

JÜRGEN STAADT

# Leading Public Housing Organisation in a Problematic Situation

A Critical Soft Systems Methodology Approach



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## **A Critical Soft Systems Methodology Approach**

Toonaangevende organisatie voor volkshuisvesting in een problematische situatie  
Een kritische benadering op basis van soft systems methodology

Thesis

to obtain the degree of Doctor from the  
Erasmus University Rotterdam  
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# Preface

The elaboration of this dissertation was a long-term undertaking which entailed many challenges. I would like to express my gratitude to the people who supported me throughout the process.

First and foremost, I would like to deeply thank my supervisor Slawomir Magala who accepted my research project and provided me with the academic freedom to develop into a reflexive and critical researcher. The transition to Erasmus University would not have been possible without Rodney Turner, the director of the PhD programme of the Skema Business School in Lille, France, where I initially started my doctoral journey. He was involved in much of the research and initiated the contact to Slawomir due to his former activity as professor for project management at the Erasmus University. My thanks go to Rodney and equally to the other members of the doctoral committee, particularly to Gerhard Fink for his invaluable recommendations.

My initial intention was to provide the organisation with new management capabilities since first participant observation had revealed deficiencies, especially with regard to the management of projects. This initiative to support the organisational development by means of an academic study was gladly accepted by the board of the organisation. I would like to thank all the members of the board for giving me this opportunity and for allowing me to use the organisation in a case study. However, further advancement in the process revealed that the management problems perceived at the beginning were only a symptom of the true problems which were predominantly located in power relations that had developed over more than a decade into an oppressive social environment. It is hoped that the results of this thesis will encourage the board as well as the government to eventually develop an organisational design that corresponds to the challenges of the 21st century.

Important insights into organisational as well as sense-making processes would not have been possible without the commitment and support of the people working for the organisation. Consequently, I would like to deeply thank my colleagues as well as the members of the select board for their invaluable contributions to the study. Unfortunately, due to ethical reasons, I cannot mention their names as co-researchers. Furthermore, I would like to thank the members of the different ministries who participated in the fourth research phase. The results of this final phase demonstrate that other methods and methodologies can be used in a soft systems methodology intervention eventually bringing about purposeful activity models.

Not to be underestimated in this long-term undertaking is the support as well as help from close friends and family. I would like to particularly thank my wife Bärbel and my daughter Hanna for their love, encouragement and permanent support which gave me the energy to eventually finish this ambitious project. Furthermore, I would like to thank my friend Dianne Gove, a psychologist, who just recently finished her PhD in dementia studies. She supported me with many fruitful discussions and provided me with more insight into the human domain. Finally, I would like to mention that this thesis is dedicated to my parents, my father, Ludwig, who died much too early, and my mother, Agnes. Their caring as well as education provided me with the ability and the necessary skills to realise my academic plans.

Jürgen Stadt  
Rotterdam, January 2014

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# Chapter One – Introduction

## 1.1 Impact and importance of the housing domain

One of the important issues for mankind is to have an acceptable dwelling that provides shelter against the weather and a secure place to live. Modern societies and their efforts with regard to housing go beyond these fundamental needs since we are now living in a more complex world which has brought about many problems such as climate change (Whiteman *et al.*, 2013). New housing development projects try to cope with the principles of sustainable development which aims at ensuring that the future generations can enjoy the same conditions as their predecessors<sup>1</sup>. The housing sector plays an important role in the reduction of our carbon dioxide emissions e.g. due to fossil fuel consumption for heating and the location of dwellings since their distance to the workplace and local amenities has a vital impact on the use of private cars or public transport. There is thus a need for technical innovation as well as fresh thinking in terms of urban and regional development which incorporates existing buildings. Governments all around the world have an important role to play in making appropriate political decisions and with regard to their operational public and semi-public entities which can act as pioneers within their specific sectors. Public organisations thus play a vital role in providing aid to government and in developing as well as realising societal projects.

The prime minister of the country in which this study was undertaken publicly declared in 2005 to have failed in providing all citizens with affordable dwellings (Appendix C: D.30, D.40)<sup>2</sup>. This is astonishing since the leading public housing organisation, responsible for the delivery of affordable housing, has been active in this domain since its inauguration in 1979. The chairman, a high civil servant, who has been the head of the organisation for more than 20 years, acts at the same time as first governmental advisor to the housing minister and thus has a considerable influence on housing policy. With regard to the political system of this small country within the European Union, since the end of World War II, the Christian Socialist Party has almost always been the governing party. Their figurehead has been ruling the country as prime minister for 18 years. Furthermore, the ministry of housing has, over the last few decades, been solely led by ministers of this party to which the chairman also belongs. Given these circumstances, the question arises as to why the constantly growing public organisation has not been able to adapt to the changed environment. Continuous economic prosperity in the wealthy country has

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<sup>1</sup> The Living Planet Report 2012 from WWF warns us that the Earth's natural capital is limited and reminds us that the choices we make are highly interdependent (see: [http://wwf.panda.org/about\\_our\\_earth/all\\_publications](http://wwf.panda.org/about_our_earth/all_publications)).

<sup>2</sup> Appendices A to D provide an overview presentation of the data collected within the study. The different data sources are abbreviated as follows: N. = Note; I. = Interview; D. = Document; G. = Group work.

triggered a remarkable growth in population which, due to the constantly rising price of lots and properties, has more and more pushed aside the vulnerable groups within society such as older people, young families and people on a low income. Since the thorough investigation into the organisation raises many ethical issues, neither the country nor the organisation is named. Furthermore, in order to protect the anonymity of the people who participated in the research project, pseudonyms have been used instead of people's real names (Van der Waal, 2009).

Although the country was slightly affected by the financial crisis in 2008, it is experiencing an ever-growing population. Official statistics from 2009 indicate a 12% population growth rate between 2001 and 2009, thus representing a continuous evolution. This has had an impact on many different areas such as the housing sector and calls for necessary adaptations so as to respond to the growing need for affordable housing in accordance with the challenges described above (Tainter, 1988). Interestingly, the programme of the new government in the country, formed in July 2009, took this into account and formed a ministry which is concerned with sustainable development and infrastructure. The focus of this ministry is on regional planning, the environment and public construction as well as transport. That the importance of housing in this contemporary construct is well understood by the government is demonstrated by the fact that the housing minister is a delegate of the Ministry of Sustainable Development and Infrastructure. However, this legal basis constitutes just a first step and does not automatically result in new methods and methodologies to adequately address tame, messy as well as wicked problems (Hancock, 2010). The necessity to deliver affordable housing inherently confronts planners with wicked problems such as the insertion of new housing within the urban and regional context or the constantly rising price for lots and properties. In contrast to mechanical engineering, where many trial and error runs can yield an unsuccessful performance prior to implementation, the construction of new habitats is irreversible which has, apart from financial implications, long-term consequences for future generations (Rittel and Webber, 1973). With regard to sustainability, Magala (2012) points out that climate change foreshadows the more important threats to human societies such as the growing arsenal of nuclear weapons, environmental degradation or social injustice.

### **1.1.1 Public housing system and management**

The public housing system in the country is composed of three leading housing providers which act as public developers. The most important one is an autonomous public body which is supervised by a member of the housing ministry. The second provider is a joint-stock company whose shareholders are the state, some municipalities and some public

institutions. The third actor is represented by the municipalities of the main towns and cities. The organisation which is used in this single case study is the first one i.e. the one which is under the tutelage of the housing minister and thus plays an important role in the future development of the country with regard to housing as well as its inherent areas. The organisation has different tasks such as the construction of affordable housing, the acquisition and development of sites or the renovation of housing which indicates a close connection to project management<sup>3</sup>. As we heard before, the public housing system is not merely composed of the housing ministry since there is also the new ministry concerned with sustainable development. This requires that the external influence is also taken into consideration since the tasks as well the legitimisation of the organisation affect the internal environment (Dauber *et al.*, 2012; Ackoff, 1973; Maturana and Varela, 1980). Furthermore, this suggests the need to adopt a systems approach where the different parts can produce more than just the sum of those parts (Seddon and Caulkin, 2007). This refers to the fundamental systems idea of emergent properties which have no meaning in terms of their parts such as a bicycle which once assembled enables someone to cycle from A to B (Chapman, 2004). The organisation anticipated for the case study is one of the parts or rather a subsystem of the public housing system. However, it can also be regarded as a system with further internal subsystems.

*"A system is more than the sum of its parts; it is an indivisible whole. It loses its essential properties when it is taken apart. The elements of a system may themselves be systems, and every system may be a part of a larger system" (Ackoff, 1973, p. 664).*

The challenges within the housing system described above are enormous and concern a wide variety of highly complex projects which require a management that goes beyond mere construction project management. The construction industry is one of the industries where projects have long become recognised as a valid way of working (Turner and Simister, 2000; Dinsmore and Cooke-Davies, 2006). Nevertheless, the task or rather challenge described above necessitates going beyond the scope of traditional project management since it concerns a multitude of projects, disciplines and stakeholders. The organisation under investigation needs up to date management in order to prepare, develop and realise single, multiple as well as far reaching projects such as urban or regional developments. This incorporates, for example, project portfolio management as well as stakeholder management since these projects involve a multitude of people with many different and constantly changing world views. These complexities with regard to the housing system and the tasks of the organisation call for a more holistic view such as systems thinking. Nevertheless, these important tasks are contrasted by a situation within the organisation which is, due to internal power relations, shaped by tension, mistrust and oppression. First participant observation suggested that this situation has to be

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<sup>3</sup> In order not to confuse project management with public management which has the same abbreviation (PM), the terms are always written in full.

thoroughly understood in order to determine whether cultural issues such as behaviour suffocate organisational adaptability. Soft systems methodology (SSM) is used for collaboratively investigating the problematic situation as it has been developed to foster organisational learning and constant improvement (Checkland, 2000).

### 1.1.2 Positioning of the researcher

A first insight into the organisation was possible as the researcher had been working since November 2006 as an architect and project manager in the organisation. This possibility of exploring the day-to-day activities in detail corresponds with organisational ethnography (Ybema *et al.*, 2009; Wastell, 2010). At-home or insider-ethnography is a study where the researcher has a natural access to the organisational setting and where he acts as an active participant under almost the same conditions as the other participants (Alvesson, 2009). Insider-ethnography is, according to Sykes and Treleaven (2009), particularly useful for investigating critical issues such as power and knowledge. Analyses of the inequalities of power are largely absent in organisational realities (Magala, 2009). According to Maxwell (2005) each research project is very much influenced by the researcher's background, experience and relationship to the subject and the organisation under investigation. Langley and Royer (2006) stress the value of personal research stories and reflexivity.

*"A constructivist-interpretive perspective means that ethnographers need to inquire into their own meaning-making processes"* (Ybema *et al.*, 2009, p. 9).

Being an organisational member makes it possible to think from within but requires the researcher to take a dual stance i.e. being totally immersed but keeping at the same time a certain distance from the situation which is especially key in participant observation (Ybema and Kamsteeg, 2009). The researcher's Master's thesis proposed the merger between city planning and project management by means of underlying management cybernetics and in particular the viable system model (Beer, 1995) in order to cope with the complexity in the co-operation process. According to Jackson (2003), before Beer started to develop organisational cybernetics only organisation charts were available as models of enterprises. The viable system model thus changed the metaphor from a machine, which is connected with hard systems, to the metaphor of an organism with a brain (Jackson, 2006). Social viable systems theory is concerned with social processes and was to a great extent motivated by the viable system model (Yolles, 2006). The researcher has to be aware of his/her influence on the research setting and the possible bias this might have (Pidd, 2003). Dale and Vinson (2013) argue "that apparent inconsistencies among perspectives are driven by the observer's methods, goals, etc., of inquiry: The manner in which the observer is observing. It is well known in various areas of science

that observers inherently disrupt the system that is being studied. But even after we have measurement schemes (or theoretical apparatus) for collecting maximally observer-untainted behavioural data, there remains an inextricable observer-centred influence” (p. 303).

## **1.2 Research problem and questions**

Since the researcher is working for the organisation, profound insight into organisational issues as well as influencing factors in the external environment could be obtained right from the start. A preliminary analysis of business reports based on housing units produced and the development of personnel revealed a possible starting point for the problem situation at the time of the transition to the 21st century. Early consultation with the people in the organisation confirmed this starting point but indicated at the same time that the situation could be better regarded as being messy or wicked since evolving negative internal socio-political arrangements constitute a persisting hindrance to further development. According to Ackoff (1973), a system’s performance is evaluated by its functioning as part of the larger system which justifies in a way the pragmatic analysis of housing units produced.

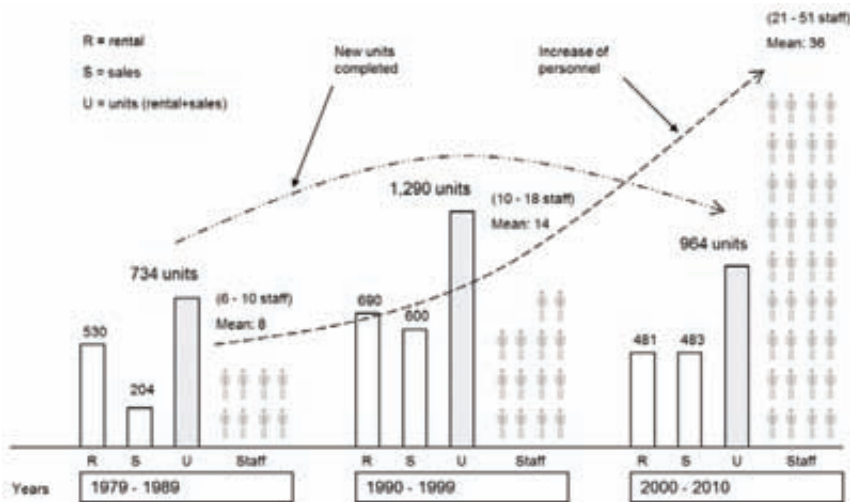
### **1.2.1 Performance outcomes of the organisation**

First participant-observation suggested a multitude of management deficiencies which triggered a preliminary investigation into organisational documents (see Appendix C). Symptoms such as long project duration and budget overruns in many projects seem to indicate a pure management problem. The business reports described the development of the organisation over the last 30 years starting from its inauguration in 1979 right to its state in 2010. This development with regard to the units produced for rental as well as sales is depicted in Figure 1. The development is separated into the three last decades and shows the growth rates of each decade in relation to the personnel. In the first ten years, 734 units were produced with an average staff of eight people. In the further development between 1990 and 1999 another 1,290 units were produced with an average staff of 14 people. The following years between 2000 and 2010 show a somewhat different result since an average staff, now of 36 people, produced only 964 units. What is the justification for the growth in personnel in view of the fact that less has been produced? Why did production decrease whilst demand was increasing?

A possible explanation could be the need for more personnel due to the greater amount of rented units but this is not really justifiable as only 481 units anticipated for rental were produced in the last decade. Alternatively, the organisation could have been given new or



other tasks by government. However, since it is the political will to have more affordable housing units on the market, this does not seem to be a plausible explanation either. An indicator for the increased demand is the waiting list for an affordable dwelling, which has increased between 2007 and 2010 from 1,000 requests to 1,400 requests (Appendix C; D. 34). This is in stark contrast to the 1,701 rental units currently available that were constructed in the last 30 years. As described before, Figure 1 indicates a change in performance at the end of the 1990s. The decrease in the production of new units is contrasted by a disproportionate increase in personnel. There was a 250% increase in staff between 2000 and 2010 compared to the period between 1990 and 1999.



**Figure 1:** Development of new units and personnel within the last three decades

Interestingly, this coincides with the interview session where many employees described a cultural change within the organisation beginning at the time of the transition to the 21st century. The chairman has nested himself in the middle of all power-related activities, thus creating a powerful/insider group and a weak/outsider group. The ensuing evolution of an oppressive social environment based on the ingrained belief in hierarchy suffocates learning, aborts sense-making processes and represses efforts to cope with the situation. The apparently pure management problem perceived at the beginning of the study i.e. within first participant observation is thus better regarded as part of a problem situation as described by Checkland (2000) which cannot simply be solved by introducing a new tool or practice as the root of the situation lies much deeper. Modern times have brought about an ever-growing complexity of organisational as well as societal issues such as bureaucracy (Yolles, 2006; McSweeney, 2006) and transparency (Ybema *et al.*, 2009). However, SSM has been criticised for serving the powerful (Kotidas and Mingers, 2006;

Jackson, 2009; Flood, 2001) especially if the facilitator is directly contracted by powerful people (Callo and Packham, 1999). "Peter Checkland has also expressed his reservations about systems methodologies being taken primarily by consultants on the grounds that consultants are client driven" (Paucar-Caceres, 2009, p. 430). Since the research project was solely initiated by the employee/researcher and since the board, which includes the chairman, is willing to participate, the investigation into the disturbed organisational culture provides an opportunity to test the strengths and weaknesses of SSM. The situation thus constitutes the unit of analysis in this single case study.

### 1.2.2 Research questions

Research questions have been formatted according to the principles of the research design of case studies (Yin, 2003). The case study approach has a distinctive advantage when a how or why question is being asked. "But you should also be able to identify some situations in which a specific strategy has a distinct advantage. For the case study, this is when a 'how' or 'why' question is being asked about a contemporary set of events, over which the investigator has little or no control" (Yin, 2003, p. 9). The investigation actually started shortly after the researcher had started working for the organisation. This offered the possibility to search for the right methodology whilst further observing the situation in the organisation. During this process it was found that SSM was best suited to the purpose and aim of this single case study. The literature review on the topic combined with first participant observation in the organisation allowed for a further sharpening of the questions.

The two research questions are as follows:

RQ1: How can the oppressive social situation be explained and interpreted<sup>4</sup> by using soft systems methodology so as to come up with an improved design/strategy for the project-oriented organisation?

RQ2: How can the current and future problematic situations be monitored and controlled so as to constantly improve and learn in an ever changing complex environment?

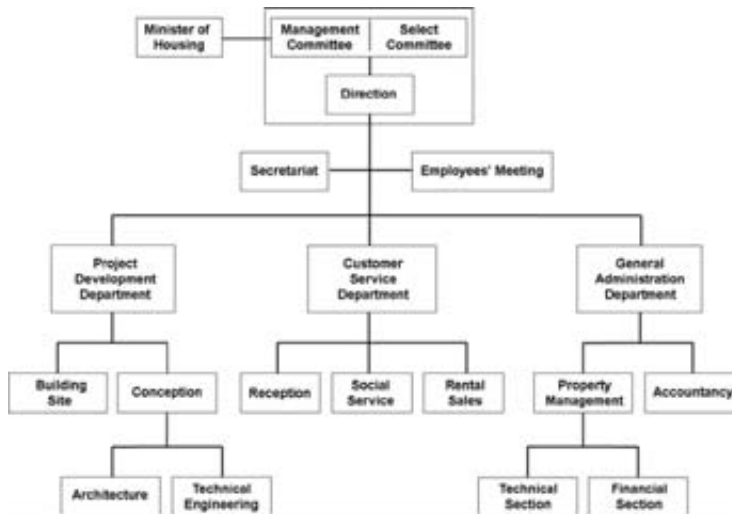
According to Yin (2003), how questions indicate a more explanatory study because such studies deal with operational links that need to be traced over time. A closer look at the public organisation provides more understanding about its structure and operations.

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<sup>4</sup> According to Weick *et al.* (2005), sense-making starts when people notice that something in their day-to-day activities, such as a paediatric nurse observing the deteriorating condition of a recovering baby, signifies that there might be something wrong. This means "inventing a new meaning (interpretation) for something that has already occurred during the organizing process, but does not yet have a name, has never been recognized as a separate autonomous process, objet, event" (Magala, 1997, p. 324).

### 1.3 The project oriented organisation under investigation

The main task of the organisation is the provision of affordable housing in the country which incorporates the management of the construction phase but also factors such as urbanism and sustainable development. Because of the close connection to the construction business, the organisation is at least regarded as project-based since projects are its core activity. Nevertheless, the use of projects within the organisation go far beyond the mere construction phase since they start early on in the political phase incorporating many partners such as government or communities. Furthermore, projects are the main strategic issue for the management board since projects start with the acquisition of new lots and properties.



**Figure 2:** Organisational chart of the public entity

According to Gareis and Huemann (2000), a project oriented organisation defines management by projects as an organisational strategy, perceives projects and programmes as temporary organisations<sup>5</sup> and has an explicit project management culture. The legal basis of the organisation under investigation is grounded in the law of 1979 concerning measures to promote access to affordable housing which places the organisation under the tutelage of the housing minister. The law explains the juridical character, financial means as well as the management of the organisation. The organisation is a civic entity that acts under the direction of the member of the

<sup>5</sup> Turner and Müller (2003) define a temporary organisation as an agency for managing uncertainty and consider the project manager as being the chief executive of that temporary organisation.

government responsible for social housing accommodation, who also has the political responsibility. The different parts of the organisation (Figure 2) will be thoroughly explained in order to understand the tasks as well as the functioning of the organisation within the public housing system of the country.

### **1.3.1 Departments of the organisation**

The current organisational chart as depicted in Figure 2 corresponds to a typical hierarchical order with the management board on top and the different departments underneath. The three different departments, namely general administration, customer service and project development are further structured into different services:

*General administration* is responsible for accountancy as well as property management which is further subdivided into a technical/administrative as well as a financial section. The accountancy service is concerned with the payment of invoices which have been approved and relegated by the other departments, as well as the booking of all financial transactions including rentals. Another duty is the preparation of the annual balance sheets and the subsequent organisational reports. The technical property management is concerned with the repair and maintenance of the properties. According to the business report 2010, the organisation is currently in possession of 1,701 rented units in different parts of the country. For the maintenance of the units as well as their subsequent properties, the organisation has blue collar workers such as crafts people and gardeners.

*Customer service* is the department which has the contact with the clients, either as tenants or future owners. There are three services, namely rental/sales, the social service and the reception. With regard to the tenants, people make a demand by filling in a form. Social assistants then visit them at home in their own environment in order to carry out a thorough assessment of their needs/wishes and their professional as well as financial situation. This assessment is then presented to the commission consultative which makes a decision based on the file. The people who are eligible for a dwelling are put on a waiting list which is checked whenever a flat becomes available. Based on social criteria, the people are then chosen. According to the business report 2008, the number of people on the waiting list for a subsidized rented flat has reached 1,019 which is almost the same as in 2007 when there were 1,015 demands. The rental/sales service is in charge of managing the processes with regard to the incoming demand and the eventual allocation of flats which also includes contractual issues. Furthermore, they stay in contact with future landlords and organize the sales activities for flats and houses.

*Project development* is responsible for the development and architectural as well as technical design of the construction projects which incorporates follow-up on the building sites. The department is divided internally according to these two areas i.e. the architects and the technical engineer are responsible for the conception and the technicians are responsible for the building sites. Nevertheless, architects are supposed to act as project managers, thus taking on overall responsibility for their projects. However, the chairman of the management board is the main decider on the overall shape and scope of the projects which vary from small to large scale i.e. from the renovation of an old building to urban developments. As a basic principle, each project takes on board a team consisting of an external architect, engineers and special experts whereby each external architect can only have one project at a time. The duties of the external project staff are the elaboration, planning and realisation of the projects. Internal architects are thus responsible for the management of the projects in accordance with the regulations of the organisation. The process of how a project is started and eventually approved by the management board is briefly described in the following section on the composition of top management.

### **1.3.2 Composition of top management**

According to the law of 1979 (Appendix C; D.4), the organisation is administered by a management board composed of twelve members. Two members represent the employers' associations, three members represent the most representative trade unions in the country and seven members represent government incorporating different ministries. One of the two members proposed by the housing minister is in charge of leading the organisation as chairman of the board (Figure 2). He is a high level civil servant from the housing ministry who leads the organisation with regard to private as well as legal matters i.e. he alone manages the day-to-day work of the organisation. Nevertheless, the chairman is supported by the select board, composed of four members of the management board, which meets every week. With regard to their affiliation, the select board is composed of one representative of the trade unions, one representative of the employers' associations and two representatives of government which includes the chairman. They discuss issues and thus prepare the agenda for the next management board meeting that normally takes place once a month. With regard to the project start and its approval, a new project is allocated by the chairman to an internal architect who then, together with the external project team, elaborates a first architectural, technical and financial proposition. This proposition has to be first discussed with the chairman and then presented to the select board. Once their approval has been obtained, it is eventually presented to the whole management board for an overall authorization. Such a presentation which is based on a first draft incorporates explanations about issues such as

the design of the flats, the facade of the building and its technical equipment. The financial statement i.e. the estimation about construction costs is calculated on the basis of square metre and cubic metre produced which is roughly compared with buildings that have already been realised. The secretary of the board, who is an employee of the organisation, takes the minutes and then writes a short statement about each project approval incorporating the budget for the construction work.

### **1.3.3 Employees' meeting as middle management**

The employees' meeting (Figure 2) is not technically speaking middle management but it connects the different departments with top management. This meeting, which takes place every Monday morning, aims to bring together all the different services in order to prepare for the week and to discuss current problems. As an architect and project manager, the researcher attends this meeting. The meeting is a mixture of departmental leaders, service leaders and other personnel. General administration is represented by its departmental leader as well as the heads of accountancy and property management (3 participants). Customer service is represented by the head of rental/sales as well as one social assistant (2 participants). Project development is represented by all architects, project managers, technicians and the technical engineer (8 participants). Furthermore, there is the internal audit and the secretary of the board (2 participants) who also belong to this department. The types of problems discussed during the meeting concern all different domains such as clients, accountancy or construction. The intention is to exchange information and to solve urgent problems or at least to allocate them to the right people or the right group of people. Although the meeting is quite formal, there is neither an agenda nor someone taking notes or preparing the minutes so as to have a follow up of how problems have been solved.

### **1.3.4 Tasks and duties of the organisation**

The tasks and duties of the organisation are described in the law of 1979 (Appendix C; D.4). More details on the legal basis of the organisation are provided in the methodology chapter and specifically in the section on documentation. The missions of the organisation are described as follows: (1) to realise the acquisition and the preparation of sites as well as the construction of housing destined for sales and/or rent, (2) to form a natural reserve as well as a land reserve which will, in the medium or long term, be integrated in the perimeter of the agglomeration, (3) to create new neighbourhoods, places of habitat and spaces to live, (4) to promote the quality of urban development, architecture and technique, (5) to reduce the cost for the preparation of sites, (6) to promote housing sales on the basis of land lease, (7) to enlarge the park of rented public housing. The tasks of

the organisation demonstrate its importance with regard to housing as well as to urban and regional development in the country. This is further accentuated by the fact that the chairman, as first governmental advisor to the housing minister, is involved in the development of legal requirements such as the housing pact with the communities which aims, for example, to reduce the constantly rising price of lots, houses and apartments.

1.4 Organisation of the thesis

This thesis is composed of five different chapters. The reader is invited to go through the thesis either chapter by chapter or according to the proposition depicted in Figure 3.

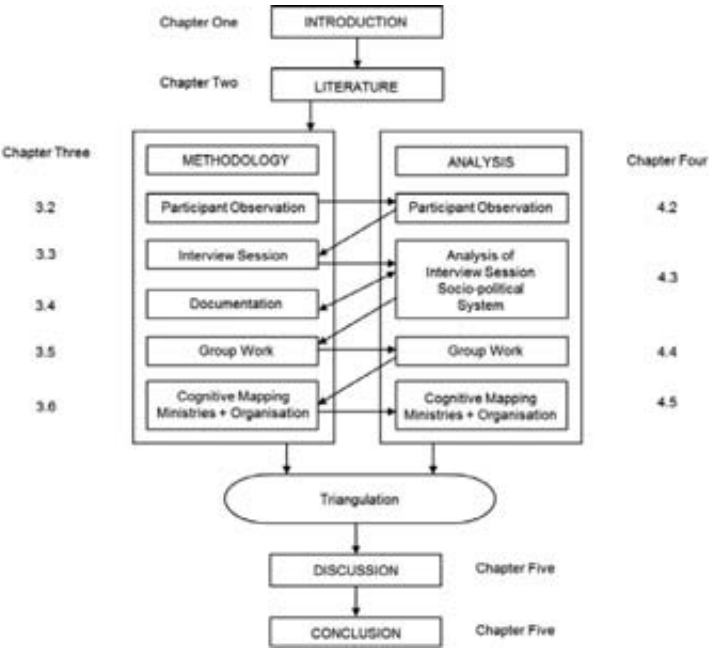


Figure 3: Suggested sequence of subchapters of the thesis

The researcher would like to recommend following this proposition especially with regard to Chapter Three and Chapter Four since the different methods and sources used are performed in a sequential manner thus allowing each part of the process to be informed by the analysis of the one preceding it. The content of the following chapters is as follows: *Chapter Two* discusses previous literature on systems approaches and in particular SSM which constitutes an organised learning system. The chapter investigates paradigmatic and theoretical underpinnings and highlights in particular the weakness of SSM regarding its stream of cultural analysis. Drawing on culture theory and management, the

configuration model of organisational culture complements the investigation into the disturbances of the public entity. This is further supported by the model of organisation life cycles as well as complex responsive processes of human relating theory. *Chapter Three* describes how the research was conducted and the data collected. The connection between SSM and the methods adopted are explained and their interrelations are presented in chronological order. The relevant systems for constant improvement and learning propose a feasible transformation of the organisation. However, the subchapters, which are organised on the basis of the four different research phases, suggest SSM to be more flexible so as to respond to power issues. *Chapter Four* uses the same underlying structure as the methodology chapter in the sense that the subchapters are organised according to the data collection. The sequential application of the different methods and sources allows for each part of the process to be informed by the analysis of the one preceding it, thus creating a documented learning process. The analysis of the data by means of Atlas.ti provides an understanding of the influence of the socio-political system on the development of the whole organisation. The relevant systems for strategic redesign which resulted from the use of cognitive mapping in the fourth research phase demonstrate the usability of a multi-methodology approach in an SSM intervention. *Chapter Five* discusses the findings and highlights the need for a systems thinking approach. This leads to a better understanding of the dynamic processes within the organisation and its connections to the external environment. The research questions are answered and methodological, theoretical, managerial as well as societal implications are discussed. The limitations of the study and suggestions for further research are considered, followed by the conclusion of the thesis.





# Chapter Two – Literature Review

## 2.1 Problems, paradigms and systems thinking

From the very beginning, the researcher was able to gain insight into the current situation of the organisation. This was possible since almost all employees as well as management were willing to contribute to the research project. This was a key consideration when deciding on soft systems methodology (SSM) as a leading or guiding methodology which seemed to offer a possible way to get out of the crisis (Herr and Anderson, 2005). This differs from the selection of possible organisations based on an elaborated research topic (Silverman, 2005). However, “all methodologies and methods (methodologies can be regarded as the strategies, action plans, or designs that inform the choice of specific methods, that is, procedures and techniques for data collection and analysis) flow from philosophical positions that provide a theoretical context for the choice of methodology” (Rudestam and Newton, 2007, p. 38-39). The literature review was further based on two preliminary steps. First, in the context of management science, a general exploration was made of the development, use and conceptualisation of SSM and its use in project-based organisational settings. The intention was to decide on an appropriate theoretical framework for the study. Second, the extent of the literature review was narrowed down to the research problem on the oppressive social situation where power relations play a decisive role in the future development of the project-based organisation. Our problems today are multifaceted and range from tame problems to wicked messes.

### 2.1.1 Tame, messy and wicked problems

Rittel and Webber (1973) argue that societal problems linked to social policy are inherently ‘wicked’ or ill-defined problems for which there is no solution as such. This is in contrast to ‘tame’ problems which are definable and where a solution might be found. Science, based on the classical paradigm, has learned to cope with tame problems<sup>6</sup>. With regard to systems approaches, Rittel and Webber argue that approaches of the first generation such as systems engineering are inadequate for dealing with wicked problems. “Approaches of the ‘second generation’ should be based on a model of planning as an argumentative process in the course of which an image of the problem and the solution emerges gradually among the participants, as a product of incessant judgement, subjected to critical argument” (Rittel and Webber, 1973, p.162). With regard to the selection of systems methodologies and methods, Jackson (2006) argues that the

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<sup>6</sup> Batie (2008) argues that the linear model of conventional or normal science is inadequate for taming wicked problems and that the development of new ways of thinking about how to conduct scientific research is required.

consideration of all four paradigms (functionalist, interpretive, emancipatory and postmodern) is necessary so as to cope with interconnected problem situations which are described as 'messes'. Since a mess is a system of problems, it calls for a different approach (Ackoff, 1974).

*"Thus, to work with messes requires the analyst to be able to see the links as well as the separate issues. That is, the links may be as important as the separate parts of the mess, and these may need just as much attention. One of the greatest mistakes that can be made when dealing with a mess is to carve off parts of the mess, treat it as a problem and then solve it as a puzzle, ignoring its links with other aspects of the mess. It is crucial that the various issues are dealt with while keeping a watchful eye on the links to other aspects of the mess"* (Pidd, 2003, p. 62).

Mackenzie *et al.* (2006) argue that messes or wicked problems are unstructured situations where there is dissonance about what needs to be done, why and how it should be done. They argue that decision support systems provide an excellent means for dealing with tame problems. Hancock (2010) differentiates between tame, messy as well as wicked problems. Tame problems have linear causal relationships and mostly lead towards single solutions. The body of knowledge in project management responds favourably to this type of problem. Messes, on the other hand, are systems of problems, characterised by high levels of systems complexity, which call for a different approach since they cannot be solved in isolation (Pidd, 2003; Hancock, 2010; Small and Walker, 2011). The systems thinking approach is used to sort out messes by examining patterns of interaction between the different parts. According to Hancock (2010), programme and portfolio management was introduced so as to attempt to deal with this type of problem.

"Wickedness is characterized by high levels of behavioural complexity, that is, the extent to which there is diversity in the opinions, mental models, and values of the key decision-makers" (Hancock, 2010, p. 54). None of the current management literature or techniques helps to resolve these issues. Behavioural complexity and dynamic complexity interact thus forming wicked messes which require high level skills such as facilitation or systems thinking (Hancock, 2010).

*"We use the term 'wicked' in a meaning akin to that of 'malignant' (in contrast to benign) or 'vicious' (like a circle) or 'tricky' (like a leprechaun) or 'aggressive' (like a lion, in contrast to the docility of a lamb)"* (Rittel and Webber, 1973, p. 160).

Consequently, we have to go beyond the problem solving way of thinking towards a more action oriented approach (Nelson, 2003). The design of the intervention plays a vital role and is composed of theories, methods or methodologies that allow the parties concerned to elaborate and to judge between a variety of alternative 'solutions'. Once the wicked problems have been tamed, the methods of operational research or traditional project management become operational (Rittel and Webber, 1973; Rosenhead and Mingers, 2001; Small and Walker, 2011). The aim of the literature review is to clarify relationships

between the proposed research and previous work conducted on the topic (Rudestam and Newton, 2007). A basic requirement is, according to Hart (2007), the understanding of the history of the subject under investigation.

### 2.1.2 Positioning within contemporary systems approaches

According to Chapman (2004), there are three broad areas in which systems ideas are used. The first is natural systems, the second engineered or designed systems and the third purposeful activity systems (Khisty, 1995; Checkland, 1999). Purposeful activity systems constitute the basis for this thesis. The natural systems are studied by biologists, physicians and the like and include, for example, the human body or the weather. Engineered or designed systems can be power plants or a car. Purposeful activity systems on the other hand concern human beings in social roles trying to take purposeful action which can take place, for example, in schools, ministries or organisations whether in the public or private sector (Checkland and Scholes, 1990).

*"It is the set of attempts in all areas of study to explore the consequences of holistic rather than reductionist thinking" (Checkland, 1999, p. 92).*

It thus constitutes a testing of the assumption that systems approaches allow us to tackle the problem of organised complexity. The systems movement, according to Checkland (1999), is divided into the study of systems ideas as such and the application of systems thinking in other disciplines. The ideas as such are further divided into the theoretical development of systems thinking and the problem-solving development of systems thinking in real-world problems. In the area of problem-solving we find work in 'hard' systems, aid to decision-making and work in 'soft' systems such as SSM. Influences on SSM are coming from philosophy, social science, the theoretical development of systems thinking as well as work in 'hard' systems. The connection to the hard systems is no surprise since SSM was developed when Checkland and his colleagues learned that systems engineering could not be applied to complex management situations.

Table 1 provides a framework for the main systemic methodologies which are embedded in three management sciences paradigms<sup>7</sup>: optimisation paradigm, interpretive/learning paradigm and the critical/pluralistic paradigm. SSM belongs to the interpretive/learning paradigm that focuses on improving situations. As part of the problem-solving development of systems thinking, it concerns purposeful activity systems or rather

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<sup>7</sup> " ... scientists, just like the rest of humanity, carry out their day-to-day affairs within a framework of presuppositions about what constitutes a problem, a solution, and a method. Such a background of shared assumptions makes up a paradigm, and at any given time a particular scientific community will have a prevailing paradigm that shapes and directs work in the field. .... (Casti, 1989, p.40)" (Yolles and Guo, 2003, p. 177).

purposeful holons since all problem situations have in common that human beings in social roles are trying to take purposeful action (Checkland and Scholes, 1990).

**Table 1:** Main systemic methods/methodologies embedded in three paradigms  
*Source:* Adapted from Paucar-Caceres and Pagano, 2009, p. 346

<i>Management Sciences Paradigms</i>		
Optimisation / Positivistic	Interpretive / Learning	Critical / Pluralistic
Approximate timescale		
1940 - 1950	1960 - 1970	1980 - 2000
<i>Methodological orientation / Research intention (Jackson, 2003)</i>		
Discovery of law relations amongst variables, 'deep' structure and patterns / Optimisation; problem-solving	Learn; understand perception and people's purposes; improve problematic situations / Bring consensus or accommodation between stakeholders' views	Enlighten / empower stakeholders, especially those disadvantaged. / Reform social order; systems thinking should concentrate on the issue of inequality of the participants
<i>Metaphor for Knowledge (Jackson, 2003)</i>		
Classical OR; Machines; Systems Dynamics; Flux and information; Management Cybernetics: Brain	Cultural systems; Political systems	Cultural system; Psychic prison; Instruments of domination
<i>Main contributors</i>		
Weiner, 1948; Kelly, 1955; Boulding, 1956; Bertalanffy, 1956; Ashby, 1956; Churchman et al., 1957; Beer, 1959	Forrester, 1961; Vickers, 1965, 1970; Beer, 1966,1979; Churchman, 1968, 1979; Jenkins, 1969; Habermas, 1970; Checkland, 1981, 1999	Mingers, 1980; Ackoff, 1981; Beer, 1981, 1985; Eden et al., 1983; Flood and Jackson, 1991; Mingers 1997; Jackson, 1997, 1999, 2000, 2006; Eden and Ackerman, 1998, 2001
<i>Main management science methods / methodologies</i>		
Cybernetics*; Theory of personal constructs*; General Systems Theory*; Operational Research; Management Cybernetics*	Industrial Dynamics; Appreciative Systems*; Organisational Cybernetics; Social Systems Design*; Systems Engineering; Soft Systems Methodology	Critical Systems Thinking*; Interactive Planning System; Organisational Cybernetics; Cognitive Mapping; Multi-paradigm/methodology

\* Theoretical developments

According to Paucar-Caceres and Pagano (2009), there is indirect influence from SSM on the critical/pluralistic paradigm and in particular on critical systems thinking which is a relatively new development in management science that is based on the belief that social systems are oppressive and unequal. However, an adaptation or further development of the soft systems methodology towards a multi-paradigmatic or multi-methodological approach has not occurred (Mingers, 2000; Jackson, 2003).

**2.1.3 Paradigmatic reflexion: management and systems thinking**

According to Mingers (2004), critical systems thinking is the third way in the epistemological battle between positivism and interpretivism which has died down and is in a period of stability (Jackson, 2010a). The existence of the systems movement

demonstrates the inability of reductionist science to cope with “complexity in general, the extension of science to cover social phenomena, and the application of scientific methodology in real-world situations” (Checkland, 1999, p. 74). This coincides with Jackson (2003) and his claim that holism gained momentum based on the failure of reductionism to cope with complexity, diversity and change (Flood, 2001; Batie, 2008). Nevertheless, systems thinking is an attempt to keep much of the tradition of analytical thinking but to supplement it by tackling problems through thinking in wholes. According to Checkland (1999), the two will eventually be regarded as the twin components of scientific thinking. “Within systems thinking there are two complementary traditions. The ‘hard’ tradition takes the world to be systemic; the ‘soft’ tradition creates the process of enquiry as a system” (Checkland and Scholes, 1990, p. 25). Juarrero (1999) argues that contemporary action theory is influenced by the inadequate 350-year-old model of cause and explanation which promises certainty and predictability, but social systems such as organisations or society are inherently confronted with issues such as complexity, dynamics, change and spontaneity which contradicts a certain, fail-safe world<sup>8</sup>. According to Jackson (2006), the scientific revolution in the 17th century pushed aside holism whilst concentrating on reductionism. Holism eventually regained attention in the middle of the 20th century with general systems theory as well as cybernetics which coincides with the advent of modern project management on the basis of operational research. Checkland (1999) differentiates between the ‘hard’ and the ‘soft’ systems stance which is based on systemicity. This separation is also made by Paucar-Caceres and Pagano (2009) who describe the methods created in order to optimise operations i.e. the normative/optimisation paradigm belonging to the ‘hard’ systems approaches.

*“It was mainly an extension into management of what was the positivistic epistemology to natural sciences. The belief that organisations can be seen as objective worlds was certainly underpinning the early developments of classical OR [operational research]/MS [management science] methods and techniques” (Paucar-Caceres and Pagano, 2009, p. 347).*

Canals (2010) asserts, in his reflection about the organisation’s mission and purpose, that management theory is dominated by economics and finance which puts emphasis on maximising profit or market value thus neglecting aspects such as motivation, trust and learning. Ghoshal (2005) questions management theory for its focus on maximising profit just for shareholders. “Maximizing shareholder-value is an appropriate model for running down a company and a country, not for building them up ... Shareholder value is part of a politics which is not merely indifferent to wealth inequality, but which accelerates it” (McSweeney, 2008, p. 64). Pollack (2007) asserts that project management research focuses on the hard systems approaches, thus emphasising quantitative techniques in planning, scheduling and control. With regard to systems thinking, he depicts project

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<sup>8</sup> The author draws upon the theory of complex adaptive systems which regards systems as open, far from equilibrium and in constant exchange with their environmental context.

management as being influenced by methodologies which draw upon the hard paradigm such as systems analysis, systems engineering and cybernetics. Project management thus tends to adopt a problem solving rather than a problem structuring approach<sup>9</sup>. Nevertheless, there is growing acceptance of the soft paradigm and this paradigmatic expansion provides, according to Pollack (2007), increased opportunity for practitioners and researchers. Cicmil and Hodgson (2006) explain that research in project management maintains a functionalist, instrumental view of projects as well as organisations thus embodying the scientific achievements of operational research. Ghoshal (2005) states that current management theories are also predominantly informed by a causal or functional mode of explanation. Although the 1960s and 1970s brought about an expansion of the theoretical foundation, the development of computer-based technology in the 1980s and 1990s led to a revival of operational research based research in project management (Packendorff, 1995). However, since project failure seems to have become the rule, Cicmil and Hodgson (2006) argue for a more critical engagement so as to cope with complex social and political arrangements. They assert that different scholars regard project failure as being based on strategic, social and behavioural factors rather than technical problems which is manifested in processes of resistance in organisations<sup>10</sup>.

*"From a Habermasian perspective, it might be argued that the objective, abstract and universal body of knowledge claimed in a number of authoritative sources as proprietary to project management fails to live up to the challenges of the embodied and power-laden realities of its operation" (Cicmil and Hodgson, 2006, p. 118).*

*"Most importantly (and shockingly) I discovered the politics of organisational life. The projects that never got started because certain people refused to cooperate or provide information; the project that were eagerly welcomed because they could be used by one department against another; and the antagonism towards us, and indeed attempts to sabotage, when our studies threatened the power positions of particular groups" (Mingers, 2004, p. 166).*

Checkland and Scholes (1990) claim that SSM is a systemic process of enquiry which makes use of systems models. This process can eventually bring about an agreement on some systems to be engineered. SSM thus subsumes the 'hard' approach which is a special part or case of it (Checkland, 2010). This formulation is challenged by Huaxia (2010) who claims that it is contradictory and suggests that hard and soft approaches are based on different, inseparable paradigms. According to Jackson (2010b), we have to consider that Checkland adopts a 'diachronic' model i.e. one paradigm replaces another if the new paradigm can explain everything and even more than the old one. One paradigm thus subsumes the other one. On the other hand, critical systems thinkers adopt a

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<sup>9</sup> „Some advocates of post-bureaucracy have depicted project management as the front-wave of post-bureaucracy, as the fastest route away from bureaucracy .....[however, it] neither abolishes control nor those tensions associated with it. Instead it has distinct modalities of control, each of which generates quite specific tensions" (McSweeney, 2006, p. 29).

<sup>10</sup> "In much contemporary management literature there is a big emphasis on developing a shared corporate culture, of trying to manipulate employee behaviour so that it conforms to organisational values, and generally being invasive of what Habermas (1985) referred to as the 'life world' of employees" (Mowles, 2011, p. 137).

‘synchronic’ model whereby different paradigms can coexist. Jackson (2010b) argues that Checkland struggles with regard to issues such as power and conflict because of his adherence to the interpretive paradigm<sup>11</sup>. The acceptance of a variety of paradigms contradicts the still predominant positivistic paradigm in project management.

#### 2.1.4 Operational research and applied systems thinking

Over the last decades, the fields of management science and operational research, which constitute the advent of project management, have produced a number of systemic methodologies (Paucar-Caceres and Pagano, 2009; Rosenhead, 2009; Ulrich, 2012). The methodologies now available as described before have been successfully applied in different areas of management. Jackson (2009) provides an account of the last 50 years with regard to systems thinking and argues that operational research and applied systems thinking have much in common and impacted each other.

*“For example, some of the early pioneers of operational research [(Churchman, Ackoff and Arnoff, 1957)] later adopted the systems thinking label in preference to operational research; soft systems thinking began life by defining itself in opposition to hard systems approaches such as operational research (Ackoff, 1979; Checkland, 1978); and, more recently, both soft operational research and soft systems thinkers have been involved in the development of problem structuring methods (see Rosenhead and Mingers, 2001)” (Jackson, 2009, p. 24).*

By using Boulding’s hierarchy of complexity (Ramage and Shipp, 2009), Jackson (2009) identifies three different approaches to applied systems thinking namely ‘functionalist’, ‘structural’ and ‘interpretive’. Examples of the first one, i.e. functionalist applied systems thinking, include systems analysis and systems engineering as well as the socio-technical systems approach. Jackson argues that structuralist systems thinkers follow Ludwig von Bertalanffy (Ramage and Shipp, 2009) in spirit and that the approaches with the most impact in management are systems dynamics, organisational cybernetics and complexity theory. The third strand, interpretive applied systems thinking, is connected with soft systems approaches from Ackoff (interactive planning), Churchman (social systems design) and Checkland (soft systems methodology).

Although enlarging the applicability of systems thinking to ill-structured problems or messes, interpretive applied systems thinking has been criticised e.g. for its difficulty with regard to achieving compromise or the problem that decisions are taken by powerful people in their own interests (Jackson, 2009). Jackson completes his picture by explaining recent developments in applied systems thinking such as critical systems thinking and multi-methodology. The future of management science must be pluralistic, which means

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<sup>11</sup> The SSM intervention of this study thus requires the adoption of a rather pluralistic view, given the power-laden environment within the organisation.



using the diversity of methodologies and methods now available (Huaxia, 2010; Jackson, 2009). This should incorporate dialogue between operational research and applied systems thinking so as to benefit from each other (Jackson, 2009).

### **2.1.5 Intricacies of the term system**

The systems movement can be regarded as being linked by the concept 'system' which is according to Checkland (1999) the main achievement of the biologist Ludwig von Bertalanffy since he insisted that the emerging ideas in the different fields could be generalized in systems thinking (Yolles, 2006). Juarrero (1999) argues that Bertalanffy (1981) first articulated a complement to the mechanistic understanding of classical science regarding human beings as well as nature. He is thus regarded as being the founder of the systems movement (Ackoff, 1974; Ramage and Shipp, 2009). His vision, which is known as general systems theory, was the development of theoretical systems that are applicable to more than just one discipline (Flood, 2001).

*"... they all make use of the concept 'system': an adaptive whole, an entity having emergent properties, a layered structure, and processes of communication and control that allow adaptation in a changing environment" (Checkland and Haynes, 1994, p. 191).*

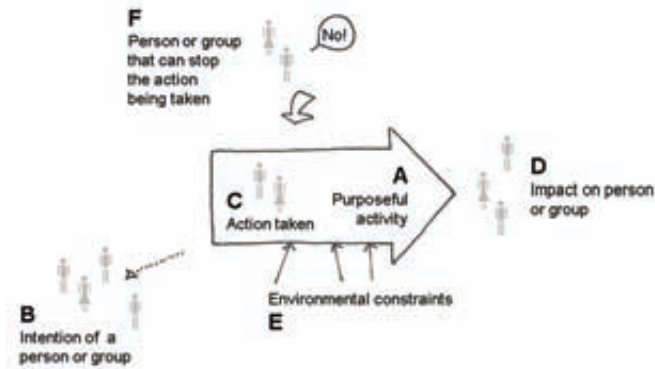
Unfortunately, this brought about the use of the term 'system' as a label for parts of the world (Christis, 2005; Checkland and Scholes, 1990). Various other words have been suggested as alternatives such as org, integron or holon whereas only the latter has acquired any significance (Yolles, 2006). A holon, inferred from the Greek word hólos, is something that is simultaneously a whole and a part. To use an example from biology, a human cell is as such a whole, but it is just a part of an organ which is on the other hand a part of the body. The thus produced hierarchy is called 'holarchy' (Koestler, 1967). Since the word holon was never adopted, we have to be cautious with the use of the word system in everyday language. According to Pidd (2003), SSM uses systems ideas within human organisations in order to help human beings to bring about change and to understand its effects i.e. SSM is concerned with human activity systems.

### **2.1.6 Human activity systems are designed by humans**

In order to understand human activity systems and their potential, we have to go back to the basic model of SSM (Figure 4). But first of all, it has to be mentioned that human activity systems differ from biological systems in that they have been created and designed by humans (Pidd, 2003). The behaviour, as well as the stability of these human systems, is subsequently a consequence of that design. Design thus plays an important role and the design criteria that will be used in the process will often be subject to great

debate. SSM provides a way for people involved in a human system to address its design as well as the criteria that will be used for guidance (Pidd, 2003).

A purposeful activity (A) is an expression of the intention of a person or a group (B). Action will be carried out by some people (C) which will have some influence or impact on another person or group (D). There will also be environmental constraints (E) and since human activity is seldom autonomous, there will be some people or a group (F) that could stop the action being taken (Checkland and Scholes, 1990). The fundamental purposeful activity of this research initiated by the employee/researcher (B) is based on a design that permits the investigation and analysis of the organisational culture (Dauber *et al.*, 2012), using a methodological framework that can cope with the oppressive social environment (E). This is undertaken in collaboration with the organisational members (C) with the intention to eventually provide sufficient affordable housing for vulnerable groups within society (D).



