal' situation, but it is one often encountered in practice. Some actors are less (or not at all) satisfied, and the planning agency takes that into account when choosing a follow-up approach (such as adjusting organisation or arena participants OR adjusting the arena itself towards a solution where satisfactory commitment may be achievable).

The essential issue is that the planning agency (jointly with other actors or not) continuously has to choose what to do in a situation possessing some degree of uncertainty. This choice is always based on the aggregated available motivation and/or information (which includes the distribution of both factors among actors) and is always based on an assessment of what at that moment the best choice is for process performance, and, in particular, progress.

#### The question:

*How can a planning agency determine when information or motivation is satisfactory (enough) for achieving an acceleration of the process (without endangering quality of the final outcomes)?*

---

#### Summary of most important issues (maximum 5 -10 min)

This can be limited to main issues and conclusions that e.g. have been written down on a flip-over during the session.

# Appendix V

## Focus group participants

<i>Name</i>	<i>Organisation</i>
Van den Aniel, Arie	Gemeente Ede
Bevers, Ryan	Gemeente Tiel
Boerman, Willem	Provincie Overijssel
Bronsema, Annemiek	Provincie Overijssel
Coenen, Chrit	Gemeente Echt-Susteren
Doorackers, Jan	Doorackers Advies
Geerlings, Frank	Oost nv
Gehrels, Annemarie	IPO
Gordon, Rob	Brabantse Ontwikkelingsmaatschappij (BOM)
Hartsuiker, Jeroen	Provincie Drenthe
van der Heijde, Pieter	Bureau Stedelijke Planning
Huntink, Willem	Provincie Gelderland
de Jager, Frans	Gemeente Rotterdam
Janssen, Jeroen	Gemeente Nijmegen
Juurlink , Esther	De Wijde Blik
Kamphuis, August	Gemeente Rijssen-Holten
Keuker, Onno	MKB Nederland
Kierkels, Dennis	LIOF
Krijgsman, Jeroen	BOM
Kruisselbrink, Maarten	Bureau Buiten
Lotgerink, Wilfried	Lotas
Mossel, Piet	Provincie Overijssel
Olden, Han	Stogo advies
Op de Haar, Frits	Frits op de Haar Economie en Ruimte
Pen, Cees-Jan	Nicis
Pigge, Daan	Meedenken en doen
Roeterdink, Joost	Provincie Gelderland
de Roo, Bastiaan	Kamer van Koophandel Den Haag
Rook, Arjan	Gemeente Breda
de Roos, Irma	Gemeente Den Haag
Rotink, André	Gemeente Culemborg
Schaefer, Wim	Technische Universiteit Eindhoven
Sjerps, Rob	Arcadis
Smid, Wouter	Gemeente Emmen
Snippe, Maxim	VROM
Tibben, Alfred	Explorius Vastgoedontwikkeling B.V.
Verhoeven, Irma	Kamer van Koophandel Brabant
Wagemakers, Gé	BOM
Walman, Jolanda	Provincie Overijssel

# Appendix VI

## Moderators and hosting organisations

### *Moderators*

Amersfoort:	Jan-Willem Wesselink	Elba Media
The Hague:	Cees-Jan Pen	Nicis
Zwolle:	Han Wiendels	HMO
Arnhem:	Joost Roeterdink	Province of Gelderland
Tilburg:	Jeroen Krijgsman	BOM

### *Hosting organisations*

Amersfoort:	Elba Media
The Hague:	Nicis
Zwolle:	Province of Overijssel
Arnhem:	Province of Gelderland
Tilburg:	BOM

# Appendix VII

## Invitation letter

*Note: Translated version of the original invitation letter in Dutch.*

Dear Sir/ Madam,

We are pleased to invite you, as an expert, to participate in the Focus group session "Accelerating restructuring of industrial sites: How can it be done without loss of quality?"

The session is organised at \_\_\_\_\_ from \_\_\_\_\_ at \_\_\_\_\_

First, the session is interesting! You are making acquaintance with a brand new decision support model for accelerating restructuring. This model has been developed by researcher Kjell-Erik Bugge of Saxion as part of his PhD-study, and he wants to assess the model together with practitioners.

Second, the session is challenging! Because we expect you to deliver an active contribution to the enrichment of the model. You will take part in a discussion including a select small group of fellow experts coming from local authorities, provinces, regional development agencies, consultancy firms, and representatives of industry, led by an experienced moderator.

Finally, the session is important! Your knowledge, experience and active participation are important as input to the final phase of a several years lasting PhD-study AND the best contributions to the sessions will be used as quotes and short highlight texts in an article for the magazine "Bedrijventerrein".

One week before the session you will receive information by mail, which includes a short introduction to the model, the design of the session, and the questions that will be addressed.

Could you please let us know if you are able to attend the session?

Yours Sincerely, (also on behalf of the researcher Kjell-Erik Bugge),

Name and organisation of moderator / host

# Appendix VIII

## Procedure for identifying themes

This is an *example* of how themes were identified. It shows the procedure applied to the results of the first session in Amersfoort, namely the results about the (second) research question on how to identify 'best' sequences for addressing motivation and information. The starting point was 18 pages of text transcript. The text (originally available in Dutch and accordingly translated into English) was carefully read, looking for 'emerging' text segments. Such segments often were part of smaller groups: i.e. core aspects of discussion topics for a limited time. The segments were therefore first combined in such small groups (numbered G1-n, and not yet given any code), and subsequently preliminary labels were given to each segment. Second, labels (and text segments) were repeatedly compared, themes identified, and segments combined for each theme. Words between brackets [...] in some text segments were added for clarification by the researcher whenever the text segments themselves provided insufficient information.

### 1. Reading, making notes, underlining, looking for emerging (groups of) text segments, and adding preliminary labels.

- G1: "is motivation not fragmented", "what can you do if somebody is too motivated or has too much information... too much quantified and too much studies ... creates expectations ... motivation can disappear" (possible labels: expectations, motivation)
- G2: "situation A: research ... industrial site develops ... loss of jobs ... new responsible politicians said 10000 new jobs will be created ... eye-opener ... actually nothing known at all ... black box ", "economic analysis" (possible labels: problem, effects)
- G3: "identifiable responsible civil servant and politician ... for complaints" (possible labels: problem, communication)
- G4: "management of expectations", "moderate motivation", "creating sober expectations" (possible labels: expectations, motivation, long term / continuity)
- G5: "in own context (i.e. organisation) everything organised, establish understanding of initial situation", "all important departments (in Dutch: diensten)", "share ... expectations", "first information ... leads to motivation, if information is made available in the right way", "information is first kept inside the organisation", "via B to C" (possible labels: understanding problem, expectations, motivation, right information)
- G6: in another case "the opposite happened ... firm bankrupt ... many entrepreneurs motivated ...via C to D", "was quite a lot of information available", "disaster ... stupid political decision ... firms motivated ... strategy... allowing NIMBY-function", "[this approach was] not planned... ad hoc", "does work" (possible labels: strategic information)
- G7: "survey ... firms ...bottlenecks ... opportunities... desired results", "new information acquired", "almost-accidents", "local authorities sometimes think they (already) know what needs to be done" (possible labels: problems, understanding)
- G8: "interest ... local authorities ... not defining situation as a problem", "problem defined... must do something about it" (possible labels: expectations)

G9: "how does an industrial site score...ranking list ... no local authorities wants its industrial site having lowest score", [Moderator asks: "specific part of information to improve motivation?", answer] "exactly... clear strategy", "stakeholders ... awareness of problem ... specific amount of information ... problem wider acknowledged ... motivation to do something is created" (possible labels: motivation, problem)

G10: "always commitment from Council necessary", "problem ... well communicated ... leads to motivation" (possible labels: motivation)

G11: "iterative, stepwise" (possible labels: flexibility, change)

G12: "important [property] owners ... should be involved", "not involved ... motivation ... smaller", "local authorities making plans without ...[other] stakeholders ... no commitment ... not addressing needs" (possible labels: trust, joint action)

G13: "what is the scope of the restructuring", "what is the scope of the problems" (possible labels: understanding problem)

G15: "visualize problems [to different target groups]", "politicians and civil servants ... insufficient attention and knowledge [about industrial sites]" (possible labels: understanding problem, acknowledgement)

G16: "provide information ... confront right players, depending on influence, with information", "decision makers", "process stuck ... people from management ... for getting process moving again" (possible labels: specific information, influence)

G17: "only thing that motivates entrepreneur is seeing what goes on" (possible labels: understanding problem)

G18: "first research", "information ... kept within small group", "first ... sufficient financial means" (possible labels: strategic use information, time-dependency)

G19: "Letter of Intent", "substantiates motivation", "'plan including simple measures ... implementing covenant within specified time" (possible labels: joint vision, keeping promises)

G20: "mutual trust", "no trust ... then no success", "[trust] not present because ...players had large own interests", "motivation: focused by own interests" (possible labels: trust, fair)

G21: "people knowing more ... does not imply that they join you if [an action] only serves your own interest" (possible labels: fair shares)

G22: "listen to what they want and what their interests are", "together exploring what do you want, and I, and where do we find common grounds" (possible labels: fair shares, interaction)

G23: "trigger", "opportunity for getting provincial co-funding focuses and merges actor ideas" (possible labels: join vision, influence, information)

G24: "seeing with their own eyes" (possible labels: understanding problem)

G25: "allow people successes ... show concrete results ... otherwise increasingly losing credibility" (possible labels: expectations, trust)

G26: "dare to take own responsibility" (possible labels: dare to change)

G27: "local authorities could not deliver what they had promised", "if not likely that local authorities can invest then firms will not be motivated either" (possible labels: trust, fair shares)

G28: "investing is not only money, but doing your tasks", "[regular] management [in Dutch: beheer] of site" (possible labels: fair, trust, expectations)

G29: "different images ...different departments [of local authorities] ... same expectations" (possible labels: joint vision)

G30: "regular meetings ... inform each other about progress", "local authorities ... tell what they have invested in", "meeting each other and getting to know each other very important", "informal [contact] ... phone ... show your face", "leave your desk [and visit the entrepreneurs on location] (possible labels: interaction)

G31: "trust is damaged through elections [and change to politicians]", "keep on informing", "involve as soon as possible", "show [possible] successes", "accident or crisis ... can also give large change", "predictable and unpredictable changes", "firm bankrupt ... leading partner leaving" (possible labels: trust, expectations, change)

G32: "the trusted person" (possible labels: trust)

G33: "motivation needs continuous maintenance" (possible labels: continuity, motivation)

G34: "sufficient people in organisation ... maintain collective memory" (possible labels: continuity)

G35: "anticipated ... what if those jobs disappear", "dependency on firm", "professional approach ...risk analysis... anticipate", "is insufficiently done" (possible labels: understanding problems)

G36: "things that per definition not succeed", "firms that conform to all legal requirements ... not easy to move", "if not possible, stop", "may be not yet right time to act... wait ten years until moment is there" (possible labels: adapting, flexibility)

G37: "not inability to get firm to migrate, but inability of planning agency to indicate where firm can migrate to" (possible labels: flexibility)

G38: "dare to make political change based on ... effect on society" (possible labels: flexibility)

G39: "implementation failed ... firms no drive to act" (possible labels: motivation)

## 2. Identifying themes and combining text segments into themes

### Theme 1: Understanding the problem

The groups 2, 3, 5, 7, 13, 14, 17 and 35 all focus in different ways focus on problems. There is a need to define what the exact problems are, which includes current and possible future effects. Acknowledging the problem is the outcome of a process that includes presenting information that can serve as eye-openers and linking problems to responsible actors.

### Theme 2: Joint vision & Coordinated actions

The groups 5, 12, 15, 23 and 29 refer to a shared understanding of an initial situation, objectives and the process.

### Theme 3: Managing expectations, motivation and continuity

Expectations were discussed in several ways (groups 1,4, 8, 25, 27, 30, 31, 33 and 34) such as how they are created, influence motivation, can be formalised, can be influenced, are related to trust, and can be managed continuously.

### Theme 4: Strategic use of information

The groups 5, 6, 9, 10, 16, and 18 include different perspectives on the effects of using information selectively in "the right way": i.e. the right moment and the right information for the right actor in the right form.

### Theme 5: Interaction & Mutual influence

Interaction between actors was an implicit aspect addressed during more or less the whole discussion. However, it was also explicitly stressed (group 5) as the impact of regular personal contact.

### Theme 6: Fair shares & Trust

Groups 19-21, 27, 31, 32 and 39 all address relationships and interdependencies between actors, and in particular between industry and planning agency. Trust, and credibility, influences the need to formalize agreements and actors' perceived need to be involved in all activities, and interests and an idea of fairness regarding 'balanced' contributions of 'both sides' influence motivation.

### Theme 7: Flexibility & Adaptation

Groups 11, 26, and 36-38 address issues related to how the total process can be managed: stepwise and iterative, where flexibility is needed regarding finding, and daring to implement, change.

# Appendix IX

## Quotes per theme

The definitions of the 12 identified themes were used as codes. Then the text segments / quotes that 'belonged' to each theme were identified in all transcripts and combined per theme. This appendix contains the outcome of these two steps. The subsequent steps of defining sub-themes, second round of coding and rearranging / combining text segments / quotes was performed in the same way.

### Question 1: How can preferred participants be chosen?

#### Actor representation

- P21: "Who has the keys that work? People that can invest."
- P9: "a single actor achieves nothing on his own [in a restructuring]"
- P39: "which actors do I need", "focus on who's responsibility: those you need"
- P3: "you do not need them all initially"
- P39: "Municipal Council should possibly have been better involved regarding extra budgets and maintenance budgets"
- P36: A-team "selects participants: local authorities and property owners that should come into action in the area"
- P11: "avoiding role province in concrete projects"
- P18: "not exclude [forget] influential local inhabitants"
- P8: "you are not talking to all firms"
- P39: "understanding that not the whole industrial site is being represented" in the process
- P8: "restructuring or specific theme: different actors"
- P6: "account manager firms" (in Dutch: "bedrijfscontactfunctionaris")
- P29: Chamber of Commerce not good reputation among individual firms"
- P11: "Chamber of Commerce interesting on the level of the whole site, and not for individual firms"
- P29: site management / interest organization "does part of the work for firms and it pays off too"
- P8: local "associations of firms can best communicate developments towards individual entrepreneurs" ....
- P29: "if they are well-functioning"
- P7: "approaches inhabitants, environmental interest groups, province, region, national authorities, internal organization local authorities [i.e. diff. departments]
- P1: "association of firms in working group and two 'ambassadors'", ambassadors very useful: entrepreneurs told them about their problems, and did not contact the local authorities"
- P36: regional development agency asked if local authorities do not know how [to design and manage the process] or if they, or firms, want a neutral actor" involved
- P36: internal actors "project leader from economic affairs, spatial planning, environment, management of neighbourhoods (in Dutch: "wijkbeheer")", "actually anyone that would be interested in getting involved in the site development"
- P1: "having people within own organization having sufficient freedom / mandate"

P34: "important to have mandate: means situation with freedom to act"

P23: "right mix of property owners and users / tenants [and] not only members of association of firms", "reaching property owners located somewhere else in the Netherlands"

P23: "who are the influential entrepreneurs (in Dutch: referred to as "smaakmakende ondernemers" of "onderkoningen"): difference between those who love to talk, and those who have influence."

P22: "contact with entrepreneurs that are influential towards rest of entrepreneurs"

P23: "More difficult to find the right representatives of an industrial site that are willing to contribute with ideas and act, and not only pursue own interests"

P39: "often large difference between board members of associations of firms versus individual entrepreneurs. Often better to talk to individual entrepreneurs"

P21: "legitimacy of association of firms sometimes not good: old-boys network, individual entrepreneurs do not see what association does as relevant"

P7: "right ratio of entrepreneurs versus rest"

P14: "Chamber of Commerce van help articulating, but not financing"

P14: "group of actors [involved] as compact as possible", "too often local authorities create large group, and process slows down", "project-team that reports to core-group of ca. 3 important actors, can give high rate process"

P22: "small core team recognizable in well-working processes"

P33: "involve bottom-up individual entrepreneurs"

P33: "strange that broad representation of firms not are involved: is viewed as obstacle"

P25: "Council is very important, because it must allocate means".

P37: "seeking stakeholders we organised an evening for everybody to discuss and see where it was commitment"

P37: "firms not member of association of firms: must contact all individually, otherwise no commitment"

P21: focuses on "users, because that is broader than only members of any local association of firms"

P19: "many civil servants have considerable power: e.g. municipal secretary and sector managers, time is needed to discover this"

P15: "Often the chairman or member of the Board of the local association of firms who is able to communicate the collective feelings and problems of the firms, and not only viewed from the perspective of his own firm"

P15: the actors you need "within the organization of the local authorities are those that are involved in the problems", "depends on the contents"

P17: regarding selection of representatives of firms "we made entrepreneurs ask other entrepreneurs", but we started using an existing group involved in an on-going project.

