Chapter 1

Introduction to the research question
Chapter 1

1.1. Preface

The Dutch sector of nursing homes, homes for the elderly and home care is facing several fundamental challenges. In a relative short period of time care organizations have to transform from risk free financed public services to market oriented social enterprises (ActiZ, 2012b; ActiZ, 2013; ActiZ, 2014a; ActiZ, 2014b; BOO, 2013; Wolswinkel & Achterberg, 2011). In the latter role these care organizations have to cope with new questions, varying from demand driven care concepts and critical care consumers to increasingly uncertain revenue streams and growing financial risks.

Until 2009 reimbursement systems were mainly based on granted capacity. All related costs were retrospectively fully reimbursed. Things changed due to the steep increase in health care expenditures which urged the Dutch government to take measures to contain these costs. In the difficult balancing act of maintaining both high quality and good accessibility of health services and at the same time controlling health care expenditures, the widely accepted choice for managed marketization was made. The rationale behind this choice was the expectation that the introduction of entrepreneurial incentives would stimulate health care organizations to provide their services more efficiently (Canoy, 2009; Conrad & Guven Uslu, 2011; Conrad & Guven Uslu, 2012; Cools, 2008). This policy change consequently meant that organizations in the Dutch sector of nursing homes, homes for the elderly and home care had to fundamentally change their way of conducting businesses in order to meet the new challenges posed by the introduction of managed marketization.

The aforementioned policy change was tangibly shaped by transferring several financial risks from central government to individual care organizations. In 2009 the system, up until then dominated by expense claims, was replaced by reimbursement systems based on performances delivered. Nowadays care organizations get paid based on so-called ‘zorgzwaartepakketten’ (ZZP) or ‘care packages’. A ZZP is a specific tariff connected to a specific care effort or care service. The bigger the standardized effort, the higher the tariff is. After an initial settling of these tariffs by the central government, the height of the actual tariffs is the outcome of negotiations between individual care organizations and health care insurance companies. If the operating expenses exceed the ZZP compensation of its clientele an organization suffers a loss. Making a profit or loss depends on the number and the kind of clients an organization takes into care on the one hand and the height of its operating expenses on the other. Moreover, in 2012 a new standard for reimbursement of housing expenses was introduced. This new standard is based on the number of clients and replaces arrangements in which housing expenses were compensated on the basis of granted capacity, irrespective of the number of clients. Consequently, vacancy costs became a new risk.

The impact of these new risks was profoundly noticeable as a result of the austerity measures taken by the Dutch government in the same period. Particularly, regulations concerning the extramuralization of clients with a low indication for care pose a serious risk of real estate becoming vacant. Because the Dutch government decided that from 2013 onwards low ZZPs do no longer comprise remuneration for housing expenses, health care insurance companies and care organizations have negotiated much lower tariffs for these ZZPs. And because a lot
of clients with a low indication for care are not able or not willing to pay for these housing expenses out of their own pockets, care organizations face the risk of real estate becoming vacant. Redeveloping real estate, cutting back in residential capacity and the acceptance of corresponding financial losses are inevitable (Gupta Strategist, 2012; Nederlandse Zorgautoriteit, 2012; Nederlandse Zorgautoriteit, 2014a).

On top of this all, a third development impels management of care organizations to rearrange their business models. The so-called ‘thankful’ generation is slowly replaced by a more critical generation of clients. This type of client – also indicated as ‘care consumer’ - asks for custom-made care services. This implies that employees of care organizations have to enhance their client-focus (ActiZ e.a., 2012c; ActiZ, 2013; ActiZ, 2014b; Loogman & Velthuijsen, 2010). One of the consequences of this demand driven development is a differentiation of care services to win the preference of care-consumers. These developments create a picture of care organizations becoming businesslike enterprises with managers who have to learn how to think and act like entrepreneurs in a fast changing environment. At the same time these managers have to balance this businesslike approach with the social goals of the organization (Chenhall, Hall, & Smith, 2010). These developments are in keeping with the New Public Management (NPM) programme (Dunleavy & Hood, 1994; Hood, 1991; Hood, 1995). This programme is based on the hypothesis that market oriented management of the public sector will lead to greater cost-efficiency for governments. Ferlie et al. (1996) depict NPM as the introduction of three Ms in the public sector: markets, managers and measurement (Ferlie, Ashburner, Fitzgerald, & Pettigrew, 1996).

1.2. Research subject

To cope with the new entrepreneurial challenges, this study presumes that managers in the care sector need additional management information (Van Eeken, van Roon, ten Rouwelaar, Schaepkens, & Schijff, 2010; Van Eeken, van Roon, ten Rouwelaar, & Schaepkens, 2012). Several studies with regard to organizations in the so-called profit driven sector have demonstrated a correlation between perceived environmental uncertainty (PEU) and the need for more sophisticated management information: the higher the perceived uncertainty, the higher the need is for this kind of information (Abdel-Kader & Luther, 2008; Merchant, 1990). This study assumes that this relation between PEU and management information is transferable to organizations in the health care sector. To prevent an exceeding of budgets and nevertheless fulfil the wishes of clients, managers in the care sector need more detailed information about the development and structure of revenues and costs. Also important is the correlation of these financial data with non-financial data like client satisfaction and employee satisfaction (Abdel-Kader & Luther, 2008; Abdel-Maksoud, Dugdale, & Luther, 2005). Management accounting and control systems (MACS) provide this information. These systems facilitate the processes of identification, measurement, accumulation, analysis, preparation and communication of information used by management to plan, evaluate and control within an organization and to assure appropriate use and accountability for its resources (CIMA 2006).

Moreover, the opinion that custom-made care is not possible without a decentralized, flexible and empowered management nearby the client is widely held (ActiZ e.a., 2012c). Care
organizations in this sector seem to be inclined towards flattening the organization structure by eliminating management levels (ActiZ, 2013). By flattening the structure these organizations aim for reduction in personnel costs on the one hand and more flexible client oriented care services on the other. Team managers and their teams are directly in touch with the myriad of day-to-day problems and are therefore equipped to come up with flexible and better solutions, so is the line of thought. A consequence of this tendency is a delegation of tasks and responsibilities to lower management levels or to so-called self-regulating or self-organizing care teams (ActiZ, 2012b; ActiZ, 2014b; Berg, Ikkersheim, Van der Voort, & Ruigrok, 2013). To live up to the new autonomy, this study assumes that these team managers and their teams are in need of MACS information at team level. And vice versa, MACS offer higher management the tools to stay ‘in control’, despite the delegation of tasks and responsibilities. As a consequence, MACS penetrates deeper into the organization.

However, there have been no studies that explore the implications of the introduction and penetration of MACS in the Dutch sector of nursing homes, homes for the elderly and home care. Introducing MACS in this sector is definitely not just copying management accounting practices from other sectors. Several studies have shown that there are no universally appropriate MACS that fit all organizations (e.g. Ahrens & Chapman, 2007). Furthermore, research has indicated that MACS interact with the nature of business and organizational culture (Burns & Scapens, 2000; Busco, Riccaboni, & Scapens, 2006; Collier, 2001). Implementation of MACS not only changes the organizational environment and corresponding processes, the structure and design of MACS are moulded by their environment as well.

How is this reciprocal process, with MACS as main character, unfolding in the Dutch sector of nursing homes, homes for the elderly and home care? At first sight a non-human technology as main character may look peculiar. On the other hand sociotechnical research has comprehensively illustrated how technologies influence and intermingle with human practices and vice versa (Alcouffe, Berland, & Levant, 2008; Latour, 1997; Lowe, 2001b). Technologies like MACS have profound effects on human practices. In their turn humans, who are involved with systems like MACS, often try to somehow influence and mould MACS practices according to their own interests (Alcouffe et al., 2008; Latour, 1997; Lowe, 2001b). Due to this mutual influence the distinction between human practices and non-human technological practices becomes blurred (Latour, 1999; Law & Singleton, 2005), giving non-human technologies like MACS access to the main stage.

The main purpose of this research is to explore and explain why and how the deployment of MACS in the Dutch sector of nursing homes, homes for the elderly and home care evolves. Which expected but also, possibly, unexpected outcomes and consequences are traceable in everyday practice? How do employees in this care sector interact with MACS? How can management learn from this all? In the quest for answers to these questions, this study chooses actor-network theory (ANT) as methodology. What ANT consists of and why this theory is chosen, is explained in the next section.
1.3. Methodology

This study chooses a post-structural perspective (Hassard & Wolfram Cox, 2013) in general and actor-network theory (ANT) in particular as research frame. The central theme in ANT is the theory of translation, which describes how actors – both human and non-human – do not diffuse unchanged but are readjusted and readapted in a context of interacting networks (Akrich, Callon, & Latour, 2002b; Callon, 1986b). According to Callon an actor-network is: “reducible neither to an actor nor to a network. [...] An actor-network is simultaneously an actor whose activity is networking heterogeneous elements and a network that is able to redefine and transform what it is made of.” (Callon, 1987 p. 93) According to ANT both human and non-human actors derive their identities from interactions and relations with other actors. ANT distinguishes itself from other theories by considering both human and non-human actors on the basis of equality. “An actor in ANT is a semiotic definition – an actant – that is something that acts or to which activity is granted by another. [...] An actant can literally be anything provided it is granted to be the source of action.” (Latour, 1997 p. 373) According to Latour (1997), the word ‘actor’ has a human dimension in the Anglo-Saxon tradition. Considering the ANT proposition to equate human and non-human actors, the term ‘actor’ is open to misunderstanding (Latour, 1997). Following Latour many ANT researchers use the more neutral term ‘actant’.

In the perspective, as pictured in previous paragraph, deployment of MACS in the care sector means that a process is initiated in which MACS enact and are enacted upon by other actants in a rhizome resembling tangle of sociotechnical relations (Alcouffe et al., 2008; Emsley, 2008). The verb ‘to enact’ is chosen to express the continuing reciprocal interacting process between different actants, bringing about new arrangements. ANT is chosen because this type of research takes place at a detailed empirical level in order to depict who or what is acting in which context and where the corresponding associations lead to with what consequences (Justesen & Mouritsen, 2011). The deployment of MACS and corresponding sociotechnical relations have to be investigated in order to understand the ‘teamwork’ between MACS and human actors (Lowe, 2001a) in contemporary care organizations. By tracing the associations, depicted as interactions of actor-networks, ANT offers the possibility to fulfil the main objective of this research by drawing a broad picture of how accounting innovations travel, transform and get transformed (Akrich, Callon, & Latour, 2002a; Alcouffe et al., 2008; Callon, 1986b; Emsley, 2008; Latour, 1987). This study is the first to depict the Dutch sector of nursing homes, homes for the elderly and home care as context for these translation processes.

Besides the earlier versions and applications of ANT, this research on the deployment of MACS in the Dutch care sector is also inspired by post ANT studies of e.g. Mol (2002) and Law (2004). These studies have a so-called ontological turn (Watson, 2007) in common. This turn relates to the change from an epistemological stance – which presumes that objects are immutable but look complex and messy due to the different perspectives and interpretations people have – to an ontological point of view – which presumes that differences are no longer a matter of different interpretations on a single object but “the enactment of different objects in the different sets of relations and contexts of practices” (Law & Singleton, 2005 p. 342). If one sticks to an epistemological point of view, main task of the research is to clarify the messiness
by explaining the different perspectives and to “retrieve the real object behind the interpretations” (Law & Singleton, 2005 p. 333). In this study however, an ontological point of view is chosen to clarify the messiness by defining multiple objects which are all called MACS. The ontological point of view questions the immutability of objects and pictures them as multiple objects (Law & Singleton, 2005; Mol & Law, 2001). In fact the research lens is changed from multiple perspectives – meaning one object that is interpreted differently – to multiplicity – meaning there are multiple objects which differ but also hang together (Mol, 2002). Analogous to the concluding remarks in the study of Gad and Jensen (2010) one could say the complexity of MACS is a combination of multiplicity – there may be many versions of MACS – and fractionality or partial connections – they may be related but not at all points or in all dimensions (Gad & Jensen, 2010; Watson, 2007). This ontological point of view makes it possible to dissect the enactment of MACS as different objects in different sets of relations, describing the different networks in which MACS act. In other words, by taking the ontological turn the rhizome resembling tangle of sociotechnical relations around MACS becomes more fathomed out and consequently to some extent more transparent.

Largely adopted from Callon (1986b), five phases or processes are distinguished to operationalize the concept of translation:

<table>
<thead>
<tr>
<th>Processes</th>
<th>Description</th>
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<tbody>
<tr>
<td>Problematization</td>
<td>Problems are identified and presented and some actants take the role of initiator by providing MACS as possible solution.</td>
</tr>
<tr>
<td>Interessement</td>
<td>Actants try to convince other actants that they will somehow benefit from MACS.</td>
</tr>
<tr>
<td>MACS objectification</td>
<td>MACS concepts are made tangible and diffuse throughout the organization, creating all kinds of effects.</td>
</tr>
<tr>
<td>Connectedness</td>
<td>Actants are connected by accepting roles and active participation in the application and moulding of MACS.</td>
</tr>
<tr>
<td>Mobilization</td>
<td>The point of no return is passed. MACS practices get institutionalized.</td>
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*Table 1.1: Framework of translation (in summary)*

This framework of translation was applied in three case studies. The choice for case study research was founded in the possibilities it offers to deeply penetrate into an organization and its experienced perceptions and mutual interactions (Berry & Otley, 2004). In line with this choice, this research strove for detailed information in order to realize a rich field study because “the key to understanding practices lies in the careful tracing of their constitutive activities” (Ahrens & Chapman, 2007 p. 23). Consistent with ANT as the foundation of its theoretical framework, this research has chosen a performative approach. Performative research is based on the assumption that “it is impossible in principle to define the list of properties that would be typical of life in society although in practice it is possible to do so” (Latour, 1986 p. 373). The opposite of performative research is called ostensive research. An ostensive approach reverses aforementioned assumption by stating that: “in principle it is possible to discover properties which are typical of life in society and could explain the social
link and its evolution, though in practice they might be difficult to detect” (Latour, 1986 p. 371). A performative approach learns that the meanings, roles and applications of MACS, like those of all other phenomena, are constantly reconstructed each time they are mobilized, in line with the process which ANT researchers call translation.

The research was moulded according to the two-folded movement of zooming in and zooming out, as described by Nicolini (2009a). Zooming in on and zooming out of practice is a process of “switching theoretical lenses and following, or trailing, the connections between practices” (Nicolini, 2009a p. 1392). The result was an iterative procedure of field research and theory refinement. This is necessary in order to explain how the empirical evidence enriches our theoretical understanding of MACS and is in line with the idea of Wagensveld and Vosselman (2012), who explain how theory and practice are intermingled. This means that case study research not only provides “emic” understandings of actors’ meanings and interpretations of the social context, but also “etic” or theory-driven explanations (Lukka & Modell, 2010; Van der Meer-Kooistra & Vosselman, 2012). To facilitate the tenacious process of analysing and theorizing data, this research used ATLAS.ti to bolster the validity (Silverman, 2005) and reliability of its findings (Abernethy, Horne, Lillis, Malina, & Selto, 2005; Budding & Cools, 2007). In line with the possibilities of ATLAS.ti, co-occurrence analyses were carried out to highlight the more vigorous associations in the inapprehensible swamp of data (Lillis & Mundy, 2005; Malina & Selto, 2001; Malina & Selto, 2004).

1.4. Research questions

As stated before, the main purpose of this research is to explore and explain why and how MACS enact and are enacted upon in the Dutch sector of nursing homes, homes for the elderly and home care. This research starts with the assumption – to be ascertained in this study - that the deployment of MACS in this sector increases, both in number of employees who are somehow involved in working with MACS and in the number of different applications. But how does this deployment evolve? To be more precise, this study aims to provide answers to two research questions. The first one is defined as follows:

1. Why and how do MACS enact and are MACS enacted upon by other actants in three case organizations, all operating in the Dutch sector of nursing homes, homes for the elderly and home care?

The main verb in this question is ‘to enact’. This verb represents the notion that when actants act they bring structures and events into existence and set them into action, creating social constructions and relations (Weick, 1988).

The second research question has a more practical perspective:

2. How can management in the Dutch sector of nursing homes, homes for the elderly and home care learn from the translation processes of MACS in the three case organizations?
This second question is prompted by the consideration that research is particularly useful if it provides explanations and useful suggestions to those who play a major role in this research (Malmi & Granlund, 2009); in this case the managers in the Dutch sector of nursing homes, homes for the elderly and home care.

1.5. Relevance

The combination of ANT and case study research usually has little instrumental knowledge to offer (Van der Meer-Kooistra & Vosselman, 2012). Moreover, ANT studies are not known for delivering ready-to-use conclusions. Consequently, the added value of this research is more of a conceptual nature, showing how MACS enact and are enacted upon in concrete situations. Even so this study formulates some instructive leads for management in the Dutch sector of nursing homes, homes for the elderly and home care. This practical or managerial relevance is presented later on in this section, which starts with listing the findings with a theoretical relevance.

1.5.1. Theoretical relevance

First of all, findings showed that the correlation between perceived environmental uncertainty (PEU) and deployment of MACS (Abdel-Kader & Luther, 2008; Abdel-Maksoud et al., 2005; V. K. Chong, 1996) was also applicable to the Dutch sector of nursing homes, homes for the elderly and home care. Interviews generated many indications of a growing PEU and at the same time this increase in PEU was used as a justification to invest in more advanced MACS. All three cases showed an extension of the enactment of MACS in both horizontal (extension on the same managerial level) and vertical direction (extension to lower managerial levels). The latter development was reinforced by the introduction of more decentralized models of management which could be seen as a reaction to cope with the growing PEU as well (Burns & Valivio, 2001). At senior management level new MACS information, like for example long term forecasts and scenario analyses, were introduced. MACS-related topics figured more and more on the agendas of managing directors. At the same time all kinds of budget responsibilities were delegated to team managers. This was in line with the widely supported opinion that effective custom-made care was only possible with help of a decentralized, flexible and empowered management nearby the client (ActiZ, 2014b).

All three case studies illustrated that MACS were not solely instrumental but provided theory-laden and value-laden information, which effectuated a range of interventions and manipulations. Consequently, the management of care organizations has to realize that introduction and extension of MACS provoke more change and circulation than possibly expected. MACS hardly ever just improved effectiveness in one or two parameters (Alcouffe et al., 2008); instead they introduced a shifting set of tensions (Law & Singleton, 2005). This change was not a once-only and transitory event. More or less stable situations were only temporary until new developments – like new regulations with regard to remunerations and/or the outcomes of negotiations with health care insurance companies – or new initiatives – for example the introduction of new dash boards to display MACS information – took place. A state of flux was probably a more accurate characterization of the observed
MACS practices in the three case organizations. In line with the study of Tsoukas and Chia (Tsoukas & Chia, 2002), there were several indications of a continuous movement and circulation of dyadic associations and network connections.

Analogous to literature on MACS change (Alcouffe et al., 2008; Baxter & Chua, 2003; Quattrone & Hopper, 2001), these extensions of MACS practices and the changes they provoked, did not unfold like linear and predictable processes. On the contrary, the three cases showed different enactments of MACS, each consisting of several sets of relations and tensions, intermingled in tangle of network connections. The theoretical framework, adopted from Callon (1986b) and depicted in table 1.1, proved to be useful to disentangle the many field data into a more or less structured picture of distinguishable processes of translation. Nevertheless, the role of MACS as mediator in the three case organizations differed to such an extent that it was doubtful whether an epistemological stand of view, denoting the differences between the various stakeholders as differences in interpretation (Mol & Law, 2001; Mol & Law, 2004), as if these differences obscured a customized and optimum application of MACS, offered sufficient leads to untangle aforementioned tangle of network relations.

The latter consideration instigated this study to follow Watson (2007) and take the so-called ontological turn, depicting MACS as different objects, enacted in different sets of relations and contexts (Law & Singleton, 2005). After all, "... might it not be the case that, if we want to understand objects, to characterize and study them, then we need to attend as much to the mutability of what lies invisibly below the waterline, as to any immutability that arises above the surface?" (Law & Singleton, 2005 p. 337) The main message of this post ANT opinion is that a limitation to the viewpoint, as if these differences are due to differences of interpretations only, may obscure the scope and profundity of the differences that have to be bridged and somehow brought in line to deploy MACS effectively and unambiguously. Pictured from a post ANT stance and in line with the research of Mol (2002), multiple objects called MACS were disclosed. Per case study at least three different patterns of realities called MACS were distinguished. This multiplicity was fully pictured and mapped in order to realize how MACS, although looking homogeneous from the outside, got translated by heterogeneity of users to different objects (Quattrone & Hopper, 2006). Different objects, all called MACS, were established by attracting and mobilizing other acts in different sets of relations, revealing the relational ontology (Hassard & Wolfram Cox, 2013; Vosselman, 2014) of MACS. These findings underlined the argument of John Law, explaining that “entities take their form and acquire their attributes as a result of their relations with other entities” (Law, 1999 p. 3). Differences between MACS were generated in the different networks of relations and thus should not be presupposed (Hassard & Wolfram Cox, 2013 p. 1710). At the same time this understanding can be used as meaningful starting point in the quest how to bridge and line up these differences.

1.5.2. Practical relevance

The three case studies illustrated how manifold the choices and possibilities were in these transformation processes. In spite of this variety it was possible to distil some useful managerial perspectives.
For a start, managers in the three case organizations proved to be susceptible for particularly non-financial information such as figures on quality of health services and client-satisfaction. This supports a broad interpretation of MACS information (Bouwens & Abernethy, 2000) in addition to which non-financial information is used as some kind of lever to pay attention to financial information also. Besides a broad filling-in of management information, experiences in all three case organizations suggested that these figures preferably have to be employed in a transparent and interactive manner, exploiting MACS as a learning machine (Naranjo-Gil & Hartmann, 2007a). Particularly at lower management levels interactive control practices proved to be helpful in familiarizing managers with MACS information and to learn how this information could facilitate primary processes. In fact this calls for a reinforcement of the social potential of accounting by focusing on interdependence and interaction over results (Roberts, 2009; Vosselman, 2013).

Previous remarks link up to positive motivational effects caused by delegation of tasks and responsibilities. A vast majority of team managers who were interviewed stated they welcomed decentralization and experienced this development as challenging and stimulating. Whether MACS can play an enabling role in this motivating development is not self-evident given earlier explanations on the multiplicity of MACS objects. This study showed that MACS of lower management were different compared to MACS of higher management and MACS of finance and control staff had again other features. Taking into account the continuous movement of network connections and corresponding tensions between different interests, emanating from different professional backgrounds and conflicting areas for special attention, it is necessary to look for some kind of manageable balance between the different MACS objects. There are two possible points of departure to create such equilibrium.

First point of departure relates to questioning the mainstream 'in control' concept. This 'in control' thinking assumes a sequence of rational steps that have to do with measuring, planning and monitoring, enabling the manager to stay 'in control'. It is an instrumental approach which pictures organizations as systems containing more or less predictable cause and effect relations. This study, however, sketches a totally different picture of MACS and the organizations in which MACS are deployed. It shows the heterogeneous translations (Quattrone & Hopper, 2006) of MACS by its various users, depicting organizations as a group of human and non-human actants, interacting in a tangle of network relations. This study describes processes which managers can only partially control. Streatfield (2001) calls this the paradox of control. He states that managers “have to live with the paradox of being ‘in control’ and ‘not in control’ simultaneously” (Streatfield, 2001 p. ix). According to Streatfield, managers have to handle the anxiety of being ‘not in control’ by fully participating within the many network relations. They have to get involved in the performative processes of network building. As a consequence managers should focus less on the mainstream concept of ‘in control’ – acting from a functionalist perspective on organizations as rational and steerable entities – and more on the ‘in charge’ concept instead – acting from an perspective on organizations as social and relational constructions and processes of human and non-human interaction (Van ‘t Hek & Van Oss, 2009).

Indications for a second route how to balance different but fractional coherent MACS objects and how to bring these objects, all called MACS, to some extent in line with each other are
found in the third case study. In this case study finance and control staff initiated a process of abandoning the usual ‘inside-out’ way of thinking. This ‘inside-out’ routine used to start from their well-defined accounting body of knowledge and went on to decide unilaterally how to deploy MACS in this new environment and how to service management best. Instead finance and control staff in this third case organization chose an ‘outside-in’ orientation in which different logics intermingled and which consequently resulted in practices that can be characterized as co-creation and organizational learning. This procedure fits the call of Vosselman to opt for the creation of a relational ontology of management accounting (Vosselman, 2014) in which performativity of MACS is used to prevent externally – towards other professional realms – oriented defensiveness and to nourish intersubjective relations (Fischer & Ferlie, 2013 p. 45).

To sum up, the Dutch sector of nursing homes, homes for the elderly and home care is undergoing considerable changes. In this fast changing and increasingly businesslike environment care organizations are compelled to demonstrate effectiveness and efficiency without jeopardizing their social purposefulness (Chenhall et al., 2010). The application of MACS has much to offer to care organizations on how to handle and balance these changes and corresponding risks. Although MACS might seem to complicate things by revealing itself as multiple objects, acknowledgement of this multiplicity and corresponding fractional coherence is important to comprehend the enactment of MACS and as a result the many possibilities and choices that are offered.

1.6. Outline of the study

![Figure 1.1: Overview of the structure of this study](image)

This first chapter introduces the subject of this study and the associated research questions. The structure of this study is as follows. Chapter two provides a description of the main developments in the Dutch sector of nursing homes, homes for the elderly and home care. In this chapter the most important changes in legislation and regulation in this sector are listed.
Chapter three presents the features and purposes of MACS as well as a literature review on the characteristics of MACS change. Chapter three also offers an introduction of performative and relational perspectives on accounting. Chapter four elaborates on ANT and post ANT. Both early and more recent developments are described and translated into a conceptual framework. Chapter five focuses on the research methods used in this study. It provides arguments for the methods chosen and it presents the research design. Three case studies are presented in succession in chapters six, seven and eight. Chapter nine presents the consequences of taking the so-called ontological turn. The conclusions and suggestions for further research are described in chapter 10. The outline of this study is summarized and pictured in figure 1.1.
Chapter 2

Context - Sector developments
2.1. Introduction

This chapter provides a description of the main developments in the Dutch sector of nursing homes, homes for the elderly and home care. In this health care sector profound changes in legislation and regulation are initiated in a quick pace. The first section pictures how expenses on health care keep rising, not only in the Netherlands but in other OECD countries as well. Next the main challenges, which the Dutch sector of nursing homes, homes for the elderly and home care are facing, are listed. The final section presents the attempts of the care sector to cope with these challenges.

Figure 2.1: Overview of the structure of this study

2.2. Expenses getting out of hand

In the Netherlands nursing homes, homes for the elderly and home care are marked out as one economic sector. Main task of this sector is to provide long-term care. Their clients are mainly the elderly. At the start of 2014, 463.000 people in the Netherlands were entitled to long term extramural care and another 334.000 were entitled to long term intramural care (Nederlandse Zorgautoriteit, 2014b). Due to various developments the expenditures on long-term care have risen to alarming levels. In a policy document titled ‘From systems to people’, dated 8 February 2013, the Dutch Minister of Health and Welfare wrote: “The tenability of expenses on care are under pressure. At the moment an average household spends more than eleven thousands Euros on care per year. If the increase in expenses on care continues in the same pace as the past ten years, an average household will spend half its income on care by the time we reach 2040.” (Ministerie van Volksgezondheid, Welzijn en Sport, 2013 p. 3) The same type of warnings are given by the Dutch Healthcare Authority (Nederlandse Zorgautoriteit, 2014b). Compared to European neighbouring countries, quality of care in the Netherlands is high but so is the price tag of the Dutch care system (Björnberg, 2013; European
Carewatched in the Netherlands is rather young compared to for example the population of Germany. As a consequence of this age structure the costs of care in the Netherlands will increase much steeper in the near future as a result of the aging population (European Commission, 2009; Van Asselt, Bovenberg, Gradus, & Klink, 2011).