**Figure 4:** Symbolic model of purposeful activity

Source: Adapted from Checkland and Scholes, 1990, p. 6

Participatory research approaches have been successfully used within the context of research (Stephens, 2013; Franco, 2008). However, the full engagement with the group that can stop the process (F), as well as their influence on sense-making processes, is rather rare. Hjortso *et al.* (2005) argue that their “five step Rapid Stakeholder and Conflict Assessment (RSCA) methodology addresses [the] critique” (p. 149) that participatory approaches do not consider power relations and conflict. Nevertheless, RSCA constitutes a powerful tool for the intervener or facilitator for preparation and reflection but it does not address possible oppression or sabotage from powerful people. Issues of power, their genesis, evolution, and sense-making in organisational settings are more often discussed and interpreted in informal communication such as gossip than in formal research reports (Magala, 2009).

## Design paradigm in management science

Design and the development of design methodologies are well known in areas such as “architecture, engineering, urban planning, medicine, and computer science (e.g. Baldwin and Clark 2000, Cross 1984, Jackson and Keys 1984, Long and Dowell 1989, Warfield 1990). Compared with these disciplines, the notion of design is less established in the current state of organization theory” (Romme, 2003, p. 564). However, in order to shape and further develop our organisations towards a more participative and human future, people should be supported by drawing upon design research (Romme, 2003). Boland and Collopy (2004) stress the predominance of a ‘decision attitude’ paradigm in management practice and education and contrast it with the ‘design attitude’ paradigm whereby each project is regarded as an opportunity to question mainstream thinking. Business schools are more concerned with mathematics than the need to educate future leaders to become designers, which calls for a basic reform of management education (Wastell, 2010). “The two defining characteristics of design science are its interest in field problems and its solution focus, namely, the focus on interventions or systems that can solve field problems” (Van Aken, 2007, p. 69). Van Aken (2007) mentions design science approaches in the field of management such as operational research (Churchman *et al.*, 1957) or hard and soft systems approaches (Checkland, 1999) and concludes that the focus should be on learning in organisation projects instead of representation. Furthermore, direct stakeholders should be recognised as being fellow designers. The intervention gives almost all employees and management the possibility to actively participate in the research and hence to contribute towards the future design of the organisation (Zhichang, 2007). However, this also includes a critical appraisal of the organisational members since human factors play a vital role in the current situation. The participation of organisational members offers the possibility to foster systems thinking and consequently augment collaboration and intended learning (Waldman, 2007).

According to Cicmil and Hodgson (2006), there is a need for more understanding with regard to issues such as power and politics within organisations and their influence on people’s interaction. The question of how to intervene in ‘coercive’ problem situations, where compromise is difficult to obtain and decisions are most likely taken by groups which possess power over other groups, is asked by Jackson (2006). In this respect, he mentions two emancipatory systems approaches such as Ulrich’s critical systems heuristics (Ulrich, 1983) and Beer’s team synteegrity (Mejía and Espinosa, 2007). Van Aken (2007) emphasis the need to align business values with humanistic values such as mutual trust, confidence or openness including ethical issues such as democracy or social justice when taking on a design science perspective. In providing a conceptual framework for science, humanities and design, Romme (2003) depicts the importance of systems

thinking, discourse, participation and experimentation in design as ideal-typical mode of research. Whereas experiments in the natural sciences are mostly undertaken in laboratories, experiments of organisational designers are rather understood as taking action within the setting (Romme, 2003; Wastell, 2010).

## 2.2 Soft systems methodology: Activating the learning cycle

The difference between hard and soft systems thinking is based on systemicity which is in hard systems thinking assumed to be in the world and in soft systems thinking the process of coping with the world (Checkland, 1999). The goal orientation within the hard sector contradicts the rather obscure situation in the public organisation and hence calls for a soft approach.

*"First, hard systems thinking assumes people are passive observers of the system; soft systems thinking assumes that people actively construct and interpret elements of the system. Second, hard systems thinking reflects a philosophy of ontology (i.e. that what exists can be represented), soft systems thinking reflects a philosophy of epistemology (i.e. how people know and understand)"* (Johnson, 2008, p. 798).

Dongping *et al.* (2010) remark in their reflection on recent articles that Checkland (2010) has used no less than eight times the term 'real situations' in his 3-page long paper thus stressing the point that the use of SSM is situation oriented i.e. open to surprises and new learning rather than methodology oriented. "Even though the interpretivistic nature of SSM is its main strength, it is in relation to this characteristic that the methodology has received the most criticism" (Bergvall-Kåreborn, 2002, p. 310). The development of SSM started when the founder, Peter Checkland and his colleagues, learned that the systems engineering approach could not be applied to complex management situations (Checkland, 2010; Christis, 2005). The development of SSM can historically be separated into four different parts: (a) blocks and arrows 1972; (b) seven stages 1981; (c) two streams 1988 and (d) four main activities 1990. "This version [i.e. the seven-stage model<sup>12</sup>], though still often used for initial teaching purposes, has a rather mechanistic flavour and can give the false impression that SSM is a prescriptive process which has to be followed systematically, hence its fall from favour" (Checkland, 2000, p. S16). The four main activities are used for this research process.

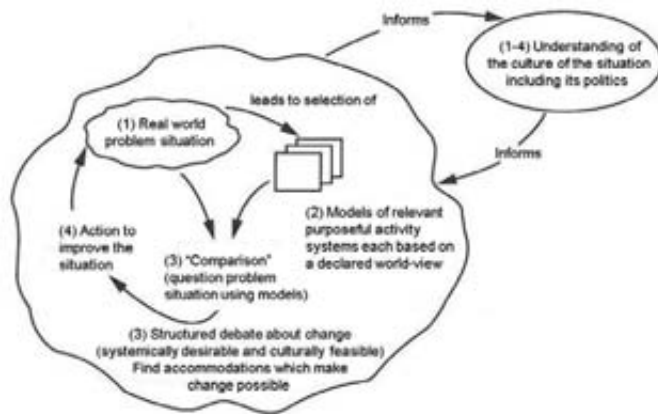
### 2.2.1 The four main activities of SSM

The four main activities (1)-(4) as depicted in Figure 5 form a learning cycle which is, according to Checkland and Poulter (2010), best carried out by the people within the

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<sup>12</sup> Interestingly, the seven stage process has nevertheless been used in recent studies or described as being the basis of SSM (Coelho *et al.*, 2010; Jianmei, 2010; Siddiqui & Tripathi, 2011).

problem situation (Herr and Anderson, 2005) and ideally is a never-ending process (Chapman, 2004). The starting activity is concerned with the finding out about a problem situation which incorporates cultural as well as political aspects (1). Informed by this first step, relevant purposeful activities are modelled (2) which are then used for a structured debate about desirable and feasible change (3). The objective of the debate is to find accommodations between conflicting interests which enable action to be taken in the situation (4) so as to improve the situation (Checkland, 2000, Checkland and Poulter, 2010, Wastell, 2010, Yolles, 2006). The four main activities are not simply a follow-up of different steps since the debate about the situation, for instance, can lead to new finding out thus yielding other purposeful activity models (Checkland and Poulter, 2010).



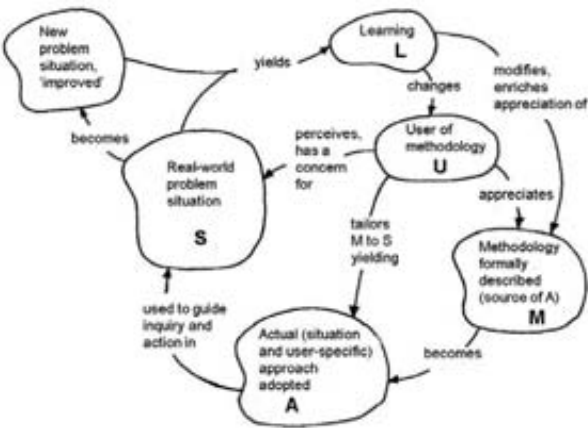
**Figure 5:** Four main activities of soft systems methodology

*Source:* Adapted from Pidd, 2003, p. 121 and Checkland, 2000, p. 16

Consequently, the activities have to be regarded as going on in a simultaneous manner. The finding out has a particular status since it constitutes a continuous process. The SSM process itself does not necessarily stop after the intervention since the study will bring about a new situation and consequently an on-going learning process. The way that the user should move through the process i.e. the different parts such as rich picture building or root definition, will be explained in terms of definition as well as usage in the chapter on methodology.

As the name indicates, SSM is a methodology which emerged in the true sense of the word as a variety of principles which can be used to design a specific approach for a particular situation involving the people concerned (Checkland, 2001). The methodology is based on three inseparable elements, namely the user, the methodology as words on paper and the problem situation as perceived by the user (Checkland, 2000). The learning process in the LUMAS model as depicted in Figure 6 also pictures how soft systems

methodology was developed. “The user U, appreciating a methodology M as a coherent set of principles, and perceiving a problem situation S, asks himself (or herself): What can I do? He or she then tailors from M a specific approach A, regarded as appropriate for S, and uses it to improve the situation. This generates learning L, which may both change U and his or her appreciation of the methodology” (Checkland, 2000, pp. 36-37).



**Figure 6:** The LUMAS model as an action thinking approach  
*Source:* Adapted from Checkland, 2000, p. 37

The necessity to closely engage with the people within the situation (Checkland, 2000; Flood, 2001; Stacey, 2001; Pidd, 2003; Crawford *et al.*, 2003; Stacey, 2007) i.e. within the organisation, suggests a case study research approach. “No matter how small our sample or what our interest, we have always tried to go into organisations with well-defined focus – to collect specific kinds of data systematically” (Mintzberg, 1979, p. 585).

### 2.2.2 Case study research

Although it is well known that case study research can incorporate qualitative as well as quantitative data, it is, however, more associated with qualitative designs (Rudestam and Newton, 2007). According to Yin (2003), evidence for case studies can come from six different sources which are: documents, archival records, interviews, direct observation, participant-observation and physical artefacts. The sources mostly used in this study are: participant-observation, interviews and documents. The use of multiple data collection methods is typical for theory building researchers (Eisenhardt, 1989). The choice of this particular single case for a thorough investigation was not based on the research question and subsequent specification of possible organisations as described by Eisenhardt (1989) but rather on the problematic situation experienced, the importance of the organisation in the public housing domain and its accessibility (Silverman, 2005). This does not

correlate with Maxwell (2005) who argues that the design of a research project constantly revolves around the different parts such as goals, methods etc. but is justified as the organisation is specific and unique with regard to its tasks and its individuality in the country and hence within a system (Stake, 2000). Furthermore, it opens-up the possibility for in-depth insights since the researcher is a member of the organisation, which is comparable to the study of Houchin and MacLean (2005). Regarding the question of using one or more cases, Mintzberg (1979) argues that it is better to study one organisation in-depth than just scratching on the surface of many organisations. This coincides with Eisenhardt (1989) and Yin (2003) who say that the case study approach can involve either single or multiple cases. According to Harrison (2002), case study research is particularly useful where the theory base is rather weak and the situation under study is messy. Sankaran *et al.* (2009) argue that SSM has a close connection to action research since it uses a collaborative process between the researcher and the people within the situation. However, it also adheres to the framework, methodology and action (FMA) concept.

### 2.2.3 FMA concept - action research

It is useful to have a set of linked ideas gathered together in an intellectual framework F and to apply these ideas by means of a methodology M to a particular area A such as human affairs (Checkland, 1985). The use of the methodology can bring about learning about F, M and A (Flood, 2001). With this FMA concept, Checkland identifies the nature of learning in any action research intervention (West and Stansfield, 2001). Checkland and Holwell (1998) argue that the cycle of action research starts when the researcher using SSM has declared the framework of ideas F to be explored in the research. According to Greenwood and Levin (2007), action research is a way to foster change by organising collaborative research processes. Action research has become increasingly interesting for researchers involved in the study of organisations (Eden and Huxham, 2002). As the term action research is sometimes not well defined they assert that:

*"Action research involves the researcher working with members of an organisation over a matter which is of genuine concern to them and in which there is an intent by the organisation members to take action based on the intervention"* (Eden and Huxham, 2002, p. 255).

Lüscher and Lewis (2008) conduct action research in their examination of managerial sense-making since it offers, according to them, exceptional access to how meaning<sup>13,14</sup> is created in organisations. Sense-making is, according to Weick (1995), about processes, the flow of events or activities which qualifies action research as an appropriate means to address a particular problematic situation in an organisation or community (Rudestam

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<sup>13</sup> Flood (2001) argues that systemic thinking is useful for the construction of meaning.

<sup>14</sup> The question as to whether meanings can be outsourced and values recycled by professional bureaucracies is asked by Magala (2009).

and Newton, 2007). There are not many written examples about outcomes of action research according to Eden and Huxham (2002) which is mainly due to the way that the results are presented which hides the method.

This coincides with Lüscher and Lewis (2008) who argue that action research is largely absent from mainstream journals although it permits paradigmatic boundaries to be crossed. Sykes and Treleaven (2009) depict strong links between action research and organisational ethnography based on their common epistemologies and methodological assumptions. They stress the importance of third-person action research which involves three audiences namely: self, participants and community. Yolles (2006) asserts that an action research intervention that embraces the knowledge of all participants seeks, firstly, to transform a mess into a difficulty or tame problem and, secondly, to bring about strategies that can improve the situation. The meaningful understanding of any situation necessitates, according to Flood (2001), the study of its cultural context as well as the perceptions of the people.

### **Theory of action research**

According to Rudestam and Newton (2007), most action researchers draw on the work of Lewin (1948) and his proposed plan-act-observe-reflect cycle that leads to a continuous learning process. Due to his development of a theory of action research, this form of research eventually became fully respected in the social sciences (Herr and Anderson, 2005). This cyclical approach to action research should be better regarded as being composed of two interlinked cycles. On one hand, there is an interest in problem solving and on the other hand there is a research interest which describes the interdependence between practice and theory (McKay and Marshall, 2001). "Theory leads to practice; but the practice is itself the source of the theory; neither is prime; the process generates itself" (Checkland, 1985, p. 757). Consequently, practitioners should be reflective about their activities and academics should engage in practice. With regard to project management and its lack of a strong theoretical basis (Shenhar and Dvir, 2007; Bredillet, 2010), the conduct of action research can lead to new insights (Sankaran *et al.*, 2009).

A cornerstone of action research is the participation of and with people which is also favoured by soft systems thinking (Flood, 2001). One of the followers of Lewin (1948) is Checkland (2000) who argues that researchers using SSM always try to take part in the change process instead of observing the action from the outside. Mowles (2011) argues that the dominant theory in management assumes leaders and consultants to be detached, objective observers who can, for example, convince resistant employees by rationally explaining the necessary change. In contrast, the author suggests that the manager, consultant or researcher acting as participant-observer is inherently involved in



the web of power relations as well as organisational politics. Their understanding as well as action both influence and are influenced by the local and global patterning.

*"[Many authors repeatedly observed] a significant scarcity of research projects [in organisational science] devoted to the problem of power, power struggles, individual passion and interest devoted to the attempts to acquire or maintain power at the expense of the other members of formal organizations" (Magala, 2009, p. 26).*

With regard to action research, Checkland (2000) points out that there is one issue which is almost completely neglected in the literature. In order to be accepted as part of 'scientific knowledge' findings have to be repeatable over and over again. Findings in human situations do not match this strong criterion. The opposite of repeatability is mere plausibility, a rather weak criterion argue Checkland and Holwell (1998) who suggest that the in-between way is the conduct of action research in such a way that the whole process is recoverable. The SSM approach is the process of coping with the world and is organised as a conscious enquiry into a problem situation. The models are used as devices for learning rather than prediction (Winter, 2006). These types of model which are based on soft methods can be used in order to explore the consequences of different worldviews. This allows modelling to help people understand each other's viewpoints which can lead to the development of a commitment followed by sensible action (Pidd, 2003). With regard to action research in the context of systems thinking, Checkland (2012) regrets the rarity of work undertaken within actual situations. This is partly due to the limited use of action research in universities and the reluctance of academics to become accountable for their contributions as participants<sup>15</sup>. Furthermore, as long as scholars are judged on the basis of their number of publications, they will not privilege engagement with the complexity of real world situations over the easy route i.e. "... writing papers about other papers ..." (Checkland, 2012, p. 469).

## **2.2.4 Models and modelling as supporting tools**

There are multiple definitions of what constitutes a model. Pidd (2003) argues that models are a rough representation of part of reality but that it is exactly this simplification which makes them useful and testable by other people. Pidd (2003) differentiates between explicit or external models and implicit or mental models. Such a distinction is also made by Checkland and Scholes (1990) with regard to the modelling of relevant systems. The so-called 'primary task systems' is the one that coincides with real world manifestations whereas the 'issue-based systems' is relevant to mental processes. Senge (1990) describes mental models as one of the four disciplines (personal mastery, mental

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<sup>15</sup> By explaining why we should now be concerned about wicked problems, Batie (2008) criticises the disciplinary-based approach in science: "As a consequence, there is increasing dissatisfaction with curiosity-driven, disciplinary-based science. Criticisms abound with the 'stove-piped' or the 'silo' nature of the disciplinary approach for addressing wicked problems. As the old saying goes: The world has problems, while universities have departments" (p. 1180).

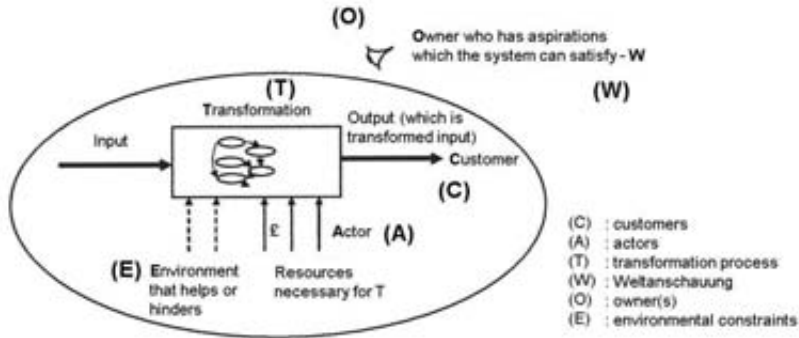
models, shared vision, team learning) which are brought together by systems thinking, the fifth discipline merging them into a coherent body. Senge (1990) asserts that the most crucial mental models in any organisation are those shared by key decision makers. Those models, if unexamined, limit an organisation's range of actions to what is familiar and comfortable. In the development and realisation of housing projects, many explicit or external models are used such as drawings, scale models and mathematical models. Their use in construction projects is, according to Pidd (2003), rather clear but it is less clear in other areas such as organisations which leads us back to the different paradigms.

According to Rosenhead and Mingers (2001), it is possible to regard the traditional modelling approaches such as hard systems thinking, of which operational research is an example, and alternative modelling approaches as competing paradigms whereas the traditional approach aims to find the 'best' solution for a well-defined problem. Pidd (2003) also argues that the main role of management science is problem-solving. "The strategy of [operations research] is to build a model of the process concerned, one in which the overall performance expressed in some explicit measure of performance (often economic), then to improve or optimize the model in terms of the chosen performance criterion, finally to transfer the solution derived from the model to the real-world situation" (Checkland, 1999, p. 73). To design whole pictures of social phenomena the researcher can draw upon qualitative and/or quantitative modelling of the underlying social systems (Flood, 2001). The viable system model describes, according to Schwaninger (2006), the structural prerequisites for modelling and designing a viable organisation.

### **Soft systems methodology models are devised for learning**

The purposeful activity models which are used in SSM serve as intellectual devices which are according to Checkland (2000) not so easy to absorb since the everyday word 'model' suggests some representation of part of reality. What we regard as reality is manifested in our worldviews i.e. beliefs, values and attitudes and is expressed through mental models. Since these models are based on our individual patterns of knowledge, they do not necessarily correspond with those of others which makes the process of modelling a wicked problem so important (Yolles, 2006). Christis (2005) argues that the denial of realism in the application of SSM models contradicts its philosophical underpinnings "in which it is denied that we refer our concepts and conceptual models to concept-independent things in the world. A central tool in achieving this aim is the Wittgensteinian distinction between language ('how we speak') and discourse ('what we say'), between the meaning of the words we use and the truth of the statements we make" (p. 11). The modelling of a complex purposeful activity requires a clear definition, called a root definition, which is constructed around an expression of this activity, thus describing a

transformation process (Checkland, 2000). This transformation process is considered the primary model concepts of SSM (Mingers *et al.*, 2009). The input and the output of this transformation process have to be expressed as entities whereby the output entity is identical to the input entity but in a transformed state (Figure 7).



**Figure 7:** Primary model concepts of soft systems methodology  
*Source:* Adapted from Mingers *et al.*, 2009, p. 170

The model also incorporates the CATWOE analysis which is mainly the pairing of the transformation process T with the W, Weltanschauung or worldview which makes it meaningful (Checkland and Scholes 1990). The other elements of CATWOE take into consideration that someone must undertake the purposeful activity as actor A, that the owner can stop it O, that the output is received by customers C and that there will be some environmental constraints E. This preliminary thinking which is expressed in the root definition as well as CATWOE is further enriched by PQR (formerly XYZ) i.e. the root definitions core transformation would be “a system to do X by Y in order to achieve Z” (Checkland and Scholes, 1990, p. 36) and the monitoring and control functions, the 3Es which guarantee that the entity could in principle survive in a changing environment.

### 2.2.5 Application of soft systems methodology

The literature search was undertaken by using the research databases ProQuest, Emerald and JSTOR for academic articles and conference proceedings and SCHOLARVOX for books. To further narrow down the focus, the following keywords were used: (a) soft systems methodology, (b) project management OR management, (c) power relations OR oppression. For the keyword “soft systems methodology” 929 peer-reviewed records were retrieved, for “project management” 22,774 records and for “power relations” 8,336 records. The combined search for all three keywords was complemented by the words project-oriented and power. The combined search resulted in 64 records. The titles and abstracts were read which eventually reduced the number of relevant full articles to

twelve. Soft systems methodology, as developed in the last 30 years, based on an action research programme at Lancaster University (UK), has been used in no less than 300 projects, all carried out in real situations (Checkland, 2010). The categorisation from Van de Water *et al.* (2007) of 115 published articles on SSM shows that 74% are methodological in nature of which only 28% are also empirical i.e. a large part of research on SSM is still concerned with the methodology itself.

Khisty (1995) argues that urban systems are a subset of human activity systems especially with regard to political as well as social issues. These entities, though neglected in the past, play according to the author a vital role concerning ill-structured, messy problem situations in engineering and planning. The author explains the application of SSM to a transportation planning problem and concludes that 'hard systems' methodologies and SSM complement and supplement each other. Paucar-Caceres and Rodriguez-Ulloa (2007) propose the combination of some stages of systems dynamics and SSM thus creating soft systems dynamics methodology. The authors conclude that the methodology overcomes the limitations of SSM by using computer software that can simulate or test the practicability of the suggested feasible and desirable changes prior to implementation. To deal with the soft problem of interests conflict, Jianmei (2010) uses Interests-coordination SSM in the implementation of a knowledge management project in China. Paucar-Caceres (2009) argues that SSM, as one of the most successful problem structuring methodologies, has been mostly applied in the UK, Australia, South Africa and New Zealand, adding that it is little known in other European countries. This coincides with Van de Water *et al.* (2007) who argue that research on SSM is predominantly undertaken in the UK and Australia.

Recently undertaken soft systems dissertations in the context of projects are from RMIT University, Melbourne, Australia (Small, 2009; Small and Walker, 2010) and from University of Queensland, St. Lucia, Australia (Stephens, 2011; Stephens, 2013). In contrast, data collection by Staadt (2012) took place in a rather francophone country within the European Union and thus constitutes the first SSM intervention outside the countries mentioned above. As far as originality is concerned, Phillips and Pugh (1994) identify nine definitions of what it means to be original of which number five states: applying something done in another country to one's own country. Furthermore, applying a technique usually associated with one area to another constitutes the sixth definition of originality.

### **Operational research and systems practitioners**

Mingers (2000) carried out surveys, questionnaire as well as a literature review in order to gain an idea about the use of SSM by operational researchers and systems practitioners.

Results revealed a predominantly successful application of SSM either solely or in combination with other methods and methodologies. However, these experiences gained by others have not been taken into consideration by Checkland which is for Mingers (2000) due to the isolationist stance of SSM and a failure to realise its potential.

*"So, concrete human activity systems always cross or combined with natural systems and artificial natural systems. ... The methodology to deal with those systems must be pluralistic and combinational"* (Huaxia, 2010, p. 169).

Methodological as well as theoretical complementarity are two out of the six commitments of critical systems thinking (Flood, 2001). With regard to SSM and its connection to project management, Crawford *et al.* (2003) argue that soft projects challenge the current standards and practices and thus try to connect project management with SSM in the management of soft change projects in the public sector. "The soft paradigm view is that the aspects of a situation that cause to be problematic are not easily defined or isolated. To increase understanding about the situation, it is necessary to engage with people at a qualitative level" (Crawford *et al.*, 2003, p. 444). People are seen as individuals with their own reactions as well as different agendas, values and responses (Stacey, 2001). Given the social construction of reality based on individual and group perceptions, it is, according to Leybourne (2007), natural to shift from 'tools and techniques' towards 'behaviour' which is similar to the shift from positivist towards a more interpretive epistemological paradigm. Interestingly, Leybourne provides an overview of the evolution of existing project management literature and identifies gaps such as the interaction between management and organisational power and politics. Remington and Pollack (2011) assign traditional project management to problem solving approaches, based on realist and positivist philosophies, and connect problem structuring approaches with methodologies such as SSM based on interpretive and social constructivist philosophies.

Problem-structuring methods and methodologies such as SSM use models in order to help decisions makers. The term 'decisions makers' is used in the plural because it is, according to Rosenhead and Mingers (2001), rarely the case that ill-structured problem situations are resolved by single decision makers. Problem structuring methods lend support to the debate about the nature of the problem rather than the focus on its solution (Christis, 2005). According to Paucar-Caceres (2009), the most well-established problem structuring methods and methodologies are coming from operational research as well as the systems movement, whereby strategic options development and analysis as well as strategic choice approach belong to the former and SSM to the latter. Jacobs (2004) uses SSM for performance improvement and organisational change in the English National Health Service and concludes that SSM can complement other methods and techniques in addressing issues on organisational change.

Winter (2006) argues that most of the published work regarding the use of SSM in project management research is on a theoretical level and that more empirical work is needed so as to support the theoretical discussion and to learn from the use of SSM in real-world situations. Steinfert (2010) asserts that traditional project management methods do not necessarily work well in particularly chaotic environments such as aid projects in post-disaster situations. The author uses SSM to gain more understanding about the antecedents of project management.

## **2.3 Organisations as complex systems**

In order to better cope with complexity within social systems, organisational theory has further developed through considering different patterns of thought such as the rational positivist paradigm and the chaos paradigm, thus eventually embracing systems thinking (Yolles, 2006). According to Yolles (2006), there are three main lessons from management systems theory with regard to organisations seen as systems. Firstly, organisations exist within an environment which emphasises that they are not self-contained units. Secondly, the organisational parts are all interrelated and should therefore not be regarded in isolation. The third lesson concerns the organisation's ability to adapt to its environment which leads to the terms self-organising or autopoietic systems (Maturana and Varela, 1980; Juarrero, 1999).

Consequently, we have to understand that everything is connected to everything else (Ackoff, 1974; Sterman, 2000; Yolles, 2006). These connections necessitate a thorough grasp of the organisational structure/culture before solutions are developed for the future.

*"The traditional manner of mechanistic thinking, [whilst rooted in hundreds of years of history and represented by Newton and Descartes], is challenged due to the continuous evolution of society and the quick developments of science and technology" (Wulun, 2007, p. 393).*

The study of complex system dynamics is an interdisciplinary field that has mostly progressed in the natural sciences but is now starting to emerge in the social sciences as well (Anderson *et al.*, 1999). Interestingly, Yolles and Guo (2003) argue that organisational development is a soft systems methodology that developed even before the advent of SSM. Designing an intervention into a complex social situation should be supported by a theory of the organisation (Yolles, 2006). This "enables problems to be structured and processes of change managed. This can involve structuring an inquirer's perceptions about what to look for, identifying what information will be useful to provide understanding about what is happening, identifying the possibilities/potential for action in certain spheres of interest, and conceptualizing the possible consequences of these

actions” (Yolles, 2006, p. 286). Drawing upon organisational development, viable systems theory and viable systems model, Yolles and Guo (2003) describe three general problems with regard to systemic change: (a) powerful people might feel threatened which can result in them starting to reinforce their power relations; (b) imposed change can induce resistance which can modify behaviour patterns; and (c) change needs to be controlled by means of particular management or actions.

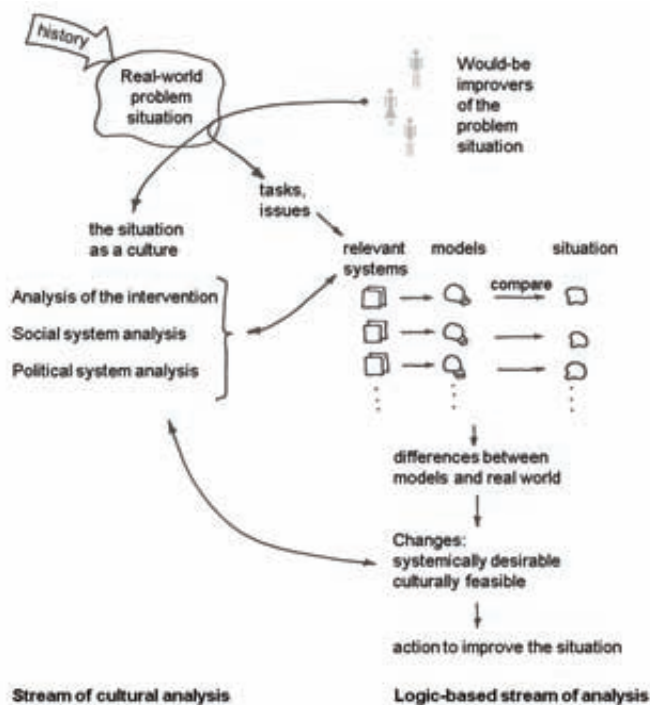
### **2.3.1 Cultural enquiry: Analysis One, Two and Three**

Organisational development is concerned with cultural change within organisations (Yolles and Guo, 2003). Cultural aspects in an SSM intervention are analysed by employing (1) Analysis One: analysis of the intervention itself, (2) Analysis Two: social system analysis and (3) Analysis Three: political systems analysis (Checkland, 2000). This cultural enquiry continues throughout the intervention right to its end (Checkland and Scholes, 1990) and thus concerns all of the four main activities of the methodology (see Figure 5).

#### **Analysis of the intervention – Analysis One**

According to Checkland and Scholes (1990), it is considered useful to think of the intervention in the problematic situation as itself being problematic. There are three roles which have to be considered. Firstly, the client who is the person or group that caused the study, secondly, the would-be problem solver i.e. whoever wishes to do something about the situation in question and thirdly, the problem owner. The problem solver must decide who to take as problem owner. The role of client is of particular interest since the study was initiated by the researcher and not directly by management. The researcher thus acts in the beginning as client, would-be problem solver and problem owner, albeit with the approval from management to use the organisation as the case study. This is different to a study directly initiated by management and might cause problems since management takes part in the problematic situation under investigation.

The participating employees as well as management take on the roles as problem solver as well as the problem owner. This is due to an investigation into the overall situation of the organisation. It is their perception, willingness as well as knowledge that should be used for defining the intervention (Checkland and Scholes, 1990). The problem owners are of vital importance since they constitute a source for relevant systems in the logic-based stream of SSM (Figure 8). An interesting aspect is the role of the researcher acting as problem solver as well as one problem owner which means that the first relevant system was the design of the study and the first model in a way the activity the researcher hoped to turn into action by means of the study (Checkland and Scholes, 1990).



**Figure 8:** Cultural and logic-based analysis of soft systems methodology<sup>16</sup>  
Source: Adapted from Checkland and Scholes, 1990, p. 29

### Social system analysis – Analysis Two

The model used in the analysis two stems initially from the work of Vickers but is much simpler than his appreciative system (Checkland and Scholes, 1990). According to Checkland and Scholes (1990), this model assumes a social system to be a constantly changing interaction between roles, norms and values (Sankaran *et al.*, 2009). Role is meant to be understood as a social position which is significant for the people in the problem situation such as the leader(s) of the organisation. Norm is defined as expected behaviour of the leader(s) and the performance in the role will be judged according to the values i.e. the local standards. This constitutes beliefs about what is humanly good or bad performance by the leader(s) for instance. Sagiv and Schwartz (2007) suggest that the values of an organisation are directly and indirectly influenced by the values of the society in which they are embedded. The authors discuss three main influential factors: (1) value culture in the associated society, (2) values of organisational members, and (3) the ‘primary tasks’ of the organisation such as the provision of sufficient affordable housing

<sup>16</sup> The cultural analysis and the investigation into the history of the organisation are of importance since “Legacies remain, which influence behavior” (Mintzberg, 1984, p. 221).



for society. With regard to 'primary task systems' used in an SSM intervention, Checkland (2000) points out that we should avoid merely thinking of models based on existing organisational structure. Gharajedaghi (2007) argues that only the collaborative process of unlearning can displace the deformed shared images or values in a social system.

### **Political system analysis – Analysis Three**

According to Checkland and Scholes (1990), any situation will have a political dimension which needs to be explored. "Politics is taken to be power-related activity concerned with managing relations between different interests. As such it is endemic in human affairs, and there will be few purposeful acts which do not have a political dimension" (Checkland and Scholes, 1990, p. 50). The focus is on power issues (Sankaran *et al.*, 2009).

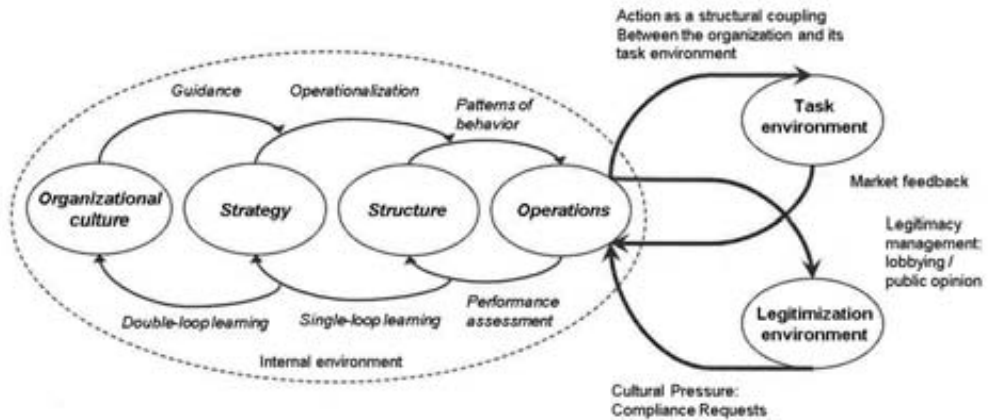
### **Conclusion**

The logic-based stream of analysis as depicted in Figure 8 has been successfully tested in many projects though criticism about the adherence of SSM on constructivism is stressed in the literature. However, the main problem with regard to the intervention into the culture of the public organisation constitutes the stream of cultural analysis due to the lack of a sufficient theoretical basis for the analysis of the data. This concerns, for instance, the influence of the external environment on important organisational issues such as strategy and structure or the distribution of power. Consequently, the methodology, as well as the analysis, has to be combined with other models. The analysis will be undertaken using manual techniques such as the long table approach (Krueger and Casey, 2000) and computer-assisted NCT analysis by means of Atlas.ti (Frieze, 2012).

### **2.3.2 Configuration model of organisational culture**

Although the public organisation is project-oriented, it is argued that its configuration corresponds, apart from issues such as project portfolio management or teambuilding, largely to that of a typical functional organisation. This equally incorporates its connection to the external environment. Dauber, Fink and Yolles (2012) provide a configuration model of organisational culture which explores the dynamics between organisational culture, strategy, structure and operations (Dauber, 2011). The authors draw upon well acknowledged models from culture theory as well as management (e.g. Schein, 1985; Allaire and Firsirotu, 1984; Hatch and Cunliffe, 2006). As depicted in Figure 9, the model is equally concerned with the interaction between the aforementioned internal as well as the external environment i.e. the task and legitimisation environment. The model offers the possibility to "explain how and why organizational culture and other domains of an

organization (e.g. strategy, structure) might change” (Dauber *et al.*, 2012, p. 2). The model suggests an equal appreciation of domains as well as processes (e.g. guidance, single-loop learning) so as to understand cultural dynamics. This enables a better understanding of the efficiency of a change process within an organisation (Dauber *et al.*, 2012). With regard to the project-based organisation, strategy, i.e. what should be done, is affiliated with project portfolio management. Structure and operations, i.e. how things should be done, are for example connected with project management methodology.



**Figure 9:** Configuration model of organisational culture  
Source: Adapted from Dauber *et al.*, 2012, p. 11

Gharajedaghi (2007) argues that a system has to have a predefined shared image of the anticipated result of that change. “DNA is the source of this image for biological systems whereas culture (shared image) is the source of desired future for socio-cultural systems. The shared image of the desired future provides default values for all decisions and stands at the center of the process of change. That is why experience with social transformation is fraught with frustration.... What seems to make this stubborn insurgency so overpowering is the fact that the set of organizing principles (cultural codes) that make the system to behave the way it does are implicit and in most cases are considered sacred” (Gharajedaghi, 2007, p. 474). According to Gharajedaghi (2007), social systems have to go through a collective process of unlearning with the intention of replacing the deformed shared image, thus supporting change in behavioural patterns. This process is influenced by the history of the system i.e. what happened before (see Figure 8). Dauber *et al.* (2012) do not explicitly depict history of an organisation in their model though the model from Allaire and Firsirou (1984) describes the external environment as being composed of society, history and contingency. However, this automatically happens once an intervener engages with the different domains and processes. Legitimation environment incorporates all stakeholders such as government which, for example,

creates a new public housing organisation by law. The compliance with the goals set could be assessed by analysing its performance even going back to its inauguration (see Figure 1). How the internal environment can prohibit such an assessment, though societal criticism of its tasks (market feedback) constantly augments, leads to reflection on configurations of power (Mintzberg, 1984). It equally incorporates cultural codes, societal as well as organisational, since their dismantling or questioning will be perceived by the powerful as a threat or insult and thus punished (Gharajedaghi, 2007).

### **2.3.3 Organisations as goal systems**

Mintzberg (1980) suggests five generic configurations regarding a better understanding of organisational structure: (1) simple structure (entrepreneurial); (2) machine bureaucracy; (3) professional bureaucracy; (4) divisional (diversified) organisation; and (5) innovative organisation (adhocracy). With its organic structure as well as decentralisation, adhocracy refers the least to traditional management principles and is closest to project-based work. "This is because in project work, strategy is not imposed from above. Rather, it emerges from the stream of ad hoc decisions made for all the projects. Hence everyone who is involved in the project work – and in the adhocracy, which can mean everyone in the organization – is involved in strategy making" (Mintzberg, 1980, p. 337). This contradicts Dinsmore (1999) who argues that "functional organizations or hierarchy ... obey formal communications channels [which] are controlled by functional managers and project managers are virtually nonexistent or operate as coordinators from a weak power base" (p.115). Instead of building up flat structures, organisations tend to rely on hierarchical settings which are characterised by authoritarian behaviour e.g. where an individual such as a chairman dictates to others (Yolles, 2006). "An authoritarian or despotic organization may have an executive committee or board of directors that as a whole dictates to the rest of the organization. This normally requires some form of decision agreement across the board membership" (Yolles, 2006, p. 606-7). This coincides with McSweeney (2006) who negates that we are living in a post-bureaucratic epoch. The different configurations, as described before, are not necessarily found in a pure form since they can equally appear as hybrids thus using combinations. Furthermore, changes in the organisational structure can be generated by external forces such as control (Mintzberg, 1980).

### **Management based on projects**

Project management, in its current form i.e. based on its bodies of knowledge and developed over the last 50-60 years, places an emphasis on planning and control (Packendorff, 1995; Lindgren and Packendorff, 2006). It is one of the growing disciplines within organisations since their activities are increasingly wrapped up in projects (Shenhar

and Dvir, 2007). However, it constitutes a rather young research discipline which lacks a strong theoretical basis and set of guiding concepts. Shenhar and Dvir (2007) argue that project management is too complex to be explained in one unified theory. A map of the research conducted in project management has been drawn by Turner *et al.* (2010). They argue that the nine schools of thought<sup>17</sup> depict the complexity, diversity and richness in the field as well as its contribution to other fields of management which demonstrates that project management deserves full recognition as an academic subject (Bredillet, 2010). However, Turner *et al.* (2010) clarify that the nine schools of thought provide merely perspectives on the theory but they do not constitute a theory themselves. According to Gareis and Huemann (2000), project management has to be considered the core competence of a project orientated-organisation, a competence which has to be explicitly developed by the organisation (Söderlund, 2004). According to Whetten (1989), theory development entails the following three main elements: (What) -which factors should be considered as part of the explanation; (How) - how are these factors related to each other and (Why) - what are the underlying assumptions that justify the factors/relationships. What and How provide a framework for interpreting empirical observations and thus constitute the descriptive building blocks of theory development. Why, on the other hand, takes perspectives from other fields into consideration and provides explanation. It is therefore the most difficult part within the process (Whetten, 1989). According to Kilduff (2006), good theory develops through an engagement with real problems in the world and not through gaps in the literature.

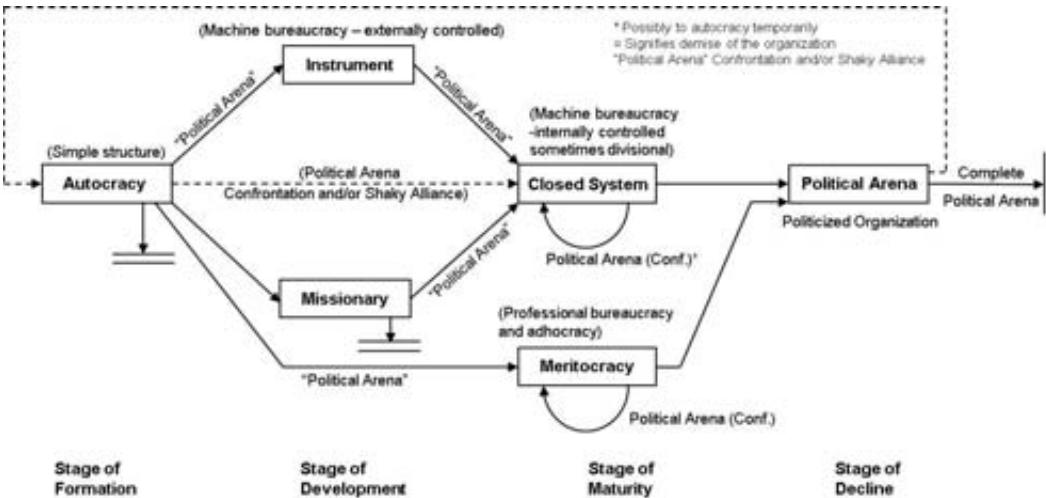
### 2.3.4 Model of organisation life cycles

As mentioned earlier, the history of an organisation and its subsequent development over time can provide insight into its current state, possible transitions as well as the configuration of power. Power is defined “as the ability to: do or act, and to do so with vigor, or energy; influence or have authority; be under one’s control; have personal or political ascendancy over another; have authorization or delegated authority to do something; be an influential person, body or thing, or a constituted authority” (Yolles, 2006, p. 609). Mintzberg (1984) suggests six configurations of power each with a particular type of external-internal coalition: (1) instrument (dominated-bureaucratic); (2) closed system (passive-bureaucratic); (3) autocracy (passive-personalised); (4) missionary (passive-ideological); (5) meritocracy (passive-professional); and (6) political arena (divided-politicised). A well-known configuration is, for example, autocracy which corresponds to a simple or entrepreneurial structure (Mintzberg, 1980). One single person is leading as well as controlling the organisation based on centralised decision

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<sup>17</sup> The nine schools of thought are as follows: (1) Optimisation, (2) Modelling, (3) Success, (4) Governance, (5) Behaviour, (6) Marketing, (7) Process, (8) Decision and (9) Contingency. These nine schools “provide project managers the tools to draw on in formulating their project management methodologies” (Turner *et al.*, 2010, p. 6).

taking power; the advantage being rapid responses. Furthermore, communication flow is rather informal taking place between the chief executive and practically each employee. External stakeholders are passive either because of dispersion or a lack of organisation. However, autocracy is just a means of power and does not say anything about leadership (Mintzberg, 1984). The six configurations of power mentioned above provide in combination thirty-six possible transitions from one configuration to another. According to Mintzberg (1984), nine of them appear to be most common. Figure 10 depicts these nine possible transitions in relation to the stages of an organisation i.e. from its formation or infancy, to its maturity and up to its decline. The model constitutes a basis for analysing the current positioning of the public organisation and can provide background information as to the reasons for its situation as well as possible transitions in the future.



**Figure 10:** Model of organisation life cycles  
Source: Adapted from Mintzberg, 1984, p. 213

Of particular interest is meritocracy (Figure 10) which, according to Mintzberg (1984), can take on professional bureaucracy as structural configuration as well as adhocracy which is connected with innovation and project-based work. The power here is focused on technical expertise and skills (e.g. medical doctors) which are necessary for the organisation to survive (Mintzberg, 1984). Compared with the public organisation under investigation, this could mean that the project managers responsible for the development and execution of the primary tasks of the organisation have probably developed a professional internal coalition. Recent research assumes that project performance and thus the success of the organisation is dependent on the competence of the programme/project manager (Dvir and Shenhar, 2011; Shao and Müller, 2011; Müller and Turner, 2010). If the power is not held by the experts (e.g. project managers), it is with the

administrators, most probably in a closed system since these two configurations i.e. meritocracy and closed system are, according to Mintzberg (1984), the most solid forms which can renew themselves. However, this does not mean that they can stay forever since “every system at some point has to weaken whether because of internal inadequacies or external pressures (or, more likely, both together).....In both the closed system and the meritocracy, it is believed that the forces of destruction lie in their own detachment from external influence” (Mintzberg, 1984, p. 219). Arrogant behaviour of powerful members of the organisation can for instance generate inquiries of external forces as to its legitimisation (Mintzberg, 1984; Sagiv and Schwartz, 2007). This is comparably depicted by Dauber *et al.* (2012) in the form of cultural pressure and compliance requests (see Figure 9) which has an influence on domains (e.g. strategy, structure) and processes (e.g. patterns of behaviour, single-loop learning). “The model [of organisation life cycles as depicted in Figure 10] suggests that as organizations survive and develop, their power systems tend to become more diffuse, more complex, more ambiguous, and at some point, less functional, even though, ironically, more stable” (Mintzberg, 1984, p. 221).

## **2.4 Importance of learning in systems thinking and management**

According to Senge (1990), the five disciplines (personal mastery, mental models, shared vision, team learning and systems thinking) are an approach to develop the three core learning capabilities for a team which are: fostering aspiration (personal mastery, shared vision), developing reflective conversation (mental models, dialogue) and understanding complexity (systems thinking). Senge asserts that the prevailing system of management is much influenced by the prevailing system of education and that any sustainable change in the first domain requires a change in the latter. As learned at school in the pupil-teacher relationship, people at work try to please the boss by responding to his or her aims which prevents them from improving the system that serves customers. The need for a cultivation of systems thinking in the next generation of business leaders is highlighted by Atwater *et al.* (2008). They claim that business schools fail to provide students with an understanding of how the parts of an organisation work together and how these organisations constitute complex social systems that call for corresponding management practices to be effective. Ghoshal (2005) argues that business schools have exempted their students from moral responsibility by preaching ideologically inspired amoral management theories. Systems thinking enables a richer understanding of complexity in today's businesses which are based on a multitude of different and constantly changing minds, purposes and social systems (Yolles, 2006). This requires that managers understand the behaviour of the different elements in the system in order to avoid inter-functional conflict. This process of learning and the work on the system as well as the

communication why specific actions are taken is a key element for approaches such as participative management or policy deployment. Altwater *et al.* (2008) argue that life-long learning is imperative for working in complex social systems. A difference between machines, complex adaptive systems and thinking systems is made by Waldman (2007). Thinking systems are considered a complex adaptive system. However, they carry two additional characteristics such as having goals separate from survival and the capability to structure their own learning. A complex adaptive system that includes purposeful humans is a thinking system which stresses the importance of purposefulness and the involvement of human beings. Learning is according to Waldman a precursor for change which hopefully leads to improvement. “*Single-loop learning*, as distinguished from *double-loop learning*, refers to the processes of detecting errors and adjusting existing strategies to meet new requirements [(see Figure 9)]. Double-loop learning, by contrast, refers to a more profound process of learning, where “underlying organizational policies and objectives” (Argyris, 1977, p. 116), that is, underlying assumptions (Schein, 1985), are questioned and changed” (Dauber *et al.*, 2012, p. 8).

*“If the environment is risk-averse and mistakes are punished, then workers learn to take no chances, to follow rules and procedures rigidly and to hide or minimize adverse outcomes or mistakes” (Waldman, 2007, p. 273).*

Organisations are unlikely to survive in the long-term if they are unable to create an environment of learning and improvement since this is vital in the development of corporate capabilities (Canals, 2010). In his comparison of theories of viability regarding organisations and societies, Schwaninger (2006) asserts that social systems use adaptation- and learning processes so as to cope with complexity.

### **2.4.1 Punishing mistakes suffocates learning**

Ackoff (2006) argues that treating mistakes as bad things may result in individuals as well as organisations never getting the chance to learn. In order to learn, they should admit to mistakes and refrain from transferring responsibility for their mistakes to others (Bolman and Deal, 2008). The denial of uncertainty and unpredictability leads supporters of the rational paradigm of management to regard failure as being negative instead of an opportunity to learn (Yolles, 2006). Ackoff (2006) depicts two reasons as to why few organisations adopt systems thinking. Firstly, the more general reason has to do with the errors of commission and the errors of omission. The former are the errors that occur when an organisation does something wrong such as the merger of AOL and Time Warner which resulted in a big loss. The latter concerns the errors that occur when an organisation does not succeed in doing something it should have done such as Kodak and its slow development in digital photography. The errors of omission are more important since they result in deterioration and failure of organisations simply because they did not

do something. Unfortunately, only errors of commission are noticed in the accounting systems of the western world, errors of omission often go unnoticed. Managers either try to minimise errors of commission or try to transfer responsibility to others.

*"The best way to do this is to do nothing, or as little as one can get away with. This is a major reason that organisations do not make radical changes" (Ackoff, 2006, p. 706).*

Secondly, the more specific reason, concerns the lack of understanding and knowledge of managers about systems thinking due to an introverted profession that has not yet learned to provide adequate literature and lectures in ordinary language to potential users. For Seddon and Caulkin (2007), such a risk-averse environment where mistakes are punished is closely connected with the traditional leadership style based on command and control where decision making is distant from the work and based on budgets or plans (Lindgren and Packendorff, 2006).