P26: what you need are "actors that have the real power to decide"

P12: "if you talk about motivation, then the management level [of the local authorities] is not always consciously involved [...] despite the fact that they have to allocate the financial means, and have to have a positive view on the developments"

P12: regarding where to start, managers or responsible politicians, "always start trying to get the strongest actor involved in the process"

P30: "if restructuring is part of a larger area development, then a stakeholder analysis leads to much more actors that want, can, or must do something"

P30: "working with internal guidelines on how to start such a process, Initiative together with local authorities, with spatial planning and economic affairs, and involve especially local associations of firms"

P30: "there is always the level steering group, project group of civil servants etc."

P27: "who are the large employers, those we at least get involved"

P26: "there are important owners in an area, and you need to get those involved in the development"

P17: "individuals must be viewed by other firms as their representatives"

P17: "they can represent a part of the firms, but not all", so it can be useful to e.g. have different representatives for SME's and larger firms.

P8: "partially there is no deliberate choice of actors, but a given fact, such as regarding property owners"

P29: "talk especially to entrepreneurs that really will and can" invest

P5: "[province] assists regarding whom to involve in process",

P5: province "stimulating in a dynamic process"

P20: "not only money", "facilitate through attention and communication"

P8: province is "supporting" local authorities: "participation [of province] restricted to providing means" according to municipality

### Time-dependent involvement

P14: "only proceed with firms that are willing to invest, because then the process goes faster"

P32: "if you cannot cooperate with people at crucial positions, you still need them, so you need to apply a specific approach regarding information and motivation"

P18: "best is if firms take over initiative: local authorities: do not immediately take control"

P6: "right people and moments", "if all conditions have not been fulfilled, then it does not work", "gaps / lacuna in the joint process"

P23: "timing is important [an action can be] too early or too late"

P36: "choose your moment"

P29: regarding key persons, process managers, "one place it works, other place it does not"

P20: "if process cannot be accelerated with these people, e.g. local authorities, involve somebody else: Right person at the right place"

P24: "Chamber of Commerce facilitating in initiative arena, past years [not involved] any more

P24: "in initiative arena mainly contact with board of association of firms, later with individual firms"

P1: "during process actors involved, worked quite well"

P3: "first talk to the association of firms, Chamber of Commerce also involved and not to property owners and other firms, then inform and contact personally these actors individually"

P30: regarding personal characteristics and ability to cooperate "if it does not work, you have to intervene", "e.g. ask for two representatives, or, if somebody is very dominant split actors into steering group and project group"

P30: "if Initiative leads to concrete follow-up, then projects are defined and you are much better searching for those we really need for getting project implemented, e.g. involving key players regarding property ownership"

### Characteristics of individuals

P15: "quite important are the influential individuals (in Ditch: "olliemannetjes"), often retired entrepreneurs, that have sufficient time for the process, know practice very well [...] and not having a too large ego"

P6: entrepreneur "told enthusiastic story and got support of other entrepreneurs"

P17: somebody "who could tell a story"

P18: "man with the worn-out shoes is needed for transferring, and translating, information"

P20: "entrepreneurs like you"

- P23: "success through right combination of individuals from local authorities and firms"  
 P35: "from A to D you need to have the right person, right connection with other actor"  
 P26: "entrepreneur that is a good speaker and can tell about the bottlenecks he sees", "who is able to put the topic on the agenda of the Council"  
 P13: "people can very negatively influence the on-going process. Then very much depends on the chairman of the steering group or process manager, regarding if he recognizes what happens and takes action"

## Question 2: What is the best sequence towards satisfactory motivation and information?

### Understanding the problem

- P30: "important that actors are aware of the problem, and for this certain information is needed, [...] as soon as the problem has been widely acknowledged, then the motivation to address it develops"  
 P12: "what is the scope of the restructuring. Public space or also private property, users and owners. What is the scope of the problem"  
 P5: "what do you include in the restructuring"  
 P27: "It was a black box", situation A, "I have encountered that in several municipalities"  
 P4: "is motivation not fragmented" and coupled to different interests and objectives  
 P9: "What was the reason for [starting] the restructuring? Who has largest problem? Who is problem owner? What are actors sensitive to."  
 P27: research in one case showed for the past decades "loss of jobs, and at the same time politicians had told that 10.000 jobs would be created: eye-opener"  
 P3: "starting from firms general interests"  
 P25: as local authorities "do not put problem on the agenda"  
 P3: "who are we as local authorities [that we believe] that we can determine necessity"  
 P25: "if there is no political urgency, then [problem] will not be addressed"  
 P35: "which urgency has problem: the [higher the] sooner it will be addressed"  
 P1: "a number of things stay unclear", "difficult towards external actors that ask for clarity"  
 P18: "local authorities motivated and see advantages, other actors need to see advantages too"  
 P5: "translating policy themes into something that affects [and is understandable for] firms"  
 P8: "needs to be commitment to scan from firms"  
 P6: "quality scan, knowing what we are talking about"  
 P2: "know what you are talking about makes discussion concrete"  
 P8: "each situation is unique"  
 P35: "who are stakeholders? [look as] broad as possible"  
 P7: "Applied very professional Force field analysis"  
 P21: "Force-field analysis at the same time internally and externally"  
 P1: "firms were afraid of development other industrial site and threat of decay through firm migration", "study into bottlenecks and solutions"  
 P39: "migration of firms would lead to decay, so be on time with restructuring"  
 P9: "not starting saying there is a problem, but asking firms "what is your opinion of the site"  
 P3: "Local authorities are for all inhabitants. It must be a joint problem. Firms have a functional problem. Completely different entities"

- P15: "in the Initiative there was a phase where the city was prepared for the term restructuring: what the importance is of industrial sites", "the value and necessity of industrial sites was not much recognised", "quite systematic approach"  
 P27: to get access to information on the problems there needs to be "identifiable civil servants and politicians for delivering complaints"  
 P17: "asked firms what are your bottlenecks, which opportunities do you see for the area, and what should the result be if we start developing", "firms presented new information about what they found important", such as about almost-accidents  
 P29: "Use interests of firm as starting point for moving towards restructuring"  
 P12: "you can perform a risk analysis in advance", "but I believe it is insufficiently done"

### Joint vision & Coordinated actions

- P39: "how do you reach a joint vision internally", not at all any feeling of that "we all work for the same boss"  
 P5: "ambitions must be linked"  
 P7: "internal organization local authorities important: many not knowing situation on site, make drawings, create picture of future"  
 P23: "excursion for members of Council to site"  
 P26: members of municipal Council taken to the industrial site "to just see how the situation is"  
 P10: to convince municipal Council "seeing the site is important"  
 P21: "ask Council if they know e.g. how many firms there are or how large sites are: did they not know, worked positive regarding motivation"  
 P36: "steering group, working group and members of Council on excursion"  
 P17: "showed the rear side of the firms, and that made quite an impression both on entrepreneurs and responsible politicians of the local authorities"  
 P12: "let the people see the full range of the problems"  
 P31: "the only thing that motivates an entrepreneur is seeing what really happens on a site"  
 P24: "convincing internal organization difficult"  
 P36: "actually anyone that would be interested in getting involved in the site development [...] otherwise [the reaction is that] I have not been asked". They often say "include me on the [distribution list for the] agenda, then I can see if attending" is useful  
 P3: "inform everybody to avoid accusation: "if I had known that""  
 P14: "regional and local visions differ", "if so, process lasts long"  
 P33: "different parts of the local authorities were active, but had their own [different] priorities", "coordinated control of non-conformity to laws and regulations, then problems disappeared quickly", "combining application of private and public law: large acceleration"  
 P3: "internal departments are not working coordinated", which leads to undesired effects later in the process such as "this development is impossible"  
 P25: "real internal coordination is crux"  
 P21: "fragmentation at different levels. Agreements made at operational level, and management level above has other interests"  
 P35: "first everything internally discussed, then external action"  
 P15: "vision on the sites that are most important, which decayed, and which that needed to be improved"  
 P27: if you "tell the department of Social affairs that on industrial sites many vulnerable employees are working", it will influence their willingness to become involved in the process

- P27: "in own context having everything organised", "all important departments [...] share expectations [including] that expectations must be moderated [...] is a success factor"
- P26: if important owners "are not involved in planning then their motivation to contribute will be lower too [...] and it will not address their wishes"
- P15: "the opportunity for getting provincial co-funding serves to get people moving in the same, direction"
- P15: "seeing with your own eyes [...] was the trigger in our case too"

### Managing expectations, motivation and continuity

- P17: "implementation failed because finally the firms did not have the drive to act"
- P30: "motivation is an aspect that needs continuous maintenance"
- P27: "perform management of expectations"
- P27: "moderate expectations, create sober expectations"
- P23: "something must happen"
- P39: "most deadly [for the process] is if it looks like nothing is happening"
- P7: "if there is a will, then there are [financial] means" "based on a good plan / vision on site development"
- P6: "initiative has been started and local authorities focus on identifying actors and means. If this lasts too long the motivation of firms decrease"
- P19: "creating expectations can have negative effects"
- P39: "important that project does not last too long, because then the interest of firms decrease"
- P18: "local authorities implementing measures close to own 'world' [of responsibility / tasks] to get process of 'seduction' moving"
- P34: local authorities: "not immediately involving all actors: first a vision that can be used to seduce other actors", "plan is used to seduce and get process moving"
- P17: "you must not make all kinds of plans for other actors internally, because they were not used and there was no money [for implementing them]"
- P22: "seduction and vision important"
- P28: "Seduction is selectivity: you have to develop feasible business cases", "a few feasible processes"
- P9: "searching for what may be possible, and what cannot be achieved. "Searching for what is acceptable"
- P29: "local authorities introducing something that attracts the interest of firms"
- P29: "if you are able to activate a couple of entrepreneurs, you have reached your objective"
- P20: "wanting to do something for other people"
- P29: "needs to be able to show future opportunities"
- P20: "if you have part of the information, you have to [start] work on motivation"
- P8: "show results to firms" and P24: "show progress"
- P24: "initially "vision developed by consultancy firm and association of firms, Chamber of Commerce, local authorities involved, everybody quickly supported vision", "consultancy firm quite ambitious, some proposals not feasible because of costs, other proposals not because of lack of political support"
- P1: "realistic implementation program: [as constraint] must be feasible"
- P39: "completely infeasible recommendations", "a bit lower ambition level is also possible"
- P36: "visit to site and then feed-back towards local authorities: is this image correct?"
- P36: internal "project leader must drive the process himself". Address e.g. as "spatial planning expected, but not present"
- P1: "if municipal Council knows that firms support development, then it almost becomes something that is accepted without discussion (in Dutch the term used is "hamerstuk")"

- P1: "commitment is not only about number of firms represented, but also about number of employees each firm represent"
- P7: "now and then celebrating successes"
- P28: local authorities "perform much half-completed work: are not completing the work on several industrial sites"
- P34: "are financial means available or not? Prevent disillusion entrepreneurs"
- P25: "really communicate when you really are going to act" as local authority
- P25: "continuously switching between two levels is important. Local authorities regarding policy and the long term developments, and firms regarding when things are going to happen"
- P19: "are you able to fulfil expectations? Good to take into consideration as local authorities"
- P3: "if alderman enters or leaves process it is important for motivation", "new alderman, dramatic for process, back from C to A, had to talk a lot to get him involved"
- P25: "there is commitment, because it [i.e. the restructuring] goes well"
- P3: "use quick-wins", "start with small things, which are important for motivation", "sometimes sub-optimal solutions the right choice"
- P9: "if there is no commitment: stop and let it slowly 'boil' (in Dutch: sudderen)"
- P3: "start with street where there is commitment"
- P9: "put entrepreneurs that are unwilling at the end of the row (in Dutch: "zet ze achteraan in de rij")"
- P35: "you are in a process of learning and you learn from your mistakes, [and] expectations can therefore be adjusted"
- P31: "we work bottom-up"
- P27: "what to do if somebody is too motivated or has too much information. If somebody is too far ahead of the rest, he may have to return to the start. And if you quantify too much you create expectations and the motivation can completely disappear."
- P26: "sometimes it can be in interest of local authorities to not define it as a problem, because [...] then you also have to do something about it"
- P12: "need to allow people successes [...] and show concrete results [...] otherwise increasingly losing credibility"
- P27: "during visit to site [...] a lot of bad situations were identified, but the local authorities could not deliver what they had promised"
- P27: "you have to keep on informing"
- P30: involve new elected politicians "as soon as possible after elections [...] and inform about [potential] achievable successes"
- P15: "important that there are enough people in the organization [...] that can maintain the collective memory"
- P12: "quick-wins [...] is a way for making people interested [...], it is a method for reaching involvement"
- P17: "through quick-wins show a number of results on a short term [...] then it is our experience that it leads to a follow-up"
- P7: "define some quick-wins in the master plan"

### Strategic use of information

- P12: "providing information is often where it starts and then confronting the right, depending on their influence, players (decision makers) with this information"
- P34: "believe A to B and then D"
- P28: "not work via C: via B formulating challenge well towards motivation" and "finding solution to financial problems"

P3: "acceleration in never through B, regardless of how necessary it is, motivation decreases"

P19: "first information for motivating is necessary"

P30: "I am am sure" you can influence the amount of information in such a way that it influences motivation and leads to stage D"

P30: "acknowledging and effectively presenting the problem creates motivation and lead to allocation of means"

P9: "basic information is necessary"

P38: "outcome of quality scans are used to "create time-pressure and maintain motivation"

P29: "large firms do not want bad publicity: use this for motivating e.g. sustainability"

P7: "from information towards motivation", "what is relevant information for you, is not necessarily so for me"

P1: "enough information, but especially good information", "consider which information for firms"

P3: regarding information for local inhabitants "explain problems and approach in general terms"

P23: "clarify importance then you have commitment"

P10: "underpin urgency of need to accelerate, what can be won regarding property value and employment"

P14: "first calculate, using where power is situated as starting point"

P1: "when firms see advantages, they will join" the initiative

P7: "firms need to see feasibility. This must be underpinned"

P17: "as local authorities we acknowledged that we needed to start [from the perspective of] the firms"

P14: "must be an advantage for firm, otherwise process will not work"

P18: "calculating [costs and benefits] in advance smart

P33: "make a good integral analysis including all costs and benefits for society as an eye-opener"

P1: "real estate agents invited for calculating increased property value"

P25: "real estate agents invited to tell about industrial site"

P29: "everything has a price"

P23: "calculating and drawing", "parallel to involve actors in process", "towards increasing accuracy"

P23: "know the reasons for financial short-comings in projects" such as "calculating costs for buying land based on expropriation"

P20: "if nothing happens, say that co-funding will stop"

P20: "trigger firms through other games: not only restructuring"

P18: "marketing increasingly important: promote site, image (brand) often not well used"

P1: on internal actors: "if you do not join, we will continue" anyway

P7: regarding involvement of internal actors local authorities "better overloading with information"

P39: "first, check what can be done on own area and are there opportunities for transfer of land"

P36: sometimes rumours of plans can have effect such as story that "brothel is to be situated at site", "immediately led to creating association of firms"

P33: creating a common enemy e.g. through sending bad plan to firms: motivates participation in process"

P22: "happening from the outside, e.g. getting a joint enemy"

P34: "coupling significant co-funding opportunities to conditions"

P19: "start working, stakeholders hear that, do not actively contact them"

P3: " opposite happened, they come to you", "also inhabitants of neighbourhoods"

P9: "use information for seducing firms"

P27: "initially keep information within the organization of the local authorities"

P31: "local authorities are first studying whether they are going to restructure site, and whether they have sufficient financial means etc. This information is first kept within a limited group"

P27: in other case "politicians suggested to allow NIMBY-function on site, and then firms were motivated [...] and was the move from C to D"

P17: a similar approach "turned out to be a very good means" that resulted in an increase of firms that joined the local association of firms

P26: survey among firms about bottlenecks leading to "kind of ranking-list and no local authorities want their industrial site to score the lowest", this approach to using specific part of information for influencing motivation "is a clear strategy"

## Interaction & Mutual influence

P14: "A to C to D is a good approach. Too much information decreases attention. Motivation why to act not found."

P19: "back from C to A happens in practice, everybody is often happy during the planning phase being free of obligations, but when it gets concrete they leave the process"

P22: "A to C without (extra) information is about exchange of knowledge"

P35: "how you get from A to C without going through B is something you learn from experience"

P33: we are doing it with respect, but we are using influence"

P19: "how you communicate is important"

P1: "how do you reach the entrepreneur?"