Aforementioned forecasts motivated ActiZ, by far the biggest branch organization of employers in this sector, to call for a paradigm shift (ActiZ, 2012a). In order to control health care expenses, sector members should learn to act as social entrepreneurs. The words ‘paradigm shift’ are probably an appropriate expression to indicate the impact of the challenges this sector is exposed to.

Figure 2.3 shows that rising health care expenditures are not an exclusive Dutch problem. Conrad and Guven Uslu (2012) put these rising expenditures in an international dimension and show how several authorities in different countries try to curb care expenditures by means of a so-called 3E approach: economy, efficiency and effectiveness. This approach coincides with the New Public Management (NPM) agenda of privatization and marketization of public services to take advantage of more competitive and private sector-like practices. In their studies on the effects of NPM practices in the National Health Service (NHS) in the UK, Conrad and Guven Uslu (2011 and 2012) show how economic and managerial considerations become more important. In line with the increasing importance of accounting information for performance evaluation, they also notice a change in the relationships between professional groups within the NHS, depicting a growing importance of the role of accountants (Conrad & Guven Uslu, 2011; Conrad & Guven Uslu, 2012).

In the Netherlands developments in health care services in neighbouring countries are watched carefully. The long-term health care system in Germany, which focuses on self-support of clients together with their families, is mentioned as solution providing example (Gradus & van Asselt, 2011). In line with aforementioned paragraph, policies, which can be typified as marketization and private sector-like practices, are introduced in the Dutch health care sector in order to cope with the challenges this sector faces.
Chapter 2

Figure 2.3: Health expenditure as % of GDP, OECD countries, 2011.
(Source: OECD Health Data 2013, 31 October 2013)

2.3. Challenges

To confine the rising costs of health care and corresponding national budget risks, the central government has transferred several financial risks to care organizations. In 2009 the old system, which was dominated by open-end expense claims, was replaced by a system of reimbursements which are based on performances. As explained in the first chapter, care organizations nowadays get paid based on so-called ‘zorgwaartepakketten’ (ZZPs) or ‘care packages’. As a consequence, making a profit or loss depends on the number and the kind of clients an organization takes into care on the one hand and its operating expenses on the other.

With regard to the costs of housing of clients, from 2012 onwards the old system, according to which care organizations could charge the central government on the basis of granted capacity, is rapidly replaced by a system that accounts for a fixed remuneration based on the expected costs of housing per client per day. This remuneration is called the normative housing component (NHC). For the first time care organizations are confronted with the costs of vacancy. In the old situation an empty room or empty bed had no financial consequences. But in the new NHC-system an empty room means no housing revenues to match the fixed housing costs.

Moreover as explained in the first chapter, aforementioned risk of vacancy costs became acute due to new government regulations concerning the extramuralization of clients with a
low indication for care. As a consequence these clients have to pay for housing expenses or simply stay at home and settle for home care. To confine the risk of real estate becoming vacant, care organizations cut back in residential capacity and accept the corresponding losses (Gupta Strategist, 2012; Nederlandse Zorgautoriteit, 2012) and/or have to develop new concepts to attract clients to rent a room or apartment (Hagen, 2014).

Another important challenge is the question how to service the emancipated care customer (ActiZ, 2010; ActiZ, 2011; ActiZ, 2012a; ActiZ, 2012b; ActiZ, 2013; ActiZ, 2014b). The so-called ‘thankful’ generation slowly is replaced by a more critical generation of clients. This type of client acts as manager of his own care, asking for custom-made care preferably in his familiar surroundings as long as possible. As a result, employees of care organizations have to enhance their client-focus. Although offering scale and efficiency opportunities, the conventional supply driven way of providing care services will not suffice any more. A more demand driven interpretation of care provisions is required (ActiZ e.a., 2012c). Clients want the possibility to compose their own custom-made packages of services, especially if they have to pay for it themselves. An inevitable consequence of this development is a differentiation of services, making processes more difficult to control and optimize.

2.4. Endeavours

Since 2011 every quarter the organization of finance professionals working in health care\(^1\) publishes a so-called ‘financial care thermometer’. In these publications comments and expectations of these financials are bundled in an overview of developments and trending topics in Dutch health care. In these reports a distinction is made per health care sector. According to these ‘thermometer’-publications four topics dominated the agendas of financials in the Dutch sector of nursing homes, homes for the elderly and home care during the period this research took place. In alternating sequence these four topics were the following. Firstly the extramuralization of care services which resulted in a decrease of revenues, reduction of housing capacity and impairment losses on real estate property. Secondly, all kinds of effects of the austerity measures by the central government were mentioned. A vast majority of respondents expected that revenues would decline furthermore in the near future and that financing of activities and investments would become harder (HEAD and Finance Ideas, 2014). Third item were the concerns over the negotiations with health care insurance companies. Since 2009, the year in which ZZPs were introduced, the negotiations with health care insurance companies resulted in continuously lower tariffs. In 2014 intramural tariffs were 97.4% of those in 2009 and tariffs for extramural care services were only 92.3% compared to those in 2009 (ActiZ, 2014b). According to the opinion of many financials the position of health care insurance companies was too dominant (HEAD and Finance Ideas, 2014). And last but not least the fast sequence of modifications in the systems of remuneration was mentioned. Much unrest was caused by the plan, to be effective as from 2015, to split the existing legislation for long-term care in three separate parts with three different authorities with whom care organizations would have to negotiate conform three different sets of rules (Nederlandse Zorgautoriteit, 2014a). In the period in which the

\(^1\) HEAD is the biggest professional organization of financials in health care in the Netherlands.
Chapter 2

interviewing of managers with regard to this study took place – November 2012 until August 2014 - most interviewees stated they were still unsure how to cope with this new situation.

\textit{Extension of MACS}

This study presumes – and also confirms - that managers in the care sector are in need of extra management information to cope with the new challenges and risks, as pictured in the previous sections. Several studies have demonstrated a correlation between perceived environmental uncertainty and the need for more sophisticated management information: the higher the perceived uncertainty, the higher the need is for this kind of information (Merchant 1990, Abdel-Kader & Luther 2008). In the next chapter this relation will be elaborated in more detail. This section is confined to indications that care organizations increasingly use financial reports which on their turn grow both in dimension and in detail (Devine, O’Clock, & Lyons, 2000; Van der Voort & Kerpershoek, 2010; Van Eeken et al., 2012). These reports describe a growing number of indicators, not only of a financial nature but also indicators on topics like processes and quality of care services (Van Eeken et al., 2010; Van Eeken et al., 2012). In the endeavour to demystify the uncertain future, new financial tools like long term financial forecasts and scenario analyses are recommended (ActiZ, 2014a). In line with the success of its own benchmark, against which performances of individual care organizations can be judged, ActiZ advises care organizations to compose their own internal benchmark. Particularly for larger care organizations internal benchmarks seem feasible and useful. According to the experiences of ActiZ, “an internal benchmark of organizational units offers the possibility to yield valuable insights. After all, every large organization has its own best practices. During the last three years, our analyses confirm this conclusion.” (ActiZ, 2012b p. 9)

\textit{Decentralization}

Recurring theme in reports concerning the sector of nursing homes, homes for the elderly and home care is the decentralization of tasks and responsibilities. This development is fuelled by two concerns. First, the growing expenses of health care provoked critical questions whether all expenditures were justifiable. Particularly overhead expenses were looked at with great misgiving. According to the general opinion, budget cuts ought to impinge as much as possible on overhead instead of nursing staff. The percentage of costs on overhead in relation to total expenses is a dominant figure in the ActiZ benchmark (ActiZ, 2010; ActiZ, 2011; ActiZ, 2012b; ActiZ, 2013; ActiZ, 2014b). The lower this percentage is the better. ActiZ even calls care organizations with a small overhead “pearls of the sector” (ActiZ, 2013 p. 15). Recent figures show how the percentage on overhead costs dwindled from 14.1% in 2009 to 12.6% in 2013 (ActiZ, 2014b).

The second reason for a delegation of tasks and responsibilities stems from the necessity to become more flexible and customer oriented. Research, commissioned by ActiZ, showed how new challenges, as depicted in previous section, ask for a dynamic way of managing, which is equated with decentralization (ActiZ, 2012b). So-called ‘self-organizing’ teams “are hot” because they offer a solution to multiple problems (ActiZ, 2014b p. 31).
First of all these teams have a close relationship with their clients and a high degree of freedom to make their own decisions. They are directly in touch with the myriad of day-to-day problems and are therefore equipped to come up with better solutions, so is the argument. As a result these teams are able to customize health services to the individual preferences of their clients (ActiZ, 2014b). Although this line of reasoning seems logical there are indications that reality is difficult and somewhat obstinate. Benchmarks in 2013 as well as in 2014 indicate remarkable differences in experiences of employees versus those of clients on topics like client participation in decision making and receptivity to individual wishes of clients. On both items employees are far more positive than their clients (ActiZ, 2013; ActiZ, 2014b). These benchmark results suggest that a really demand driven supply of care services in the Dutch sector of nursing homes, homes for the elderly and home care is still not accomplished.

A second reason to promote self-organizing teams is the indication that the more the autonomy of teams is expanded the better the scores are on employee satisfaction (ActiZ, 2013; ActiZ, 2014b). Advocates of self-organizing teams explain this positive correlation by pointing out that nursing staff regains its professional autonomy and is much less hindered by top-down managerial directives. Others warn against over-optimism by stating that deployment of this type of teams requires a careful and delicate transition to a new way of management and framing of responsibilities (ActiZ, 2014b; Buinink & Albeda, 2005; Nijhof, 2013).

Additional effect of aforementioned decentralization is a vertical extension of application of MACS. Part of the delegated tasks and responsibilities, for example budget control, is of a financial nature (ActiZ, 2013; Zuurbier & Hartmann, 2010). Seen this way, the increase in financial figures is not restricted to senior management. Accounting information is overflowing to lower echelons as well.

**: Real estate**

As explained in previous sections real estate has become an important risk. Questions with regard to possible impairment losses were prominent at conferences of sector members. Several reports predict heavy losses due to impairment or even closing down of homes (Gupta Strategist, 2012; Nederlandse Zorgautoriteit, 2012; Nederlandse Zorgautoriteit, 2014a). Moreover, the extramuralization of clients with a low indication for care will ultimately stand for an overall steep decrease of revenues (ActiZ, 2013; Nederlandse Zorgautoriteit, 2014a). The reimbursement for treating these types of clients consists of a care component only. The housing component is cut out completely. This curtailment is all the more painful because the profit margin of many care organizations mainly consists of profit on housing of clients (ActiZ, 2012b; ActiZ, 2013). In forthcoming years this net margin on housing will evaporate, according to the forecasts of ActiZ (2014b). Although the ActiZ benchmark 2014 shows that 33% of all care organizations is still in a healthy financial shape (ActiZ, 2014b), another analysis indicates that only 7% has an enduring financial condition when impact scenarios for impairment losses and revenue declines are included (ActiZ, 2013). These outcomes explain why some sector reports have ominous titles like ‘Silence before the storm’ (Gupta Strategist, 2012).
Several care organizations choose to redevelop their real estate. Homes which are out of date, are renovated or even rebuilt in order to offer new services that include lettings. One of the case study organizations in this research, South Care (see chapter 8), calls this concept ‘Care Living’. These concepts aim at elderly clients with low indications for care and offer the possibility to rent a full-service apartment in combination with nursing aid nearby. The expenses for care services matches with the usual reimbursement and the rent is paid by the clients. Additional advantage for the client is that he lives in a safe environment with professional supervision.

In their search for possibilities to finance the redevelopment of real estate, care organizations encounter another problem. Due to the fact that the risk profile of care organizations has worsened, banks have become reluctant to finance their plans (ActiZ, 2014a). Alternative ways to finance real estate receive growing attention from both care organizations and equity funds (ActiZ, 2014a; Boer & Croon, 2010). Drawback of these alternative funding possibilities are the market-oriented financial requirements that have to be fulfilled without the possibility to fall back on guarantees by the government. Care organizations, which are prepared to welcome private investors, have to draft business cases and prospectuses. Moreover, they have to equip a professional treasury function and get acquainted with concepts like discounted cash flows and internal rate of return (ActiZ, 2014a).

### 2.5. Summary

The Dutch sector of nursing homes, homes for the elderly and home care is facing continuity menacing challenges (Nederlandse Zorgautoriteit, 2014a). In a relative short period of time, care organizations have to transform from risk free financed public services to market oriented social enterprises. In the latter role, care organizations have to cope with new questions, varying from demand driven care concepts and critical care consumers to uncertain revenue streams and financial risks. Analogous to Darwin, a CEO of a large care organization finished his presentation at a conference in 2013 with the following conclusion: “Not the strongest or largest care organizations will survive but those which prove to be able to adapt to new and fast changing circumstances.” Remarks like these were not uncommon and induced ActiZ to compose a so-called ‘adaptability index’ (ActiZ, 2013; ActiZ, 2014b).

To cope with this changing environment managers of care organizations use an increasing amount of accounting information. This need for more and better information is prompted by three developments. First of all, the necessity to stay in control and to cope with the growing number of environmental uncertainties urges management of care organisations to a more detailed monitoring of financial developments. Secondly, decentralization of tasks and responsibilities requires both disseminated and uniform MACS information. Finally, various stakeholders, like central authorities, banks and health care insurance companies, ask for more detailed information and ditto accountability. Partly this is the result of the fact that present remuneration systems are open to discussion due to the untenable increase in health care expenditures. But also new stakeholders like private investors ask for more specified information.
This chapter sketches the context and developments which induce management of care organizations to implement and extend MACS. More or less impelled by developments beyond their range of control, care organizations adopt MACS, a concept well known in for-profit sectors, and translate these systems to fit the specific requirements of their sector. But so far we do not know how these translations at micro level look like. What expected and unexpected effects take place? Nor do we know which tensions emerge with the extension of MACS and how actants solve, mitigate or try to avoid these tensions.
Chapter 3

Management Accounting & Control Systems
3.1. Introduction

This chapter starts with a description of MACS in accordance with commonly used definitions of management accounting and management control. Section 3.2 shows how several developments – like the broadening of the scope of MACS and the introduction of interactive control mechanisms – have contributed to the relevance of MACS information. In this section a functional and instrumental perspective on MACS dominates. According to this perspective MACS look like cybernetic systems that measure the performances of individuals and hold each individual accountable for his numbers. Moreover, these systems enable management to monitor all critical performance indicators and to intervene in time in case of deviations.

![Chapter 3: Overview of the structure of this study](image)

This functional and instrumental perspective becomes blurred in section 3.3. This section illustrates that MACS change is neither a linear nor a foreseeable process (Alcuffe et al., 2008; Baxter & Chua, 2003). In this section several studies are quoted to show that the nature of MACS change has caused a lot of discussion and research. A limitation of accounting research to aforementioned functional perspective on MACS is no longer viable because it leaves too many questions unanswered. For example, the functional approach cannot satisfactorily explain why implementation of the same accounting tool seldom leads to the same implementation patterns and why these tools frequently do not solve the problems for which they are initially implemented (Busco, Quattrone, & Riccaboni, 2007). Section 3.3 therefore opens a new perspective that focuses on the social potential of accounting by emphasizing the interrelationships between all the factors that are involved in accounting practices (Granlund, 2001). In fact this section is directed towards the introduction of performative and relational perspectives on accounting in section 3.4.
The arguments in favour of the so-called relational and performative perspective are elaborated in section 3.4. Within the scope of this study, performativity means that economic theory – in most cases put into practice through accounting – does not just describe and explain reality but rather shapes and performs reality (Vosselman, 2014). Applied to accounting practices and accounting change, this performative perspective describes shifting networks of related actants, both human and non-human, using MACS information in a relational drift of practices (Andon, Baxter, & Chua, 2007). As a result of these relations with others, actants acquire their forms and attributes (Law, 1999).

Focusing on a sector to which MACS is fairly new, this study investigates what happens when MACS are introduced and extended – both horizontally and vertically as described in chapter 2 – within care organizations, belonging to the Dutch sector of nursing homes, homes for the elderly and home care. At the entrance of this unknown and fallow field of research, this study chooses the performative and relational perspectives as starting points. Doing so, an accurate and close empirical investigation of the many relations between both human and non-human agents, all involved in MACS practices, becomes inevitable as will be shown in chapter 4 and onwards.

3.2. Relevance of MACS

Defining MACS

According to the Chartered Institute of Management Accountants (CIMA), management accounting is “the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management to plan, evaluate and control within an entity and to assure appropriate use of and accountability for its resources. Management accounting also comprises the preparation of financial reports for non-management groups such as shareholders, creditors, regulatory agencies and tax authorities” (CIMA Official Terminology). According to the same institute, management control comprises “all of the processes used by managers to ensure that organizational goals are achieved and procedures adhered to, and that the organization responds appropriately to changes in its environment.”

The term ‘management accounting and control systems’ and its abbreviation to MACS are adopted from Kilfoyle and Richardson (2011). They attribute a functional perspective to accounting theory and ditto research. “Recent work has emphasized the need for the design of the MACS to fit the strategy of the organization. The assumption is made that the degree of fit affects the overall performance of the organization, i.e. a misfit between the design of MACS and these contingencies will result in a performance deficit” (Kilfoyle & Richardson, 2011 p. 187). In line with this functional perspective and referring to Horngren (2003) and Merchant & Van der Stede (2012), Vaivio ascribes an instrumental and business like role to management accounting and control systems (MACS). “Managerial practices run beyond personal belief or emotion and are not at the mercy of mere speculation, whim and intuition.

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This aspect is previously explained in section 1.3 and is further elaborated in section 4.3.1.
Chapter 3

With the assistance of management accounting instruments, the organization thinks before it acts. It remains under coordinated control and heads steadily in the designated direction" (Vaivio, 2008 p. 65). Deployment of MACS enables management to effectively and functionally pursue their business targets. These systems “insure that employees (1) know what is expected of them, (2) will exert effort to do what is expected, (3) are capable of doing what is expected, and (4) accomplish what is expected” (Malina & Selto, 2004 p. 444). According to the average textbook, MACS are depicted as a “flexible and neutral technical instrument or formal system that can be moulded to the functional aims of its users” (Vaivio, 2008 p. 66).

*: Broadening the scope of MACS

Originally MACS mainly consisted of financial information with an internal focus. But in a globalizing and increasingly competitive environment this is no longer sufficient. Furthermore, studies demonstrated important dysfunctional control system side effects: manipulation of short-term performance measures and encouragement of a myopic short-term orientation (Merchant, 1990). By means of a memorable publication, titled ‘Relevance Lost’, Johnson and Kaplan (1987) introduced a new agenda. They argued that management accounting did not succeed in providing business managers with the information they demanded and correspondingly failed to meet its own functional ambitions. The big challenge was and is how to align the new possibilities of information technology with new accounting techniques in order to fulfm the new role of ‘internal business consultants’ (Burns & Vaivio, 2001 p. 391). This challenge was partially answered through the introduction of new accounting techniques. Examples of these new techniques applied in the health care sector are Activity-Based Costing (Baker, 1998; Chan, 1993), Target Costing (CIMA NHS Working Group, 2005) and Time-Driven Activity-Based Costing (Demeere, Stouthuysen, & Roodhooft, 2009; Van Erp, Van der Ven, & Opgelder, 2013).

At least as important to improve the relevance of MACS was the broadening of the scope of MACS information by including non-financial measures. Particularly the adoption of Total Quality Management and the use of indicators like customer satisfaction, on-time delivery and responsiveness to customer needs are seen as important drivers for the use of non-financial measures (Abdel-Maksoud et al., 2005). Bouwens and Abernethy (2000) distinguish MACS information with a narrow scope versus information with a broad scope, defining the latter as more useful. Whether the scope of MACS information is broad or narrow, is defined in table 3.1. on page 33.

*: The effects of perceived environmental uncertainty

Parallel to this development Burns and Vaivio (2001) describe another development. While new information technology drives ‘routine’ accounting tasks into centralized positions, management accounting is becoming more decentralized, meaning for instance that business managers are managing their own budgets (Burns & Vaivio, 2001). The latter development highly relates to perceived environmental uncertainty (PEU). The bigger this perceived uncertainty the more decentralization of competences is inevitable and the more urgent the need for broad MACS information in general and non-financial info in particular (Abdel-Kader & Luther, 2008; Abdel-Maksoud et al., 2005; K. A. Merchant, 1990). Chong (1996) reports results which indicate that under a high task uncertainty situation, the use of broad scope
MACS information leads to effective managerial decisions and improvement of managerial performances (Chong, 1996). Abdel-Kader and Luther (2008) conclude that organizations, perceiving a higher degree of environmental uncertainty, adopt more sophisticated MACS than firms that perceive lower environmental uncertainty. When PEU is low, management needs fairly limited information to make predictions and decisions and vice versa (Gul & Yew, 1994). Abdel-Kader and Luther (2008) find sufficient evidence to confirm this correlation. A same positive correlation is identified between the increase in relative customer power and the need for sophisticated MACS. This is in line with the portrayal of the ‘flexible firm’ by Mouritsen (1999). A flexible firm is one “which orients itself towards customers, new technology, lateral organizational arrangements and innovation. It is the ‘new organization’ where the customers and empowered employees - rather than organizational bureaucracy and capital markets - are said to govern the firm.” (Mouritsen, 1999 p. 100)

<table>
<thead>
<tr>
<th>Parameters</th>
<th>MACS with limited scope</th>
<th>MACS with broad scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>The reports contain mainly financial information.</td>
<td>Besides financial information, a lot of attention is paid to non-financial data (e.g. client satisfaction and quality) as well.</td>
</tr>
<tr>
<td>Direction</td>
<td>The information provided for relates mainly to the past.</td>
<td>The information provided for has also prospective directions, relating to possible future events.</td>
</tr>
<tr>
<td>Orientation</td>
<td>The information primarily relates to internal process of the organization.</td>
<td>The information contains also relevant information about external or environmental developments.</td>
</tr>
</tbody>
</table>

Table 3.1: Scope of MACS information (Bouwens & Abernethy, 2000)

In their study Abdel-Kader and Luther (2008) depict 38 management accounting practices and techniques. Whether an organization uses these available techniques depends amongst other things on the circumstances in which an organization operates. Bhimani illustrates that change in management accounting routines are not solely the result of internal requirements and choices. They are also a consequence of extra-organizational influences becoming interlinked with internal circumstances (Bhimani, 1993). This conclusion induces to adopt “a contingency theory perspective” (Tillem, 2005 p. 102). Central theme in the contingency theory literature is that each organizational structure is a response to a set of internal and external contingencies. There are no universally appropriate MACS fit for all organizations. According to the contingency theory contextual factors are important for the design of MACS. Several studies indicate that MACS interact with conduct of business and organizational culture (Burns & Scapens, 2000; Busco et al., 2006).

\* Interactive use of MACS information

Interesting is the suggestion that non-financial performance measures are related to so-called ‘upward communication’ (Abdel-Maksoud et al., 2005 p. 288). The latter study shows how non-financial measures like customer satisfaction, on-time delivery and responsiveness to
customer needs, are important to effectuate operational control and that in the process of this effectuation employee feedback or ‘shop-floor suggestions’ play an important role (Abdel-Maksoud et al., 2005). These findings lead to the question how MACS information is used. To investigate this question this study uses the distinction between a diagnostic versus an interactive use of MACS information. This distinction originates from the Levers of Control framework of Simons (1995). Simons explains how diagnostic controls can be used to monitor the critical performance variables of an organization and its strategy. He defines diagnostic control systems as “formal information systems that managers use to monitor organizational outcomes and correct deviations from pre-set standards of performance” (Simons, 1995 p .59). Opposite to diagnostic control systems are interactive control systems which Simons defines as “informal information systems that managers use to involve themselves regularly and personally in the decision activities of subordinates” (Simons, 1995 p .95). According to Simons, these systems are suitable to cope with strategic uncertainties. A special feature of interactive controls is the continuous debate concerning data and plans; a process which stimulates organizational learning and the development of new ideas (Simons, 1995 p .91).

Although Simons’ framework has been frequently used in the literature over the years (Tessier & Otley, 2012 p. 172), several authors mention that they have problems with the definitions of the concepts of this framework in general and the definition of interactive control systems in particular (Bisbe, Batista-Foguet, & Chenhall, 2007; Ferreira & Otley, 2009; Tessier & Otley, 2012). To overcome misconceptions due to dissimilar interpretations, Bisbe et al. (2007) propose a more inclusive definition according to which interactive control systems have to comprise five components: intensive use by superiors, intensive use by subordinates, face-to-face communication, focus on strategic uncertainty and non-invasive management style (Bisbe et al., 2007). Ferreira and Otley (2009) on their turn propose a solution by dividing Simons’ concept of interactive control in two separate concepts. The first concept is strictly concerned with monitoring chosen strategy. The second concept is much broader and does not define a control system per se but rather a description of how controls are used. In accordance with this second concept both interactive and diagnostic controls focus on how managers use controls; in fact this idea suggests that any control mechanism can be used interactively (discussion and debate among organizational members of different hierarchical levels with a focus on learning) or diagnostically (little discussion of data and focusing on negative variances)(Ferreira & Otley, 2009; Tessier & Otley, 2012).

To prevent any misconception, this study draws on the aforementioned second concept of interactive and diagnostic controls, which is reflected in the distinction between a diagnostic versus an interactive use of MACS information made by Naranjo-Gil and Hartmann (2007a, 2007b) and reproduced in table 3.2. In their studies, they show how interactive use of MACS offers more relevance for decision making and accountability reporting (Naranjo-Gil & Hartmann, 2007a; Naranjo-Gil & Hartmann, 2007b).

Vaivio shows in his case study at Lever Industrial-United Kingdom how non-financial measures “are not a merely functional management technology, but also an active element that restructures organizational reality. These measures recreate organizational segmentation, shift patterns of responsibility, and forge dependencies.” (Vaivio, 1999 p. 413) The study shows how non-financial measurements promote interactive control systems. To reach this point, the systematization of non-financial measurement is essential. This systematization into
a regular and integrated reporting format proved to be of great importance in the Lever Industrial-United Kingdom case (Vaivio, 1999). Once operational, “it appears as if the systematized non-financial measures became a vehicle of focused interactive control. [...] The measures maintained a structured dialogue between top management and the organizations, setting narrow boundaries for this interaction.” (Vaivio, 1999 p. 430) Chong and Mahama (2014) present a study on the effects of interactive and diagnostic uses of budgets in biotechnology firms. They conclude that interactive use of budgets has direct positive effects on team effectiveness. A similar effect is not found for diagnostic use of budgets (Chong & Mahama, 2014).