#### **2.4.2 From command and control to systems thinking**

The structural issues of an organisation are often depicted in an organisational chart. Although these charts are very helpful since they constitute a simplification of organisational complexity, they impose a hierarchical approach based on command and control thinking which is also demonstrated in the current chart of the organisation under investigation (Figure 2). Command and control thinking gradually developed over a long period of time and is connected with names like F.W. Taylor (scientific management), Max Weber (theory of bureaucracy) or Henry Ford (mass-production) to name but a few (Bolman and Deal, 2008).

*"The ideas from which command and control thinking emerged have in common the notion that work organisations should be broken down into functional parts, giving people in those parts direction about what is to be done and how it is to be reported. .... The workers work in functional roles as designed by management and behave according to the requirements of management" (Seddon, 2008, p. 50).*

Today, this way of thinking and its rules are everywhere and it seems almost impossible to come up with new ways of thinking since the principles of command and control are so deeply embedded. Mintzberg (1984) points out that the further development of an organisation starting from autocracy inherently reinforces administrative influence as well as hierarchy. Not many people question the hierarchical order of organisations, argues Magala (2009) though it constitutes the source of many problems for social sciences and theories of management. "For the employees, the use of hierarchical controls signals that they are neither trusted nor trustworthy ... Surveillance that is perceived as controlling threatens people's personal sense of autonomy and decreases their intrinsic motivation" (Ghoshal, 2005, p. 85). Chapman (2004) argues that the traditional mechanistic command



and control approaches are likely to generate unintended consequences due to more complexity, more interconnectedness and less predictability (Doing, 2009). The systems thinking approach requires a change in thinking with regard to the design and management of work. This change to systems thinking can only be performed through learning by doing i.e. action learning which enables managers to recognise that current beliefs are flawed. The role of management is to lead people to understand that each worker is linked together with the main purpose of serving customer needs. To work on the system and its continuous improvement, management should help each employee and supplier to realise their current and future potential (Canals, 2010). Unfortunately, today's public services still run under the traditional leadership model based on authority and hierarchy. McSweeney (2006) describes reinforced inspection, centrally set targets and the re-strengthening of hierarchy in the UK civil service. "Politically, messes require top and middle managers to relinquish traditional authority and forms of control, something most are loath to do. More disturbingly, in turbulent times people often feel insecure and threatened and turn to those who offer reassuring but simplistic answers" (Hancock, 2010, p. 38). Seddon and Caulkin (2007) conclude that private as well as public organisations that base their activities on learning have the ability to do more with less. This eventually leads to better service delivery at lower cost. However, it demands also for adaptation of the political and regulatory framework.

### **2.4.3 Learning in a project oriented environment**

With regard to the business world that is becoming project oriented, Williams (2003) argues that these organisations are in need to learn from projects. Nevertheless, experience shows that this is not always the case. They rarely explore the reasons for failure or success of projects and consequently do not adapt their management style or behaviour according to the lessons learned. The emphasis on individuals and individual learning is made by Senge (1990) who regards personal mastery as the commitment to lifelong learning. Johansen and Swigart (1995) stress the need for a transition from training to learning, but learning should occur when needed as it becomes, like training, too quickly obsolete. The importance of top management support in the further development of the organisation through innovation and learning is accentuated by Turner *et al.* (2010). The authors argue that people are for instance reluctant to write honest project reports, i.e. to point at mistakes being made, in order not to upset their superiors. Fear of losing their job stifles new ways of working as well as innovation<sup>18</sup>. According to Canals (2010), the role of senior business leaders is not to maximise profits or market value but to manage an efficient and effective process that helps people learn

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<sup>18</sup> "Innovation takes time and inevitably there are failures, failures which are necessary for learning ... Major developments involve extended interactions among researchers in different organizations such as universities and firms" (McSweeney, 2008, p. 64).

and to feel proud about their work. This leads to satisfied customers and eventually to a financial performance that will please shareholders as well. With regard to continuous organisational learning and constant improvement, Senge (1999) argues that we have to break with the traditional authoritarian, command and control hierarchy where the top thinks and the local acts. This coincides with Seddon (2008) who argues for a systems thinking approach where e.g. decision making is integrated with work and the ethos is based on learning rather than control. This seems to be even more important where projects are the leading force within an organisation (Lindgren and Packendorff, 2006). Edmondson (2002) argues that organisations learn through actions and interactions which take place between people within smaller groups.

*“Learning, more generally, is viewed as an iterative process of action and reflection, in which action is taken, assessed by the actor, and modified to produce desired outcomes” (Edmondson, 2002, p. 128).*

The qualitative data from Edmondson shows that team learning is affected by the perception of power and interpersonal risk which has repercussions on the organisation’s ability to change. With regard to action learning, Paucar-Caceres (2009) argues that the pragmatic philosophy in management education in the United Kingdom creates managers who feel comfortable with the connection between action and learning. This kind of learning through practice and experience constitutes a cornerstone in SSM as well as other problem structuring methods and methodologies. This is in opposition to the ‘professional’ manager for instance in France who is assumed to act rationally on the basis of mathematical models thus reflecting the optimisation paradigm where the problem is well defined.

## **2.5 Theory of complex responsive processes of human relating**

The importance of understanding group processes in organisations and how individuals are involved in these processes is stressed in Stacey’s (2003) theory of complex responsive processes of relating<sup>19</sup>. This theory thus complements the configuration model of organisational culture (Figure 9) and the model of organisation life cycles (Figure 10) in analysing the interactions of individuals. Complexity theory is referred to in different research domains such as organisation science and project management. This is due to the interest in non-linear dynamics which is now applied to the study of organisations (Houchin and MacLean, 2005). Complexity theory is of importance, argue Cooke-Davies *et al.* (2007), as it expands the mechanistic or Newtonian paradigm from which project management has emerged. They highlight the relationship between complexity theory and project management. Within the landmarks identified such as the butterfly effect, the

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<sup>19</sup> This theory provides a responsive processes perspective on individuals and organisations which challenges the systemic perspective (Luoma, 2007). However, Luoma *et al.* (2011) argue that complex responsive processes and systems thinking are complementary.

edge of chaos, self-organising systems and the emergence of complex adaptive systems, the authors regard complex responsive processes of relating as a promising strand since it is about how human beings interact and learn and how their interactions evolve.

Learning based on social interaction is more effective than individual learning (Johansen and Swigart, 1995). This coincides with future research in project management and in particular projects as social processes (Direction 2) as described by Winter *et al.* (2006) who advocate for concepts and images on social interaction incorporating issues such as politics and power. They describe current research in 'complex responsive processes of relating in organisations' as a possibility for understanding the complexity of social interaction and suggest that this may be a useful theoretical basis for new research in project management. Complex responsive processes is a theoretical concept of complexity thinking in general and complex adaptive systems in particular (Zhichang, 2007). It has been introduced and argued by Stacey (2001, 2003, 2007) and his colleagues and leads, according to the author, to a different way of thinking about what an organisation is.

*"From a systemic process perspective it is easy to think of an organisation as a thing separate from people, ..... As soon as one takes a responsive processes view one goes into a way of thinking about organisations as nothing less than patterns of interaction between human persons" (Stacey, 2007, p. 242).*

These different perspectives lead to different views with regard to management and strategy. A leader or manager who believes in the systemic process perspective is concerned with designing, shaping or influencing organisational processes which are understood as administrative systems and decision making procedures. The interest is thus more on acting on the system. The leader or manager who believes in the responsive process view understands his or her role as participating in relationships with other people. These leaders understand their role/work as influencing or even manipulating other people. Daily activities are understood as processes of communication with others and patterns of power relations. This perspective thus puts relating, either good or bad, at the centre (Stacey, 2007).

The responsive process view creates a different understanding with regard to learning and knowledge creation in an organisation. Mainstream thinking assumes that the individual and the organisation are different kinds of phenomena with the individual learning thus creating knowledge which is then shared with others. Complex responsive processes argues that the individual mind and the social are the same process i.e. knowledge is under perpetual construction in the relationships between people. Already formed knowledge can be stored but managing the learning process and its knowledge

creation is impeached which calls into question the learning organisation as well as the domain of knowledge management (Stacey, 2001).

### 2.5.1 Complex adaptive systems

The complex responsive process perspective draws on complexity sciences since the concepts of self-organisation and emergence are central to this view. According to Stacey (2001), the models of complex adaptive systems explore the nature of permanent circular processes of interaction between computer programmes from which analogies to human interaction can be made based on Mead's theory of symbolic interactionism (Mead, 1934).

*"A complex adaptive system consists of a large number of agents, each of which behaves according to its own principles of local interaction. No individual agent, or group of agents, determines the patterns of behaviour that the system as a whole displays, or how these patterns evolve, and neither does anything outside the system"* (Stacey, 2003, p. 49).

Whereas agents in the complex adaptive systems models interact by means of digital symbols, human interaction involves other kinds of symbols, mainly language (Mead, 1934; Mowles, 2011; Zhichang, 2007). Yolles (2006) differentiates between agent and actor. Whereas the former is perceived as being the representative of a social community, the latter, the autonomous actor, takes either unitary or collective social action which may affect others or the environment. Complex adaptive systems, according to Anderson (1999), play a vital role as they permit a new way of simplifying the complex. Complex adaptive systems models typically show how complex outcomes flow from simple schemata and depend on the way in which agents are interconnected. Rhodes and MacKechnie (2003) use a complex adaptive system in their research programme into the housing system in Ireland. They concur with Chapman (2004) that the understanding of the social services is likely to benefit significantly from the application of complex adaptive systems. The authors conducted a case study with a special emphasis on decision making processes. The results obtained through interviews provided details of the characteristics of agents, schemata and fitness functions.

*"Applying complex adaptive systems theory, simple rules and a limited range of different agents may, in fact, be capable of generating aspects of the observable and currently inexplicable behaviour of existing public service systems"* (Rhodes and MacKechnie, 2003, p. 81).

Remington and Pollack (2011) argue that complexity theory as applied to organisations can also be applied to projects and consequently to project-oriented organisations. They claim that a complex project is a complex adaptive system which exhibits characteristics such as hierarchy, communication and control, as well as emergence. The application of complexity theory in organisations is not so frequent, argue Houchin and MacLean (2005).

They describe a four-year study in a public sector organisation which was formed in 1996, in which data collection took place from May 1995 to August 1999 i.e. right from the beginning. The authors based their study on four complexity concepts: sensitivity to initial conditions, feedback processes, disequilibrium and emergent order. They question whether organisations can be complex adaptive systems, producing novel forms of order, as they act in a recursive way, reverting to a traditional hierarchical organisation. This coincides with Magala (2009) who speaks about the ‘eternal return’ of hierarchic organisations. Houchin and MacLean (2005) further argue that it is the presence of anxiety which keeps a social system in disequilibrium. Complexity theory applied to organisations has to be more seriously informed by our understanding of the dynamics of human behaviour i.e. by theories from the behavioural sciences, in order to take into account a range of familiar issues such as socially constructed rules, anxiety and other forms of embodied expression (Juarrero, 1999; Houchin and MacLean, 2005). Collaborative structures play an important role in the characteristics of complex adaptive systems (Baker *et al.*, 2011). Complexity theory as a new way of looking at how complex structures form, adapt and change is the topic of Grobman (2005). The author sees clear applicability to explaining natural phenomena but casts doubt on a successful application to organisations due to the lack of empirical data that confirms more effectiveness and efficiency in organisations.

### 2.5.2 Systemic process versus responsive processes perspective

According to Stacey (2007), the move to second-order systems thinking such as SSM and critical systems thinking presents a much fuller account of social processes and conversation. The social processes in an SSM intervention are closely connected with Analysis Two and Three i.e. the socio-political analysis (Checkland, 2000) and thus constitute a way for investigating processes of interaction between organisational members. However, as identified in previous paragraphs, the stream of cultural analysis (see Figure 8) is missing a sufficient theoretical underpinning so as to analyse cultural aspects and their interplay.

*“So at its most basic, I take process to be the on-going, interactive movement (the how) of entities over time through which these entities become, individually and collectively, the coherent patterns of activity (the what) that they are” (Stacey, 2007, p. 261).*

Stacey (2007) argues that process is the interaction of entities and what they constantly produce or create is the coherent pattern of the entities themselves. In the systemic process, the entities are defined as parts of a system which interact so as to produce a bounded whole which exists at a higher level than the parts. The entities from the responsive processes perspective are embodied human persons and the *how* i.e. the movement is the relating between them. Patterns of relating produce further patterns of

relating which includes thematic patterning of communication, patterning of power relations between people as well as patterning of ideologically based choices people make. This coincides with Luoma (2007) who argues that systems thinking approaches consider individuals and organisations as systems and not as self-organizing processes of relating.

However, in order to understand human action, we should start by assuming that people are complex dynamic entities with particular individual behavioural patterns (Juarrero, 1999). Conceptual space, which is according to Stacey (2007), in the systemic process based on a metaphor of 'inside' and 'outside' which allows an observer to perceive and influence the system or process from the outside. Although the activities in the responsive process perspective take place in a physical setting (space), there is no inside or outside such as the mental activities being inside a person in the systemic process. In systems thinking, participation of people is meant as participation in a system whereas in the responsive processes thinking, participation of people is meant as direct interaction between persons in local situations. There is only this one process i.e. interaction between persons and hence no doubling of process. The future is perpetually constructed in the interaction between people. Practice in responsive processes thinking is the local activity of bodily interaction as communication and power relating and evaluative choice. The systemic view places thought before action. According to Stacey (2007), the responsive processes perspective regards people not as parts of producing a system but rather as independent persons producing patterns of relationships; there is no notion of system. Although admiring Stacey's process perspective, Zhichang (2007) does not share his criticism of systems thinking since Stacey focuses exclusively on process but systems thinking is concerned with process as well as structure. The author argues that this fragmentation does not provide a sophisticated alternative to systems thinking, rather the process thinking perspective should be regarded as a component of systems thinking. Dinsmore and Cooke-Davies (2006) regard the human factor as closely related to communication which involves both the words that are spoken and the response the hearer conveys (Mead, 1934; Stacey, 2001; Mowles, 2011). For them, human intentions, choices and actions are essential to the dynamics of daily interactions (Stacey, 2007).

*"Action and interaction are involved, through which people in organisations act jointly, transforming their environment and their identities. These actions of relating are bodily actions of communicating, both directly in the medium of feelings and in the form of language. They are therefore processes of relating power, that is, processes that enable and constrain action. These actions of communication and relating power are open to varying interpretations"* (Dinsmore and Cooke-Davies, 2006, p. 256).

Human intentions, choices and actions are important issues in the SSM intervention which tries to understand different perspectives as well as perceptions of the people involved in a problem situation (Checkland, 2000; Bergvall-Kåreborn, 2002).

## 2.6 Conclusion

In order to collaboratively investigate the disturbances within the culture of the public organisation, SSM is chosen as a leading or guiding methodology. SSM is acknowledged within the management sciences and systems thinking domain and has been successfully used in many projects. However, the methodology faces problems especially with regard to power<sup>20</sup>, power-relations, powerful people and conflict. The analysis and disclosure of these issues is hampered if the facilitator of the intervention, in the form of an external consultant, is directly commissioned by top management. However, in this study, the employee/researcher has, on the one hand, initiated the research project and conducted the different research phases but, on the other hand, has acted as participant and observer, and is thus inherently involved in the web of power relations and politics. This necessitates an awareness of his influence on the research setting.

Whereas the logic-based stream of analysis offers the possibility to model purposeful activity systems or holons which can be used for structured debate, the stream of cultural analysis (Figure 8) does not provide a sufficient theoretical basis for a thorough analysis of the organisational culture incorporating power and politics. The configuration model of organisational culture (Figure 9) permits an exploration of the dynamics between organisation culture, strategy, structure and operations through an equal consideration of the interaction with the external environment. In order to better understand the evolution of the organisation and its inherent power issues, the model of organisation life cycles (Figure 10) is also used for the analysis of the data. Finally, the theory of complex responsive processes of human relating provides more understanding about how people interact and learn individually and collectively within a power-laden environment.

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<sup>20</sup> By discussing “future directions” of sense-making, Weick *et al.* (2005) discuss its connections to power as well as emotion. The authors argue for more engagement in how power is expressed and how powerful people are able to manipulate the construction of social reality. Magala (1997) regrets, that Weick (1995) did not take the opportunity to develop in his book a theory of organisational emotions. “A theory of organizational emotions could help us explain organizational power processes (why is it that some men and women in organizations succeed in mobilizing support and maintaining power, while others do not – in apparently equal circumstances?). It could offer us a methodology for an analysis of imbalances of power and powerlessness which determines the overall organizational ‘climate’ for the members of most organizations” (Magala, 1997, p. 324).

# Chapter Three - Methodology

## 3.1 Introduction to the research story<sup>21,22</sup>

The particular situation in the public organisation calls for particular methods to be adopted in order to gather the data needed. These underlying methods are case study research and action research. In order to provide guidance through the methodology as well as the analysis chapter, the research process is briefly explained thus depicting the three main areas of data collection as well as the connection between the four main activities of SSM (Figure 5) and the methods adopted. The fourth phase of the research process concerns further participant observation with the intention of taking a closer look at the development of the organisation in the context of the governmental perspective. The philosophical stance is constructivism. According to Maxwell (2005), one of the critical issues with regard to the research design is the paradigm in which the study is situated. Interestingly, the reference to Maxwell is already a hint since his book is entirely concerned with qualitative research design. The word paradigm refers to very general philosophical assumptions that tend to be shared by researchers working in particular scientific communities. This typically includes specific methodological strategies and methods. From the epistemological point of view, the researcher is in a way the research instrument (Van der Waal, 2009) that interacts with the subjects and findings thus emerge from the research process.

### Process of learning and data collection

Since the underlying methodology and the methods adopted are closely interrelated, it is necessary to depict these relationships especially with regard to the research process. The different steps in the process and the sources for evidence used in the single case study are depicted in Figure 11 thus providing the big picture as well as guidance through the methodology and analysis chapter. The methods adopted and the steps of SSM are set in relation to the different milestones so as to demonstrate their interconnectedness as well as timely interrelation. The main sources of information used in the intervention are participant-observation, interviews, documents and group work. The depiction of the research process in Figure 11 demonstrates that the different parts are interconnected thus influencing each other. This emphasises the need for constant reflection and analysis which coincides with Miles and Huberman (1994) who argue that the three streams of

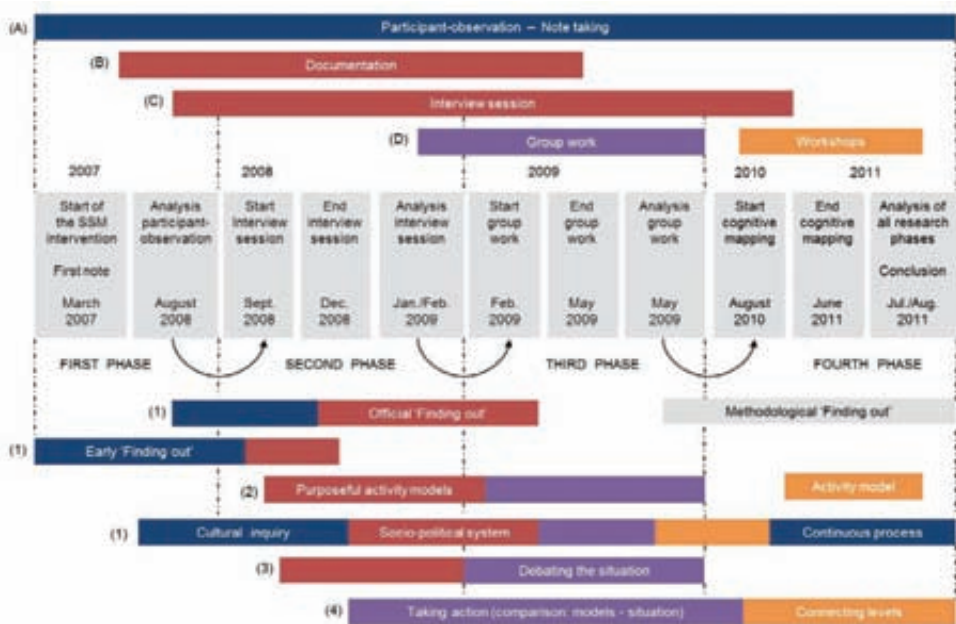
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<sup>21</sup> Rudestam & Newton (2007) describe the analogy of the reporting of detectives with the writing of research stories.

<sup>22</sup> Storytelling organisations are defined “as a collective storytelling system in which the performance of stories is a key part of members’ sense making and a means to allow them to supplement individual memories with institutional memory” (Boje, 1991, p. 106).



analysis, namely data reduction, data display and conclusion drawing/verification, are interwoven and carried out before, during and after data collection i.e. in parallel. Each part in the process is informed by the analysis of the preceding one, thus creating a documented learning process (Stadt, 2012).



**Figure 11:** The connection between SSM and the research methods adopted<sup>23</sup>

A systematic note taking activity started in March 2007 and continued throughout the whole process. The notes are therefore not just a depiction of the development or learning process but also a means to verify the conceptualization of the research process. Doing (2009) wrote his first note about one year after starting work at the synchrotron laboratory which coincides with the researcher's own approach. Note taking or rather memo writing is, according to Maxwell (2005), one of the most important techniques for developing one's own ideas. Field notes, taken on a regular basis, accompany the researcher's observations on the flow of events witnessed, the documents investigated and the conversations with participants (Van der Waal, 2009). According to Eisenhardt (1989), field notes ensure the frequent overlap between data collection and data analysis which is important in building theory from case studies. Furthermore, notes are an important part of the case study database (Yin, 2003). There are three main areas of data

<sup>23</sup> The official data collection for the single case study undertaken between 2007 and 2011 was followed up by the employee/researcher in 2012 and 2013.

collection which all have in common the fact that they were more or less done in close collaboration with organisational members. Only the elaboration of documents was carried out without their involvement. The fourth area has a particular status since it constitutes further participant-observation which was undertaken so as to enrich SSM with cognitive mapping. The first area, participant-observation, continues throughout the whole process and is accompanied by note-taking. The interview session is already concerned with almost all the different activities of SSM i.e. the finding out, the building of purposeful activity models and the debate about the situation. The third area is more concerned with group work and consequently the most intensive part with action research. The end of the systems study is an arbitrary step since the activation of the learning cycle in the organisation is ideally never ending.

### **Three principles of data collection**

The benefits of each source of evidence can be maximized by following three underlying principles thus helping to address construct validity and reliability (Yin, 2003). The first principle is the use of multiple sources of evidence thus providing the advantage of developing converging lines of inquiry which is better known as triangulation. The second principle concerns the creation of a case study database which deals with the organisation and documentation of collected data. This incorporates case study notes, case study documents, tabular materials as well as narratives. Van der Waal (2009) calls this a system of recording. The third principle, which increases reliability of the information, is the maintenance of a chain of evidence. The achievement of this principle also addresses the methodological problem of determining construct validity thus increasing the overall quality of the case. This demands sufficient citation of relevant documents, interviews and observation.

### **Data analysis**

The logic-based stream of SSM (Figure 8) allows for the development of models that will be used in structured debates with the participants. Although this collaborative approach already provides information on the organisational culture, the textual data collected were analysed manually as well as by means of computer using Atlas.ti. All notes and transcripts were coded in accordance with the method developed by Corbin and Strauss (2008) which means “deriving and developing concepts from data” (p. 65). The configuration model of organisational culture (Dauber *et al.*, 2012) was used as a basic element for qualitative data analysis. The results from the SSM intervention could thus be complemented by a theory-based categorisation of the data collected. In order to investigate the importance of the 10 processes (e.g. cultural pressure, patterns of

behaviour) of the configuration model (Figure 9), Fink *et al.*, (2013) developed a questionnaire with 16 different categories which were used in the coding process.

**Table 2:** Open, axial and selective coding according to Corbin and Strauss (2008)

Source: Adapted from Dauber, 2011, p. 23

Method	Description
<i>Open coding</i>	"Breaking data apart and delineating concepts to stand for blocks of raw data. At the same time, one is qualifying those concepts in terms of their properties and dimensions" (Corbin and Strauss, 2008, p. 195).
<i>Axial coding</i>	"In the 2nd edition, axial coding (the act of relating concepts/categories to each other) was presented as a separate chapter as though it occurred separately from open coding. But .... open coding and axial coding go hand in hand. The distinctions made between the two types of coding are "artificial" and for explanatory purposes only" (Corbin and Strauss, 2008, p. 198).
<i>Selective coding</i>	"The process of integrating and refining the theory" (Strauss and Corbin, 1998, p. 143).

The different categories are as follows: (1) market-based view, (2) resource-based view, (3) legitimisation management, (4) level of formality in internal communication, (5) level of external communication, (6) clarity of strategy, (7) preference for adjustment processes, (8) single-loop learning, (9) double-loop learning, (10) level of formalisation, (11) flexibility, (12) hierarchy of authority, (13) level of market dynamism, (14) level of market complexity, (15) level of action orientation, (16) loyalty (Fink *et al.*, 2013, p. 14).

### 3.2 Participant observation starts the intervention - first phase

Participant-observation at the start of the study was used as a first guidance through the literature and in the quest for finding the right methodological approach. This was possible as the researcher works in the organisation, hence as both observer and participant (Cooper and Schindler, 2006; Herr and Anderson, 2005; Ybema *et al.*, 2009). Carrying out an inquiry as an observant participant is different to carrying one out as a participant observer in the anthropological sense (Moeran, 2009). The early start with participant-observation was accompanied by note taking thus ensuring that events, actions and reflections are not lost (Van der Waal, 2009). Therefore, notes are the main source for the analysis of this first phase. The analysis of participant-observation took place in August 2008 in order to use the results for the upcoming interview session and in particular for the creation of specific questions. The participant-observation phase as a whole is of particular importance since it spans all the steps of the SSM intervention and constitutes thus the connecting link between the different parts of the research process.

#### Participant observer or observant participant

The early start of the study in March 2007 already constitutes the first finding out (see Figure 11) and was possible through participant observation which is the main but not the

sole method in ethnography (Van der Waal, 2009). According to Glesne and Peshkin (1992), participant-observation differs from normal or direct observation in that the researcher carefully experiences and records in detail the many aspects of the situation. In addition, a participant observer has to constantly analyse the observations for meaning. Doing (2009), for example, carried out a seven-year study in which he examined changes in scientific practice by describing the rising dominance of biology over physics in a synchrotron laboratory where he had been working as an x-ray laboratory operator since 1991. Yin (2003) argues that participant-observation is a special mode of observation and that the researcher participates in the events being studied. Nevertheless, participant-observation can also produce potential bias. Yin (2003) describes four major problems. Firstly, the participant-observer has less ability to work as an external observer, secondly, the participant-observer is likely to overlook a commonly known phenomenon, thirdly, the participant-observer may not have enough time to take notes or to raise questions and fourthly, the participant-observer may find it difficult to be in the right place at the right time. These points have to be given serious consideration. Moeran (2009) argues that beyond the need to immerse him or herself in the everyday lives of participants, the researcher should shift from a participant observer to an observant participant i.e. to shift from a mainly passive to a predominantly active role. However, in order to separate experiences being made from the analysis, the researcher should sometimes get away from the field so as to benefit from the distance between 'going native' and remaining a committed researcher.

### **3.2.1 Finding out about the problem situation**

The first step in a new SSM intervention is finding out about a problem situation (Checkland, 2000). The focus of this early 'finding out' between March 2007 and April 2008 was mainly concerned with an overall understanding of the organisation as well as its status with regard to the management of projects. The initial perception of the situation as being mostly based on typical management issues is probably due to the researcher's predominant experience in traditional project management. In the course of the study, the researcher realised that social issues greatly contribute to the lack of professional management in the project-oriented organisation. With regard to the single case study, the finding out section can be divided into two different parts. The first part is concerned with an early investigation into the organisation using an approach comparable to organisational ethnography as described by Ybema *et al.* (2009). This required early on an engagement with evaluation criteria such as reflexivity and triangulation so as to render the study trustworthy (Schwartz-Shea and Yanow, 2009). The second part of the finding out corresponds to the first step of the SSM intervention which incorporates already cultural as well as political issues.

## Early finding out

The first participant-observation, mostly based on discourse, is documented in 20 notes (see Appendix A for further information). Their chronology reveals interesting aspects with regard to the organisational structure as well as processes. The main contents of the relevant notes are summarised in Table 3 which was used in the elaboration of specific codes to be used in the analysis by means of Atlas.ti.

**Table 3:** Contents of the first relevant 20 notes: resulting codes used in Atlas.ti

Note	<i>Early finding out: Contents of the first 20 notes (resulting codes)</i>
N. 1	Chairman expresses his wish to have a system which would permit the simultaneous control and monitoring of all projects. This would be an ideal basis for discussions with the management board. <i>Code(s): project portfolio management</i>
N. 2	Although project managers are in charge of the projects, almost all decisions are taken by the chairman. Too much emphasis is placed on architectural and not on managerial issues. <i>Code(s): decision taking / responsibilities of project managers</i>
N. 3	The different project managers use different approaches and no common methodology even though a common methodology would strengthen the relationship towards external partners. <i>Code(s): project management methodology</i>
N. 4	With regard to the other departments and their co-operation, it is realised that although they all work on a common basis, which is the projects, they do not really participate in each other's activities. <i>Code(s): team building - team learning</i>
N. 5	Communicative behaviour of management is problematic since information and decisions are not always transmitted thus causing delay in project performance. Chairman is rarely present. <i>Code(s): information flow / project duration / availability of the chairman</i>
N. 7	Prioritisation of projects and the communication of strategy is missing which gives rise to the need for project management competence in the upper management. <i>Code(s): project portfolio management / strategy / project management competence</i>
N. 9	Financial management is not really developed. Estimations coming from external partners are only checked on the basis of broad measures such as square metre or cubic metre, which are then compared with buildings recently realised. This approach continues in the execution phase. <i>Code(s): project management methodology</i>
N. 10	Slow speed of project realisation. There is a connection between workforce and projects which has to be incorporated into the strategy particularly since at the beginning the organisation elaborated and realised a greater number of big projects with a lower workforce. <i>Code(s): project duration / organisational performance</i>
N. 14	Consequences of long running projects include increased expenses: Human resources within the organisation as well as external partners being blocked and the duplication of tasks. <i>Code(s): organisational performance / project duration</i>
N. 15	Percentage of small and medium-sized projects has increased tremendously. Project development has problems with internal communication. Structural separation between architecture and the building site weakens the position of the project leaders. <i>Code(s): project portfolio management / internal communication / structure</i>
N. 18	Management asked a technician to elaborate a cost management system. Once done, it was introduced but never used by the others. <i>Code(s): organisational culture / power relations</i>

## Official finding out

The official finding out is closely connected with the start of the interview session. Although participant-observation continues right through the whole process, the 35 notes

taken in this first phase, which incorporates early as well as official finding out, were analysed in August 2008 in order to further build on the results in the interview session. The official finding out section between May 2008 and August 2008 brought about further management issues but also new viewpoints with regard to systems thinking. The most important notes are briefly explained in the next section.

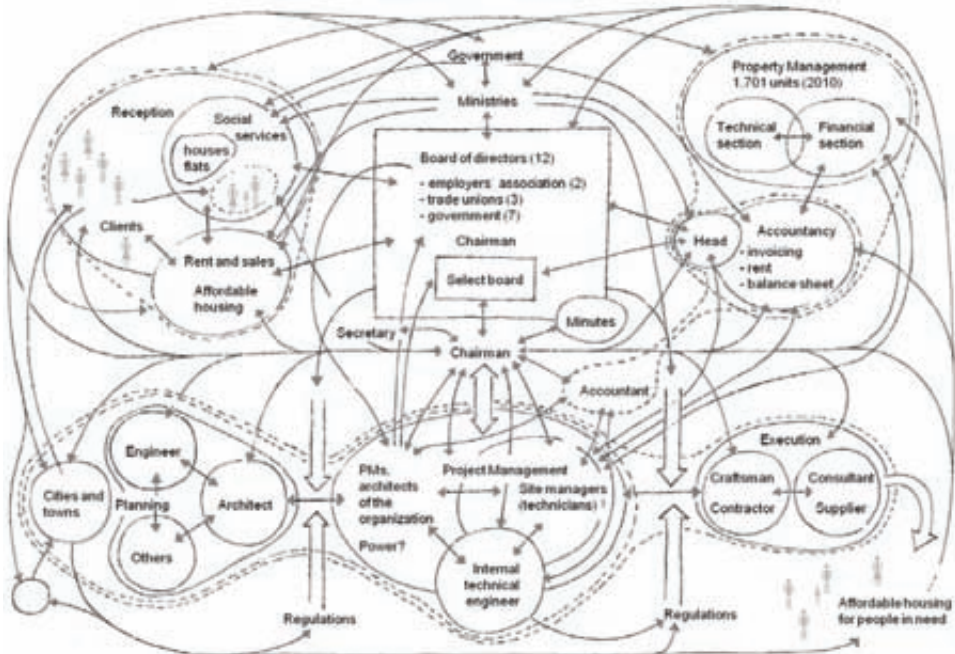
**Table 4:** Contents of relevant notes 21 - 35: resulting codes used in Atlas.ti

<i>Note</i>	<i>Official finding out: Contents of relevant notes 21 - 35 (resulting codes)</i>
N. 21	Missing information often leads to confusion and searching within the organisation. This also includes information to be delivered by management. <i>Code(s): information flow and exchange</i>
N. 22	Missing management capabilities such as the lack of a common methodology and the thus created system have a negative influence on external partners. <i>Code(s): project management methodology / external relations</i>
N. 24	Lack of co-operation and lack of teamwork between people. Project managers have virtually no power. Reasons for behaviour of the people could possibly be drawn from the history of the organisation. <i>Code(s): team building - team learning / responsibilities of project managers</i>
N. 25	Problem solving attitude dominates in the management board i.e. problem structuring is not well known. Management is the force (O'-owner(s)) that can stop the process. <i>Code(s): board as legal decision taker</i>
N. 26	The involvement of the management board in every decision, even after an overall approval, and their subsequent influence on the performance of the project is described as being problematic <i>Code(s): decision taking / board as legal decision taker</i>
N. 28	In a discussion with a future interviewee it became clear that the problematic situation is best described by means of a rich picture <i>Code(s):</i>
N. 30	A discourse on the basis of the rich picture (structural complexity) unveiled many different issues linked to the situation ranging from a lack of vision and clear perspective for the future to political/personal battles between management and other people or institutions <i>Code(s): lack of vision / behaviour of the chairman</i>
N. 33	Discussion with the accountant brought about issues linked to their power relations with others and the complicated position of management with regard to trivial things it has to manage. Furthermore, it was fully agreed that the different departments are intertwined <i>Code(s): power relations</i>
N. 34	The chairman describes his publicly led battle with an institutional leader <i>Code(s): behaviour of the chairman / external relations</i>

### 3.2.2 Rich picture building and its purposes

"A characteristic of fluent users of SSM is that they will be observed throughout the work drawing pictures and diagrams as well as taking notes and writing prose. The reason for this is that human affairs reveal a rich moving pageant of relationships, and pictures are a better means for recording relationships and connections than linear prose" (Checkland et al. 1990, p. 45). However, for understanding organisational culture, the process should be supported by a profound analysis based on theory as described by Yolles (2006). Based on first experiences within the organisation it was easy to draw a first rich picture about the researcher's current perception of the situation. This was possible since early participant-observation highlighted many different issues with regard to structure, processes and connections in the organisation. This is where a theory of the organisation

is helpful since structure or operations are for instance domains identified by Dauber *et al.* (2012). According to Checkland and Scholes (1990), rich pictures incorporate pictorial depictions of root definitions. A root definition expresses the core purpose of the purposeful activity model which describes a transformation process (see Figure 7). However, the best known use of rich pictures is the representation of the problem situation. The first rich picture such as depicted in Figure 12 constitutes in a way the big picture of the organisation which fosters understanding and serves as a basis for discussion with other organisational members.



**Figure 12:** Rich picture of the organisation: structural complexity

As far as complexity is concerned, it provides insight into the multitude of connections within the organisation incorporating internal as well as external partners. However, it must be regarded as an incomplete snapshot which is simply used to demonstrate structural complexity (Williams, 2002). The first rich picture serves as a basis for questioning the situation in the interview session and aims at stimulating and fostering dialogue on the topic so as to nurture awareness of interconnectedness and hence complexity in the organisation. According to Checkland (2000), complexity of human affairs is always a complexity of multiple interacting relationships. The complexity in the organisation is thus in a way produced by the different members and their elaborated or developed structure, processes and behaviour which leads us to different implications directly drawn from the rich picture.

## Implications out of the first rich picture

The first rich picture which constitutes the feel of the situation (Checkland and Scholes, 1990) describes many different issues with regard to relationships. However, and more importantly, the pictorial representation of the organisation demonstrates the need for a theoretical basis. To express this need, the following implications are directly related to the configuration model of organisational culture (Figure 9) as well as to the codes already derived from the first 35 notes (Table 3; Table 4).

The most obvious is the strict separation between the different departments which includes the management board (*structure*). Even in the department where teamwork is supposed to play an important role i.e. project development, the different parts are strictly separated into architecture, building site and technical engineering which causes friction, in particular with regard to the overall responsibility of the project managers (*operations, structure, strategy and responsibilities of project managers*). Early participant-observation showed that almost all decisions are taken either by the chairman or in accordance with the management board (*structure, hierarchy of authority, decision taking and board as legal decision taker*). This constitutes an overload of connections and consequently enhanced complexity for the chairman since he manages the day-to-day work of the organisation and has to report to the management board (*structure and hierarchy of authority*). This gives rise to the assumption that the situation is closely connected to the board which means to power and politics (*structure and power relations*). Furthermore, the rich picture depicts the speciality of the organisation with regard to the management of its construction projects. For each project, an external team composed of architect and engineers is charged with the planning and the realisation (*project portfolio management and operations and project management methodology*). The overall control and monitoring is performed by project managers within the organisation which demands for certain management capabilities (*responsibilities of project managers*). Nevertheless, participant-observation demonstrates, for instance, a lack of financial management, lack of co-operation and problems in communication (*project management methodology, team building–team learning and organisational culture*). On the one hand, the implications described demonstrate the commonalties of a project-based organisation with every other organisation i.e. being based on issues such as structure, operations or hierarchy. On the other hand, first reflection on participant observation shows that the external environment and in particular the legitimisation environment was not really an issue although the rich picture incorporates the government as well as ministries. The same applies for task environment and the organisations overall objective to deliver affordable housing to the people in need.



### 3.3 Developments in the interview session - second phase

According to Yin (2003), one of the most important sources for data collection in a case study is the interview. However, interviews will appear more as guided conversations than structured or rigid queries (Doing, 2009). Nevertheless, they should always be considered as verbal reports since they are subject to problems of bias, poor recall or articulation, thus requiring the combination of interview data with other sources of information. This coincides with Van der Waal (2009) who argues that ethnographic fieldwork uses participant observation, conversational interviewing and the analysis of documents so as to explore organisational settings. Van der Waal (2009) argues that semi-structured interviews should be preferred and that they are often conducted during participant observation in organisational ethnography<sup>24</sup>. The semi-structured interviews undertaken incorporated three main parts: The first part contained general questions about perception, the second part was a discussion about the first rich picture and the third part was based on specific questions which were drawn from the analysis of participant-observation (see Appendix E: Interview protocol). Eighteen interviewees were invited for an interview and eighteen interviews were conducted. Two more interviews were conducted in 2011 and 2012 respectively. Their analysis provided information on the further development of the organisation after the main data collection.

#### 3.3.1 Sampling strategy or purposeful selection

According to Maxwell (2005), the decision about whom to include in the research is an essential part of the study and is named purposeful selection. He sees at least four possible goals for this purposeful selection whereas the first one is concerned with the achievement of representativeness or typicality of the settings, individuals and activities. Miles and Huberman (1994) argue that sampling is crucial for later analysis. For them, one key feature is that qualitative researchers usually work with small samples of people. According to Rudestam and Newton (2007) the experts of the phenomena are the participants and hence not just people randomly selected. According to Ybema *et al.* (2009), most interpretative ethnographers regard the research participants as being co-generators of knowledge which is situational, co-constructed by means of interaction and reflective in nature. The sampling or purposeful selection for this study is closely connected with the employees' meeting (Figure 2) that takes place on a weekly basis.

The employees' meeting is composed of different kinds of managers of all departments which constitutes in a way middle management since it connects the departments with

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<sup>24</sup> The interview session in this single case study is of crucial importance since it discloses people's perceptions about the situation which is vital in order to understand what is going on.

top management. There were two different groups thus representing the employees' level i.e. middle management and the senior management level i.e. the chairman and the select board. The employees' level is comprised of all members of the employees' meeting i.e. 14 participants (the fifteenth being the researcher). The investigation into the organisational culture is not really possible without the participation of senior management (Huse, 2007). Since senior management has a different point of view i.e. how things should run, they will firstly be regarded as a separate group. Nevertheless, the overall objective is to bring together the employees as well as the corporate level (Dinsmore and Cooke-Davies, 2006). The target group for an interview is therefore the select board as well as the chairman which makes 4 anticipated interviewees. Including the two interviews that were conducted in 2011 and 2012 respectively, the interview session altogether incorporates 20 interviews. Table 5 provides an overview regarding gender, age and years of service of the interviewees.

**Table 5:** Gender, age and years of service: n = 20 interview partners

	<i>(N = 20 interview partners)</i>					
	<b>Gender:</b>		<b>Age:</b>		<b>Years of service:</b>	
<b>Male</b>	N	%	Minimum	Maximum	Minimum	Maximum
Employees group	7	35.00	35	60	0.5	20
Management group	4	20.00	55	68	20	27
<b>Female</b>	N	%	Minimum	Maximum	Minimum	Maximum
Employees group	9	45.00	27	57	2	29
Management group	0	0.00	0	0	0	0

Interestingly, 45% of the interview partners were female and 55% were male. If we disregard the management group, the amount of female partners rises to 56.25%. All project managers apart from the researcher are female and one of them has been working for the organisation for 29 years. The management group, exclusively male, has an average age of around 60 years. Apart from the fact that the employees' meeting is a good source for justifying sampling, it does, at the same time, already give some insight into the organisational structure as well as some hints about possible reasons for the situation. There are three main points which concern the hierarchy, the increase in personnel and the senior management level.

### **Hierarchical peculiarities and increase in personnel**

With regard to hierarchy, the employees' meeting with 15 participants reveals some of the peculiarities of the organisation. All the different services such as property management or accountancy, apart from reception, take part in the meeting. However, the hierarchical structure as such is an interesting mix of different approaches in the three departments. The chairman of the board is the boss of all employees and at the

same time departmental leader of project development. The 8 participants constitute half of the meeting (Table 6). The customer service department has no departmental leader and only one head of service in rental/sales. The social service is represented by one of the social assistants (2 participants). There is a departmental leader in general administration who also acts as secretary general i.e. as deputy of the chairman in case of his absence. He currently has 2 heads of service under his supervision (3 participants). The listing before highlights the successive process for delivering affordable housing i.e. development, rental-sales and maintenance. It is interesting to note that the proportion of people from project development accounts for half of the people in the employees' meeting though its distribution in 2007 is only 20 %. All the architects and technicians are present. The fact that the chairman of the board is in charge of project development might indicate its importance in the organisational structure. Although special in its shape and design, the organisational concept corresponds with the overall understanding of a typical corporation that is separated into different parts or departments which are interrelated thus forming a whole (Yolles, 2006).

**Table 6:** Employees' meeting and distribution of personnel in 1997 and 2007

	Employees meeting 2007		Distribution in 1997		Distribution in 2007	
	N = 15	%	N = 14	%	N = 40	%
<b>Project development</b>	<b>8</b>	<b>53.34</b>	<b>4</b>	<b>28.57</b>	<b>8</b>	<b>20.00</b>
Building site	3		2	14.29	3	7.50
Conception (PMs)	4		2	14.29	4	10.00
Technical engineer	1				1	2.50
Secretariat + audit	<b>2</b>	<b>13.34</b>	<b>1</b>	<b>7.14</b>	<b>3</b>	<b>7.50</b>
<b>Customer service</b>	<b>2</b>	<b>13.34</b>	<b>4</b>	<b>28.57</b>	<b>6</b>	<b>15.00</b>
Reception			1	7.14	1	2.50
Social service	1		1	7.14	3	7.50
Rental / sales	1		2	14.29	2	5.00
<b>General administration</b>	<b>3</b>	<b>20.00</b>	<b>5</b>	<b>35.71</b>	<b>21</b>	<b>52.50</b>
Property management	1		2	14.29	12	30.00
Accountancy	2		3	21.43	9	22.50
IT + archivist					<b>2</b>	<b>5.00</b>
<b>Total</b>	<b>15</b>	<b>100.00</b>	<b>14</b>	<b>100.00</b>	<b>40</b>	<b>100.00</b>

The different hierarchical approaches in the three departments are probably grounded in historical issues such as the growth of the organisation which is manifested in the augmentation of personnel between 1997 and 2007 (Table 6). In this period, the number of employees increased from 14 to 40. The point is that apparently no corresponding adaptation to this new challenge took place so as to manage these additional relationships which consequently caused increased complexity. According to Yolles (2006), we need to understand the evolutionary process of organisations if we want to establish viable communities that will have a sustainable existence. As depicted in Table 6, the general administration department grew from 5 to 21 employees, customer service 6, the general administration department grew from 5 to 21 employees, customer service

from 4 to 6 employees, project development from 4 to 8 employees and internal audit/secretariat from 1 to 3 employees. In 2007, there were in addition 2 employees, one for information technology and one for documentation. Interestingly, there seems to be an imbalance in terms of departmental growth with a significant evolution in general administration. Why did general administration grow faster than all the others? Are there additional tasks or difficult procedures which would justify that? The 21 employees in general administration can be separated into accountancy and property management. Accountancy grew from 3 to 9 employees and is expected to grow further. Property management grew from 2 to 12 employees. Customer service can be separated into reception, social service and rental-sales. Reception with 1 employee as well as rental-sales with 2 employees did not grow. The social service grew from 1 to 3 employees. Project development can be separated into projects managers (architects), technicians and a technical engineer. The number of project managers grew from 2 to 4 employees and the number of technicians from 2 to 3 employees. The technical engineer did not exist in 1997. Customer service hardly evolved at all apart from the social service. Rental and sales did not take on any further personnel although no activities were given to the outside. Project development also evolved moderately compared to general administration. The services which experienced major growth are property management and accountancy. In accountancy it is planned to take on another two employees. "A formal measure of bureaucratic intensification of the UK Civil Service is the growth in the number of accountants employed there" (McSweeney, 2006, p. 27).

### **The senior management level**

Possible implications of the organisational situation can also be drawn from the structure of the senior management level. Although the select board is mentioned as part of top management, the sole actor in the day-to-day work is the chairman of the board. He constitutes the connection between the employees' level and the management level whereas the management board is just a forum for taking decisions which are elaborated, prepared and presented by the chairman himself or the person in charge such as a project manager. Participant observation showed vital problems with regard to decisions especially in terms of running projects and the overload of connections and consequently enhanced complexity for the organisational leader as described in the part rich picture building. Another point is the rare presence of the chairman due to his second duty with the ministry of housing which has never changed. The question is: If all these responsibilities and the ever-growing complexity within the organisation i.e. taking on more and more people, are still manageable under the same conditions? What change is needed so as to respond to the challenges which lie ahead? Are there too many management levels? With regard to the management board and their attitudes, the

separation into three parts i.e. the tripartite, plays an important role. Participant-observation showed that the three parties are very different in their thinking.

### **3.3.2 Transcribing interview data**

All interviews have been recorded as well as transcribed by means of word processing software and most importantly by the researcher himself (see Appendix F – Example of a transcript). Partington (2002) argues that transcribing is the not so pleasant part which is backed up by Rudestam and Newton (2007) who assert that transcribing data is the most time-consuming task with regard to qualitative data analysis. “The joint process of transcription, coding and analysis offers an extraordinary opportunity to become sensitized to the full richness of your data. The very slowness of the process somehow contributes to the theoretical depth which it is possible to achieve. If you get someone else to transcribe your interviews you will lose this opportunity” (Partington, 2002, p. 144). The transcripts were handed over to the interviewees for checking, clarification and rectifications.

### **3.3.3 Building purposeful activity models**

The second main activity of the logic-based stream of analysis (Figure 8) concerns the building of purposeful activity models. “It is clear that the logic-driven stream and the cultural stream will interact, each informing the other. Which selected ‘relevant’ human activity systems are actually found to be relevant to people in the problem situation will tell us something about the culture we are immersed in” (Checkland and Scholes, 1990, p. 30). Two choices of relevant systems can be made according to Checkland and Scholes (1990). Firstly, there are the systems that coincide with the real-world manifestations, also referred to as ‘primary task systems’. These systems have subsystems which also can be chosen if considered relevant. This choice is basically made in hard systems thinking. Secondly, there are systems for which we would not directly assume to find institutionalized versions in the real world. They are referred to as ‘issue-based relevant systems’. An example out of the analysis of participant observation would be “a system to resolve internal team building problems” or “a system to define decision taking processes”. Information flow from and to the management committee could also be a relevant system. “At the extremes, primary task systems map on to institutionalized arrangements; issue-based systems, on the other hand, are relevant to mental processes which are not embodied in formalized real-world arrangements” (Checkland and Scholes, 1990, p. 32). The idea is to create first a model which depicts the fundamental activities of the organisation i.e. its task of delivering affordable housing for people in need.

### 3.3.4 The primary task systems of the organisation

The thinking, as described in Table 7, prior to the model about the transformation process T, the root definition and CATWOE will ensure clarity of thought about this purposeful activity regarded relevant for our particular problem situation (Checkland, 2000). The choice for this particular relevant system as ‘primary task systems’ seems justified since the interviewees perceive the organisation as being an entity with the social task of delivering affordable housing.