P23: "organizing session coupled to informal gathering of entrepreneurs"

P39: telling entrepreneurs "do not forget to use informal communication"

P7: "certain fear for the unknown, feeling safe among fellow entrepreneurs"

P29: "important to really know" the entrepreneurs

P39: "not speaking each others' language [PA and firms]"

P24: "responsible politicians close to entrepreneurs: much contact"

P29: "entrepreneurs on site believe they know each, but that is not so"

P20: "keep on talking is important for motivation"

P2: "entrepreneurs mutually influencing each other" regarding performance

P7: "much interaction, commitment is important", "open and clear communication on objectives"

P1: about the use of 'ambassadors': "entrepreneurs do not want to write letters, they prefer to approach people directly", therefore ambassadors "important for success"

P1: "tell them: write a letter"

P1: "communication with firms is difficult, do not read Newsletters, are not coming to gatherings", "you need to visit them personally"

P39: "local authorities should visit firms, and not other way round"

P7: "you just have to hope that information is interpreted in the same way" by different actors

P3: "continuously communicating with firms about dynamics"

P19: "open discussion about all options. In practice only plan A and B are communicated. Then comes plan C, which make other actors feel cheated"

P7: "do not use threatening (e.g. conformity to laws and regulations) as an instrument"

P39: "entrepreneurs do not forget that, and a later stage you face the consequences"

- P15: “much about listening to the users of the site: what are your problems and do you have ideas about how they can be addressed”
- P17: “deliberately facilitated that the most important of the entrepreneurs were brought into contact with the responsible politicians”
- P4: “it is the work of human beings and about cooperation”
- P26: if a process gets stuck “talks with managers of local authorities to get process moving”
- P32: it is important to “not so much telling [things], but especially listen to what they want and what their interests are, and together explore what you want, what I want and where can we find common grounds”
- P27: “entrepreneurs can also appeal to each other’s regarding addressing problems on the site
- P32: “regular meetings [...] to inform each other about progress”
- P15: “as local authorities formally informing about this is what we have done, or are going to do, with the money”
- P12: regarding trust “meet each other and get to know each other is very important”
- P4: “the informal is an important additional perspective”
- P12: “do not stay behind your office desk, but visit other actors”
- P13: “makes completely different impression if a civil servant visits something organised by firms in the evening”

### Fair shares & Trust

- P32: “You can present a lot of information, but that does not necessarily mean that motivation increases. Knowing more does not mean that they will join you in something that only is in your interest”
- P31: “If there is no trust between the actors, then there will be no solution”
- P34: “apply fair shares (in Dutch: “voor wat hoort wat”) principle for accelerating” process, “seducing firms to invest in private area, and comparable in public area”
- P18: “authorities too high ambitions is OK, but firms have to act too”
- P29: “you want this, but we also want something: first firms want something, then own wishes [of local authorities]”
- P29: “Fair shares? (in Dutch: “voor wat hoort wat”) “yes, firms are also afraid that rest of firms [on site] not will co-invest”
- P20: “to get co-funding [from province] for public areas, quality scan must be performed” first
- P39: “why is there so much distrust from firms?”
- P20: “trust from both sides, I believe in this development”
- P15: “entrepreneurs involved in steering group of study [into site problems and solutions] and there trust was built”
- P15: “in other case no trust, because some players had large own interests and pursued those”
- P1: “when there is trust towards letter of intent”, “signals trust and satisfaction”
- P31: “Letter of Intent substantiates motivation”
- P21: “e.g. use Letter of Intent. This is formally sufficient for a next step, but it is not ideal” [in all situations].
- P29: “province and local authorities must be viewed by firms as serious”
- P7: when “association of firms acknowledges that local authorities mean what they say then they are taken seriously”
- P1: “local authorities are now acting, when entrepreneurs saw this then they were joining, turned out to work”

- P23: “when firms notice that local authorities are taking initiative and understand that something really is going to happen then they want to talk”
- P3: “if firms see that something is happening [at the local authorities] then this leads to motivation”
- P36: on the other hand “if firms believe [results] will be achieved anyway, then they will not come” to join the process
- P23: “firms did not believe that it was the start of a process”, “thought it was a fake-process and that plan [of local authorities] was already made”, “so much distrust that first must be addressed”, “A-D then very difficult”, “first to C, then to B and then D”
- P36: support later for exactly same route
- P39: firms “just wait and see what the local authorities do”, investments in site improvement affect value of land and leads to higher local taxes, so firms say “local authorities, you pay, because you profit”
- P39: at the beginning of the process “authorities are not exactly trusted”
- P33: “seduction yes, but local authorities also have to do the tasks they are responsible for”
- P34: “ask firms to take their own responsibilities. Local authorities and firms moving together”
- P33: “you are hoping for firms to act, but that does not have to happen. Create joint objectives: agreements”
- P14: “making site management (in Dutch: “beheer”) a co-responsibility of firms is an important condition for [being able to] accelerate process”
- P9: applied the approach that “only if firms do so and so, then local authorities invest”
- P35: as local authorities “show that you are doing something”
- P9: “if local authorities are not willing to invest, then the regional development agency will not invest either. This creates clarity”
- P19: “trust is linked to satisfaction. Entrepreneurs [in specific case] have insufficient trust despite agreement with local authorities. Process manager builds trust”
- P35: “only agreements on paper is insufficient”
- P19: “let [actors] sign, that shows [whether there is trust]”
- P23: 2: “if there is insufficient trust, then the process stops”
- P27: “entrepreneurs are sometimes exaggerating in telling that it all is the fault of the local authorities”
- P17: “if there is no realistic chance that local authorities will invest in the future, then I believe that firms in general will quit the process”
- P31: telling representatives of firms that “if you improve this [i.e. problems on site] then the local authorities are willing to implement certain actions too”
- P15: “investing in trust: doing what you have promised and show progress”
- P13: “the essence is whether people trust each other”
- P27: “trust is damaged through local elections [and change to politicians]”

### Flexibility & Adaptation

- P30: work a bit “iterative and stepwise”
- P9: “There is not always a recognizable clear line (in Dutch: “rode draad”) in restructuring”
- P7: “all strategies applied: A via B, C or directly to D”
- P14: “facilitate the choice process for site developments”
- P39: “think strategically” about what you can achieve”
- P23: “timing is important”
- P5: “may be everything cannot be done, and may be you have to be less ambitious”
- P29: “it is a puzzle”
- P18: “different challenges need different approaches”

P18: "split challenge into small parts, instead of comprehensive approach"  
P8: same remark later  
P18: "agreements on sufficiently high level of abstraction... room for manoeuvring and choices"  
P18: "link to e.g. restructuring of neighbourhoods"  
P22: "know how to place the topic of restructuring within a broader context and involving other (internal) actors"  
P1: available "co-funding linked to specific year: not very realistic"  
P33: "sometimes conditions linked to provincial co-funding present bottlenecks: local authorities will e.g. improve street, but has to apply for funding for project"  
P1: stayed too long on a detailed level, should have been thinking on a structural level"  
P39: "consultancy firms using same approach everywhere"  
P7: "try to score wherever possible, not forgetting the main objective of a well restructured site", "adapting strategies according to what is considered important at that moment in time: change according to phase"  
P24: "if this is not possible, then we change the direction"  
P23: "dare to change strategy, also regarding phases", "use opportunities"  
P33: regarding willingness of Council to invest: "you can keep on informing, but if they are unwilling"  
P11: "be patient and wait" for the right opportunity  
P39: "take time for sparring"  
P7: covenants implies "room for adaptation, and that is necessary"  
P34: "important to have mandate: it provides room for manoeuvring"  
P10: "during Initiative too much focus on sequence of activities", "are responsible politicians willing to move process steps forward in time"  
P33: "cannot do everything at the same time, sequence determined"  
P28: "start bottom-up, and not based on availability provincial funding"  
P14: "facilitate entrepreneur" in addressing "bottlenecks regarding Zoning plan or permits"  
P34: "too rigid sticking to maintaining function as industrial site", transition "no problem if new sites are developed", "this linking should be made stronger, especially now", "compensation policy", "much can be reached through mixing functions"  
P22: "take into account regional differences, in Randstad this [i.e. transition] is financially feasible, not in Limburg"  
P14: "investments of local authorities in green and park management etc. can be coupled to value in m2 and local taxes (OZB), suggested to translate future [effects of] higher local taxes (in Dutch: OZB) to current situation"  
P10: "reversing: management phase (in Dutch: "beheer") more focused on what is needed, and not on budget"  
P22: be flexible: include the not-expected"  
P28: regarding the role of the province: "agreement on project in the past and it has to proceed against all current rules"  
P10: "avoid restructuring because it is necessary, and do it because it can lead to good things: brings more energy / impulse for accelerating"  
P25: "seize the moments: build opportunity on opportunity"  
P3: "property developers see opportunities, but it is now difficult for owners to invest. This leads to delays. Process must not stop: change phases and priorities"  
P19: "sometimes decision to really stop"  
P3: "better to continue talking, and temporize"  
P3: "which part of maintenance budgets for e.g. green or sewage can be allocated to industrial site"

P26: "can maintenance budgets be moved forward in time"  
P25: "there are both budgets for investments and maintenance. Budgets for investments can also be applied for firms. Integrate systems for quality control and investments [and] label budgets"  
P37: "maintenance budgets can also be allocated to streets"  
P3: "think about temporary solutions"  
P35: "crux is to find alternatives, if something fails to happen"  
P25: "even better is to have an alternative second best option ready if e.g. the best option turns out to be financially infeasible"  
P12: "everybody is to some extent re-inventing the wheel"  
P4: "It is important to know what you according to theory should need, but you should not be afraid deviating from theory" regarding choice for actors to involve  
P27: "it is always said that the local authorities have insufficient money. No, it is just a question of priorities"  
P26: if something does not work "then it is may be not yet time to act. May be you can just wait ten years and then the [right] moment may be there"  
P13: "it does not have to be the ability to get a firm relocated, but lack of ability of local authorities to indicate where a firm can migrate to"  
P12: "dare to make political changes based on [an analysis of] effects on the society"  
P1: "let problem get worse, when it is big enough you will immediately have political support"

### Question 3: What is satisfactory?

#### Experience and intuition

P29: Local authorities "do not understand what entrepreneur wants"  
P20: "ultimately it's about intuition" regarding how far you should go in influencing non-cooperative firms  
P23: "feeling what goes on in the room" regarding meetings with firms  
P39: "you will know if there is insufficient motivation, if you have to make a lot of effort (in Dutch the expression used was: "sleuren en trekken")  
P31: when do you know whether something is unsatisfactory "is feeling, experience, it is seeing people looking with facial expressions telling you that regardless [what happens] they will not cooperate with you"

#### Indicators

P32: "may be you could get to know what satisfactory is, if you monitored, and compared, several projects on information and degree of satisfaction"  
P12: "when do we have to address something, and when not: in advance we are insufficiently defining what is satisfactory, and if we can achieve it"  
P27: "these are so complex investments and area developments that you can actually not express anything in satisfactory or unsatisfactory"  
P30: not seeing what really goes on (in Dutch: "wat er leeft") on the site"  
P17: "we sometimes believe we know [what can and needs to be done] as local authorities, but we do miss things"  
P3: "actually you should be assessed based on satisfaction: firms and local authorities"  
P21: "do you ask actors enough whether they are satisfied?"  
P35: "do we ask everybody if they are satisfied?"  
P21: "include in surveys on satisfaction"

P19: "if you conclude that stakeholders are satisfied ...P30: "then you have had a good process"

P25: "important to know all interests"

P3: "restructuring is never completed"

P21: "as Park management it is a process"

P9: "9 out of 10 local authorities do not know which plans firms have"

P27: "what their investment decisions, and their plans"

(P3: "continuously communicating with firms about dynamics")

P7: "are actors necessary for success"

P39: "if firms invest, then successful", "multiplier effect"

P23: "local authorities can be very satisfied with process, but firms very unsatisfied with results"

P10: "know your entrepreneurs"

P29: Firms: "plans for expansions, stopping, investments etc"

P28: "know what they [firms] are doing"

P14: the Dutch "Cadastre, Land Registry and Mapping Agency can provide insight into firm profiles and property transactions"

P10: "often witnessed that what can be won in economy and employment is insufficiently visualised"

P34: "Employment is important for convincing Council"

P14: "where are they to invest", "keeping an eye on everything such as firms that suddenly change strategy"

P22: "knowing which development entrepreneurs desire"

P29: "do only invest if feasible"

P28: "know which entrepreneurs who are willing to invest: not being willing to do so can have a very good reason", "select based on willingness to invest"

P36: "usually firms have conditions linked to their willingness to invest"

P29: "invest [in implementation of specific measures] if firms take the initiative"

P8: "let firms choose what to do"

P8: "you can calculate everything, but if I will not sell: then stop"

P36: "some firms really do not want [to move], in that case recommended to do nothing"

P31: "if something does not work then [tell that] we are temporarily stopping"

P22: "let's face it, you are not motivated, may be you join in two years" regarding local authorities in regional approaches

P29: Some firms really have no possibilities for paying more, but are willing" to participate in process

P20: "local authorities present results of scan to firms"

P8: "local authorities develop site design. Firms satisfied, because they know what is allowed and not allowed"

P18: firms need to "wake up and see the real value" of their property

P8: "letter of intent, each time an agreement, not keeping it completely open"

P18: "how to know who 'Mr. right' is? Only results count"

P7: "development in property value (in Dutch: OZB) is difficult to calculate"

P7: "number of request for building permit compared with streets where no has been done"

P1: "continuously checking feasibility"

P14: "local authorities do not know where money can be found"

P33: "restructuring performed as project. A year after completion decay starts again. Site management (in Dutch: "beheer") and account-management are important. When are you formulating a new project. Monitor the development"

P14: "always behind reality", "relocation of firms can [not earlier than] when new sites are available"

P34: "clear constraints and civil servants and politicians accountable", "monitoring constraints"

P33: "somebody is needed that oversees whole site and addresses smaller parts within this whole"

P33: "cyclic: site management (in Dutch: "beheer") not well taken care of, and problems recurring"

P33: "does not like being accountable for restructuring in ha. (i.e.: based on quantitative basis). Indicators / estimates for costs restructuring per ha. do not work"

P28: "if the best choice challenge is not known, then it goes wrong there and e.g. solution does not fit"

P14: "industrial site interesting [for redevelopment] when value low enough"

P22: "Look at functionality, and measure satisfaction"

P19: "role of account manager of local authorities is to anticipate problems" regarding firms that may have plans for relocating

P35: "knowing the local dynamics"

P27: "what is the financial-economic importance of a site, who are the large employers, and who works there"

P27: "you can do something with investments in buildings, local taxes (in Dutch: OZB) increases, what firms are investing, [...] and decrease in non-used buildings", " a firm that invests in its building, surroundings or employees, has probably confidence in them"

P15: "an indicator is how many people attend events"

# Appendix X

## A brief reflection on trustworthiness and validity

An important question regarding the use of focus groups and the thematic analysis within this study is how the chosen approach has affected the quality of the outcomes. How trustworthy are the outcomes, where the essence of trustworthiness is that the “[...] research findings of an inquiry are worth paying attention to, worth taking account of [...]” (Lincoln and Guba, 1985, p. 290). This is about whether the outcomes are correct *and* found credible (Maxwell, 2005). However, “[...] there is no specific litmus test we can administer that will apply a stamp of approval on any given qualitative research project [...]” (Nagy Hesse-Biber and Leavy, 2010, p. 48).

Scholars have quite different, and partly conflicting, ideas about how trustworthiness can be reached and judged. There is agreement about the need to get to findings that come as close as possible to reality (although the ideas about what such a ‘reality’ actually is, differ). It is equally clear that there should be a traceable trail of evidence that makes it possible for other researchers to make their own analyses and interpretations of raw data, and to draw their own conclusions.

There are different ways of improving the probability that the results are valid (= correct / accurate). One way, applied here, is to focus on the threats to validity (Maxwell, 2005). Then “[...] validity is ascertained by examining the sources of invalidity [...]” (Kvale, 2007, p.123). What are these threats to validity? Here we look at researcher ‘bias’; completeness, relative importance and the use of triangulation; researcher reactivity; trail of evidence.

### **Researcher bias**

Researcher bias is in particular a tendency to select data that fit the researcher’s theory and that “stand out” to the researcher (Maxwell, 2005, p. 108, referring to Miles and Huberman, 1994 and Schweder, 1980). Within this study it could have influenced how the themes, and sub-themes, were identified, and how the ‘stories’ and accompanying tables were composed. Selecting the text segments is open to researcher bias. So is identifying the themes. The themes were not determined in advance, but identified by reading the transcript of the first session and looking for patterns. This was an attempt to prevent researcher bias. However, although the transcript was read ‘open-minded’, the results are undoubtedly influenced by the researcher’s experience with research and practice in restructuring. Still, this influence seems to have been quite small, because several themes were new to the researcher. They did indeed ‘emerge’ as recognizable patterns based on recurrent topics. Two examples are “fair shares” and “expectations”.

Having selected the themes, all transcripts were analysed to identify the text segments (summaries) that belonged to specific themes, and this again is open to researcher bias. The next step was to present the results in such a way that the meaning comes across to the reader. The purpose was to find answers to open questions, and it was necessary to make the complexity manageable. The choice for a ‘story’ accompanied by small tables necessitated a second ‘round’ of analysis for each theme, which again is open to researcher bias.

### Completeness, 'salience', and data triangulation

Two different approaches to data triangulation were used: participants within one session can verify or falsify each other's ideas, and data can be compared from the different physical locations (involving different participants).

Were five sessions sufficient for achieving information saturation? Did the fifth session offer new information, and was information increasingly being repeated? The answer is that the amount of new information from each additional session did in fact decline, and information was indeed increasingly repeated. Already after the first session, information saturation regarding main themes was reached, and the last sessions served primarily to underpin and enrich earlier observations.

The frequency of arguments could have been analysed statistically to measure support for an idea. This was not done here. For it became clear that the repeated statements provide different insights into the meaning and salience of themes. Individual participants can for example repeat something as a way to stress or defend their own arguments or ideas related to a specific topic, or they can use the same argument at different times related to different topics. It was not possible to distinguish between the importance of single remarks (i.e. mentioned only once) and repeated remarks.