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Diagnostic use of MACS</th>
<th>Interactive use of MACS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MACS focus</td>
<td>Detecting mainly negative variances from plan.</td>
<td>Signalling key areas for strategic improvement.</td>
</tr>
<tr>
<td>Objectives</td>
<td>To monitor and reward the achievement of pre-established goals.</td>
<td>To expand opportunity seeking and learning throughout the organization</td>
</tr>
<tr>
<td>Managers view of MACS</td>
<td>As a tool that provides diagnoses and information about critical performance indicators of the organization (answering machine).</td>
<td>As a tool that stimulates continuous challenge and debate concerning data, assumptions and action plans (learning machine).</td>
</tr>
<tr>
<td>Involvement of top management</td>
<td>Little discussion of data with subordinates during execution.</td>
<td>Much discussion and interpretation of data among organizational members of different hierarchical levels during execution.</td>
</tr>
<tr>
<td></td>
<td>Much discussion based on period results.</td>
<td></td>
</tr>
</tbody>
</table>

*Table 3.2: Diagnostic versus interactive use of MACS* (Naranjo-Gil & Hartmann, 2007a)

**Loose coupling**

Several studies mention gaps between accounting rules and guidelines on one hand and day to day operations on the other hand. These gaps do not automatically culminate in all kinds of problems. On the contrary, fatal misconceptions can be prevented due to loosely coupled systems (Lukka, 2007). Collier (2001) provides a case study of financial management in a police force, illustrating a successful synchronization between accounting responsibilities and operational activities, monitored by non-financial targets. After a short period of scepticism, divisional police officers no longer saw the new budgetary system as an administrative burden but as a tool, enabling them to allocate resources in accordance with local priorities. Indeed divisional police officers experienced the new budgetary system as an increase of their own powers. Although overall control was still in the hands of chief officers who decided on strategy and targets, divisional police officers experienced and appreciated the freedom of allocating resources within their own budgets. As long as the divisional budgets were not
overspent and targets were reasonably met, divisional police officers were able to satisfy their superiors and the corresponding legitimating purposes on an institutional level. At the same time these divisional police officers were enabled to shape local operational processes leading to locally customized day-to-day services. Collier concludes: “The loose coupling between legitimating and technical work activity took place through the mechanism of accounting. Accounting simultaneously satisfied external regulators (that budgets had been devolved to operational commanders) while providing a new power to divisional commanders to allocate that budget in ways that were consistent with street-level, operational priorities that supported the police ethos.” (Collier, 2001 p. 481)

In order to streamline the coupling, as mentioned above, standardization of accounting information is very tempting. With regard to this standardization, accounting inscriptions such as budgets, performance measures and reports, are important because they convert local events into textual or graphical forms that are mobile (Qu & Cooper, 2011). What’s more, these inscription devices entail and mobilize knowledge from distant locales and become very powerful when they are brought back to and used by central management to “represent reality in order to act on it, control or dominate it, as well as to secure the compliance of others in that domination” (Qu & Cooper, 2011 p. 344). Nevertheless this standardization is not without pitfalls. “Standardized communication decontextualizes inscriptions from their local settings. In the absence of mutual knowledge and understanding between communicating parties, this can lead to anxiety for both the centre and the periphery.”(Lukka, 2007 p. 82) In fact, these findings show the limitations of a functional and instrumental perspective on accounting and reveal a social and relational dimension of accounting practices. For example, Qu and Cooper (2011) focus on the role of accounting inscriptions, illustrated by a case study research on the development, implementation and rejection of a custom made balanced score card.

3.3. MACS change and stability

The nature of MACS change has caused a lot of discussion and research. Various studies show that the spread of innovative management accounting practices is a process that is very hard to define (Ahrens & Chapman, 2006). Some emphasize that change in accounting is neither necessarily linear nor foreseeable (Alcouffe et al., 2008; Baxter & Chua, 2003). Others conclude “change is rather a drift of practices (Quattrone and Hopper, 2001) that move in time and space along the interactions of a multitude of actors” (Alcouffe et al., 2008 p. 13). This concept of change as a drift is the opposite of a guided change or engineered transition, which is in line with the functional perspective on accounting and assumes a route from a well-defined point A to a ditto point B. With regard to the concept of change as a drift, Andon et al. (2007) provide a comprehensive case study to illustrate this concept. Moreover, they augment Quattrone and Hopper’s (2001) metaphor of drift by emphasizing the relational nature of accounting drift. Consequently Andon et al. speak of “relational drifting” because in their case study change was “situated in loosely coupled and shifting collectives that conditioned change-work and thus informed the dynamics of drift” (Andon et al., 2007 p. 303). Busco et al. (2007) observe how corporations are ready to invest considerable resources in management accounting tools like Balanced Score Card and Activity Based Costing. And at the same time research shows how these management tools are “so fluid, unstable and
heterogeneous that it would appear miraculous to find the same management accounting technique implemented in different organizations in the same manner, with the same range of problems and implementation patterns. Furthermore, they rarely solve the problems for which they were initially mobilized.” (Busco et al., 2007 p. 128)

Besides these studies on the change of MACS, there are studies which question the functioning of the ‘in control’ concept as a sequence of rational steps of measuring, planning and monitoring. Streetfield (2001) concludes that this ‘in control’ concept is only one part of managerial reality. The other part looks more like “muddling through or garbage can decision making” (Streetfield, 2001 p. i). According to Streetfield (2001) managerial practice has to deal with a paradox of control, meaning managers have to cope with notions of ‘in control’ and ‘not in control’ simultaneously. “This means acting on the basis of an expectation of an outcome, knowing full well that it is unlikely to materialize, requiring [the manager] to be ready to handle the consequences whatever they may be. It involves developing effective ways of handling the anxiety of ‘not knowing’.” (Streetfield, 2001 p. 7) To conclude this paragraph and the previous one, the citation of Latour, used by Alcouffe, is appropriate: “Success and failure are only rhetorical constructions of the network: the rule is not that, once the machine works, people will be convinced, but that the machine will work when all relevant people are convinced” (Alcouffe et al., 2008 p. 15).

From a mainly functional perspective, Granlund (2001) signals a bulk of studies on management accounting change. Using ideas of Giddens (1984) as well as institutional theory (Powell & DiMaggio, 1991), Granlund’s study aims to reveal how human, institutional, and economic factors become intertwined in MACS change projects; particularly in the cumulative process of change or its denial and obstruction. An explanation may be found in the fact that economic arguments are among the most powerful arguments used in the legitimization of managerial and organizational action (Granlund, 2001). Ferraro et al. (2005) continue on this theme from a relational perspective and show how the language and assumptions of economics shape management practices. Citing Keynes he explains how ideas of economist, whether these ideas are right or not, are very powerful and can become true by modifying reality like a self-fulfilling prophecy (Ferraro, Pfeffer, & Sutton, 2005; Ghoshal, 2005). Economic theories and corresponding assumptions “influence how people behave individually and the institutions they design as contexts for others’ behaviour” (Ferraro et al., 2005 p. 10). Moreover, like a vicious circle these behaviours reinforce the credibility of these theories (Ferraro et al., 2005). In other words, these theories shape and perform reality.

In attempts to explain the stability and change of MACS, many statistically testable theories have been produced, resulting in a long list of factors that possibly explain the success or failure of implementing something new like Activity Based Costing or a Balanced Score Card. “Still, such explanations fail to capture the interrelationships between the factors and the inherent complexity originating in the different incentives and aspirations of the people involved with accounting practice.”(Granlund, 2001 p. 145) Granlund chooses institutional theory and structuration theory as alternative research approaches. These alternatives “are often less easily explicable, or more difficult to present, as a taxonomy aiming at predictability and statistical generalizability. But they open totally new perspectives on the reality of organizational operations, where people seldom behave in predictable ways” (Granlund, 2001 p. 145).
3.4. Towards performative perspectives on management accounting

"Revealing the dominance of management by numbers"

Translating both financial and non-financial processes and performances in numerals, accounting reveals all kinds of practices, how small or how distant they may be (Vaivio, 2006). Through this transparency, accounting enables management to reinforce control in the relation between principal and agent. Management accounting is not just an instrument but also a social practice which is reflected in the conjugation of accounting to accountability and culminates in responsibility accounting (Anthony & Govindarajan, 2003) and ‘management by numbers’ (Kaplan & Norton, 2001). In this functionalist view MACS are cybernetic systems that measure the performances of individuals and hold each individual accountable for his numbers. “The implementation of management by the numbers thus strengthens the systematic construction of calculable selves.” (Vosselman, 2013 p. 3) This applies to both private and public organizations. Several studies show how health care organizations are not immune for this practice of management by numbers (Chua, 1995; Conrad & Guven Uslu, 2011; Conrad & Guven Uslu, 2012).

However Frey et al. (2013) provide an impressive list of studies that assume a critical position with regard to the consequences of accountability as pictured in the previous section. Particularly the introduction of ‘management by numbers’ in the public sector raises question marks. A review investigating 57 studies on pay-for-performance in the public sector concludes that “performance-related pay continues to be adopted but persistently fails to deliver its promise” (Perry, Engbers, & Jun, 2009 p. 46). Frey et al. (2013) explain how these criticisms contradict the widely held and popular supposition that implementation of instrumental accountability in public sector organizations improves performances, raises public servants’ motivation and enhances service quality. This contradiction, according to Frey et al. (2013), is caused by a misfit of the principal-agent theory, i.e. the theoretical background of ‘management by numbers’, with the main characteristics of public services. This theory fails “to consider elements of intrinsic motivation and other psychological factors at work which are of high importance in the public sector” (Frey, Homberg, & Osterloh, 2013 p. 951).

Nevertheless, forms of instrumental accountability are penetrating in public organizations. In order to explain this phenomenon, Vosselman (2013, 2014) poses the performativity thesis of Callon which states that “institutional economics is succeeding in the materialization of its ideas and in the realization of the behavioural assumptions that are at the basis of the theory. Economics may thus mediate in the construction of frames of instrumental accountability and, eventually, may produce Homo Economicus⁵, a creature that searches for self-interest, sometimes even in an opportunistic way.” (Vosselman, 2013p. 4) This reasoning is in line with the conclusions of Ferraro (2005). “A growing body of evidence suggests that self-interested behaviour is learned behaviour, and people learn it by studying economics and business.” (Ferraro et al., 2005 p. 14) And even when one thinks of himself as being altruistic, he will

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⁵ An ‘economic man’ is a hypothetical man supposed to be free from altruistic sentiments and motives interfering with a purely selfish pursuit of wealth and its enjoyment (Webster’s New International Dictionary, 2nd edition).
anticipate to self-interested behaviour of others. “They will design institutions under the assumptions that others will be narrowly self-interested and only motivated by extrinsic incentives. These arrangements then produce the very behaviour they assume, becoming self-fulfilling and institutionalized as a consequence.” (Ferraro et al., 2005 p. 18)

In the context of public services the penetration of instrumental accountability, in which principal-agent theory performs, is not without risks. It may impair performances of these types of organizations and corrode motivation of the professionals working there (Frey et al., 2013). Other studies mention negative effects of ‘management by numbers’ as well. Ghosal demonstrates that deployment of accounting and control instruments to prevent opportunistic behaviour may have a contrarily effect (Ghoshal, 2005). Sandel shows how the introduction of market reasoning in public services leads to moral judgments leaving their mark on social norms (Sandel, 2012). Frey et al. (2013), Sandel (2012) and Corbey (2010) draw attention to crowding out effects. Extrinsic motives like bonuses are likely to undermine intrinsic motives. Offering bonuses to intrinsically motivated employees initiates a feedback process emphasizing pay (Corbey, 2010).

**Exploring possible alternatives**

In search for solutions several studies explore initiatives to provide an alternative to instrumental accountability and related consequences. Roberts (2009) pleads for an intelligent form of accountability. “Intelligent accountability extends over time and thereby affords the opportunity to test commitments against outcomes in a way that makes the manipulation of performances less easy, and promotes understanding of the complex interdependencies that underlie discrete indicators. Transparency and face-to-face accountability always coexist.” (Roberts, 2009 p. 966) This form of accountability is not confined to just making visible a pre-determined set of categories but stresses active enqurry and deliberation. It aims for a more reflective form of accountability, acknowledging the fact that our behaviour is neither always rationally explainable nor that we fully understand what is happening. This acknowledgement of personal shortcomings releases employees of “the paranoia which characterizes the emotional edge of much of what counts as accountability within organizations and create a greater shared resilience based on reciprocal understanding” (Roberts, 2009 p. 967). This form of accountability fortifies its social potential, focusing on a reality of interdependence that needs to be managed (Roberts, 2009).

Frey et al. (2013) point to behavioural economics for possible solutions. They argue that output control, a trait of the principal-agent theory, is not adequate for most tasks in the public sector. One of the reasons for this unsuitability is the difference between private and public employees with regard to their motivation. “It is argued that in the public sector prosocial motivation plays a bigger role than in the private sector, due to different selection effects and job designs” (Frey et al., 2013 p. 951). According to behavioural economics the sources of motivation are much broader, including intrinsic motivation which is neglected by the dominant economic model of the homo economicus who is exclusively extrinsically motivated. By applying principal-agent theory to public sector organizations intrinsic motivation can be crowed out by extrinsic incentives and impair organizational performances instead of improving them. Frey et al. (2013) therefore argue that besides output controls other forms of control – such as process control and input control – are needed. Moreover
research indicates that particularly in public services procedural fairness and awards may improve motivation and performance much stronger than monetary incentives (Frey et al., 2013).

This section concludes with the suggestion of Vosselman to develop “a relational ontology of management accounting that is in politics” (Vosselman, 2014 p. 181). As point of departure, Vosselman chooses the performativity thesis, which states that economic theory does not just describe and explain reality but rather shapes and performs reality (Vosselman, 2014). Vosselman explains that whereas the calculative agent or homo economicus is the result of the performativity of economics in present networks, performativity of alternative concepts and theories may be enhanced (Vosselman, 2013). In particular research on the performativity of the stewardship theory and the enactment of stewards and their interacting networks is advocated (Vosselman, 2014). This choice, so Vosselman stresses, is a political one. Focus on the politics of management accounting in micro studies shows how the homo economicus is not an unavoidable aptitude but the result of complex networks in which humans and non-humans interact.

This performative perspective shows shifting networks of related humans and non-humans using MACS information in a relational drift of practices (Andon et al., 2007). As a result of these relations with others, actants acquire their forms and attributes (Law, 1999). If these relations change consequently the ontology of management accounting may change. Research “highlights that both the ‘good’ and the ‘bad’ are made up in multiple practices and it can serve to undermine the ‘bad’ and to underscore the ‘good’ by enacting and comparing specific local practices, thus helping to change states of affairs” (Vosselman, 2014 p. 202). Vosselman concludes with a call for further research on the question how accounting can be changed “from an instrument that is primarily oriented towards the measuring and rewarding/penalizing of individual performances into an enabler of debate and discussion that enhances virtuous behaviour and organizational learning” (Vosselman, 2013 p. 31).

### 3.5. Summary

Several studies describe a correlation between an increase in perceived environmental uncertainty (PEU) and the need for more MACS information. More than once PEU initiates a process of decentralization and imposes new requirements on MACS with regard to steering and controlling aspects. To increase their relevance MACS have broadened their scope of information. Not only financial parameters but also non-financial information, prospective information and environmental information are taken into account by modern MACS. Research suggests that relevance of MACS also increases when these systems are used interactively. An interactive practice of MACS creates an added value of MACS as learning machine.

Remarks, as mentioned in the previous paragraph, are consistent with a functional and instrumental perspective on accounting. But this linear perspective becomes blurred due to the findings of research on accounting change. Several studies show that implementation of new accounting techniques often leads to unexpected reactions and results which are caused by the different incentives and aspirations of the people involved. In order to solve these new
questions, new perspectives with a focus on the social potential of accounting were considered.

These considerations led to performative and relational perspectives on accounting. As explained, performativity means that economic theory – in most cases put into practice through accounting – does not just describe and explain reality but rather shapes and performs reality (Vosselman, 2014). This performative perspective shows shifting networks of related actants using MACS information in a relational drift of practices (Andon et al., 2007). As a result of these relations with others, actants acquire their forms and attributes (Law, 1999).

Several authors (Roberts, 2009; Frey et al. 2013; Vosselman 2014) point at the possible dangers of the performativity of economics. The dominant performativity of economics creates and distributes the so-called homo economicus who is driven by extrinsic motivation, crowding out other, more intrinsic, forms of motivation. This crowding out effect may harm the performance of particularly public service organizations and impair the motivation of its employees. Several authors suggest alternatives to mitigate these risks. Roberts advocates an intelligent form of accountability which aims at active discussion over results and promotes the social potential of accounting by focusing on interdependencies that have to be managed. Frey introduces behavioural economics which includes more sources of motivation. Vosselman suggests that the enhancement of performativity of alternative concepts like stewardship theory may confine the dominant performativity of economics. This may lead to more stewards instead of homini oeconomici. According to Vosselman this is a political choice.

With regard to the overall objective of this study, aforementioned performative and relational perspectives have at least three consequences. Firstly, it has to account for the warnings of e.g. Frey et al. (2013), Roberts (2009) and Vosselman (2014). They illustrate how the performativity of economics may impair performances and corrode motivation, especially in the case of public services organizations (Frey et al., 2013). This raises the question whether this warning is also applicable to the Dutch sector of nursing homes, homes for the elderly and home care. Secondly, if MACS and its enactments depend on the relations with other actants an accurate and close empirical investigation of the many relations between both human and non-human agents, all involved in MACS practices, becomes inevitable. And finally, if performative and relational perspectives on MACS practices are starting points for this study, meaning “accounting fabrications are mobilized in a-centred collectives producing variant meanings and practices” (Andon et al., 2007 p. 303), consequently it is plausible to presume that this reflects on the ontology of accounting. As will be elaborated in chapter 9, the ultimate consequence of chosen perspectives is that there may be multiple ontologies of MACS, both different but still related.

To conclude, within the context of this research MACS practices in three case organizations, all operating in the Dutch sector of nursing homes, homes for the elderly and home care, were investigated. In chapter 2 an increase of perceived environmental uncertainty (PEU) was sketched. This consequently leads to the question whether an urge for more MACS information was also felt in this sector. Also questions with regard to the scope of MACS information and whether MACS information in these case organizations was used in a diagnostic way or in a more interactive manner arise. So far these are the outstanding
questions from a functional perspective on accounting. Nevertheless, as explained in this chapter, the main focus of this study is of a performative and relational nature. If the lens of this research is modified to a performative and relational perspective, questions on the performative abilities of accounting arise. How are MACS in these three case organizations enacted and how do they affect and translate the network relations of actants involved with MACS? Does the extension of MACS practices in these case organizations, in line with the warning of Frey et al. (2103), indeed impair the motivation of health care employees? Or are there perhaps, in accordance with the plea of Vosselman (2014), starting points traceable of the performativity of a new kind of MACS and a corresponding accountability? All these question marks have to dissolve in the next chapters.
Chapter 4

Theoretical framework
4.1. Introduction

This chapter elaborates the performative and relational perspectives, as presented in chapter 3, by introducing Actor Network Theory (ANT) and post ANT. Choosing a relational perspective consequently means that an accurate and close empirical investigation of the many relations between both human and non-human agents, all involved in MACS practices, is inevitable. By tracing and studying the associations, depicted as an actor-network, ANT offers a possibility to explain how accounting innovations enact and translate relations. ANT is not limited to the technical characteristics of accounting; a limitation which impedes an explanation of successes and failures of accounting innovations (Latour, 1987). On the contrary, the interactions of actor-networks provide a broader picture, including the motivation of actors to commit themselves to an innovation and their attempts to interest and enrol others. In fact, ANT offers a useful methodology to map and investigate the enactment of MACS and the corresponding relational shifts between actors in the Dutch sector of nursing homes, homes for the elderly and home care. The verb ‘to enact’ represents the notion that when actants act they bring structures and events into existence and set them into action, creating social constructions and relations (Weick, 1988).

Of great value to this study are more recent developments in ANT thinking, which are commonly labelled as post ANT. Post ANT research presumes that if accounting practices like MACS are enacted and performed in variant networks, producing variant meanings and practices of MACS, it is conceivable that different objects, all called MACS are enacted (Andon et al., 2007). Seen this way, MACS stop being immutable objects of which meaning and functioning are obscured by various interpretations by various actors. Instead MACS become multiple; multiple objects, all called MACS, can be distinguished and these objects are different but still related. This ontological point of view is needed to fully picture the multiplicity of MACS. Only after attending “as much to the mutability of what lies invisibly below the waterline as to any immutability that arises above the surface” (Law & Singleton, 2005 p. 337), possible leads of how to deal with these differences can be found. The profundity of the differences in perception of MACS has to be acknowledged before solutions may appear to questions like how to balance and line up these different MACS objects.

Before explaining the main characteristics of ANT and post ANT, this chapter starts with a recapitulation of accounting research methodology. This description serves as background on how to position ANT in the broad field of accounting research methodology. Consistent with the classification of Burrell and Morgan (1979) and the extension to this classification made by Hassard and Wolfram Cox (2013), ANT is depicted as a post-structural methodology. Important feature of this paradigm is that it decentres the individual and focuses on the relations between individuals. Subsequently the main features of ANT – such as the concept of networks of associations, the process of translation and the role of boundary objects – and post ANT – for example the idea of fractional coherence – are described in section 4.3 and 4.4 respectively. Finally, a conceptual framework is presented in section 4.5. Main purpose of this framework is to customize and operationalize the concept of translation for the benefit of this research. With the help of this framework the enactment of MACS and the corresponding
drifting of networks and relations in the three separate case studies — all care organizations in the Dutch sector of nursing homes, homes for the elderly and home care — were mapped and analysed in the chapters 6, 7 and 8.

4.2. Paradigms in accounting research

“Daß alle unsere Erkenntnis mit der Erfahrung anfange, daran ist gar kein Zweifel; den wodurch sollte das Erkenntnisvermögen sonst zur Ausübung erweckt werden, geschähe es nicht durch Gegenstände, die unsere Sinne rühren und teils von selbst Vorstellungen bewirken, teils unsere Verstandestätigkeit in Bewegung bringen, diese zu vergleichen, sie zu verknüpfen oder zu trennen, und so den rohen Staff sinnlicher Eindrücke zu einer Erkenntnis der Gegenstände zu verarbeiten, die Erfahrung heißt?” (Kant, 1899)

This sentence of Kant describes in a way the essence of qualitative research. Nowadays qualitative research is on firm ground in the field of accounting (Baxter & Chua, 2003; Bédard & Gendron, 2004; Johnson, Buehring, Cassell, & Symon, 2006; Ryan, Scapens, & Theobald, 2002). Parker (2012) describes a rich tradition with close researcher engagement with the field, recognition of situational complexity, a wealth of empirical data and a well-developed theoretical richness as hallmarks (Parker, 2012). Many statements have been made about the limitations of main stream accounting research, which has a quantitative emphasis, and the benefits of qualitative research as a way to meet the shortcomings of quantitative research
Chapter 4

(Burns & Scapens, 2000; Vaivio, 2008; Van der Meer-Kooistra & Vosselman, 2012). The strength of qualitative approaches is that accounting, both content and process, is analysed in its organizational and social context, demonstrating a fuller understanding of accounting processes (Berry & Otley, 2004). Or as Van der Meer and Vosselman argue: “qualitative research sets its sights on understanding how management accounting and control processes interact with, reflect and create specific organizational events, activities, and changes” (Van der Meer-Kooistra & Vosselman, 2012 p. 259). Qualitative research is usually recognized as having a direct concern with ‘verstehen’, in contrast to ‘erklären’ as characteristic for quantitative research (Johnson et al., 2006 p. 133).

Classifying mutually exclusive paradigms

There is a great variety in accounting research and the results it produces. Famous is the classification of Morgan and Smircich (1980). They identify six different ontological assumptions, with reality as a concrete structure (also depicted as naive realism) on the most objective end of the continuum and reality as a projection of human imagination at the subjective end. Burrell and Morgan (1979) made a similar classification on ontology and epistemology, adding dimensions of human nature and methodology. All elements put together, Burrell and Morgan outline an objective-subjective continuum. With the objective-subjective continuum as horizontal axis Burrell and Morgan also define a vertical axis, indicating a second continuum of radical change versus regulation. At one extreme, researchers are concerned with conflicts in society and the potential for radical change. And at the other extreme, researchers are interested in order in society, explaining how society is held together (Ryan et al., 2002 p. 40). This way Burrell and Morgan distinguish – as reproduced in figure 4.2 – four quadrants (Ryan et al., 2002): functionalism (objective and concerned with regulation), interpretative research (subjective and concerned with regulation), radical structuralism (objective and concerned with the potential for radical change) and radical humanism (subjective and concerned with the potential for radical change) (Burrell & Morgan, 1979). Hopper and Powell (1985) link this four-way classification of Burrell and Morgan to their three categories of accounting research (Ryan et al., 2002): mainstream accounting (functionalism), interpretive research and critical research (radical structuralism and radical humanism) (Hopper & Powell, 1985).

At the same time several papers doubt whether classifications like those of Burrell and Morgan (see figure 4.2) are not too binding. After all, these classifications argue for an incommensurability of paradigms which is not conform the practice of accounting research (Kakkuri-Knuuttila, Lukka, & Kuorikoski, 2008b; Willmott, 1993). Several papers call for an end to the so-called ‘paradigm wars’ and explore the possibilities of multiple paradigm research (Gioia & Pitre, 1990; Kakkuri-Knuuttila, Lukka, & Kuorikoski, 2008a; Kakkuri-Knuuttila et al., 2008b; Modell, 2009; Willmott, 1993). Kakkuri-Knuuttila et al. (2008a) for example argue that interpretive accounting research does not have to be confined to an exclusive subjectivist position but can also benefit from an objectivist position. This way the emic perspective of interpretative research, which aims at understanding, can be complemented by an etic perspective which focuses on explanation (Kakkuri-Knuuttila et al., 2008a; Kakkuri-Knuuttila et al., 2008b). Nevertheless, research genres underpinned by different paradigmatic points of view seem to operate in separated spheres (Modell, 2014).
Theoretical framework

Figure 4.2: Taxonomy of accounting research

In italics: Burrell and Morgan (1979)
Encircled: Hopper and Powell (1985)
Source: Ryan et al., 2002, p. 40

Post-structuralism

So far ANT – the chosen research methodology in this study – is difficult to label. In fact, ANT research does not fit in the paradigms outlined in figure 4.2 (Justesen & Mouritsen, 2011). A solution is provided by Hassard and Wolfram Cox (2013). They argue that the classification of Burrell and Morgan is partially overtaken by developments from the 1990s. They label these developments as post-modernism or post-structuralism. According to Hassard and Wolfram Cox these developments contain a new paradigm that can be characterized “as ontologically relativist, epistemologically relationist and methodologically reflexive” (Hassard & Wolfram Cox, 2013, p. 1701). In particular they suggest extending the horizontal axis of the framework of Burrell and Morgan (see figure 4.2) with a third dimension: post-modernism or post-structuralism. Parallel to the tripartite classification of functionalism, interpretivism and post-modernism, Hassard and Cox use the labels structuralism, anti-structuralism and post-structuralism. Contrary to the first two paradigms, which focus on the individual whose thinking and behaviour is whether or not bound by external stimuli (i.e. the debate between structures versus agency), the third paradigm decentres the individual and focuses on the relations between individuals. Consistent with relational sociology, post-structuralism claims “that transactions, interactions, social ties and conversations constitute the central stuff of
social life” (Tilly, 2002 p. 72). By making the distinction between normative versus critical theoretical reasoning, Hassard and Wolfram Cox maintain the vertical axis of the Burrell and Morgan classification, which reflects the traditional ‘order – conflict’ debate. Put together with the three paradigm fields, a scheme of six domains emerges (Hassard & Wolfram Cox, 2013 p. 1714-1715). Table 4.1 shows a condensed version of these domains. Within the frame of this study, this table serves as template to point out the place of ANT in the broad taxonomy of accounting research. This positioning serves as first step in the introduction of ANT.