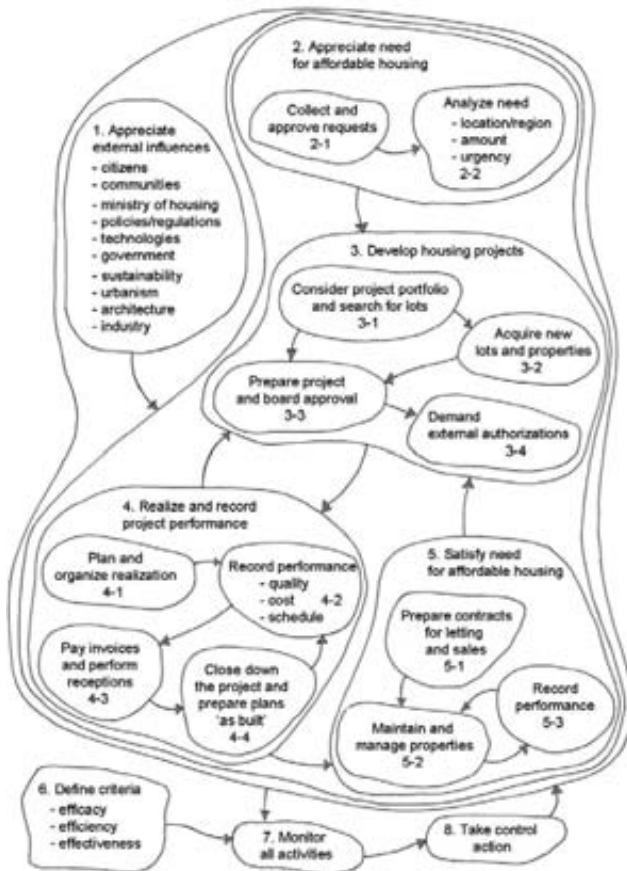
**Table 7:** Primary task systems of the organisation (T-process)

<i>Item</i>	<i>Transformation process: primary task systems of the organisation</i>
Input:	Expressed and registered need for affordable housing especially for people on a low income/families
Output:	Satisfied need by delivering sufficient affordable housing especially for people on a low income and young families
Root definition:	An organisation owned and staffed system, operating under a multitude of external influences, to develop and realise public housing projects, by working collaboratively, in keeping enhanced architectural quality to a reasonable price, in order to satisfy the need of affordable housing for people on a low income and young families in the country.
C = customers	People on a low income, young families, communities, government <i>Definition: The victims or beneficiaries of T = Transformation</i>
A = actors	Management and staff of the organisation, government <i>Definition: Those who would do T = Transformation</i>
T = transformation process	Need for affordable housing - Need met <i>Definition: The conversion of input to output</i>
W = Weltanschauung	Public housing developments help people on a low income and young families to obtain a dwelling for reasonable price <i>Definition: The worldview making T meaningful in the context</i>
O = Owner(s)	Management board, government <i>Definition: Those who could stop T = Transformation</i>
E = environmental constraints	Regulations, technologies, society, communities <i>Definition: Elements outside the system - taken as given</i>

The input-output transformation is not enough to create a rich model. The elaboration of the transformation is written in a root definition which goes back to Smyth *et al.* (1976). According to the authors, root definitions should be written by considering carefully the elements CATWOE. "Root definitions and CATWOE are the source of the purposeful holons known as ‘human activity systems’" (Checkland and Scholes, 1990, p. 36). Modelling from the root definition is all about the described transformation process, informed by the CATWOE definitions and using the minimum of necessary activities. The model language is based on verbs. Since the root definition is now rather clear, it is possible to start creating the subsequent model. The model will serve as a means for identifying relevant subsystems as well as issue based relevant systems. The main activity in the model will be the development and realisation of housing projects and their subsequent delivery to the people in need of affordable housing.

## The primary task model

A model should incorporate no more than  $7 \pm 2$  activities (Checkland and Scholes, 1990). Each of those activities can be regarded as a subsystem which can itself become the source for a root definition. The primary task systems of the organisation is depicted in Figure 13. Interestingly, the logical way of the model describes the flow of work which incorporates all different departments thus depicting their interdependency, with an emphasis, however, on project development and realisation.



**Figure 13:** Primary task systems to satisfy the need for affordable housing

The connections give rise to the need for the management of the system rather than the management based on functional hierarchy which incorporates the use of corresponding measurements. With regard to systems thinking in the public sector, Seddon (2008) argues that it is better to measure and manage the flow of work through the system than the work in functional activities. This leads to the monitoring and control subsystem of

the primary task systems of the organisation. The monitoring of all activities and subsequent control actions are very important in the use of SSM.

### **Monitoring and control subsystem**

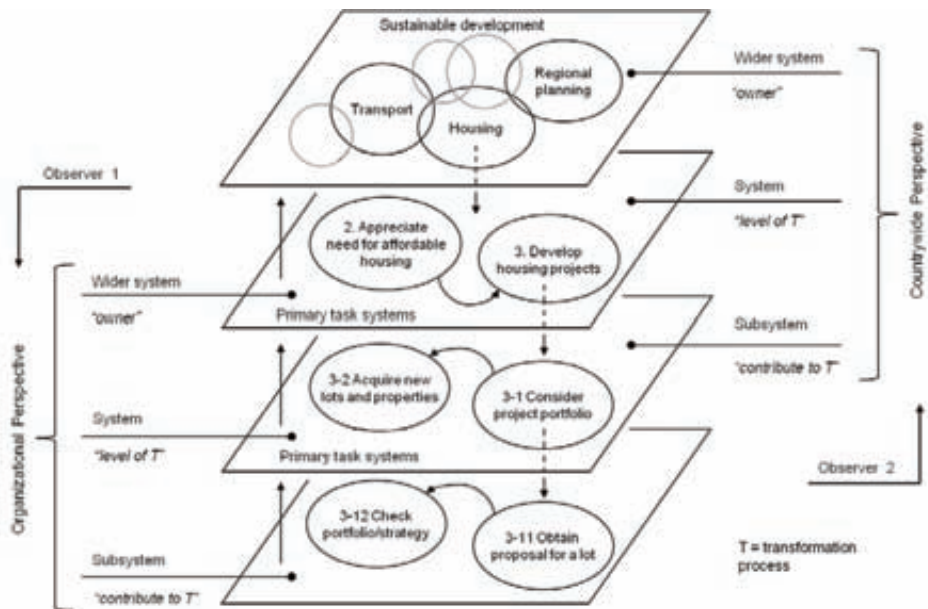
The monitoring and control subsystem is composed of three criteria, the '3 Es', which can be used to judge the conversion of input to output as successful or unsuccessful: ( $E_1$ ) Efficacy: Does the means work?, ( $E_2$ ) Efficiency: Amount of output divided by amount of resources used (or value created) and ( $E_3$ ) Effectiveness: Is T meeting the longer term aim? In general the model builder should decide what the criteria would be for the '3 Es' of the system modelled since this enriches the later comparison between the model and the perceived real world (Checkland and Scholes, 1990). The '3 Es' in the primary task systems of the organisation could be: ( $E_1$ ): The means is collaborative work, ( $E_2$ ): Housing units built divided by the amount of resources used and ( $E_3$ ): Is the need for affordable housing sufficiently satisfied. The effectiveness ( $E_3$ ) i.e. the satisfaction of the need for affordable housing, is the strategic monitoring and control item. "It is clear, however, that effectiveness is at a different level from efficacy and efficiency, and it is often useful to indicate this in the final model (Checkland and Scholes, 1990, p. 39). Since the organisation was set up and organised by government, the objectives of government with regard to necessary affordable housing can serve as a criterion. Nevertheless, to decide on a criterion e.g. the units needed or the added value produced, is not easy since the wider system of the primary task systems does not provide an overall and coordinated plan with regard to the development within the country. The efficiency ( $E_2$ ) of the organisation is depicted in Figure 1 which served as a stimulus for the intervention.

### **3.3.5 System, subsystem and wider system**

In order to avoid narrow thinking and keep in mind the big picture, Checkland (2000) recommends thinking of a system as being composed of three different levels. This thinking in levels or layers is absolutely fundamental to systems thinking. First, there is the system itself which is the level of T (transformation process) e.g. the need for affordable housing for people in need as described before. Each activity in the system as depicted in Figure 13 can be used for another root definition and consequently another purposeful activity model. These activities contribute to T and thus constitute the subsystems. The wider system is above the system and is the level of the owner i.e. those who can stop the process (see Table 7). This is an important issue since the owner of the primary task systems is not just management but rather government since seven of the twelve members of the management board, which incorporates the chairman of the board, belong to the state. This widens the perspective on affordable housing from the



mere organisational view to a countrywide or national perspective. The different levels<sup>25</sup>, which depend on the observer's judgement (Checkland, 2000) as well as the different perspectives, are depicted in Figure 14. The wider system in the countrywide perspective i.e. the governmental level, is not simply concerned with housing since this sector is intertwined with other sectors such as regional planning or public transport which thus have to be brought together or at least to be coordinated. The different levels indicate the interrelation between the internal as well as the external environment as described by Dauber *et al.* (2012). The authors argue that every organisation "is an open system that needs to stand in a dynamic equilibrium with the environment" (p. 11).



**Figure 14:** The three different levels of the primary task systems (holarchy)

The delivery of affordable housing for the people in need, as realised by the organisation, depends in a way on the overall political objectives with regard to future developments in the country and thus necessitates coordination in order to know what kind of projects, either housing or otherwise, and where to develop. Interestingly, the reflection as well as the regional planning with regard to future habitats, which offer a better quality of life at a reasonable price, is part of the programme of the new government formed in July 2009, and is specifically mentioned in the section on the housing ministry. This approach from government has widespread implications on the project portfolio of the organisation i.e.

<sup>25</sup> This thinking in layers or levels could eventually be enlarged to a global perspective, thus working on purposeful models on the problems of environmental degradation or social injustice.

its strategy, ranging, with regard to construction projects, from the renovation of a building to urban or regional developments. This requires, on the other hand, many management capabilities which have to be further developed or acquired. Furthermore, such a plan could serve as a main criterion for the acquisition of new lots and properties as well as for prioritizing projects. Nevertheless, the inquiry reveals that the systems level in the countrywide perspective and the wider systems level i.e. the governmental level, are not really sufficiently in line to mutually inform each other. The problem that the chairman is rarely available in the organisation was already mentioned before (code: availability of the chairman – see Table 3). It was explained that this is due to his second duty with the ministry. An interviewee describes the conflict between the two levels and the behaviour of the coordinator i.e. the chairman.

*“The head of our management is the same as the one in the ministry, so things are not really well managed. There is no communication between the ministry and the organisation, consequently the relations are chaotic. Our management has to take decisions for both and regarding the organisation, nobody is informed about decisions which concern us. Information is crucial. The people in the ministry say, ‘Well, it is your boss who has to inform you about a decision’ but that does not work. What can you do about that?” (P. 97).*

Apart from the coordination between the two levels, the analysis of participant-observation indicates that the organisation has difficulties with regard to the project portfolio management as well as its vision and strategy. The approach starting from the wider system could result in more clarity and the big picture or vision for all people concerned which will eventually lead to a corresponding strategy for the organisation. Although the difficulties of the public entity are mainly an organisational issue, it calls for understanding and clarification about the wider system<sup>26</sup>. This incorporates its close connection to society, possible questions as to its legitimisation and the cultural pressure this might generate (Dauber *et al.*, 2012; Sagiv and Schwartz, 2007). According to Checkland and Scholes (1990), the wider system can also be a subject for further investigation and modelling<sup>27</sup>. Given the necessary time for modifications in the wider system and their constant adaptation, the development of the public organisation should be regarded as a continuous learning process. This makes sense since effectiveness ( $E_3$ ) of the primary task systems is a strategic issue that monitors the longer term aim of the transformation thus demanding for permanent adaptations in the organisation. This strategic view is not just necessary with regard to the wider system. The primary task model already depicts a major part of strategic facility management.

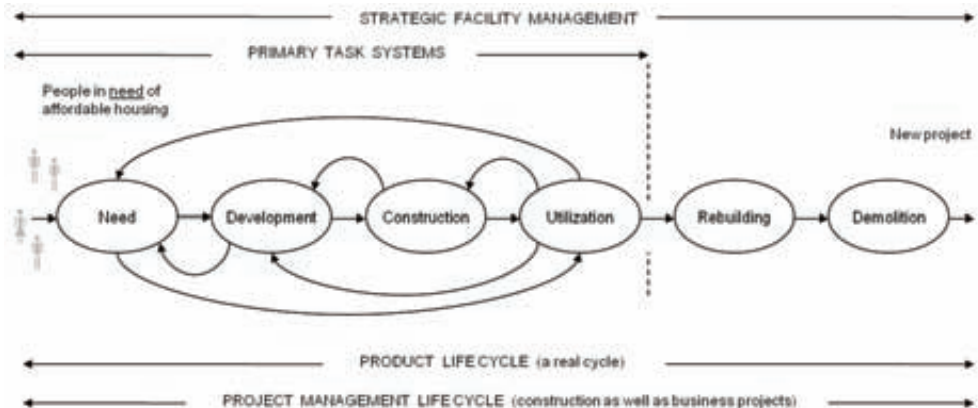
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<sup>26</sup> Tainter (1988) argues that a society increasing in complexity (e.g. due to population growth) adjusts by means of a system where interlinked parts react according to their interdependencies. The development of the housing system as a subsystem of society can thus provide insight into its socio-cultural evolution.

<sup>27</sup> With regard to management studies on sustainability, Whiteman (2011) argues that their focus is primarily on individual organisations and not so much on the system such as the missing “linkages between firm behaviour and ecosystem functioning” (p. 29).

### 3.3.6 The product life cycle or strategic facility management

The transformation process of the primary task systems, which according to Checkland and Scholes (1990) coincides with the real world manifestations, can be regarded as a typical project life cycle. Dawson (2000) describes the modern approach or view of the project life cycle as a process. This process can be divided into a project management life cycle and a product life cycle whereas the former is concerned with project planning and execution and the latter with the physical transformation of the inputs into the desired outputs as depicted in Figure 15. The product life cycle of the organisation thus spans much further than the traditional view of project management where the project is assumed to start with the authorisation and to end with the turnover to the people concerned with the utilisation of the housing properties (Crawford et al., 2006; Dinsmore and Cooke-Davies, 2006).



**Figure 15:** The life cycle perspective - strategic facility management

According to the primary task model, the initial start of the transformation process is the appreciation of the need for affordable housing which includes the customer service department in the process. Furthermore, the product life cycle does not for instance end with a newly constructed apartment block since the units are rented to the people in need. The tenants as well as the buildings thus have to be managed and maintained which includes the general administration department in the process too. This more holistic view of the product life cycle contradicts the functional or departmental design of the organisation. Although participant-observation was mainly performed in the project development department, the first step in the inquiry already revealed a lack of cooperation between the different departments.

*“One of the project managers complains about the lack of co-operation between the people in the organisation. There is no teamwork. Everyone is concerned with his or her own stuff and refusing to do anything different than that. Even if it concerns their area they try to avoid getting an additional burden. This is also true for other departments and secretarial tasks” (P. 24).*

The necessity of a more holistic view of the product life cycle gets even clearer if we look closer at facility management<sup>28</sup>. Such a view goes even beyond the primary task systems i.e. it considers the reuse of the old lots for future developments. This strategic facility management approach demonstrates thus the need for an organisation-wide project management perspective since it concerns all the different parts of the organisation. This broadened scope is particularly needed since the organisation is working in a multi project environment and in possession of currently 1,701 rented units (business report 2010). This demands for an improved project portfolio management which is identified a problem theme in the analysis of participant-observation. With regard to complexity, Crawford *et al.* (2006) argue that even classical project types become more complex if the focus includes its genesis, development, execution, maintenance as well as disposal. The discussion about the project life cycle is contrasted by processes of politics and power identified in the analysis of participant-observation. Cicmil and Hodgson (2006) “emphasise the need to understand organisational processes of power, politics, structure and their interplay with the nature of interaction among individuals and interest groups involved in developing and implementation of a project” (p. 116). They declare that the rational project life cycle model, which neatly unfolds as a succession of stages, is contrasted by a political-development cycle of projects which brings about confusion and disillusionment.

### **3.4 Documents provide background information – second phase**

Documents are likely to be relevant to each case study, argues Yin (2003) whereas the most important use of documents in case studies is to confirm and augment evidence from other sources such as participant-observation and interviews. It is necessary to bear in mind that each document was written for a specific purpose and a particular audience which does not necessarily correspond to the purpose of the case study underway. In general, documents include, for example, letters, agendas, written reports, administrative documents or newspaper clippings (Yin, 2003; Van der Waal, 2009). According to Glesne and Peshkin (1992), documents provide a historical as well as a contextual dimension to observations and interviews. The collection of documents started early on in the study, at first with the intention of better understanding the organisation with regard to processes and procedures. Later on, documents were collected in order to back-up the issues

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<sup>28</sup> We have to differentiate between property management that is currently performed by general administration and covers all activities during the utilisation of the property and facility management which incorporates the whole product life cycle beginning with the need for affordable housing and ending with the demolition of the building.

detected from other sources. The documents mostly used were annual reports including balance sheets, notes from the chairman, newspaper articles about the organisation and the housing domain and newspaper articles from the chairman. The discussion about documents leads in a way back to the three principles of data collection which are, according to Yin (2003), used for maximising the benefits of the sources of evidence. The second principle deals with the creation of a case study database.

### 3.4.1 Case study database

The case study database (Table 8) deals with the management and documentation of collected data as proposed by Yin (2003). This allows other investigators to inspect the raw data i.e. to review the evidence which led to the conclusions, thus increasing reliability of the entire case study. Miles and Huberman (1994) argue that data management is as important as for quantitative researchers and that it is integrally related to data analysis. As described earlier, relevant discourses and reflections in the early as well as official finding out are documented in 35 notes which were used for the analysis of this first phase.

**Table 8:** Components of the case study database

	Notes taken		Interviews	Group work	Documents				
	<i>N</i> = 90	%	<i>N</i> = 22	<i>N</i> = 9	Organisational documents	Organisational notes	Newspaper articles		
<b>First phase</b>	<b>35</b>	<b>38.89</b>							
Early finding out	20	22.22			30 business reports + 5 further documents	20 organisational notes from the chairman*	15 newspaper articles*		
official finding out	15	16.67							
<b>Second phase</b>	<b>26</b>	<b>28.89</b>	<b>18</b>						
Interviews	20	22.22	18						
Documents	6	6.67							
<b>Third phase</b>	<b>16</b>	<b>17.78</b>	<b>2</b>	<b>5</b>					
Group work	11	12.22		5					
PM meetings	5	5.56							
Interviews			2						
<b>Fourth phase</b>	<b>13</b>	<b>14.44</b>	<b>2</b>	<b>4</b>					
Workshops	13	14.44		4	* note was written about relevant text passages for data analysis				
Interviews			2						
<b>Total</b>	<b>90</b>	<b>100.00</b>	<b>22</b>	<b>9</b>	<b>35</b>	<b>20</b>	<b>15</b>		

The researcher is convinced that note taking is very helpful in preventing the loss of ideas and as a means to structure one's own thinking which coincides with Maxwell (2005). The entire research process thus brought about 90 notes in total which were typed with a word processing programme, stored as computer files (see Appendix A) and analysed by means of Atlas.ti. According to Yin (2003), relevant documents are collected during the course of the study. Documents have been collected about the housing domain such as

the National Analytical Study on Housing or a prognosis on the future need for housing in the country 2001-2021. These documents provide useful information on the practical importance of the research, but the most useful ones for the actual study are more concerned with organisational issues. The organisational documents collected during the study consisted of annual business reports including balance sheets, organisational notes from the chairman and newspaper articles about the organisation as well as articles from the chairman.

### **3.4.2 Annual reports and balance sheets**

The annual reports revealed a significant change in the last decade especially with regard to personnel (Figure 1). Interestingly, the current management has been in power since 1990 i.e. they have accompanied the evolution of the organisation in the last two decades. The increase in personnel shows a rather rapid augmentation of personnel starting at the time of the transition to the 21st century. This corresponds to the statements made by different interviewees which highlight this phenomenon as the beginning of a cultural change. Even the chairman stated that he had observed a change in behaviour of the people.

*"There is one thing we should not forget. When I started, there were 8 of us and everyone knew what to do. .... But all of a sudden the organisation started growing and suddenly people withdrew into their own corners concentrating on matters they liked and pushed aside things they didn't like" (P. 109).*

A thriving company is certainly nothing negative but personnel development should correspond with the productivity of the organisation. The model of organisation life cycles from Mintzberg (1984) assumes that organisations transit from one configuration to the next if necessary (see Figure 10). The simple structure of the organisation and the overall decision taking power of the chairman suggest autocracy as being the current configuration of power. The statement from the chairman above demonstrates that no efforts were made to develop towards an innovative entity based on project work i.e. towards meritocracy. Missing or passive external control prepares the way towards a closed system, which, according to Mintzberg (1984), opens up opportunities for administrators acting as a group. The lack of further development regarding project work can also be detected if we take a closer look at the years 1995 and 2002. The highest amount of units produced was not managed internally but by external project management companies which aggravate the relation between personnel growth and the units produced (Figure 1). With regard to the monitoring and control subsystem of the primary task systems, this was taken as a measurement for the efficiency ( $E_2$ ) of the organisation. In these cases only one person was working on the project internally. Other projects are organised in the same manner. The interview session showed a lack of

management capabilities which contradicts in a way the handing over of these mostly bigger projects. Interestingly, most people were surprised about the figures which are simply taken out of the business reports. The apparent lack of knowledge about these developments demonstrates that no monitoring and control system exists with regard to the projects. The overall indicator of performance used by management is the turnover of the organisation which incorporates sales, rental as well as other administrative products. The figures for sales represent the marketing of finished apartments and houses which reflects the considerable contribution made by the project development department to turnover. It is thus even more surprising that the production unit of the organisation is not given more importance.

### **3.4.3 Organisational notes and their special tasks**

How internal information is exchanged especially with regard to organisational issues cannot be taken from the business reports. A particular means used by management for delivering this kind of information is notes which are copied and handed out to all employees or only to the people concerned. For the purpose of understanding the problem situation which incorporates communicative behaviour, 20 relevant notes about organisational issues were collected between 2007 and 2009. Their contents have been compared with the results from participant-observation and the interview session. Interestingly, the expression of the chairman's will by means of notes is well understood by different employees since they use this procedure for pushing their ideas or for indicating what other people have to do.

*"Sometimes discussions are very difficult and people resist until the chairman prepares a note clearly stating his wishes (the wishes of the board) indicating that he is counting on the collaboration of all those concerned. All of a sudden, the problem is solved" (P. 96).*

The most interesting notes are described in the following paragraphs. The most striking one is a note that confirms that management is aware of necessary changes with regard to the project managers but is resistant to implement them.

#### **Description of profiles and missions in project development**

With regard to organisational structure, a quite significant but undated note describes the profiles and missions of the different people in the project development department. It starts with the project manager who possesses a graduate degree in architecture as well as professional experience. The project manager is responsible for the management of construction projects which includes supervision, coordination, negotiation, team building and the promotion of new architectural concepts. All others in the department such as engineers and technicians have as their main mission the assistance of the project

manager, thus recognising him/her as a powerful person. Such declared support from management regarding technical expertise and skills would open the door towards what Mintzberg (1984) calls meritocracy. It demonstrates awareness of management that the internal/external project group has to have an overall leader with the big picture in mind. So much for the theory, the reality is completely different. Although this empowerment of the project manager constitutes a necessary step in the organisation, this note has never been given to anyone other than the architects i.e. the project managers. The interview session revealed that this is mostly due to one organisational member who has a good relationship with the chairman of the board.

*"When the person (Nikos) heard what was agreed in the meeting between the chairman and the architects, he declared he would instantly leave the organisation if such measures were taken. Since then we work in a rather higgledy-piggledy manner thus continuing with the same old procedures"* (P. 95).

This important human issue will be further elaborated in the socio-political analysis. With regard to project management, the description of the profile of the project leader demonstrates that emphasis is given to architecture whereas the description of the mission which constitutes the main part is based on typical tasks from the management sector such as coordination, financial management, schedule management, negotiation or team building. This is further accentuated by the fact that for each project an external architect is charged with the design of the buildings. The tasks of the project leader are thus mostly managerial which is, however, not yet well understood either by management or by the employees. The predominance of management issues demands for further elaboration of corresponding individual as well as organisational capabilities.

### **Communication and exchange of information**

The communication and the exchange of information were identified as a problem theme in the interview session with close links to relationships. Simply by means of organisational notes, people are informed for instance about changes such as additional work for the service rental/sales. There seems to be no possibility for people to discuss such important interdepartmental issues without the intervention of management which is explained as follows by an interviewee concerned.

*"Communication is the worst and consequently there is bad teamwork between the departments. It's one person against the other"* (P. 99).

Interestingly, the allocation of additional work to rental/sales, for instance, such as the elaboration of contracts for private/commercial tenants or the re-housing of tenants has not resulted in more personnel for them (see Table 6). The following statement from the service leader confirms that no discourse on this rather important issue took place.



*"We in the rental/sales service have to manage more and more apartments and we constantly get more work such as re-housing i.e. I have to check if tenants, we have 1500, are in the right apartment. .... This is an additional workload I have received but, nevertheless, there are still only 2 people in our service" (P. 99).*

As with the description of profiles and missions explained before, this imposed modification in rental/sales also has a socio-political dimension which is due to powerful people in the organisation who judge and treat others with the help of the chairman. This also depicts in a way the close connection between communication/information and the quality of the relationships between people. Stacey (2001) speaks of an 'in' or powerful group and an 'out' or powerless group, a constellation that can shift based on any organisational change. There is thus anxiety and resistance especially from the powerful since such a shift can alter power relations and insider/outsider dynamics.

### **First structural changes**

In the organisational note from 1 December 2008 the management announced structural changes but unfortunately without looking at processes and attitudes. The intention of the note is to describe new competencies as well as old responsibilities mostly based on new people arriving and the transfer of people to other departments. This incorporates a new departmental leader for customer service as well as a head of service for property management. Furthermore, it is announced that the employees' meeting as described at the beginning will be separated into two different meetings. The first meeting is composed of the chairman, the secretary as well as the departmental leaders from general administration and rental/sales. The second meeting afterwards is composed of the chairman, the secretary, the project managers, the technical engineer, head of property management as well as the coordinator for the technicians. The peculiarity in the first i.e. the departmental meeting is that the head of accountancy also participates which, according to management, is based on a coalition.

*"Firstly, there will be a meeting with the departmental leaders incorporating the representative of general administration, the new person for customer service and the secretary of the board and not to forget the head of accountancy [Lawrence] since this person and the departmental leader of general administration [Assaf] are to be seen as one person" (P. 50).*

*"And you also saw in the note from 26 November 2008 that I do not want to sit together with everyone from the different services which is not my business" (P. 109).*

A reason for changing the employees' meeting is given in the complaint of a powerful interviewee (Lawrence) who maintains a close contact with the chairman.

*"The constant talk about technical details in the staff meeting is an indication that no one is in charge in project development..... It's ok to talk about the acquisition of a new house, but the change of electrical equipment or asbestos is not really a matter for this meeting. Those things could be solved*

*or prepared by means of a working group in the project development department and then just decided on in the staff meeting” (P. 96).*

This begs the question so as to why project development has no particular leader apart from the chairman of the board. This would certainly simplify matters. Nevertheless, the above statements once again call for a further investigation into the socio-political system of the organisation in order to identify the most influential persons i.e. the people who give advice to the chairman and their relationships to others.

### **3.4.4 Newspaper articles reveal preference for architecture**

The fourth source in the case study database (Table 8) concerns newspaper articles. The 15 articles collected can be divided into articles about the organisation and articles written by the chairman (see Appendix C). The articles about the organisation are mostly concerned with general information about units produced, people on the waiting list for a dwelling and discussions about the housing pact between the communities and the state. With regard to the articles from the chairman, they constitute predominantly a critique of the urban as well as regional development in the country and in particular the capital. One of these articles is of particular interest since it concerns staff members of the organisation. The following excerpt of an article was published in October 2008 in the national newspaper.

*“After having decided on an architect, a sovereign building client should not intervene into architectural issues. .... Although such interventions are rarely an advantage for the project they are commonplace with institutional building clients that have architects as civil servants on their own.” Although the architects in the organisation are not civil servants, they are also targeted by the above statement. This is proved in a conversation with management prior to the interviews. “Management will no longer accept that internal architects criticise the architecture of our external partners and in particular not with regard to aesthetics” (P. 50).*

Since different architects in the organisation secretly complained about the article, the researcher would like to add some reflection. Architecture is certainly part of the development and management of housing estates and thus cannot be excluded. It is common knowledge that architecture is composed of four main parts namely construction, aesthetics, economy and function. These factors have to be equally appreciated and elaborated in accordance with the needs of the client. According to the primary task systems of the organisation, the main task is the delivery of affordable housing which calls for management approaches that result in good architecture at a reasonable price. Nevertheless, it is rather clear that the focus of chairman is more on architecture itself i.e. on the aesthetic result than the crucial management process that leads to it. Interestingly, the statement from a member of the management board describes a different perspective.

*"The tenants just want to live in a normal building and do not appreciate modern styles. This is just a mannerism of the architects who want to realise their own ideas and the chairman of the board who wants to show the whole country his good taste. I have said this many times already. We need [external] architects who realise our principles and what the architect [Smith] for instance is constructing for us is not social housing" (P. 108).*

The quote indicates that management is not at all in agreement with an extremely important component of the organisation i.e. its construction projects. This proves in a way the finding from the participant-observation that the members of the management board, which is composed of three different groups, think differently.

### 3.5 Group work and interviews complete data collection – third phase

The previous parts explained the three sources of evidence in the case study, namely participant-observation, interviews and documents (Yin, 2003). The interview session already incorporated purposeful activity models as well as debates about the situation which constitute the second and the third activity in the inquiring/learning cycle (Checkland, 2000). Nevertheless, in order to take action in the situation, which constitutes the fourth activity, group work and further interviews were conducted on the basis of the findings from the previous phase of data collection. With regard to group work, different people from different departments, which included not just former interviewees, were asked to participate. Five official group sessions with 11 partners were thus performed with the employees group and two interviews conducted with management (Table 9).

**Table 9:** Gender, age and years of service: N = 13 group work partners

<i>N = 13 (11 group work partners + 2 interview partners - management)</i>						
	<b>Gender:</b>		<b>Age:</b>		<b>Years of service:</b>	
<b>Male</b>	N	%	Minimum	Maximum	Minimum	Maximum
Employees group	7	53.85	35	60	0.3	20
Management group	2	15.38	55	68	25	25
<b>Female</b>	N	%	Minimum	Maximum	Minimum	Maximum
Employees group	4	30.77	27	57	0.25	10
Management group	0	0.00	0	0	0	0

Unfortunately, the participation of management was less intensive compared to the interview session. This is maybe due to the realisation that they were identified as a problem theme which triggered defensive strategies or power games as described by Mowles (2011). At-home ethnography is difficult and politically complex argues Alvesson (2009) and thus not a method for everybody. However, it offers the possibility to explore critically social relations of power (Sykes and Treleaven, 2009).

## Shifting the burden

The current findings of the intervention based on participant observation, interviews and documents can be briefly summarised as follows: Participant observation revealed deficiencies predominantly in corporate governance and the management of projects. The interview session then confirmed the findings in participant observation but revealed the fundamental problems of the situation i.e. relationships and subsequent problems with regard to communication and information (Figure 22). The socio-political system is identified as a main obstacle for learning and the acquisition of new management capabilities (Stadt, 2012). The investigation into organisational documents brought about further insight into these issues such as the increase in personnel and the units produced per year. An interesting connection to the archetype 'shifting the burden' (Senge, 1990) is made on the basis of the years 1995 and 2002 where external project management companies were taken on for the management of these projects<sup>29</sup>. Unfortunately, this approach to bigger projects is still in place but constitutes a symptomatic solution that leads not just to dependency on external advisors but constitutes a hindrance to acquiring necessary management capabilities within the organisation. The search for an easy or familiar solution to the problem can be, on the one hand, ineffective and, on the other hand, addictive and even dangerous (Senge, 1990).

*"The phenomenon of short-term improvements leading to long-term dependency is so common, it has its own name among systems thinkers – it's called "shifting the burden to the intervenor. The intervenor may be federal assistance to cities, food relief agencies, or welfare programs. All "help" a host system, only to leave the system fundamentally weaker than before and more in need of further help" (Senge, 1990, p. 61).*

This rather easy way to manage certain projects by means of external companies certainly looked good at the beginning and maybe constituted a solution to the problem. Nevertheless, the challenges we face today within the organisation reveal a lack of professional management which is also, at least partly, due to this symptomatic solution. This demand for a systems thinking approach where e.g. learning is the ethos and decision making<sup>30</sup> is integrated with work as described by Seddon (2008). The combination of different systems methodologies such as SSM, based on the culture and political system metaphor, and systems dynamics, based on the flux and transformation metaphor, in an intervention is proposed by Jackson (2006). He argues under the label of creative holism as a critical systems approach that only multi-methodology and multi-method can cope with increased complexity and change which are inherent in complex problem situations (Flood, 2001).

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<sup>29</sup> According to Lane & Jackson (1995), the flirting of system dynamics with SSM has gone relatively unnoticed.

<sup>30</sup> Corporate governance concerns not just issues such as control or structure but equally the allocation of decision rights (Huse, 2007).

### 3.5.1 Models developed in the learning cycle

The different activities of the primary task systems such as 3-1 Consider project portfolio and search for lots and their subsystems (Figure 13) demonstrate the three different levels of the organisational perspective as depicted in Figure 14 i.e. the judgement of Observer 1 (Checkland, 2000). The focus in this case is more on an organisational view and specifically on the development of housing projects. The consideration of the project portfolio is a strategic task and consequently connects project work with top management. Corporate governance and project management capabilities are thus closely interrelated<sup>31</sup>. This is also demonstrated in the model on strategic facility management (Figure 15) which describes the project from its genesis i.e. the need for affordable housing right to the demolition of the housing property. This product life cycle or management life cycle incorporates all departments of the organisation and includes many different types of projects that go beyond the mere construction of buildings. The product life cycle has much in common with the primary task systems but it does not provide the richness and stimulation of the SSM models. According to Checkland (2000), the three levels ensure that thinking is not too narrow and that it stimulates reflection about what other models could or should be built. This takes into consideration that different people have different opinions about which level to take as system, subsystem or wider system. With regard to the problem theme communication and information, the primary task systems can serve as a means for discussing the requirements concerning information flow.

#### Communication and information exchange

The interview session brought about the fundamental problems of the situation which are located in category three – relationships. This causes further problems with regard to communication and information i.e. category four (see Figure 16). The predominant socio-political problems triggered the development of the problematic situation and still hinder in a way the further evolution of the organisation. The interview session demonstrated that the quality of the relationships is mirrored in the communicative interaction as well as the information exchange between the people. According to Checkland (2000), systems models are the right choice for investigating the complexity of interdependent relationships.

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<sup>31</sup> Project management is understood as a necessary means for governing the project-oriented organisation. More importantly, however, is the consideration of all stakeholders such as employees and citizens in the governance of the public organisation since they eventually face the long-term consequences of bad management (Huse, 2007).

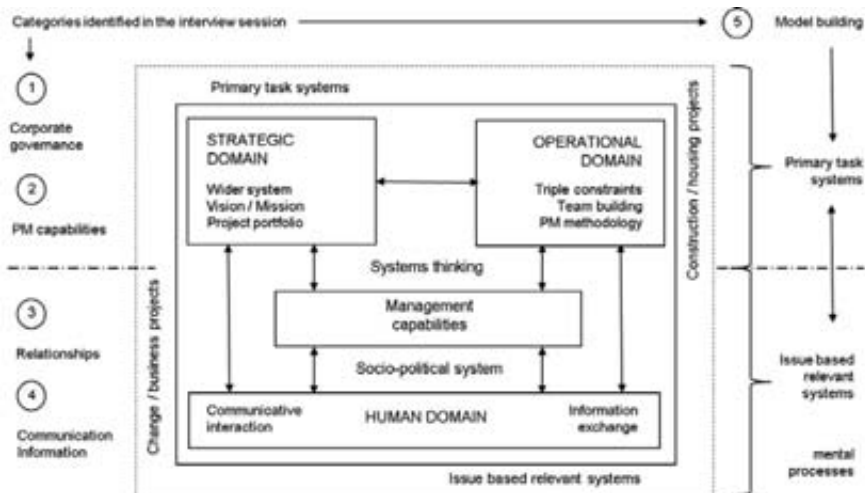
*"We use systems models because our focus is on coping with the complexity of everyday life, and that complexity is always, at least in part, a complexity of interacting and overlapping relationships. Systems ideas are intrinsically concerned with relationships, and so systems models seem a sensible choice; and since they have been found, time after time, to lead to insights, they have not been abandoned"* (Checkland, 2000, p. S29).

With regard to the primary task systems, it was found that the information exchange between the different services is not sufficient, thus leading to a repetition of the same mistakes. This is in a way fostered through the sharp separation into different departments i.e. the functional design of the organisation. Consequently, hierarchy and the belief in command and control thinking should be questioned. Similar propositions are made by Magala (2009), McSweeney (2006) as well as Seddon (2008). According to Checkland and Holwell (1998), a purposeful holon such as the primary task systems can be used for a discussion about information exchange. Each activity of the purposeful holon has a specific demand on information needed in order to perform the activity. Furthermore, there is information generated by this activity which is needed by another activity or person. This collaborative investigation appreciates the work of other departments and identifies particular users as well as their requirements on information. As we learned in the process, there is information which is vital for project success and the motivation of the whole team which calls for a particular identification of the users whose effectiveness depends crucially on information. This then leads to the questions of what information is needed, when, at what level or in which form. According to Checkland and Holwell (1998), SSM is a very useful approach in structuring action research with regard to information systems. Nevertheless, the exchange of information and the elaboration of the necessary flow can only be made by means of communication i.e. dialogue and discourse which binds communication and information closely together.

### **3.5.2 Strategic, operational and human domain**

Based on the investigation conducted so far, we can identify three different domains or areas namely the strategic, the operational and the human domain as depicted in Figure 16. Strategy and operations are two domains of the internal environment of the configuration model of organisational culture (Dauber, 2011; Dauber *et al.*, 2012; Fink *et al.*, 2013). The inquiry into the project-oriented organisation illustrates the influence between the strategic as well as the operational domain which demonstrates that these domains should not be judged independently. As far as the human domain is concerned, the results of the interview session show that the problem situation is mainly based on the current socio-political system (Figure 23) whose genesis dates back to the end of the 1990s i.e. the sudden growth with regard to personnel. This human domain can be regarded as a combination of power relations i.e. disturbed relationships, missing communicative interaction and a lack of information exchange, whereby these factors

influence each other mutually. As depicted in Figure 16, the first and the second category identified in the interview session can be allocated to the strategic/operational domain whereas the third and fourth category are more connected with the human domain. Such an allocation can also be made on the basis on the SSM models i.e. 'primary task systems', which coincide with real world manifestations, belong more to the strategic/operational domain and 'issues based relevant systems' belong more to the human domain.



**Figure 16:** The strategic, the operational and the human domain (manual analysis)

The former is thus more connected with management science and operational research with the difference that the models are not modified or adjusted to reality as argued by Checkland and Scholes (1990). Since the human domain constitutes the foundation of the whole construct, we need to further investigate this area. This is crucial to the problem situation since any change in the strategic/operational domain depends on more understanding about the human domain i.e. why people act as they act which produces more and more conflict. The development of further models is therefore based on human issues such as communicative interaction<sup>32</sup>. With regard to positivism versus interpretivism, the strategic as well as the operational domain are more connected with the positivist paradigm, thus emphasising quantitative techniques and hard systems thinking. The human domain, which in every organisation is a major issue, is closely connected to the complexity of interacting and overlapping relationships which demands for an interpretative or learning approach. In contrast to the natural sciences, managers

<sup>32</sup> The engagement with communicative action is important so as to find ways to (re)start or foster sense-making processes within the power-laden environment.

are often confronted with ill-structured problems due to an ever-growing complexity in the human domain. The interview session as well as the investigation into organisational documents disclosed that things deteriorated when more and more personnel were taken on without necessary adaptations within the organisation. This development was also observed by the chairman, which he admitted in his first interview. The level of behavioural complexity and dynamic complexity generate a wicked mess which excludes the use of typical problem solving methods. Consequently, it demonstrates that problem structuring methods and methodologies are of vital importance in explaining wicked situations. They constitute thus the basis for further development in 'hard' management issues. The persistent situation requires a continuous critical action research approach as described by Sykes and Treleaven (2009) since its wickedness threatens the viability of the organisation and aggravates the existing societal problem.

### **3.5.3 Issue based relevant systems**

The primary task systems or model (Figure 13) of the organisation covers many aspects with regard to operational as well as strategic issues which reach even beyond the organisational boundary i.e. up to the wider system or governmental level, which offers a wide range of issues for further investigation. Nevertheless, the results of the analysis of the interview session show rather that soft issues such as relationships and communication are more relevant to the people. This calls for issue-based relevant systems of which we would not directly expect to find institutionalized versions in the real world i.e. they do not define a task in one of the organisational departments. Issue based relevant systems are relevant to mental processes which go in general beyond organisational boundaries (Checkland and Scholes, 1990). Table 10 describes the transformation process concerning communicative interaction.

With regard to the socio-political system, special emphasis will be given to people's reaction about what the chairman might think since he is identified as the main figure who arbitrarily allocates or withdraws power from the employees. The socio-political system (Figure 23) depicts him at the centre of the most powerful people in the organisation. Stacey (2001) emphasises that "relating [between people in organisations] is understood as communicative interaction in which power relations emerge" (p. 6). In this context, Stacey (2001) also describes the dynamics of inclusion and exclusion in organisational life and asserts that any organisational change represents a shift in patterns of communicative interaction and thus a shift in power relations. This is contrasted by the findings of the interview session since power is almost automatically allocated to the people with whom the chairman wants to communicate. Consequently,



people who have no contact and thus no possibility to communicate with him are automatically excluded from the acquisition of power.

**Table 10:** Issue-based relevant systems – communicative interaction (T-process)

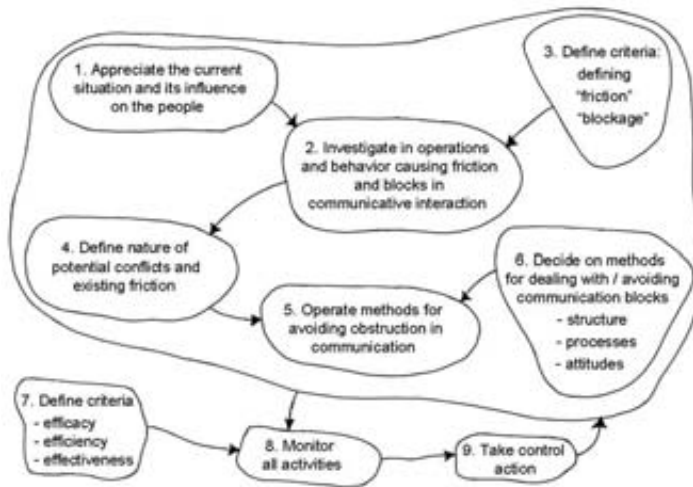
<i>Item</i>	<i>Transformation process: communicative interaction</i>
Input:	Need for improved communicative interaction between the employees as well as between the employees and management
Output:	Sustainably improved communicative interaction between the employees as well as between the employees and management
Root definition:	An organisation owned and staffed system, operating in a particular and given socio-political environment, to improve communicative interaction through the use of an SSM intervention in the current problematic situation, in order to sustainably ameliorate relationships between the employees as well as between the employees and management.
C = customers	Employees across departments, management <i>Definition: The victims or beneficiaries of T = Transformation</i>
A = actors	Employees, management <i>Definition: Those who would do T = Transformation</i>
T = transformation process	Need for improved communicative behaviour - Need met <i>Definition: The conversion of input to output</i>
W = Weltanschauung	Communicative interaction ameliorates relationships and enhances efficiency <i>Definition: The worldview making T meaningful in the context</i>
O = Owner(s)	Employees, management <i>Definition: Those who could stop T = Transformation</i>
E = environmental constraints	Structure and socio-political system of the organisation <i>Definition: Elements outside the system - taken as given</i>

Furthermore, Stacey (2001) suggests that any change in an organisation is only possible when the themes organising and organised by communicative interaction shift, but highlights the problem that this will also shift power relations and insider/outsider dynamics. The '3Es' of the issue-based relevant systems could be: (E<sub>1</sub>): The means is soft systems methodology, (E<sub>2</sub>): How many people judge that communicative interaction has transformed for the better, and (E<sub>3</sub>): Have relationships been sustainably ameliorated?

### The issue based relevant model

The different activities are depicted in Figure 17 starting with the appreciation of the current situation and its influence on the people. The intention of the issue based relevant model is to discuss operations and behaviour that constitutes a hindrance to communication and thus to learning. Dauber *et al.* (2012) depict the influence of patterns of behaviour on operations (see Figure 9) which locates the purposeful activity within the configuration model. However, their model focuses on behaviour that is more or less defined by strategies and structures, thus putting aside the intricacies of power games. Once the conflicts are defined or identified it would be possible to elaborate methods or operations that avoid problems with regard to communicative interaction. The thinking about desirable and feasible change should, according to Checkland (2000), entail a

combination of structural, process and attitudinal change. However, the easiest way, which is unfortunately often used, is to impose structural change without any consideration for others (Checkland, 2000).



**Figure 17:** Issue-based relevant systems about communicative interaction

The importance of structure and its connection to strategy, information flow, patterns of behaviour, level of hierarchy and control, decision making or the assignment of internal tasks is stressed by Dauber *et al.* (2012). For a better understanding of structure, Mintzberg (1980) suggests five generic configurations which also demonstrate the importance of structure. Soft systems methodology does not provide the means to take into consideration all these interactive influences within the organisation. This equally implies to the primary task systems (Figure 13) and, for example, its connection to the external environment (1. Appreciate external influences) which Dauber *et al.* (2012) refer to as the legitimisation environment. An interesting evolution in the process of learning is the creation of the new project manager meeting which constitutes a collaborative action to improve the situation.

### 3.5.4 Action to improve: Project manager meeting

The further development brought about a regular meeting of the internal five project managers since they learned in the research process that their strong individual approach is a hindrance to any improvement. This activity is regarded as an action taken in the situation in order to improve it. This new task force has set themselves as first objective to build up coherence between themselves and to elaborate a concrete proposition about desirable and feasible change which will then be used for a discussion or debate with

management. The first meetings demonstrate clearly that this group should be involved in the project portfolio management and consequently in strategic issues. This concerns for instance the acquisition of new lots and properties or the prioritisation of projects. Starting from 13 July 2009, the results of each meeting are written down in notes so as to compare them with the findings from the previous sections.

*"We always turn around the same issues such as project portfolio management i.e. strategic issues, the behaviour of different people such as the chairman, missing collaboration between architects and technicians as well as between the different departments or the lack of communication and information exchange" (P. 77).*

Interestingly, in the project manager meetings, which are regarded as a place where plausible alternative interpretations might occur, the issues spin around the findings in the study. This augments, according to Maxwell (2005), its validity.

### **Possible platform for learning and constant improvement**

It is anticipated, depending on the subject under discussion, to enlarge the group to include other people involved which could eventually bring about a possible platform for constant improvement i.e. the establishment of a learning cycle. This sounds fairly good, however, it is already contrasted by the socio-political system. There is apparently a rumour going around that the chairman is not in line with the initiative which automatically produces insecurity and unease within the group especially amongst those who always want to please the boss. Pleasing the boss, according to Senge (1990), is a behaviour we already learned at school based on the pupil-teacher relationship. Nevertheless, the meetings demonstrate that the basis for any possible change within the organisation is an approach based on dialogue and discourse which coincides with Checkland and Holwell (1998) as well as Stacey (2001). The question as to why such an initiative by the project managers did not take place earlier has a historical as well as human dimension.

### **Missing adaptations in the past and lack of cohesion**

The necessary change, especially with regard to project development, was not managed or even recognised when the organisation started growing which augmented complexity. This brought about friction and a fight for power since there was no clarification of responsibilities or competencies. On the other hand, reorganisation was not really possible according to the chairman because of personnel constraints management faced especially with Martha and Nikos (Figure 23). According to him, it was foreseen that Martha would lead the project development department.

*"It would have been logical, as I already said to you, for Martha to occupy this role but she cannot manage people and nobody can change her" (P. 109).*

Although the chairman was aware of the strong character of Martha, he wanted her, nevertheless, to train the newly recruited project managers. She thus came into contact with three working project managers who complained strongly about the way she was treating them and were eventually allowed to adopt their own working style as well as projects. It is in a way understandable that they now refuse to collaborate with Martha. This is described by an interviewee as follows.

*"We once talked about it and unanimously agreed that such a meeting could not take place as long as Martha works for the organisation. Such a meeting would last too long and she would start criticizing everything or talking about minor details" (P. 95).*

The lack of cohesion between the project managers put them in a weak position with regard to other groups such as the technicians or the accountancy service. This is fairly similar to an example from Stacey (2007) about two groups with no recognisable difference.

*"The two groups were unconsciously bound to each other in such a way that the members of one of them felt impelled, and had sufficient power resources, to treat those of another group collectively with a measure of contempt and the other group accepted it because they lacked cohesion" (Stacey, 2007, p. 353).*

Although the SSM intervention brought about the possibility to build up the necessary cohesion it is, however, amazing to see how the behaviour and character of single people such as Nikos and Martha can negatively influence the development in a department or even an organisation over years whilst management powerlessly watches this situation.

### **3.6 Importance of further participant observation – fourth phase**

The previous sections described the three research phases as depicted in Figure 11 which allowed the completion of the first round of the SSM learning cycle, thus gaining the big picture about the situation and first actions. However, SSM is criticised for its adherence to the interpretive paradigm and its inability to cope with power struggles which is in a way confirmed by the discovery of the socio-political system in the interview session. The following group work (third phase) provided further corroboration of the intricacies of power relations and their influence on communicative interaction. This oppressive social environment suffocates the learning process of SSM and constitutes a real threat for the further development of the organisation (Stadt 2012). The design of the fourth research phase is thus built around the idea of enriching SSM with cognitive mapping with the intention of approaching the situation from a different angle i.e. the governmental or countrywide perspective (Figure 14). Since management plays such a vital role in the

further process, it is hoped that they as well as the other owners of the housing system will eventually realise the utility and necessity of problem structuring regarding wicked problems either organisational or societal. This new approach does not, however, change the researcher's role as observant participant within the organisational setting. "To gain some understanding of interactions [between people which are not abstract entities] one has to participate in them and one's understanding will arise in one's own experience" (Stacey, 2007, p. 8). This is in stark contrast to the approach of an independent, objective observer who stands outside the phenomena (Mowles, 2011). Lüscher and Lewis (2008) depict the ideal facilitator as a supporter in the sense-making process. With regard to the legitimacy of adding new data collection methods such as cognitive mapping, Eisenhardt (1989) describes this as being important in theory building since researchers are trying to understand each case individually in as much depth as possible.

### **3.6.1 Anticipated learning in the further process**

Whereas the first three research phases were based on the four main activities of SSM (Figure 5), the further investigation concentrates on the credibility of the initial findings and the possibility to combine the organisational perspective with the countrywide perspective (Figure 14). This allows the problem situation to be approached from a different angle, thus putting emphasis on the owner of the housing system i.e. government. The approach requires political sensitivity so as to gain the support of top management, and in particular the leader of the organisation. In this respect, it is also anticipated to have a collaborative altercation with the current organisational model based on hierarchy. Reynolds and Holwell (2010) assert, based on the Conant-Ashby Theorem, that the ability to manage an organisation depends on how good your model of that organisation is. Unfortunately, the most commonly used model is the hierarchical model. However, this model constitutes in a way a visible power or blame structure but it does not say anything about the functioning, performance or hidden power structures within an organisation (Magala, 2009). Hierarchical models demonstrate the perspective of the present style of management within the organisation. Further evidence of this is provided by the note dated 6 December 2010 from the chairman. This note communicates to all employees that Francesca has been appointed head of project development. The interesting part with regard to the first three research phases is that Francesca was identified in the intervention as belonging to the inner circle of the socio-political system (Figure 23), thus already having close ties to the most influential people in the organisation.

With regard to the evolution after the main data collection, further evidence as to the findings has been provided by two more interviewees. The head of customer service and

a project manager decided to voluntarily leave the organisation. Since these two people did not participate in the initial interview session (one started work in December 2008 and one was on maternity leave), their perceptions constitute an additional significant insight into sense making processes. With regard to the timescale, one interview was undertaken in 2011 and the other one in 2012.