### Researcher reactivity

Another threat to validity is researcher reactivity, which refers to the effects of the setting or the individuals on those interviewed (Maxwell, 2005; Patton, 2002). Interviewees may react to the interviewer, for example by acting in ways that make them seem more important. They may even stage events for the benefit of the researcher. In this case, the researcher's previous knowledge of, and interest in, the topic studied, was a real threat to validity. If the researcher was to function as a moderator and researcher, he could very well influence the discussion. It is for this reason that the researcher chose a 'detached' role, which was limited to a short presentation of the model, making notes and observing during each session. An indication that the effect of reactivity was probably small is that the participants after a (very) short period at the beginning of a session seemed to completely 'forget' the presence of the researcher, being focused solely on the interaction with the moderator and the other session participants.

### Reliability and the trail of evidence

The final aspect of trustworthiness is reliability. Babbie defines reliability as "[...] that quality of measurement method that suggests that the same data would have been collected each time in repeated observations of the same phenomenon [...]" (Babbie, 2010, p.150). Reliability is accordingly both about the quality of the measurement method and about the data obtained. The first issue is then the quality of the method. To ensure that other researchers should be able to repeat the Focus group sessions, the method as well as all steps in the research process have been described in detail: a trail of evidence has been established.

Would the same data have been collected by others when using this method? There are two indications that they would. First, the total group of participants represents a wide range of organizations, perspectives and expertise on restructuring practice, which suggests that repeating the sessions with the same participants, or even different sets of equally experienced practitioners, would provide the same information richness. Second, five sessions was sufficient for achieving information saturation, and the range of main topics discussed within all five sessions did not change.

## Bibliography

### A

- Abell, P. (2000), Sociological Theory and Rational Choice Theory, In: *The Blackwell Companion to Social Theory*, B.S. Turner (Ed.), London: Blackwell Publishing, pp. 223-244
- Adviescommissie Plabeka (2011), *De problemen van vandaag oplossen met de instrumenten van de toekomst*
- Agranoff, R. and M. McGuire, After the Network is Formed: Process, Power and Performance, In: *Gettings Results through Collaboration: networks and network structures for public policy and management*, Mandell, M.P. (ed.), Westport (CT, US): Quorum Books, 2001
- Albarracin, D., Johnson, B.T. and M.P. Zanna, *The handbook of Attitudes*, Mahwah (NJ): Lawrence Erlbaum Associates
- Alexander, E.H. and A. Faludi (1996), Planning doctrine: its uses and implications, In: *Planning doctrine, special issue of Planning Theory*, vol. 16, pp. 11-61
- Algemene Rekenkamer (2008), *Herstructurering van bedrijventerreinen*, Den Haag: Sdu Uitgevers
- Allingham, M. (2002), *Choice Theory: A Very Short Introduction*, Oxford: Oxford University Press
- Alvesson, M. and K. Skjöldberg (2009), *Reflexive Methodology: New Vistas for Qualitative Research*, London: SAGE Publications
- Ambrose, M.L. and C.T. Kulik (1999), Old friends, new faces: Motivation research in the 1990's, *Journal of Management*, vol. 25, pp. 231-292
- Amin, A. and N. Thrift (1994), Living in the global, In: *Globalization institutions, and regional development in Europe*, Amin, A. and N. Thrift (eds.), New York: Oxford University Press, pp. 1-22
- Amin, A., Massey, D. B. and N.J. Thrift (2000), *Cities for the Many, Not the Few*, Bristol: The Policy Press
- Ancona, D.G. and D.F. Caldwell (1990), Beyond Boundary Spanning: Managing External Dependence in Product Development Teams, *Journal of High Technology Management Research*, vol. 1, pp. 119-135

- Anderson, J.E. (1975), *Public Policymaking*, New York: Praeger
- Arnstein, S. (1969), A Ladder of Citizen Participation, *Journal of the American Institute of Planners*, vol. 35 (4), pp.216-244
- Arthur, W.B. (1989), Competing technologies and lock-in by historical events: The dynamics of allocation under increasing returns, *Economic Journal*, vol. 99, pp. 116-131
- Arthur, W.B. (1994), *Increasing returns and path dependency in the economy*, Ann Arbor: University of Michigan Press
- Astley, W. G. (1985), Administrative science as socially constructed truth, *Administrative Science Quarterly*, 30(4), pp. 497-513
- Atkinson, G. and T. Oleson (1996), Urban sprawl as a path dependent process, *Journal of Economic Issues*, vol. 30(2), pp. 609-615
- Austin, J.T. and J.B. Vancouver (1996), Goal Constructs in Psychology: Structure, Process, and Content, *Psychological Bulletin*, vol. 120, pp. 338-75
- Axelrod, R. (1984), *The Evolution of Cooperation*. New York: Basic Books
- B**
- B&A-groep (1998), *Vestigingsplaatsfactoren: belang, waardering en knelpunten*, Den Haag: Ministerie van Economische Zaken
- Babbie, E.R. and L. Benaquisto (2009), *Fundamentals of Social Research*, Toronto: Nelson Education
- Babbie, E.R. (2010), *The Practice of Social Research*, Belmont (CA): Wadsworth
- Bachrach, P. and M.S. Baratz (1962), Two Faces of Power, *American Political Science Review*, 56, pp. 947-52
- Bandura, A. (1986), *Social Foundations of Thought and Action*, Englewood Cliffs, NJ: Prentice Hall
- Bandura, A. (1991), Social cognitive theory of self-regulation, *Organizational Behaviour and Human Decision Processes*, vol. 50, pp. 248-97
- Bandura, A. (2001), Social Cognitive Theory: An Agentic Perspective, *Annual Review of Psychology*, vol. 52, pp. 1-26
- Barbour, R.S. and J. Schostak (2005), Interviewing and Focus Groups, In: *Research methods in the social sciences*, Someth, B. and C. Lewin (eds.), London: SAGE publications
- Barbour, R.S. (2007), *Doing Focus Groups*, Thousand Oaks (Cal., USA): SAGE publications
- Barnes, B. (1988), *The Nature of Power*, Cambridge: Polity Press
- Barnes, B.K. (2007) *Exercising Influence: A Guide for Making Things Happen at Work, at Home and in Your Community*, San Fransico: Pfeiffer
- Barney, J. (1991), Firm resources and sustained competitive advantage, *Journal of Management*, vol. 17(1), pp. 99-120
- Barney, J. (1995), Looking inside for competitive advantage, *Academy of Management Executive*, vol. 9(4), pp. 48-61
- Barringer, B.R. and J.S. Harrison (2000), *Journal of Management*, vol. 26 (3), pp. 367-403
- Batram, A. (1996), *Navigating Complexity: The Essential; Guide to Complexity Theory in Business and Management*, London: Industrial Society
- BCI (2002), *Intensief ruimtegebruik op bedrijventerreinen in de praktijk. Zorgvuldigheid gewenst*, Nijmegen: BCI
- BCI (2003), *Architectuur & Bedrijventerreinen: Het beleidsinstrumentarium*, Nijmegen: Buck Consultants International
- BCI (2008), *Indicatie van de herstructureringsopgave voor bedrijventerreinen in Nederland*, Nijmegen / Den Haag: Buck Consultants International
- Bekkers, V. (1996), Co-productie in het milieubeleid: op zoek naar een nieuwe sturingsconceptie, *Bestuurswetenschappen*, 3, pp. 177-194
- Benz, A. (2007), Governance in connected arenas: In: *New Forms of Governance in Research Organizations: Disciplinary Approaches, Interfaces and Integration*, D.Jansen (ed.), Dordrecht (NL): Springer
- Berger, L. and Th. Luckmann (1973), *The social construction of reality : a treatise in the sociology of knowledge*, Harmondsworth: Penguin University Books
- Birkinshaw, J.M., Hood, N. and S. Jonsson (1998), Building firm-specific advantages in multinational corporations: The role of the subsidiary initiative, *Strategic Management Journal*, vol. 19(3), pp. 221-241
- Birkinshaw, J.M., Toulan, O. and D.Arnold (2001), Global Account Management in Multinational Corporations: Theory and Evidence, *Journal of International Business Studies*, vol. 32(2), pp. 231-248
- Blau, P.M. (1964), *Exchange and Power in Social Life*, New York: Wiley
- Blauw, K. (2007), *Zuinig op ruimte; een provinciale vergelijking van bedrijventerreinen*, Utrecht: Stichting Natuur en Milieu
- Blokhuis, E.G.J. (2010), *Governing Multi-Actor Decision Processes in Dutch Industrial Area Redevelopment*, PhD-thesis, Eindhoven: Universiteit Eindhoven

- Blumberg, B.F. (2001), Cooperation contracts between embedded firms: from a bounded to a procedural rationality approach, *Organization Studies*, 22(5), pp. 163-186
- BOM (2006), *Kennisbundel Herstructurering van bedrijventerreinen*, Tilburg: Brabantse Ontwikkelings Maatschappij
- Boer, de, C. and H. Bressers (2011), *Complex and Dynamic Implementation Processes*, Enschede (NL): University of Twente
- Bourne, L. (2009), *Stakeholder Relationship Management: A Maturity Model for al Implementation*, Farnham (UK): Gower Publishing Limited
- Bouyssou, D., Marschant, T., Pirlot, M., Perny, P. Tsoukias, A. and P. Vincke (2000), *Evaluation and Decision Models: A Critical Perspective*, Norwell (MA): Kluwer Academic Publishers
- Bouyssou, D., Marschant, T., Pirlot, M., Tsoukias, A. and P. Vincke (2006), *Evaluation and decision models with multiple criteria: Stepping stones for the analyst*, New-York: Springer
- Boyatzis, R.E., (1998), *Transforming Qualitative Information: Thematic analysis and Code Development*, Thousand Oaks (CA): Sage Publications
- Bozeman, B. (1984), Dimensions of publicness: an approach to public organization theory, In: Bozeman, B. and J. Straussman (eds.), *New Directors in Public Administration*, Belmont, CA: Brooks-Cole, pp. 46-62
- Brand, R., Bugge, K.E. and E. Roelofs (2004), *Management Guide for Sustainable of Industrial Sites*, Final deliverable of EC-FP5-project "MANagement of SUSTainable of INdustrial sites" (MASURIN), Apeldoorn: TNO-MEP
- Brandsen, T. (2004), *Quasi-market governance. An anatomy of innovation*, Utrecht: Lemma Publishers
- Bressers, J.Th. A. and P. J. Klok (1987), Een voorlopige instrumententheorie van het milieubeleid (A provisional instrumentation theory of environmental policy), Den Haag: VROM
- Bressers, J.Th. A. and P. J. Klok (1988), Fundamentals for a theory of policy instruments, *International Journal of Social Economics*, 15(3/4), pp. 22-41
- Bressers, J.Th. A. (2004), Implementing sustainable development: How to know what works, where, when and how, In: *Governance for Sustainable Development: The Challenge of Adapting Form to Function*, Laffert, W.M., (ed.), Cheltenham: Edward Elgar Publishing Limited, pp. 284-318
- Bressers, J.Th. A. (2009), From public administration to policy networks: Contextual interaction analysis, In: *Rediscovering Public Law and Public Administration in Comparative Policy Analysis: Tribute to Peter Knoepfel*, Nahrath, S. and F. Varone (eds.), Bern: Haupt Verlag AG
- Brewer, G.D. and P. DeLeon (1983), *The foundations of policy analysis*, Chicago: Dorsey
- Browning, L.D., Beyer, J.M. and J.C. Shetler (1995), Building cooperation in competitive industry: SEMATECH and the semiconductor industry, *Academy of Management Journal*, vol. 38, pp. 133-151
- Bruijn, de, J.A. and E.F. ten Heuvelhof (2000), *Networks and Decision Making*, Utrecht: Lemma
- Bruijn, de, J.A., Heuvelhof, ten, E.F. and R.J. in't Veld (2002), *Procesmanagement: Over procesontwerp en besluitvorming*, Schoonhoven: Academic Service
- Bruijn, de, J.A., Heuvelhof, ten, E.F. and R.J. in't Veld (2010), *Process Management: Why Project Management Fails in Complex Decision Making (2<sup>nd</sup> ed.)*, Heidelberg: Springer
- Bruijn, T.J.N.M. (2003), Samenwerken in beleidsnetwerken, In: *Overheidsbeleid. Een inleiding in de beleidswetenschap*, Hoogerwerf, A. and M. Herweijer (eds.), Alphen aan den Rijn: Kluwer, pp. 329-350.
- Bryson, J.M. and B.C. Crosby (1992), *Leadership for the common good: tackling public problems in a shared-power world*, San Fransico: Jossey-Bass
- Bueren, E. van, Klijn, E.H. and J.F.M. Koppenjan (2003), Dealing with Wicked Problems in Networks: Analysing an Environmental Debate from a Network Perspective, *Journal of Public Administration Research and Theory*, 13(2), pp. 193-212
- Bueren, van, E. and E. ten Heuvelhof (2005), Improving governance arrangements in support of sustainable cities, *Environment and Planning B: Planning and Design*, vol. 32, pp. 47-66
- Bueren, van, E. (2009), *Greening Governance: An Evolutionary Approach to Policy Making for a Sustainable Built Environment*, PhD-thesis, Delft: University of Delft
- Bugge, K.E. (1994), *Mogelijkheden voor samenwerking op bedrijventerrein "Bergweide"*, Deventer: Rijkshogeschool IJsseland
- Bugge, K.E. (2000), *Duurzame ontwikkeling van nieuwe bedrijventerreinen in Almelo*, Deventer: Saxion Hogeschool IJsseland
- Bugge, K.E. (2003), Dilemma's bij Duurzame Revitalisatie van Bedrijventerreinen, In: *Proceedings of '2<sup>nd</sup> Industrial Life'-conference*, Apeldoorn: TNO-MEP
- Bugge, K.E. (2004), *Gemeenschappelijk draagvlak voor een duurzame ontwikkeling en beheer van bedrijventerrein de Vinkenkamp in Gemeente Zelhem*, Deventer: Saxion Hogescholen
- Bugge, K.E. (2006), Ook voor bedrijventerreinontwikkeling geldt: Behaalde resultaten uit het verleden bieden geen garantie voor de toekomst, In: *Kennisdossier Bedrijventerreinen 2006*, Amersfoort: Elba Media, pp. 68-75
- Bugge, K.E., Blokland, H., Lier, G., Peck, F., Mulvey, G., Hill, I, Welter, F, Kolb, S. and B. O'Gorman (2007), *Adaptive Model for Creating an RTD Investment Policy for Regions in Emerging and Developed Economies*, Final deliverable of the EC-FP6 research project "Creating an RTD Investment Policy for Regions in Emerging and Developed Economies" (CRIPREDE)