<table>
<thead>
<tr>
<th>Structural</th>
<th>Anti-structural</th>
<th>Post-structural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normative</td>
<td>Contingency theory</td>
<td>Ethnomethodology</td>
</tr>
<tr>
<td>Critical</td>
<td>Radical structuralism</td>
<td>Critical discourse</td>
</tr>
</tbody>
</table>

Table 4.1: Typology of domains and examples of theories
Source: Hassard and Wolfram Cox, 2013, p. 1714

Hussars and Wolfram Cox do not intend to start a new hair splitting debate on paradigms. On the contrary, although each paradigm has its own epistemological and methodological characteristics, they are not “intellectually sealed, professionally static or methodologically uniform” (Hassard & Wolfram Cox, 2013 p. 1709). This leaves room for paradigms to influence each other as illustrated in figure 4.3:

Figure 4.3: Relational metaphors for Organizational Theory Paradigms
Source: Hassard and Wolfram Cox, 2013, p. 1708

### 4.3. Actor-Network Theory

#### 4.3.1. Introduction ANT

From the broad taxonomy of accounting research, as sketched in the previous section, this research focuses on Actor-Network Theory (ANT). This theory permits a close empirical inspection of the behaviour of actors, who build networks in their pursuit to recruit allies and mobilize artefacts to support their ideas and interests (Pipan & Czarniawska, 2010). Applied
to this particular study, ANT enables to investigate how accounting innovations are produced, modified and transformed in the Dutch sector of nursing homes, homes for the elderly and home care.

Labelling ANT

ANT is difficult to explain or label. Or in the words of one of the founders of ANT: “Truth and falsehood. Large and small. Agency and structure. Human and non-human. Before and after. Knowledge and power. Context and content. Materiality and sociality. Activity and passivity. In one way or another all of these divides have been rubbed in work undertaken in the name of actor-network theory.” (Law, 1999 p. 3) Quoting John Law compels to mention the names of the other two founding fathers of ANT: Michel Callon and Bruno Latour. Together with others, they published several articles and books to develop and define ANT (Callon, 1986a; Callon, 1986b; Callon, Law, & Rip, 1986c; Callon, 1999; Latour, 1987; Latour, 1997; Latour, 1986; Latour, 1999; Latour, 2005; Law, 1992; Law, 1986). However, due to many revisions and reinterpretations ANT has no unified body of literature (Cho, Mathiassen, & Nilsson, 2008; Pollack, Costello, & Sankaran, 2013). Typical are the many different names attached to ANT: the sociology of translation (Callon, 1986b), co-word analysis (Callon et al., 1986c) and actant-rhizome ontology (Latour, 1999). And by rejecting dichotomies like objective versus subjective, the work of Latour does not fit in the paradigms outlined by Burrell and Morgan (Justesen & Mouritsen, 2011). Lee and Hassard (1999) even claim antipathy to self-definition to be one of the characteristics of ANT, referring to Latour: “I will start by saying that there are only four things that do not work with actor-network theory; the word actor, the word network, the word theory and the hyphen! Four nails in the coffin.” (Latour, 1999 p. 15) Nonetheless, Lee and Hassard quite convincingly argue how “ANT appears to be ontologically relativist, in permitting the world to be organized differentially, yet empirically realist in providing ‘theory-laden’ descriptions of organization” (Lee & Hassard, 1999 p. 391). And by revitalizing and expanding the Burrell & Morgan classification, Hassard and Wolfram Cox (2013) succeed in positioning ANT in relation to other theories, as shown in table 4.1.

In recent decades ANT has proved flexible enough to spread across a variety of disciplines, including accounting, as is illustrated by Justesen and Mouritsen (2011). Originally ANT started as sociology of science and technology. In contrast with philosophers like Marx and Habermas, ANT does not attach a negative connotation to technology. Instead of ‘alienation’ (Marx) or ‘colonization’ (Habermas), ANT uses qualifications like ‘self-fulfilment’ and perceives “a much more enlightened and mutually beneficial relation between human and object” (Lowe, 2001b p. 80). Meaningful are Callon’s studies of the scallops of St. Brieuc Bay (Callon, 1986b) and the electric car (Callon, 1986a). Typical also is Law’s explanation of 16th century Portuguese expansion by means of new maritime techniques and corresponding business opportunities (Law, 1986). And at least equally indicative is the work of Bruno Latour, titled ‘Science in Action’ (Latour, 1987). Illustrated by examples of technical innovation, Latour nullifies the divide between scientific content and social context. Common denominator of quoted studies is that they start at places where science and technology comes into being – laboratories, research institutes – and how the development of the technical content is reciprocally influenced by a social context of stakeholders – funding agencies, governments, boardrooms, interest groups - who are somehow involved. In fact these reciprocal relations between
technical content and social context are of a material-semiotic kind, meaning these relations are simultaneously material (between things) and semiotic (between concepts).

In contrast to functionalist and Marxist explanations, ANT does not pay tribute to the idea that the real explanation is somehow beyond accounting. These reductionist explanations see accounting as some kind of tool serving a deeper dimension, hidden behind accounting inscriptions. ANT rejects the idea of dualism according to which the real explanations are behind the visible scene or beneath the surface (Latour, 1999). Latour labels this idea of some distinct domain of reality as ‘sociology of the social’. This type of sociology pictures the social as a given totality which provides a solid base for understanding any phenomenon (Latour, 2005). Latour introduces ‘sociology of associations’ as an alternative. He uses the term ‘social’ to refer to “the trail of associations between heterogeneous elements” (Latour, 2005 p. 5) and redefines sociology to “any type of aggregate from chemical bonds to legal ties, from atomic forces to corporate bodies, from physiological to political assemblies” (Latour, 2005 p. 5). In contrast to the sociology of the social, which disposes people of initiatives and sees them as intermediaries of social forces beyond their control, this sociology of associations pictures an actor-network in which the actor acts and is acted upon by other actors. The actor is in fact a star-shaped network, interwoven with many other actor-networks. In order to explain all these associations Latour proclaims the adage: follow the actors (Latour, 1987; Latour, 2005). Starting in places like laboratories and research institutes, where science comes into being, Latour follows actors in their pursuit of goals and interests and their alignment with other actors, designing and moulding both technology and social world. Often these processes result in tangles of relations between professionals, management, technologies, knowledge, government, reports, texts, money and other artefacts. ANT research takes place at quite a detailed empirical level in order to depict who or what is acting in what context or site and where the corresponding associations lead to with what consequences (Justesen & Mouritsen, 2011). In doing so, Latour argues to keep the social flat. According to Latour there is no local and no global; both disappear in a flat landscape which is only composed of associations (Latour, 2005).

Human and non-human actants in actor-network relations

ANT distinguishes itself from other theories by considering both human and non-human actors on the basis of equality. In contrast to for example interpretive accounting research, which is characterized by social constructivism in which the social primarily consists of human beings, ANT has a post-structural or relational perspective which is characterized by heterogeneous social engineering which includes non-humans. This is in line with the positive posture of ANT towards technology. In the present social world people increasingly mix objects and society and therefore techno science has become an essential characteristic of our society, which justifies a so-called ‘symmetrical anthropology’ (Lowe, 2001b p. 81). These sociotechnical relations have to be investigated in order to understand the ‘teamwork’ between accounting systems and human actors in constituting contemporary organizations (Lowe, 2001a). Whether the actor is a human, a machine, a system or a text, they can display the same qualities in an actor-network. “An ‘actor’ in ANT is a semiotic definition – an actant – that is, something that acts or to which activity is granted by others. [...] An actant can literally be anything provided it is granted to be the source of the action.” (Latour, 1997 p. 373) Non-humans are given a voice through ‘spokesmen’ who operate in the network (Alcouffe et al.,
2008). This treating of humans and non-humans as equals explains alternative names like ‘sociotechnical network’. Law explains how non-human actors attribute to durability during the process of translation. “Thoughts are cheap but they don’t last long and speech lasts very little longer. But when we start to perform relations – and in particular when we embody them in inanimate materials such as texts and buildings – they may last longer. Thus a good ordering strategy is to embody a set of relations in durable materials. Consequently, a relatively stable network is one embodied in and performed by a range of durable materials.” (Law, 1992 p. 387)

Some critics state that ‘actor-network’ resembles oxymora like agency-structure relationships. But ANT researchers are very clear on their rejection of such sociological dichotomies (Justesen & Mouritsen, 2011). In explaining how somebody or something can be both actor and network Callon writes that everything is an actor-network, “reducible neither to an actor alone nor to a network. An actor-network is simultaneously an actor whose activity is networking heterogeneous elements and a network that is able to redefine and transform what it is made of.” (Callon, 1987 p. 93) ANT can be characterized as a relational ontology (Hassard & Wolfram Cox, 2013 p. 1710; Vosselman, 2014) according to which actants take their shape as a relational product of the context of interactions with other actants in which they are created (Latour, 1987). Strictly speaking not the different actants or entities and their attributes are subject of investigation but the relations these actants enter into. Indeed, as Law suggests, “entities take their form and acquire their attributes as a result of their relations with other entities” (Law, 1999 p. 3). Seen this way actants are relational entities of the networks in which they are created. “Under ANT, such actor-networks are always contextual and processual phenomena: as they exist only through continuous making and remaking, it is relations that need to be repeatedly performed for such networks not to dissolve.” (Hassard & Wolfram Cox, 2013 p. 1711)

By tracing and studying the associations, depicted as an actor-network, ANT offers a possibility to explain how accounting innovations not just diffuse but translate and get translated. A limitation to the technical characteristics impedes an explanation of successes and failures of accounting innovations (Latour, 1987). The interactions of actor-networks provide a broader picture, including the motivation of actors to commit themselves to an innovation and their attempts to interest and enrol others. ANT explains diffusion by substituting ‘diffusion’ for ‘translation’: an innovation does not diffuse or travel unchanged but is (re)adjusted and (re)adapted by the context of interacting actor-networks in which it evolves and overcomes possible resistance (Akrich et al., 2002b; Callon, 1986b; Latour, 1987). Although translation might sound as if it is exclusively connected to ideas and concepts, it also involves the transformation of material forms. The innovation is manipulated to align it with the multiple interests of the actors (Akrich et al., 2002b; Alcouffe et al., 2008; Emsley, 2008). And during the process of manipulation and alignment the inventors have limited control (Briers & Chua, 2001). This makes it difficult to resolve whether an innovation is a success. Not the inventors or pioneers of an innovation are the ones who answer this question but the many actors these pioneers try to interest and enrol as allies. The recruitment of many allies may be marked as a success. But at the same time, this ‘success’ augments the risk of active allies transforming the innovation into something different (Lowe, 2001a). This overtakes the picture of a linear and sequential process and explains for example the variability among accounting devices. ANT delineates a complex process in which the innovation is pushed, pulled and transformed,
neither linear nor foreseeable (Alcouffe et al., 2008; Emsley, 2008). This explains why the same idea in some cases prevails and in other cases fails pitifully. Latour’s advice to the researcher is straightforward: “...every time you hear about a successful application of a science, look for the progressive expansion of the network. Every time you hear about a failure of science, look for what part of which network has been punctured.” (Latour, 1987 p. 249)

4.3.2. Translation unravelled

Callon (1986b) unravels translation in four processes: problematization, interressement, enrolment and mobilization. This enumeration does not stand for an imperturbable sequence. On the contrary, these four processes overlap and interact with each other (Becker, Jagalla, & Skærbæk, 2013; Dery, Hall, Wailes, & Wiblen, 2013; Måhring, Holmström, Keil, & Montealegre, 2004). Any resemblance to classical implementation studies with distinct design and implementation phases is lost (Pipan & Czarniawska, 2010).

In the process of problematization a problem is identified and some proponents of change herald they have a solution to offer in a first attempt to convince others. In doing so these initiators present a so-called obligatory passage point (OPP), a core idea or programme to which these initiators are related (Becker et al., 2013; Callon, 1986b). If successful, an OPP becomes a central and necessary node in a network, meaning actors cannot bypass the OPP’s control and influence.

In the process of interressement, the pioneers persuade actors of the usefulness of the proposed solution by establishing connections between the interests of those actors and the proposed solution. Interessement can be commercial, political, editorial, intellectual and/or career enhancing. Consequently, the interests of actors and their reasons for being involved may vary considerably but “…none of these interests necessarily relates to organizational objectives such as enhancing profitability” (Emsley, 2008 p. 379). Yet for a successful process of interessement managerial innovations seem necessary to combine a diversity of interessement modalities (Alcouffe et al., 2008). In their study Alcouffe et al. (2008) illustrate the latter point by showing how ABC (Activity Based Costing) was more successful than GPM (Georges Perrin Method; another cost calculation method) because ABC, in contrast to GPM, was able to arouse the interest of potential allies like academics, consultants and software engineers. If successful, the outlines of a network of supporting actors become visible, allocating a central role to the primary actors. In this second process the role of authoritative actors as convincing spokesmen is important (Lowe, 2001b).

In the third process, the network grows and actors, both human and non-human, are enrolled. The network becomes larger and stronger the more allies accept and take their roles. Enrolment seems to be key in answering the question whether an innovation is successful or not, noticing that success and failure “is a fragile construction that turns on the strength of diverse ties tying together many heterogeneous elements” (Briers & Chua, 2001 p. 267).

In the fourth process the solution is finalized after all relevant actors are mobilized and adopt the innovation (J. Mourtisnen, Larsen, & Bukh, 2001). By now the innovation can present itself as a black box: a solid appearance which is not questioned for at least some time. In fact the
black box presents itself to the outside “as one collective actor, an actor-network” (Pitkänen & Lukka, 2011 p. 244). Connected with this are simplificatory effects as punctualization which refers to the process by which complex actor-networks are black boxed and linked with other networks to create larger actor-networks. The process of punctualization thus converts an entire network into a single point or node in another network (Law, 1992). This illustrates again how everything can be both network and actor. It simply depends on the chosen perspective.

The main task now is to monitor the various interests with the aim to keep black boxes more or less stable (Alcouffe et al., 2008). Black boxes are ‘leaky’, meaning they are always more or less admissible for competing ideas that seek to open these black boxes. This warning for alternative ideas and competing innovations is not limited to the final process but includes the whole process of translation. These “trials of strength” can take place anytime (Latour, 1987 p. 74), meaning the primary actors and their followers must continuously compete against ‘counter actors’ and outdo their ‘anti-programmes’ or competing innovations (Alcouffe et al., 2008 p. 3). There is a continuous struggle to stabilize a given translation against various efforts to destabilize it (Pipan & Czarniawska, 2010). To prevent that relevant actors are seduced by the problematization and interessement of other actors, the initiators have to strengthen their associations with the relevant actors, weaken the possible links of the relevant actors with other competing actors (Callon, 1986b) and modify the innovation in response to these trials (Alcouffe et al., 2008; Callon, 1986a).

4.3.3. Boundary objects and inscriptions

\[ ❙\] Boundary objects

To subdue the variety and unpredictability of the process of translation, boundary objects can play an important role in stabilizing and mediating diverse interests of actors (Briere & Chua, 2001; Star & Griesemer, 1989). “Boundary objects are objects which are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites” (Star & Griesemer, 1989 p. 393). Despite having different meanings in different sites, their nature and structure is distinctive enough to make these boundary objects overall recognizable (Windeck, Weber, & Strauss, 2013).

Literature depicts five types of boundary objects, i.e. data repositories, ideal type objects, coincident boundaries, standardized forms and visionary objects (Briere & Chua, 2001). In the accounting context repositories store data in ledgers and other databases, to enable its users to employ and reconfigure these data. Ideal boundary objects are characterized as hard on the outside and plastic on the inside, meaning they are recognizable by different groups and at the same time they are adaptable to suit different requirements. Examples of ideal type objects are costing systems and performance management systems. Coincident objects have the same boundaries but a different internal meaning. For example, the proceedings of nursing a client are common whether it is seen as pain relief by healthcare professionals or as a cost object by accountants. Standardized forms, like user manuals and accounting software packages, discipline invalid usage and help reduce diversity. Finally, visionary objects provide a high level of legitimacy and are taken more or less for granted within a particular community.
“They can evoke similar emotive and affective responses from a wide spectrum of people; possessing a sacred quality that makes it difficult for a ‘rational’ person to be against them.” (Briers & Chua, 2001 p. 242)

Briers and Chua (2001) explain how technologies like MACS are successful not because they are right or provide closer approximations to true cost. But when they “can hold diverse ‘facts’ and interest together, stabilize them (temporarily), than these ‘facts’ will start to become true” (Briers & Chua, 2001 p. 267). In their study Briers and Chua (2001) illustrate how ABC functions as a boundary object that “… ties together actors with diverse goals because it is common to multiple groups but is capable of taking on different meanings within each of them” (Briers & Chua, 2001 p. 241). And Hansen and Mouritsen (2005) show how global concepts like the Balanced Score Card can be translated as a boundary object in various ways in localized settings (Hansen & Mouritsen, 2005). Whether a boundary object is effective “is the result of interacting actors, of which accounting systems are one important category.” (Justesen & Mouritsen, 2011 p. 174)

Combined with the concept of translation, ANT research has reasoned how accounting objects can ‘travel’ from one setting to a new one, in which they are translated and adapted (Justesen & Mouritsen, 2011). Briers and Chua talk of “travelling ideal boundary objects such as ABC, JIT, etc…” (Briers & Chua, 2001 p. 264). These boundary objects are publicly shown and discussed during seminars. And their ‘travelling’ of one setting to another is expedited by global actors like cosmopolitan consultants (Briers & Chua, 2001). The definition of a boundary object like MACS is neither stable nor singular across time and space, which enable MACS to travel across organizations (Quattrone & Hopper, 2006 p. 212) and be embedded as mediator in sense making networks. This way of thinking resembles the theory of Giddens on expert systems and their dis-embedding and re-embedding potential (Giddens, 1991). Giddens defines expert systems as technologies that enable decontextualized ways of knowing, meaning they can be operated independently of their origins. But in line with ANT research, Giddens shows that this process of re-embedding and use of expert systems leads to more unintended than intended consequences (Giddens, 1984).

The role of inscriptions

These boundary objects come to life by the attachment of inscriptions. Inscriptions are ways in which specific functions, or ‘programmes for actions’, can be delegated to artefacts and technologies (D’Adderio, 2011; Latour, 1992). Latour describes a socio-technical process of inscription building by which dominant interests are reflected in the form and functioning of technologies or artefacts (D’Adderio, 2008). Artefacts do matter. D’Adderio (2011) presents an impressive list of research references which show how artefacts “can perform key functions, […] thus supporting or preventing coordination among organizational communities and functions; they can act as obligatory points of passage, thus enabling or constraining worldviews and actions; and they can make explicit or hide actions and viewpoints, thus making connections between practices and their outcomes more or less visible” (D’Adderio, 2011 p. 197-198). According to ANT scholars like Callon (1987) and Latour (1987) the properties of artefacts are both real and constructed. In their opinion artefacts are neither objective facts, as in the realist tradition, nor social constructions, as in the constructivist tradition. Instead the properties of artefacts “emerge from a heterogeneous network of social
and technical elements that co-construct them” (D’Adderio, 2011 p. 201). Enrolling artefacts results in more stable and tightly interconnected networks (D’Adderio, 2008; Law, 1992). For example D’Adderio (2008) describes the role of software as a practices influencing and network moulding inscription. “Information systems, as bundles of inscriptions ... structure work, extend interactions, increase visibility of knowledge and actions, create a common platform for the accumulation of common knowledge, constrain the ability of practitioners to alter the results of another, regulate who has access to making changes, track progress of changes, link multiple sites in different time and geographical locations, facilitate data sharing and the reception of feedback” (D’Adderio, 2008 p. 774).

Acting in a network with other actors, accounting inscriptions are important because accounting systems are seen to play an important function in organizational changes (Lowe, 2001b) and are part of the glue that “holds both us and our societies together” (Law, 1991 p. 186). These inscriptions serve as a medium through which actors engage with each other in the process of translation (Emsley, 2008). Accounting inscriptions are an important source of information, interpreted by managers “... but this interpretation is constrained by the accounting object that may object to some interpretations” (Justesen & Mouritsen, 2011 p. 178). Hence, these accounting systems are neither dependent nor independent but interdependent actants, like every other actant, both human and non-human.

**Centres of calculation**

ANTS places calculations in a central place. Numbers, combined with new accounting technologies, make it possible to mobilize and make present absent things and people in so-called ‘centres of calculation’ (Justesen & Mouritsen, 2011; Latour, 1987; Robson, 1992). In line with this view it is possible to speak of MACS as actors “because they mediate relationships and stabilize associations between other people, devices and texts” (Steen, 2010 p. 326). Numbers are put to work through diverse inscriptions, not as representations of reality, but as a tool that enables action, including action at a distance (Justesen & Mouritsen, 2011; Latour, 1987; Robson, 1992; Vollmer, 2007). “From this perspective financial numbers acquire significance because participants come to treat them as symptoms and expect each other to decode them accordingly” (Vollmer, 2007 p. 581). Accounting technologies play a prominent role as non-human actors “that take part in the formulation, construction – and often stabilization – of organizational activities” (Justesen & Mouritsen, 2011 p. 176). Quattrone and Hopper (2005) explain how SAP is used as a management accounting technology to “mediate organizational and managerial relations of distance, integration and control” (Justesen & Mouritsen, 2011 p. 173). Accounting inscriptions represent and translate organizational aspects into financial numbers, allowing actors to manage the distance between head office and departments (Lowe, 2001b; Vollmer, 2007). “The power of inscriptions is to enable action at a distance, which is prized by those who would seek to persuade, enrol and control others.” (Lowe, 2001a p. 331) Moreover, Robson suggests that accounting inscriptions have a greater potential for action at a distance than many other inscriptions (Robson, 1992). “By translating all the elements of remote organizations (buildings, productive processes, stocks, etc.) into quantities through the construct of money value, accounting inscriptions facilitate the building of what are conventionally termed powerful explanations.” (Robson, 1992 p. 701) In fact, common denominator of aforementioned quotes is that they ascribe performative abilities to these centres of
calculation, meaning their inscriptions influence and shape the network relations of human and non-human actants. Because these actants derive their forms from these relations, these centres of calculation shape reality.

\*\*\* Centres of discretion

Acknowledging the performative abilities of so-called centres of calculation, Quattrone and Hopper (2001) contemplate accounting as creating ‘centres of discretion’. “If accounting drives organizational change it is not because it reproduces a new template for action but because the very incompleteness of implementing and enacting its systems leads to accounting knowledge being interpreted differently across organizational spaces and times. Accounting is not created according to a central predetermined plan but rather by the interplay between calculations and discretion within accounting practices.” (Quattrone & Hopper, 2001 p. 407) Accounting as a practice does not lead automatically to order and stability. It leaves room for discussion and differences in interpretation. To conclusively monitor results and take corresponding decisions, accounting is in need of a managerial practice that creates ‘centres of discretion’ as well, which label and sanction results as sufficient or insufficient. Munro (1999) shows how centres of discretion are created alongside centres of calculation by explaining how management technologies like MACS generate two functions: a durable calculative surveillance function and a flexible managerial sanctioning function. The surveillance function produces records which are sanctioned as ‘good’ or ‘bad’, a process that performs managers as holders of power (Munro, 1999).

4.3.4. Unlimited networks of associations

Methodologically it would be interesting to enter the field before all the controversies and conflicting interests are aligned and dealt with and turned into a black box. This would mean that the researcher can witness the fabrication and translation of a particular management accounting and control system and the way it is shaped and reshaped by professionals who use it and how such a system ties together diverse organizational interests (Chua, 1995; Justesen & Mouritsen, 2011; Pollack et al., 2013). ANT does not aim for any prescription for a successful translation. On the contrary; Pipan and Czarniawska (2010) convincingly show why such a prescription is impossible. Alcouffe et al. (2008) on their turn describe how problematization, interressement, enrolment and mobilization take many, often surprising, forms.

ANT should not be abashed with conventional mapping of interactions between individuals (Latour, 1999). Primary focus of ANT is to map the way in which actors, both human and non-human, “define and distribute roles, and mobilize or invent others to play these roles” (Law & Callon, 1988 p. 290). To ANT, these associations between heterogeneous actors are the main and only object of study. Indeed, apart from these associations there is nothing else, according to ANT researchers. Everything can be described as networks of associations. Or in other words: whether we talk of organizations, innovations, technologies, politics or social orders, everything is a result of heterogeneous networks. Connotations like ‘power’ and ‘micro-macro’ are explained in relation to these associations. Not the question whether a network is powerful or not is appropriate. Instead associations are used to describe how large and how
durable a network is, based on the question whether an association is stronger than another one. And instead of the micro-macro dichotomy, ANT speaks of actor-networks of different sizes. To be more precise: stating that an actor-network is big and strong means that certain ostensive characteristics are attributed to this actor-network. But according to ANT, size and power are an effect that is performed by other actors. “Power is always the illusion people get when they are obeyed; [...] people who are ‘obeyed’ discover what their power is really made of when they start to lose it. They realize, but too late, that it was ‘made of’ the wills of all the others.” (Latour, 1986 p. 268) On studying the associations between actors, enrolled in networks, ANT studies search for explanations of how size and power are performed and made durable without reckoning on overly powerful and intentional actors (Windeck et al., 2013). “The actors’ inclusion in the network is not based on a certain ontological status, on strength, mobility or intentionality, but rather on the capacity of linking, associating and ordering within the network” (Ren, Jóhannesson, & Van der Duim, 2012 p. 16).

In more recent work, Latour displaces the accent from the network building actor in ‘Science in Action’ (1987) to the chains and trails in ‘Reassembling the Social’ (2005) under the motto: “attachments are first, actors are second” (Latour, 2005 p. 217). Several studies show how accounting technology comes ‘to live’ through attachments in the form of visionary objects and narratives (Briers & Chua, 2001; Dechow & Mouritsen, 2005; J. Mouritsen et al., 2001; Quattrone & Hopper, 2005). These studies indicate that accounting inscriptions become “strong by the multiple attachments that make up the accounting phenomenon, thus allowing it to organize the settings it is part of” (Justesen & Mouritsen, 2011 p. 183).

A strict application of ANT is not concerned with questions whether certain behaviour is correct or dysfunctional or any other judgments on actions and decisions (Mähring et al., 2004; Vosselman, 2014). ANT confines itself to a detailed empirical research on how and why translations evolve the way they do. This ‘neutral’ stance is the basis of the reproach that ANT research is not fit for critical research in accounting (Whittle & Spicer, 2008). Nevertheless, Vosselman (2014) suggests a reasoning to refute this criticism. After all, ANT research endorses the performativity of economics and exactly this notion of performativity of economics contains the possibility to argue that some practices are more favourable than others (Vosselman, 2014). Moreover, in describing as many associations as possible ANT implicitly tries to find possibilities to change a state of affairs (Latour, 2005). After all, reality is not a destiny. Things might always be otherwise (Law, 2008).

4.4. Post ANT

4.4.1. Introduction post ANT

ANT is everything but a clear-cut theory or method, developed and patented by its originators. On the contrary; like every invention, the development of ANT is not in the hands of its originators. It develops in the process of doing research; ANT itself gets translated (Gad & Jensen, 2010). Where early ANT studies focus on opening black boxes to depict all-encompassing actor-networks, post ANT studies create pictures of multiple coexisting networks, linking processes of translation to various modes of ordering actor-networks (Ren
et al., 2012). Ultimate goal of post ANT is to find patterns “against an endless background of noise” (Law & Urry, 2004 p. 109).

In their study of objects, post ANT researchers stress, even more than is done in early ANT studies, the symmetry between human and non-human actors. The relationship between both categories is so intermingled, intimate and complex that it is impossible to make a meaningful difference. Or in the words of Latour: “...the modern collective is the one in which the relations of humans and non-humans are so intimate, the transactions so many, the mediations so convoluted, that there is no plausible sense in which artefact, corporate body, and subject can be distinguished.” (Latour, 1999 p. 197) As a consequence most post ANT researchers avoid the term ‘actor’, which is often associated with human qualities, and choose the more neutral term ‘actant’ instead (Ren et al., 2012).