*"I often have the feeling that decisions are not coming from him [the organisational leader]. His decision taking group is composed of Lawrence, Francesca, Karen and Assaf. ... With regard to this internal group, if you work well with them, you have no problems but if you cannot work with them like Verena you have a big problem" (P. 105).*

*Who has actually the power apart from the chairman? "Karen, Lawrence, Assaf and Francesca. With the exception of Karen, Lawrence manipulates the other two. What I think is really annoying is that these people did not get their power based on qualifications or great achievements but based on their disagreeability and bad treatment of people. How can this be possible? I cannot understand it. There should at least be respect for your neighbours and colleagues but we are treated as inferiors" (P. 106).*

Interestingly, both interviewees confirm independently from each other the influence of the socio-political system and in particular the most powerful actors (Figure 23).

### **Further evolution of the organisation**

Unfortunately, Francesca adopts the typical behaviour of a traditional manager and wants to lead the department in an authoritarian style based on the ingrained dogma of command and control. This confirms, as argued by Ghoshal (2005), that even people who have never attended a business school nevertheless adopt the theories, either good or bad, of how a manager is supposed to act. Even worse, her close connection to the inner circle causes her to talk negatively about her own staff trying to hold them accountable for the situation, thus producing even more tension as well as resistance. This all happens in accordance with the chairman who wants to put more pressure on the people. The outgoing head of department explained that she was told by the inner group that it was her responsibility to control people.

*"They clearly told me that I was taken on for controlling the social assistants as well as Verena" (P. 105).*

The evolution of the organisation in 2011/2012 largely confirms the findings and in particular the oppressive socio-political system that has evolved over the years into a wicked mess. Unfortunately, top management and consequently government is apparently not yet ready to attack the real problems by using a problem structuring approach. In order to further demonstrate the usability of problem structuring methods and methodologies to the leader of the organisation, who acts at the same time as advisor to the housing minister, it is planned to conduct further workshops with him as

well as members of different ministries. The intention is to connect the governmental with the organisational level as depicted in Figure 14 by elaborating the overall objectives of the housing system with regard to sustainable development.

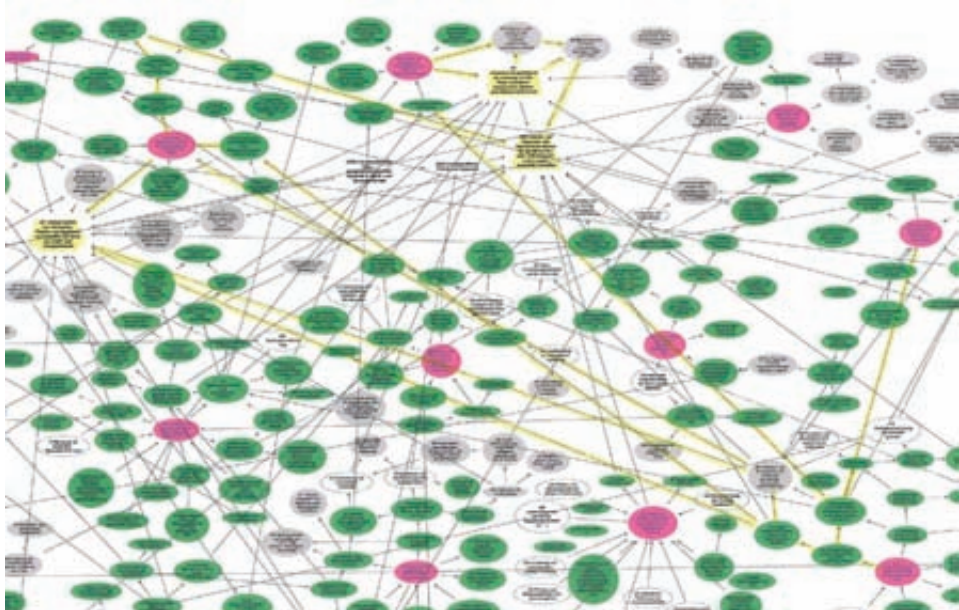
### **3.6.2 Modified methodological approach**

The further investigation is still based on SSM as a leading or guiding methodology. However, the valuable approach developed in the first three research phases will be enhanced by cognitive mapping (Eden and Ackermann, 2004) or more precisely by the oval mapping technique (Rosenhead and Mingers, 2001) thus creating in a way a multi-methodology approach. Only the use of methods and methodologies in combination enables us to cope with increased complexity and change in problematic or wicked situations (Jackson, 2006, Flood, 2001; Kotiadis and Mingers, 2006). This coincides with Mingers (2001) who argues that it makes sense, especially for beginners, to start with a guiding or leading methodology such as SSM and then further develop by bringing in other methods or methodologies. The first oval mapping technique workshop took place on 17 January 2011, the second on 2 March 2011, the third on 14 April 2011 and the last one on 22 June 2011. With regard to purposeful selection, three people from the housing ministry including the chairman of the organisation and two people from the ministry of internal affairs were invited to participate in the workshops. They all willingly accepted the invitation. The people invited are only a small sample of those concerned within many different ministries. However, they are regarded as representative especially concerning the future development of housing within the country.

#### **Mapping workshops**

The first activities were concerned with the organisation of the necessary material such as ovals, pens and location. The official invitation, signed by the chairman of the organisation, included a short explanation about the aim of the workshop as well as its expected outcome. As proposed by Eden and Ackermann (1998), trigger questions were elaborated and written down on flip-chart paper. Three questions have been asked: (1) What are the crucial attributes enabling us to ensure the sustainable development of our cities as well as regions?, (2) What will the cities and regions in the country look like in 10 years?, (3) What is different compared to the past and what should definitely be changed? The workshop started by explaining how the oval mapping technique generally works as well as the rules to be followed. The trigger ovals, which were prepared in advance, served as examples and after about 10 minutes, the participants started writing. The researcher realised very quickly that the facilitation of the process is very important since the right encouragement can trigger new ideas, different explanations and new

thematic groups. The clustering or grouping started right at the beginning and was followed by an attempt to structure the ovals in a more hierarchical manner. After about two hours, the group began a detailed discussion about the different clusters. Each cluster was thoroughly elaborated by checking the statements and their affiliation towards other clusters. Each oval was numbered so as to be able to draw connections between the clusters without too long arrows and to prepare for the use of the special computer programme 'Decision Explorer' (see Figure 18). In the first workshop, we identified sixteen groups with a varying amount of statements per group.



**Figure 18:** Excerpt of the computer map elaborated with 'Decision Explorer'

Since the chairman authorised the purchase of the software 'Decision Explorer', from the third workshop on, we had the possibility to further elaborate the map by means of computer. The last workshop on 22 June 2011 was solely performed with the software, but with the model developed on flip-chart paper still hanging from the wall. The workshops lasted between four and five hours and led to the production of a computer map with 278 statements or concepts (Figure 18). These concepts were almost all linked together thus giving a first insight into the busiest concepts.

### **Analysis of the computer map**

In order to clearly identify the busiest concepts, the computer map was first analysed by carrying out a domain analysis (Reynolds and Holwell, 2010) which elaborates potential



key issues by calculating the ingoing as well as the outgoing links. The results were then further analysed by carrying out a central analysis which calculates a score to determine how central a concept is in the model.

*"They did this in two ways: (i) identifying those that had the most context immediately around each statement, and (ii) identifying those with the highest density of statements within the broader context (exploring several levels away from the statement of interest) thus gaining a measure of centrality"* (Eden and Ackermann, 1998, p. 218).

Both analyses suggested, for instance, that the following two issues were the busiest: 'Interpretation of buildings, cities and regions as being complex systems' and 'Cities and regions that produce liveable habitats for people from all walks of life'. For the development of the SSM model, which will be explained in the analysis chapter, the list provided by the central analysis was predominantly used<sup>33</sup>.

### 3.7 Relevant systems for improvement and learning

The methodology chapter describes, following Figure 11, the four main research phases, the specific methods adopted and their connection to the four main activities of SSM. The purposeful activities elaborated, such as the primary task systems to satisfy the need for affordable housing (Figure 13), as well as the issue based relevant systems about communicative interaction (Figure 17), already describe different issues regarding the power-laden environment of the organisation. The continuous use of SSM and its ability to collaboratively elaborate purposeful activities will bring about many changes in the way that work is designed and managed. However, the rather hard factors such as project portfolio management or structure have to be complemented by a constant monitoring and control of the soft factors such as communicative interaction or information exchange. The constant investigation into possible improvements and collaborative learning is a prerequisite for the further development of the organisation into an innovative and creative entity.

Any block or hindrance within the organisation with regard to communication and information constitutes an obstacle to further development and thus has to be identified and debated in order to bring about desirable and feasible change. To do this, we need to develop a model that incorporates the problem themes or rather the mess identified in the inquiry. The process for the elaboration of this SSM model starts with the transformation process as described in Table 11. Management is at the same time affected by the transformation process i.e. a beneficiary, an actor who performs activities

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<sup>33</sup> The approach based on cognitive mapping and the ensuing purposeful activity model for strategic redesign of the public organisation was presented in June 2013 at a European Urban Knowledge Network (EUKN) Policy Lab undertaken within the country. The combination of SSM with cognitive mapping was proposed as a possible way to better cope with wicked problems in the development of a sustainable quarter.

within the process but also the owner of the system which gives management the possibility to stop or change the transformation process.

**Table 11:** Constant improvement and collaborative learning (T-process)

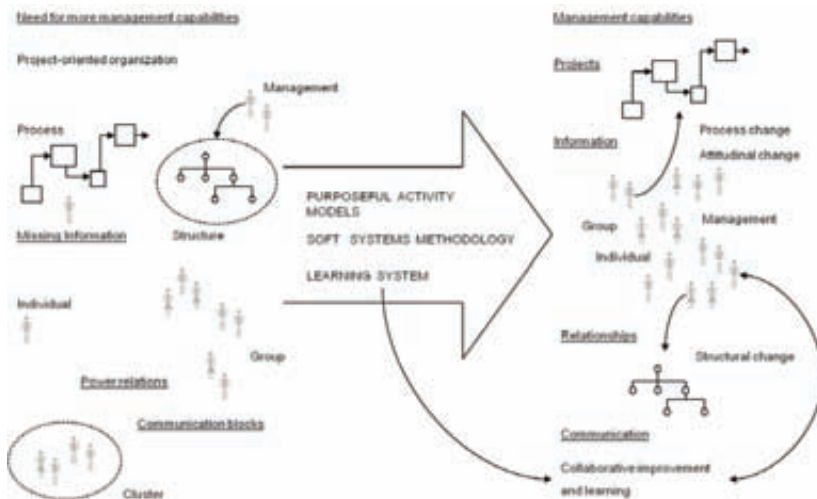
<i>Item</i>	<i>Transformation process: constant improvement and learning</i>
Input:	Need for monitoring and controlling wicked situations
Output:	Satisfied need through constant improvement and collaborative learning
Root definition:	An organisation owned and staffed system, which investigates in the organisational structure, processes as well as attitudes, by means of soft systems methodology models, incorporating management capabilities, in order to constantly and collaboratively improve and learn in an ever changing complex environment.
C = customers	Management and staff of the organisation <i>Definition: The victims or beneficiaries of T = Transformation</i>
A = actors	Management and staff of the organisation <i>Definition: Those who would do T = Transformation</i>
T = transformation process	Need for monitoring and controlling wicked situations - Need met <i>Definition: The conversion of input to output</i>
W = Weltanschauung	Collaborative learning can improve efficiency <i>Definition: The worldview making T meaningful in the context</i>
O = Owner(s)	Management <i>Definition: Those who could stop T = Transformation</i>
E = environmental constraints	Systems influences such as processes or attitudes <i>Definition: Elements outside the system - taken as given</i>

The concerns that arise about this purposeful activity model are the negative influence of the socio-political system (Figure 23) and the opinion of management that structural change will solve the problems thus overlooking the importance of the human domain (see Figure 16). Checkland and Poulter (2010) argue that we should “[b]anish all thought of finding a permanent ‘solution’ or the optimum way of doing something in any human situation” (p. 237).

### 3.7.1 Informal pictorial representation

Since the ‘holon’ known as human activity system is now rather clear it would be possible to start creating the subsequent model. Checkland and Scholes (1990) suggest in this phase that it is useful to fill the gap between definition and model by drawing an informal pictorial representation. This depiction helps to describe the main transformation process and hence to foster understanding about the proposed model which builds the basis for discussion and debate. The transformation process depicted in Figure 19 shows on the left-hand side the problematic situation and its obstacles to collaborative learning as elaborated in the inquiry. Top management is mostly concerned with structural or rather hierarchical changes. Power relations between the different members of the organisation, which includes management, play an important role as they hinder the development of further management capabilities. The phenomena elaborated in the

socio-political system (Figure 23) demonstrate the difficulties with competing parties. Furthermore, there are subsequent problems with regard to missing information and communication blocks which also constitute obstacles to learning. The transformation process T should bring about constant improvement and collaborative learning thus incorporating possible structural, process and attitudinal change.



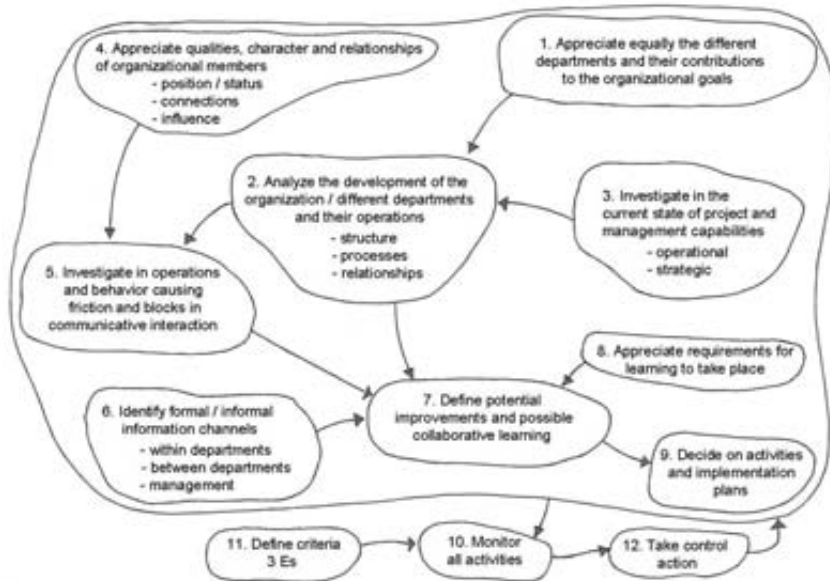
**Figure 19:** Concept of a system for constant improvement and collaborative learning

The right-hand side, on the contrary, depicts the input entity described above in the transformed state. Constant improvement and collaborative learning is ensured by means of SSM i.e. the establishment of a learning cycle. Top management is not separated i.e. far above the employees. They work on the basis of a systems perspective which implies that they act on the system and their emphasis is on learning rather than on control. Decision making is integrated into work which ensures a constant flow in the project work. The different departments and their contributions are acknowledged and organisational members are equally treated. The investigation into communicative interaction and information exchange between the employees and the different departments will bring to the surface the problems so as to come up with desirable and feasible change.

### 3.7.2 Model on improvement and learning

The model incorporates the findings of the inquiry and will thus be used for further discussion and debate which is according to the theory ideally never ending. The model depicted in Figure 20 gives equal weight to individual members of the organisation as well

as the different departments and their contributions to the overall organisational goals. This corresponds with the critical/pluralistic paradigm that is based on the belief that social systems are oppressive and unequal (Paucar-Caceres and Pagano, 2009; Cicmil and Hodgson, 2006; Jackson, 2003; Flood, 2001; Jackson, 2006; Kemmis, 2001).



**Figure 20:** Relevant systems for constant improvement and collaborative learning

This is particularly important since the investigation brought to the surface that one department is promoted by the leader of the organisation more than others and that people are not treated equally which creates problems with regard to relationships and communication as well as information. With regard to the human domain (Figure 16), the intervention through the creation of the learning cycle is regarded as one of the main management capabilities vital for the further development of the organisation. This sheds light on the intervention itself and the learning it has generated.

### 3.7.3 Reflection about the logic-based inquiry

The SSM intervention based on four different research phases taking place between 2007 and 2011 brought about a multitude of insights as well as learning about the research topic and the methodology. “An alternative view [to hypothesis-testing research] is that social reality – what counts as ‘fact’ about the social world – is continually being constructed and re-constructed in dialogue and discourse among human beings, and in action which they take” (Checkland and Holwell, 1998, p. 22). This coincides in a way with

Stacey (2001) who describes communicative interaction as something that can create or destroy meaning<sup>34</sup>. “A living organism gives meaning to the heart, liver and lungs; a family to the roles of husband, wife, son, daughter” (Jackson, 2003, p. 4). A project-oriented organisation gives meaning to the roles of chairman, board, project manager, assistant, accountant, secretary. Strangely, the role of project manager, though very important in the organisation (Turner and Müller, 2003), has gradually deteriorated due to different factors such as their lack of coherence, the behaviour of management or the actions taken by powerful people. The investigation into the environment of oppression, domination and injustice (Kemmis, 2009), based on a particular cultural, political and historical background, required the researcher to totally immerse himself into the research setting as an observant participant as described by Moeran (2009) as well as Ybema and Kamsteeg (2009).

The daily interaction of the organisational parts and in particular the parts within the social system i.e. human beings, eventually define the emergence of the whole which is, however, influenced by aspects such as their history or politics and power. These issues have a vital impact on the elaboration and use of existing as well as new purposeful activity models. The emergent property of a human activity system is, according to Checkland and Scholes (1990), in principle the ability to pursue the purpose of the whole. Since this is in opposition to the findings and since self-organisation is choked, the viability of the organisation is endangered. However, the SSM intervention brought about relevant systems for improvement and learning as depicted in Figure 20 which incorporates the findings of the logic-based inquiry. Unfortunately, thematic patterning as described by Stacey (2007) is predominately shaped by shadow themes, which indeed concern the crucial problems of the organisation, but they cannot be officially discussed with others. The project managers meeting, which was considered a first action to improve the situation, is an example where an important group started merging shadow themes as well as institutionalised themes thus forming new strategy narratives (Stacey, 2007). However, the abrupt termination of these meetings demonstrates that only a few powerful people are allowed to define strategic proposals.

### **3.7.4 Learning from the research process**

The change from a more positivistic stance, still predominant in project management (Pollack, 2007; Cicmil and Hodgson, 2006, Bredillet, 2010), at the beginning of the study towards an epistemology based on constructivism was due to participant observation which demonstrated that the management problems perceived at the beginning are better regarded as what Checkland (2000) described as part of a problem situation. This

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<sup>34</sup> Conversation, talk and discourse are sources of social contact which is central to sense-making (Weick, 1995).

coincides with Jackson (2010a) who argues that problems that seem important at the beginning may be replaced by new ones which emerge during the intervention. Furthermore, this has implications for the researcher who cannot act as an independent, objective observer in order to explain what is going on in the organisation which coincides with Stacey (2007). To find out how reality is socially constructed demand actual participation and the realisation that the approach taken is a product of who the researcher is and how he or she thinks (Herr and Anderson, 2005; Maxwell, 2005). Mowles (2011) argues that social interaction and the on-going patterning of relationships within organisations leave no possibility for managers and consultants to act as detached observers. The involvement of the chairman in complex responsive processes of relating and his inability to influence or even control these processes when the organisation started growing confirms the need for concentrating on complex patterning in organisational research. The 'thinking-from-within' is a main strength of organisational ethnography (Ybema and Kamsteeg, 2009) which requires the researcher to act reflexive as well as critical in the meaning-making processes (Ybema *et al.*, 2009). A chairman, acting as reflective practitioner, could equally perform this type of research which means that organisational ethnography could be used as a vehicle for better understanding complex responsive processes of relating (Stacey, 2007; Luoma *et al.*, 2011) and for cultivating systemic thinking in the business world (Atwater *et al.*, 2008).

### **Politics, power and hierarchy**

Although the use of SSM revealed power-related connections within the organisation, it does not, however, provide an effective strategy to deal with oppression, power and politics. Jackson (2003) argues that SSM is less suitable if the problematical situation requires an organisational design of complex systems or where the situation is characterised by conflict and coercion. The SSM intervention brought about many purposeful activity models which were used for comparison in the third research phase. However, the results elaborated within different groups comprised of all departments could not be implemented due to the oppressive socio-political system. Even one of the first activities was abruptly stopped due to changing power relations and the ingrained belief in hierarchy, command and control. This calls into question the traditional hierarchical design of organisational settings which are confronted by organisational or societal problems that can be categorised as being messy or wicked. Jackson (2003) notes that the social world is inherently confronted with power issues and fundamental conflict which are, however, not given proper attention by SSM since the methodology is based on participative debate, structured around conceptual models, aimed at elaborating desirable and feasible change, which leads to accommodations and eventually to actions so as to improve the situation. The adherence of SSM to the interpretive paradigm should be questioned as it does not emphasise the use of different paradigms which are,

however, necessary for further development of the methodological strategy, taking into account for instance the critical/pluralistic paradigm. This coincides with arguments from Jackson (2010b) as well as Kotiadis and Mingers (2006).

### 3.7.5 Power issues require SSM to be more flexible

The chairman of the organisation is identified as a key figure since he contributes to the problematic situation but suffers at the same time its unintended consequences. Besides, as noted by Canals (2010), he can, as the most powerful person in the organisation, foster or sabotage a process. The fourth research phase was therefore constructed around the chairman's professional interests and his positions as organisational leader and advisor for the housing minister. The workshops based on cognitive mapping and in accordance with Eden and Ackermann (2004), which were performed with members of different ministries, provided a new spirit and led to the development of a purposeful model (Figure 24) that provides the connection between the organisational and the governmental perspective as depicted in Figure 14. These models can be used in further discussions about the tasks as well as the strategy of the public organisation without drawing too much attention to the intricacies of the socio-political system. Further efforts of the organisation based on constant improvement and collaborative learning (Figure 20) can thus be started from another level and based on more pragmatic issues. Within this new approach, other theories, methods and methodologies should be combined with SSM so as to test their usability in the problematic situation.

*"However, this is not exemplified by the practice of SSM – I have been unable to find a single example from Checkland's writings where any other methodology other than SSM has been used - and this is a great lost opportunity" (Mingers, 2000, p. 748).*

*"In trying to get some handle on these arguments at the theoretical level, the first thing to notice is the apparent 'isolationism' of Checkland's work on SSM" (Jackson, 2003, p. 205).*

Given the power-related circumstances, the further continuation of the research process, solely based on SSM, was in a way questioned. This is due to what the researcher would like to name 'patterns of organisational dictatorship' which allow the chairman, even within a representative democracy, to block citizen control and criticism of his activities. The political dependency of the minister in charge on his support represses rapid interventions from government which confirms the involvement of power issues at all levels and the need for a closer look at them. Dauber *et al.* (2012) describe the legitimisation environment as a part of the external environment and the possible cultural pressure it might provide for the internal environment. The political strong position of the chairman enables him to fence off the internal environment from external influences or control. In this context, 'patterns of organisational dictatorship' can be defined as the adoption of behavioural strategies intended to stabilise and constantly

strengthen personal as well as political power, which may lead to the build-up of an inviolable position, reinforced by exploiting the overall belief in hierarchy and obedience towards authority, which provides legitimisation for every activity either good or bad<sup>35</sup>.

This definition is in a way confirmed by a member of the board who voluntarily left the board at the end of 2012 after a period of 10 years working within the governmental group. Since he did not belong to the select board, he was unfortunately not actively involved in the study. It was not until September 2013 that this former board member publicly explained in a series of newspaper articles his perception of the organisational situation which, in his opinion, calls for an urgent reform of the organisation<sup>36</sup>. His description of the mismatch between units produced and the growth of personnel, backed up by figures from the last two decades, corresponds generally with Figure 1. Furthermore, he questions the plurality of positions occupied by the chairman, their mutual incompatibility and the chairman's executive positions as chairman and director within the organisation since 1989. This incrustated administrative structure is described by the former board member as the reason why social housing has developed into a blind alley. Interestingly, the former board member works as a civil servant for the same ministry as the chairman except that the chairman holds a higher position. This demonstrates, on the one hand, his bravery but emphasises, on the other hand, his perception of the urgent need for the organisation to become more active in the fight against the constantly growing number of citizens threatened by social exclusion. According to Jackson (2003), Checkland argues that SSM is not able to assure the "overthrow [of] tyrants" (p. 207), which is true, but the researcher thinks that soft systems methodology should be further developed so as to better support researchers as well as their co-researchers willing to immerse themselves into power-laden and threatening environments. This could also mitigate the criticism from Checkland (2012) about the limited use of action research in universities and by academics.

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<sup>35</sup> This proposed definition contributes to explaining why "some men and women in organization succeed in mobilizing support and maintain power, while others do not – in apparently the equal circumstances?" (Magala, 1997, p. 324). The power games being played, supported by hierarchical and authoritarian underpinnings, suffocate the free flow of sense-making processes which question traditional organisational design.

<sup>36</sup> Interestingly, even public criticism from the managing board of the leading public housing organisation does not entail consequences or compliance requests. This was demonstrated by yet another newspaper article published in November 2011 by a board member who actively participated in the study. He criticised in particular the insufficient number of units produced by the organisation (see Appendix C: D.41).





# Chapter Four – Data Analysis

## 4.1 Introduction to data analysis

The methodology chapter is mostly concerned with the logic-based stream of analysis as depicted in Figure 8. However, it equally considers the stream of cultural analysis as discussed by Checkland (2000). The model building has been predominantly informed by the long table approach (Krueger and Casey, 2000) initially used for understanding the main influential factors within the situation. This brought about the socio-political system and its power related connections as depicted in Figure 23. “When using manual methods, analysts may not have reviewed all of their material again after developing new codes, applying them consistently to all data” (Frieze, 2012, p. 128). The long table approach was applied in the second research phase i.e. in the interview session but did not incorporate all the notes taken during the process. In order to sufficiently analyse all the data collected a computer assisted NCT analysis by means of Atlas.ti was undertaken so as to find commonalities and differences between the results of the analytical methods used. Furthermore, and more importantly, in order to explain why and how changes occurred within the organisation, the configuration model of organisational culture form Dauber *et al.* (2012) was used. The sources of evidence follow on from each other in a fairly sequential manner which allows for subsequent analysis after each part. This chapter on analysis is thus concerned with the explanation of how analysis of the different parts was carried out and used for the preparation of the next research step. This is in line with Miles and Huberman (1994) who argue that analysis in a qualitative study is an iterative process which is not simply carried out at the end of field work but before, during and after data collection.

### Project setup in Atlas.ti - version 6.1

“ATLAS.ti belongs to the genre of CAQDAS programs. CAQDAS stands for computer-aided qualitative data analysis software. .. When using manual methods, it is easy to ‘forget’ the raw data behind the concepts as it is quite laborious to get back into the data. In a software-supported analysis, the raw data are only a few mouse clicks away and it is much easier to remind yourself about them and to verify or falsify your developing theoretical thoughts” (Frieze, 2012, p. 1-2). All the 90 notes taken between 2007 and 2012 (Appendix A), the 20 interview transcripts (Appendix B) and the 7 transcripts elaborated in the group work session (Appendix D) were setup in the programme eventually producing the primary documents P.1 to P.117. There are two particularities. Firstly, for relevant passages of documents collected (Appendix C), a note was created during the course of the study. Secondly, the workshops with the ministries were not

transcribed since the process was solely based on elaborating a cognitive map. The final result of this fourth research phase demonstrates that other methods and methodologies can be used in an SSM intervention eventually producing a purposeful activity model. With regard to the different analytical methods, Table 12 provides an overview regarding the attribution of quotations. As described in the methodology chapter, the predetermined categories from Fink *et al.* (2013) were incorporated into the project. Before starting the open coding process, the categories developed based on the initial manual methods were also included. “In ATLAS.ti open coding simply means creating a new code” (Friese, 2012, p. 64).

**Table 12:** Attribution of documents to the different analytical methods

	Atlas.ti	Manual
Notes	Name	Name
2007 to 2012	P.1 – P.90	N.1 - N.90
Interview session	Name	Name
Employees group	P.91 – P.106	I.1-I.4, I.6-I.15, I.19, I.22
Management group	P.107 – P.110	I5, I16 - I18
Group work session	Name	Name
Employees group	P.111 – P.115	G.1 - G.5
Management group	P.116 – P.117	I.20-I.21

This approach made it possible to gather three different sources of categories/codes as depicted in Table 13. This process of using predetermined categories from the configuration model of organisational culture, predetermined categories from the manual analysis methods and new codes using the computerised method resulted in 55 categories and codes. The large number of quotations created (1,721 in total), based on the predetermined categories from manual methods, is not a big surprise. However, the additional 1,606 quotations developed by means of a computerised method i.e. Atlas.ti demonstrate that cultural aspects of the organisation, such as the behaviour of the chairman, were directly used in the manual analysis to develop the socio-political system where the most powerful people gather together (see Figure 23). In order to understand its influence on the development of the organisation, the preliminary findings are compared with the configuration model of organisational culture.

With regard to the allocation of quotations to the predetermined categories from Fink *et al.* (2013), one could assume that the configuration model of organisational culture does not fit the investigation. However, a closer look at the model (see Figure 9) and the categories, as well as new codes elaborated, demonstrates its importance. We have to look across the rows since domains (e.g. strategy and operations) or processes (e.g. patterns of behaviour and guidance) are widely represented. Project portfolio management for instance is connected with strategy and decision taking with structure. Interestingly, the domain structure is not specifically mentioned in Figure 16 (The

strategic, the operational and the human domain), though it is connected with hierarchy of authority and information flow. The predetermined categories from manual methods, as shown in Table 13, are separated into participant observation (PO) i.e. the first phase and interview session (IS) i.e. the second phase.

**Table 13:** Composition of categories and codes (N = 55)

Predetermined categories from Fink et al. (2013)		Predetermined categories from manual methods		New codes developed with computerised method	
<i>N = 16 categories</i>	Q	<i>N = 17 categories</i>	Q	<i>N = 22 codes</i>	Q
Clarity of strategy (PO)	243	Board-legal decision taker (IS)	220	Behaviour of the chairman (IS)	287
Hierarchy of authority	153	PM methodology (PO)	202	Organisational atmosphere (IS)	270
Legitimation management	42	Clarity of operations (IS)	192	Responsibilities of PMs	194
Single-loop learning	21	Power relations	186	Behaviour of powerful people	170
External communication	9	Project portfolio management (PO+IS)	120	Political will/influence	118
Double-loop learning	8			Clarity of responsibilities	112
Flexibility	8	Information flow (IS)	101	Clarity of structure	104
Resource-based view	6	Communication problems (IS)	94	Organisational performance	90
Market-based view	2	Decision taking (IS)	93	External relations	63
Level of formality in internal communication	2	Team building and team learning (PO)	84	Project-based organisation	46
				External image	29
Level of market dynamism	2	Leadership in PD (PO)	82	Availability of chairman (IS)	28
Level of market complexity	1	Project duration (PO)	79	Board member interests	25
Level of action orientation	1	Internal personal conflict	71	Resistance to change	21
Loyalty	1	Personnel growth (IS)	60	Ext. relationships chairman	15
Level of formalisation	0	Clarity of vision (PO+IS)	58	Unfair salary classification	11
Preference for adjustment processes	0	Motivation	38	Withdrawal of people	8
		Informal communication (IS)	26	Education	7
		Management skills (IS)	15	External personal conflict	3
		PO = participant observation IS = interview session		Job security	3
				Civil servants	1
				Value creation	1
<b>Total (Q = Quotations)</b>	<b>499</b>		<b>1,721</b>		<b>1,606</b>

However, only explicitly mentioned categories are depicted which does not necessarily mean that others have not been detected. Especially the categories above one-hundred quotations already tell us a lot about the organisational culture. This incorporates for instance the behaviour of the chairman and other powerful people and its resultant organisational atmosphere.

## 4.2 Management issues dominate – first phase

As described in the methodology chapter, participant-observation is closely connected with the first step in the SSM intervention i.e. finding out about a problem situation. Notes were taken in order to capture relevant events, actions and reflections. They constitute the main source for this analysis. It is important to note that this first participant-observation was predominantly carried out in the project development department. This explains in a way the focus on management issues, but is justified since

project development constitutes the production unit of the organisation. Table 14 shows the categories identified in relation to all coded quotes.

**Table 14:** Categories identified in the first 35 notes (N = 3,826 coded quotes)

	<i>N = 3,826</i>			
	# of first 35 notes		# of all quotations	
Clarity of strategy	35	0.91	243	6.35
Project management methodology	33	0.86	202	5.28
Project portfolio management	11	0.29	120	3.14
Project duration	10	0.26	79	2.06
Leadership in project development	9	0.24	82	2.14
Clarity of vision	7	0.18	58	1.52
Team building and team learning	4	0.10	84	2.20
<b>Total</b>	<b>109</b>	<b>2.85</b>	<b>868</b>	<b>22.69</b>

The frequency of quotations in clarity of strategy, project management methodology and project portfolio management corresponds with the overall importance of these categories within the study. Given the fact that portfolio management can be clustered under strategy, the governance within the organisation is of particular importance. In this regard, it is interesting to see which other codes have not been detected or explicitly mentioned in the manual analysis of the first phase i.e. within the first 35 notes.

**Table 15:** Further categories identified in the first 35 notes (N = 3,826 coded quotes)

	<i>N = 3,826</i>			
	# of first 35 notes		# of all quotations	
Organisational atmosphere	11	0.29	270	7.06
Responsibilities of project managers	9	0.24	194	5.07
Information flow	9	0.24	101	2.64
Management skills	9	0.24	15	0.39
Project-based organisation	7	0.18	46	1.20
Hierarchy of authority	6	0.16	153	4.00
Decision taking	6	0.16	93	2.43
External relationships chairman	6	0.16	15	0.39
Communication problems	5	0.13	94	2.46
External relations	5	0.13	63	1.65
Legitimation management	4	0.10	42	1.10
External communication	4	0.10	9	0.24
Motivation	3	0.08	38	0.99
Availability of the chairman	3	0.08	28	0.73
<b>Total</b>	<b>87</b>	<b>2.27</b>	<b>1161</b>	<b>30.35</b>

The frequency of quotations in Table 15 demonstrates that important categories such as organisational atmosphere or the missing allocation of responsibilities to the project managers have not directly been taken into consideration. The categories identified in the manual analysis concern only 2.85% of all quotations which is increased to 5.12% when the additional categories are taken into consideration. The computerised analysis reveals that the first phase already incorporates more than half of all categories identified

(53.04). Atlas.ti enables the possibility to create families which can then be used as filters in the analysis. In order to take a closer look at the different research phases such as participant observation (first 35 notes), corresponding families were created. Before the explanation of the main categories identified in the notes, it would be interesting to investigate their interrelation. Atlas.ti provides in this regard the Co-occurrence Analysis which measures the relation of different codes to the same quote. Table 16 displays the c-coefficients along with co-occurrence frequency regarding the first phase.

**Table 16:** Codes co-occurrence table of the first 35 notes – first phase<sup>37</sup>

	Clarity of strategy	Clarity of vision	Project portfolio	Team building	Leadership in PD	PM method	Project duration
Clarity of strategy {243}		5 -0.14	6 -0.15	2 -0.05	3 -0.07	12 -0.21	7 -0.18
Clarity of vision {58}	5 -0.14		2 -0.13	n/a	n/a	1 -0.03	3 -0.21
Project portfolio {120}	6 -0.15	2 -0.13		n/a	n/a	4 -0.10	1 -0.05
Team building {84}	2 -0.05	n/a	n/a		1 -0.08	2 -0.06	1 -0.08
Leadership in PD {82}	3 -0.07	n/a	n/a	1 -0.08		5 -0.14	1 -0.06
PM methodology {202}	12 -0.21	1 -0.03	4 -0.10	2 -0.06	5 -0.14		3 -0.08
Project duration {79}	7 -0.18	3 -0.21	1 -0.05	1 -0.08	1 -0.06	3 -0.08	
Org. atmosphere {270}	4 -0.10	n/a	1 -0.05	1 -0.07	3 -0.18	1 -0.02	n/a
Responsibility PMs {194}	5 -0.13	1 -0.07	1 -0.05	n/a	n/a	2 -0.05	1 -0.06
Hierarchy {153}	1 -0.03	n/a	n/a	n/a	2 -0.15	2 -0.05	n/a
Information flow {101}	3 -0.07	n/a	n/a	1 -0.08	1 -0.06	2 -0.05	1 -0.06

Remark: The table displays horizontally all categories from Table 14 and in addition in the vertical column the categories from Table 15 which had more than 100 quotations.

Within the main categories identified (Table 14), the co-occurrence frequency is strongest regarding the clarity of strategy, in particular in relation to project management methodology, project duration and project portfolio management. The domain strategy, as mentioned by Dauber *et al.* (2012), and its lack of clarity, play a vital role in the situation. Furthermore, missing clarity with regard to the vision or rather, clarification of the social tasks of the organisation, has an impact on project duration. Dauber *et al.* (2012) argue that operations are directed by the accomplishment of organisational tasks. Consequently, if the tasks are not clear, the operations and their translation into a project management methodology are difficult to cultivate. These issues belong to governance which can be regarded as an overall theme incorporating the categories about strategy, structure and operations. Within the first research phase, it was often mentioned that the vision as well as the strategy of the organisation are not clearly communicated and consequently not fully understood.

*“The organisation is missing a vision or clear perspective for the future; Political and/or personal battles between our chairman and other institutions or people are sometimes the main hindrance for project success; We invest too much time in small scale projects; There are not many projects that*

<sup>37</sup> The figures in the columns, separated by a hyphen, show on the left-hand side the number of occurrences between the codes. This is completed by the c-coefficient on the right-hand side which displays the intensity of the occurrences measured and is “generally a number between 0 and 1” (Friese, 2012, p. 175).

*will be started in the upcoming year, especially no bigger projects hence there are not enough projects for the technicians, nevertheless, there seem to be plans to take on two new technicians; There is a lack of information for the employees especially regarding strategic issues; Many projects are stuck in the pipeline – sometimes simply because of a missing decision from management” (P. 30).*

Whereas the manual analysis allocated this quotation only to vision and strategy, the computerised analysis identified 9 different codes: (1) clarity of vision, (2) clarity of strategy, (3) project duration (4) project portfolio management, (5) external relationships chairman, (6) decision taking, (7) information flow, (8) management skills, and (9) organisational atmosphere. With regard to the people and their alignment to the projects, the accountant of the project development department explained the need for a human resource plan so as to come up with a strategy for the future.

*“There should be a plan of the human resources available which is closely related to the projects so that we can see what further projects can be realised. This would be a useful plan for the board to enable them to come up with strategies for the future, for instance which lots or buildings to acquire” (P. 10).*

This has implications for the next item which concerns project portfolio management and consequently the business strategy of the project oriented organisation. Early participant-observation showed that projects are documented on sheets which are changed manually by the secretary. These documents contain information about the project name, the external/internal project team as well as the current phase of the project. The following statement from the chairman in an informal interview describes his wish to have a monitoring and control system for all projects.

*“The chairman expressed the wish to have a system which controls and monitors all the projects at the same time. This would be an ideal basis for the discussions with the board” (P. 1).*

*“At the beginning there were many big projects..... Today, the picture is different as the percentage of small and medium size projects has enormously grown” (P. 15).*

The second quote which comes from a project manager who has been working for the organisation for many years describes the change experienced with regard to the size of the projects in the portfolio. According to Dinsmore and Cooke-Davies (2006), the selection and definition of the right projects involves more than a list of possible projects. Furthermore, they claim that most organisations take on too many projects and that priority ranking is crucial for every project portfolio management to be effective. Project portfolio management in the organisation is closely linked to the acquisition of new lots and properties which is exclusively performed by management. People often complained about newly acquired lots or properties which were highly polluted and thus caused delays right from the start. Project duration was one of the most debated themes in participant-observation. As previously indicated, the development of a project is highly influenced by strategic issues such as the acquisition of new lots and properties. But there

are more reasons, for instance decisions and information delivery. The following description of a project manager depicts this problem.

*“Activities or decisions taken by the management with regard to the project are not transmitted to the project manager i.e. there is no direct flow of information from the top to the bottom. Even worse, crucial information is sometimes coming from external partners. Furthermore, decisions to be taken by the management i.e. the chairman are delayed due to the fact that the decider is not present or available” (P. 5).*

Many projects of the organisation are closely connected to communities and have thus a political dimension. This requires a special approach as well as sensitivity with regard to the political level. The external environment, described by Dauber *et al.* (2012) as the elements outside the organisational margin, was not specifically identified as a category within the manual analysis. However, Table 15 shows that these elements already appeared in the first 35 notes.

*“They were delayed right at the beginning i.e. in the ‘political’ development of the project. Sometimes projects are delayed or even stopped because of interventions coming from members of the community, the management board or the chairman. This happens not just at the beginning but also in other phases. The relationship between the chairman and the mayors is crucial to project success or at least with regard to the time frame<sup>38</sup>. If there is an interpersonal problem at this level the projects do not move at all” (P. 16).*

The consequences of long project duration are, besides budget overrun, a decrease in the motivation of the external as well as the internal project team. This is sometimes even aggravated by a sudden change of the project manager due to personal reasons such as maternity leave which requires the teams to adapt to the style of other project managers. With regard to the building site, technicians complained about protected companies.

*“Technicians who faced serious problems with contractors on site because of delays have many times tried to apply the contractual penalty. However, they have never been successful as companies were in a way ‘protected’ by the board. Consequently, no company sees the need for timely intervention and the technicians have stopped arguing – which has resulted in even more delays. Furthermore, penalties are too low to have any real impact on their behaviour” (P. 15).*

Interestingly, Dinsmore and Cooke-Davies (2006) argue that with regard to management by committee in some public sector organisations, the problem of ‘collective responsibility’ has implications on projects i.e. they almost inevitably run late and end up with cost overruns. With regard to team building and team learning, each project is internally composed of a project manager, the technical engineer and a technician. “It was mentioned that the project development department, although responsible for all project phases, does not have the internal communication necessary to learn from mistakes or to speak with one voice. Technicians often build according to their own plans

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<sup>38</sup> Many organisational members mention different projects, in particular a bigger project in the capital city that was initiated in 1991 but constantly delayed due to on-going legal as well as personal battles. The project is still in the development phase and thus takes up human resources.



and change project deliverables without informing anyone” (P. 15). “Project managers are mostly architects as the appraisal of architectural quality requires this qualification. Nevertheless, as architectural and engineering work is performed by external partners i.e. outsourced, management skills are equally important for project success” (P. 14). This lack of managerial qualifications applies equally to the other team members. According to Senge (1990), personal mastery i.e. lifelong learning and team learning which starts with ‘dialogue’ are two important disciplines for becoming a learning organisation. A company specific project management methodology has to be developed by professionals familiar with the organisation and the people within it. Participant-observation demonstrated that no common methodology is used in the organisation although this would be useful with regard to the external partners.

*“Every project manager has elaborated and is using his or her own method of how to manage the project. Hardly any common documentation or templates exist” (P. 3).*

*“A common methodology would certainly strengthen the relationship with the external partners, by clearly identifying tasks and responsibilities to be taken by them (procedures, checklists, templates ... change management, cost/schedule management)” (P. 3).*

*“It was the wish of management, especially the chairman, to investigate a cost management basis so as to have a common approach in the company. ... Once presented to the management it was ‘officially’ introduced for common usage in the future. A copy was given to the other organisational members and – nobody ever used it” (P. 18).*

The last quote indicates why no common methodology exists and was provided by a technician who had the task of elaborating a basis for cost management. Management did not succeed in introducing cost management. It was not even used for further discussion which indicates that there must be internal forces which have the power to resist officially introduced methods. With regard to leadership in project development, it was mentioned that general administration has a departmental leader and the different fields in customer service are led or organised by particular people. Only the project development department has no specific leader apart from the chairman of the board i.e. everything depends on him.

*“Project managers are in charge of managing all project activities which includes liaising with management in terms of project approval and further information. Nevertheless, all crucial decisions are taken by the management board and are communicated by the chairman. Organisational decisions are directly taken by the chairman” (P. 2).*

*“The work of the project managers and technicians is sometimes not fully acknowledged by the board or the chairman. Efforts to save money are sometimes simply destroyed without explanation and participation of the project manager. This weakens the position of him/her enormously with regard to the rest of the team such as external architects and engineers” (P. 15).*

It is said that each project manager is responsible for his/her projects but they actually have no power. They act as coordinators between the project team and management

which prevents them from establishing a fully respected position needed for leading a group of professionals. The quotes explain the rather difficult situation in project development. The chairman as departmental leader weakens its position with regard to the other departments since he is perceived by the people as not fighting for their departmental interests or needs. This situation is aggravated by the predominantly individual working style of the project managers which hinders the formation of coherence between them which could lead to the development of a strong voice.

“The ATLAS.ti network view function is a tool that allows you to explore your data visually” (Frieze, 2012, p. 191). The network view regarding the first research phase is depicted in Figure 21. The central position and the connections of clarity of strategy demonstrate the importance of this category in participant-observation. For example, according to the employees in project development, the acquisition of highly polluted lots and properties, due to the absence of a strategy, has a crucial impact on project duration and consequently on the motivation of the external as well as the internal project team.

**Figure 21:** Network view of the first research phase

people's perceptions of the situation. This will also help to define relevant models that should be elaborated for further discussion about desirable and feasible change. In order to do this, the questions asked will be divided into three different categories: (1) questions about the perception of the situation, (2) discussion about the first rich picture and the 'primary task systems', (3) specific questions drawn from the analysis of participant-observation. The interview protocol is comprised of four questions for the first category, two for the second category and eight for the third category.

### 4.3 Interview session – second phase

This section describes the analysis of the interview session conducted between September and December 2008 incorporating two more interviews conducted in 2011 and 2012 respectively. The main categories identified, based on the initial manual analysis, are depicted in Table 17. According to Krueger and Casey (2000), the long-table approach is an easy to use method which has the advantage of visualising the analytical process. This contributes towards learning how to cope with large amounts of data normally produced in interview sessions. However, the further categories identified by means of Atlas.ti, as shown in Table 18, demonstrate that many categories were not detected in the manual analysis. This includes for instance issues such as clarity of strategy or the external environment of the organisation.

**Table 17:** Categories identified in 20 interviews (N = 3,826 coded quotes)

	N = 3,826							
	# of 16 interviews (employees group)		# of 4 interviews (mgmt group)		# of 20 interviews		# of all quotations	
Behaviour of the chairman	169	4.42	33	0.86	202	5.28	287	7.50
Organisational atmosphere	176	4.60	8	0.21	184	4.81	270	7.06
Board as legal decision taker	129	3.37	48	1.25	177	4.63	220	5.75
Clarity of operations	122	3.19	28	0.73	150	3.92	192	5.02
Project portfolio management	69	1.80	16	0.42	85	2.22	120	3.14
Communication problems	68	1.78	2	0.05	70	1.83	94	2.46
Information flow	60	1.57	8	0.21	68	1.78	101	2.64
Decision taking	59	1.54	7	0.18	66	1.73	93	2.43
Clarity of vision	40	1.05	6	0.16	46	1.20	58	1.52
Personnel growth	28	0.73	6	0.16	34	0.89	60	1.57
Informal communication / gossip	17	0.44	1	0.03	18	0.47	26	0.68
Availability of the chairman	17	0.44			17	0.44	28	0.73
Management skills	3	0.08			3	0.08	15	0.39
<b>Total</b>	<b>957</b>	<b>25.01</b>	<b>163</b>	<b>4.26</b>	<b>1,120</b>	<b>29.27</b>	<b>1,564</b>	<b>40.88</b>

As described in the methodology chapter, twenty interviewees were invited for an interview and twenty interviews were conducted. The interviews have been recorded, transcribed and handed over to the interviewees for checking, clarification and rectification. The interviews lasted between one hour and two and a half hours and

produced transcripts of 3,450 words on average (see Appendix B). The importance of the interview session is demonstrated by the fact that it identifies 45 categories of which 13 were already elaborated in the manual analysis and another 32 added based on the analysis by means of the Atlas.ti programme. The seven items with no or only one quotation, such as civil servants or value creation (see Table 13), were not considered.

**Table 18:** Further categories identified in 20 interviews (N = 3,826 coded quotes)

	N = 3,826							
	# of 16 interviews (employees group)		# of 4 interviews (mgmt group)		# of 20 interviews		# of all quotations	
Clarity of strategy	133	3.48	43	1.12	176	4.60	243	6.35
Responsibilities/status of PMs	116	3.03	24	0.63	140	3.66	194	5.07
Behaviour/activities powerful people	132	3.45	2	0.05	134	3.50	170	4.44
PM methodology	94	2.46	30	0.78	124	3.24	202	5.28
Power relations	113	2.95	10	0.26	123	3.21	186	4.86
Hierarchy of authority	81	2.12	27	0.71	108	2.82	153	4.00
Clarity of responsibilities	67	1.75	25	0.65	92	2.40	112	2.93
Clarity of structure	67	1.75	20	0.52	87	2.27	104	2.72
Political will/influence/activity	57	1.49	25	0.65	82	2.14	118	3.08
Team building and team learning	66	1.73	5	0.13	71	1.86	84	2.20
Organisational performance	53	1.39	10	0.26	63	1.65	90	2.35
Leadership in project development	51	1.33	8	0.21	59	1.54	82	2.14
Project duration	42	1.10	13	0.34	55	1.44	79	2.06
Internal personal conflict	54	1.41	1	0.03	55	1.44	71	1.86
External relations	49	1.28	3	0.08	52	1.36	63	1.65
Legitimisation management	34	0.89	4	0.10	38	0.99	42	1.10
Project based organisation	26	0.68	2	0.05	28	0.73	46	1.20
External image	27	0.71			27	0.71	29	0.76
Motivation	20	0.52	2	0.05	22	0.58	38	0.99
Board member interests	7	0.18	14	0.37	21	0.55	25	0.65
Resistance to change	16	0.42	2	0.05	18	0.47	21	0.55
Single loop learning	12	0.31	3	0.08	15	0.39	21	0.55
Unfair salary classification	7	0.18	2	0.05	9	0.24	11	0.29
External relationships chairman	6	0.16			6	0.16	15	0.39
Double loop learning	6	0.16			6	0.16	8	0.21
Withdrawal of people	5	0.13	1	0.03	6	0.16	8	0.21
Flexibility	5	0.13	1	0.03	6	0.16	8	0.21
External communication	4	0.10			4	0.10	9	0.24
Education	4	0.10			4	0.10	7	0.18
External personal conflict	3	0.08			3	0.08	3	0.08
Job security	3	0.08			3	0.08	3	0.08
Resource based view	2	0.05			2	0.05	6	0.16
Market based view			2	0.05	2	0.05	2	0.05
Market dynamism	2	0.05			2	0.05	2	0.05
<b>Total</b>	<b>1,364</b>	<b>35.65</b>	<b>279</b>	<b>7.29</b>	<b>1,643</b>	<b>42.94</b>	<b>2,255</b>	<b>58.94</b>

The amount of further categories identified and their frequency demonstrate in a way the weakness of the manual analysis. However, the manual analysis resulted in the identification of the socio-political system of the organisation (Figure 23) which coincides with different categories additionally identified in the computerised analysis. This socio-political system, which will be described later, incorporates the following categories from Table 17: (1) behaviour of the chairman—287 quotes, (2) organisational atmosphere—270

quotes as well as Table 18: (3) power relations-186 quotes, (4) behaviour and activities of powerful people-170 quotes and (5) internal personal conflict-71 quotes. This accounts for 25.72% of all quotations which demonstrates its importance within the situation. In this regard, the low frequency of responses from the management group is explicable since they have no contact to the day-to-day work. However, the behaviour of the chairman is, together with the board as legal decision taker and clarity of strategy, one of the most frequently mentioned issues. A closer look at the interrelations between the different categories as depicted in Table 19 provides further inside.