- Bugge, K.E. (2007), *Ervaringen uit aanjaagprojecten herstructurering*, Deventer: Saxion
- Bugge, K.E. (2008), *Krachtenveldanalyse t.b.v. het RBAZ*, Deventer: Saxion
- Bugge, K.E., Welter, F., O'Gorman, W. and I. Hill (2010), Regional Sustainability, Innovation and Welfare through an Adaptive Process Model, In: Sarkis, J., Cordeiro, J.J. and D. Vazquez Brust (Eds.): *Facilitating Sustainable Innovation through Collaboration: A Multi-Stakeholder Perspective*, Springer, pp. 77-96
- Bugge, K.E. (2010), Sneller Herstructureren: Juiste momenten juiste mensen, *Bedrijventerrein*, September issue, pp. 14-16
- Burnstein, F. and C.W. Holsapple (eds.) (2008), *Handbook on Decision Support Systems 1*, Berlin: Springer
- BWU (2009), *Regionale kansen voor kwaliteit: Handreiking voor uitvoeringsstrategieën in provinciaal en (inter) gemeentelijk bedrijventerreinbeleid*, Den Haag: Bestuurlijk Overleg Bedrijventerreinbeleid (EZ, VROM, IPO, VNG)
- BZK, *GSBIII; samenwerken aan de krachtige stad (2004)*, Den Haag: Ministerie van Binnenlandse Zaken & Koninkrijksrelaties
- C**
- Calder, B.J. (1977), Focus groups and the nature of qualitative marketing research, *Journal of Marketing Research*, vol. 14, pp. 353-364
- Casciaro, T. and M.J. Piskorski (2005), Power Imbalance, Mutual Dependence, and Constraint Absorption: A Closer Look at Resource Dependence Theory, *Administrative Science Quarterly*, 50, pp. 167-199
- Chaserant, C. (2003), Cooperation, contracts and social networks: from a bounded to a procedural rationality approach, *Journal of Management and Governance*, 7, pp. 163-186
- Chiles, T.H. and J.F. McMackin (1996), Integrating Variable Risk Preferences, Trust, and Transaction Cost Economics, *Academy of Management Review*, 21(1), pp. 73-96
- Christopoulos, D. (2006), Relational attributes of political entrepreneurs: a network perspective, *Journal of European Public Policy*, vol. 13(5), pp. 757-78
- Churchill, W. (1949), Speech at Great Britain's National Book Exhibition about his World War II memoirs, Quote taken from: Kelly, B. (2003), *Worth Repeating: More than 5000 Classic and Contemporary Quotes*, Grand Rapids: Kregel Publications
- Churchman, C.W. (1967), Wicked Problems, *Management Science*, vol. 14(4), pp. 141-142
- Clark, T., Varadarajan, P.R. and W.Price (1994), Environmental management: The construct and research propositions, *Journal of Business Research*, vol. 29(1), pp. 23-39
- Clegg, S. R. (1989), *Frameworks of Power*, London: SAGE Publications
- Clegg, S. R., Courpasson, D. and N. Phillips (2006), *Power and organizations*, London: SAGE Publications
- Clegg, S.R., Hardy, C., Lawrence, T.B. and W.R. Nord (eds.) (2006), *The SAGE Handbook of Organization Studies* (2<sup>nd</sup> ed.), London: SAGE Publications
- Clemens, E. and J. Cook (1999), Politics and Institutionalism: Explaining Durability and Change, *Annual Review of Sociology*, 25, pp. 441-66
- Cline, K.D. (2000), Defining the Implementation Problem: Organizational Management versus Cooperation, *Journal of Public Administration Research & Theory*, 10(3), pp. 551-571
- Coase, R.H. (1937), The Nature of the Firm, *Economica*, vol. 4, pp. 386-405
- Coleman, J.S. (1974), *Power and Structure of Society*, New York: Norton
- Collier, D. and D.L. Norden (1992), Strategic choice models of political change in Latin America, *Comparative Politics*, vol. 24 (2), pp. 229-243
- Coning, de, C. (1995). The nature and role of public policy. In: Cloete, F. and H. Wissink (eds.), *Improving Public Policy*, pp. 3-23
- Conklin, E.J. (2005), *Dialogue Mapping: Building Shared Understanding of Wicked Problems*, Chichester (etc.): Wiley
- Cooke, P. and K. Morgan (1993), The Network Paradigm: New Departures in Corporate and Regional Development. *Society and Space*, Vol. 11, 543-564.
- Corr, P.J. (2010), Individual Differences in Cognition: in Search of a General Model of Behaviour Control, In: Gruszka, A., Matthews, G and B. Szymura (eds.), *Handbook of Individual Differences in Cognition: Attention, Memory, and Executive Control*, New York: Springer, pp. 3-26
- CPB (2001), *Veroudering van bedrijventerreinen: Een structuur voor herstructurering*, Den Haag: Centraal Planbureau
- CPB (2005), *Bedrijfslocatiemonitor; de vraag naar ruimte voor economische activiteit tot 2020*, Den Haag: Koninklijke de Zwart
- Crabtree, B.F. and W.L. Miller (1999), Using Codes and Code Manuals: A Template Organizing Style of Interpretation, In: *Doing Qualitative Research*, Crabtree, B.F. and W.L. Miller, Thousand Oaks (Cal., US): SAGE publications, pp. 163-178
- Cragan, J.F., Kasch, C.R. and D.W. Wright (2009), *Communication in Small Groups: Theory, Process, Skills*, Boston, (MA, US): Wadsworth Cengage Learning
- Crawford, S. and E. Ostrom (1995), A Grammar of Institutions, *American Political Science Review*, vol. 89(3), pp. 582-600

Crosby, B.C. and J.M. Bryson (2005), *Leadership for the common good: tackling public problems in a shared-power world*, San Francisco: Jossey-Bass

Crozier, M. (1964), *The Bureaucratic Phenomenon*, Chicago: University of Chicago Press

Cummings, T.G. and C.G. Worley (1993), *Organization development and change*, Minneapolis: West Publishing

Cutter, S.L. (1993), *Living with risk*, London: Edward Arnold

## D

Daft, R.L. and R.H. Lengel (1986), Organizational Information Requirements, Media Richness and Structural Design, *Management Science*, vol. 32, pp. 554-571

Daft, R.L., Murphy, J. and H. Willmott (2010), *Organization theory and design*, Andover (UK): Cengage learning

David, P.A. (1985), Clio and the economic of QWERTY, *The American Economic Review*, vol. 75(2), pp. 332-337

David, P.A. (1986), Understanding the economic of QWERTY: The necessity of history, In: Parker, W.N. (ed.), *Economic history and the modern economist*, Oxford: Blackwell, pp. 30-49

David, P.A. (2001), Path dependence, its critics and the quest for "historical economics", In: Garrouste, P. (ed.), *Evolution and path dependence in economic ideas: Past and present*, Cheltenham, UK: Edgar Elgar Publishing, pp. 15-40

Decisio (2003), *Herstructurering bedrijventerreinen: Naar een optimale provinciale inzet*, Amsterdam: Decisio BV

DeLeon, P. (2007), The Stages Approach to the Policy Process: What Has It Done? Where Is It Going?, In: Sabatier, P.A. (ed.) *Theories of the Policy Process* (2<sup>nd</sup> edition), Boulder, CO: Westview Press, pp. 19-34

Denscombe, M. (2007), *The good research guide: for small-scale social research projects*, Maidenhead (UK): Open University Press

Denzin, N.K. and Y.S. Lincoln (2005), *The SAGE handbook of qualitative research* (3<sup>rd</sup> ed.), Thousand Oaks (Cal., USA): SAGE publications

Denzin, N.K. and K.E. Ryan (2007), Qualitative Methodology (Including Focus Groups), In: *The SAGE handbook of social science methodology*, Outhwaite, W. and S.P. Turner (eds.), London: SAGE publications

Deutsch, M. (1949), An experimental study of the effects of cooperation and competition upon group processes, *Human relations*, vol. 2, pp. 199-231

Deutsch, M. (1973), *The resolution of conflict*, New Haven, CT: Yale University Press

Dey, I. (1999), *Grounding grounded theory: guidelines for qualitative inquiry*, San Diego: Academic Press

DHV (2000), *Draaiboek Bedrijventerreinen*, Groningen: DHV, Provincie Friesland, NOM en Gemeente Leeuwarden

Digaetano, A. and E. Strom (2003), Comparative Urban Governance: An Integrated Approach, *Urban Affairs Review*, 38(3), pp. 356-395

Dinteren, van, J. and E. van der Krabben (2008), Herstructurering bedrijventerreinen: Tour de force voor een taskforce, *Stedenbouw & Ruimtelijke Ordening*, vol. 6, pp. 52-55

Dinteren, J. van (2008), *Bedrijventerreinen als speelveld*, Groningen: Rijksuniversiteit Groningen

Donaldson, T. and L.E. Preston (1995), The stakeholder theory of the corporation: Concepts, evidence and implications, *Academy of Management Review*, vol. 20, pp. 65-91

Dormois, R., Pinson, G. and H. Reignier (2005), Path-dependency in public-private partnership in French urban renewal, *Journal of Housing and the Built Environment*, vol. 20, pp. 243-256

Driessen P. and W. Vermeulen (1995), Network management in perspective, In: P. Glasbergen (ed.): *Managing environmental disputes: network management as an alternative*, Dordrecht: Kluwer Academic, pp. 155-178

Dyer, J.H. and H. Singh (1998), The relational view: Cooperative strategy and sources of interorganizational competitive advantage, *Academy of Management Review*, vol. 23, pp. 660-679

Dyrberg, T.B. (1997), *The Circular Structure of Power*, London: Verso

## E

Easton, D. (1957), An Approach to the Analysis of Political Systems, *World Politics*, vol. 9(3), pp. 383-400

Easton, D. (1965a), *A Framework for Political Analysis*, Chicago: University of Chicago Press

Easton, D. (1965b), *A System Analysis of Political Life*, New York: Wiley

Edelenbos, J. and R. Monnikhof (1998), Begeleiding van complexe projecten: nadruk steeds meer op proces dan op inhoud, *Stedenbouw & Ruimtelijke Ordening*, vol. 79(1), pp. 22-27

Edquist, C. (1997), Systems of innovation approaches - their emergence and characteristics, In: *Systems of Innovation: Technologies, Institutions and s*, C. Edquist (ed.), London: Pinter, pp. 1-35

- Edwards, W. (1982), Conservatism in Human Information Processing, In: *Judgment Under Uncertainty: Heuristics and Biases*, (Kahneman, Slovic and Tversky eds.), New York: Cambridge University Press
- Elkington, J. (1997), *Cannibals with Forks: the triple Bottom Line of 21<sup>st</sup> Century Business*, Oxford: Capstone
- Elliott, R. (1980), Conceptual Approaches to Power and Authority, In: Lockett, M. and R. Spear (eds.), *Organizations as Systems*, Milton Keynes: The Open University Press, pp. 138-147
- Elster, J. (1976), Some Conceptual problems in Political Theory, In: B. Barry (ed.) *Power and Political Theory: Some European Perspectives*, London: John Wiley, pp. 245-270
- Elster, J. (1989), *Nuts and Bolts for the Social Sciences*, Cambridge: Cambridge University Press
- Emerson, R.E. (1962), Power Dependence Relations, *American Sociological Review*, vol. 27, pp. 31-41
- Eppinger, S.D., Whitney, D.E., Smith, R.P and D.A. Gebala (1994), A Model-based Method for Organizing Tasks in Product Development, *Research in Engineering Design*, vol. 6, pp. 1-13
- Erez, M. (2005), Goal-Setting, Goal-Oriented, In: Nicholson, N., Audia, P. and M. Pillutla (eds.), *The Blackwell Encyclopedia of Management, Vol. XI: Organizational Behavior* (2<sup>nd</sup> Edition), Oxford, UK: Blackwell, pp. 138-141
- ETIN (2002), *De Brabantse herstructureringsopgave*, Tilburg: ETIN Adviseurs
- Evaluatiecommissie Stad & Milieu (2004), *De doeltreffendheid en effecten van de Experimentenwet Stad & Milieu in de praktijk*, Den Haag: VROM
- EZ (1996), *Nieuwe kansen voor bestaande terreinen; een onderzoek naar de problemen en oplossingen voor verouderde bedrijventerreinen in Nederland*, Den Haag: Ministerie van Economische Zaken
- EZ (1998), *Duurzame bedrijventerreinen: Handreiking voor het management van bedrijven en overheid*, Den Haag: Ministerie van Economische Zaken
- EZ (1999), *Meer private betrokkenheid als kans bij de herstructurering van bedrijventerreinen*, Den Haag: Ministerie van Economische Zaken
- EZ (2002), *Parkmanagement: Kwaliteit wint terrein*, Den Haag: Ministerie van Economische Zaken
- EZ (2004a), *Pieken in de Delta: Gebiedsgerichte Economische Perspectieven*, Den Haag: Ministerie van Economische Zaken
- EZ (2004b), *Actieplan Bedrijventerreinen 2004-2008: Samenwerken in uitvoering*, Den Haag: Ministerie van Economische Zaken
- EZ and VROM (2008), *Kabinetsreactie Taskforce (her)ontwikkeling bedrijventerreinen*, (OI/REB/8164560, 26-11-2008), Den Haag: Ministerie van Economische Zaken
- ## F
- Fenger, H.J.M. (2001), *Sturing van samenwerking: Institutionele veranderingen in het beleid voor werk en inkomen*, PhD-thesis, Enschede: Universiteit Twente
- Flick, U. (2009), *An introduction to qualitative research* (4<sup>th</sup> ed.), London: SAGE publications
- Flynn, B.B. and E.J. Flynn (1999), Information-processing alternatives for coping with manufacturing environment complexity, *Decision Sciences*, vol. 30(4), pp. 1021-1052
- Freeman, R.E. (1994), *Ethical theory and business*, Englewood Cliffs, NJ: Prentice Hall
- Freeman, R.E. (2010), *Strategic Management: A Stakeholder Approach*, Cambridge: Cambridge University Press
- Freeman, J. (2000), The private role in public governance, *New York University Law Review*, vol. 75(3), pp. 543-675
- French, J.R.P. and B. Raven (1959), The Bases of Social Power, In: D. Cartwright (ed.), *Studies in Social Power*, Anne Arbor: University of Michigan, pp. 150-167
- Frey, L.R. (1999), *The Handbook of Group Communication Theory & Research*, Thousand Oaks: SAGE Publications
- Friedman, A.M. (1953), On the methodology of positive economics, In: Friedman, A.M. (Ed.), *Essays in positive economics*, Chicago: University of Chicago Press, pp. 3-43
- Friedman, A. and S. Miles (2006), *Stakeholders: Theory and Practice*, Oxford: Oxford University Press
- Friedmann, J. (1973), *Retracking America: a theory of transactive planning*, New York: Anchor Press
- Friend, J. K. and W.N. Jessop (1969), *Local government and strategic choice: an operational research approach to the processes of public planning*, London: Tavistock Publications
- Friend, J. K. and A. Hickling (2005), *Planning under pressure: The Strategic Choice Approach*, Oxford (UK): Elsevier Butterworth Heinemann
- Frosch, R.A. and N.E. Gallopoulos (1989), Strategies for Manufacturing, *Scientific American*, vol. 261(3), pp. 144-152

Fuller, D. and B. Roffey (1993), Improving public sector accountability and strategic decision-making, *Australian Journal of Public Administration*, vol. 52(2), pp. 149-163

## G

Galbraith, J.R. (1973), *Designing Complex Organizations*, Reading, MA: Addison-Wesley

Galbraith, J.R. (1977), *Organization Design*, Reading, MA: Addison-Wesley

Garud, R. and P. Karnøe (2001), Path Creation as a Process of Mindful Deviation, In: *Path Dependence and Creation*, Garud, R. and P. Karnøe (eds.), Mahwah, NJ: Lawrence Erlbaum Associates, pp. 1-40

Gaventa, J. (1980), *Power and Powerlessness: Quiescence and Rebellion in an Appalachian Valley*, Urbana: University of Illinois Press

Geltner, D.M., Miller, N.G., Clayton, J. and P. Eichholz (2007), Commercial real estate analysis and investments (2nd ed.), Cengage learning

Ghoshal, S. and C. A. Bartlett (1990), The multinational corporation as an inter-organizational network, *Academy of Management Review*, vol. 15, pp. 603-625

Gibson, C.C. (2005), In pursuit of better policy outcomes, *Journal of Economic Behaviour & Organization*, vol. 57, pp. 227-230

Gibson, W.J. and A. Brown (2009), *Working with Qualitative Data*, London: SAGE Publications

Giddens, A. (1979), *Central Problems in Social Theory: Action, Structure and Contradiction in Social Analysis*, Berkeley and Los Angeles: University of California Press

Giddens, A. (1984), *The Constitution of Society*, Cambridge: Polity Press

Gordijn, H., Renes, G. and M. Traa (2007), *Naar een optimaler ruimtegebruik door bedrijventerreinen: Een verkenning van enkele beleidsopties*, Den Haag: Ruimtelijk Planbureau

Graaf, R.S. de (2005), *Strategic Urban Planning: Industrial Area Development in the Netherlands, To Direct or to Interact*, PhD-thesis, Enschede: University of Twente

Granovetter, M.S. (1973), The Strength of Weak Ties, *American Journal of Sociology*, vol. 78(6), pp. 1360-80

Grant, J. (1994), *The drama of democracy: contention and dispute in community planning*, Toronto: University of Toronto Press

Grant, R.M. (1996), Prospering in dynamically-competitive environments: organizational capability as knowledge integration, *Organization Science*, vol. 7(4), pp. 375-387

Greenbaum, T.L. (2000), *Moderating focus groups: a practical guide for group facilitation*, Thousand Oaks (Cal. US): SAGE publications

Gresov, C. (1990), Effects of Dependence and Tasks on Unit Design and Efficiency, *Organization Studies*, vol. 11(4), pp. 503-529

Gresov, C. and C. Stephens (1993), The Context of Interunit Influence Attempts, *Administrative Science Quarterly*, vol. 38, pp. 252-276

Guba, E.G. and Y.S. Lincoln (1990), *Y.S., Fourth Generation Evaluation*, Newbury Park: SAGE publications

Guy Peters, B.G. (1999), *Institutional Theory in Political Science: The 'New Institutionalism'*, London: Pinter

## H

Haimes, Y.Y. (2004), *Risk modeling, assessment, and management* (2<sup>nd</sup> ed.), New York: John Wiley

Hanf, K. and F. Scharpf (1978), *Interorganizational Policy Making: Limits to Coordination and Central Control*, Thousand Oaks, CA: SAGE publications

Hare, M. (2005), *The use of Models to Support the Participatory Elements of the EU Water Framework Directive: Creating a Dialogue between Policy Makers and Model Makers*. Harmoni-CA report, Seecon Deutschland GmbH

Harrison, J.S. and C.H. St. John (1996), Managing and partnering with external stakeholders, *Academy of Management Executive*, vol. 10(2), pp. 46-59

Hassink, R. (2005), Guest Editorial, *Environment and Planning A*, 37, pp. 571-580

Haugaard, M. and S. Clegg (2009), *The SAGE Handbook of Power*, London: SAGE Publications

Healey, P. (1992), Planning through debate: the communicative turn in planning theory, *Town Planning Review*, 63(2), pp. 143-162

Healey, P. (1994), Urban Policy and Property Development: The Institutional Relations of Real Estate in an Old Industrial Region, *Environment and Planning A*, 26, pp. 177-198