Changing from an epistemological to an ontological lens

Law and Singleton (2005) bring forward that in early ANT studies, objects are thought of as being too rigid and immobile. Law and Singleton pose the question “... even if we want to think of objects as the effects of the enactment of sets of relations, those relations are a good deal more variable than early versions of ANT tended to suggest?” (Law & Singleton, 2005 p. 337) From an epistemological point of view, researchers distinguish technical and managerial versions of objects; from an ontological point of view fluid and fire versions of objects are distinguished (Gad & Jensen, 2010; Law & Singleton, 2005; Mol & Law, 2001; Mol & Law, 2004). The technical perspective pictures objects as immutable mobiles, like ships, circulating around the world and in the meantime mobilizing all actants that are needed to keep the shape of the ship intact or immutable. The managerial perception expands the limited technical perspective by describing how these immutable mobiles depend on a more or less stable and meaning providing network (Law & Singleton, 2005). Applied to earlier example, ships do not just circulate around the world; they enable long-distance control and for example started European imperialism in the 16th century.

Both the technical and the managerial perceptions are epistemological. Both presume that objects are immutable boundary objects. According to this point of view, objects in their different contexts may look complex and messy because people have different perspectives and as a consequence make different interpretations. It is up to researchers to create methodological clarity and “to explain these different perspectives and so retrieve the real object behind the interpretations” (Law & Singleton, 2005 p. 333). This interpretative or perspectival approach studies objects in the meaning of boundary objects, as described in section 4.3.3.

This study however follows the proposal of Law and Singleton (2005) to change the research focus to the ontology of objects. What if the differences between objects are due to the nature of the object itself rather than the multiple interpretations of it by its users? This change from an epistemological to an ontological point of view creates an extra performative dimension. This passage is also known as the ontological turn (Watson, 2007), meaning differences are no longer a matter of different perspectives on a single object but “the enactment of different objects in the different sets of relations and contexts of practices” (Law & Singleton, 2005 p. 342).
4.4.2. The ontological turn

\textit{Introducing fractional coherence}

By taking the ontological turn this study wants to expose and clarify the deep-seated nature of differences in sociotechnical relations around MACS. A limitation to an epistemological stance may obscure the scope and profundity of the differences in perceptions of MACS. Regarding MACS as multiple objects with variant meanings and practices means that the epistemological approach, aiming at a strategy of retrieving the real object behind different interpretations, is no longer viable and even may hinder attempts to deploy MACS more effectively. In fact the ontological turn is needed to fully picture the multiplicity of MACS. Only after attending “as much to the mutability of what lies invisibly below the waterline as to any immutability that arises above the surface” (Law & Singleton, 2005 p. 337), possible leads of how to deal with these differences can be found. The profound nature of the differences in perception of MACS has to be acknowledged before solutions may appear to questions like how to balance and line up these different MACS objects.

Instead of multiple interpretations, the ontological point of view introduces terms like multiplicity and fractionality (Watson, 2007). Law (2004) describes, borrowing from the research of Mol, how we inevitably encounter multiplicity when we study practice. At the same time Law makes a stark distinction between multiplicity and pluralism. Absence of singularity does not mean that we are confronted with an indefinite number of different objects. “It does not imply that reality is fragmented. Instead it implies something much more complex. It implies that the different realities overlap and interfere with one another.” (Law, 2004 p. 61) Or in the words of Mol: “The body multiple [in the frame of this study replaceable with MACS] is not fragmented. Even if it is multiple, it also hangs together.” (Mol, 2002 p. 202) Analogous to the concluding remarks in the study of Gad and Jensen (2010) one could say the complexity of MACS is a combination of multiplicity – there are many versions of MACS – and fractionality or partial connections – they are related but not at all points or in all dimensions (Gad & Jensen, 2010). In this context Watson (2007) uses the term ‘fractional coherence’, defining it as more than singularity but less than multiplicity.

\textit{Examples of fractional coherence: fluid and fire objects}

The ontological point of view questions the immutability of objects and pictures them as fluid or as fire objects. Fluid objects diffuse fluently as mutable mobiles, both changing and staying the same, keeping a notion of family resemblance (Law & Singleton, 2005; Mol & Law, 2001). As example of these so-called fluid objects, Law and Mol (2001) describe the case of the Zimbabwe bush pump. This water pump proves to be a success because it can cope with changes in shape without losing its function and corresponding value. Bits break off and are replaced with non-original, may be even ill-fitting, components. But despite of, or more correct, thanks to this variance in shape and composition, the malfunction of these pumps is reduced to a minimum. One may argue that these pumps at least have some kind of core stability, but much more important “is the general fluidity of the relations that make up the pump” (Law & Singleton, 2005 p. 338).
Besides fluid objects post ANT researchers speak of fire objects as well. Law and Singleton use this name because these fire objects are “much more dynamic, more sporadic, less predictable and, yes, more discontinuous than is suggested by the metaphor of a flow. This is why, for us, it is a fire object: it lives in and through the juxtaposition of uncontrollable and generative Otherness.” (Law & Singleton, 2005 p. 347) With this quote an important concept in post ANT thinking is introduced: otherness. Law defines otherness as: “that which is neither present, nor recognizably or manifestly absent, but which is nevertheless created with, and creative of, presence” (Law, 2004 p. 162). The issue starts with the simple observation that not everything can be brought to presence and that by making things present it is necessary to make others absent. “An object is a presence. It is present, here and now. But, whatever the form of its presence, this also implies a set of absences. The present object implies realities that are necessary absent, that cannot be brought to presence; that are othered.” (Law & Singleton, 2005 p. 342) Or as formulated by Law and Mol, the relation between presence and absence is “a link between a single present centre and multiple absent others” (Mol & Law, 2001 p. 22).

Law and Mol illustrate this theory with an example. They show how the composition and outcome of a mathematical aerodynamic expression, used for the development of a military aircraft, is at least partially determined by absent connections like the physiological limits of the human body of the pilot to cope with extreme conditions and the military capabilities and presumed tactics of the enemy (Mol & Law, 2001). This example illustrates that objects cannot be understood unless “we think of them as sets of present dynamics generated in, and generative of, realities that are necessarily absent” (Law & Singleton, 2005 p. 343). Just as fluid objects, fire objects are also transformative. But the transformation of fire objects is not fluently but more varying, unstable and discontinuous.

There are more studies which provide examples of a post ANT view on objects. Elucidating is the picture of lower limb atherosclerosis as fire object by Mol (2002). She shows how different set of relations in different health departments within the same hospital, such as the surgery, the laboratory and the physiotherapy, enact their own object – their own version of atherosclerosis. Mol concludes “[The term atherosclerosis] ... is a co-ordinating mechanism operative in conjunction with the various distributions. It bridges the boundaries between the sites over which the disease is distributed. It thereby helps to prevent distribution from becoming the pluralizing of a disease into separate and unrelated objects.” (Mol, 2002 p. 117)

Law and Singleton (2005) describe a similar example of alcohol liver disease. They picture three versions of the disease; besides the hospital version, they describe a version of a community-based psychiatrist working in a substance abuse clinic and a version of a general practitioner. Law and Singleton (2005) define three fire objects, three versions of alcohol liver disease, each emphasizing a different set of characteristics, presences and relations, thereby obscuring or making absent other sets of presences and relations (Law & Singleton, 2005). Nevertheless these three versions are related to such an extent that we still cover them with the same name.

Another example is the study of Quattrone and Hopper (2006) on Information Technologies (IT). They define IT as a ‘heterogeneous’ object because it “appears homogeneous for it attracts and generates heterogeneous uses” (Quattrone & Hopper, 2006 p. 225). Referring to
Law and Singleton (2005), Quattrone and Hopper (2006) conclude that IT can acquire different shapes simultaneously and that these differences are due to the nature of the object itself. “Understanding how IT evolves over time and becomes different cannot be attributed to humans’ interpretive flexibility but also to its ontology, as IT is already many things.” (Quattrone & Hopper, 2006 p. 220) Quattrone and Hopper define IT systems – this definition suits MACS also – as being “less than a reified physical entity (they do not contain behaviour entirely) but more than social constructions or individual enactments (they can prevent users doing whatever they wish)” (Quattrone & Hopper, 2006 p. 214).

4.5. Conceptual framework

To put the theoretical explanation from previous sections to work, the concept of translation is elaborated in a conceptual framework. Callon (1986b) unravels translation in four processes: problematization, interessement, enrolment and mobilization. This study applies a slightly adjusted version of Callon’s classification. Instead of four processes, this study depicts five processes by replacing the process of ‘enrolment’ with those of ‘MACS objectification’ and ‘connectedness’. It is not new to distinguish objectification or materialization as a separate process (Lindemann, 2014; Wagensveld, 2013). This distinction makes it possible to trace the process of enrolment more accurately. After all, the materialisation of MACS objects is an important indicator for the enrolment of MACS practices. MACS objectification means that MACS concepts are made tangible in the shape of for example budgets, income statements, forecasts, dash boards and management reports. Next step in this process of objectification is to trace the dissemination of these tangible accounting inscriptions throughout the organization and the effects they enact. Subsequently, the process of connectedness pictures the many ways in which actants connect with MACS or fail to connect. Moreover, the process of connectedness describes the various motives for (dis)connectedness of actants with MACS and the attempts of actants to use and mould MACS enactments for their own interests and benefits. Table 4.2 provides a description of all five processes of translation. The descriptions of the first, second and fifth process – problematization, interessement and mobilization respectively - are similar to those of the same name in the classification of Callon (1986b).

Main purpose of this framework, as displayed in table 4.2, is to customize and operationalize the concept of translation for the benefit of this research. With the help of this framework the enactment of MACS and the corresponding drifting of networks and relations in the three separate case studies – all care organizations in the Dutch sector of nursing homes, homes for the elderly and home care – were mapped and analysed in the chapters 6, 7 and 8. Earlier remarks on the overlap and interaction of the various translation processes (Becker et al., 2013; Dery et al., 2013; Mähring et al., 2004) still count. Any comparison to classical implementation studies with for example distinct design and implementation processes is misplaced (Pipan & Czarniawska, 2010). Table 4.2 was used to interpret the data of three separate case studies. After executing and analysing each case, next step was to reconnoitre the possibilities of applying post ANT concepts of multiplicity and fractionality in an attempt to untangle the rhizome resembling tangle of sociotechnical relations around MACS.
### Processes

<table>
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<th>Processes</th>
<th>Description</th>
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| 1. Problematization | - Problems are identified and presented by actants.  
|                | - Actants take on the role of initiator and proponent by informing potential allies and actors how application of MACS can provide possible solutions.  
|                | - Proponents make unsupported claims of MACS as provider of PEU reducing information.  
|                | - Proponents make unsupported claims of MACS as enabler of decentralisation of authority.                                                   |
| 2. Interessement         | - Actants try to convince other actants that they will somehow benefit from MACS. Arguments used to convince may vary significantly.         
|                | - To convince other actants, a good story to legitimize MACS is told. These stories include records on supposed MACS successes elsewhere outside the organization and narratives of how the narrating actant himself benefits from the application of MACS.  
|                | - Actants indicate critical hesitation in relation to the recommendation of MACS; indications of negative interessement.                   |
| 3. MACS objectification | - MACS concepts and MACS information are made tangible in the shape of MACS inscriptions such as budgets, income statements, forecasts, dash boards, management reports, etc.  
|                | - Tangible MACS concepts and tangible MACS information are translated, both in horizontal and vertical direction within the organization.       |
| 4. Connectedness       | - Actants are connected by accepting roles and active participation in the application of MACS.                                               
|                | - MACS are used by actants for their own interests and shape the relations with other actants.                                               
|                | - Actants try to draw other actants into a scheme of actions aimed at application of MACS and enhance the connection of those actants already involved.  
|                | - Actants give critical remarks and take a negative posture in relation to MACS practices. MACS prove to be incapable to connect other actants. These actants are disconnected. |
| 5. Mobilization        | - Point of no return is passed. MACS practices have become unquestionable taken-for-granted and their representing spokesmen are accepted as such. In fact, the black box is closed.  
|                | - MACS practices get institutionalized by reinforcing commitment to these practices of shared goals and actions. This enhances the stabilization of the network. |

*Table 4.2: Framework of translation*
Where to start? To answer this question, Latour offers a way out: “The point of departure, if there is one, must [...] be situated ‘in the middle’, in an action that localizes and globalizes, which dislocates and disperses” (Ren et al., 2012 p. 19). The question where the network starts and ends is meaningless because by now it should be clear that networks, as pictured in ANT research, are not a set of structures within a fixed geographical frame with a retrievable destination. The focus of this study is on the processes, its relations and their effects, in an attempt to ascertain patrons before the black box is eventually closed. Seen this way, we just have to start “in the middle of the action” (Nicolini, 2009b p. 123) in the confidence that “the field [...] is emergent through our research work. At the same time, feedback from the field guides and points on to other places, objects, practices or discourses, that may become further routes of research” (Ren et al., 2012 p. 21).

4.6. Summary

This study chooses Actor-Network Theory (ANT) as research frame, which is consistent with the choice of this study for a relational ontology. This theory permits an accurate and close empirical inspection of the behaviour of actors, who build networks in their pursuit to recruit allies and mobilize artefacts to support their ideas and interests. To ANT not the different actants and their attributes are subject of investigation but the relations these actants enter into. This is a consequence of the relational ontology which characterizes this post-structural theory. ANT distinguishes itself from other theories by considering both human and non-human actors on the basis of equality. This is in line with the positive posture of ANT towards technology. In the present social world people increasingly mix objects and society and therefore techno science has become an essential characteristic of our society, which justifies a so-called ‘symmetrical anthropology’. By tracing and studying the associations, ANT offers a possibility to explain how accounting innovations translate. ANT explains diffusion by substituting ‘diffusion’ for ‘translation’: an innovation does not diffuse unchanged but is (re)adjusted and (re)adapted by the context of interacting actor-networks in which it evolves and overcomes possible resistance.

Callon (1986) unravels translation in four processes: problematization, interessement, enrolment and mobilization. This enumeration does not stand for an imperturbable sequence. On the contrary, these four processes overlap and interact with each other. To subdue the variety and unpredictability of the process of translation, boundary objects play an important role in stabilizing and mediating diverse interests of actors. This study applies a slightly adjusted version of the classification of Callon. Instead of four processes, this study depicts five processes by replacing the process of enrolment with that of MACS objectification and connectedness. Table 4.2 provides a description of these five processes of translation. Along these five processes of translation all field data were arranged to disentangle the many relations and tensions with regard to the enactment of MACS in three case organizations, which were part of the Dutch sector of nursing homes, homes for the elderly and home care.

ANT places calculations in a central place. Numbers and their inscriptions make it possible to mobilize absent things and people in so-called ‘centres of calculation’. Numbers are put to work through diverse inscriptions, not as representations of reality, but as a tool that enables
action, including action at a distance. However, accounting as a practice does not lead automatically to order and stability. Therefore it is in need of a managerial practice that creates ‘centres of discretion’ as well. Munro (1999) shows how management technologies like MACS generate two functions: a durable calculative surveillance function and a flexible managerial sanctioning function. The surveillance function produces records which are sanctioned as ‘good’ or ‘bad’, a process that performs managers as holders of power.

Of great value to this study are more recent developments in ANT thinking, which are commonly labelled as post ANT. Post ANT studies aim for an extra performative dimension by changing from an epistemological to an ontological point of view, meaning differences are no longer a matter of different perspectives on a single object but “the enactment of different objects in the different sets of relations and contexts of practices” (Law & Singleton, 2005 p. 342). Seen this way, MACS stop being an immutable object of which meaning and functioning are obscured by various interpretations by various actors. Instead MACS become multiple; multiple objects, all called MACS, can be distinguished which are different but still related. This is also called the ontological turn (Watson, 2007). By taking the ontological turn this study aims at fathoming out the rhizome resembling tangle of sociotechnical relations around MACS in order to reveal the profound nature of the differences in perspectives on MACS. A consequence of regarding MACS as multiple ontologies means that the epistemological approach, aiming at a strategy of retrieving the real object behind different interpretations, is no longer viable. In fact this study states that the ontological turn is needed to fully picture the multiplicity of MACS.

‘Multiplicity’ should not be confused with ‘multiple’. To be more precise, post ANT research changes the research lens from multiple perspectives – meaning one object that is interpreted differently – to multiplicity – meaning there are multiple objects which differ but also hang together (Mol, 2002). Analogous to the concluding remarks in the study of Gad and Jensen (2010), one could say the complexity of MACS is a combination of multiplicity – there are many versions of MACS – and fractionality or partial connections – they are related but not at all points or in all dimensions (Gad & Jensen, 2010; Watson, 2007). This ontological point of view makes it possible to dissect the enactment of MACS as different objects in different sets of relations, describing the different networks in which MACS act. In other words, by taking the ontological turn the rhizome resembling tangle of sociotechnical relations around MACS becomes more fathomed out and consequently more transparent. This mode of operation may provide possible leads of how to deal with this multiplicity. By acknowledging the profound nature of the differences in perception of MACS, solutions may appear to questions like how to balance and line up these different MACS objects.
Chapter 5

Research methodology
5.1. Introduction

In chapter 4 a customized framework of translation was presented. Main purpose of this framework is to operationalize the concept of translation. With the help of this framework the data, which are related to the enactment of MACS and corresponding relational consequences in three separate case organizations, all operating in the Dutch sector of nursing homes, homes for the elderly and home care, were mapped and analysed in the chapters 6, 7 and 8. This fifth chapter focuses on the research methods which were used to collect, process and analyse the data of this study.

![Overview of the structure of this study](image)

In the next section the choice and application of case study research is explained. This choice is founded in the possibilities it offers to penetrate deeply into an organization and its perceptions and interactions. With regard to the choice between an objectivist, subjectivist or relationist approach – parallel to the distinction between structural, anti-structural and post-structural domains (Hassard & Wolfram Cox, 2013) – this study chooses a relationist position. This choice is not surprising because it cannot be made in isolation of earlier choices on ontological and epistemological positions, as described in the previous chapter. Indissolubly linked to this relational ontology is a performative approach. Similar to the ANT process of translation, as described in chapter 4, a performative approach learns that the characteristics of MACS are continuously reconstructed each time they are mobilized. A consequence of the choice for a performative point of view is the need to explain the role of the researcher and the interaction between object of investigation and the researcher. This explanation is provided in the final part of section 5.2. Section 5.3 describes which choices are made at entering the field: which case organizations to select, how to collect which data, how to process these data and how to vouch for reliability and validity.
To prevent drowning in the immense swamp of data two lifelines proved to be essential. The first one is the dual concept of ‘zooming in’ and ‘zooming out’ of Nicolini (2009a and 2009b), which is adopted to theorize the detailed data. This concept is explained in section 5.4. The second lifeline relates to application of so-called Computer Assisted Qualitative Data Analysis Software (CAQDAS). This software makes it possible to amplify the validity and reliability of the findings of this study. The way ATLAS.ti, one of the most frequently used CAQDAS packages, is applied in this research is described in detail in section 5.5. The final section describes some considerations with regard to the writing of this study.

### 5.2. Case study research

The main purpose of this research is to explore and explain why and how MACS enact and are enacted upon in the Dutch sector of nursing homes, homes for the elderly and home care. This study supposes – and also confirms - that the deployment of MACS in this sector increases, both in number of employees who are somehow involved in MACS, as well in the number of different applications. But how does this deployment evolve, what expected but also unexpected outcomes and consequences are traceable in everyday practice and how can management learn from this all? After all, “in an applied field such as management accounting, research should provide explanations that are useful to those we study – managers, organizations and society” (Malmi & Granlund, 2009 p. 597).

To be more precise, this study aims to provide answers to two research questions:

1. **Why and how do MACS enact and are MACS enacted upon by other actants in three case organizations, all operating in the Dutch sector of nursing homes, homes for the elderly and home care?**

2. **How can management in the Dutch sector of nursing homes, homes for the elderly and home care learn from the translation processes of MACS in the three case organizations?**

The main verb in the first research question is ‘to enact’. This verb represents the notion that when actants act they bring structures and events into existence and set them into action, creating social constructions and relations (Weick, 1988).

**: Case study research: choosing a relational perspective**

The choice for case study research is founded in the possibilities it offers to penetrate deeply into an organization and its culture, habitual behaviour, experienced perceptions and mutual interactions. Traditional case-based approaches study “the operation of accounting, both content and processes, in its organizational, social and societal contexts, demonstrating a fuller understanding of accounting processes” (Berry & Otley, 2004 p. 250). This type of research is particularly appropriate with regard to “sticky, practice-based problems where the experiences of the actors are important and the context of action is crucial” (Benbasat, Goldstein, & Mead, 1987 p. 2). By focusing on questions starting with ‘why’ and ‘how’ concerning a contemporary subject, this study comes close to the frequently cited definition
Chapter 5

Although contemporary meaning individual for developing field, say Stede, 2006). Besides the objectivist and functionalist approach of researchers such as Yin, the broad field of accounting research also distinguishes subjectivist and relationist perspectives. As explained in section 4.2, Hassard and Wolfram Cox (2013) label subjectivism as anti-structural. To enable a consistent classification of the relational perspective, Hassard and Wolfram Cox create an extra paradigm field, which they label as post-structural (Hassard & Wolfram Cox, 2013).

Nowadays case studies have proven to be a useful stand-alone research method, offering valuable scientific insights and information for managers and financials (Merchant & Van der Stede, 2006; Parker, 2012; Van der Meer-Kooistra & Vosselman, 2012). Besides the objectivist and functionalist approach of researchers such as Yin, the broad field of accounting research is a valuable perspective, of the person for Rubin, 2005). Fundamentally, the researcher acknowledges the role of understanding how Rubin & Rubin, 2005 p. 21). The first question concerns the core goal of the research. Instead of developing and testing theories and discovering general principles, subjectivist research aims for describing and understanding complex situations. The second question concerns the meaning of truth. In the opinion of objectivist approaches, there is a truth out there that is independent of human perception. In contrast subjectivist research claims truth differs from person to person, according to what individuals see and experience and how they interpret events. The third question relates to the issue whether it is possible to create research instruments, for example questionnaires, that are based on uniformly shared understandings. Objectivist researchers answer this question affirmative. Subjectivist researchers on the other hand acknowledge that researchers themselves play a crucial role in the processes of data-gathering and data-interpreting. In line with the previous question is the fourth one: Is it possible for the researcher to be neutral and not affect what is seen or measured? Objectivists say yes but subjectivists assert that researchers play a crucial role because they inevitably affect what is learned.

Lukka and Modell (2010) explain how interpretive accounting research is closely linked to the subjectivist perspective. In this domain the main role of the researcher is to search for explanatory patterns in the nearly infinite variations of interpretations of individuals with regard to for example an accounting attribute such as MACS. To discern the objectivist point of view from the subjectivist approach, Rubin and Rubin (2005) pose four key questions (Rubin & Rubin, 2005 p. 21). The first question concerns the core goal of the research. Instead of developing and testing theories and discovering general principles, subjectivist research aims for describing and understanding complex situations. The second question concerns the meaning of truth. In the opinion of objectivist approaches, there is a truth out there that is independent of human perception. In contrast subjectivist research claims truth differs from person to person, according to what individuals see and experience and how they interpret events. The third question relates to the issue whether it is possible to create research instruments, for example questionnaires, that are based on uniformly shared understandings. Objectivist researchers answer this question affirmative. Subjectivist researchers on the other hand acknowledge that researchers themselves play a crucial role in the processes of data-gathering and data-interpreting. In line with the previous question is the fourth one: Is it possible for the researcher to be neutral and not affect what is seen or measured? Objectivists say yes but subjectivists assert that researchers play a crucial role because they inevitably affect what is learned.

Post-structural or relational researchers endorse the four subjectivist answers to the four questions of Rubin and Rubin (2005). But with regard to the research focus point, relationist research fundamentally differs from subjectivist research. Post-structuralism extends the objective-subjective dimension and its traditional sociological dimension (Cunliffe, 2011 p. 261) by means of decentring the individual and exclusively focusing on the relations between individual entities. Under post-structuralism “the human subject was neither behaviourally determined by external stimuli, nor existentially thrown into the world alive and kicking, but instead was considered philosophically decentred or even ‘dead’” (Hassard & Wolfram Cox,
2013 p. 1704). As a consequence the research focus changes from nouns to verbs, from things to processes (Hassard & Wolfram Cox, 2013). Applied to this study MACS are no longer static systems but become processes of movement. MACS become part of actor networks which are contextual and processual phenomena. In these networks MACS exist through making and remaking in a rhizomatic tangle of relations.

--; Performativity

The relational ontology, as described in the previous paragraph, perfectly links up with ANT. In line with this ontology, ANT chooses a performative research approach. Performative research is based on the assumption that “it is impossible in principle to define the list of properties that would be typical of life in society although in practice it is possible to do so” (Latour, 1986 p. 373). The opposite of performative research is ostensive research. Ostensive research reverses aforementioned point of view by stating that: “in principle it is possible to discover properties which are typical of life in society and could explain the social link and its evolution, though in practice they might be difficult to detect” (Latour, 1986 p. 371). The differences between ostensive and performative accounting research are illustrated by Hansen (2011). He shows how ostensive research – illustrated by the case study research teachings of Yin – and performative research – illustrated by case study research according to ANT principles – clearly diverge. According to the ostensive position there is one truth, one world, waiting to be discovered by the researcher. Because the characteristics of phenomena are regular, knowledge is constant and can be accumulated piece-by-piece through research (Hansen, 2011). The performative position on the other hand assumes multiple worlds. Each time a phenomenon is investigated the researcher both describes and constructs another world. As a consequence performative research assumes that knowledge is performed and thereby inconstant and labile. “The characteristics of a phenomenon are always situated, fragmented and partial. Research creates insight into the fluidity of a phenomenon’s characteristics in practice.” (Hansen, 2011 p. 115) In his study Allan Hansen (2011) describes how ostensive oriented case studies have an explaining nature which aim at revealing causal relationships between A and B and analytical generalizations. Performative case studies however do not aim “to outline explanans and explanandum but rather to describe how the whole idea of an A and a B and their links is constructed” (Hansen, 2011 p. 119). And in this description of links and associations, some are made more real than others. This is an inevitable effect of doing research. “Every time we make reality claims in science we are helping to make reality more or less real.” (Law & Urry, 2004 p. 396)

In line with the previous chapter on ANT, this study chooses performative and relational positions. It illustrates the specific enactments of MACS in a specific case and describes how the characteristics of MACS, similar to those of all other phenomena, are constantly reconstructed each time they are mobilized. These enactments are in line with the process which ANT researchers call translation. Seen this way the definition of a case study of Stake seems more appropriate: “We study a case when it is of very special interest. We look for the detail of interaction within its contexts. Case research is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances.” (Stake, 1995 p. xi) After all, the selection of a methodology cannot be done in isolation of matching ontological and epistemological assumptions (Ryan et al., 2002). Consequently this study takes a point of view that is well in line with the actant-rhizome (Latour, 1999) or
relational ontology (Hassard & Wolfram Cox, 2013 p. 1710; Vosselman, 2014) of ANT which is focused on a detailed empirical research on how and why translations evolve the way they do.