**Table 19:** Codes co-occurrence table of the interview session – second phase

	Behaviour chairman	Board as decider	Clarity of operations	Clarity of strategy	Hierarchy authority	Powerful people	Organ. atmosphere	Power relations	PM method.	Respons. of PMs
Behaviour of chairman		39 -0.11	15 -0.04	28 -0.08	14 -0.05	45 -0.15	48 -0.14	54 -0.20	14 -0.04	21 -0.07
Board as decider	39 -0.11		20 -0.07	64 -0.22	15 -0.06	3 -0.01	6 -0.02	7 -0.02	20 -0.07	14 -0.05
Clarity of operations	15 -0.04	20 -0.07		27 -0.09	12 -0.05	17 -0.06	17 -0.05	9 -0.03	32 -0.13	28 -0.11
Clarity of strategy	28 -0.08	64 -0.22	27 -0.09		14 -0.05	4 -0.01	10 -0.03	9 -0.03	29 -0.11	25 -0.09
Hierarchy of authority	14 -0.05	15 -0.06	12 -0.05	14 -0.05		14 -0.06	15 -0.05	15 -0.07	4 -0.02	23 -0.10
Powerful people	45 -0.15	3 -0.01	17 -0.06	4 -0.01	14 -0.06		46 -0.17	69 -0.37	5 -0.02	12 -0.05
Organ. atmosphere	48 -0.14	6 -0.02	17 -0.05	10 -0.03	15 -0.05	46 -0.17		40 -0.15	8 -0.03	18 -0.06
Power relations	54 -0.20	7 -0.02	9 -0.03	9 -0.03	15 -0.05	69 -0.37	40 -0.15		2 -0.01	13 -0.05
PM methodology	14 -0.04	20 -0.07	32 -0.13	29 -0.11	4 -0.02	5 -0.02	8 -0.03	2 -0.01		40 -0.18
Responsibility PMs	21 -0.07	14 -0.05	28 -0.11	25 -0.09	12 -0.10	12 -0.05	18 -0.06	13 -0.05	40 -0.18	
Clarity of structure	8 -0.03	14 -0.06	24 -0.11	26 -0.11	15 -0.08	5 -0.02	9 -0.03	6 -0.03	6 -0.03	15 -0.07
Decision taking	15 -0.06	25 -0.11	7 -0.03	13 -0.06	12 -0.07	1 -0.01	1 -0.00	2 -0.01	6 -0.03	14 -0.07
Project portfolio	14 -0.05	32 -0.14	14 -0.06	40 -0.18	5 -0.03	1 -0.00	1 -0.00	1 -0.00	30 -0.17	18 -0.09

Remark: The table displays horizontally the 10 categories (Table 17 + Table 18) with all quotations having a value of 4.00 and above. These are complemented by the categories that support the elaboration of the network view (Figure 22).

The first phase demonstrated that missing clarity of strategy has repercussions on the structure as well as the operations of the organisation as argued by Dauber *et al.* (2012). This can be seen, for instance, in long project duration, the absence of a project management methodology or the missing allocation of responsibilities to the project managers. The interview session confirms these results given the strong relations between the categories mentioned (Table 19). Although these issues are equally important for the management group (see Table 18), no adaptation or change has been initiated. With regard to the reasons for this reluctance, the co-occurrence frequency in Table 19 demonstrates strong links regarding the behaviour of the chairman in relation to power relations, organisational atmosphere and behaviour of powerful people. This is further accentuated in the interplay between power relations, behaviour of powerful people and organisational atmosphere. As mentioned by Dauber *et al.* (2012), the organisational culture directly affects the domains strategy, structure and operations. This applies to the disturbed organisational culture within the organisation which is intimately connected with the board level. The constitution of the management board based on the tripartite was described as very problematic by employees and also

extensively by management. The argument is that board members have totally different viewpoints and also pursue their own interests. Three interesting quotes are taken for evidence especially since they also come from board members.

*"You have to think in the philosophy of the company in a board. .... But there are two philosophies i.e. members say that they represent or act on behalf of their employers and their ideas – even if the result would be negative for the organisation. Well, they think the organisation can stand it. The main point is the satisfaction of their employers" (P. 110).*

*"They have very different backgrounds and if they come together, they do not do so in order to help the organisation to move forward. Even though they get together, they always keep in mind their main activities and consequently they block many decisions and many projects" (P. 102).*

*"The organisation is not developing according to my plans. The organisation is active in areas where it should not be active such as in urbanism. This is something for the experts. The organisation is for me an organisation or a public institution responsible for the construction of housing" (P. 108).*

The first research phase already demonstrated the influence of the management board on project duration which is highly influenced by the acquisition of new lots and properties which concerns, on the other hand, the missing project portfolio management. The differences in the board also influence the fixation of a clear vision and mission. This is reflected in the answers to question seven: What is the vision of the organisation? (Appendix E). No common vision of the organisation was communicated. The following statements from the chairman describe the problem.

*"You have to bear in mind that the board members do not think in the same way. The representatives of employers would like to see the organisation with reduced functions. They do not like it when I talk about the organisation being a global player. We should just do social housing and no urban planning. I think that the two cannot be separated" (P. 109).*

*"They handcuff me but directly complain if something does not work. That is a huge problem. .... I often do not know where I am with the board. .... Unfortunately, according to our law, the board has sovereignty" (P. 109).*

*"The organisation is an enterprise which belongs to the state and whose objectives are to realise political objectives on the ground (terrain). Not more and not less" (P. 109).*

The chairman of the board who is high civil servant clearly states that the organisation belongs to the state and that its main purpose is to realise political objectives on the ground. This demonstrates the influence of government and further reinforces the argument that the board thinks in totally different ways. Furthermore, it is apparent that the board blames the chairman for causing the problems and vice versa which is what Dinsmore and Cooke-Davies (2006) describe as collective responsibility. The legal basis of the organisation is one reason why the chairman is not always available. He acts on one hand as leader of the organisation and on the other hand as coordinating civil servant in the housing ministry. "Our chairman has a problem in that he occupies several functions which are to some degree contradictory. He knows what is going on in the organisation,

what the management board wants and what the minister has got in mind. He has to coordinate all these different currents and this is certainly not an easy task" (P. 101). This double workload apparently worked when the organisation was rather small (17 staff in 1998) but does not work anymore with a personnel of currently 51 staff (2010). The problem is even worse for the project development department since the chairman also acts as departmental leader. The interview session highlighted that there was and still is a debate about the necessity of a director for the organisation since most comparable organisations in the country are organised in this way. "With regard to the board, many people have already said and it has been written publicly that we need to have a chairman as well as a director. In most administrations or organisations there is an administrative board with a chairman and a director responsible for the execution of the boards programme" (P. 101). This separation would probably solve the problems with regard to the availability of the organisational leader but not the concerns about the management board.

### **Decision-taking process**

With regard to the decision-taking process, the composition of the management board and the behaviour of the chairman are particularly mentioned by the employees. They have to be regarded together since important decisions are always taken by them. People involved in the project or the issue are thus mostly excluded from the decision-taking process. The following examples provide insight into how employees perceive decision-taking by management.

*"With regard to decisions and so on, that is somehow based on the anarchy of management since they do not have a clear line and do not communicate decisions which should certainly be given to people who need that kind of information for their work" (P. 97).*

*"[The rhythm of the board meetings] means for instance in the holiday period that decisions are only taken after 3, 4 or even 5 months" (P 94).*

With regard to the development of projects and in particular long project duration, an interviewee describes different troublesome projects and mentions relational problems of the chairman with others and their influence on decisions. The need for a special approach as well as sensitivity with regard to the political level, especially in the starting phase of a project, has already been identified in the first phase. "The relation of the chairman with others is of course also difficult which does not facilitate matters with regard to decisions" (P. 95). In order to make a decision about a project, the management board is given a dossier which incorporates an overall explanation of the project such as the location, the architectural plans as well as the anticipated budget. It was frequently reported that the board discuss minor details in their meetings. "They should intervene in policy issues of the organisation i.e. on strategic issues without going into too many

specific details. This could be, for instance, the style of projects we would like to develop and not the façade of a building” (P. 97). The decision-taking practice has an impact on project duration and the motivation of internal staff as well as external project partners. Problems are also caused by the acquisition of polluted lots or properties which demand time-consuming and expensive measures prior to project start.

### **Operational and strategic management**

The chairman and different board members have realised that there is a need for more management capabilities but they still hand over more and more projects to external project management companies instead of developing the necessary competency within the organisation. There is no real protest coming from the employees side since many of them want to keep their autonomous and flexible working style. Nevertheless, the lack of professional management such as schedule management, financial management or reporting is communicated by employees but in particular by the chairman. He describes his problems with regard to the projects as follows: “I have construction sites that last for three to four years. I do not want to have this anymore. Here, we have people who have started to be independent and that is not good at all since they just do what they like. I would like to have fixed dates for the projects so as to know when they are finished” (P. 109). “If something does not work, there will have to be a report on the problem and an explanation as to the reasons. There is also more system needed in term of fixation of prices i.e. where do we end up financially and when does it start to become critical” (P. 109). Interestingly, the statements from the chairman about project duration as well as financial management have already been identified in the first phase. The category project management methodology shows that each project manager is using his or her own method and that the chairman’s chosen and elaborated cost management was simply not accepted by powerful organisational members. Consequently, the problem seems to be somewhere else i.e. more in the social domain. This is also reflected in his comment that people have started to be independent and that they just do what they like. The statements from the employees group show in a way that a common approach is vital and that more financial management is needed.

*“If we ever want to have a clear or common external image it is clear that we need a common approach. This is also needed in order to enhance our efficacy” (P. 104).*

*“We have already invested a great deal of time in such projects but we always start anew because nobody ever takes the crucial information from the files so as to avoid making the same mistakes” (P. 101).*

*“The technicians are autonomous, the secretaries are autonomous, everyone is autonomous and consequently people do what they like. You do not know what is going on in terms of financial matters, which is difficult. We see construction invoices but we have no overview i.e. no financial controlling about the budget of the project” (P. 104).*



Although the interviewees do not specifically state the need for more professional management, their comments reflect an awareness of a negative development with regard to projects. "To go back to our discussion, ten years ago we used to put a certain number of apartments on the market at the end of the year. What do we do today? Production used to be the same if not better so there is obviously a problem" (P. 102). "It is absolutely necessary to have a steady development in the projects i.e. running projects throughout the year and not waiting until it is too late. The basis is the construction projects since they supply other services such as rental-sales. Furthermore, they have a vital influence on accountancy activities which further indicates dependency on our projects" (P. 97). Interestingly, the last quote is from a member of general administration i.e. that the project orientation of the organisation and consequently the importance of the projects is well understood.

The need for a programme and project portfolio management is partly understood but not yet realised in order to better manage the whole organisation. Most people just talk about construction projects and not yet about business projects. Nevertheless, the following comments from general administration (which includes accountancy) confirm the need for a professional project portfolio management.

*"Discussions e.g. about a project portfolio would bring about objectives for the upcoming years and decisions about which projects to take on board. This would also concern the fixation of budgets and consequently a prioritisation of specific projects and dropping the ones which do not match the goals set" (P. 97).*

*"It is also a matter of policy i.e. which lots or properties are taken on board. It is absolutely necessary to have simple projects which allow us to manage the other activities. Furthermore, it is necessary to have a mixture of different project types and not just projects which drag on over years. Consequently, we need a project portfolio with a variety of different projects so as to manage our activities" (P. 97).*

The quotes demonstrate not just the need for a project portfolio management. They prompt questions such as why such a development did not take place since the work with projects is nothing new to the company. The following quote from a member of the board demonstrates that they do not feel really responsible since the management of the projects is solely the task of the chairman. "The problem is that we validate many projects throughout the year but we have no overview or comparison with projects that have already been realised. .... We don't have that i.e. we take decisions out of the blue and only the chairman knows later on if it works or not" (P. 108). This description confirms in a way that the board does not apply the necessary management concepts. Dinsmore (1999) argues that even project-based organisations do not properly apply the possibilities of project management. The author argues, for example, that public utilities need a great deal of training in the specifics of project management. A fairly important

point is that the categories identified in participant-observation are mostly confirmed by the interviewees. Nevertheless, the lack of professional management is apparently more caused by social issues which is in a way confirmed given the amount of quotations allocated to categories such as behaviour of the chairman or organisational atmosphere (see Table 13).

### **Relationships between the employees**

Bad relationships between different employees or particular groups, but also disturbed relationships between many employees and the chairman, were frequently mentioned. One critical issue is the lack of collaboration between the project managers and the technicians. This specific project development departmental problem has a vital impact on the development of further management capabilities. The other critical issue is the forceful activities from the general administration department which has a widespread impact on the whole organisation. We start with the missing clarification of responsibility between the architects and the technicians. The project managers have practically and generally no power. "If he [i.e. the chairman] says that he wants me to be responsible for my projects then I answer that I really want to be responsible for them but he has to give me the control. But he never does so I have no financial control, no control over the technicians and no control about upper level decisions" (P. 104).

The relationship between architects i.e. project managers and technicians is described by a powerful technician (Nikos) as being problematic. "The internal structure with architects and technicians does by far not always function. More precisely said it is rather an isolated case" (P. 92). According to Dauber *et al.* (2012), structural manifestations regulate patterns of behaviour and should be modified if the expected behaviour as well as the expected performance is not attained. However such modifications have not been taken into consideration. "Secondly, it has been said for years that architects are responsible for planning and technicians are responsible for building sites. This was fairly vague at the beginning and more strict/regulated later on. There are people who like this since they do not want to be monitored" (P. 101). An interviewee in general administration finds this situation unbelievable since it also has repercussions on the final products of the organisation.

*"Normally, there is a project leader which is in my point of view the architect and she or he has a helping hand which is the technician. It is not the technician who can decide on behalf of the architect. On this level, there is something which does not function well. It is not logical how it currently works. The technician has more information than the person in charge. The technician takes decisions and the architect is not informed. That is really a problem since it directly concerns the products of the organisation" (P. 97).*

Interestingly, these problems with regard to communication and information are no longer just internal issues since knowledge about them is used against the employees. "I think that external people already use the knowledge about our internal problems against us which even complicates matters" (P. 101). The other important issue is the relationships between the different departments which have an impact on the overall communication and consequently on the information flow between the different services. One of the main points here is the activities of the general administration department which are normally done without close cooperation with the people concerned. They are fully aware of their rigid approach and hope that other people will act in the same manner. "Because we are quite forceful about it, they regard us somehow as an aggressor. .... I do expect something from the new head of customer services starting on the first of December since she seems to be a forceful person" (P. 96). Reactions towards this situation differ. They vary from simple complaints by the architects to fears about possible repercussions.

*"Nobody asked about influences on our work in project development. It is a shame that general administration tells us what to do in our own domain" (P. 101).*

*"We laugh since we are scared or do not know what would happen if we did not work properly with general administration. .... The other colleagues ask themselves, why is it like this and why do these guys [in general administration] always get what they want. What happened in this area that the chairman always jumps" (P. 99).*

The comment about the promotion of general administration coincides with Table 6, where this department was identified as having experienced the biggest growth rate with regard to personnel. Another issue investigated in the section on documentation was the way that resistance from a member of project development concerning the empowerment of architects as real project leaders was tolerated. A comparable comment is made by an interviewee who indicates that this person has truly a powerful relationship with the chairman. "One of the technicians [Nikos] would start a revolution if we did it this way. So it has to be done step by step and not too fast because if they turned against us, nothing would work" (P. 96).

These power relations play an important role in the problematic situation and are further elaborated in the socio-political system of the organisation (Figure 23). Relational issues are regarded as being the key for improvement in different domains. "Once the relational problems are resolved, I think, everything will improve with regard to productivity, profitability or professional communication" (P. 102). The quotes demonstrate that there are problems between the departments with general administration acting in a way as aggressor. The project development department has a powerful technician who can stop or slow down processes since he is protected by the chairman.

## Relationships between the employees and management

It is communicated that the chairman does not treat people in the same manner. In this respect, a cultural change was often mentioned. This led to a further examination of corporate reports in order to find a possible starting point for the problematic situation. With regard to this development, an interviewee describes the changed behaviour of the chairman as follows. "What he is doing today with accountancy, ten years ago, he did the same with us. He treated us all in the same manner and did not make any differentiation" (P. 99). This quote coincides with the statement made by the founding project manager or architect who has been working for the organisation for 29 years. She also experienced growth as a starting point for the change. Furthermore, she mentions the learning process of the chairman as another possible cause.

*"At the beginning I had a really good relation to the chairman but this changed when we got bigger and the problems with accountancy occurred. He had to learn a lot since it was new territory for him and I think he was not aware of the effort needed in terms of financial management, power related issues or criticism from the outside" (P. 101).*

Interestingly, the relationship between the founding project manager and the chairman developed so badly that she is now only allowed to work with project management companies and not directly with the external project partners. It had been proposed that she would lead the project development department but she was eventually refused this position because of her character as well as her harsh behaviour. The chairman did not matters any better by not talking to her about possible changes. According to the chairman, this more personal problem seems to be based on the fact that architects are not normal human beings. "If we had 'normal' human beings in project development, I do not qualify architects as 'normal' human beings, I would also have someone there as leader of the department. .... I did harmonise this to some degree by giving her projects where she can deal almost solely with a project management company and thus not have direct contact to the other people" (P. 109). According to a powerful interviewee (Karen), the chairman is responsible for the bad relationships between people.

*"I already said to the chairman that he is at least 50% responsible for the bad relationships between people. .... Unfortunately and this is really sad, I think that he is not unhappy with the situation since it is his strategy 'to divide so as to better reign' and that he has mastered its application. He is playing with people and once he got the latest information about a dispute he is happy or even laughing. This seems to be more important than the management of the organisation which is why he is not in his right place as chief of personnel" (P. 102).*

With regard to power as well as the equal treatment of all the different departments, an interviewee describes the need for some kind of appreciation for the contributions made by individuals as well as by the different departments. "In our case, it is probably a fight between rivals or a fight for power. Everyone should treat everyone else with due respect

and one department should not be worth more or be considered higher than any other. All should be appreciated for their own competencies and be supported accordingly" (P. 98). This quote has a lot to do with systems thinking and the need to regard the workflow of the system instead of different departments. Nevertheless, the evidence shows that history and relationships that have been built up play an important role in the situation. In this regard, personal growth is of interest since it is not just mentioned by many employees but also by the chairman and a member of the board who seem to be surprised about this evolution. "We already have a staff of 50 which has grown rapidly and sometimes the question arises as to what all those people do" (P. 107). The interesting thing is that the increase in personnel, which started in 1998/1999, did not result in increased productivity since the figures regarding the units produced show a steady decrease starting at the same time (Figure 1). Even worse, the production peaks of 1995 and 2002 were realised by means of external project management companies. These external companies are being used more and more which leads to dependency on them and a lack of management capabilities within the organisation. The employees perceive the growth in personnel as a further problem with regard to relationships between people.

*"If everyone worked properly not as many people would be needed. We take more and more people on but this just adds to the problem e.g. by creating bad relations. When I started at the organisation there were about twelve members of staff and within over the last 10 years we have increased this number to fifty" (P. 102).*

*"Every social project is the same and thus has to be realised in my point of view with a minimum amount of people but a maximum outcome" (P. 103).*

*"The problem is that the strong personnel growth has not resulted in greater productivity. It is not higher than in the first years. I do not know why so many people have been taken on since for me at least a third could be sent home and things would work better. This is an objective matter which you can clarify by coming up with statistics about units produced compared with human resources used" (P. 103).*

According to Dauber *et al.* (2012), the performance assessment of an organisation could lead to adaptations in its structure as well as its strategy. However, as mentioned in the methodology chapter, assessment is merely based on turnover and not on efficiency ( $E_2$ ) proposed for the primary task model i.e. the ratio between the housing units produced and the amount of resources used (see Figure 1). If deficiencies are not disclosed, either consciously or unconsciously necessary adaptations cannot start.

### **Information flow within the organisation**

The formal information flow within the organisation does not function properly. The following quotes from the employees describe the issue: "Yes, there are points which do not work well in particular communication. It is a bit like a screen between the different

services as well as between different people. Information does not necessarily circulate from person to person or from service to service” (P. 97). “It’s also a bit sad that everyone and each department is self-governing i.e. little co-operation between the different departments can be perceived. Hence there is no coherence. Each person is looking after his or her own interests without realising that a common approach would be much more fruitful in terms of reaching objectives” (P. 98). “If there is a problem somewhere in terms of communication, there is automatically a blockage at different levels. This is problematic since a thorough and constant exchange of information is needed. If it does not go through there is somehow a blockage” (P. 97). Dauber *et al.* (2012) describe poor or missing communication as being a main obstacle with regard to single as well as double-loop learning. This learning disability is somehow visible in the low frequency of quotations within these categories (see Table 13)

The informal flow of information concerns personal entanglements with co-workers and are thus evidence of the socio-political system. “If there is a problem somewhere, the information flows through unusual channels for example to Nikos or to Lawrence” (P. 99). This is a very interesting quote since it already describes two powerful people, as depicted in Figure 23, who behave in ways that are not mutually beneficial. The quote describes two important lines of communication which means that power is also expressed through information. This is in line with the next quote which states that information is withheld. “There are always groups or clans and always this spirit of jealousy and uneasiness between most of the people. ... I think that people enjoy withholding information which is ridiculous. There is no team spirit, there is absolutely no team spirit” (P. 102). The statements describe the situation with regard to people. They cluster in groups so as to be stronger against other groups or departments. Unfortunately, this behaviour does not foster the necessary learning process which is the aim of SSM models such as the primary task systems of the organisation.

### **Model building – primary task systems**

The first model according to the logic-driven enquiry of the SSM process, the primary task systems of the organisation, was developed so as to judge usefulness and acceptance by the research participants. The two models presented i.e. structural complexity (Figure 12) and the primary task systems (Figure 13), were often used to explain particular issues or the lack of a connection. The model about structural complexity in particular was used to explain internal issues as well as human conflicts which proves in a way the usefulness of rich pictures. The following quotes are examples of how people talked about different points in the primary task model and the necessary connections between the different departments.

*"With maintenance, for instance, it is necessary to communicate problems to project development so as to avoid making the same mistakes again (Link 5-4). The problem should also be investigated in other projects developed or realised at the same time or under the same assumptions" (P 108).*

*"The different parties such as rental-sales and project development should certainly work together so as to give feedback to each other (Link 2-3). If something does not work in one department this has to be communicated to the other one as described in your primary task model of the organisation" (P. 110).*

*"Today there is nothing. We have no basis on which to analyse what is going on and where. If we want to buy a house, we need to know something about the demand in the region (Point 2-2). If there is no demand, then acquisition would be unreasonable or even stupid" (P. 96).*

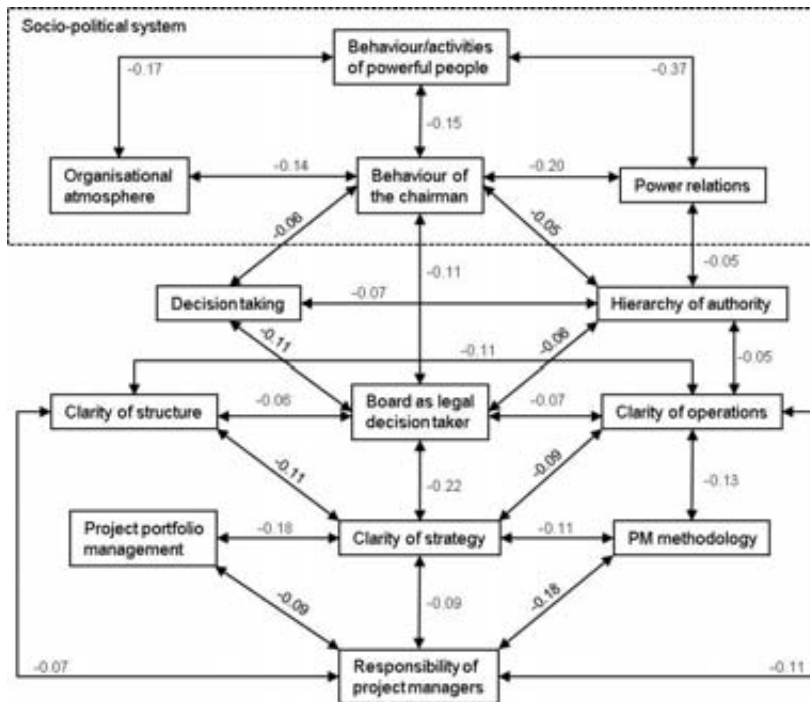
Interestingly, two quotes come from members of the board who are nevertheless conscious of the necessary cooperation between the different parts or departments. (Link 5-4), (Link 2-3) and (Point 2-2) are taken from the primary task systems model as depicted in Figure 13. The numbers and connections will be used in the structured debate about feasible and desirable change.

Although the primary task systems of the organisation start with the appreciation of the external influences such as citizens or government, Table 18 depicts a rather weak influence of the external environment on the situation. In comparison with private companies, the legal basis of the organisation is defined by law which can only be changed by government. Consequently, the organisation does not really need to constantly justify its activities as described by Dauber *et al.* (2012). This is supported by the fact that the governing political party set up the entity in 1979. Furthermore, over the last decades, the housing minister has always been a member of this party, to which the chairman belongs as well. As first governmental advisor to the housing minister, the chairman is well protected from criticism or pressure from the outside. Given these circumstances, legitimisation management will probably become an issue once the strong political party is no longer in power.

### **4.3.1 Network view – second research phase**

The network view of the first research phase (Figure 21) demonstrated the importance of clarity of strategy and provided a first indication on the influence of the organisational atmosphere on the situation. The network view of the second research phase, as depicted in Figure 22, illustrates the results of the interview session and highlights the influence of the socio-political system. In order to further understand these issues, the theory of complex responsive processes of relating from Stacey (2001) is incorporated into the ongoing analysis. The relating is understood as a communicative interaction in which power relations emerge. Relational issues have a vital impact for instance on knowledge creation. "Organisational policies that disrupt relational patterns between the people,

however, could seriously damage its knowledge-generating capacity. The knowledge assets of an organisation, then, lie in the pattern of relationships between its members and are destroyed when those relational patterns are destroyed” (Stacey, 2001, p. 98). Figure 22 depicts the influence of the socio-political system on the domains strategy, structure and operations.



**Figure 22:** Network view of the second research phase

The missing allocation of appropriate responsibility and power to the project managers is connected with all domains and is manifested in that neither a project portfolio management nor a project management methodology has been developed and implemented.

### 4.3.2 The socio-political system – analysis two and three

The development of the socio-political system (Figure 23) is based on early/official participant-observation as well as the interview session. The analysis is built around the most influential people in the organisation which include the chairman but not the other board members since they do not intervene in the day-to-day work. Nevertheless, we



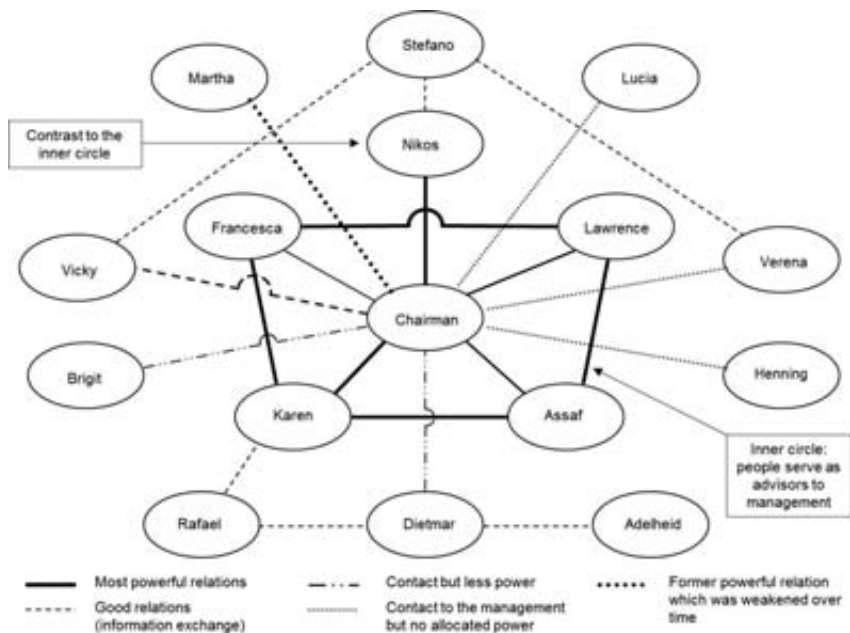
should not forget that the management board as well as external forces such as the Minister of Housing constantly intervene thus constituting another strand of the socio-political system. With regard to how power is expressed in the problematic situation, it is found that contact to the leader of the organisation is of vital importance. People with a close relationship to him serve as 'advisors' and thus in a way influence the chairman in his decisions on organisational issues. On the other hand, these powerful people are expected to deliver information to the chairman such as professional information, accusations and rumours. A project manager, who has been working for many years in the organisation, gives an example.

*"With regard to the relation between the chairman and Nikos, I think that the chairman wants to get information about the organisation and about people internally and externally, he is a source of information but not solely about facts. If the chairman was stricter with Nikos, since he can see that various things are not working well, then this source of information would be blocked. Nikos has been a member of the council in his town and is still a member of the green party and consequently gets specific information about networks and things like that. I think this is the reason why the chairman is protecting him" (P. 101).*

The protection mentioned in the above quote is confirmed by the chairman himself, who argues that he understands the behaviour of Nikos who is now close to retirement. "Rafael is certainly on our side. He has already elaborated different things but failed because of heavy resistance from others. Well, I find it understandable that Nikos does not want to change anymore since he is very close to retirement" (P. 109). This statement demonstrates in a way that the chairman is fully aware of the resistant behaviour of Nikos but has never done anything about it. Unfortunately, there is no evidence of any concern about the necessity to improve the management of the projects. The quote sounds like the chairman is saying: 'let us wait for his retirement before we actually start with organisational changes.' The above explanation demonstrates one of the connections depicted in Figure 23 which gives insight into the organisational culture. In the middle of Figure 23 we have the chairman surrounded by an inner circle which is composed of the most powerful people in the organisation who are not necessarily the departmental leaders. There is Karen, Francesca, Lawrence and Assaf. What they all have in common is that they are bound by a kind of friendship or coalition, thus exchanging official as well as unofficial information. It is interesting that all of them apart from Assaf, who has been working for the organisation for twenty years, joined the organisation about 10 years ago.

The connection between the powerful people in the inner circle is contrasted by the connection between the chairman, who has been in charge of the organisation for more than nineteen years, and Nikos, who has been working in the organisation as a technician for eighteen years. The protection provided by the chairman allows Nikos to fight against any possible modifications coming from the inner circle as well as to fight against the project managers, as described in the section on documentation in chapter three.

Interestingly, the chairman is fully aware of the character of Nikos and the possible consequences of it. “It does not make sense to group people together who cannot work together. Nikos and Martha have always worked together; it has just been in the last few years that they have not been able to work together anymore. Rafael is more accustomed to obeying therefore this collaboration is much better and he is not as stubborn as Nikos who is also vindictive which is dangerous” (P. 109).



**Figure 23:** The socio-political system and its power related connections

The project manager who has been working for the organisation since its foundation gives additional reasons for his ever-growing influence. “It is not just the relation to the chairman but also his position as representative of the personnel which is another source of information for him. The election next week of new representatives will hopefully change this situation since it has given him too much power because people have become dependent on him. It is certainly interesting for the chairman to get this kind of information as well since Nikos is a rumourmonger” (P. 101). The above explanations lend support to the claim that rumours or so-called shadow themes as described by Stacey (2001) play a vital role in the organisation. The chairman is not simply influenced by these issues, he deliberately manipulates or uses them so as to further foster his own personal as well as political power. Comparable to the description of Magala (2009), the socio-political system depicts the hidden power structure within the organisation which is in stark contrast to the neat depiction of the organisational chart (Figure 2). Since

everything is spinning around the chairman one could assume that he is a good leader. Although he is on one hand a fully respected figure of authority by many people, he is on the other hand heavily criticised for his management style and in particular his behaviour. The extent of his behaviour and its subsequent negative impact on the organisational atmosphere is demonstrated in Table 17 as well as Table 19. One of the most powerful people describes this as follows:

*“He is not cut out to manage a staff of fifty. He is fully accepted but he is too much of an activist. He does not show his authority and does not enforce his decisions, unless you make him. He is not capable of making the point and even worse he has been the cause of internal conflicts. He is not fair and does not treat people in the same manner” (P. 102).*

According to the interviewee in the above quote, the chairman is not only the cause of the problematic situation but he is also responsible for the development of the current socio-political system. The other sources are the management board as well as the employees who profit from the unstable situation. However, “the biggest problem is the second point. It is the chairman who causes the others. His attitude towards us is similar to that towards the board” (P. 102). This coincides with Table 20 which depicts the co-occurrence analysis based on the interviews with the four most powerful people in the organisation (inner circle of Figure 23).

**Table 20:** Codes co-occurrence table – people of the inner circle (N = 4 interviews)

	Behaviour chairman	Board as decider	Clarity of strategy	Project portfolio	Internal conflict	Organ. atmosphere	Respon. of PMs
Behaviour of chairman		10 -0.15	9 -0.14	4 -0.07	6 -0.12	11 -0.15	2 -0.03
Board as decider	10 -0.15		21 -0.35	12 -0.22	2 -0.03	3 -0.03	4 -0.06
Clarity of strategy	9 -0.14	21 -0.35		15 -0.33	1 -0.02	4 -0.05	7 -0.11
Project portfolio	4 -0.07	12 -0.22	15 -0.33		n/a	1 -0.01	6 -0.13
Internal conflict	6 -0.12	2 -0.03	1 -0.02	n/a		13 -0.24	1 -0.02
Organ. Atmosphere	11 -0.15	3 -0.03	4 -0.05	1 -0.01	13 -0.24		4 -0.05
Responsibility PMs	2 -0.03	4 -0.06	7 -0.11	6 -0.13	1 -0.02	4 -0.05	
Power relations	12 -0.21	3 -0.04	4 -0.06	1 -0.02	5 -0.10	8 -0.11	2 -0.03
PM methodology	n/a	4 -0.07	4 -0.07	8 -0.22	1 -0.02	1 -0.01	8 -0.18
Organ. performance	n/a	3 -0.05	5 -0.10	4 -0.11	1 -0.03	5 -0.08	3 -0.07

Remark: The table displays the most relevant categories and figures of the Atlas.ti filter ‘people of the inner circle’ which was created in order to understand their perception.

The ‘advisors’ of the chairman are fully aware of his behaviour and the influence this has on the relationships between the people and consequently the organisational atmosphere. Furthermore, they know about the interrelation between project portfolio management, project management methodology and the allocation of adequate power and responsibilities to the project managers. However, instead of trying to rectify the situation for the better, they use their allocated power to oppress others. An example is the customer service department that has received strong criticism.

*"The customer service department is a general problem. Verena for instance just goes around complaining about the situation" (P. 102).*

*"I think that Verena doesn't really have the competency to know what needs to be done" (P. 97).*

*"The service rental-sales, on the other hand, is a service where we lose money since it does not work well" (P. 104).*

The annual reports show that the rental-sales service with Verena as head of service has never progressed in terms of personnel although the amount of units is constantly rising each year (see Table 6). Verena has been working for the organisation for eleven years which means that she apparently knows her job. Nevertheless, a demonstration of power was given when Verena asked for help. "The idea to take on a new lady as departmental leader was mine [Karen] since Verena asked for help but I said to the chairman that he should not give her help but rather a boss" (P. 102). The powerful relationship of the interviewee to the chairman as well as the influence on such issues is confirmed by the following statement. "In terms of rental-sales, I think that Verena is just going around complaining or doing other things but not doing her job. Therefore, I proposed the alternative, the new lady as boss and not just another person who had already been selected by the chairman" (P. 102). This is evidence of the socio-political system and the existing power relations. The inner circle is not completely based on friendship. Whereas Francesca, Karen and Assaf have close friendships with each other and interestingly, together with Rafael, the same nationality, Lawrence is somewhat against Karen which gives rise to the argument that we have two competing people in the inner circle. One of the areas of dispute is the development of personnel in accountancy and property management (Table 6). "This does not solve the problem e.g. of the many people in accountancy or in property management" (P. 102). This refers to the development of personnel where general administration was identified as having experienced the biggest growth rate. On the other hand, Lawrence argues that Karen should be given some tasks so as to free the chairman. "The chairman should give a few tasks for example to Karen so that he does not have to deal with everything. Karen could thus canalise lots of different issues" (P. 96). That means we have two competing people in the inner circle which complicates matters. Nevertheless, there is an exchange of information between Karen and Lawrence through Francesca who has a close friendship with both parties but is not granted the same degree of power by the chairman. An interviewee explains it as follows.

*"Information about the decisions of the chairman with regard to the different services runs from Karen to Francesca. For reporting, Francesca appears for a daily report in accountancy since she has a good relationship with Lawrence. The 'little boss' is thus always informed about what is going on" (P 99).*

It is interesting that Lawrence is already called the 'little boss' which confirms in a way his overall activities. According to Checkland and Scholes (1990), these seemingly minor

issues, which often take the form of witty remarks, play an important role in understanding the organisational culture. Apart from the socio-political analysis, it is useful to think of the intervention in the problematic situation as itself being problematic which leads to analysis one.

### **4.3.3 Analysis of the intervention – analysis one**

The cultural enquiry as explained in the methodology chapter is composed of analysis one, two and three. The socio-political system, as described before, demonstrates the heavy involvement of management and in particular the leader of the organisation. This puts the researcher in a somewhat tricky position especially with regard to the further work with the management group. The evidence for the causal social problems was found through intensive participant-observation and was specifically communicated in the first part of the interview questions i.e. the questions about people's perception of the situation. The researcher strongly believes that a study directly commissioned by top management and conducted by an external researcher would not have resulted in the same richness and insight into the socio-political system. The participative researcher who acts as client according to Checkland and Scholes (1990) i.e. as the one who caused the study, is for such an investigation probably a better choice than an external observer since scratching on the surface without understanding the problematic situation incorporating power relations would not really make sense.

Houchin and MacLean (2005) argue that the role of the researcher as an employee is justified if total immersion in the work or the situation is needed. On the other hand, the investigation reveals that working as researcher as well as employee is not without problems especially as the chairman has realised that he is under investigation as well. In this sense, it is probably positive that top management, in accordance with the analysis, is not completely in line. This is further demonstrated by a comment coming from a member of the board which indicates that the chairman is in his point of view responsible for the current organisational performance.

*"You have to present it and to say clearly what we have to work on in order to improve our performance i.e. to become faster with less investment. You shouldn't be afraid of saying that it is also caused by the chairman since he is the most important wheel in the organisation. He can accelerate or slow down a process. He sometimes slows it down for reasons I do not understand" (P. 108).*

The quote confirms once again the discrepancies between the chairman and other members of the management board and indicates that they are also looking for improvement. However, their improvements are solely located in corporate governance as well as strategic management since they have no insight into the day-to-day work of

the organisation. Nevertheless, the quote disregards the fact that the management board contributes to the problematic situation as well with widespread implications on the project work.

#### 4.4 Group work session – third phase

The previous section analysed the interview session and explained the socio-political system. This section now analyses the activities within the different group sessions which were conducted between February and May 2009 with the intention of comparing the models with the problem situation so as to elaborate possible change that will eventually lead to action. Table 21 shows the categories identified which confirm the issues highlighted in the network view of the second research phase (Figure 22).

**Table 21:** Categories identified in 5 group work sessions and two interviews

	N = 3,826							
	# of 5 group work (employees group)		# of 2 interviews (mgmt group)		# of 7 combined		# of all quotations	
Organisational atmosphere	40	1.05			40	1.05	270	7.06
Clarity of operations	30	0.78			30	0.78	192	5.02
Behaviour of the chairman	22	0.58	2	0.05	24	0.63	287	7.50
Responsibilities of PMs	22	0.58	2	0.05	24	0.63	194	5.07
Hierarchy of authority	12	0.31	9	0.24	21	0.55	153	4.00
PM methodology	16	0.42	4	0.10	20	0.52	202	5.28
Power relations	14	0.37	2	0.05	16	0.42	186	4.86
Clarity of responsibilities	15	0.39	1	0.03	16	0.42	112	2.93
Board as legal decision taker	11	0.29	4	0.10	15	0.39	220	5.75
Clarity of structure	8	0.21	6	0.16	14	0.37	104	2.72
Information flow	12	0.31	1	0.03	13	0.34	101	2.64
Behaviour of powerful people	12	0.31			12	0.31	170	4.44
Political will/influence/activity	3	0.08	9	0.24	12	0.31	118	3.08
Clarity of strategy	3	0.08	6	0.16	9	0.24	243	6.35
Decision taking	6	0.16	3	0.08	9	0.24	93	2.43
Personnel growth	8	0.21			8	0.21	60	1.57
Communication problems	7	0.18			7	0.18	94	2.46
Project portfolio management	2	0.05	3	0.08	5	0.13	120	3.14
External relations	3	0.08			3	0.08	63	1.65
Availability of the chairman	3	0.08			3	0.08	28	0.73
Informal communication / gossip	3	0.08			3	0.08	26	0.68
<b>Total</b>	<b>252</b>	<b>6.59</b>	<b>52</b>	<b>1.36</b>	<b>304</b>	<b>7.95</b>	<b>3,036</b>	<b>79.35</b>

As described in the methodology chapter, five official group sessions were performed with the employees' group and two interviews with the management group. The group sessions as well as the interviews have been recorded, transcribed and handed over to the participants for checking, clarification and any rectifications. The group sessions lasted between one and two hours and produced transcripts of 2,860 words on average. The interviews lasted around one hour and produced transcripts of 2,240 words on average (see Appendix D). With regard to the purposeful activity models developed

within the intervention, their analysis follows primarily the approach proposed by Checkland and Scholes (1990). The primary task systems as well as the issue-based relevant systems are used for a comparison with the perceived reality. However, before the disclosure of the results of the group work it is interesting to see the result of the computerised analysis regarding all research phases. Table 22 incorporates all 90 notes taken during the intervention, all the interviews as well as the group work sessions. The impact of the group work, i.e. the third phase, on the overall result is rather low. This is due to the fact that, on the one hand, only five sessions were performed and, on the other hand, that the research participants realised the impossibility to collaboratively work with the powerful people as well as the chairman given their behaviour.

**Table 22:** Categories identified in the four research phases (N = 3,826 coded quotes)

	N = 3,826							
	# of 90 notes first - fourth phase		# of 20 interviews second phase		# of 7 combined third phase		# of all four research phases	
Behaviour of the chairman	61	1.59	202	5.28	24	0.63	287	7.50
Organisational atmosphere	46	1.20	184	4.81	40	1.05	270	7.06
Clarity of strategy	58	1.52	176	4.60	9	0.24	243	6.35
Board as legal decision taker	28	0.73	177	4.63	15	0.39	220	5.75
PM methodology	58	1.52	124	3.24	20	0.52	202	5.28
Responsibilities of PMs	30	0.78	140	3.66	24	0.63	194	5.07
Clarity of operations	12	0.31	150	3.92	30	0.78	192	5.02
Power relations	47	1.23	123	3.21	16	0.42	186	4.86
Behaviour of powerful people	24	0.63	134	3.50	12	0.31	170	4.44
Hierarchy of authority	24	0.63	108	2.82	21	0.55	153	4.00
Project portfolio management	30	0.78	85	2.22	5	0.13	120	3.14
Political will/influence/activity	24	0.63	82	2.14	12	0.31	118	3.08
Clarity of responsibilities	4	0.10	92	2.40	16	0.42	112	2.93
Clarity of structure	3	0.08	87	2.27	14	0.37	104	2.72
Information flow	20	0.52	68	1.78	13	0.34	101	2.64
Communication problems	17	0.44	70	1.83	7	0.18	94	2.46
Decision taking	18	0.47	66	1.73	9	0.24	93	2.43
Organisational performance	22	0.58	63	1.65	5	0.13	90	2.35
Team building and team learning	8	0.21	71	1.86	5	0.13	84	2.20
Leadership in project development	19	0.50	59	1.54	4	0.10	82	2.14
Project duration	19	0.50	55	1.44	5	0.13	79	2.06
Internal personal conflict	12	0.31	55	1.44	4	0.10	71	1.86
External relations	8	0.21	52	1.36	3	0.08	63	1.65
Personnel growth	18	0.47	34	0.89	8	0.21	60	1.57
Clarity of vision	11	0.29	46	1.20	1	0.03	58	1.52
Availability of the chairman	8	0.21	17	0.44	3	0.08	28	0.73
Informal communication / gossip	5	0.13	18	0.47	3	0.08	26	0.68
<b>Total</b>	<b>634</b>	<b>16.57</b>	<b>2,538</b>	<b>66.34</b>	<b>328</b>	<b>8.58</b>	<b>3,500</b>	<b>91.48</b>

The interview session produced most of the data which coincides with Yin (2003) who argues that interviews are the most important source for data collection in a case study. The categories identified in all four research phases correspond, apart from a few exceptions, widely with the interview session. The different phases corroborate the network view of the second research phase (Figure 22). The situation is shaped by the

inability to implement a strategy for the project-oriented organisation. This is due to an oppressive social environment which hampers necessary adaptations.

#### **4.4.1 Comparison of the models with the situation**

“[There are] four ways of doing the comparison (informal discussion; formal questioning; scenario writing based on ‘operating’ the models; and trying to model the real world in the same structure as the conceptual models)” (Checkland and Scholes, 1990, p. 43). The second i.e. formal questioning, is the basis for this analysis. The approach takes the different models elaborated as a source of questions so as to structure debate about the situation. In order to show the importance of a collaborative approach within the organisation, the connection between the primary task systems (Figure 13) and the model on strategic facility management (Figure 15) was explained in the group sessions. These models demonstrate the need for closer collaboration between the different departments since the process starts with the demand or need for affordable housing in customer services then continues with project development and ends with property management which is together with accountancy a vital part of general administration.

According to Seddon (2008), the design and management of work in a systems thinking view understands customer demand and its inherent nature. This forms the basis for studying the flow of customer demand through the organisation or the system. The interview session already demonstrated missing links between different departments and problems within different activities. To compare the conceptual models with real world situations Checkland and Scholes (1990) propose the use of a matrix that puts together ideas for change. Such a matrix for the primary task systems can be found in Table 23. This matrix and the purposeful human activity system in Figure 13 are closely interrelated since the numbers of the activities depicted are the same. This permits discussion of each activity with regard to its existence and how it is done as well as judged. Furthermore, this allows thinking about possible change which is mentioned in the column about comments.

#### **The role of the project managers in the organisation**

The group sessions raised further issues such as statistics about demand which is not communicated to the people. This concerns the appreciation of the need for affordable housing and in particular activity 2-2. This is an interesting issue since it was also one of the subjects in the interview with the chairman. The statistics do not simply indicate where people want to live i.e. which part of the country, but also what size of apartment they need i.e. how many bedrooms which is a vital piece of information for the project



managers. This issue concerns the missing link between customer service and in particular rental-sales and project development. The employees are fully aware of the necessary exchange of information between the departments but unfortunately the information is retained by the chairman. The fact that there is not even any discussion about these statistics between the chairman and the project managers demonstrates their weak position as well as lack of decision taking power within the organisation. A project manager describes it as follows in a group work session. "This is something I already mentioned in the first interview. In order to control matters, we need to have decision power which concerns financial issues as well as political subjects. This does not concern the decisions to be taken by the board but administrative matters or other issues such as urbanism. But sadly, we are not considered as executives who have this decision taking power" (P. 114). This contradicts Turner and Müller (2003) who consider the project manager as being the chief executive of the temporary organisation named project. The participation of the project managers is also discussed with regard to strategic issues such as the acquisition of lots and properties which constitutes e.g. activity 3-2 (Table 23).

**Table 23:** Comparison of the primary task systems with the situation

Activity	Exist or not in real situation	How is it done?	How is it judged?	Comments
<b>1. Appreciate external influences</b>				
Future perspective in the country	Does not officially exist	Project development according to new technologies and regulations	There is no shared vision of what is important	Shared vision so as to judge external influences and what to watch closely
<b>2. Appreciate need for affordable housing</b>				
2-1. Collect and approve requests	Does exist	List of 1,000 demands	Too many people on the list	Get away from that big list
2-2. Analyse need (location, amount etc.)	Does not officially exist	Statistics elaborated by students	No information is delivered to project development	Every PM needs to know what the client wants
<b>3. Develop housing projects</b>				
3-1. Consider project portfolio and search for lots	Does not exist	Offer from a community or the state. Decision is solely taken by the management board	Often polluted lots which cause long preparation - projects are given from one PM to another (team problems)	Implementation of a project portfolio management - feasibility study - mixture of different project types
3-2. Acquire new lots and properties	Does exist	Done by the board without information for the employees	No participation of internal architects - project is simply allocated to one PM	Information delivery to the people concerned, participation of PMs in strategic issues
3-3. Prepare project and committee approval	Does exist	Authorisations and plans are prepared by external architects and presented by PM	Master plans take a long time - No decision power for the PM (chairman decides)	Responsibility and decision power for the PM's, elaboration of project methodology

Activity	Exist or not in real situation	How is it done?	How is it judged?	Comments
3-4. Demand external authorisation	Does exist	Prepared by external partners - signed by the chairman	Takes sometimes a long time since no schedule exists	Contact with the community, build-up of good relations - external team
<b>4. Realise and record project performance</b>				
4-1. Plan and organise realisation	Does exist	Elaboration of tendering and construction plans by external architect, checked by internal PM and technician	Conflicting interface between technicians and PMs - no team building takes place, loss of communication	Decision and quality management for the board - internal team building, better PM qualifications
4-2. Record performance	Does partly exist	Comparison between invoices and the approved budget	Schedules are not questioned, no professional cost management	Time, cost and quality management, methodology, training, creation of a database for completed projects
4-3. Pay invoices and perform receptions	Does exist	External architects act as site manager - technicians do a follow-up and finally approve the invoices	Technicians have no real power on site - companies cannot be punished	Possibility of putting pressure on companies - connection to accountancy, cost management
4-4. Close down the project and prepare plans "as built"	Does partly exist connection 4-4 to 4-2 is missing	Official documents come from external partners - no official close down	External partners have started other projects i.e. no real close down, no lessons learned	Common methodology needed - training and common approach with external partners
<b>5. Satisfy need for affordable housing</b>				
5-1. Prepare contracts for letting and sales	Does exist	Customer service/rental-sales	Necessary information about the project is incomplete	Essential information has to be identified and delivered by the project team
5-2. Maintain and manage properties	Does exist	General administration/property management	In collaboration with the technicians	–
5-3. Record performance	Does partly exist	General administration/property management	Rarely feedback about mistakes such as material etc.	Information exchange/discussion
<b>Links</b>				
1. → 2.-3.-4.-5.	Systems thinking does not exist	People concentrate on their issues	Departments work independently without consideration of others	–
2. → 3.	Connection does not exist	Loose connection	No information regarding type/size or demand	Exchange of information in both ways, PMs-rental/sales
3. → 4.	Connection is tricky	Simple handover of the files/approvals to the technician	Separation leads to friction between internal project partners	Project group that works together towards the same objective
4. → 3.	Does practically not exist	Technicians are responsible for building site	No information is shared about the development on site	Information flow within the project group or team
4. → 5.	Does exist	Each technician has his own style of handing over	–	Common methodology needed
5. → 3.	Does partly exist	Information about problems within the employees' meeting	Information is lost after a couple of days	Lessons learned on a regular basis

This necessary involvement of the project managers in strategic issues is also mentioned in a group work session with technicians. "I think that the architects should already be involved and that they should give their opinion about the anticipated acquisition" (P. 113). Although there seems to be general agreement in the departments concerning the allocation of these tasks to the project managers, the qualifications of them are nevertheless questioned in different group work sessions. "I repeat yet again that we do not need internal architects but project managers" (P. 112). "It is clear that project development has to work in a professional manner and that the project managers have to develop the necessary competence or capability" (P. 111). The identification of many missing management competencies within the group sessions as depicted in Table 23 is not really a surprise since this was clear right from the start of the intervention. The interesting or important point is that most people, from all the different departments, are aware of this need within the organisation but they do not yet connect ideas with management in general.