Healey, P. (1997), *Collaborative planning: shaping places in fragmented societies*, Basingstoke (UK): Macmillan Press

Healey, P. (2007), The New Institutionalism and the Transformative Goals of Planning, In: *Institutions and Planning*, Verma, N. (ed.), Oxford: Elsevier Science

Heath, A. (1976), *Rational Choice and Social Exchange*, Cambridge: Cambridge University Press

Heath, R.L. and J. Bryant (2000), *Human Communication Theory and Research: Concepts, Contexts and Challenges*, Mahwah (NJ): Lawrence Erlbaum Associates

Hechhausen, H. (1989), *Motivation und Handeln* (2nd. Ed.), Berlin: Springer

Hechhausen, H. and J. Heckhausen (2008), *Motivation and action*, New York: Cambridge University Press

Hillier, J. (2002), *Shadows of Power: An Allegory of Prudence in Land Use Planning*, London: Routledge

Hjern, B. and D.O. Porter (1981), Implementation structures: A New Unit of Administrative Analysis, *Organization Studies*, vol. 2(3), pp. 211-227

Hogan, C. (2003), *Practical facilitation: a toolkit of techniques*, London: Kogan Page Limited

Hogwood, B.W. and L.A. Gunn. (1984), *Policy analysis for the real world*, Oxford: Oxford University Press

Holcomb, T.R. and M.A. Hitt (2007), Toward a model of strategic outsourcing, *Journal of Operations Management*, vol. 25(2), pp. 464-481

Hollingsworth, J.R. (2000), Doing institutional analysis: implications for the study of innovations, *Review of International Political Economy*, vol. 7(4), pp. 595-644

Holmes, S. (1988), Gag rules or the politics of omission, In: Elster, J. and R. Slagstad (eds.), *Constitutionalism and democracy*, Cambridge: Cambridge University Press, pp. 19-58

Holsapple, C.W. (2003), Knowledge and its Attributes, In: Holsapple, C.W. (ed.), *Handbook on Knowledge Management 1: Knowledge matters*, New York: Springer, pp. 165-188

Homans, G. (1961), *Social Behaviour: Its Elementary Forms*, London: Routledge and Kegan Paul

Hoogerwerf, A. (1998), Het ontwerpen van beleid als wetenschapstoepassing, In: Hoogerwerf, A. (ed.), *Het ontwerpen van beleid: een handleiding voor de praktijk en resultaten van onderzoek (tweede editie)*, Alphen aan den Rijn: Samsom

Hopkins, C., Benjamin, C. and A. Carter (1997), *Regeneration – Some Legal and Practical Issues*, London: BURA

Horsfall, D. Byrne-Armstrong, H. and J. Higgs (2001), Researching critical moments, In: *Critical Moments in Qualitative Research*, Byrne-Armstrong, H., Higgs, J. and Horsfall, D. (eds.), Oxford: Butterworth-Heinemann

Howitt, D. and D. Cramer (2005), *Introduction to Research Methodology in Psychology*, Harlow: Pearson Education Limited

Huxham, C. and S. Vangen (2005), *Managing to Collaborate: The Theory and Practice of Collaborative Advantage*, New York: Routledge

IBIS (Integraal Bedrijventerrein Informatie Systeem Werklocaties) 2010, *Toelichting begrippen IBIS inventarisatie 2010*, Den Haag: VROM (retrieved from <http://www.bedrijvenlocaties.nl/werklocaties/default.aspx> on May 10<sup>th</sup> 2010)

Immergut, E.M. (1998), The Theoretical core of new institutionalism, *Politics & Society*, vol. 26(1), pp.5-36

Innes, J. (1998), Information in communicative planning, *Journal of the American Planning Association*, vol. 64, pp. 52-63

Innes, J. (2004), Consensus Building: Clarification for the Critics, *Planning Theory*, 3(1), pp. 5-20

Jackson, G. (2010), Actors and Institutions, In: *The Oxford Handbook of Comparative Institutional Analysis*, Morgan, G., Campbell, J., Crouch, C., Pedersen, O.K. and R. Whitley (eds.), Oxford: Oxford University Press, pp. 63-86

Jenkins, W.I. (1978), *Policy-Analysis. A Political and al Perspective*, London: Martin Robertsens

Johanson, J. and LG. Mattsson (1987), Inter Organizational Relations in Industrial Systems: A Network Approach Compared with the Transaction-Cost Approach, *International Studies of Management and Organization*, vol. 17(1), pp. 34-48

Johnson, D.W. and R.T Johnson (2005), New Developments in Social Interdependence Theory, *Genetic, Social, and General Psychology Monographs*, vol. 131(4), pp. 285-358

Jones, T.M. (1995), Instrumental stakeholder theory: A synthesis of ethics and economics, *Academy of Management Review*, 20, pp. 404-437

Jones, M. and R. Sugden (2001), Positive confirmation bias in the acquisition of information, *Theory and Decision*, vol. 50(1), pp. 59-99

Jordan, G. (1981), Iron Triangles, Woolly Corporatism and Elastic Nets: Images of the Policy Process, *Journal of Public Policy* 1(1), pp. 95-123.

Jupp, V. (2006), *The Sage Dictionary of social research methods*, London: SAGE publications

K

Kabinet, IPO, VNG and UvW (2011), *Bestuursakkoord 2011-2015*, Den Haag

Kahneman, D., Knetsch, J.L. and R.H. Thaler (1991), Anomalies: the endowment effect, loss aversion and status quo bias, *Journal of Economic Perspectives*, vol. 5, pp. 193-206

- Kaiser, E.J., Godschalk, D.R. and F.S. Chapin jr. (1995), *Urban land use planning* (4<sup>th</sup> edition), Urbana: University of Illinois Press
- Kamberelis, G. and G. Dimitriadis (2005), Focus groups: Strategic Articulations of Pedagogy, Politics and Inquiry, In: *The SAGE handbook of qualitative research*, Denzin, N.K. and Y.S. Lincoln (eds.), Thousand Oaks (Cal. USA): SAGE publications
- Kanfer, R. (1990), Motivation Theory and Industrial and Organizational Theory, In: Dunnette, M. and L.M. Hough (eds.), *Handbook of Industrial and Organizational Psychology*, Palo Alto, CA: Consulting Psychologists Press Inc., 1, pp. 75-170
- Kaufman, F.X. (1986), Introduction, In: Kaufman, F.X, Majone, G. and V. Ostrom (eds.), *Guidance, Control, and Evaluation in the Public Sector*, New York: De Gruyter
- Kaufmann, P.J. and L.W. Stern (1988), Relational Exchange Norms, Perceptions of Unfairness, and Retained Hostility in Commercial Litigation, *Journal of Conflict Resolution*, 32, pp. 534-552
- King, N. (2004), Using Templates in the Thematic Analysis of Text, In: *Essential Guide to Qualitative Methods in Organizational Research*, Cassell, C. and G. Symon (eds.), London: SAGE publications, pp. 256-270
- King, N. and C. Horrocks (2010), *Interviews in Qualitative Research*, London: SAGE publications
- Kirschner, R. (2007), *Insiders Guide to the Art of Persuasion*, Ashland (OR/ US): Talk Natural Press
- Kiser, L.L. and E. Ostrom (1982), The Three Worlds of Action: A metatheoretical Synthesis of Institutional Approaches, In: E.Ostrom (ed.), *Strategies of Political Inquiry*, Beverly Hills, CA: SAGE publications, pp. 179-222
- Kitzinger, J. and R.S. Barbour (1999), Introduction: the challenge and promise of focus groups, In: *Developing focus group research: theory and practice*, Kitzinger, J. and R.S. Barbour (eds.), London: SAGE publications
- Klaassen, H.L. (1995), *Besluitvorming in afhankelijkheid: over de rol van de procesarchitect bij overhedsprojecten* (PhD-thesis), Delft: Eburon
- Klijin, E.H. (1996), *Regels en sturing in netwerken: de invloed van netwerkregels op de herstructurering van naoorlogse wijken*, Delft: Uitgeverij Eburon bv
- Klijin, E. H. (1997), Policy Networks: An Overview, In: Kickert, W., Klijin, E. and J. Koppenjan (eds.), *Managing Complex Networks: strategies for the public sector*, London: SAGE publications
- Klijin, E. H. and J. Koppenjan, (2000), Public Management and Policy Networks: Foundations of a network approach to governance, *Public Management*, 2(2), pp. 135-158
- Klijin, E. H. and J. Koppenjan, (2006), Institutional Design: Changing Institutional Features of Networks, *Public Management Review*, 8(1), pp. 141-160
- Klijin E.H. (2008), Policy and Implementation Networks: Managing Complex Interactions, In: *The Oxford Handbook of Inter-Organizational Relations*, Cropper, S., Ebers, M., Huxham, C. and P. Smith Ring (eds.), Oxford: Oxford University Press, pp. 118-146
- Klijin, E.H., Edelenbos, J. and B. Steijn (2010), Trust in Governance Networks; its impacts on outcomes, *Administration and Society*, 42(2), pp. 193-221
- Knight, J. (1992), *Institutions and Social Conflict*, Cambridge: Cambridge University Press
- Kolpron Consultants (1998), *Werken aan vernieuwing: Duurzame bedrijventerreinen*, Rotterdam: Kolpron Consultants
- Konz, W. and C. Van den Thillart (2002), *Industriële symbiose op bedrijventerreinen*, (PhD-thesis), Eindhoven: Technische Universiteit Eindhoven
- Kooiman, J. (1993), *Modern Governance: new government-society interactions*, London: SAGE publications
- Kooiman, J. (1996), Stapsgewijs omgaan met politiek-maatschappelijke problemen, In: Nijkamp, P., Begeer, W. and J. Berting (eds.), *Denken over complexe besluitvorming: een panorama*, Den Haag: Sdu Uitgevers, pp. 31-48
- Koppenjan, J.F.M. and E. H. Klijin (2004), *Managing Uncertainties in Networks*, London: Routledge,
- Korteweg, P.J. (2002), *Veroudering van kantoorgebouwen: probleem of uitdaging?*, Utrecht: Nederlandse Geografische Studies
- Kotter, J.P. (1977), Power, dependence and effective management, *Harvard Business Review*, vol. 55(4), pp. 125-136
- Krabben, van der, E. and J. van Dinteren (2010), Public development of industrial estates in The Netherlands: Undesired market outcomes and policy interventions, *Tijdschrift voor Economische en Sociale Geografie*, vol. 101, pp. 91-99
- Krantz, D.H. and H.C. Kunreuther (2007), Goals and plans in decision making, *Judgement and Decision Making*, vol. 22(3), pp.137-168
- Krueger, R.A. (1998), *Moderating Focus Groups*, Thousand Oaks (Cal., USA): SAGE publications
- Krueger, R.A. and M.A. Casey (2000), *Focus Groups: A Practical Guide for Applied Research (3th Edition)*, Thousand Oaks (Cal., USA): SAGE publications
- Krueger, R.A. and M.A. Casey (2008), *Focus Groups: A Practical Guide for Applied Research (4th Edition)*, Thousand Oaks (Cal., USA): SAGE publications
- Kruglanski, A.W. (1996), Motivated social cognition: principles of the interface, In: Higgins, E.T. and A.W. Kruglanski (eds.), *Social psychology. Handbook of basic principles*, London: Guilford Press, pp. 493-520

- Kukalis, S. (1991), Determinants of strategic planning systems in large organizations: A contingency approach, *Journal of Management Studies*, vol. 28(2), pp. 143-161
- Kvale, S. (1996), *Interviews: An Introduction to Qualitative Research Interviewing*, Thousand Oaks (CA): SAGE Publications
- Kvale, S. (2007), *Doing Interviews*, Flick, U. (ed.), London: SAGE publications
- Lake, D.A. and R. Powell (1999), *Strategic choice and international relations*, Princeton: Princeton University Press
- Lambooy, J.G., Spit, T. and K.E. Bugge (2002), *Innovatieve Bedrijventerreinen: Trends, bottlenecks en de opgaven voor het komende decennium*, Utrecht: Universiteit Utrecht
- Langer, J. (2006), *The Mirrored Window: Focus Groups from a Moderator's Point of View*, Ithaca (NY, US): Paramount Market Publishing
- Lasswell, H.D. (1951), The Policy Orientation, In: Lerner, D. and H.D.Lasswell et al. (eds.), *The Policy Sciences: Recent Developments in Scope and Method*, Stanford: Stanford University Press, pp. 3-15
- Lasswell, H.D. (1956), The Decision Process: Seven categories of Functional Analysis, College Park: University of Maryland
- Latham, G.P. and C.C. Pinder (2005), Work Motivation Theory and Research at the Dawn of the 21<sup>st</sup> Century, *Annual Review of Psychology*, vol. 56(32), pp. 485-516
- Laws, S., Harper, C. and R. Marcus (2003), *Research for development*, London: SAGE Publications
- Legro, J. (1997), Which norms matter? Revisiting the "failure" of internationalism, *International Organization*, 51, pp. 31-63
- Leininger, M. M. (1985), Ethnography and ethnonursing: Models and modes of qualitative data analysis. In: M. M. Leininger (ed.), *Qualitative research methods in nursing*, Orlando: Grune & Stratton, pp. 33-72
- Lichbach, M.I. (1996), *The Cooperator's Dilemma*, Ann Arbor: University of Michigan Press
- Lidskog, R. and I. Elander (1992), Reinterpreting locational conflicts: NIMBY and nuclear waste in Sweden, *Policy and Politics*, 20(4), pp. 249-264
- Lincoln, Y.S. and E.G. Guba (1985), *Naturalistic inquiry*, Beverly Hills (CA): SAGE Publications
- Lindenberg, S. and B. Frey (1993), Alternatives, frames and relative prices: a broader view of rational choice, *Acta Sociologica*, vol. 36, pp. 191-205
- Lindenberg, S. (2000), It takes both trust and lack of mistrust: the workings of cooperation and relational signalling in contractual relationships, *Journal of Management and Governance*, vol. 4, pp. 11-33
- Lloyd-Evans, S. (2006), Focus groups, In: Desai, V. and R.B. Potter (eds.), *Doing development research*, London: SAGE publications
- Locke, E.A. (1968), Toward a theory of task motivation and incentives, *Organizational behaviour and performance*, 3, pp. 157-189
- Locke, E.A. and G.P. Latham (1990), *A theory of goal setting and task performance*, Englewood Cliffs, NJ: Prentice Hall
- Locke, E.A., Smith, K., Erez, M., Chah, D. and A. Schaffer (1994), The effects of intra-individual goal conflict on performance, *Journal of Management*, vol. 20, pp. 67-91
- Locke, E.A. and G.P. Latham (2002), Building a practically useful theory of goal setting and task motivation: A 35-year odyssey, *American Psychologist*, vol. 57, pp. 705-17
- Loewenstein, G.F. (1996), Out of control: visceral influences on behaviour, *Organizational Behaviour and Human Decision Processes*, vol. 65(3), pp. 272-292
- Lomas, J. (1997), *Improving Research Dissemination and Uptake in the Health Sector: Beyond the Sound of One Hand Clapping*, Hamilton: Centre for Health Economics and Policy Analysis
- Loosemore, M., Raftery, J., Reilly, C. and D. Higgon (2006), *Risk Management in Projects* (2<sup>nd</sup> ed.), New York: Taylor & Francis
- Louw, E., Needham, B., Olden, H. and C-J Pen (2004), *Planning van bedrijventerreinen*, Sdu Uitgevers: Den Haag
- Lovell, R.J. (1993), Power and the Project Manager, *International Journal of Project Management: The Journal of the international Project Management Association*, 11(2), pp. 73-78
- Luhmann, N. (1995), *Social systems*, Stanford (CA): Stanford University Press
- Lukes, S. (1974), *Power: A Radical View*, London: Macmillan
- Lunt, P. and S. Livingstone (1996), Rethinking the focus group in media and communications research, *Journal of Communications*, vol. 46(2), pp. 79-98
- Lupia, A., McCubbins, M.D. and S.L. Popkin (2000), Beyond rationality: Reason and the Study of Politics, In: Lupia, A., McCubbins, M.D. and S.L. Popkin (eds.), *Elements of reason: cognition, choice, and the bounds of rationality*, Cambridge: Cambridge University Press, pp. 1-22