But a stringent and unilateral focus on a performative interpretation creates impediments to provide meaningful answers to the second research question of this study. After all, how can management learn from the translation processes if every theoretical abstraction is always conditioned by specific practices? Studies of Ahrens (2008), Pentland & Feldman (2007, 2008) and Hansen (2011) offer a way out. Pentland and Feldman (2007, 2008) show how ostension and performativity form a duality. Conform this reasoning, performative studies are essential for creating, maintaining and modifying ostensive aspects. And vice versa, ostensive aspects form the patterns which affect and guide performative aspects. This straddling of paradigms presupposes interdependence between both types of research (Ahrens, 2008; Hansen, 2011; Pentland & Feldman, 2007; Pentland & Feldman, 2008). In his study Hansen (2011) even concludes that “ostensive and performative researches on the same phenomenon are two sides of the same coin” (Hansen, 2011 p. 132). An example of this duality (Pentland & Feldman, 2007) – or balancing act (Hansen, 2011) – is provided by Lindemann (2014). She shows how performative aspects of the translation of New Public Management (NPM) can be combined with the identification of general principles explaining the social significance of NPM as ostensive aspects (Lindemann, 2014). Although the body of this research on the translation of MACS in the Dutch sector of nursing homes, homes for the elderly and home care is without any doubt of a performative character, the quest for answers to the second research question leads to directions of a more ostensive nature.

... Explaining the role of the researcher

As already mentioned, the epistemological underpinning of this study is relational. This choice impels to explain the role of the researcher in this study. In order to find out how and why MACS enact and are enacted upon by other actants in the Dutch sector of nursing homes, homes for the elderly and home care, the researcher has to get out from behind his desk, enter the field and get involved (Ahrens & Chapman, 2006). He enters another and specific reality of daily professional life, with its own logics, dynamics and motivations. “This invokes the new, the unexpected and the counter-intuitive that characterizes live organizational and institutional settings.” (Parker, 2012 p. 56) The researcher has to invest time and effort to grasp these logics and their all-embracing consequences (Melnyk, Calantone, & Zsidisin, 2006; Stake, 1995). That is why for example the number of interviews in the first case study of this research is more numerous than in the second and third case. On his turn the researcher creates new awareness by posing questions concerning MACS, putting interviewees in the position to interpret the questions and processes they are asked for. In fact there is an interaction between researcher and object of investigation (Butler, 1998). Therefore Scapens (2004) proposes to speak of ‘procedural reliability’. After all, reliability in the sense of an independent investigator who produces evidence which is independent of the person using it, is failing as far as this kind of field studies is concerned. Or in the words of Quattrone and Hopper: “It is more fruitful to explain the researchers’ pursuit of the case rather than assessing whether it faithfully represented happenances.” (Quattrone & Hopper, 2006 p. 222) The researcher has the obligation to convince his readers that he has applied appropriate and reliable methods and procedures (Scapens, 2004). “Despite its pragmatic element, or perhaps precisely in view of its pragmatism, the demands of field research are extraordinarily rigorous.
A statistical methodology, which crunches inputs into outputs, effectively absolves the researcher of errors in inference. In field research, the qualitative nature of the data and the absence of such a methodology impose the burden of inference on the researcher. We like to think of the researcher’s subjectivity as a rather more sophisticated tool for making inference than a statistical package. But he or she does not have the option of hiding behind the statistical results. The challenge of capturing complexity in a coherent way, such that it faithfully represents the world observed, falls entirely to the researcher.” (Ahrens & Dent, 1998 p. 33) Section 5.4 offers an elaboration of how this study intends to cope with this challenge.

5.3. Data collection

\( \text{\textit{The selection of cases}} \)

What to choose? This is the dilemma of depth versus breadth: a profound investigation of a limited number of case studies versus a multiple case study of several care organizations. This study chooses the approach first mentioned, stimulated by several comments on this question (Ahrens & Dent, 1998; Flick, 2009; Lukka, 2007; Vaivio, 2008). “Small samples typically permit closer engagement with the field than large samples. Rich descriptions of organizational practice build on such closer engagement.” (Ahrens & Dent, 1998 p. 3) Rich in this case means understanding the actions and motivations of people in the accounting practice. “Generally, the longer the researcher spends in the studied context, the less vulnerable the study is to factors that jeopardize its reliability and validity.” (Vaivio, 2008 p. 75) Although convenience sampling is regarded as a generally accepted procedure in qualitative research (Bédard & Gendron, 2004 p. 100), this research employs the following, rather broad criteria in the first phase of selection. All selected care organizations operate three types of care: nursing homes, homes for the elderly and home care. And all selected organizations have several establishments or locations, often with different specific characteristics. Main justification for this selection is the necessarily differentiated way of (operational) management this type of organization has to comply with.

To narrow the broad selection, as described in the previous paragraph, two extra filters are used. First of all none of the selected organizations is situated in one of the four big cities in the Netherlands. Sector reports state that care organizations in these cities face problems that significantly differ from organizations outside these four cities (ActiZ, 2012b; ActiZ, 2013). The second filter relates to the size of organizations. ActiZ distinguishes four categories based on total revenues. This distinction is prompted by the significant differences in performances of particularly small organizations (first category) versus large organizations (fourth category) (ActiZ, 2012b; ActiZ, 2013). In their annual reports over 2013, the three organizations that were selected for case study research reported total revenues varying from 95 million Euros to 210 million Euros and can consequently be categorized as large organizations according to the classification of ActiZ. The reasons for the application of this second filter are the following. The sector reports of ActiZ suggest that behind the differences in operating results of small versus large organizations more profound differences in processes and operations are hidden. By making sure that all case organizations belong to the category ‘large’ this study does not have to account for possible differences in findings caused by differences in size of the
selected organizations. The second reason relates to the choice of the category of large organizations. This choice is based on the assumption that operational processes in large organizations are more complex and more differentiated and accordingly necessitate to deploy systems such as MACS more quickly.

The final phase of selection was of a rather pragmatic nature. The field work started at Bellstone Care Centres (BCC) because the board of directors and the head of finance and control staff of this organization were the first who were convinced of the possible added value of this research for an in-depth evaluation of the MACS practices at BCC and possible lessons for the future development and deployment of these systems. They provided full access and cooperation. At BCC three managers were interviewed who previously had been employed at South Care (SC). They told stories of MACS tools they missed at BCC but were available at SC. They gave the impression that MACS practices at SC were somehow more developed compared to BCC. This animated more than sufficient curiosity to gain access at SC with the third case study as result. The second case study was initiated after a first acquaintance at a symposium, followed by three meetings to exemplify the research plans. At first there was some worry at The Relief Group (TRG) whether this research could vexatiously interfere with the ongoing reorganization. After several considerations the board of directors changed the signal to green.

Aforementioned selection of the three cases does not at all correspond with the distinction between critical, unique, representative or revelatory cases as suggested by Yin (2009). On the contrary, the selection of the cases in this study is only partly based on unambiguous objective criteria. Whether an unambiguous application of objective criteria would have been possible or even desirable is doubtful with regard to the chosen subjectivist position (Scapens, 2004). From a subjectivist point of view each case is both critical and unique and revealing as well (Hansen, 2011; Wagensveld, 2013).

\(\textit{\textit{Data collection}}\)

As pictured earlier, this research strives for detailed information in order to realize a rich field study because “the key to understanding practices lies in the careful tracing of their constitutive activities” (Ahrens & Chapman, 2007 p. 23). In line with Bédard and Gendron (2004), this study uses three sources of data: in-depth semi structured interviews, documents and observations. The use of semi-structured interviews, with their open format, gives people the opportunity to speak freely and express their real intentions and motivations (Horton, Macve, & Struyven, 2004). All interviewees received a short description of the research in advance. Besides this description they received a so-called statement of informed consent that, among other things, explicitly pronounced that all participating organisations and individuals were guaranteed anonymity. By signing this statement interviewees certified their cooperation in accordance with the rules as mentioned in the statement. All interviewees signed this statement in advance of the interview. A copy of this statement is enclosed as appendix 3.

The interviewing took place in a sequential way, meaning the first interview was analysed after which the findings of this first interview were used in the next interview and so on. Follow-up and probe questions were asked for further explanation and clarification of initial answers.
(Bailey, 2007). And during all interviews, which lasted between 70 and 90 minutes, an atmosphere was created to ease interviewees to possibly bring up issues that were not anticipated (Quattrone & Hopper, 2006; Tucker & Parker, 2014). Acquired insights legitimized the possibility of adding new questions or altering existing ones. In fact there was an intertwining relation between data collection and data analysis. In an iterating process, interviews led to new insights and to new questions (Marginson, 2004). This corresponds with the experience that research questions defined in advance may change somehow due to the data and concepts that “emerge from the fieldwork” (Bédard & Gendron, 2004 p. 200). In spite of these changes in questions the broad outlines of the interview protocol stayed the same. This protocol is enclosed as appendix 2.

All interviews were digitally taped and subsequently transcribed. Before analysing the transcriptions, the interviewee received a copy with the request to read it carefully and to make any adjustment they felt was necessary. At the same time this opportunity was used to ask complementary questions (Marginson, 2004). Only after agreement of the interviewee with the final version of the transcription, further analysis was conducted. In order to acquire profound and detailed information a large number of interviews were conducted. In order to get acquainted with the peculiarities of the sector of nursing homes, homes for the elderly and home care and to make sure research was well grounded in the contexts of the organizations, the number of interviews in the first case study was larger than those in the second and third case studies. The interviewing lasted until signs of saturation arose (Ahrens & Dent, 1998; Marginson, 2004). In this process the interviewer took the role of ‘visitor’ (Scapens, 2004), meaning the interviewer took a more or less neutral position and encountered all statements with restraint and respect (Marginson, 2004). Besides the taped interviews and transcriptions a logbook was kept. This was done with regard to notable postures during the interviews and remarks that preceded or followed the taping of the interviews.

*: Data triangulation

To increase the reliability of the data, the interviews were complemented with documentary material and observations during management meetings (Vaivio, 2008). Written documents do matter, not just their content but also their consequences. Ezzamel et al. (2004) illustrate the significance of accounting inscriptions and ditto writings in regulating and transforming organizational practices (Ezzamel, Lilley, & Willmott, 2004). All possible documents, varying from annual financial statements to monthly income statements, forecasts, budget frame letters, MACS manuals, strategy statements and more were collected and studied. References to other documents were followed up. In particular documents to which interviewees referred during interviews were compiled for closer examination.

The log, as mentioned in the previous section, proved to be very useful for observations as well. Observations are important due to the experience that written information may differ from actual processes (Bédard & Gendron, 2004). In all three cases meetings were attended as non-participating listener. The attendees at these meetings varied from members of the board of directors to team managers. All these meetings had financial related agenda items as common denominator and took place in the same period in which the interviews were conducted.
In order to validate the data, triangulation is a calibrated technique (Marginson, 2004; Scapens, 2004; Yin, 2009). This technique is useful to evaluate the different sources and forms of data. The principle of triangulation comes from navigation, where the intersection of three different reference points is used to calculate the precise location of an object. Translated to an ideal research process, this principle teaches to look for at least three ways to verify a particular research finding in order to strengthen its validity (Gibbert & Ruigrok, 2010; Yin, 2009). In this research triangulation was not only applied between the three separate sources, i.e. interviews, documents and observations. Attention was paid to the level of convergence between interviewees’ answers as well (Bédard & Gendron, 2004).

With regard to triangulation, more explanation is necessary. After all, triangulation is a technique with an ostensive disposition. In traditional case studies triangulation is used to reconcile conflicting empirical findings in order to demonstrate the reliability and objectivity of research findings (Yin, 2009). Such an application of triangulation is at odds with the performative point of view of this study. Therefore it is clarifying to mention that in this study the technique of triangulation was used to highlight “constellations of multiple exponents of equally valid ‘truths’” (Lukka & Modell, 2010 p. 469). By means of comparing various sources, missing and conflicting data were revealed which lead to follow-up questions. This way differences as well as similarities of various ‘truths’ with regard to the enactment of MACS were mapped.

5.4. Zooming in and zooming out: how to theorize data

In this study the sequence of research steps, as pictured in the previous section, was moulded according to the two-folded movement of zooming in and zooming out, as described by Nicolini (2009a) and reflected in figure 5.2. The zooming in part relates to a detailed study of practice. The second move, zooming out, aims at theorizing practice by deploying an appropriate methodological approach to connect the studied situated practice with other practices elsewhere. This theorizing of practice proved to be a difficult quest. Attempts to use the structuration theory of Giddens and the strong structuration variant of Stones as theoretical lenses to interpret the empirical data turned out unsatisfactory. These theories offered insufficient leads to capture the detailed and rhizomatic nature of translation of MACS in the three selected case studies. At least partially, this misapplication was due to the experience that methodological aspects of case study research are often difficult to plan in advance. According to Gibbert and Ruigrok (2010) it is not uncommon that “some decisions that were taken a priori need to be reconsidered in the field ... because methodological frameworks do not apply neatly to the studied context” (Gibbert & Ruigrok, 2010 p. 730). Only after several iterations between data and different theories, useful points of departure to develop a theoretical framework that matched the data adequately were found in ANT and post ANT.
Aforementioned experience is in line with the study of Nicolini (2009a). Although his findings do not explicitly relate to ANT they are nevertheless useful to this study. Nicolini states that the two-folded movement of zooming in and zooming out is a process of “switching theoretical lenses and following, or trailing, the connections between practices” (Nicolini,
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2009a p. 1392). This double movement is necessary because descriptions of practice are often not enough and “a coherent analytical stance is necessary for the goal of outlining a coherent practice-based ontology” (Nicolini, 2009a p. 1394). Nicolini calls this “a ‘package’ to emphasize that to study practices one needs to employ an internally coherent approach where ontological assumptions and methodological choices work together” (Nicolini, 2009b p. .121). The result of this movement of zooming in and zooming out is an iterative procedure of field research and theory refinement. Obviously the zooming in part applies to ANT research in general and to this ANT study in particular because it forces the researcher to leave his desk and to go into the field to observe relational actor-networks in the making (Lukka & Vinnari, 2011). To interpret the empirical findings a zooming out movement is necessary as well in order to explain how the empirical data and relations enrich our theoretical understanding of MACS enactments. In line with the terminology and ideas of ANT, Nicolini states that this movement between practice and theory “is rhizomatic in nature” (Nicolini, 2009b p. 128).

To answer the question how to theorize data, Eisenhardt states that case study research offers a good chance of building and developing theories because “… creative insight often arises from the juxtaposition of contradictory or paradoxical evidence. This constant juxtaposition of conflicting realities tends to ‘unfreeze’ thinking and so the process has the potential to generate theory with less researcher bias.” (Eisenhardt, 1989 p. 546) The circular process between collecting, selecting and interpreting data allows researchers to reveal theoretical insights that are firmly situated in and developed by recognizing patterns (Ahrens & Dent, 1998; Eisenhardt & Graebner, 2007; Flick, 2009). Other scholars distinguish an ‘emic’ and an ‘etic’ domain (Lukka & Modell, 2010; Lukka & Vinnari, 2011; Suomalainen, Lyly-Yrjänäinen, & Lukka, 2014; Van der Meer-Kooistra & Vosselman, 2012). Applied to this study the emic point of view refers to the field research of the various relations between actants inside the case organizations. The etic point of view refers to the position in which the researcher slightly distances himself from the subject in order to be able to surge for patterns in the masses of data. Both domains are closely linked. Instead of depicting some kind of theoretical domain as a central space separated from practices, Wagensveld and Vosselman explain how theory and practice are intermingled (Wagensveld & Vosselman, 2012). Consequently the researcher has to continuously move back and forth between these two domains (Suomalainen et al., 2014). To curb the risk of researcher bias as possible consequence of this swinging process both the interim results and the ultimate results of this research project were elaborately discussed with the two supervisors of this research project. Moreover, interim results were presented at three academic conferences. This generated many useful remarks and advices.

5.5. **Computer assisted qualitative data analysis (CAQDAS)**

*Explaining the working and advantages of CAQDAS*

To facilitate the tenacious process of analysing and theorizing data, this study used ATLAS.ti, one of the most frequently used applications out of the family of Computer Assisted Qualitative Data Analysis Software (CAQDAS). Although case study research cannot hide behind a statistical package (Ahrens & Dent, 1998), frequently mentioned advantages of using CAQDAS are the possibilities of handling huge amounts of data in a sorted and quick way. Application of CAQDAS “helps to ensure that all data are coded and thus reduces the potential
for researchers’ bias when selecting data for analysis” (Abernethy et al., 2005 p. 144). Moreover, this software helps researchers to demonstrate in a convincing way the validity (Silverman, 2005) and reliability of their findings (Abernethy et al., 2005; Budding & Cools, 2007), offering the possibility to leave an audit trail (Miles & Huberman, 1994), resembling what Yin calls “a chain of evidence” (Yin, 2009 p. 122). Seale talks of rigorousness: CAQDAS enables researchers to demonstrate that their analysis is rigorous (Seale, 2005). Furthermore, CAQDAS “…can help in keeping track of emerging ideas, arguments and theoretical concepts” by offering the possibility “to map out ideas in diagrams or conceptual networks” (Budding & Cools, 2007). An example of the latter application is the study of Malina and Selto (2001). Although this kind of software offers great possibilities “…CAQDAS cannot provide a substitute for continuing to think critically about the meaning of data” (Budding & Cools, 2007).

![Figure 5.3: A schematic illustration of the data analysis process.](image)

As explained before, this research did not start as a tabula rasa but had a theoretical back up as elaborated in the previous chapters. In accordance with these theoretical guidelines this research used corresponding codes. Based on the research, as explicated in the previous chapters, open questions and corresponding codes were applied with regard to topics such as for example perceived environmental uncertainty, (lack of) experiences with interactive control practices, availability and application of types of information such as non-financial data and benchmark references and division of roles with regard to MACS-related tasks and responsibilities. Next to these conceptual codes, free codes were added in conformity with empirical data and suggestions, which emerged during the coding process (e.g. Abernethy et al., 2005). “The result is a hybrid approach that acknowledges theoretical guidance (or bias) and permits empirical flexibility (or theory revision).” (Malina & Selto, 2001 p. 62) This
possibility to add free codes proved essential to curb the danger of forcing data into predetermined schemes. The final list of codes is reproduced in appendix 1.

Both the coding scheme (appendix 1) and the interview protocol (appendix 2) were used to increase the objectivity of the analysis (Malina & Selto, 2001). Furthermore, two researchers independently coded several transcripts, leading to an inter-rater coding reliability up to 88.7%, well within the minimum margin of 80% to 90%. This margin is accepted as standard to assess this type of reliability (Malina & Selto, 2001 p. 81; Miles & Huberman, 1994 p. 64).

Qualitative research does not aim for generalizations of a statistical nature but of a theoretical kind (Granlund, 2001; Scapens, 2004; Vaivio, 2008). And although the research in hand is of a qualitative nature, application of CAQDAS offers some quantitative support. Or in the words of Seale: “Mention of counting is a reminder that the days of a great divide between qualitative and quantitative research work have now largely passed” (Seale, 2005 p. 191).

4.3: Explaining co-occurrence

Although the frequencies of the codes are an indication of their relative importance, further analysis is possible. In their study of 2001, Malina and Selto used ATLAS.ti to identify associations between coded sections of text. “Co-occurrence or proximity rules include coded quotations of one type that enclose, are enclosed by, overlap, are overlapped by, preceded by one line, or follow by one line coded quotations of another type” (Malina & Selto, 2004 p. 464). Co-occurrence is measured by the co-occurrence ratio, C, which is computed as:

\[ C_{12} = \frac{n_{12}}{n_1 + n_2 - n_{12}} \]

Code 1 (with a frequency of \( n_1 \)) co-occurs with code 2 (with a frequency of \( n_2 \)) when code 1 text overlaps or is overlapped by, encloses or is enclosed by, or is identical to code 2 text (with a frequency of \( n_{12} \)). In this study the co-occurrence ratio was used to detect and quantify the strength of associations between coded sections of text. The results of the co-occurrence analyses are displayed in appendix 4.2 (BCC case), appendix 5.2 (TRG case) and appendix 6.2 (SC case). These appendices show all associations with a co-occurrence of 0.05 or more. These associations with a co-occurrence ratio of 0.05 or more were selected for carefully re-reading of concerning interview quotations. Chosen cut-off limit meant that 25 to 35 percent\(^5\) of all co-occurrences were selected for closer examination. This limit proved to be sufficiently intricate to enable a closer examination of more dominant associations.

An extra appendix, numbered 4.3, provides an explanation of how the reduction of data and the process of ascribing meaning to the data took place. This description does not only apply to appendix 4.2 but also to the appendices 5.2 and 6.2. In fact, appendix 4.3 provides a description of the audit trail which was applied in this study and which Miles and Huberman (1994) mention as an advantage offered by ATLAS.ti to increase the procedural reliability.

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\(^4\) Extra information with regard to the coming about of this percentage is provided in appendix 4.3.

\(^5\) In the BCC case this percentage was 25,6%, in the TRG case 34,8% and in the SC case 33,0%.
5.6. Writing

Writing a qualitative study is impeded by the fact that, in contrast to quantitative research, there is no generally recognized structure for qualitative papers (Yin, 2009) and “probably never will be due to the holistic nature of qualitative research” (Bédard & Gendron, 2004 p. 111). A mountain of data and field notes has to be carefully and creatively translated into an authentic, plausible and convincing report (Scapens, 2004). “We do not simply present facts that stand alone; rather, we craft arguments intended to persuade readers that we have something new to offer relative to extant theoretical conversation.” (Golden-Biddle & Locke, 1997 p. xv) As a consequence, writing a case study research is a very time consuming process in order to keep the information asymmetry as limited as possible. “One cannot ordinarily follow how a researcher got from 3,600 pages of field notes to the final conclusions, sprinkled with vivid quotes though they may be.” (Miles & Huberman, 1994 p. 100)

The three case studies (see chapters 6, 7 and 8) are described in a narrative way, modelled in accordance with the five processes of translation as depicted in section 4.5. This modelling facilitates the analyses and provides a case transcending perspective. Several quotes of interviewees, related to the points being made, are included to provide sufficient detail and authenticity (Scapens, 2004). This way the reader is offered the possibility to experience something of the real-life setting of the case (Eriksson & Kovalainen, 2008).

Writing this dissertation was a continuous process of going back and forth between coded and recoded interview transcripts, notes, memos, ATLAS.ti data, conceptual framework and the ultimate Word file on the computer screen. A cautious estimate learns that on average each page in this dissertation had at least three previous but dissatisfying attempts. This struggle is in line with remarks of Law (1991) that writing about translation processes is a process of translation in itself (Hansen, 2011). In fact writing and analysing are indissolubly connected. The process of writing is a continuous thinking and rethinking, considering and reconsidering, interpreting and reinterpreting. One may wonder whether this arduous but enticing process has a self-evident completion at all.

5.7. Summary

This study aims to answer two research questions:

1. Why and how do MACS enact and are MACS enacted upon by other actants in three case organizations, all operating in the Dutch sector of nursing homes, homes for the elderly and home care?

2. How can management in the Dutch sector of nursing homes, homes for the elderly and home care learn from the translation processes of MACS in the three case organizations?

The main verb in the first research question is ‘to enact’. This verb represents the notion that when actants act they bring structures and events into existence and set them into action, creating social constructions and relations (Weick, 1988).
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The choice for case study research was founded in the possibilities it offers to penetrate deeply into an organization and its culture, behaviour, experienced perceptions and mutual interactions. Consistent with the choice for ANT (see chapter 4), a relational and performatve approach was chosen and its consequences explained. The selection of the three case organizations was done in accordance with three criteria. Nevertheless the final selection was of a rather pragmatic nature. However, the fact that from a subjective and relational point of view each case is both critical and revealing is reassuring (Hansen, 2011; Wagensveld, 2013).

To create the possibility of data triangulation this study used as much as possible three sources of data: semi structured interviews, documents and observations. By means of comparing various sources, missing and conflicting data were revealed which lead to follow-up questions. This way differences as well as similarities of various ‘truths’ with regard to the enactment of MACS were mapped. The interviewing took place in a sequential way: acquired insights legitimized the possibility of adding new questions or altering existing ones. In this way there was an intertwining relation between data collection and data analysis.

In order to effectively manage the swamp of data two additional analysis tools proved to be of help. Firstly, with regard to the theorizing of the data the two-folded movement of ‘zooming in’ and ‘zooming out’, as described by Nicolini (2009a), proved to be useful. The zooming in part relates to a detailed study of practice. The second move, zooming out, aims at theorizing practice by deploying the theoretical framework of translation as explained in chapter 4 and pictured in table 4.2. The result of this movement of zooming in and zooming out was an iterative procedure of field research and a surge for patterns in the masses of data.

Secondly, to facilitate the process of sorting and analysing the data, this research used ATLAS.ti. With the help of this software huge amounts of data were handled in an orderly way. Moreover, this software offered the possibility to leave an audit trail (Miles & Huberman, 1994) to demonstrate the validity and reliability of the findings. Furthermore, after ultimately agreeing on a final coding scheme, two researchers independently coded several interviews, leading to an inter-rater coding reliability up to 88,7%. Finally, in this research the co-occurrence analysis, as described and applied by Malina and Selto (2001, 2004), was used to trace and investigate in more detail the numerous associations.

Concluding chapter 5 means this study is at the brink of entering the field. This chapter started with an accurate wording of the two main research questions. This was done after describing the research field and its changing environment in chapter 2. Chapter 3 highlighted MACS as the research object of this study. At the same time, in this third chapter the research lens was turned towards a relational perspective, focusing on the enactment of MACS and its performatve effects in actor-networks. In line with this focus ANT and post ANT were elaborated in chapter 4. After defining the methodology of this study in chapter 4, chapter 5 continued with choosing the corresponding research methods. Taken all this into account; this study seems to have listed all key elements for a well-equipped and focused access to the research field.
Chapter 6

Case study: Bellstone Care Centres
6.1. Introduction

Three case studies are presented in succession in chapters six, seven and eight. In this chapter the first case study is elaborated in keeping with the research methodology and methods as explained in the chapters 4 and 5. Subject of investigation is Bellstone Care Centres, a healthcare organization which comprises 16 nursing homes and homes for the elderly and a home care division. In this chapter the results and analyses are described in line with the framework of translation, as presented in section 4.5. In the final section of this chapter, a first reflection on the findings of this case study is depicted.

6.2. Introduction Bellstone Care Centres

Bellstone Care Centres (BCC) is a healthcare organization, which comprises a total of 16 nursing homes and homes for elderly. Although home care is one of the priorities in the development plans of senior management, the contribution of the division ‘BCC at Home’ to total revenues was still a small portion at the time the field research took place. The mission statement of BCC is phrased as follows:

“We strive to enable our clients to live in their familiar surroundings as long as possible. And when this is no longer realizable, we make it possible to live comfortably and respectfully in one of our homes. Quality of life is our main focus. Living, well-being, care and treatment are all aimed at contributing to this quality of life. Self-management, self-activity and self-reliance of our clients are the starting points of the professional actions of our employees. This is made possible in an organization in which clients, clients’ family members, employees and volunteers participate on an equal
In the annual report 2013, BCC accounts for a capacity of 1,761 intramural places and 917 extramural clients. At the end of 2013 BCC enlisted 2,870 employees (1,636 full time equivalents) and more than one thousand volunteers. According to the P&L statement 2013, total revenues were €1131 million and the year was closed with a profit of €1,262,746. Budget and solvency ratio were respectively 20.5% and 19.5%. The net cash flow over 2013 was €11,205,479 negative.

During the period November 2012 – February 2013 a total of 35 employees, ranking from board of directors to departmental managers, were interviewed. Besides these interviews, several documents were consulted and analysed to verify and complement statements made during the interviews. A list of all interviews, specified by position, date and length of time, as well as a record of the consulted documents are added as appendix 4.1. Furthermore, several meetings were attended to observe discussions and deliberations with regard to budgets and budget processes.