### **Need for training and a new thinking**

One of the first notes taken in the SSM intervention describes the situation. "Most project managers and technicians are not really educated in management or the management of projects. Further education in management and leadership skills therefore seems necessary. This would further help foster communication internally as well as externally" (P. 2). That there is need for further education in management is with regard to cost management confirmed by the working style of a leading technician (Nikos). "With regard to invoicing, we know more or less where we are with building sites since you have a feeling for that. You can, for example, have less linoleum and then you see where you end up" (P. 112). This constitutes a simple example from the more traditional view of project management based on the triple constraints. Since the organisation is project oriented and the product life cycle is based on projects (Figure 15) which concern all departments, the new approach has to be based on the concept of project management as an organisational capability as described by Crawford (2006) or as Dinsmore (1999) argues on an organisation-wide management approach. This makes it necessary to bring together all the different organisational parts through a climate of openness and cooperation. According to Seddon (2008), it is necessary to consider the customer's point of view and to study the flow of work through the system. The new approach has thus to be based on company-wide management which includes demand, value and flow i.e. systems thinking, which eventually abandons the current functional design based on command and control. The group discussions on the basis of the primary task systems reveal that there are many ideas about further development which are closely connected with the management capabilities of the organisation. Apart from the strategic, structural as well as operational domain, the interview session showed that the current socio-

political system and hence the organisational culture as described by Dauber *et al.* (2012) plays a decisive role in any further development and that it constitutes in a way an obstacle to learning. According to Stacey (2007), interaction between people constitutes an important factor in the way organisations change over time. “To research an organisation understood as patterning and repatterning of people’s communicative interaction requires that the researcher uses methods which pay attention to exactly this local interplay” (Mowles, 2011, p. 65).

#### **4.4.2 Issues based relevant systems**

The comparison of the issues based relevant systems with the real world situation is done in the same manner as described before in the section on the primary task systems. Nevertheless, this comparison is more concerned with the human domain than with the strategic or operational domain. The findings in the interview session demonstrate that people do not really work together and that they use their allocated power against others which leads to even less communication. This contradicts systems thinking where people are assumed to participate in the system as a whole. According to Stacey (2007), in responsive process thinking participation is understood as direct interaction between people in the living present. This puts emphasis on the employees as individuals and their communicative interaction which thus plays an important role in any possible improvement. The numbers in the matrix of

Table 24 correspond with the issue based relevant systems as depicted in Figure 17 and thus serve as a means for comparing the model within the group sessions with the real world situation. The interview session suggests that the current situation is perceived as problematic by almost all the interviewees. Nevertheless, the group work shows that the organisational members, even the ones who have been working for many years for the organisation, regard themselves in a way as victims of the situation who have or had to adapt right from the start.

*“You arrive with a certain character and there are influences from the situation. When I arrived here, I had an awful lot to do and I had to learn not to work too fast which I couldn’t manage. I think that you adapt based on your daily life” (P. 114).*

*“What mostly happens is that everyone is silently working in his or her corner concentrating on his or her particular work. Everyone has got his/her own system of how to do the work which results in many different styles” (P. 114).*

According to the interview with the chairman, the phenomena that people withdraw into their own corners, concentrating on matters they like and pushing aside things they don’t like, began when the organisation ‘suddenly’ started growing which indicates that taking on more and more people produced confusion and further conflict. Nevertheless, people regard the management of the organisation as being responsible since an organisation

operates according to the leadership style of management. The leadership style and how the organisation is managed is a major concern in Table 24.

**Table 24:** Comparison of the issue-based relevant systems with the situation

Activity	Area / Definition	How is it judged?	Comments
<b>1. Appreciate the current situation and its influence on the people</b>			
The problem situation and its influence on communication	Understanding of the problematic situation - people acting and communicating within	People are blamed for not taking responsibility or initiative, the situation influences the people in their behaviour/character	We should be allowed to act based on the situation - New management approaches
<b>2. Investigate in operations and behaviour causing friction and blocks in communicative interaction</b>			
Operations and behaviour	Main operations and behaviour of people - within a department and between departments	People are not worth talking to. There has been an incident which destroyed the relationship	The chairman should not simply allocate power to different people
<b>3. Define criteria: defining</b>			
"friction"	Tension, files are given to other people, refusal of acting	relational problems, lack of knowledge of what to hand over to others	Other criteria can be added, clarification about competencies
"blockage"	Information does not flow, no idea what to do	Information is not delivered because she/he wants to keep power, problems with interfaces	Common and equal information for all project partners
<b>4. Define nature of potential conflicts and existing friction</b>			
Nature of conflict and friction	What is the nature of potential conflict - communicative interaction	Governance - chairman - colleagues, the chairman simply stops communication without any reason, conflicts are further fostered by him	Conflicts should not be produced by the chairman, people should be treated equally based on the same chances
<b>5. Operate methods for avoiding obstruction in communication</b>			
Methods for avoiding obstruction	How can the method be implemented? Communicative interaction between individuals and departments	How to avoid that people being resistant if management is apparently happy about friction	We need to find accommodation (SSM), communicative interaction has to be fostered by management
<b>6. Decide on methods for dealing with/avoiding communication blocks</b>			
How to deal with blocks?	What methods are possible? How can communicative interaction be ameliorated?	The situation is getting worse	Management has to come up with initiatives other than hierarchy, all employees are important
Structure	Organisational structure	The structure has developed arbitrarily which has brought about too many bosses	There should be only one competent person responsible
Processes	Between the departments	People avoid each other	We have to collaboratively develop new approaches of how to work together
Attitudes	How to think about one's own attitude	People hide their opinions because of fears, different people act as informants for the chairman	Management has to start thinking differently

### 4.4.3 Credibility of the socio-political system

The interview session demonstrated that power relations play a vital role in the problem situation which calls for more evidence to increase the credibility of the socio-political system as depicted in Figure 23. With regard to a qualitative dissertation, the word 'credibility' is regarded as an alternative to terms such as reliability or validity which are more connected with objectivist research (Rudestam and Newton, 2007). Since it is almost impossible to simply ask people about the accuracy of power related connections, it is necessary to elaborate another strategy. At least one of the most powerful people in the organisation was invited to participate in one of the group sessions.

*"There is another point I would like to mention. If you take Lawrence, Francesca, Assaf and Karen, you bring together people who have a good relationship with each other and who think the same way but it is necessary to confront people in order to get results. I think it is necessary to have conflict or debate to get something out" (P. 114).*

The names listed correspond exactly with the inner circle i.e. the most powerful people in the organisation. However, they are criticised if none of them takes part in the session. "These people are not always experts in giving advice to the chairman since they are laymen" (P. 115). The other powerful connection with the chairman i.e. Nikos was confirmed in a project manager meeting. "There was an exchange of different ideas and subjects. Once again the missing communication between the architects and the technicians was mentioned and Nikos has been identified the main obstacle. Unfortunately, he is also influencing Stefano who shares his office" (P. 73). The examples used before clearly show that communicative interaction is very important in the organisation and that just by means of contact to specific people power is allocated by the chairman who is thus always at the centre of all activities and of the formal as well as informal information flow.

*"Maybe the people on the top want to keep power and do not want to delegate. I think that the chairman only has confidence in specific people whom he regards as being capable. I think this is a tactic in order to make himself more indispensable so as to stay in the centre of the action" (P. 114).*

The statement about the chairman who wants to stay in the centre seems to make it almost impossible to get more responsibility or even decision taking power for the project managers. Unfortunately, this difficulty is confirmed by other quotes. "I think that more responsibility for the project managers is needed but unfortunately such a proposition would never be accepted by the chairman. He is open to certain things but not to everything" (P. 114). "Unfortunately, it is the construction projects where the chairman wants to keep hold of power and where he wants to have the final word with regard to decisions even for the colour of the façade" (P. 111). Having the contact to the chairman, it is easy to talk negatively about people who are not liked and unfortunately, according

to the findings from the interview session, the chairman is open to that kind of rumour or gossip. This is what Stacey (2001) calls shadow themes which take the form of gossip or the grotesque i.e. humour of parody and mockery. Unfortunately, the permanent observation revealed that this kind of communicative interaction, especially with the chairman, is repeatedly performed. In most of the cases it is used to undermine others if it is feared that they may obtain more power such as the leading position for Martha who would then have been in charge of the technicians.

#### **4.4.4 Point of view of top management**

As described at the beginning of this subchapter, two interviews were conducted with members of the management board. The interviews started with an explanation of the SSM approach and the models developed. Interestingly, the aim of the methodology i.e. improving the situation, was well understood and accepted. "I therefore think that the pedagogical method with current situation and new situation as well as the necessary steps is good. This concerns procedures, collaborations, relations with others, flow of information and so on. This is extremely important which I also see in my organisation. People have to be acknowledged which is part of motivation" (P. 117). Nevertheless, the activities of the management board with regard to necessary changes within the organisation do not concentrate on the overall situation but rather on structural or hierarchical changes. In order to get a proposal about possible structural changes they commissioned an external advisory company to carry out a study. The result of this study is explained by an interviewee as follows.

*"The chairman will be separated from management. That means that there will be an administrative council with a chairman and there will be a director [or chief executive officer] with a direction with people in charge of each department. In addition, there will be an audit which is composed of people from the administrative council that controls and monitors the different processes incorporating their realisation according to the decisions taken" (P. 117).*

These typical prescriptions from agency theory have, according to Ghoshal (2005), no significant effect on corporate performance. According to McSweeney (2006), even internationally active consultancy firms still praise the advantages of ever-greater bureaucracy. Structure should not be isolated since it interacts with other domains and processes as described by Dauber *et al.* (2012). "The long series of changes imposed by the UK Government on the Health Service, for example, give a good illustration of imposed structural change with relatively little attention to the process and attitudinal change also required" (Checkland, 2000, p. S34). It is a bit sad that management does not seize the opportunity to think and to develop an organisational design which corresponds to the challenges of the 21st century instead of simply taking on an organisational structure from private companies. This indicates that command and control thinking is

still predominant in the management board although complexity, interconnectedness and less predictability call for new approaches. Furthermore, it indicates that reflexion on organisational design is connected with management theories that preach the need for sharply monitoring and controlling people (Ghoshal, 2005). That the organisation is based on a rather functional design has already been described on various occasions. The further reinforcement of this top-down hierarchical thinking was announced by the chairman and another board member in the interview session.

*"I wished to have an employees' meeting with the people responsible for the different departments including Karen i.e. five people. They will have to communicate decisions that are taken top-down. I just want to have communication in a vertical manner not horizontal i.e. a real hierarchy" (P. 109).*

*"There is on top a general manager and there are three or four managers, one responsible for the projects, one for finance, one for administration and so on. These are the people with the whips" (P. 117).*

Another interesting issue is that the objectives of the organisation are recognised as being realised by means of projects. "I think that this is absolutely project-oriented" (P. 117). However, there is not a great deal of thought about project management as an organisational capability or the need of a project oriented organisation. Again, the solution to the problem is seen as residing solely in the introduction of more control. "It does not work without control. Three people from the council will come in order to check how a project is organised. How often for example do we come together with the external architect? One project manager needs three meetings and another one needs twenty before a project is accepted. .... Three meetings must be enough, maximum five meetings" (P. 117). As stated by Seddon (2008), the ethos should be based on learning rather than controlling. Further control is not just a waste of management resources, but rather it contributes to the further demoralisation of the employees.

#### **4.5 Further evolution of the organisation – fourth phase**

As depicted in Figure 11, the fourth research phase is concerned with further participant observation thus providing insight into the evolution of the organisation after the main data collection i.e. after the first round of the SSM learning cycle. Furthermore, this last research phase offers the possibility to incorporate the connection between the governmental and the organisational perspective, as shown in Figure 14, by means of workshops based on the oval mapping technique. This technique is particularly useful for working with groups of 6 to 12 participants and constitutes a cognitive mapping approach (Eden and Ackermann, 1998; Eden and Ackermann 2004). The intention is to support SSM by understanding more about the governmental level and its connection to the organisational strategy. According to Mingers (2001), one of the three main arguments to use an approach based on multi-methodology is that an intervention is typically based on



different phases and that these phases bring about different tasks and problems. The analysis of the further evolution of the organisation, described in this section, is based on 13 notes taken between 2010 and 2012, two official interviews as well as four workshops with the ministries. The main events as well as changes will be explained in the following paragraphs starting with the issue-based relevant systems developed during the workshops.

#### 4.5.1 Workshops provide SSM model

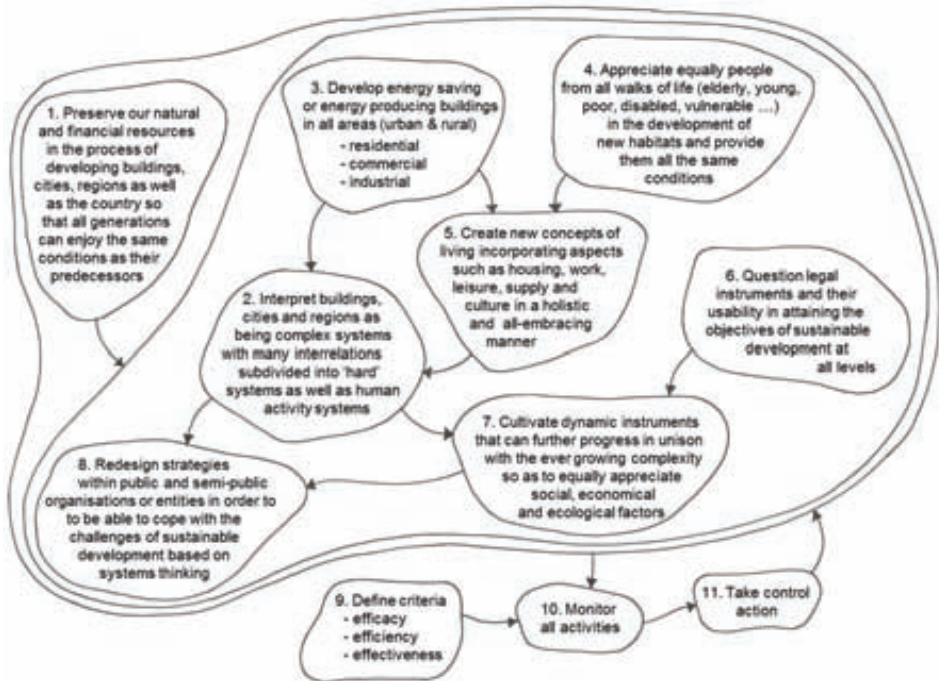
As described in the methodology chapter, the cognitive mapping workshops with the ministries resulted in an overall cognitive map with regard to sustainable development in city and regional planning activities. This map was analysed by means of 'Decision Explorer' using domain analysis as well as central analysis (Reynolds and Holwell, 2010) which revealed the potential key issues. These key issues were used in the elaboration of 'issue-based relevant systems' owned by government which proposes a basic model for strategic implementation in public sector organisations. The first step in the modelling process was the careful consideration of the elements CATWOE as described in Table 25.

**Table 25:** Strategic redesign of the public organisation (T-process)

<i>Item</i>	<i>Transformation process: strategic redesign of the organisation</i>
Input:	Need for developing the country in the accordance with sustainable development
Output:	Satisfied need by developing the country based on sustainable development
Root definition:	A government-owned system, operating within political and economic constraints, to promote sustainable development in building, city and regional planning activities, by proposing a basic model for strategic implementation in public sector organisations, so as to provide future generations with the same conditions as their predecessors.
C = customers	Future generations, government <i>Definition: The victims or beneficiaries of T = Transformation</i>
A = actors	Public and semi-public sector organisations <i>Definition: Those who would do T = Transformation</i>
T = transformation process	Need for implementation of strategies based on sustainable development - Need met <i>Definition: The conversion of input to output</i>
W = Weltanschauung	Sustainable development strategies help future generations to enjoy the same conditions as their predecessors <i>Definition: The worldview making T meaningful in the context</i>
O = Owner(s)	Government <i>Definition: Those who could stop T = Transformation</i>
E = environmental constraints	Political as well as economic constraints <i>Definition: Elements outside the system - taken as given</i>

The corresponding issue-based relevant model, as depicted in Figure 24, will be used as a source of questions about the situation (Checkland and Poulter, 2010) and in particular about the strategy of the public organisation under investigation. However, proposing the model to the housing minister is dependent on the willingness of the chairman. Unfortunately, this is unlikely since he has created, in combination with his role as first

governmental advisor, an almost intangible position regarding employees, citizens and even the minister concerned (Stadt, 2013)<sup>39</sup>. In order to monitor the performance of the model, the '3 Es' should be defined. Is the model actually used for strategic implementation in the public organisation ( $E_1$ ), is the transformation carried out with a minimum of resources such as financial as well as human resources ( $E_2$ ) and is the long term aim met ( $E_3$ ) i.e. is the public housing organisation eventually performing on the basis of sustainable development?



**Figure 24:** Relevant systems for strategic redesign of the public organisation

Participant observation, as well as the interview session, revealed difficulties in strategic issues as depicted in their respective network views (Figure 21, Figure 22). Only through the application of the configuration model of organisational culture from Dauber *et al.* (2012) was it possible to highlight the impact of the disturbed organisational culture on the domains as well as on the processes of the organisation. It is interesting that the use of cognitive mapping in combination with SSM has brought about a model that can be used for clarifying and further developing the organisational strategy. This emphasises, on

<sup>39</sup> The paper describes how a high level civil servant can trap himself in the seductive spiral of acquiring more and more power. The subtle development of patterns of organisational dictatorship, which have been adopted by the most powerful people within the organisation, has contributed to the situation.

the one hand, the weaknesses of SSM and, on the other hand, the need and usefulness of combining soft systems methodology with other methods and methodologies.

#### 4.5.2 Modifications in the socio-political system

The socio-political system is certainly one of the most interesting parts with regard to the further development of the organisation. The inner circle, as depicted in Figure 23, has not changed very much apart from the appointment of Francesca as head of project development in December 2010. This event took place just a few months after the retirement of Martha in August 2010. The attitude of Francesca was already described in the methodology chapter as being based on command and control. Nevertheless, her decision taking power is fairly limited as it is still the chairman who decides on almost all strategic as well as operational issues. This delays things even more since Francesca is now in charge of communicating the questions and proposals from the project managers to the chairman as well as transmitting his answers. The project managers do not discuss this vital issue openly since their meetings, which were considered a first activity in order to improve the situation, were abruptly stopped due to the appointment of Francesca.

*"A project manager explains that Francesca does not want to show the feasibility of a common approach. This would go against mainstream understanding of authority" (P. 78).*

*"The new technician [Eva], taken on at the beginning of 2009, who serves as coordinator between the technicians and the project managers, acts in a rather aggressive manner which is initiated and supported by the chairman. This is due to past and current project performance and has led to a big change with regard to Nikos who is now totally neglected and partly criticised by the chairman. As a result and due to his age, he has decided to take his pension and will therefore leave the organisation at the end of 2010" (P. 78).*

The second quote demonstrates how the chairman turns his back on a once powerful person by simply accepting the nasty behaviour of a new employee. Instead of improving the situation by means of good human resource management, one 'power game player' has been replaced by another one. "Without working on the crucial problems such as relationships, communication, equal appreciation of people and so on, the organisation will never really succeed in tackling their tame, messy as well as wicked problems" (P. 78). This confirms, in a way, the need for starting with soft systems thinking<sup>40</sup> in a messy organisational situation. However, this should incorporate a theoretical basis for analysing the organisational setting. Based on an increasingly chaotic situation in 2011/2012 where many people already declare that they are totally de-motivated, the

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<sup>40</sup> According to Lane & Jackson (1995), human beings and ethics are at the heart of soft systems thinking. This is in a way confirmed by the socio-political system since the intervention revealed harmful activities and the mistreatment of organisational members by powerful people. Duarte (2008) concludes in her study on ethics in management education that students should be trained to think critically and reflexively so as to avoid becoming trapped by ingrained managerial dogmas which can hinder the development of more democratic approaches.

inner cycle has started to intervene in the current development by means of more regulation. One example is the new procedure introduced in March 2011 which is nothing more than an enlargement of the paper on information flow and decisions elaborated in 2008 (N. 31). The difference is that even more hierarchy is introduced and that the power of the project managers is further reduced.

*“Apart from the project managers, technicians, social assistants and the technical engineer, another 14 people with particular responsibilities have been appointed. They are from four different departments (including the new secretarial department) and ten services. This constellation is only a modification of the existing organisational chart and depicts nothing other than a power and blame structure. Furthermore, one could ask why the ratio of leading employees has dramatically and disproportionately increased given the small size of the organisation” (P. 82).*

It can be concluded, based on further participant observation, that hierarchical thinking is further fostered and that the inner group of the socio-political system is trying to get more control over the employees. Ghoshal (2005) describes this development as a “pathological spiralling relationship” (p. 85) leading to the deterioration of trust, trustworthiness as well as motivation. The activities started by the inner group in accordance with the chairman make things constantly worse. This is due to the concentration on structural issues which they hope will bring about behavioural change by the others in the form of obedience and compliance. This has widespread negative implications on the overall performance of the organisation and the necessary acquisition of much needed management capabilities<sup>41</sup>.

#### **4.6 Actors in the problematic situation**

The chairman, in the role of the most powerful person, is interested in the further development of the organisation which is also apparent in that he, altogether with the management board, accepted this study. Nevertheless, he has been identified as a key figure in the problematic situation i.e. he has greatly contributed to it. However, he is at the same time also a victim since documented initiatives such as the introduction of a cost management failed. With regard to his status as a high civil servant, Chapman (2004) argues that the political system and the civil service are inherently confronted with many obstacles to learning. The two most important ones are fear of failure and avoidance of diversity or variety. Failure could probably be used by opponents and the press. Although transparency is promoted by legislation, gatekeepers are well aware of the damage a publication could evoke (Ybema *et al.*, 2009). Since failure is a possibility to learn, avoidance of it stifles learning and leads eventually to further failure (Chapman, 2004;

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<sup>41</sup> The problematic situation prevents the leading public organisation, on the one hand, from providing sufficient affordable housing within the country and, on the other hand, from developing strategies so as to contribute to a sustainable future at a local, European or even global level. This could, for example, embrace the fight against global warming by means of eliminating carbon dioxide emissions in the housing sector (Whiteman *et al.*, 2013).

Ackoff, 2006; Waldman, 2007). This constitutes an obstacle to change and to adopting a systems approach where learning is the ethos as described by Seddon (2008) as well as Yolles (2006). Another important issue is the behaviour of the chairman towards the people since this plays an important role in terms of encouragement and motivation. It is reported that people are treated like machines and that they are deliberately set against each other which contradicts mainstream thinking about leadership. These activities grow out of the socio-political system where the chairman has nested himself in the middle of almost all power-related activities. He is surrounded by people he wants to talk to and to whom he has given official or unofficial power sometimes just by means of staying in contact or communicating with them. The thus created powerful/insider group has stigmatised the people from the weak/outsider group which has resulted, for example, in withdrawal and a lack of motivation (Staad, 2013). This is a phenomena the chairman himself observed when the organisation suddenly started growing. The process of gossip as described by Stacey (2001) and its conscious use plays a vital role in stigmatising the weak and praising the powerful. Although the chairman thinks that he is giving people a lot of freedom, the vast majority of decisions are taken solely by him. Nevertheless, he has realised that decisions in the past can play a decisive role in the present which reflects an argument in systems thinking.

*"Everything here that fails or is unsuccessful has a historical dimension such as the tripartite or the people on different salaries" (P. 109).*

*"Yesterday's solution becomes today's problem. ...The results of our actions define the situation we face in the future" (Stern, 2000, p. 10).*

With regard to different salaries, Johansen and Swigart (1995) argue that extreme gaps in remuneration can be disastrous in business as opposed to professional sports today. According to Chapman (2004), another obstacle to learning that exists in government and the civil service is the presumption of knowing best. Unfortunately, this attitude is, like mechanistic thinking, anchored within the culture. The investigation has demonstrated that the chairman who is in charge of the organisation since twenty years heavily criticises other individuals as well as agencies. Knowing best constitutes not just an obstacle to learning but a closed door to the understanding of other perspectives, preferences or priorities (Chapman, 2004). As mentioned by Checkland (2000) and Bergvall-Kåreborn (2002), the appreciation of other people's perception of a situation is an important issue in systems thinking. With regard to project management, it is apparent that his interest is mainly on architecture as well as city planning, thus ruling out in a way the necessary steps towards a better management of the projects. This is further perverted in that the project managers are not allowed to criticise the architecture of external partners. The ideas elaborated in the third research phase incorporate a wide variety of much needed modifications which are, however, blocked or even sabotaged either by the chairman

himself or by other powerful people who want to keep their allocated power (Stadt, 2012; 2013). This has led to stagnation especially in the project development department since its further development is widely neglected whereas in others, such as accountancy, it has been fostered. Interestingly, the attitude of the chairman towards new ideas changed when the workshops in the fourth research phase started. The use of the oval mapping technique, which was solely performed with members from different ministries, was regarded successful and useful for other purposes as well. The exclusion of the organisational members and consequently the disconnection of formal and informal information channels avoided any negative influence on the chairman. In order to be able to approach complexity, change and diversity, Jackson (2003) argues that we should use different systems approaches in a holistic and creative manner. Mingers (2001) explains the combination of SSM and cognitive mapping as an example in his introduction to multi-methodology.

#### **4.6.1 Participation of the management board**

The investigation reveals that the relationship between the chairman and the rest of the management board is comparable to his relationship with the employees. The board is, however, the main decision taker but not at all involved in organisational issues i.e. the day-to-day work. They openly declare that the chairman is the one who is responsible for internal matters which includes the management of the whole process such as the product life cycle (Figure 15). Nevertheless, they heavily criticise his work and allocate responsibility to him when appropriate, and he does likewise with them. This approach is time-consuming with corresponding repercussions on the projects and their performance. The members of the board are fully aware of the situation and the behaviour of the most powerful person in the organisation but they do not voice their concerns at least not to the outside world. Mowles (2011) describes the analogy of game playing and how it absorbs the players who eventually forget that they are playing a game. The management board is in a way bound together (Huse, 2007). “We are obliged to adapt to those with whom we try to stay in engaged conversation” (Mowles, 2011, p. 262). For the first time ever, in 2011, a member of the board, who is also a representative of the employers’ associations, publicly criticised the politics of the organisation (Appendix C: D.41).

*“The member declares that the organisation should concentrate on its main competency which is the mere construction of affordable housing thus abandoning the creation of new neighbourhoods and alike. The annual production should arrive at 500 units instead of only 100 units realised at the moment” (P. 87).*

The newspaper article confirms, on the one hand, the very different viewpoints within the board and on the other hand, the way that they act in their own interests since the employers’ association connected with construction is certainly more interested in actual

work for their members than in the participation of the organisation in long-term urban and regional planning activities. Furthermore, the board member totally overlooks the relational problems and the interconnectedness of many contributing factors to the messy situation such as the influence coming directly from the board based on their behaviour and reserve. One possible reason for the reserved behaviour of the board over the years (many of them have been members for decades) can be found in the human domain. They are equally confronted with power issues which constitute a hindrance to starting the learning process within this important grouping. Their own experience e.g. powerlessness with regard to the strong governmental group, led them to concentrate on their own concerns and interests and not so much on organisational issues which cannot really be influenced. The different philosophies mentioned and the other problems identified in the research phases, such as strategy or interest in minor architectural details, question the effectiveness of the management board and in particular the tripartite of which the representatives are not equally distributed. The currently anticipated political change with regard to the law of 1979 should involve a consideration of a possible change of its composition. Furthermore, and more importantly, the proposed transformation of the board, described in the third research phase of this study, into an administrative council with the chairman on top constitutes, unfortunately, a mere structural change which disregards any change in the process or attitudinal change that is, according to Checkland (2000), crucial for organised change in human affairs.

The above-mentioned structural change is what Hancock (2010) calls a simplistic answer which was proposed by an external advisor. However, the investigation showed that belief in these companies eventually leads to dependency on them since internal management capabilities are not further developed. This constitutes another mess which is named "shifting the burden to the intervenor" (Senge, 1990, p. 61). Interestingly, Rosenhead and Mingers (2001) assert that complexity at the strategic level arises not so much from thousands of options but rather from the interaction between different decision makers as well as compounded uncertainties and that problem structuring methodologies can challenge these sources of complexity. This leads back to the differentiation between traditional problem solving methods and problem structuring methods and methodologies such as SSM. The intervention brought about the socio-political system with regard to the employees and the chairman which could not be extended to the board due to insufficient contact. Nevertheless, the intervention indicates that the board members are also confronted with power issues (Stadt, 2013). According to Stacey (2007), people including board members are interdependent i.e. they need each other, some members more than others. Within this situation power is expressed as continually enabling and constraining each other's actions. The intervention revealed that many decisions and consequently projects are blocked. On one hand, this is reported as being based on people coming from different backgrounds. On the other

hand, this is also due to the attitude of the most powerful person in the organisation. The above explanations certainly affect the decision making process and more importantly the engagement with the dynamics of the organisational culture.

#### **4.6.2 The employees' group**

The investigation suggests that apart from the most powerful person in the organisation and the management board the employees are also regarded as a source of the problem situation. "And the third point is the employees in general and the ones profiting from this unstable situation. There is no direction and hence people just do something but nevertheless demand more" (P. 102). The employees experienced a change in the organisational culture around the end of the 1990s which coincided with the augmentation of personnel and consequently the increase in complexity. This was also observed by the chairman but this augmentation in personnel did not result in more efficiency since the number of units produced decreased (Figure 1). The cultural change experienced demonstrates a change in power relations and the start of a dynamic process known as the socio-political system. Different people managed to develop a good relationship with the chairman, which was then used as a means to protect their freedom or to gain more power. This was best performed by the general administration department which includes accountancy. Assaf and Lawrence, two members of the inner circle (Figure 23), are the leaders of this department. They even managed to get permission from the chairman to intervene in the affairs of other departments if necessary. Hierarchy, politics and power thus legitimise different people to act as agents i.e. representatives of a group (Yolles, 2006), but without the group's agreement. This development produced mistrust between the employees and consequently, communicative interaction based on empty conversations between people in different departments since nobody knows what might be transmitted to the chairman. According to Stacey (2001), who uses analogies from complex adaptive systems and complexity sciences, this form of conversation has no transformative power.

*"[Abstract models were used to demonstrate] that it is only [authentic] interaction between diverse entities that gives rise to the potential for transformation" (Stacey, 2001, p. 182).*

It follows that only cross-departmental and cross-disciplinary conversations can provide new understanding of others as well as new insights. This diversity, however, is blocked by the inner circle since they would like to give orders without any discussion. The approach of management by notes was described in the section on documentation. It demonstrates that conversation, if not running according to the plans of Assaf and Lawrence, is stifled by simply transmitting an organisational note which is signed by the chairman. Their so-called solution is nothing other than the prevention of communicative



interaction about organisational issues. This contradicts Mowles (2011) who argues that structure and strategy is not separate from people's day to day activities. "[It] arises out of these activities, paradoxically formed by them, and forming them both at the same time" (Mowles, 2011, p. 64). The interest of the chairman with regard to gossip as described by Stacey (2001) has produced another means of power for those in the inner circle since it allows them to damage people's reputation if they feel that it is in their interests to do so. Nikos, who has in the meantime retired, was in a way in opposition to the inner circle (Figure 23), but also used the possibility to influence the chairman for his interests and to create a more powerful position for himself. According to Stacey (2001), these power relations as well as gossip or shadow themes are important with regard to communicative interaction and hence the further evolution of the organisation. Consequently, modern leaders have an important role to play in better understanding relational issues and in paying attention to what games people play together (Mowles, 2011). This should certainly include reflection about the leaders' own role, behaviour, perception and influence on the social systems and the consequences arising out of their decisions and actions. The intervention indicates that the chairman as corporate leader is, on the one hand, involved in power games and, on the other hand, surprised about the consequence the games eventually yield. Atwater *et al.* (2008) stress the importance of complex social systems and the need for leaders to be better prepared for dealing with them. The chairman contributed towards the games simply by communicating with different people in order to get the latest information or rumours about other people. This resulted in a struggle for power between people as described in this chapter and thus led into a situation in which communication became more and more problematic, motivation decreased and necessary information was not exchanged because people did not trust each other. This behaviour had far-reaching consequences for the project development department which constitutes the production unit of the organisation. In particular, the lack of communication and bad relationships within the department further weakened its position and produced a situation which blocked any activity with regard to learning or the acquisition of new management capabilities. The communicative interaction of the chairman with Nikos has hindered the allocation of necessary power to the project managers which is according to Dvir and Shenhar (2011) as well as Müller and Turner (2010) important for the project-oriented organisation. This demonstrates the influence of the socio-political system on the development of the whole organisation and explains in a way why up to date management practices have never been really implemented. This has been reinforced by commissioning external project management companies for bigger projects thus not allowing the organisation to internally develop necessary capabilities.

## Chapter Five – Discussion / Conclusion

### 5.1 Discussion of the findings

The methodology chapter together with the analysis chapter tells the story of the learning in the research process. This chapter now discusses the findings thus describing the understanding of the current situation. The first part i.e. participant-observation was mostly focused on management issues and brought about many deficiencies within the organisation, which concern operational as well as strategic management and hence the whole organisation. The further research process, especially the interview session, then revealed the capital problems that hindered the further development of the organisation. They are to be found in power relations between the people which are explained in the socio-political system of the organisation as depicted in Figure 23. It was found that people use their acquired power against others so as to push their ideas as well as their wills. Even worse, it is sometimes just used against people because they are disliked or appear to be incompetent. The so created 'outsider' groups (Stacey, 2001), who have realised their powerlessness, frequently react with simple disappointment or loss of motivation. Sometimes, there are even psychiatric responses such as panic attacks. The working environment is thus polluted with mistrust which is, according to Hancock (2010), "the dark heart of wicked problems" (p. 54) since it avoids real listening and dialogue and consequently learning. This situation is in a way initiated as well as fostered by the chairman due to the development of special relationships with different organisational members along with the allocation of covert or overt power. The constant growth in personnel is making the situation worse since people try to keep their power by avoiding any possible change.

The concentration on having an adequate annual turnover failed to acknowledge the decline in service quality. This narrow focus is, according to McSweeney (2008), short-sighted and gets in the way of innovation. The somewhat subtle development within the organisation, though realised by many employees, has eventually transformed into a mess or rather a wicked mess as described by Hancock (2010). Given the importance of the organisation at the national level, its problematic situation constitutes somehow a societal threat since there is still not enough affordable housing for the growing population even though investment in the sector is constantly increasing. As indicated by Canal (2010), power relations and in particular the power from top management has a crucial influence on the shape and the development of an organisation. The changes experienced in the organisation at the end of the 1990s based on growing complexity were not at all addressed because this constitutes not just a puzzle or a problem but a mess. Pidd (2003) describes the need for an analyst to consider all the links as well as

separate issues within a mess. The problematical situation can thus not simply be rectified by improving only one part of the mess such as the structure of the organisation. Checkland (2000) declares that organised change in human affairs requires the consideration of structural, procedural and attitudinal change. However, the investigation showed that this is not enough for a thorough analysis of the organisational culture which is, according to Dauber *et al.* (2012), embedded within a dynamic process. The lack of a corresponding theoretical underpinning requires that SSM reformulates its stream of cultural analysis. The investigation reveals that the necessary management capabilities have not yet been developed due to the oppressive social environment and that the current organisational design constitutes a hindrance rather than a solid base for change. Hancock (2010) argues that messes are systems of problems but adds that we largely ignore their dynamics as well as their behavioural complexity which characterises wickedness. According to Stacey (2001), human relating which is manifested in communicative interaction requires understanding about the interrelation of issues such as power, anxiety, fantasy, imagination and misunderstanding.

### **5.1.1 Systems thinking approach**

According to Atwater *et al.* (2008), there is a missing link between systemic thinking and effective decision making. They argue that the next generation of business leaders has to be prepared to act in complex social systems. Unfortunately, top management sees the solution to the problem situation in more hierarchy and the build-up of more control which coincides in a way with Yolles (2006) who argues that most chairpersons establish political dictatorships. The investigation disclosed that their reflection spins around traditional authoritarian thinking whereby only top-down communication is favoured by the chairman. This contradicts Atwater *et al.* (2008), who claim that managers communicate the reasons for their particular actions since this constitutes a process of learning in a social system. We are trained within the analytical paradigm, thus in understanding a system by breaking it down into its parts (Ackoff, 1974; Checkland, 1999; Jackson, 2006). In order to be able to understand the wider context within which the system operates, we need to adopt a systemic thinking approach. This permits an understanding of why the parts do what they do e.g. by observing the interaction between the parts. Jackson (2003) argues that managers, in their search for way to deal with complexity, diversity and change, have too often believed in the latest management fads which, however, only offer simple, 'quick-fix' and standard solutions thus ruling out creativity. Simple solutions fail because they lack a holistic approach which sheds new light on systems thinking. Using different systems approaches in combination is advocated by Jackson (2003) with a particular emphasis on critical systems thinking. The intervention demonstrates that other methods such as cognitive mapping can bring about

purposeful activity models which highlights that SSM should develop towards multi-methodology. This offers the possibility, as demonstrated, to adequately adapt to changing circumstances within an intervention.

### **5.1.2 Need for a changed perspective**

The term perspective concerns the change of the top-down or hierarchical approach into an outside-in or systems approach as proposed by Seddon (2008). The chairman and other board members have communicated the need for more hierarchy in the organisation. This is partly due to the realisation that projects are constantly being delayed and as a result need to be controlled more. Unfortunately, they may forget that the system created over the years governs the performance of the organisation and consequently the projects (Figure 22). As we saw in the analysis of the interview session, the system is highly influenced by corporate governance as well as the relationships between management and the employees. Another issue is the customer who is somewhat ignored since there is, for example, no feedback coming from project development and rental/sales as well as project development and property management. This was discussed by means of the primary task systems (Figure 13). Different board members intuitively explained that these connections are needed although they have no contact to the day-to-day work of the organisation. The primary goals of an organisation include for Canals (2010) customer satisfaction and the development of a committed group of people i.e. employees. Ghoshal (2005) declares that companies survive and prosper by equally considering the interests of customers, employees, shareholders as well as communities. However, instead of drawing upon corresponding concepts such as stewardship theory, research in corporate governance i.e. the 'phenomena of organised complexity' adheres to agency theory. This reflects a preference for a 'scientific approach' which rules out the inclusion of human intentionality which is the main component in the social sciences (Ghoshal, 2005; Huse, 2007). The term customer or beneficiary is important since it involves, according to the CATWOE of the primary task systems, not merely citizens i.e. the people on a low income and young families, but also the communities as well as government (Table 7). The functional view based on totally separated departments has thus to be replaced by what Seddon (2008) describes as thinking about the value, demand and the corresponding flow of this demand throughout the whole organisation.

With regard to the wider system (Figure 14), demand incorporates not just the dwelling itself but the necessary infrastructure such as public transport, schools or shops which enhances the quality of life of the clients i.e. the citizens. The systems perspective is thus engaged with the big picture incorporating all aspects of sustainable development which

is vital to the various developments envisaged in the country (Figure 24). The flow of demand through the system, as described earlier, can be realised by means of SSM since the primary task systems as depicted in Figure 13 have proved to be useful models for the study of the delivery of affordable housing which constitutes the core task of the public organisation. Depending on the observer's perspective, the further discussion will probably bring about new aspects and consequently different primary task models. With regard to the new perspective, Seddon (2008), Ghoshal (2005) and Kokkinidis (2012) argue for more engagement of the employees in the whole work flow and in particular in the decision-making process. This coincides with the findings and in particular the lack of responsibilities allocated to the project managers (Figure 22). "Research has shown that the best and most innovative ideas do come from the middle layers of the organisation and the front line (Wastell *et al.*, 2007), but the culture of the 'learning organisation' is needed for design to flourish; Senge himself speaks of the new role of the manager 'as researcher and designer' (Senge, 1990, p. 299)" (Wastell, 2010, p. 428). The findings thus question current management education. The interview session as well as participant-observation showed that decision taking is separated from work and that decisions are sometimes seriously delayed or not communicated to the people concerned. This has a crucial impact on project duration as well as on the motivation of the internal as well as external team members. Although the project managers in the project development department are theoretically responsible for the projects, they have practically no power which contradicts recent research regarding the competence of project managers (Dvir and Shenhar, 2011; Shao and Müller, 2011). According to Gareis and Huemann (2000), the core competence of a project oriented organisation is project management which has to be developed by the organisation itself.

## 5.2 Summary of the findings

The previous section described the need for a changed perspective based on systems thinking. With regard to the analysis based on the configuration model of organisational culture from Dauber *et al.* (2012), this requires the equal appreciation of the internal as well as the external environment. The intervention reveals that this cannot be sufficiently provided by SSM due to the lack of a theoretical basis such as culture theory or management. However, the research process has provided answers to the research questions which are first briefly summarised and then further discussed in the following paragraphs separated into methodological, theoretical, managerial and societal implications. The first question was how can the oppressive social situation be explained and interpreted by using soft systems methodology so as to come up with an improved design/strategy for the project-oriented organisation and the second question was how to monitor and control the current and future problematic situations so as to constantly

improve and learn in an ever changing complex environment. The answers to the questions are intertwined and consequently complement each other.

### **5.2.1 Answer to the first research question**

SSM has greatly contributed towards explaining and interpreting the problematic situation and in gaining the big picture about the complex housing system and its wide variety of different perspectives (Figure 14). The models elaborated, such as the primary task systems (Figure 13) as well as strategic facility management (Figure 15), have contributed towards clarifying the interconnectedness and dependencies between the departments as well as between individuals but have also highlighted disturbed relationships, missing communication (Figure 17) and a lack of information exchange. The research process brought about the existence of the socio-political system (Figure 23) and its influence on the development of the whole organisation (Figure 22). This puts emphasis on the communicative interplay between organisational members, including management, especially with regard to the distribution and allocation of power. Within this construct, the management of projects is given an important role since it brings together the strategic, operational as well as human domain as depicted in Figure 16. The management capabilities needed in this environment go beyond the traditional strategic and operational level since the management of the social system or socio-political system is of major importance. This requires the domain of project management to develop towards an equal appreciation of hard as well as soft systems thinking which emphasises a critical systems thinking approach. Furthermore, the research disclosed that although SSM greatly contributed towards understanding the situation, the methodology nevertheless has difficulties coping with politics and power, especially with regard to the oppressive social environment. This questions the adherence of SSM to the interpretive paradigm and suggests the adoption of a critical/pluralistic paradigm which permits the combination of different methods and methodologies as highlighted by Paucar-Caceres and Pagano (2009), Flood (2001), Jackson (2010b) and Kotiadis and Mingers (2006). This would thus provide a variety of means that allow the approach to be adapted in accordance with the power-laden situation. The messy situation requires the organisation to leave the vicious spiral of believing in organisational settings based on authoritarian hierarchies as well as command and control thinking.

### **5.2.2 Answer to the second research question**

The implementation of a continuous learning cycle depends on the attitudes as well as the willingness of management which should therefore always be given adequate consideration in the process. The main problem categories identified especially with

regard to disturbed relationships, communicative interaction and missing information were used to elaborate a model based on constant improvement and collaborative learning (Figure 20). This purposeful human activity model is anticipated to monitor and control the current as well as resulting future problematic situations. The pictorial representation, as shown in Figure 19, can be used as a starting block for explaining the transformation process. Nevertheless, the process in accordance with SSM could only be performed with the agreement of the most powerful actors in the socio-political system (Figure 23). The slowdown in the dynamics of the process after the third research phase, based on the interference of power and politics, confirmed the wickedness of the power-laden organisational environment. This clearly demonstrates the need for leaders in the public domain to better understand social systems as well as their behaviour so as to avoid developing messy situations which can stifle any further development. Trying to control or reverse the wicked social system merely by oppressing the people involved means practically preventing the organisation from developing new or innovative ideas and relying solely on a few people who are biased as well as blinded by ingrained beliefs. This eventually involves getting caught up in a vicious circle instead of developing a new avenue for learning. With regard to future research, there is a need to draw upon complex responsive processes of human relating theory since communicative interaction and the power games being played can produce either a fertile ground for innovation or an ever-growing wall built up on fear, tension, mistrust and resistance.

### **5.2.3 Methodological implications**

The combination of the four main activities of SSM with the research methods adopted performed in a sequential manner, provided a clear structure or design for the ethnographical study. This makes the overall learning process verifiable by other researchers and the methodological approach interesting to all who plan a comparable qualitative intervention within an organisation. Each phase or part of the process was informed by the analysis of the preceding one, thus creating a documented learning process (Stadt, 2012). This allows the constant challenging of individual perception, value creation and sense-making within organisational settings (Lüscher and Lewis, 2008; Magala, 2009). The role of the researcher as a new employee with a relatively fresh mind helped to establish the credibility and seriousness of this collaborative approach. The researcher is convinced that a later start of the study, after having worked for a couple of years for the organisation, would not have brought about the same depth and rich insights. If an early start is to be preferred, then projects as temporary organisations seem to provide a privileged place for doing ethnographic studies on messy or wicked problems. Since ethnographic fieldwork is normally a long-term undertaking (Ybema *et al.*, 2009), only projects of a certain size or a collection of corresponding projects would

be eligible which means that project-oriented organisations are well placed to perform 'project-based ethnography'.

Only the people working in an organisation know what is really going on, the main problems as well as the perceived causes. Furthermore, their willingness to participate in such an SSM intervention is crucial to any kind of success (Checkland, 2000; Johnson, 2008; Pidd, 2003; Crawford *et al.*, 2003). The third research phase demonstrated that the activation of the SSM learning cycle was and still is feasible as well as desirable but is jeopardized by politics and power (Staad, 2012). Since SSM could not properly respond to the oppressive social system within the organisation, the fourth research phase developed towards a multi-methodology approach combining SSM with cognitive mapping. The verified need for a combination of methods and methodologies, which incorporates different paradigms, should encourage SSM to leave its isolation and to further develop towards an open-minded methodology given the fact that SSM constitutes a remarkable leading or guiding methodology. The findings in this thesis suggest that only a rather critical/pluralistic approach makes it possible to adequately respond to the varying tasks and intricacies of the different research phases within a power-laden environment. This critical engagement suggests the need for a closer look at power issues which go beyond typical corporate structure and culture.

#### **5.2.4 Theoretical implications**

The social as well as the political analysis, i.e. Analysis Two and Analysis Three within the SSM intervention revealed a socio-political system that is shaped by tension and mistrust. However, only through the use of the configuration model of organisational culture from Dauber *et al.* (2012) was it possible to depict its dynamics as well as impact on the domains (e.g. strategy, operations) and processes (e.g. patterns of behaviour, performance assessment) of the organisation. Issues such as anxiety, gossip or insider/outsider groups mentioned by Stacey (2001, 2003 and 2007) were identified as playing a decisive role in the problematic situation. How humans interact and learn and how their interactions evolve is of vital importance to the process (Cooke-Davies *et al.*, 2007; Bresnen, 2006), which supports the theory of complex responsive processes of human relating. Stacey (2007) explains the change of second-order systems thinking such as SSM towards more social perspectives, but argues that systems thinking is inherently based on a 'spatial metaphor' since there is always an inside and an outside which is separated by a boundary. Responsive process thinking does not make use of these concepts. "From a systemic process perspective it is easy to think of an organisation as a thing separate from people, a thing that managers can give direction to, and move about in time and conceptual space. As soon as one takes a responsive processes view one goes



into a way of thinking about organisations [or projects as temporary organisations] as nothing less than patterns of interaction between human persons” (Stacey, 2007, p. 242). However, the results of the study demonstrate that responsive processes theory complements the investigation based on soft systems thinking which coincides with Zhichang (2007). Contrary to the dominant theory in management, the thesis demonstrates that neither the researcher or any other advisor nor management can take on an objective observer status in order to explain what is going on in the organisation (Mowles, 2011; Herr and Anderson, 2005).

However, the observation performed and the close interaction of the researcher with the organisational members including management reveals that power relations are not constantly negotiated within the daily interaction of people. The inner circle of the socio-political system (Figure 23) started to develop at the time of the transition to the 21st century and since then has steadily reinforced its power, thus constantly weakening the possibilities of others who have eventually given up. This emphasises that the leaders of the public organisation need to better understand processes of power relating and their own influence on the evolution of power. It further demonstrates how power struggles in human interaction can withhold much needed innovative activities with regard to democratising and sustaining our organisations which demonstrates its impact on the theoretical underpinnings of organisational science. The most difficult part in theory development, according to Whetten (1989), is the justification of factors and their relationships. The nine schools of thought, as proposed by Turner *et al.* (2010), provide a set of factors or perspectives on the management of projects as well as their relationships to each other. It can be concluded from the investigation that the socio-political system has a decisive influence on the further development of the project oriented organisation. Single projects are equally confronted with issues such as power relations or communicative patterning which leads to the assumption that socio-political holons and their environments are able to act as the glue that welds the above-mentioned perspectives together thus forming a coherent body that better explains project failure.

### **5.2.5 Managerial implications**

The study clearly demonstrates that working on the problematic situation is very much dependent on the willingness and collaboration of management as well as on their beliefs, perspectives and willingness to change. The evidence shows that management is in a way trapped within the traditional authoritarian or hierarchical view where command and control determines thinking. According to Magala (2009, p. 89), “a bureaucratic specialist can apparently survive even the most violent political revolution”. However, according to Hancock (2010), messes require management to abandon the traditional

authoritarian style based on command and control. The evolution of the oppressive social system reveals that there is a need for leaders in the public domain to better understand complex social systems as well as their behaviour which calls for some kind of adaptation within the educational system as described by Atwater *et al.* (2008). This should include organisational ethnography (Ybema *et al.*, 2009) as the means for investigating responsive processes of human relating. The design and structure of the study was chosen on the basis of the first experiences within the organisation i.e. early participant-observation or early finding out. First perception of a purely 'hard' problem in management was replaced by the realisation of a rather 'soft' problem which eventually led to SSM as the dominant methodology. This kind of identification of the crucial problems prior to the choice of a suitable systems methodology, as well as suitable methods, is described by Jackson (2006) as creative holism.