# M

- Magenau, J.M. and J.K. Pinto (2007), Power, Influence and Negotiation in Project Management, In: *Project. Organization & Project Management Competencies*, Morris, P.W.G. and J.K. Pinto (eds.), Hoboken (NJ): John Wiley & Sons, pp. 89-116
- Malone, T.W. and K. Crowston (1994), The Interdisciplinary Study of Coordination, *ACM Computing Surveys*, vol. 26(1), pp. 87-119
- Mann, M. (1986), *The Sources of Social Power. Vol. 1: A History of Power form the Beginning to A.D. 1760*, Cambridge: Cambridge University Press
- Mantzavinos, C., North, D.C. and S. Shariq (2005), Lernen, Institutionen und Wirtschaftsleistung, *Analyse & Kritik: Zeitschrift für Sozialwissenschaften*, vol. 27(2), pp. 320-337
- March, J. and H.A. Simon (1958), *Organizations*, New York: John Wiley
- March, J.G. and J.P. Olsen (1984), The New Institutionalism: Organizational factors in Political Life, *American Political Science Review*, 78(3), pp. 734-49
- March, J.G. and J.P. Olsen (1989), *Rediscovering Institutions: The Organizational Basis of Politics*, London: SAGE publications
- March, J.G. (1994), *A Primer on Decision Making: How Decisions Happen*, New York: Free Press
- Marshall, C. and G.B. Rossman (2006), *Designing Qualitative Research*, Thousand Oaks (Cal., US): SAGE publications
- Massam, B.H. (1993), *The Right Place, shared responsibility and the location of public facilities*, London: Longman
- Mastenbroek, W.F.G. and R. van der Meij (2007), *Onderhandelen* (17th edition), Utrecht: Het Spectrum
- Maxwell, J.A. (2005), *Qualitative research design: An interactive approach (2<sup>nd</sup> ed.)*, Thousand Oaks (CA): SAGE Publications
- May, J. and A. Wildavsky (1978), *The Policy Cycle*, Beverly Hills, CA: SAGE publications
- Mayntz, R. (1986), Corporate Actors in Public Policy: Changing Perspectives in Political Analysis, *Norsk Statsvitenskapelig Tidsskrift*, 3, pp. 7-25.
- Mayntz, R. and F. W. Scharpf (1995), Der Ansatz der akteurzentrierten Institutionalismus, In: *Gesellschaftliche Selbstregulierung und Politische Steuerung*, Mayntz, R. and F. W. Scharpf (eds.), Frankfurt am Main (DE): Campus, pp. 39-72
- McNamara, P. (1993), Parameters for Institutional Investment in Inner City Commercial Property Markets, In: Berry, J., McGreal, S. and W. Deddis (eds.), *Urban Regeneration: Property Investment and Development*, London: E & FN Spon, pp. 5-15
- Medcof, J.W. (2001), Resource-Based Strategy and Managerial Powers in Networks of Internationally Dispersed Technology Units, *Strategic Management Journal*, vol. 22(11), pp. 999-1012
- Medhurst, F., Lewis, J.P. and E. Gittus (1969), *Urban Decay. An Analysis and a Policy*, London: Macmillan
- Merton, R.K., Fiske, M. and P.L. Kendall (1956), *The Focused Interview*, Glencoe (IL, USA): The Free Press
- Miller, D. and J. Shamshie (1996), The Resource-Based View of the Firms in Two Environments: The Hollywood Film Studios in 1936 and 1965, *Academy of Management Journal*, vol. 39(3), pp. 519-543
- Mintrom, M. (2000), *Policy Entrepreneurs and School Choice*, Washington DC: Georgetown University Press
- Mintzberg, H. (1983), *Power in and Around Organizations*, Englewood Cliffs, NJ: Prentice Hall
- Mitchell, W. and K. Singh (1996), Survival of Businesses using collaborative relationships to commercialize complex goods, *Strategic Management Journal*, vol. 17, pp. 169-195
- Mitchell, R., Agle, B. and D. Wood (1997), Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts, *Academy of Management Review*, 22(4), pp. 853-886
- Mitchell, T.R. and D. Daniels (2003), Motivation, In: *Handbook of psychology, vol.12: Industrial organizational psychology*, Borman, W.C., Ilgen, D.R. and R.J. Klimoski (eds.), New York: Wiley & Sons, pp. 225-54
- Möller, K. and D.T. Wilson (1995), Business relationships – An interaction perspective, In: *Business Marketing: An Interaction and Network Perspective*, Möller, K. and D.T. Wilson (eds.), Boston: Kluwer Academic Publishers, pp. 23-52
- Monroe, K.R. (1991), The Theory of Rational Action: What is it? How Useful is it for Political Science?, In: *Political Science: Looking to the Future (vol 1): The Theory and Practice of Political Science*, W.Grotty (ed.), Evanston: Northwestern University Press, pp. 77-98
- Morgan, D.L. (1988), *Focusgroups as qualitative research*, London: SAGE publications
- Morgan, D.L. (1997), *Focusgroups as qualitative research*, Thousand Oaks (CA): SAGE publications
- Morgan, D.L., Krueger, R.A. and J.A. King (1998), *Analyzing & reporting focus group results*, Thousand Oaks (CA): SAGE publications
- Morgan, R.M. and S.D. Hunt (1994), The Commitment-Trust Theory of Relationship Marketing, *Journal of Marketing*, 58, pp. 20-38
- Mudambi, R. and P. Navarra (2004), Is knowledge power? Knowledge flows, subsidiary power and rent-seeking within MNEs, *Journal of International Business Studies*, vol. 35(5), pp. 385-406

# N

- Nagy Hesse-Biber, S. and P. Leavy (2006), *The Practice of Qualitative Research*, Thousand Oaks (CA): SAGE Publications
- Nagy Hesse-Biber, S. and P. Leavy (2010), *The Practice of Qualitative Research (2<sup>nd</sup> ed.)*, Thousand Oaks (CA): SAGE Publications
- Needham, B. (2000), Spatial planning as a design discipline: a paradigm for Western Europe?, *Environment and Planning B: Planning and Design*, vol. 27, pp. 437-453
- Needham, B. and E. Louw (2006), Institutional Economics and Policies for Changing Land Markets: The Case of Industrial Estates in the Netherlands, *Journal of Property Research*, 23(1), pp. 75-90
- Nicis Institute (2009), *Topperregeling in de praktijk: Evaluatie en leerervaringen van de Topperregeling bedrijventerreinen*, Den Haag: Nicis Institute
- Nickerson, R.S. (1998), Confirmation Bias: A Ubiquitous Phenomenon in Many Guises, *Review of General Psychology*, vol. 2(2), pp. 175-220
- North, D.C. (1990), *Institutions, institutional change, and economic performance*, Cambridge: Cambridge University Press
- Norton, J.P., Brown, J.D. and J. Mysiak (2006), To what extent, and how, might uncertainty be defined? Comments engendered by "Defining Uncertainty: a conceptual basis for uncertainty management in model-based decision support": Walker et al., Integrated assessment 4:1, 2003, *The Integrated Assessment Journal*, vol. 6(1), pp. 83-88
- Novem and EZ (1999) Werken aan duurzame bedrijventerreinen: Samenvatting van met subsidie gehonoreerde projecten in 1999, Utrecht: Novem
- Novem and EZ (2000) Werken aan duurzame bedrijventerreinen 2: Samenvatting van met subsidie gehonoreerde projecten in 2000, Utrecht: Novem
- Novem and EZ (2001), *Leren van falen: succes behalen*, Utrecht: Novem
- Novem (2001), *Werken aan duurzaamheid op bedrijventerreinen: Een proceshandreiking voor gemeenten*, Utrecht: Novem
- Novem and EZ (2003a), *Duurzame bedrijventerreinen in strategisch perspectief: een springplank. Handleiding voor een strategische analyse*, Utrecht: Novem
- Novem and EZ (2003b), *De Trompet. Heemskerk: Balans in bedrijvigheid en milieu*, Utrecht: Novem
- Novem and DECOR (2003), *Processen in de greep: Handboek voor het beheersen van samenwerkingsprocessen bij de verduurzaming van bedrijventerreinen*, Utrecht en Den Haag: Novem and DECOR

- Nutt, P.C. (2000), Decision-making success in public, private and third sector organizations: finding sector dependent best practice, *Journal of Management Studies*, vol. 37(1), pp. 77-108

# O

- Olden, H. (2007), *Remmende factoren bij het herstructureren van bedrijventerreinen*, Utrecht: Stogo Onderzoek en advies
- Olden, H. (2010), *Uit voorraad leverbaar: De overgewaardeerde rol van bouwrijpe grond als vestigingsfactor bij de planning van bedrijventerreinen*, PhD-thesis, Utrecht: Universiteit Utrecht
- Oliver, C. (1990), Determinants of interorganizational relationships: integration and future directions, *The Academy of Management Review*, vol. 15(2), pp. 241-265
- Olson, M. (1965), *The Logic of Collective Action*, Cambridge, MA: Harvard University Press
- O'Neill, R.M. and R.E. Quinn (1993), Editors Note: Applications of the competing Values Framework, *Human Resource Management*, vol. 32, pp. 1-7
- Orton, J.D. and K.E. Weick (1990), Loosely Coupled Systems: A Reconceptualization, *Academy of Management Review*, vol. 15(2), pp. 203-223
- Osborne, M. and A. Rubinstein (1990), *Bargaining and Markets*, San Diego: The Academic Press
- Oskamp, S. and P.W. Schultz (2005), *Attitudes and Opinions*, Mahwah (NJ/ US): Pearson Education
- Ostrom, E. (1986a), A method of Institutional Analysis, In: Kaufmann, F.X., Majone, D. and V.
- Ostrom, E. (1986b), Multiorganizational Arrangements and Coordination: An Application of Institutional Analysis, In: Kaufmann, F.X., Majone, D. and V. Ostrom (eds.), *Guidance, Control, and Evaluation in the Public Sector. The Bielefeld Interdisciplinary Project*, New York: Walter de Gruyter, pp. 495-510
- Ostrom, E. (1990), *Governing the commons: The evolution of institutions for collective action*, New York: Cambridge University Press
- Ostrom, E., Gardner, R. and J.Walker (1994), *Rules, Games and Common-Pool Resources*, Ann Arbor: University of Michigan Press
- Ostrom, E. (1999), Institutional Rational Choice: An Assessment of the IAD Framework, In: P.Sabatier (ed.), *Theories of the Policy Process*, Boulder, CO: Westview Press, pp.35-71
- Ostrom, E. (2005), *Understanding Institutional Diversity*, Princeton: Princeton University Press
- Ostrom, E. (2007), Institutional Rational Choice: An Assessment of the IAD Framework, In: P.Sabatier (ed.), *Theories of the Policy Process (2<sup>nd</sup> ed.)*, Boulder, CO: Westview Press, pp.35-71

O'Toole, L.J., Hanf, K.I. and P.L. Hupe (1997), *Managing Implementation Processes in Networks*, In: Kickert, Klijn and Koppenjan (eds.), *Managing Complex Networks: Strategies for the Public Sector*, Thousand Oaks, CA: SAGE publications

Outhwaite, W. and S.P. Turner (2007), *The SAGE Handbook of Social Science Methodology*, London: SAGE Publications

## P

Parsons, T. (1977), *Social systems and the evolution of action theory*, New York: The Free Press

Parsons, T. (1978), *Action theory and the human condition*, New York: The Free Press

Patton, C.W. and D.S. Sawicki (1986), *Basic methods of policy analysis and planning*, Englewood Cliffs: Prentice-Hall

Patton, M.Q. (2002), *Qualitative Evaluation and Research Methods* (3<sup>rd</sup> ed.), Newbury Park (CA): SAGE Publications

Pearsall Smith, L. (1933), *Afterthoughts*, In: *All Trivia*, London: Constable

PBL (2009), *De toekomst van bedrijventerreinen: van uitbreiding naar herstructurering*, Den Haag / Bilthoven: Planbureau voor de Leefomgeving

Pellenbarg, P.H. (2002), Sustainable Business Sites in the Netherlands: A Survey of Policies and Experiences, *J. of Environmental Planning and Management*, vol. 45(1), pp. 59-84

Pellenbarg, P.H. (2006), Locatie of prestatie? - Bedrijventerreinen en vestigingskeuze, *Stedebouw en Ruimtelijke Ordening*, vol. 87 (3), pp.26-29

Pen, C.J. (2002), *Wat beweegt bedrijven. Besluitvormingsprocessen bij verplaatste bedrijven*, Utrecht: Koninklijk Nederlands Aardrijkskundig Genootschap

Pen, C.J. and S. Hiethaar (1998), Het moderniseren van verouderde bedrijfsterreinen, *Rooijlijn*, vol. 31(9), pp. 440-446

Pennen van der, T. (2005), Actor strategies in decentralized policy networks, *J. of Housing and Built Environment*, vol. 20, pp. 301-315

Peteraf, M. (1993), The Cornerstones of Competitive Advantage: A Resource-Based View, *Strategic Management Journal*, vol. 14, pp. 179-191

Pfeffer, J. and G.R. Salancik (1978), *The external control of s: a resource dependence perspective*, New York: Harper & Row

Pfeffer, J. (1981), *Power in organizations*, Cambridge: Ballinger

Pfeffer, J. and G.R. Salancik (2003), *The External Control of Organizations*, Stanford: Stanford University Press

Pielke, R.A. (2003), The Role of Models in Prediction for Decision, In: *Models in Ecosystem Science*, Draper, C., Canham, W., Cole, J. and W.K. Lauenroth (Eds.), Princeton: Princeton University Press, pp. 111-135

Pierre, J. and B. Guy Peters (2005), *Governing Complex Societies*, New York: Palgrave Macmillan

Pierson, P. (1993), When Effect Becomes Cause. Policy Feedback and Political Change, *World Politics*, vol. 45, pp. 595-628

Pierson, P. (2000a), The Limits of Design: Explaining Institutional Origins and Change, *Governance*, vol. 13(4), pp. 475-499

Pierson, P. (2000b), Increasing Returns, Path Dependence, and the Study of Politics, *American Political Science Review*, vol. 94(2), pp. 251-267

Pierson, P. (2004), *Politics in time: History, institutions, and social analysis*, Princeton: Princeton University Press

Pimmler, T.U. and S.D. Eppinger (1994), Integration Analysis of Product Decompositions, *Design Theory and Methodology*, vol. 68, pp. 343-351

Popkewitz, T. (1984), *Paradigm and ideology in educational research: The social functions of the intellectual*. London: Falmer

Powell, M. and M. Exwonhy, M. (2002). Partnerships, quasi-networks and social policy. In: Glendinning, C, Powell, M. and K. Rummery (eds.), *Partnerships, New Labour and the Governance of Welfare*, Bristol: The Policy Press, pp. 15-32.

Premkumar, G., Ramamurthy, K. and C.S. Saunders (2005), Information processing view of organizations: An explanatory examination of fit in the context of interorganizational relationships, *Journal of Management Information Systems*, vol. 22(1), pp. 257-294

Pröpper, I. and D. Steenbeek (1998), Interactieve beleidsvoering: typering, ervaringen en dilemma's, *Bestuurskunde* 7, pp. 292-301

Provincie Flevoland (2000), *Handreiking Duurzame Kwaliteit op bedrijventerreinen*, Lelystad: Provincie Flevoland

Puchta, C. and J. Potter (2004), *Focus Group Practice*, London: SAGE publications

Pugh, D.S. and D.J. Hickson (1996), *Writers on Organizations* (5<sup>th</sup> edition), Thousand Oaks, CA: SAGE publications

## R

- Raiffa, H. (1982), *The Art of Science of Negotiation*, Cambridge (MA): Harvard University Press
- Raiffa, H., Richardson, J. and D. Metcalfe (2002), *Negotiation Analysis: The Science and Art of Collaborative Decision Making*, Cambridge (MA): Harvard University Press
- Reesink, T. and F. van Alst (2003), *Verouderde Bedrijventereinen; te weinig geld voor herstructurering*, In: Property NL Research quarterly, juni, pp. 11-18
- REVIT (2007), *Working towards more effective and sustainable brownfield policies*, Final deliverables of Interreg IIIB North West Europe project "Revitalising industrial sites"
- Rhodes, R. (1997), *Understanding governance: Policy networks, governance, reflexivity and accountability*, Buckingham: Open University Press
- Ribot, J.C. (2006), Editorial: Choose democracy: environmentalists' socio-political responsibility, *Global Environmental Change* 16, pp. 115-119
- Ring, P.S. and A.H. Van de Ven (1994), Development Processes of Cooperative Interorganizational Relationships, *Academy of Management Review*, 19(1), pp. 90-118
- Rist, R (1994). Influencing the policy process with qualitative research. In: N. Denzin and Y. Lincoln (eds.), *Handbook of qualitative research*, Thousand Oaks, CA: Sage, pp. 545-557
- Rittel, H.W.J. and M.M. Webber (1973), Dilemmas in a General Theory of Planning, *Policy Sciences*, vol. 4, pp. 155-169,
- RMNO (1997), *Industriële Ecologie*, Rijswijk: Raad voor het Milieu- en Natuurbeheer
- Roth, K. (1995), Managing international interdependence: CEO Characteristics in a Resource Based Framework, *Academy of Management Journal*, vol. 38(1), pp. 200-231
- Roulston, K. and A. Liljestrom (2010), Interviews with groups, In: Roulston, K., *Reflective Interviewing: A Guide to Theory and Practice*, London: SAGE publications
- RPB (2005), *De markt doorgrond. Een institutionele analyse van grondmarkten in Nederland*, Den Haag: RPB
- RPB (2007), *Naar een optimaler ruimtegebruik door bedrijventerreinen. Een verkenning van enkele beleidsopties*, Den Haag: Ruimtelijk planbureau
- Rubin, A. and E.R. Babbie (2009), *Essential Research Methods for Social Work*, Belmont (USA): Brooks / Cole
- Rumelt, R., Schendel, D. and D. Teece (1991), Strategic Management and Economics, *Strategic Management Journal*, vol. 12, pp. 5-30