BCC is the result of several mergers over a period of approximately ten years. During the years 2011 and 2012, senior management of BCC paid a lot of attention to the integration of the several business units and the creation of a new corporate identity. Amongst other things, this process of integration aimed for an efficient harmonization of the back office by implementing a uniform management information system (MIS) and a comprehensive personnel salary system (PSS).

During the course of this case study, the organization chart of BCC showed a two-headed board of directors, six managing directors in command over 16 intramural locations, one managing director leading the home care division, and six heads of staffs, including the medical staff, the staff facilities and real estate and the staff finance and control. Together they formed the directing management team. Each location had a middle management consisting of a manager care, responsible for all processes concerning care, and a facility manager, responsible for all processes except care. Both managers, in accordance with their position also called middle managers, answered to the managing director of the location and each of them directed their own group of team managers.

In response to the prevailing belief of the client as stage-manager of his own care, several programmes were introduced to enhance the client-focus of the employees. Using mottos such as ‘think along with the client with your hands on your back’, employees were trained in taking responsibility for more customer-oriented care services. Along with these trainings, a further delegation of budget responsibilities was carried through; first from managing directors to care managers and facility managers and, at the time of this case study, from care managers and facility managers to the team managers. This delegation of responsibilities and authorizations was dictated by the widely held opinion that custom-made care services were not possible without a decentralized, flexible and empowered management nearby the client.

At the same time a contrary development took place. Whereas care processes were decentralized, decisions concerning matters such as real estate, accommodation and
purchases of food and materials became more and more the authority and responsibility of the central staff of facilities & real estate. The logic behind this centralizing development was the attempt to cash volume discounts and to spread the risks with regard to real estate. Particularly new governmental regulations concerning the extramuralization of clients with a low indication for care posed a serious risk of real estate becoming vacant. At the same time, managers realized this extramuralization had also consequences for the way care was provided. This separation of care and residence undermined the business model of care organizations such as BCC. Until now BCC was successful by offering a total service package, including not only care but residence and welfare-activities as well. A managing director commented:

“In the new regulations, only care is indicated. Housing and welfare-activities are no longer reimbursed. Instead of providing all-inclusive service packages to all our intramural clients, we will have to make separate arrangements with each individual resident.”

In general, employees of BCC realized that the developments, as depicted above, as well as the urge of the government to contain the national healthcare budget, came down to far-reaching consequences for their organization and the care services it provided. At least at senior and middle management levels the awareness that these developments would inevitably provoke major changes was widespread. On the other hand, the attitude of lower management towards these developments was more awaiting.

In many interviews, a recurring theme, whether directly or more implicitly indicated, was commercialization of health care. This reading of change in organizational culture was associated with experiences of a more business-like management style and a growing accountability. Some employees looked at this development with mixed feelings. A managing director commented:

“I find this [commercialization] a real change in culture. I really think that every care professional sometimes wonders whether we really want this to happen.”

Many interviewees linked the start of this so-called commercialization with the appointment in 2010 of a new member on the board of directors, who more or less fulfilled the role of CFO. This new member was deliberately selected for his financial expertise and ditto background. His appointment was considered as the answer to the growing idea that senior management needed to fill in missing financial competencies. A managing director commented:

“[Name of board member] has a different, more business-like background and attitude. As management team we agreed that we didn’t just need colleagues with a background in health care. Considering the new challenges we face, we need somebody who is strong in business, finance and facilities.”

In reaction to the question whether a more business-like way of thinking was applicable in health care, a controller of finance and control staff stated:
“I think we only just started. Nowadays we speak with managing directors who start to think in Euros. But middle managers and team managers still think in a vocabulary which is typical for care. I think it is inevitable that they too will have to consider possible financial consequences more often in the near future.”

6.3. Translation of MACS at BCC

The case description continues in accordance with the five processes of translation, as depicted in section 4.5. These processes did not resemble in any way classical sequential executions. On the contrary, the phases in the translation processes intermingled and overlapped. In these processes different aspects of MACS were highlighted by different groups of participants.

6.3.1. Problematization

In this translation process problems are identified and discussed. Actants take the role of initiator by informing other actants – who may become allies - how MACS can enact solutions to these problems.

At the time the field research took place the consequences of the national budget constraints on health services were noticeable. Several remarks were made of how employees had to provide more care with less means. The risks as well as the consequences of exceeding budgets became more serious. And the well-known success formula of overproduction was no longer possible as a consequence of the negation of health care insurance companies to reimburse care organizations such as BCC for overproduction. These developments urged for a closer monitoring of spending and budget limits. In the meetings of senior and middle management the financial situation up to date was a recurring and dominant topic. On their turn, middle managers put this topic high on the agenda of the consultations with their team managers. As a consequence MACS received growing attention with the expectation that these artefacts would provide answers how to manage these new challenges.

Besides the aforementioned unrest, due to all kinds of austerity measures, there was a second source of uncertainty. New governmental regulations in general and those with regard to the extramuralization of clients with a low indication for care in particular, meant that several risks, for instance the costs of vacant real estate, were transferred from the central government to individual care organizations such as BCC. With regard to the extramuralization of clients, BCC faced a cutting back in residential capacity of which the consequences were translated in several financial scenarios – showing revenue declines of twenty to forty percent – by the head of finance and control staff.
To handle and overcome the perceived uncertainty, as pictured in the previous paragraphs, MACS were presented as a solution by the combined action of senior management and finance and control staff. Of all managerial levels, the senior echelon was the first to recognize the new risks and uncertainties. In their need for reassurance they were promptly served by the finance and control staff. In fact finance and control staff became the main proponent of MACS as the solution offering assistant to handle perceived uncertainties. Doing so, they were lent a ready ear by particularly senior management. Senior management increasingly asked for more advanced MACS as aid in their efforts to reduce uncertainties and to be able to intervene in time. For example, a managing director asked finance and control staff for...

“... a prognosis whether I can afford to hold on to temporarily redundant employees who I will need in four months' time after the new housing estate is delivered. Or compels the financial situation me to dismiss them now and re-engage them later.”

To substantiate aforementioned findings, co-occurrence analysis of the interviews – particularly those with high and middle ranking managers – showed a strong co-occurrence of quotes coded with ‘perceived environmental uncertainty’ and quotes coded with ‘MACS as potential solution’. At the time the interviews took place, this connection and corresponding way of thinking was few and far among team managers. This was in accordance to the still limited delegation of MACS-related tasks and responsibilities to this lower management level. The main financial task of team managers was to monitor the personnel budget, which was presented in full time equivalents. All possible problems, such as (long lasting) sick leaves and holiday planning, had to be solved within the limits of this budget.

Although experiences of team management with MACS information were still limited, senior management foresaw an important MACS-related role for the team management level. In the generally acknowledged necessity to become more flexible and customer oriented, a key role was attributed to team managers. Because team managers were in touch with the myriad of day-to-day problems, it was reasoned that they were able to come up with better, more specific client oriented solutions. To facilitate this key role, the delegation of tasks and responsibilities to the level of team managers was an obvious consequence. A managing director explained:

“You have to make sure that the freedom of choices and possibilities at team level increases because at this level the interaction with the client takes place. To empower these employees [team managers] you have to delegate responsibilities to them and provide them with proper MACS information.”

Aforementioned quote with regard to “proper MACS information” had an ambiguous meaning. On the one hand team managers were expected to use this MACS information effectively, meaning they should use it to prevent an exceeding of their budgets. On the other hand senior management, incited by some kind of ‘responsible suspicion’, wanted to be sure that they on their turn had the proper tools at their disposal to control the financial doings of their team managers.
6.3.2. Interessement

In this translation process the proponents of MACS try to convince other actants that they will somehow benefit from MACS. To legitimize MACS, the proponents use arguments and stories. Nevertheless, the proponents have to bear in mind that they will encounter actants who are not convinced of the benefits of MACS. They cast doubt on the supposed blessings of MACS.

In the previous section, which depicted the problematization processes, senior management and finance and control staff were pictured as the main proponents of MACS. These two segments of BCC employees proved to be more than willing to highlight the blessings of MACS. Senior management seemed unanimous with regard to the possible advantages of delegation of MACS information to lower management levels. As stated before, custom-made care was supposed to be only possible with a decentralized, flexible and empowered management in close proximity of the client. One managing director expressed his confidence by stating:

“If departmental managers are responsible for their own budgets, including production, costs and revenues, they will do their utmost best to prevent exceeding these budgets.”

And his colleague added a little extra by pointing out the positive effects of the delegation of financial responsibilities:

“I think it is good to delegate more financial responsibilities to a lower level. This has a motivating effect on the members of my management team. [...] The more they know [by means of MACS], the more they comprehend how things are related to one another, the more they are able to act upon it.”

Similar expectations were heralded by finance and control staff. One controller predicted that the delegation of responsibilities to team managers would stimulate an entrepreneurial attitude. Referring to experiences obtained at a former employer who was comparable to BCC, this controller predicted that team managers would react to detailed MACS information in a reassuring manner.

“Thanks to detailed and transparent MACS info, they usually recognize the solution to a problem straight away because they [team managers] are familiar with the specific situation and practices.”

Backed by the CFO on the two-headed board of directors, the head of finance and control staff showed a sense of urgency to develop and apply more advanced MACS:

“We have to keep up with the pace of changes of the world outside. This year we definitely have to develop a proper forecasting model. If we don’t succeed, it becomes
very difficult. From a financial perspective, things become more and more complicated. If we don’t develop adequate frames of references in time, it becomes very difficult to stay in control.”

The need for reference points also reverberated in the high expectations of internal benchmarking. The large number of comparable departments within BCC offered the opportunity to draw up an internal benchmark to measure and mutually compare the results of the departments within BCC. A comparison with the average results of the sector was an obvious possibility as well. This preference for benchmarking was particularly strong at the board of directors and amongst finance and control staff. The CFO on the board of directors expressed his expectations on this point.

“I strongly believe in benchmarking […]. It offers the possibility to learn from each other. Although having the same population of clients, benchmarks show that some departments succeed where others fail. This offers the possibility of a meaningful exchange of experiences in order to learn from each other’s mistakes and successes.”

In spite of this plea in favour of benchmarking, several managing directors expressed hesitation, stressing it would be difficult to make sure that the right comparisons were made in order to justify conclusions. Apparently transparency was not experienced as exclusively beneficial after all. From the viewpoint of the managing directors, their suspicion towards benchmarking was not incomprehensible. After all, the CFO member on the board of directors had repeatedly substantiated his support for internal benchmarking by pointing out that …

“… thanks to internal benchmarking my managing directors will no longer have the possibility to play hide and seek in case of disappointing results. It will deprive them of all kinds of excuses and pretexts because benchmark results will show them that they failed were others did not.”

At the time the field research took place, it was impossible to verify the profundity of this divergence of views amongst senior management due to limited experiences with benchmarking at BCC.

Team managers did not raise objections to this proposed delegation of responsibilities. On the contrary, judging from the high co-occurrence of interview fragments coded with ‘decentralization’, ‘empowerment’ and ‘accountability’\(^6\), many team managers experienced this delegation as a positive development. A team manager commented:

“I welcome more [financial] responsibilities for my department. It is my department, my team and to me it is obvious to take responsibility for what happens in my department.”

Another team manager commented:

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\(^6\) Meant are the codes 433_Connect_Practice_Decentralization responsibilities, 436_Connect_Practice_Employee empowerment and 437_Connect_Practice_Accountability. For a definition of these codes, please consult appendix 1.
“I really believe that more detailed financial information will enable us to steer more effectively. It will show how to make savings that can be used to the benefit of our clients.”

How promising aforementioned quotes might seem, there were also indications which casted doubt whether these quotes were inspired by positive experiences with MACS or just wishful thinking. More than once team managers admitted that they did not use MIS (name for MACS at BCC) regularly. One team manager even admitted she had consulted MIS just to be prepared for the interview.

Remarkable were the so-called external legalizing stories. These are stories, relating to events and situations outside BCC. In this case they almost exclusively referred to more advanced applications of MACS which BCC lacked. These stories originated from managers who had been working with more advanced MACS in previous jobs, both in and outside the sector of nursing homes, homes for the elderly and home care. These employees told extensively how they missed MACS employments they used to work with. For example:

“Suppose I would prolong the late shift or put in an extra night shift, the program would calculate the consequences and would show me whether I could afford these extra hours or not. At BCC I miss this kind of information to steer on.”

One of the members on the board of directors acknowledged this shortcoming of MACS at BCC:

“At the moment our systems do not provide this detailed type of information at all management levels. But we are busy improving our MIS and this type of information will spread slowly throughout the whole organization like a waterfall.”

With this waterfall metaphor, the bridge to the next translation process, which among other things highlights the vertical extension of MACS, is crossed.

### 6.3.3. MACS objectification

This translation process shows how MACS concepts and MACS information become tangible in the shape of MACS inscriptions such as budgets, income statements, forecasts, dash boards, management reports, etc. Tangible MACS concepts and ditto information translate both in horizontal and vertical direction within the organization. The horizontal direction relates to an extension of MACS at a particular management level. The vertical direction refers to an extension of MACS to lower management levels.

The last quotation in the previous section is one of the many quotes which indicated that involvement with MACS increased, both in horizontal as well as in vertical direction. Examples of horizontal extension were particularly found at senior management levels. Due to the necessity to explore new risks and their possible effects, the head of finance and control had
written several scenarios and long term financial forecasts. To several managing directors this
type of information was new and evoked various reactions. Some managing directors even
suspected the board of directors of abusing these scenarios to deprive them of their authority
on real estate matters. Indeed, all scenarios advocated a centralization at concern level of real
estate issues.

Not only financial information of a strategic nature draw attention, the increase of operational
information was noticed also. Although several managers, both at senior and middle
management level, placed questions with regard to the user-friendliness as well as the
timeliness of MIS, they all admitted that finance and control staff had made an impressive
progress in developing MIS during the last two years. A middle manager commented:

“I know finance and control is very busy accelerating all kinds of improvements in MIS.
A few years ago there was nothing. And nowadays MIS is more and more filled with all
kinds of figures. Seen this way, we have made great progress.”

Notwithstanding the understanding nature of the reaction of this manager, it also indicated a
gap between the expectations and heralded benefits of MIS on the one hand and the
experiences of a still inadequately functioning of MIS on the other hand. Due to the latter
experiences several middle managers and team managers told they used Excel calculation
models alongside MIS or reluctantly had given up doing so very recently. In most cases they
had composed these Excel models themselves before MIS was introduced. The reason they
persisted in using these Excel models was prompted by the failing of specific information in
MIS or by a distrust of the figures in MIS. One middle manager explained that he had recently
given up on his Excel files not because he acquired sufficient confidence in MIS but...

“...because to monitor MIS and to update my Excel files at the same time is too time-
consuming.”

An important example of the vertical extension of MACS was the following. Every two or four
months – depending on the question whether the results were bad or good respectively –
senior and middle management of each location were invited by the board of directors and
the head of finance and control to discuss the results of the particular location. To facilitate
and guide the discussion two documents were drafted: an up to date income statement with
explanation, composed by a controller, and a review of the results, written by the managing
director of the location. Both documents had a standard format. Remarkable was the format
of the review of results. This format prescribed five rubrics: financial results, clients,
employees, learning ability and specifics of the location. The initiator of these formats and
associated deliberations was the CFO on the board of directors.

At the time the field research took place, team managers started to get involved with MACS
info as well. In line with the ‘waterfall’ metaphor, as cited in the previous section, the team
managers were hooked on by the middle managers. At most locations, this penetration of
MACS was shaped as a monthly cycle of deliberations between middle manager and team
managers in one-to-one conversations as well as in one-to-many settings. Besides several care
content related themes, recurring topics during these meetings were the up to date deployed
full time equivalents compared to the personnel budget, the care production and the

98
percentage of sick leaves. It was up to team managers to monitor those figures and during these meetings they were expected to render account to the middle manager.

In contrast to what might be expected on the basis of the previous paragraph, many team managers admitted that they did not use MIS regularly. Some team managers stated that the reports they received from their middle managers sufficed. One team manager even admitted she had consulted MIS just to be prepared for the interview. These team managers justified this limited use of MIS by pointing at the shortcomings of MIS. In fact, critical remarks with regard to MIS were widespread among all management echelons. All the more remarkable was the following quote of the head of finance and control staff. Referring to the design of MIS at BCC at the time the interviews took place, the head of finance and control stated:

“I really think the structure of our MIS is in order and above average of what is customary in our sector. Next important steps are improvement of the user-friendliness of the program and development of key performance indicators.”

The previous statement looked quite optimistic in comparison with the critical remarks concerning MIS. With regard to the user-friendliness of MIS, managers of all echelons complained that specific information was hard to find. According to these managers, the menus were too complicated. Because too many menu choices had to be made before the proper information was found, the chance of getting lost in the menus was too big. A team manager, who was an accredited expert on MIS in the eyes of his colleagues, stated:

“The layout of our MIS has to be simplified considerably. If my colleagues keep on complaining this MIS is too complicated for them than this MIS is predestined to go terribly wrong.”

A controller reluctantly admitted:

“We work a lot with MIS and are used to it. It’s a fine program but getting used to it takes some time. We know that managers at the locations complain about the user-friendliness of MIS. We realize that the user menus have to become more appealing, otherwise managers will avoid MIS.”

But complaints of managers were not restricted to the layout of MIS. Critical remarks were also made with regard to the content of MIS. Although the staffing expenses were fairly accurate and displayed in time, data on care production and expenses on food and materials were not reliable and only available after two or three months. Moreover, expenses on food and materials were not specified per department but presented as a total per location. As a consequence both team managers as well as middle managers were not able to monitor their own costs in detail.

A recurring complaint concerned the lack of a tool to calculate the amount of full time equivalents managers were entitled to deploy in correspondence with the number of clients and their indications for care. Several team managers experienced this shortcoming as highly unsatisfactory because this deficiency obscured their deliberations on budgets with middle managers. Referring to the settlement of budgets, a middle manager commented that...
“...current procedures consist of rough estimates based on indications such as work pressure and experiences from the past.”

Noteworthy was the high frequency of critical comments referring to the limited usefulness of MIS info. For example, the MIS worksheet titled ‘Quality’ was almost empty. In most cases, only the number of medical incidents was mentioned without further details. Moreover, by the time these incidents were mentioned in MIS, the quality manager had already sent a detailed report to enable the concerning team manager to act effectively. A team manager stated:

“It is true; MIS offers a lot of data. But these data do not offer me more insights.”

Remarkable was the limited discussion between finance and control staff on the one hand and managers on the other with regard to the content of MIS at BCC. Although managers were critical of MIS, they barely made suggestions in relation to the content of MIS. The general attitude of managers towards MIS information was aptly expressed by a team manager:

“Finance and control offers us this information. So I suppose this is important.”

Remarkable also was the opinion of the BCC controller who was busy drafting MIS dash boards. To the question whether he consulted future users of these dash boards, he answered:

“I do not think that is necessary. The information in these new dash boards is quite obvious and basic. Consulting managers on this point would probably lead to meaningless discussions. This is the information upon which managers have to learn to act and we [finance and control staff] will help them.”

6.3.4. Connectedness

In this translation process MACS is connected to other actants. They take an active role in the use of MACS to shape the relations with other actants. In doing so, these actants try to draw other actants into a scheme of enactments of MACS. But success is not guaranteed. There is always the possibility that actants become disconnected again or do not connect to MACS in the first place.

Shortcomings of MIS, as indicated in the previous section, were all but stimulating the connectedness of managers to MIS. Neither stimulating was the limited financial knowledge and ditto competencies of most managers. This is why many managers at BCC were not comfortable in their relation to MACS. For example, after obtaining a financial profit after three successive years with negative income, a middle manager stated he was still not at ease because he could only guess at the causes of this positive outcome. And another middle manager complained:
“Every year I have big differences between the budgeted figures and the actual outcomes, which I cannot explain.”

But the managers at BCC were not the only ones who uttered distressing quotes. Amongst finance and control staff irritation was mentioned with regard to the sloppy coding of invoices. Due to the fact that on several occasions managers failed to use the proper bookkeeping codes, MIS produced – at least in the eyes of these controllers – too many unnecessary mistakes. A controller explained:

“These managers do not realize the added value of this type of accuracy. Instead of a contribution to an accurate statistics of expenses, they regard these coding instructions as annoying extra work.”

The previous citation indicated differences in perception with regard to MACS information. These differences emerged on other occasions as well. In a management team meeting, the CFO on the board of directors and the head of finance and control staff were surprised by the reproach of some managing directors, stating the former two were too obsessed with figures. Somewhat aggrieved the member of the board of directors reacted:

“I use these figures like those on the dash board display of my car: they tell me where I am heading for and at what speed. Of course I monitor this information very closely. Obviously this is important information every manager has to use.”

Also typical was the explanation of a controller who was confronted with a middle manager who seemed to be allergic for financial figures.

“[Name] is a typical care person who is wholeheartedly dedicated to care. He dislikes rules and financial figures and follows his heart in managing his location.”

Contrary to what the previous quote might surmise, many team managers took their budget responsibilities seriously. Arguments, which aimed at the avoidance of budget overspendings, were validated as powerful. In response to the question whether team managers were accountable, a managing director stated at a reassuring tone:

“They hate being in the red. They almost feel guilty about it.”

Both type and application of MACS information at BCC were varying. At all management levels both diagnostic and interactive modes of control were observed. In several cases diagnostic analyses of figures were inducements for exploring and interactive deliberations between the managers who were involved. But other quotes suggest that this was not common practice at all locations. At some locations budget monitoring had mainly a diagnostic mind set. Team managers at these locations stated budget talks took place only after exceeding budget limits.

“We do receive a report every quarter. But only the remarkable and negative results give rise to further questions during staff meetings.”
Chapter 6

A middle manager commented:

“As long as I stay within budget, it has no relevance. The instant I’m in danger of exceeding my budget, I have to explain why.”

Notwithstanding the previous quotes, at some locations there were also clear indications of a more interactive way of using management information. A team manager told how his facility manager frequently asked him about outstanding invoices or other possible anomalies.

“He asks me to explain my plans and actions. I like that. It stimulates me. It keeps me keen.”

During management meetings financial figures prevailed over non-financial figures. Co-occurrence analysis\(^7\) showed that at senior management levels this dominance of financial figures was clearly stronger than at lower management levels. Quotes that referred to non-financial indicators, such as number of medical incidents and client satisfaction, showed a higher co-occurrence with quotes that referred to meetings with team managers than those that referred to meetings of senior management. Due to the fact that MIS had also worksheets for non-financial parameters, employees at BCC realized that non-financial figures on for example quality of health care were considered to be management information as well.

Management information of an external nature as well as prospective information started to appear at the levels of board of directors and managing directors. But these types of information were still new and sparing. Particularly with regard to prospective information this was felt as a serious shortcoming. A managing director commented:

“Somehow, you must be able to foresee your operational results. In the present situation, it takes me at least three months to correct negative results. That is too long and too risky. I want prospective information which enables me to act in time and to prevent negative results.”

Shortcomings in prospective information were also experienced as problematic and annoying by members of finance and control staff. At the time the interviews took place – January 2013 – some of them were still working on the management report for the period up to and including November 2012. A controller commented:

“Let’s be honest. Directors and managers are occupied right now with what happens in 2013. They are not interested in 2012 anymore. That’s just history. Suppose November shows negative results? How to act on those results? You’re much too late!”

\(^7\) This co-occurrence relates to quotations coded with the codes 413_Connect_Team management, 414_Connect_Team member and 415_Connect_Team on the one hand and 421_Connect_Applic_Financial information and 422_Connect_Applic_Non Financial information on the other hand versus quotations coded with the codes 411_Connect_Senior management and 412_Connect_Middle management on the one hand and 421_Connect_Applic_Financial information and 422_Connect_Applic_Non-financial information on the other.
Remarkable was the almost exclusive co-occurrence of quotes coded as ‘monitoring perceived care’ and those coded as ‘connect team management’. Co-occurrence of quotations coded as ‘monitoring perceived care’ with other management levels was negligible. The ‘monitoring perceived care’ quotations referred almost exclusively to two practices. The first related to the monitoring of the individual care plans of clients and the check whether the actual indication and the corresponding remuneration were still sufficient. To facilitate these practices, an ECD (Electronic Client Dossiers) program was used. At the time the field research took place this ECD was not linked to MIS. The second ‘monitoring received practice’ was closely linked to cost consciousness. By employing for example four nurses with level two training instead of three nurses with level four, a team manager was able to bring into action an extra employee without exceeding the budget. Of course the average quality offered by the first group of nurses was less than that of the second group. Team managers therefore had to balance between quality of care on the one hand and less expensive but extra employees on the other. At the time the field research took place, there were no criterions drafted to check this balancing act of team managers.

Even more remarkable was the high co-occurrence on the level of team management of quotes coded as respectively ‘employee empowerment’, ‘decentralization’ and ‘accountability’. Although the delegation of MACS-related responsibilities to team management level had just started and was still limited, eleven out of thirteen team managers, who were interviewed, were clearly ambitious to take up these new challenges. At the time the interviews took place it was hard to determine whether interviewees were able to assess the consequences of this ambition or whether this was mere wishful thinking.

With the growing emphasis on MACS information, a new position was bestowed on the so-called experts on these systems as well, meaning the controllers of finance and control staff. Remarkable were the many compliments made by particularly managing directors and middle managers with regard to the support they received from controllers. At the moment this field research took place, contacts between controllers and team managers were almost nil. On several occasions managing directors and middle managers were puzzled by MACS figures. Help of controllers was experienced as indispensable. Judging the many compliments, one could speak of a revaluation of the position of controllers. On the other hand trust in MIS itself was still limited. And although the many compliments were flattering, several controllers realized that organizational circumstances as well as their own competences fell short to really fill in the role of business controller. Four controllers stated independently from each other that they were too occupied with aggregating and explaining figures. And as a consequence the analysing part of these figures was lacking.

### 6.3.5. Mobilization

By now the point of no return has passed. MACS practices have become taken-for-granted and their representing spokesmen are accepted as such. In fact, the black box is closed. In this translation process MACS reinforce the commitment of other actants. This way, networks are stabilized and enactments of MACS get institutionalized.
Hierarchically speaking MACS had penetrated until and including the level of middle management and was leaking out slowly to the level of team management at the time this case study took place. This trend of vertical extension of MACS, ultimately aimed at comprising all management levels, was considered to be irreversible. Although the condition of MIS evoked a lot of criticism, all interviewees construed this criticism as a call for further improvements of MIS. Nevertheless, MIS was far from institutionalized yet.

An exception the ECD program at BCC. This program was beyond any discussion. It was used to register individual care plans of clients and to monitor the delivered care per individual client. These data enabled first responsible nurses to check whether the actual indication and corresponding remuneration was still sufficient. If not, they were able to apply for a higher indication and remuneration in time. One managing director appropriately remarked that it was unfortunate that a link between the ECD program and MIS was still missing. Such a link would make it possible to dynamically calculate the permitted costs on personnel in relation to fluctuating number and weight of ZZP’s. As mentioned earlier, at the time this research took place such a tool was still desperately missing at BCC.

Also more or less institutionalized were the monthly reports from finance and control staff with figures on care production, capacity utilization degree, personnel expenses, number of full time equivalents deployed, expenses on food and materials and percentages of sick leaves. These reports facilitated the meetings of managing directors and middle managers. A managing director explained:

“Every month we receive this report which I share with my managers asking them to analyse and explain the figures they are responsible for. For example, the report of last Friday signalled a big increase in full time equivalents at location A [Anonymous]. My manager care at this location will read this and will find it self-evident that he has to explain this increase in our next meeting.”

This type of deliberations was customary between senior and middle management levels and was introduced by middle managers at team management levels as well.