The learning process shows that especially with regard to project management, other perspectives such as the functionalist view have to be taken into consideration. Furthermore, the incorporation of system dynamics and in particular the archetype 'shifting the burden' demonstrates that other approaches can support the investigation which is equally stressed by Flood (2001) as well as Lane and Jackson (1995). This indicates, as proposed by Jackson (2006), the need for managers i.e. critical systems practitioners to act as holistic doctors who have a range of methodologies, methods and treatments at their disposal so as to be able to solve organisational as well as societal problems. The management of work based on systems thinking allows for more participation and engagement of the employees e.g. in the decision-making process. The approach is based on constant improvement and collaborative learning which calls for particular problem structuring methods and methodologies such as SSM. Johnson (2008) describes the impossibility of moving from hard to soft systems thinking which questions the predominant positivist paradigm in project management. Nevertheless, since hard and soft systems thinking can work together, the discipline of project management should further develop towards an equal appreciation of the two, which emphasises a critical systems thinking approach (Stadt, 2012). Since the study showed, especially with regard to the chairman, a constantly growing interest in acquiring more power and the creation of an almost intangible position, public organisations should never be managed by first governmental advisors who are actually in charge of monitoring these organisations (Stadt, 2013).

### **5.2.6 Societal implications**

The problematic situation within the leading public housing provider has practical as well as theoretical implications for society. The growing demand for affordable housing,

especially for the elderly, young families and people on a low income is not yet satisfied. Furthermore, the price for lots, houses and apartments is constantly rising although the government, which includes the chairman as governmental advisor, has introduced in the last years a range of legal requirements<sup>42</sup>. Unfortunately, the perceived necessity to find a solution to a problem i.e. the problem-solving approach, is according to Tainter (1998) also an ingrained belief in human societies which fails to acknowledge that societal social problems are inherently 'wicked' or ill-defined problems, as stated by Rittel and Webber (1973). According to Tainter (1988), societies are composed of different subsystems which interact with each other. This supports the systemic thinking approach undertaken in this thesis and means that the three different levels of the primary task systems, as depicted in Figure 14, are probably a good starting point for democratically debating societal problems within the housing system. However, such a collaborative approach will certainly result in the same 'silent' discussions on issues such as power, politics, bureaucracy or transparency as revealed in the study. This will thus eventually be a matter of how well society can cope with these intricacies and finally adapt to a changing environment so as to avoid failure as described by Tainter (1988). The study has shown that politics and power are getting in the way of new collaborative approaches, which leads to an important question: Can society still allow dictatorship-like behaviour in the public sector to hinder the resolution of organisational and societal problems?

### **5.3 Limitations and further research**

The thesis has limitations which are on one hand inherent to a qualitative study and on the other hand based on the complexity of the topic as well as the power-laden organisational setting. Although the close collaboration as employee/researcher is regarded as a strong point, it raises many issues that have to be taken into consideration. Research results can be affected through a possible biased perspective of the phenomena as well as of different people. The critical analysis of management and the disclosure of the interview results to the chairman created a situation requiring extreme political sensitivity, which is a reflection of the critical employer/employee relationship. In order to cope with issues such as politics and power, the researcher has to be brave as well as persistent but this will not necessarily work in other organisational settings. The required flexibility in the research process and consequently the use of other theories, methods and methodologies in an SSM intervention can affect the results and their interpretation. However, when the third research phase was stuck due to interventions from powerful people, the researcher used a modified methodology, which offered the possibility to

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<sup>42</sup> Given the political change in December 2013, whereby a coalition of three parties replaced the Christian Socialist Party, it will be interesting to follow the activities of the new government in particular regarding their approach towards the housing problem, the chairman and the overall development of the public housing organisation.

connect the organisational with the governmental perspective. The need for creativity in a tricky situation can either lead into a deadlock or to totally new insights. The study suggests that people have difficulties understanding SSM as a process of inquiry. Checkland (2000) describes this as well as the rigour necessary for building purposeful activity models as key difficulties for people learning SSM. An example of this difficulty is the comment from a member of the management board about the primary task systems of the organisation. "In my point of view, the 'primary task model' of the organisation has to be supplemented by functions and names since we always want to see who is concerned. ... It does not have to be a precise organisational chart but a visible and understandable structure or idea" (P. 110). This quote implies that further efforts are needed in order to foster understanding about the purpose and use of SSM as an organised learning system. It highlights, on the other hand, the prevailing hierarchical thinking exemplified in organisational charts. The results were interpreted by means of the complex responsive processes of human relating theory. However, the focus on individuals could also have been supported by personal construct theory which argues that people are continually trying to make sense of their world so as to manage and control this world (Rosenhead and Mingers, 2001). There are even more similarities with the theory of communicative action since Habermas (1987) argues that our identities are shaped by our relations. "While work and interaction have pre-eminent anthropological status, the analysis of 'power' and the way it is exercised is equally important, Habermas argues, if we are to understand past and present social arrangements. The exercise of power can prevent the open and free discussion necessary for the success of work and interaction" (Jackson, 2003, p. 283). Another limitation is the limited use of literature on leadership.

### **5.3.1 Further research**

The limitations described above already provide ideas for further research. Since communicative interaction plays a vital role, further studies could, for example, concentrate on formal as well as informal themes patterning communicative interaction, their influence on organisational change or insider/outsider dynamics, thereby drawing upon complex responsive processes theory as well as theory of communicative action. This could be performed either in organisations or in projects as temporary organisations which emphasises the importance of project managers who were identified as belonging to the weak/outsider group in the intervention. The use of complex responsive processes in the SSM study was not contradictory but complementary since the theory and the methodology have contributed equally to more understanding of the intricacies and the complexity of the problematic situation. Further research could concentrate on empirical studies in project-based organisations, perhaps drawing upon the idea of systems

intelligence perspective, as proposed by Luoma *et al.* (2011), which provides a framework for incorporating complex responsive processes into systems perspective. The investigation highlights the difficulty of SSM to cope with issues such as politics and power or oppressive social systems. Paucar-Caceres and Pagano (2009) describe the critical/pluralistic paradigm as being based on the belief that social systems are oppressive and unequal. Consequently, further research could investigate possible adaptations of SSM towards the critical/pluralistic paradigm. Furthermore, it would be of interest to investigate how SSM could be combined with the configuration model of organisational culture developed by Dauber *et al.* (2012). This could bring about a means that supports the analysis of organisational culture based on human activity models. The investigation highlights the heavy involvement of management in the current problematic situation and describes the need for a new perspective based on systems thinking. This has implications for the behaviour as well as the leadership of management. Further research could investigate corresponding management styles or the necessary adaptation of SSM with regard to the influence of politics and power.

## **5.4 Conclusion**

This critical investigation describes the research story of a reflexive practitioner and his co-researchers in the quest for explaining and interpreting the complexity and dynamics of a problematic situation within a project oriented organisation by using soft systems thinking. With regard to the reflexive practitioner, acting within different roles such as observer or facilitator, the early start of the study as well as the total immersion in the organisational setting were central in explaining behavioural and dynamic complexity. This brought to the surface the socio-political system which developed over more than a decade into an oppressive social environment that hinders the implementation of new management approaches and constitutes a drawback for necessary innovative activities. Furthermore, the wickedness of this environment threatens the organisational viability and consequently its societal duties with regard to the delivery of sufficient affordable housing. The results demonstrate how patterns of organisational dictatorship exercised by the chairman and a small group of 'infected' internal advisors can have disastrous consequences on the one hand for the leading public organisation itself and on the other hand for society at large. Given the results of the study, the question that arises is to what extent our societal problems are managed on the basis of patterns of organisational dictatorship which serves first and foremost the interests of public leaders instead of the public. The research disclosed the weakness of SSM regarding the stream of cultural analysis which led to the incorporation of the configuration model of organisational culture. The human factor, described in the thesis as the human domain, is vital to the further development of the whole organisation which is currently shaped by issues such

as mistrust, tension, gossip and insider/outsider groups. The investigation suggests that power relations are no longer negotiated between organisational members once the outsider group is properly restrained or stigmatised i.e. cut off from thematic patterning. These characteristics are exacerbated by ingrained beliefs with regard to the traditional authoritarian or hierarchical view, which suggests to management that the only solution to the organisational problem is the application of more control and the use of 'whips'. In contrast, the new approach proposed in this thesis is built around the findings, the models elaborated such as the relevant systems for constant improvement and collaborative learning and in particular the flexible methodological approach. The creation of a continuous learning cycle, which equally considers other theories, methods and methodologies as well as their combination, is regarded as one of the main management capabilities. This offers the possibility to collectively approach messy as well as wicked problems and to elaborate an alternative to hierarchical organisations.

Unfortunately, the approach based on regular engagement with socio-political holons and their interdependencies with and influence on the strategic and operational domain can only be implemented or started if management, which includes government, is willing to consider new ways of thinking. However, this must start with the educational system such as business schools and in particular with the provision of more understanding about complex social systems and the development of adequate management theories. Project management in this design is given an important role since it assembles the different domains and processes within a particular socio-political system or holon using systems thinking. This new role questions the predominant positivist paradigm in project management and suggests that the discipline should further develop towards an equal appreciation of hard as well as soft systems thinking which emphasises a critical systems thinking approach. The ability to eventually cope with tame, messy as well as wicked problems will mark the beginning of a new era for the growing discipline of project management and will help in further developing its theoretical underpinnings. This requires a critical focus on human action and intentionality by means of approaches that allow an open display of, as well as a democratic discourse on, purposeful human activity. Given the insights gained, the results suggest a combined use of systems perspective and complex responsive processes thinking in a mutual and complementary manner. The anticipated approach based on multi-methodology will support SSM in better addressing issues such as politics, power, oppression and inequality, thus providing together with management a new means to approach organisational as well as societal problems.



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## Appendix A: Notes taken between 2007 and 2012

Notes taken in 2007 (first observations)

<i>No.</i>	<i>Year</i>	<i>Date</i>	<i>Title of the note</i>	<i>Number of words</i>	<i>Kind of text - content</i>
N. 1	2007	14-03	Programme and project portfolio	224	Narrative
N. 2	2007	20-03	Project managers and technicians	196	Narrative
N. 3	2007	20-05	Project management methodology	255	Narrative
N. 4	2007	20-10	Other services within the organisation	222	Narrative
N. 5	2007	05-11	Communicative behaviour of management	217	Narrative
N. 6	2007	11-11	Meeting with the ministry - housing department	328	Narrative

Notes taken in 2008 (participant observation and interview phase)

<i>No.</i>	<i>Year</i>	<i>Date</i>	<i>Title of the note</i>	<i>Number of words</i>	<i>Kind of text - content</i>
N. 7	2008	21-01	Strategic project management	409	Narrative
N. 8	2008	22-01	New project in Scheren	292	Procedure
N. 9	2008	23-01	Budget overtaking in Wasserburg	246	Narrative
N. 10	2008	07-02	Current situation within the organisation	279	Narrative
N. 11	2008	03-03	Employees' meeting	168	Narrative
N. 12	2008	04-03	Is there market research prior to the commencement of a project?	204	Utterance by the social assistant
N. 13	2008	17-03	Contact with the Minister of Finance	339	Narrative
N. 14	2008	20-03	Project life cycle	436	Narrative
N. 15	2008	31-03	The organisation and its projects	487	Narrative
N. 16	2008	14-04	Project duration and the influence from authorities (community)	391	Narrative
N. 17	2008	15-04	Changing project managers	237	Narrative
N. 18	2008	21-04	Introduction of new processes (policy resistance)	286	Narrative
N. 19	2008	23-04	Budget overtaking in the Grand-rue	328	Narrative
N. 20	2008	24-04	Change in regulation (insulation)	173	Description
N. 21	2008	19-05	Archive/information flow	234	Narrative
N. 22	2008	22-05	Advocacy discussion with an external architect - systems failure?	355	Narrative
N. 23	2008	06-06	Web-page and letting & sales	269	Narrative
N. 24	2008	25-06	Lack of co-operation	259	Narrative
N. 25	2008	08-07	Board approval	546	Description
N. 26	2008	10-07	Conflict of interest of a board member	348	Narrative
N. 27	2008	15-07	Proposal for a procedural change	306	Narrative
N. 28	2008	31-07	Thinking about data collection	340	Authors reflection
N. 29	2008	08-08	Reaction of a colleague regarding first information	363	Narrative
N. 30	2008	11-08	First contact regarding the upcoming interviews	357	Narrative
N. 31	2008	12-08	Information flow and decision process	510	Procedure
N. 32	2008	25-08	Recapitulation of research development	811	Authors reflection
N. 33	2008	27-08	Conversation with the accountant	304	Narrative
N. 34	2008	28-08	External relations	193	Narrative
N. 35	2008	01-09	Analysis of participant observation	651	Process and results
N. 36	2008	02-09	Interview questions	780	Interview protocol (draft)
N. 37	2008	09-09	Reflections prior to first interview	614	Use of rich pictures
N. 38	2008	16-09	Information from and for an interviewee	371	Narrative
N. 39	2008	17-09	Control issue and what's next	420	Narrative
N. 40	2008	22-09	Social and political issues	522	Narrative
N. 41	2008	24-09	Reflections after the first four interviews	1,279	Authors reflection

N. 42	2008	30-09	Naming relevant systems	2,857	Primary task systems
N. 43	2008	15-10	The stream of cultural enquiry	1,697	Analysis One, Two, Three
N. 44	2008	22-10	Discussion with the chairman	508	Narrative
N. 45	2008	22-10	Interview questions for other departments	731	Interview protocol
N. 46	2008	28-10	Discussion with Martha ( <i>PM since the advent of the organisation</i> )	549	Narrative
N. 47	2008	30-10	Some reflections on the research process	834	Authors reflection
N. 48	2008	06-11	Considerations on sampling	1,556	Sampling strategy
N. 49	2008	12-11	Interview questions for the chairman	918	Interview protocol
N. 50	2008	13-11	Conversation with the chairman prior to his interview	2,053	Narrative
N. 51	2008	17-11	Discussion about the history of the organisation ( <i>Rafael</i> )	755	Narrative
N. 52	2008	24-11	Models and modelling	1,571	Authors reflection
N. 53	2008	01-12	Organisational note 26-11-08 - structural change ( <i>Management by notes</i> )	1,408	Authors reflection
N. 54	2008	15-12	Reflections after the interview with the chairman	2,171	Authors reflection

#### Notes taken in 2009 (group work phase)

<i>No.</i>	<i>Year</i>	<i>Date</i>	<i>Title of the note</i>	<i>Number of words</i>	<i>Kind of text - content</i>
N. 55	2009	02-01	How to thoroughly analyse the transcripts	1,435	Authors reflection on analysing data
N. 56	2009	12-01	A brief reflection and observation about latest events	1,728	Authors reflection
N. 57	2009	21-01	How to organise group work and workshops	830	Socio-political system
N. 58	2009	28-01	Progress in analysis and reflection	989	Description
N. 59	2009	03-02	First results of the analysis - systems thinking	1,374	Authors reflection
N. 60	2009	06-02	Meeting with supervisor	801	Note taking /analysis
N. 61	2009	12-02	Presentation of interview analysis to the chairman	814	Utterances by the chairman
N. 62	2009	26-02	Reflection prior to the next research phase	874	Authors reflection
N. 63	2009	03-03	Relevant models for the third phase	2,578	Issue-based systems
N. 64	2009	10-03	Reactions to the economic crisis and the upcoming election	718	Narrative
N. 65	2009	19-03	First results and implications for complex responsive process theory	1,572	Authors reflection and narrative
N. 66	2009	18-04	Proposition of structural change in order to contact management	1,984	Authors reflection
N. 67	2009	22-04	Structural change - missing (project) management capabilities	1,527	Authors reflection and narrative
N. 68	2009	24-04	Interview questions for management - action research part	686	Modified interview protocol
N. 69	2009	15-04	The legal basis - tripartite	435	Historical reflection
N. 70	2009	05-05	Relevant systems for the future	1,688	Issue-based systems
N. 71	2009	14-05	Introduction to the methodology chapter	685	Authors reflection
N. 72	2009	16-06	Observation during the process of writing	772	Narrative
N. 73	2009	13-07	Meeting with project managers	769	Narrative
N. 74	2009	20-07	Meeting with project managers (2)	780	Narrative
N. 75	2009	03-08	Meeting with project managers (3)	936	Narrative
N. 76	2009	14-09	Meeting with project managers (4)	680	Narrative
N. 77	2009	21-09	Meeting with project managers (5)	726	Narrative

#### Notes taken between 2010 and 2012

<i>No.</i>	<i>Year</i>	<i>Date</i>	<i>Title of the note</i>	<i>Number of words</i>	<i>Kind of text - content</i>
N. 78	2010	03-03	Observation on further development	1,462	Narrative

N. 79	2010	20-07	Letter to the board	627	Progress report
N. 80	2010	08-11	Information about IPMA research award	304	Report to the chairman
N. 81	2010	06-12	Appointment of new head for project development	764	Authors reflection
N. 82	2011	15-03	Documentation of internal procedures	726	Narrative
N. 83	2011	09-04	Reflections about history	597	Authors reflection
N. 84	2011	10-05	Regulations concerning flexible hours	233	Narrative
N. 85	2011	05-08	Information about financial problems	293	Narrative
N. 86	2011	07-11	The chairman takes on a psychologist to analyse the situation	499	Narrative
N. 87	2011	17-11	Article from a board member	285	Narrative
N. 88	2012	04-04	What happened in the last few months?	1,042	Recapitulation
N. 89	2012	06-07	Structural changes again and again	879	Narrative
N. 90	2012	13-07	Plans to create a new company for social housing	989	Narrative

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## Appendix B: Data collected in the interview session

Employees group (interview session)									
<i>No.</i>	<i>Year</i>	<i>Date</i>	<i>Duration</i>	<i>Pseudonym</i>	<i>Gender</i>	<i>Department</i>	<i>Job title</i>	<i>Job tenure</i>	<i>Number of words</i>
I. 1	2008	12-09	1h20	Nikos	Male	Project development	Site manager	18	1,935
I. 2	2008	12-09	1h15	Stefano	Male	Project development	Site manager	6	2,284
I. 3	2008	19-09	1h31	Dietmar	Male	Project development	Technical engineer	9	3,819
I. 4	2008	19-09	1h47	Rafael	Male	Project development	Site manager	15	3,170
I. 6	2008	16-10	1h43	Vicky	Female	Project development	Project manager	8	4,004
I. 7	2008	24-10	1h33	Lawrence	Male	General administration	Head of accountancy	9	3,916
I. 8	2008	24-10	1h14	Assaf	Male	General administration	Head of department	20	2,906
I. 9	2008	31-10	0h45	Lucia	Female	Customer service	Social assistant	4	3,712
I. 10	2008	04-11	2h01	Verena	Female	Customer service	Head of rental and sales	11	4,821
I. 11	2008	07-11	1h21	Henning	Male	General administration	Head of property management	0.5	2,411
I. 12	2008	07-11	2h57	Martha	Female	Project development	Project manager	29	4,013
I. 13	2008	21-11	1h46	Karen	Female	Secretariat	Secretary of the board	10	3,420
I. 14	2008	28-11	1h39	Francesca	Female	Project development	Project manager	8	3,466
I. 15	2008	28-11	1h09	Adelheid	Female	General administration	Internal audit	27	3,205
I. 19	2011	23-02	1h22	Kate	Female	Customer service	Head of department	2	4,416
I. 20	2012	05-10	2h16	Helen	Female	Project development	Project manager	5	4,135
Management group (interview session)									
<i>No.</i>	<i>Year</i>	<i>Date</i>	<i>Duration</i>	<i>Pseudonym</i>	<i>Gender</i>	<i>Department</i>	<i>Job title</i>	<i>Job tenure</i>	<i>Number of words</i>
I. 5	2008	25-09	0h49	Board member	Male	Select board member	Representative of trade unions	25	2,143
I. 16	2008	02-12	1h20	Board member	Male	Select board member	Representative of employers	25	5,051
I. 17	2008	12-12	1h20	Chairman	Male	Select board member	Representative of government	20	4,959
I. 18	2008	16-12	1h37	Board member	Male	Select board member	Representative of government	27	3,253

## Appendix C: Data retrieved from documents

### Organisational documents

<i>No.</i>	<i>Year</i>	<i>Document</i>	<i>Description</i>
D. 1	1979 to 2010	30 business reports	Comparison of the last five years (housing units and personnel). Presentation and composition of the organisation; detailed figures on rental, sales and acquisition of lots; balance sheet
D. 2	2008	Les flux d'information et monétaire liés aux projets de construction	Flow charts on issues such as: acquisition of a new lot; selection of project partners or invoicing
D. 3	2002	Directives générales	Directions for external partners regarding conception, qualities and technical equipment of housing units
D. 4	2002	Legal basis of the public organisation	Law from 1979, modified in 2002, explains juridical character, financial means and the management of the organisation
D. 5	2011	Documentation des procédures internes	Flow chart document which constitutes an enlargement of the document from 2008 (Les flux d'information ...)
D. 6	2009	Programme gouvernemental	Description on the tasks as well as objectives of the ministries

### Organisational notes from the chairman

<i>No.</i>	<i>Year</i>	<i>Document</i>	<i>Description</i>
D. 7	2006	Ordering means for work	Only the people in the reception are allowed to order working materials (23-11-2006)
D. 8	2006	Centralising contractual issues in the service rental-sales	The inoccupation of rented units is to be reduced to a maximum duration of 1 month (18-12-2006)
D. 9	2007	Proscribing verbal instructions on building site (06-08-2007)	Verbal instructions on site produce modifications in schedule as well as the budget. Additional missions demand a supplementary order which has to be approved by the chairman
D. 10	2007	Duration of occupation of the meeting rooms	Given the scarceness of the meeting rooms, their occupation is limited to a maximum of 2 hours
D. 11	2007	The telephone number of the secretary of the chairman should not be communicated externally	Disturbance of the workflow of the chairman because of continuous telephone calls in his secretariat (25-09-2007)
D. 12	2007	Build-up of an electronic archive	The chairman orders the people concerned to fill-in the questionnaire elaborated by the new archivist
D. 13	2007	Mistakes and omissions on the web-page of the organisation	Information as to the state of the projects has to be delivered to the archivist as well as the secretary every fourteen days
D. 14	2008	New computer programme	The new programme, a standard programme for a real estate agency, enables a better distribution and sharing of information in the services concerned (03-01-2008)
D. 15	2008	Accusation of the employees for not having responded to the demand of the select board	The select board demanded in 2006 to receive the time sheets. The chairman accuses the employees of having failed to collaborate in 2007 and hopes to have a better response in 2008 (14-01-2008)
D. 16	2008	Communication via facsimile	All incoming facsimiles are to be presented to the chairman
D. 17	2008	Utilisation of the cellar	It is prohibited to deposit objects in the cellar in a disorderly manner
D. 18	2008	Avoidance of wounds because of staples on the internal folders	This practice is no longer permitted
D. 19	2008	Use of a library with standardised text for bidding	The use of standardised text has many advantages such as the comparison of projects. The chairman demands its immediate use in all projects (01-07-2008)

D. 20	2008	Description of the profiles and missions of the people in project development	The project leader is regarded as the manager of the project and others, such as technicians, are to provide assistance to him/her
D. 21	2008	One of the project leaders (Vicky) is suddenly responsible for the finishes	The decision on the finishes of projects anticipated for selling is taken by Vicky (sanitary installation, parquet, tiles etc.)
D.22	2008	Restructuring of the service property management	Naming of responsible people and their particular sections
D. 23	2008	New method of distributing internal correspondence	Distribution is undertaken by a service worker who has also other assisting and preparatory tasks
D. 24	2008	Information about new competences and confirmed responsibilities	More than 15 people are mentioned regarding their affiliations and corresponding responsibilities (26-11-2008)
D. 25	2009	Handling regarding information technology	Regulation on electronic correspondence, passwords, computer shutdown and the use of USB sticks (02-04-2009)
D. 26	2010	Accusation of unspecified employees for having bad communication habits	This behaviour is no longer tolerated and will therefore be punished (22-02-2010)

#### Newspaper articles

<i>No.</i>	<i>Year</i>	<i>Title</i>	<i>Description</i>
D. 27	2007	Wohnungsbau im Namen der Nachhaltigkeit (chairman)	Critical response to a study undertaken by the University of Cologne regarding the housing pact with the communities
D. 28	2008	Teilautopsie einer Hauptstadt (chairman)	The author demands a radical change concerning the city planning in the capital city (18-03-2008)
D. 29	2008	Im Namen des Städtebaus (chairman)	With reference to a new administrative building, the author criticises the architects, monument conservators as well as the planners for transportation (11-10-2008)
D. 30	2008	Wohnungsbau als antizyklischer Ansporn (14-11-2008)	The prime minister publicly admitted in October 2005 having failed in providing everyone with an affordable dwelling. In May 2005, he had stated that he would not know what to do if the pact with the communities also failed
D. 31	2008	Erschwinglicher Wohnraum als Ziel (15-11-2008)	Due to the housing pact, 16,000 new housing units will be created in the next 10 years
D. 32	2008	Kamelle statt Planung	Criticism of the housing pact, the housing minister and his helping hand, the chairman (19-11-2008)
D. 33	2008	Die Sinnlosigkeit des Wohnungsbaupakts	Sarcastic and comical explanation about the chairman and his influence on housing politics such as the housing pact
D. 34	2009	1,019 Personen auf der Warteliste	The organisation currently manages 1,560 rented units, however, there are still 1,019 eligible people on the waiting list
D. 35	2009	Zur Zukunftsfähigkeit des Landes (chairman)	On the basis of a large public project in the capital city, the author demands a paradigm change of planners and policy makers at a local and national level (03-06-2009)
D. 36	2009	Wider die Trägheit des Systems	Interview with the new housing minister who belongs to the same political party as his predecessor (07-08-2009)
D.37	2009	Anhänger des vernetzten Denkens	The new housing minister describes the need for joined-up thinking in the domain of sustainability
D. 38	2009	Raupe Nimmersatt	The scarcity of affordable housing is also a question of unfair distribution. The leading political party has to abort their owner-oriented housing policy (21-08-2009)
D. 39	2009	L'initiative privée pour les logements sociaux (15-10-2009)	The chamber of real estate estimates that around 12,000 social housing units are missing on the market
D. 40	2010	Genaues weiß man nicht, drum wird geträumt	Criticism of the new housing minister who still has to grow into the domain where the prime minister declared in 2005 to have completely failed
D. 41	2011	Une grande insécurité économique (17-11-2011)	A board member publicly criticises the politics of the organisation. The annual production should be 500 and not the 100 currently realised

## Appendix D: Data collected in the group work session

### Employees group (group work session)

<i>No.</i>	<i>Year</i>	<i>Date</i>	<i>Duration</i>	<i>Pseudonym</i>	<i>Gender</i>	<i>Department</i>	<i>Job title</i>	<i>Job tenure</i>	<i>Number of words</i>
G. 1	2009	27-02	1h11	Assaf	Male	General administration	Head of department	20	2,230
				Lawrence	Male	General administration	Head of accountancy	9	
G. 2	2009	13-03	1h37	Nikos	Male	Project development	Site manager	18	2,717
				Dietmar	Male	Project development	Technical engineer	9	
G. 3	2009	17-03	1h28	Eva	Female	Project development	Head of site management	0.25	2,773
				Rafael	Male	Project development	Site manager	15	
G. 4	2009	27-03	1h48	Karen	Female	Secretariat	Secretary of the board	10	4,198
				Francesca	Female	Project development	Project manager	8	
				Edgar	Male	Project development	Site manager	0.3	
G. 5	2009	02-04	1h13	Lucia	Female	Customer service	Social assistance	8	2,406
				Edgar	Male	Project development	Site manager	0.3	

### Management group (group work session)

<i>No.</i>	<i>Year</i>	<i>Date</i>	<i>Duration</i>	<i>Pseudonym</i>	<i>Gender</i>	<i>Department</i>	<i>Job title</i>	<i>Job tenure</i>	<i>Number of words</i>
I. 20	2009	30-04	0h32	Board member	Male	Select board member	Representative of trade unions	25	1,468
I. 21	2009	11-05	1h04	Board member	Male	Select board member	Representative of employers	25	3,020

## Appendix E: Interview protocol

### 18 semi-structured interviews (September – December 2008)

This interview is absolutely anonymous i.e. no information without your permission will be given to any third party. The study aims at improving parts of the organisation by means of introducing a process which constitutes a learning system. The used soft systems methodology can be applied in many different fields and is not limited to this study. You can participate if you like as co-researcher in the designing or learning process and consequently shape the future of the organisation.

Leading questions in the semi-structured interviews:

#### A. Perception of the Situation

01. How do you perceive the organisation? What is the organisation for you?
02. Is there anything that does not really work? What are the most critical factors?
03. What does work well?
04. How do you see internal relationships?

#### B. Rich Picture and Purposeful Activity Model

05. What was your first impression about the model “structural complexity”?
06. What do you think about the model “primary task systems” of the organisation?

#### C. Specific Issues out of Participant-Observation

07. What is the vision of the organisation? What do you want to create?
08. What are in your point of view the reasons for long running projects?
09. How do you perceive team building or team work in the organisation?
10. What is your impression about the acquisition of new lots and properties?
11. Does project development need a departmental leader other than the chairman?
12. What about decisions and information?
13. Is there a need for a common methodology? What are the reasons?
14. What is your impression about the management board?

Thank you very much for your contribution. The interview will be transcribed and you will receive a copy for checking and final approval. With regard to questions, clarifications or additional information, you can join me whenever you like. The next phase will incorporate the elaboration of further relevant models and their comparison with the real world situation in the organisation. This will eventually lead to purposeful actions.

Thank you very much for this really good interview.

## Appendix F: Example of a transcript

### Transcription of the interview from 21 November 2008

Interviewee: [name], [activity]  
[Amount of] years working for the organisation  
Location: [Organisational] office

The interview starts with a general explanation about the study, its advantages and risks. The interview is absolutely anonymous i.e. no information will be given to any third party without your permission. For checking, the interviewee will receive a copy of the transcript with the possibility and the request for rectification or additional information.

The interview is divided into three different parts. The first part deals with general questions, the second part with the “structural complexity” model and the third part with detailed questions regarding specific issues.

#### A. Perception

##### *1. How do you understand the organisation? What is the organisation for you?*

First of all it is a job which allows me to earn the money I need in order to feed my children, to clothe them and to maintain my house. Well, this is the role of every job and nobody would do it if they didn't get a salary. Concerning the organisation, I think it is not an ideal job but a good place. I am happy with my profession. I changed 10 years ago from an organisation which was also not ideal and facing problems. I had fears about changing but still after 10 years I am happy to have done it since it is generally ok.

##### *What is the objective of the organisation?*

The theoretical objective of the organisation, it might sound a bit like a stereotype, is the construction of housing so as to allow everyone to live in normal conditions. The practical objective is what we do, which incorporates the change of law in 2002 which extended our possibilities. I think that this has brought about a loss of our primary task although diversification also has to have positive implications but I have the feeling that we are lost i.e. we are no longer doing what was initially the task of the organisation. If I look at the number of projects finished per year I think that we do not do a lot. With the personnel we have working for the organisation we should do much more. Is the personnel at fault or is it management in general? Although we do not construct very much, there are many apartments which are not occupied due to difficult people not accepting for instance the location of our houses and apartments. If we produced twice as many apartments as we do today, we would end up with twice as many empty units. I think we should avoid constructing or renovating without a clear plan about the places we would like to work.

##### *2. What does not work well in the organisation?*

The problem comes from three different sources i.e. everyone is concerned. Firstly, the management committee with its famous meeting. There are people who are not in their right place since they come and I do not know why, maybe just to be present. They have very different backgrounds and if they come together, they do not do so in order to help the organisation to move forward. Even though they get together, they always keep in mind their main activities and consequently they block many decisions and many projects. Other reasons are based on the fact that members want to act like architects and hence

criticise the colour of the windows which is certainly not the role of a management board. They should just concentrate on the principles of the project, certainly on its cost but not the architectural details. An example is the meeting concerning the project LED in Dunlage where Mr. W. went on and on about the train track. That should not be dealt with in management board meeting. That is the first thing, a board that blocks.

The representative of the board in the organisation i.e. our boss the chairman is the second point. He has great qualities but also great faults. If he is not in the mood or it is not the right moment he also blocks things and keeps files in his office or refuses to talk to the people. I can understand that he prefers one project to another but in the interests of good management he should not do that. Another point is that he is not really a boss. He is not cut out to manage a staff of fifty. He is fully accepted but he is too much of an activist. He does not show his authority and does not enforce his decisions, if you do not impose. He is not capable of making the point and even worse he has been the cause of internal conflicts. He is not fair and does not treat people in the same manner. Employees are not paid equally which produces friction and jealousy between them. This is getting worse and worse and produces a shitty environment. Whilst fully acknowledging that it is not an easy job, with all due respect and sympathy for our boss, he does not know how to do his job.

And the third point is the employees in general and the ones profiting from this unstable situation. There is no direction and hence people just do something but nevertheless demand more. I do my job and do not care about what happens because otherwise I would cry. If I talk to my sister who works in the private sector there are also problems there but not such dramatic ones. Here we have a collection of insane people ("des folles").

*What is the biggest problem?*

The biggest problem is the second point. It is the chairman who causes the others. His attitude towards us is similar to that towards the board.

*Who profits from this situation and who causes problems?*

I would say that in each department there is at least one problem. If you want to get names, well, in the project development department the following people, not in any particular order, cause problems: Vicky, Nikos, Stefano because of Nikos (but I hope this will change when Nikos retires), Martha who works alone but she is as she is, doing her job, and Birgit since she is not working at all at the moment. In the general administration department it is difficult to say anything about individual people since they all stick together. The customer service department is a general problem. Verena for instance just goes around complaining about the situation.

With regard to the productivity of the architects in the project development department, you came up with your proposal which was finally accepted and now you are doing your further education in Lille but the chairman said to me that only Francesca is submitting proposals. What I want to say is that there is Martha who works like usual but not really successfully, you very much occupied with your study (which is not optimal), Helen when she was working ..., well she is now on maternity leave and Vicky, who is not doing project work. So what remains? I also have to say that your training has created jealousy since you have not been working that long for the organisation. Well, it is just one example out of many which has also contributed to the situation. In saying this, I just want to explain how people understand these things. With regard to this situation, I think that the problem in getting worse every month. I do not know what this will lead to.

### *3. What does work well?*

There are nevertheless people who want, believe and do the necessary so as to get good results. However, I have the impression that these people are less numerous than the others. On the other hand there are not many other good points because of the atmosphere. There are always groups or clans and always this spirit of jealousy and uneasiness between most of the people. But we should not forget the advantages of working for the organisation such as security, working hours, payment or the possibility of further education. That is maybe something that people have forgotten or that they no longer take into consideration.

### **B. "Structural complexity" model**

It is necessary to have a common objective but we have lost it somehow. The chairman wants to change the system of the employees' meeting beginning in January. There will be one meeting with the chairman (also representing project development), the people responsible for the other departments and myself. The other meeting will incorporate the chairman, the people responsible for the projects ("chef de projets") and myself. A priori, I think that this is a really good idea.

#### *Do you think the new departmental leader in customer service will change the atmosphere?*

On one hand, there is a possibility that it will bring a lot and on the other hand it might make things worse. Everything will depend on the style of this lady and her ability to impose things and I think that she has got this capacity. I got in contact with her whilst interviewing people regarding the new secretary. The idea to take on Kate as departmental leader was mine since Verena asked for help but I said to the chairman that he should not give her help but rather a boss. Everyone is expecting a lot from [the new lady] who starts on 1st December 2008 and therefore I mentioned to the chairman that he should give her the right support. It might help that the social service is leaving the ground floor in order to take the place of the direction on the first floor since we will move to the second floor. This situation might facilitate the integration of [the new lady].

The 15th December 2008 a new technician will arrive. It is envisaged that he will assist Vicky in terms of our new activity, to sell apartments prior to construction. On 1st January 2009 another technician, Eva, who will eventually replace Nikos who is due to retire, will arrive. Consequently, there are three new people. That is the reason for taking over the second floor since there is not enough office space and the current grouping of people is not optimal i.e. an architect with an archivist in one office or a technician with an IT-expert.

#### *Do you think that this increase in personnel is a good thing?*

No, since I am convinced that the number of staff currently working for the organisation is already too high. If everyone worked properly not as many people would be needed. We take more and more people on but this just adds to the problem e.g. by creating bad relations. When I started in the organisation there were about twelve members of staff and within over the last 10 years we have increased this number to fifty (including the concierge). It is necessary to manage all these people but at the moment, this is not done at all. The people who have been taken on are left on their own and the head of service does what they like, that is all.

Honestly, with regard to human relations and the creation of a team I could do better than the chairman. I do not want to do it but I think I could do better. To go back to our discussion, ten years ago we used to put



a certain number of apartments on the market at the end of the year. What do we do today? Production used to be the same if not better so there is obviously a problem.

### **C. Detailed questions on specific issues (first analysis)**

#### *1. What is the vision or your vision of the organisation? What do we want to create?*

For me, it is the reorganisation of the organisation in an intelligent manner. The problem is that you cannot fire people although we should do so. It is necessary to restructure and to take the people on board instead of letting them do what they want.

With regard to the future, the housing pact will bring about some modification of the current situation but I do not know yet in what manner. The chairman has not communicated any sort of vision. He recently stated that he would take on external companies in order to relieve Francesca from a few small-scale projects which will arrive due to the housing pact from different communities. So what kind of idea is this? He will take on external people to do the work. This does not solve the problem e.g. of the many people in accountancy or in property management. In property management the number has increased from two and a half to four although they do the same thing that Ms F. did. In terms of rental-sales I think that Verena is just going around complaining or doing other things but not doing her job. Therefore, I proposed the alternative, [the new lady] as boss and not just another person who had already been selected by the chairman. As I already said, I do not know where we are heading since things are badly managed. Well, it is easy to criticise without proposing possible constructive solutions.

When I arrived ten years ago the atmosphere was very different. Adelheid for instance did not speak to me and I did not know why. I am still really keen on asking her in a conversation why she behaved like that at the beginning. People may perhaps have been cold because of my francophone background. I do not know. I had really difficulties but it was not as bad as today. With Ms F., for example, it was a bit different since she openly declared her opinion about me. Fortunately, there were also really nice people. If I were to arrive today, I think that I would not stay. If I were to change now, I suppose that I would regret it. Now after ten years I do what Nikos does, I make life difficult for everyone else.

#### *2. What are in your point of view the reasons for long running projects?*

It is part of the bad management and the attitude of the chairman. There are also the communities such as the capital city but the question is whether the city is difficult in general i.e. to all the others or just with regard to our organisation. When I arrived ten years ago there was an on-going battle with Ms Pullover, the former mayor. The new mayor, Mr. Hellinger, had just been in power for a few months when the same fight broke out - hence it is also caused by external partners. The same can be seen within the construction phase since you do not know how the companies will behave. This is certainly a risky affair.

#### *3. What is your impression about the acquisition of new lots and properties?*

I would say that the board is a priori not contrary. It is rather rare that they refuse an acquisition. It happens but that is not what is most irritating. The housing pact results in many proposals from communities which require sorting since they are often accompanied by real problems. It is much easier to get approval for an acquisition or a project than for personal matters but we have difficulties with some projects.

#### *Have they got a checklist as decision basis?*

Yes, I think so but any preparation is solely done by the chairman not the board. It is the chairman who basically decides what to buy and consequently what to present to the board. Nevertheless, a first general

verification is done by the select board. I have got the impression that once we have decided to construct in a certain area we buy anything and often it is too expensive or completely polluted. There are also lots coming from the state which we can refuse but then we have to have a good reason for doing so since such things are laid down in law.

*4. Do you think the project development department needs a head of service?*

I do not know. I think what happens in project development is always really different i.e. one project is completely different to another. There are many external influences. What I want to say is that if there is someone leading the department there are thousands of questions to ask the internal architects because of the particularity of each project. In addition and in contrast to other departments, there are not just architects, there are also technicians. Who should be the boss? An architect is maybe not qualified to ask technical questions and vice versa a technician is maybe not qualified to solve problems with a PAP or something else. I think it is already necessary to redefine responsibilities i.e. a project manager should be truly responsible for the project. Project development is really a special department which does not function like the others.

*5. What do you think about the primary task systems of the organisation?*

The project development department is the main actor in the transformation process whereas other services could also be delivered by external partners such as rental-sales or social service. I want to say that these services do not affect the main role of the organisation and hence can be regarded as accessories.

*Do you think that a common methodology is needed?*

I think that it is necessary to have a combination of common methodology and necessary flexibility since there are initiatives which fit better to the situation than others. However, there should be a working basis. Francesca for instance organises a building site differently with Rafael than with Nikos or Stefano. There are personal matters which influence the work. Nevertheless, a basis or point of reference (bench mark) is generally needed.

*6. How do you see the flow of information between the departments?*

Null. There is no exchange except between people who mutually want it. For instance, there is no real exchange between the technicians and rental-sales. On the other hand, there is an exchange between the project managers and myself. I think this is more a personal matter since there are people who are open to exchange and others who are not. There is much communication between me and Birgit which is clear but the last two weeks it has been a bit frozen. She is working on something but I do not know what it is. When people stop communicating outside their work they do not communicate at work either. That is a general thing for the majority of people since personal relations come before professional relations. I think that people enjoy withholding information which is ridiculous. There is no team spirit, there is absolutely no team spirit.

*Is communication for you the most important point to improve or are there others?*

No, since I think that the main problem is based on the relationships between people. Once the relational problems are resolved, I think, everything will improve with regard to productivity, profitability or professional communication. This has been my feeling for years and I am quite convinced that it is the case. There are many others who think the same. Therefore, we have to start with that. I already said to the chairman that he is at least 50% responsible for the bad relationships between people. Consequently, he was a bit annoyed for a while. I can imagine that it is not easy for him to say that tomorrow we will change everything but nevertheless this is the point. I think that he is afraid of it since he has to start with himself.

Unfortunately and this is really sad, I think, that he is not unhappy with the situation since it is his strategy 'to divide so as to better reign' and that he has mastered its application. He is playing with people and once he got the latest information about a dispute he is happy or even laughing. This seems to be more important than the management of the organisation which is why he is not in his right place as chief of personnel. Well, I did also say that I liked him, didn't I?

It is my character which forces me to work. I do not want to come to this place in order to do nothing. Fortunately, there are many people here who act in the same manner but there are also many others.

*Thank you very much for this really good interview.*

## About the Author

Jürgen Staadt holds a Master's degree in International Project Management and a degree in architecture. After having gained extensive experience in the housing sector, Jürgen started work in 2006 at a leading public housing provider within the European Union. Based on the problems discovered within this organisation, he started his doctoral studies at the Skema Business School in Lille, France in 2007. The intention was to provide help for the public entity and its inherent societal problems. In 2010, he finished the programme but decided to continue with his doctoral research under the supervision of Slawomir Magala in order to further pursue his research project in organisational dynamics, sense-making processes and behaviour. The transition to Erasmus University Rotterdam was supported by the programme director in Lille, Rodney Turner, who was professor of project management between 1997 and 2005 at the Erasmus University.



In 2010, Jürgen was awarded the IPMA Outstanding Research Contribution in the category of young researcher. One of his papers was published in 2012 in the *International Journal of Managing Projects in Business*. The journal editor-in-chief, Derek H.T. Walker, describes the paper as a contribution to the literature with regard to the use of SSM in the context of projects. Jürgen presented his research at international conferences organised by promoters such as the *European Institute for Advanced Studies in Management*, *European Academy of Management* and the *International Research Society for Public Management*. He served as a reviewer in the preparation of the EURAM 2012 conference in Rotterdam and acted as an ad-hoc reviewer for the *Journal of Organizational Change Management*. Jürgen's special research interests include organisational behaviour and in particular issues such as politics, power and oppression in the context of pressing societal problems.



## Samenvatting (Summary in Dutch)

Door de voor ons liggende uitdagingen, zoals klimaatverandering, moeten overheden en hun publieke organisaties openstaan voor aanpassingen en leerprocessen. Dit noodzaakt tot het toepassen van nieuwe denkwijzen om te kunnen omgaan met gecompliceerde en dynamische processen alsmede gedragsspecifieke aspecten. De in deze enkele casestudy gebruikte, toonaangevende organisatie voor volkshuisvesting is gerelateerd aan bepaalde disciplines, zoals transport, hetgeen aanleiding geeft voor het volgen van een systeemgerichte denkwijze. Interne sociaal-politieke problemen en de bereidheid van de organisatiemedewerkers tot het verbeteren van de situatie vereisen echter een interventie op basis van het zogenoemde 'soft systems thinking'. De medewerker/onderzoeker van deze etnografische studie gebruikte de 'soft systems methodology' (SSM, methodologie op basis van systeemdenken) voor het gemeenschappelijk onderzoeken van de problematische situatie.

De interventie werd ondersteund door het configuratiemodel van de organisatiecultuur en het model van organisatorische levenscycli alsmede de complexe responsprocessen van gedragswetenschappelijke theorieën. Er werden vier verschillende onderzoeksfasen doorlopen, waarbij elk deel van het proces werd gebaseerd op informatie uit de analyse van het voorgaande, zodat er een gedocumenteerd leerproces werd ontwikkeld. De bij de interventie belangrijkste gebruikte informatiebronnen waren deelnemersobservatie, interviews, documentatie en groepswork. In de derde onderzoeksfase bleek dat de toepassing van de SSM-leercyclus haalbaar en wenselijk was en is, maar werd bedreigd door politieke en machtsbelangen. Omdat met SSM niet op de juiste manier kon worden gereageerd op het onderdrukkende sociale systeem binnen de organisatie, werd de ontwikkeling van de vierde onderzoeksfase gericht op een multi-methodologische benadering, waarin SSM werd gecombineerd met een cognitief model. De ontwikkeling van een doelgericht activiteitenmodel voor een strategische nieuwe opzet binnen deze laatste fase suggereert dat SSM zijn louter interpretatieve strategie moest verruilen voor een flexibeler benadering. De resultaten tonen de bruikbaarheid van een op logica gebaseerde instroom van SSM in het ontwikkelingsproces, maar laten ook de zwakte zien ten aanzien van de culturele analyses. Slechts door de toepassing van het configuratiemodel van de organisatiecultuur was het mogelijk de invloed van de verstoorde organisatiecultuur op de gehele organisatie te verduidelijken.

Het onderzoek suggereert dat organisatieleden onderling niet langer onderhandelen over de machtsverhoudingen zodra de groep buitenstaanders voldoende is beperkt of gestigmatiseerd, oftewel afgesneden van thematische patronen. Deze kenmerken werden versterkt door diepgewortelde overtuigingen ten aanzien van het traditionele autoritaire

of hiërarchische gezichtspunt, dat het management lijkt te vertellen dat de enige oplossing voor het organisatorische probleem bestaat uit het uitoefenen van strengere controle en de 'zweep erover'. In tegenstelling daarmee is de in deze thesis voorgestelde nieuwe benadering gebaseerd rond de bevindingen, de uitgewerkte modellen, zoals relevante systemen voor permanente verbeteringen en gemeenschappelijke leerprocessen, en vooral de flexibele methodologische benadering. Het opzetten van een doorlopende leercyclus biedt de mogelijkheid voor een collectieve benadering van maatschappelijke problemen en het uitwerken van een alternatief voor hiërarchische organisaties.

## Summary

The challenges ahead such as climate change require governments and their public organisations to be adaptive and open to learning. This necessitates the adoption of new ways of thinking so as to cope with complexity, dynamics as well as behavioural aspects. The leading public housing organisation used in this single case study is connected with disciplines such as transport for example which suggests the adoption of a systems thinking approach. However, internal socio-political problems and the willingness of the organisational members to improve the situation call for an intervention based on soft systems thinking. The employee/researcher of this ethnographic study applied soft systems methodology (SSM) so as to collaboratively investigate the problematic situation. The intervention was supported by the configuration model of organisational culture, the model of organisation life cycles as well as complex responsive processes of human relating theory. Four different research phases were performed which allowed each part of the process to be informed by the analysis of the one preceding it, thus creating a documented learning process. The main sources of information used in the intervention were participant observation, interviews, documents and group work. The third research phase demonstrated that the activation of the SSM learning cycle was and still is feasible as well as desirable but is jeopardized by politics and power. Since SSM could not properly respond to the oppressive social system within the organisation, the fourth research phase developed towards a multi-methodology approach combining SSM with cognitive mapping. The development of a purposeful activity model for strategic redesign within this last phase suggests that SSM should leave its mere interpretive stance for a more flexible approach. The results reveal the usability of the logic-based stream of SSM in the modelling process but also highlight the weakness regarding its stream of cultural analysis. Only through the application of the configuration model of organisational culture was it possible to highlight the impact of the disturbed organisational culture on the whole organisation. The investigation suggests that power relations are no longer negotiated between organisational members once the outsider group is properly restrained or stigmatised i.e. cut off from thematic patterning. These characteristics are exacerbated by ingrained beliefs with regard to the traditional authoritarian or hierarchical view, which suggests to management that the only solution to the organisational problem is the application of more control and the use of 'whips'. In contrast, the new approach proposed in this thesis is built around the findings, the models elaborated such as the relevant systems for constant improvement and collaborative learning and in particular the flexible methodological approach. The creation of a continuous learning cycle offers the possibility to collectively approach societal problems and to elaborate an alternative to hierarchical organisations.





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## LEADING PUBLIC HOUSING ORGANISATION IN A PROBLEMATIC SITUATION A CRITICAL SOFT SYSTEMS METHODOLOGY APPROACH

Our modern world has brought about many problems such as climate change which require governments and their public organisations to be adaptive and open to learning. This concerns, for instance, the sustainable (re)development of residential areas due to their widespread impact on the living conditions of future generations. Understanding the reasons why a public organisation fails to cope with these challenges can provide the basis for adaptations to be made in the public sector. In this regard, the kind of investigation into an organisation is crucial and should incorporate approaches which equally consider aspects such as complexity, dynamics as well as behaviour.

This dissertation, which is based on a critical soft systems methodology (SSM) intervention, deals with this issue by thoroughly investigating the problematic situation of a leading public housing provider. The results reveal the usability of the logic-based stream of SSM in the modelling process but also highlight the weakness regarding its stream of cultural analysis. The power-laden environment within the organisation required the adoption of a multi-methodology approach in the fourth research phase which further resulted in a purposeful activity model for strategic redesign. This suggests that SSM should leave its mere interpretive stance for a more flexible approach.

With regard to the organisation, its culture is shaped by a socio-political system that suffocates learning, aborts sense-making processes and represses efforts to cope with the situation. The constant development of the hierarchical structure lifts the most powerful person and his group of internal advisors onto an almost incontestable position for other organisational members as well as citizens. This disrupts possible efforts to further democratise the organisation which questions authoritarian approaches especially in the context of pressing societal problems.

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