## S

- Sabatier, P.A. and H.C. Jenkins-Smith (1993), Policy Change and Learning: An Advocacy Coalition Approach, In: *Theories of the Political Process*, Sabatier, P. and H.C. Jenkins-Smith (ed.), Boulder: Westview, pp. 119-147
- Sabatier, P. A. (1999), The need for better theories. In: P. A. Sabatier (ed.), *Theories of the Policy Process*, Boulder, Colorado: Westview Press, pp. 1-17
- Sabatier, P.A. (2007), *Theories of the Policy Process* (2<sup>nd</sup> edition), Boulder, CO: Westview Press
- Salancik, G.R. and J. Pfeffer (1988), Who Gets Power and How They Hold On To It: A Strategic Contingency Model of Power, In: Tushman, M.L. and W.L. Moore (eds.), *Readings in the Management of Innovation*, New York: Harper Business, pp. 179-195
- Salet W. and A. Faludi (2000), *The revival of strategic spatial planning*, Koninklijke Academie van Wetenschappen
- Samuelson, W. and R.J. Zeckhauser (1988), Status quo bias in decision making, *Journal of Risk and Uncertainty*, vol. 1, pp. 7-59.
- Sanchez, R. and J.T. Mahoney (1996), Modularity, flexibility, and knowledge management in product and organization design, *Strategic Management Journal*, vol. 17, pp. 63-76
- Sarewitz, D., Pielke, R.A. and R. Byerly (2000), *Prediction: Science, Decision Making, and the Future of Nature*, Washington DC: Island Press
- Schapendonk, M.J.C. and J van Enck (2005), Het leven van een bedrijventerrein kan eindeloos zijn....., *Real Estate Magazine*, 41, pp. 36-40
- Scharpf, F.W. (1978), Interorganizational policy studies: issues, concepts and perspectives, *Journal of theoretical politics*, vol. 1(2), pp. 345-370
- Schauer, F. (2002), *A Philosophical Examination of Rule-Based Decision-Making in Law and in Life*, Oxford: Oxford University Press
- Schlager, E. (1999), A comparison of Frameworks, Theories, and Models of Policy Processes, In: P.Sabatier (ed.), *Theories of the Policy Process*, Boulder, CO: Westview Press
- Schneider V. and R. Werle (1990), International regime or corporate actor? The European Community in telecommunications policy. In: Kenneth Dyson/ Peter Humphreys (eds.), *The Political Economy of Communications: International and European Dimensions*, London: Routledge, pp. 77-106
- Scott, J. (2000), Rational Choice Theory, In: *Understanding Contemporary Society: Theories of the Present*, Browning, G., Halcli, A. and F Webster (eds.), London: SAGE publications
- Scott, R.W. (2003), *Organizations: Rational, Natural and Open Systems* (5<sup>th</sup> edition), Upper Saddle, N.J.: Prentice Hall

- Seijts, G.H. and G.P. Latham (2000), The effects of goal setting and group size on performance in a social dilemma, *Canadian Journal of Behavioural Science*, vol. 32, pp. 104-116
- SenterNovem (2004), *Duurzame Bedrijventerreinen: Resultaten van 5 jaar duurzame (her)ontwikkeling*, Utrecht: SenterNovem
- SER, (1999), *Commentaar op de Nota Ruimtelijk Economisch Beleid*, SER-advies no. 99/17, Dn Haag: Sociaaleconomische Raad
- Shaw, I.F. (1999), *Qualitative evaluation*, London: SAGE publications
- Shelly, G.B., Cashman, T.J. and H.J. Rosenblatt (2008), *Systems Analysis and Design* (7<sup>th</sup> ed.), Boston: Thomson Course Technology
- Shimanoff, S.B. (1980), *Communication Rules: Theory and Research*, Beverly Hills, CA: SAGE publications
- Siggelkow, N. (2002), Misperceiving interactions among complements and substitutes: Organizational Consequences, *Management Science*, vol. 48(7), pp. 900-917
- Simon, H.A. (1957), *Models of Man: Social and Rational: mathematical essays on rational human behavior in a social setting*, New York: Wiley
- Simon, H.A. (1960), *The new science of management decision* (3<sup>rd</sup> ed.), New York: Harper and Row
- Simon, H.A. (1982), *Models of bounded rationality*, Cambridge (Mass.): MIT Press
- Sirgy, M.J. (1986), A Quality-of-Life Theory Derived from Maslow's Developmental Perspective: 'Quality' is Related to Progressive Satisfaction of a Hierarchy of Needs, Lower Order and Higher', *American Journal of Economics and Society*, vol. 45(3), pp. 329-342
- Skvoretz, J. and D. Willer (1993), Exclusion and Power: A Test of Four Theories of Power in Exchange Networks, *American Sociological review*, 58, pp. 801-18
- Slovic, P. (1995), The construction of preference, *American Psychologist*, vol. 50, pp. 364-371
- Söderberg, M. (2008), Uncertainty and regulatory outcome in the Swedish electricity distribution sector, *European Journal of Law and Economics*, vol. 25(1), pp. 79-94
- Sorge, A. (2005), *The Global and the Local: Understanding the Dialectics of Business Systems*, Oxford (UK): Oxford University Press
- Stajkovic, A.D. and F. Luthans (1998), Self-efficacy and work-related performance: A meta-analysis, *Psychological Bulletin*, vol. 124, pp. 240-261
- Stajkovic, A.D. and F. Luthans (2001), Differential effects of incentive motivators on work performance, *Academy of Management Journal*, vol. 44, pp. 580-590
- Steen, P. van (1998) *Bedrijvenlandschap 2000+; bedrijfsverplaatsingen en de vraag naar bedrijfslocaties in Nederland*, Groningen: Faculteit der Ruimtelijke Wetenschappen, Rijksuniversiteit Groningen
- Steers, R.M., Mowday, R.T. and D.L. Shapiro (2004), The Future of Work Motivation Theory, *Academy of Management Review*, vol. 29(3), pp. 379-87
- Stein, A.A. (2006), Constraints and Determinants: Structure, Purpose, and Process in the Analysis of Foreign Policy, In: *Approaches, Levels, and Methods of Analysis in International Politics* H. Starr (ed.), New York: Palgrave Macmillan
- Stewart, D.N., Shamdasani, P.N. and D.W. Rook (2007), Focus groups: theory and practice, In: *Applied Social Research Series*, Vol. 20, London: SAGE publications
- Stoker, R.P. (1989), A Regime Framework for Implementation Analysis: Cooperation and Reconciliation of Federalist Imperatives, *Policy Studies Review*, 9(1), pp. 29-49
- Stone, C. N. (1980), The Implementation of Social Programs: Two Perspectives, *Journal of Social Issues*, vol. 36(4), pp. 14-34
- Stone, C.N. (1989), *Regime politics: Governing Atlanta 1946-1988*, Lawrence (KS): University Press of Kansas
- Straub, D., Weill, P. and K.S. Schwaig (2008), Strategic dependence on the IT resource and outsourcing: A test of the strategic control model, *Inf Syst Front*, vol. 10, pp. 195-210
- Strauss, A.L. and J. Corbin (1990), *Basics of qualitative research: grounded theory procedures and techniques*, London: SAGE publications
- Sundström, G., Furusten, S. and L. Soneryd (2010), Democracy, governance, and the problem of the modern actor, In: *Organizing Democracy: The Construction of Agency in Practice*, Sundström, G., Furusten, S. and L. Soneryd (eds.), Cheltenham (UK): Edward Elgar
- Susskind, L.E. and J.L. Cruikshank (1987), *Breaking the impasse: consensual approaches to resolving public disputes*, New York: Basic Books
- Sørensen, E. and J. Torfing (2007), Theoretical Approaches to Governance Network Failure In: Sørensen, E. and J.Torfing (eds.), *Theories of Democratic network governance*, New York: Palgrave Macmillan, pp. 95-110
- T
- Tanguiane, A.S. (1990), *Aggregation and Representation of Preferences: Introduction to the Mathematical Theory of Democracy*, New York: Springer Verlag
- Teisman, G.R. (1992), *Complexe besluitvorming: een pluricentrisch perspectief op besluitvorming over ruimtelijke investeringen*, Den Haag: VUGA

Teisman, G.R., Klijn, E.H. and W.J. Oosten (2001), Het fenomeen procesmanagement nader verkend, In: *Besluitvorming en Ruimtelijk Procesmanagement: Studie naar eigenschappen van ruimtelijke besluitvorming die realisatie van meervoudig ruimtegebruik remmen of bevorderen*, Teisman, G.R. (ed.), Delft: Eburon

THB (2008a), *Kansen voor Kwaliteit: een ontwikkelings-strategie voor bedrijventerreinen*, s' Hertogenbosch: BiblioVanGerwen

THB (2008b), *Tussenrapportage Taskforce (her) ontwikkeling bedrijventerreinen*, (report nr. THB/2008.08), Houten

Thompson, J.D. (1967), *Organizations in Action*, New York: McGraw Hill

Thomsen, J., Levitt, R.E. and C.I. Nass (2004), The Virtual Team Alliance (VTA): Extending Galbraith's Information Processing Model to Account for Goal Incongruity, *Computational & Mathematical Organization Theory*, vol. 10, pp. 349-372

Thorelli, H.B. (1986), Networks: Between markets and hierarchies, *Strategic Management Journal*, vol. 7, pp. 37-51

Torfig, J., Guy Peters, J.P. and E. Sørensen (2012), *Interactive Governance: Advancing the Paradigm*, Oxford: Oxford University Press

Traa, M. and J. Knoben (2009), *Veroudering en herstructurering op bedrijventerreinen, Een verkenning*, Den Haag / Bilthoven: Planbureau voor de Leefomgeving

Turner, J.C. (2005), Explaining the nature of power: A three-process theory, *European Journal of Social Psychology*, 35, pp. 1-22

Tversky, A., Sattath, S., and P. Slovic (1988), Contingent weighting and judgement and choice, *Psychological Review*, vol. 95, pp. 371-384

Twain, M. (1903), Notebook, Quote taken from: *Mark Twain's Notebook*, A.B. Paine (ed.), New York: Harper and brothers, p. 380

## U

Ulrich, K.T. and J.B. Barney (1984), Perspectives in organizations: Resource dependence, efficiency, and population, *Academy of Management Review*, vol. 9(3), pp. 471-481

## V

Valk, van der, A. (2002), The Dutch planning experience, *Landscape and Urban Planning*, vol. 58, pp. 201-210

Veken, van der, T. (1998) Overheid wil ontwikkeling duurzame bedrijventerreinen gaan stimuleren, *ROM Magazine*, vol. 11, pp. 5-7

Verhaak, W. (2007), *Herstructurering een fiasco: bouwstenen voor een nieuw bedrijventerreinbeleid*, Amsterdam: Vereniging Milieudefensie

Voogd, H. (1995), *Methodologie van ruimtelijke planning*, Bussum: Coutinho

Vrolijk, H.C.J. (1996), *Methoden en Regels voor de Projectplanning: Een Toepassing van Beslissingsondersteunende Systemen*, PhD-thesis (University of Groningen), Capelle a. d. IJssel: Labyrinth Publication

VROM (1997), *Nota Milieu en Economie: Op weg naar een duurzame economie*, Den Haag: Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer

VROM (2001), *Inspiratieboek Intensief Ruimtegebruik op Bedrijventerreinen*, Den Haag: Ministerie van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer

VROM and EZ (2007), Brief van de ministers van volkshuisvesting, ruimtelijke ordening en milieubeheer en van economische zaken, *Kamerstuk 2007/2008, 31200 XI en 29435, nr 73*

VROM, EZ, IPO and VNG (2009), *Convenant Bedrijventerreinen 2010-2020*

VROM, EZ and LNG (2010a), *Samen aan de slag: Werken aan de herstructurering van bedrijventerreinen*, Den Haag: VROM, EZ and LNG

VROM, EZ, IPO and VNG (2010b), *Roadmap naar verzakelijking van de bedrijventerreinmarkt: Startdocument*, Den Haag: VROM

VROM-raad (2006), *Werklandschappen; Een regionale strategie voor bedrijventerreinen*, Den Haag: VROM-raad

## W

Wagter, Y., Akkermans, S., Boerma, S., Breuer, T., Bronsgeest, N., Kranenborg, E. and D. , Tiemersma (2002), *Meer bedrijven, minder ruimte: efficiënt ruimtegebruik voor bedrijfshuisvesting*, Stichting Natuur en Milieu, Milieufederatie Limburg, Natuur en Milieu Overijssel, Milieufederatie Noord-Holland, Zuid-Hollandse Milieufederatie, Milieucentrum Amsterdam

Walden, G.R. and D.L. Morgan (2008), *Focus Groups: A Selective Annotated Bibliography: Art and Humanities, Social Sciences, and the Nonmedical Sciences*, Lanham (MD, USA): Scarecrow Press

Weber, M. (1922) as presented in: *Economy and Society: An Outline of Interpretive Sociology* (1978), Berkeley and Los Angeles (CA): University of California Press, which again is based on a translation of *Wirtschaft und Gesellschaft. Grundriss der Verstehendes Soziologie* (1956), J. Winckelmann (ed.), Tübingen

Weber, J. (1999), A response to public administration's lack of a general theory of uncertainty: A theoretical vision of uncertainty, *Public Administration Review*, vol. 23, pp. 18-45

# Curriculum Vitae

- Weick, K.E. (1976), Educational Organizations as Loosely Coupled Systems, *Administrative Science Quarterly*, vol. 21, pp. 1-19
- Weick, K.E. (1990), Technology as Equivoque: Sensemaking in New Technologies, In: P.S. Goodman (ed.), *Technology and Organizations*, San Fransisco: Jossey-Bass, pp. 1-44
- Welter, F., Kolb, S., O’Gorman, W., Bugge, K.E., Hill, I., Peck, F. and B. Rončević (2008), How to make regions (more) innovative, In: U. Fueglistaller / T. Volery / W. Weber (eds.): *Innovation, Competitiveness, Growth and Tradition in SMEs; Papers presented to the Rencontres de St-Gall 2008*, St. Gallen: KMU-Verlag HSG
- Werner, A. (2004), *A guide to implementation research*, Washington D.C.: The Urban Institute Press
- Wickens, C.D. and J.G. Hollands (2000), *Engineering Psychology and Human Performance* (3<sup>rd</sup> ed.), Upper Saddle River (NJ): Prentice Hall
- Wilkinson, S. (2004), Focus Group Research, In; *Qualitative research: theory, method and practice*, Silverman, D. (ed.), London: SAGE publications, pp. 177-199
- Willer, D., Lovaglia, M.J. and B. Markovsky (1997), Power and Influence: A Theoretical Bridge, *Social Forces*, vol. 76, pp. 571-603
- Williamson, O.E. (1979), Transaction Cost Economics: The Governance of Contractual Relations, *Journal of Law and Economics*, vol. 22(2), pp. 233-261
- Williamson, O.E. (1985), *The Economic Institutions of Capitalism: Firms, Markets and relational Contracting* (2<sup>nd</sup> edition), New York, NY: New York Free Press
- Williamson, O.E. (2000), The new institutional economics: taking stock, looking ahead, *Journal of Economic Literature*, vol. 38(3), pp. 595-613
- Wittgenstein, L. (1986), *Philosophical Investigations*, Oxford: Basil Blackwell
- Woltjer, J. (2000), *Consensus Planning: the Relevance of Communicative Planning Theory in Dutch Infrastructure Development*, Hampshire: Ashgate
- Wrong, D. (1979), *Power: Its Form, Bases and Uses*, Oxford: Blackwell
- Z
- Zimmerling, R. (2005), *Influence and Power: Variations on a Messy Theme*, Dordrecht (NL): Springer

Kjell-Erik Bugge (1956) is currently employed by Saxion University of Applied Sciences, where he works as senior scientist and lecturer, in particular, within the Centre for Urban and Environmental Development and the School for Environmental Planning and Building. He was born in Oslo, Norway where, after having completed secondary education (gymnasium), he studied first economy and law and then organic chemistry at the University of Oslo. He graduated in 1986 and after a short assignment at the Centre for Industrial Research he accepted a research fellowship at the University of Twente where his work on complexation of heavy metals resulted in three publications in refereed magazines. From 1988 – 1992 he was employed as a scientist at DSM Research doing exploratory research, which led to a patent. He was also editor in chief of the internal scientific magazine “DSM Communications”. In 1992 he was appointed to Saxion. The first ten years he was teaching and performing applied research and consultancy in the areas of environmental and energy management, and increasingly also industrial site development. He regularly presented his work at international conferences as participant or invited speaker. Since 1992 he has been particularly interested in, and studying, how process management and decision support can improve interactive multi-actor processes. Based on his knowledge and practical experience with this topic he has participated in two large EC-funded research projects, one on sustainable revitalisation of industrial sites and one on regional innovation processes; he has performed several smaller studies for e.g. authorities and NGO’s; and he has designed and managed a diversity of process interventions in practice. He regularly disseminates his work in reports, books, magazines, and through invited lectures and seminars both in the Netherlands and abroad. Finally, he currently teaches management and cultural awareness, change management, and decision-making processes related to industrial site development to bachelor and (international) master students.



**MIX**  
Paper from  
responsible sources  
**FSC® C012854**