A dominant parameter in many meetings was the percentage of sick leaves. In this respect BCC scored alarmingly above the average in his sector. All managers involved realized the importance of this indicator. One team manager, who was interviewed in December, commented:

“All year I managed to stay within budget. But this month two of my team members reported ill for a number of weeks and my scores tumbled into the red. I find this very discouraging. The whole year I kept a close watch on my budget and right at the end it gets screwed up by something I can’t control.”

Besides sick leave percentages other non-financial performance indicators, such as CQ-index and number of medical incidents, were taken-for-granted as well. Co-occurrence analyses showed these indicators were well known and discussed by team managers. If necessary, proposals for improvement were defined in the so-called annual plans of teams.
6.4. Reflections on translation of MACS at BCC

The first association that was shown in this case study research was the strong co-occurrence between quotes coded as ‘perceived environmental uncertainty’ and those indicating that MACS was expected to enact solutions to deal with this increase in uncertainty. This relation particularly existed on the senior management level and was of a more slumbering nature at team management level. To meet the expectations with regard to MACS, there were numerous indications of both horizontal and vertical extension of MACS enactments. At all management levels accounting inscriptions became alive and active, both enabling and restricting actions.

The horizontal extension mainly took place at the level of senior management. They were presented with long term forecasts and scenarios with regard to the consequences of the extramuralization of clients with a low indication for care and the corresponding real estate risks. Besides these objectifications of MACS, several quotes of managing directors pointed out that the tone of their meetings with the board of directors became more business-like, that particularly financial figures played a more important role and that they were expected to render account in a more profound way. These developments revealed the performative impact of MACS as centres of calculation, putting numbers to work, tracking processes and increasing transparency.

The vertical extension of MACS application was in line with the widely supported opinion that custom-made care was not possible without a decentralized, flexible and empowered management, nearby the client. In this rearrangement and decentralization of organizational activities, MACS was considered to be an important enabler. Empowered by MIS (the name for MACS at BCC), so was the opinion, team management of BCC would be able to configure its new role by responding effectively and in a customized way to the differentiated wishes of emancipated clients without exceeding budgets.

However, team managers were only limitedly acquainted with MIS. In fact the penetration of MACS at this management level had just started and differed per location. Experiences of uncertainty were still manifest and were prompted by two causes. Firstly, most managers had non-financial backgrounds. So far their experiences with budgets were limited and the figures that were presented to them raised many questions. The second source of uncertainty was caused by MIS itself. The user-unfriendly lay out and the doubts with regard to accuracy and timeliness of MIS data provoked a lot of criticism. At the same time this criticism was more than once used as an excuse for not being in control in case of disappointing results. Obviously, at the time the field research took place, the evolvement of connections and relations between team management and MACS at BCC had a long way to go yet.

Due to their limited financial experience, many managers did not know what to expect from MIS at BCC or MACS in general. As a consequence finance and control staff was in the lead with regard to the development of the content of MIS. The side effect of this position was that MIS was seen as a tool of finance and control staff. Most managers did not realize that they had a responsibility with regard to MIS data as well. For example, in spite of well-known...
expressions like ‘garbage in, garbage out’, several managers did not link their careless coding of invoices to inaccuracies in MIS.

The enactments of MACS, at BCC referred to as MIS, aroused different perceptions of different groups of employees. Like a boundary object, as described in section 4.3.3, MACS were expected to adapt to the specific needs of specific segments of employees within the same care organization. And at the same time, MACS ought to stay robust enough to unambiguously manage and control the entire organization. As a boundary object MACS at BCC was distinctive enough to preserve a recognizable identity to the various segments of employees. Nevertheless the MACS perceptions of these different groups of employees were diverse. In fact, based on the case research four segments of employees could be distinguished, each translating MACS in its own way.

\(\text{:\textsuperscript{5}}\) MACS according to finance and control staff

First there was the segment of employees of finance and control. They had a predominantly technical perception of MACS, stressing the importance of the reliability and the accuracy of the information. To them accounting inscriptions represented facts that were beyond discussion. In the eyes of finance and control staff the ideal picture of MACS was that of a durable calculative surveillance tool which made actions, processes and results visible, transparent and comparable, revealing the true state of affairs within every part of the organization, prompting and directing activities of all related actants.

In line with their conviction, shortcomings of MIS were a thorn in the flesh of the finance and control staff. The acknowledgement of these shortcomings prompted these controllers to two reactions. Firstly, they pointed out that MIS, although in operation, was still under construction. They referred to the progress that was made during the last two years, alluding to a similar improvement in the near future as well, resulting in the connectedness of all managerial echelons to a well-functioning MACS conform the description as mentioned in the previous paragraph. Their second reaction was one of mild reproach towards managers at BCC, casting doubt on the investments in time and effort made by managers to get acquainted with MIS. They explained with slight resentment that several managers asked questions just for convenience’s sake because the answers to these questions were easily retraceable in MIS. In general, all controllers realized that their colleagues at BCC had problems to give meaning to the MIS data due to their lack of financial background. But this observation gave rise to understanding as well as alienation. Was it really that difficult to connect to MIS or were there other hidden agendas and interests which impeded the objectification and connectedness of MIS?

At the same time most controllers realized they fell short to fill in the role of business controller. Partly this was due to deficiencies of MIS. For example, MIS still lacked an efficient report generator. Consequently controllers spend a considerable amount of time generating reports, being left with little time for other important tasks such as analysing data. But on the other hand there were only a few managers who missed these analyses. In other words, only a few managers asked questions that impelled controllers to mobilize their analysing competencies. This experience strengthened controllers in their missionary and supply driven
approach of MACS info, convinced as these controllers were that many managers did not realize what they missed, let alone what they needed.

\textbf{MACS according to senior management}

The second segment of employees consisted of senior management, which comprised the board of directors and managing directors. Their dominant interest was not the content of the financial reports but the possible effects of these figures. Several senior managers admitted they were scarcely capable of comprehending new MACS artefacts such as long term forecasts. Nevertheless they experienced and recognized the importance of the growing amount of MACS enactments and the inescapable effects these artefacts produced. All managing directors realized MACS were more steering than one might have expected at first glance. For example, confronted with the stance of the CFO that real estate management had to be centralized and managed at concern level in order to handle all risks involved, several managing directors suspected the CFO of misusing the underlying figures to restrict their authority as managing directors. On the other hand, managing directors realized the potential of sitting behind the steering wheel themselves. They realized how powerful MACS-related arguments were with regard to the legitimation of managerial actions. In their view, MACS were powerful tools to control the locations and to supervise their middle managers and team managers. In short, these managing directors experienced and recognized the possibilities of MACS as centres of calculation and discretion.

\textbf{MACS according to middle management}

The third segment of employees was the group of middle managers. Most middle managers at BCC were acquainted with MIS. During the last two years they participated more and more in meetings with agendas which contained financial items. Somehow they were ‘stuck in the middle’. On the one side they got used to be held accountable by their managing directors and on the other hand they had difficulty to do the same towards their team managers. Several middle managers explained that their main effort was aimed at balancing budgets on location level by compensating deficits of one team budget with surpluses of another team. Although several middle managers tried hard to explain to their team managers how to balance their budgets, all middle managers shared the experience that the delegation of budget responsibilities to team managers encountered great difficulties. According to these middle managers these difficulties were due to the lack of financial knowledge of team managers and the deficiencies in MIS rather than unwillingness of team managers. With regard to the deficiencies in MIS, middle managers were convinced that a delegation of authority without proper MIS facilities was doomed to fail. In their view, proper accounting inscriptions were conditional enablers of a rearrangement of organizational activities. But this was not the only reason why middle managers were reluctant with regard to the vertical enactment of MACS and related decentralization of tasks and responsibilities. More than other management echelons, middle managers feared they would get the worst of the inevitable reallocation of authorizations once MACS would fulfil all its attributed benefits.
Chapter 6

\textit{MACS according to team management}

The fourth and last segment comprised team managers. At the time this case study took place they were far from skilled in working with MIS. So far they were busy to make sure the capacity utilization degree was 100% and that all indications for care were up to date. To comply to those two tasks, team managers could circumnavigate MIS quite easily. This avoidance was not possible with regard to the personnel budget. The budget responsibility for the deployed number of full time equivalents was fairly new and caused a lot of incertitude amongst team managers, infused by the awareness of most team managers that their financial and arithmetical knowledge was limited. Moreover, particularly sick leave percentages and corresponding budget consequences appeared difficult to control. At the time the field research at BCC took place, MIS figures provoked rather alienating feelings and ditto reactions among team managers, impeding them to get related to MIS.

Several team managers indicated that they had an aversion of ‘being in the red’. They were well aware of the judging and sanctioning power of accounting inscriptions. At the time the field research took place team managers had no access in MIS to the results of colleague managers. But they realized very well that their superiors were able to compare all results of all departments.

Remarkable was the high co-occurrence of quotes coded as ‘employee empowerment’, ‘decentralization’ and ‘accountability’ at the level of team management. This combination was in line with a widely held opinion\textsuperscript{8} with regard to the intrinsic or autonomous motivation of healthcare professionals: provide them with simple financial information, which is easy to understand, and they are able to operate more autonomously and accountably. According to this opinion, MACS would enable these managers to take on new managerial roles. However at the time the field research at BCC took place, practical footmarks of this opinion among the team managers of BCC were barely available. Many team managers were (still) inclined to place care and finance in two separate worlds.

\textsuperscript{8}At the time the field research took place, this opinion was widely shared by participants and attendees of conferences on management themes in health care. The series of conferences, titled ‘Self-steering in health care’, attracted many health care professionals. Besides, a popular consultancy platform, called ‘In Voor Zorg’, proclaimed a same point of view.
Chapter 7

Case study:
The Relief Group
7.1. Introduction

Three case studies are presented in succession in chapters six, seven and eight. In this chapter the second case study is elaborated in accordance with the research methodology and methods as explained in the chapters 4 and 5. Subject of investigation is The Relief Group, a healthcare organization which comprises 12 nursing homes and homes for the elderly and a home care division. In this chapter the results and analyses are presented in line with the framework of translation, as presented in section 4.5. In the final section of this chapter, describes a first reflection on the findings of this case study.

Figure 7.1: Overview of the structure of this study

7.2. Introduction The Relief Group

The Relief Group (TRG) is a healthcare organization which comprises a total of 12 nursing homes and homes for elderly. From each location home care teams operate in the surrounding region. TRG is the result of several merges over a period of approximately ten years. Its mission statement says ‘Care with attention, as at home as possible’. In the annual report 2013, TRG accounts for a capacity of 1,153 intramural places and 2,272 extramural clients. At the end of 2013 TRG enlisted 2,712 employees (1,488 full time equivalents). According to the P&L statement 2013, total revenues were € 94,600,745 and the year was closed with a profit of € 717,078. Budget- and solvency ratio were respectively 31.6 % and 54.1% and the net cash flow was € 2,435,709 positive.

During the period August 2013 – May 2014 a total of 21 employees, ranking from board of directors to team managers, were interviewed. Besides these interviews, 26 documents were consulted and analysed to verify and complement statements which were made during the
Case study: The Relief Group

interviews. Furthermore several meetings were attended to observe discussions and considerations with regard to MACS practices. A list of all interviews, specified by position, date and length of time, as well as a record of the consulted documents are attached as appendix 5.1.

TRG is the result of a gradual process of co-operation and mergers from 2000 until 2008. The last merger was formalized on the first of January 2008 and the new family name 'The Relief Group' was introduced. To characterize this merger, it is meaningful to notice how this new name was visualized. Besides the name of the location in bold big letters, the name 'The Relief Group' was added in a smaller and less dominant letter type. Although operating under the same family name, several locations cherished their singularity, according to the so-called 'couleur locale' concept. One managing director stated:

“A location as this one has to stay budgetary neutral. As long as the expenditures do not exceed the revenues, the board should not bother us with all kind of policy suggestions.”

During the course of this case study, the organization chart of TRG showed a senior management which comprised a two-headed board of directors and seven managing directors in command over 12 intramural locations. They were assisted by several heads of staff, including the medical staff, the staff human resources and the staff finance and control. Per location the organization charts were different. Some locations had middle managers who reported to the managing director of the location and were responsible for their own group of team managers. Other locations had no middle management. In these locations managing director and team management were direct interlocutors.

In 2013 things changed. At the time the interviews took place a major reorganization was going on. Space to propagate the so-called 'couleur locale' was restricted in favour of unified and transparent processes. This reorganization, titled 'TRG on course', had both a centralizing and a decentralizing purpose. In the back office, activities were clustered in shared service centres following the motto of cashing in on economies of scale, leaving no room for 'couleur locale'. On the other hand, the management structure was flattened by eliminating management levels, aiming for a reduction in personnel costs on the one hand and more flexible client oriented care on the other. Care teams were supposed to become self-organizing and autonomous. At the time the interviewing took place, five so-called front-runner teams were formed. These teams had to take the lead in developing a TRG model of self-organizing teams. One member of the board sketched the ideal result of the ongoing reorganization:

“We want to group our employees in self organizing teams of approximately 12 employees. A team is allocated to a specific zip code area. Each team makes its own schedules, plans its own routes [...] and takes full responsibility for care services in that specific area. These services can vary from simple to highly complex. And that is why a certain mix of competencies per team is necessary. Per area, each team coordinates the different processes and maintains relations with other healthcare professionals, like general practitioners. Relations should also be established and maintained with the local authorities, who play a fairly new but important role in the allocation of financial resources"
as part of the new legislation called WMO (Wet Maatschappelijke Ondersteuning). And for matters such as HRM, IT and financial reporting, these teams can rely on the central back office of TRG.”

As the financial figures in the first paragraph of this introduction showed, TRG had a strong financial position. Nevertheless, dark clouds were gathering. In his prognoses, the head of finance and control staff announced that results would deteriorate in a fast pace in the years 2014 and beyond. Alarming was the fact that in the five years until 2014, TRG was losing money on care services. This loss was more than compensated by profits on housing of clients. But new regulations effected in particular the remunerations on housing and as a consequence the core of the healthy financial results of TRG. This made the reorganization urgent. One controller stated:

“Care organizations are becoming regular companies. We have to justify the spending of taxpayers’ money. So efficiency, making optimum use of budgets and corresponding application of MACS have to become common practice.”

Not surprisingly, the questions why and how to apply MACS was intermingled with questions and uncertainties concerning the reorganization. All interviewees acknowledged that ‘TRG on course’ was an answer to the fast changing sector environment. New regulations, such as the extramuralization of clients with a low indication for care, had far reaching consequences which could not stay unanswered. At several places real estate (re)development projects were executed, making the urge to change tangible. And a substantial number of the interviewees, although for different reasons, agreed with the conclusion that MACS were essential to cope with the new challenges which TRG was facing.

7.3. Translation of MACS at TRG

The case description continues in accordance with the five processes of translation, as depicted in section 4.5. As stated earlier, these processes did not resemble in any way classical sequential executions. On the contrary, the phases in the translation processes intermingled and overlapped. In these processes different aspects of MACS were highlighted by different groups of participants.

7.3.1. Problematization

In this translation process problems are identified and discussed. Actants take the role of initiator by informing other actants – who may become allies - how MACS can enact solutions to these problems.

In general, employees of TRG realized that external pressures and developments had far reaching consequences for their organization. Governmental measures to contain the national healthcare budget and new regulations concerning the remuneration of care services gave
rise to many uncertainties. In particular new regulations with regard to the extramuralization of clients with a low indication for care posed serious risks of real estate becoming vacant. According to a finance and control staff member:

“There are much more complicated now. The need for figures is more urgent. Compared to some years ago, one has to monitor costs and other developments more carefully. [...] If beds or rooms stay vacant now, it will cost TRG money. Things have really changed, they have become more ruthless.”

Current care services were under discussion whether they were flexible enough to satisfy the needs and preferences of a new generation of elderly and their relatives. According to these statements, ongoing reforms were not restricted to just budget constraints and readjustment of existing care services. One managing director commented:

“It is not just a question of how to economize spending. These kinds of questions presume that the context stays the same. But this time the context is changing as well.”

Real institutional changes were needed to service the care customer in the nearby future. Throughout the organization, the awareness that a new and different type of client was knocking on the door was present. In the words of a managing director:

“The so-called thankful generation fades out and a new assertive and demanding type of client enters.”

Some interviewees linked this client emancipation with the need for more (advanced) MACS. But overall, this new type of client faded into the background when interviewees explained why they presented themselves as proponents of MACS as the solutions providing actants with regard to the challenges TRG was facing. These proponents and their reasons to plead for MACS could be divided in three categories.

First, senior management asked for more MACS in order to make strategic choices to cope with the increase in perceived environmental uncertainty. The continuous change in financial regulations, the dominant position of health insurance companies and the emancipation of clients, created a slippery playing-field. In the perception of senior management, MACS would offer the information and the tools to properly manage these new risks. To substantiate this association, analyses of interviews show a strong co-occurrence of quotes coded with ‘perceived environmental uncertainty’ and quotes coded with ‘MACS as potential solution’.

The second group of interviewees, who advocated MACS, consisted of managers of lower echelons. These managers, mostly team managers, were in need of MACS information which corresponded with the decentralization of tasks and budgetary responsibilities. The consequences of exceeding budgets became more serious. And at the same time, budgets were so tight that strict monitoring of performances became necessary. This group of managers classified the support of MACS as ‘indispensable’ and ‘essential’ in order to intervene in time to prevent exceeding the budget and stay in control.
"If you are held accountable for a department, you must gain an insight into the state of affairs and potential problems. Seen this way, something like a management dashboard is absolutely necessary."

Not only team managers saw MACS as a facilitating precondition to the decentralization. Senior management shared this opinion. They saw MACS as the facilitator of the delegation of tasks and responsibilities without losing control. A managing director explained:

"We want to delegate responsibilities as much as possible but at the same time it is necessary that we have a reliable picture of how things go. For this you need unambiguous systems."

Both senior management and lower management echelons were promptly served by the third group of proponents of MACS: the finance and control staff. They used the opportunity to herald MACS – the preeminent exponent of their field of study – as the answer providing solution.

7.3.2. Interessement

In this translation process the proponents of MACS try to convince other actants that they will somehow benefit from MACS. To legitimize MACS, the proponents use arguments and stories. Nevertheless, the proponents have to bear in mind that they will encounter actants who are not convinced of the benefits of MACS. They cast doubt on the supposed blessings of MACS.

A first noteworthy facet in this process of interessement was the position of finance and control staff. These employees were very explicit in their favour of the reorganization and the role MACS had to fulfil in the new setting. Without exception, they criticized the inefficiencies in current practices. Strictly speaking, finance and control staff had little or no sympathy for the arguments of location managers who clung to the ‘colour locale’ principle. Their picture of the future contained a companywide central, uniform, streamlined and transparent back office on the one hand and flexible care services on the other. To stay in control, these care services should be connected with and controlled by the central office thanks to MACS. In general these employees had a diagnostic and mechanistic view of the effects that MACS would bring about:

"TRG needs integrated and advanced MACS which will provide the board of directors with the proper tools to verify whether budget responsibilities are really taken and to make sure they do not have to rely on random circumstances and competencies."

In the process of interessement a second aspect attracted attention. All interviewees made extensive use of legitimizing stories. These stories related to events and situations both inside and outside the organization. They seldom had MACS as exclusive topic of conversation. In
most cases these stories referred to preferable situations in which MACS played a conditional role. Most outside stories were told by senior management. They referred to successes of colleague organizations which were considered to be the best practices in their sector. These managers were also able to substantiate their points of view with research reports from sector organizations and consultancy firms.

Most stories of lower management and finance and control staff referred to internal situations which could be improved by the ongoing reorganisation and the corresponding application of MACS. To underline their arguments three controllers told stories of how team managers and their teams became interested in figures on performances. In most cases, so the stories went, these involvements started after experiencing some kind of budget problem. In the quest of these team managers to find solutions, controllers saw an opportunity to assist and were able to explain how to use the monthly figures on productivity and staffing costs. One controller told:

“After explaining the figures, this team became very curious. Nowadays the team manager mails me when the financial reporting meets some delay. They are eager to find out what the results are and whether their actions are reflected in these numbers.”

In these legitimizing stories, the plea for a bottom-up arrangement of operational processes was a trending topic. But the direction of these stories was without any doubt top down. This was the third remarkable aspect of this process of interessement. Upper management had to convince employees of lower echelons that the organization in general and lower echelons in particular would benefit from decentralization and corresponding opportunities. In fact, a stepped movement was observable: senior management tried to convince middle management, middle management addressed team management and the latter put the message forward to the teams they managed.

At the time the interviews took place, senior and middle managers were convinced of the reorganization and the indispensable role of MACS. At the level of team management unanimity made place for a mixed representation of opinions. Managers, who worked in homes for the elderly and home care, were predominantly in favour of the chosen direction of decentralization. On the other hand, team managers in nursing homes were reluctant. This difference can be explained by the fact that the major part of new regulations and corresponding perceived uncertainty, as pictured in the previous section, related to homes for the elderly and home care and not to nursing homes.

In contrast to their colleagues in the homes for the elderly and home care, team manager in the nursing homes were barely acquainted with MACS. They recognized the swelling of MACS but at the same time these team managers tended to see MACS as for control purposes only or questioned the accuracy of the figures. When they were asked more detailed questions about MACS information, they were frequently unable to give an answer. More than once they withdrew to their familiar field of healthcare, emphasizing that these accounting figures were not really relevant to their core activities.

With regard to the teams they managed, all team managers, both working in the homes for the elderly and in the nursing homes, told stories of how difficult it was to raise interest for
MACS information among team employees. Explanations of how the system of remuneration worked and how to apply these rules in a more cost efficient way had to be repeated over and over. According to these stories, team members lacked the knowledge and competences to fully comprehend these regulations. Or as a team manager explained:

“Systems like MACS are not seen as a challenge but as a nightmare in which everything depends on whether you are able to prevent red dash board lights. MACS are well suited for senior management to manage and control the organization. The presumption that these MACS are also suitable for lower levels in the organization is a misconception.”

7.3.3. MACS objectification

This translation process shows how MACS concepts and MACS information become tangible in the shape of MACS inscriptions such as budgets, income statements, forecasts, dash boards, management reports, etc. Tangible MACS concepts and ditto information translate both in horizontal and vertical direction within the organization. The horizontal direction relates to an extension of MACS at a particular management level. The vertical direction refers to an extension of MACS to lower management levels.

Many quotes of interviewees indicated that involvement with MACS increased, both with regard to the intensity and the number of employees. With regard to the horizontal extension, senior management described a vast growing output of management accounting figures during the last two years. Figures on productivity, revenues and costs became more detailed. New were the financial forecasts for five year’s periods and the scenario analyses. In particular financial data on housing and real estate expanded. Obviously the latter development was due to the new regulations on the remuneration of the housing of clients. Several plans and projects signalled this trend of expanding MACS was not matured yet. For example, senior management agreed on a project to deploy a strategic planning tool. This tool was supposed to provide an integrated and flexible picture of future scenarios. According to a member on the board of directors, this new information enabled a necessary improvement in decision making.

“Thanks to scenarios, business cases and long term forecasts, we are able to analyse the effects of various plans. Some years ago, this was unknown to us.”

At the time the interviews took place, a list of 60 different projects circulated. This list contained projects concerning finance and control, human resources management, automation, sales and marketing and real estate management. Not only did this list illustrate the size of the reorganization at TRG, it also highlighted the range of developments of new management information.

There were many statements indicating that MACS penetrated the organization in a vertical way also. During the last two years team managers got acquainted with the so-called
‘integrated survey’. During the interviews, nearly all team managers were able to select the relevant information to evaluate the performances of their teams. In particular the so-called gross margin was mentioned a lot. This percentage represented the difference between production revenues, allocated on basis of ZZP’s, minus direct salaries, divided by production revenues. This indication of productivity was widely used as performance indicator and proved to be the dominant and directional figure in the evaluation meetings of managers. Several quotes of team managers suggested that this percentage not only stipulated the outcome of evaluations but also the state of mind of these managers. Several team managers admitted that this percentage was more or less related to the quality of their night’s rest.

With regard to the extension of MACS in a vertical direction, the most remarkable example during the interviewing period was the introduction of a digital dash board at team management level. They were introduced to substitute the voluminous integrated surveys. Layout and content of these dash boards were defined by the information manager in consultation with a group of team managers and several controllers. These dash boards more or less contained the same information as the integrated surveys. The added value these dash boards aimed for was the more user-friendly display of MACS information. This display consisted of four sheets, containing drill-down information on productivity, personnel, clients and quality.

During the period the interviewing took place, aforementioned dash boards were just introduced. A lot of team managers still had to get used to this novelty, which evoked a lot of discussion. One team manager explained that the new dash boards did not offer much extra useful information compared to the so-called integrated surveys she was used to work with. Another team manager explained how she used these dash boards to quickly verify her impressions based on daily practices.

“Usually I have a good impression whether things in my department go well or not. The added value of this dash board is that this tool enables you to see why.”

One manager uttered some frustration: after improving the sick leave ratio from 8% to 6%, the dash board still signalled red colours because the norm was 5%. And another team manager had difficultly to see at first glance to which period certain figures related.

Remarkable was the fact that the so-called front-runner teams had planned to develop a dash board of their own, by that questioning the validity of the dash boards which were just introduced. These front-runner teams were entrusted to experiment and develop an autonomous or self-organizing way of providing care services, apposite to the reorganisation of TRG. The consultant, who coached these front-runner teams, stated alternative dash boards were needed because aforementioned dash boards, developed by information manager and finance and control staff, indicated what he called “a top-down way of reasoning”. Instead, the type of information in these dash boards should be defined bottom-up by giving room to the team members to decide on the information and layout of the dash boards.

Asked how to interpret aforementioned and apparently conflicting developments, both members on the board of directors more less stayed on the side-lines by explaining:
“Leading question is: what do teams really need to operate autonomously? It is important to provide them with this information in the most simple and self-evident way. And doing so, we must avoid the pitfall of providing too much information.”

7.3.4. Connectedness

In this translation process MACS is connected to other actants. They take an active role in the use of MACS to shape the relations with other actants. In doing so, these actants try to draw other actants into a scheme of enactments of MACS. But success is not guaranteed. There is always the possibility that actants become disconnected again or do not connect to MACS in the first place.

Hierarchically speaking, MACS had penetrated until and including the level of team management. During the past two years, many team managers, in particular those working in the homes for the elderly and home care, had learned how to control the gross margin, the main performance indicator per department, by synchronizing ZZP production and staffing, including necessary schooling, holidays and sick leave. Team managers knew the specific gross margin targets their teams had to meet:

“I know I have to score 60% and I know which questions to ask when my performance is below this percentage. I know which tools to use and I know how to check whether I have enough space left.”

Besides this gross margin and its determining variables, team managers hardly bore witness of further financial understanding. As already described, this financial understanding was even more limited amongst team managers in the nursing homes.

Enactments of MACS at team level were scarce. Several team managers narrated how difficult it was to explain financial matters to their team employees. Some team managers told how they struggled to introduce MACS-related information during team meetings to create some kind of result awareness and corresponding behaviour. According to these experiences, the connection of MACS and team employees was doomed to fail. Referring to a team manager in a nursing home and his team, a controller commented:

“These people do not make a connection between their vocation to provide care on the one hand and the intention to spend Euros more efficiently in order to be able to provide more care on the other. These people are completely occupied with providing care and they are really not interested whether these care services are budgeted for or not.”

On the other hand, some team managers drew a more moderate picture. Several quotes suggested that the so-called first responsible nurses were the first employees at team level who started to use MACS information. According to a team manager:
“During the last two years, I see a slow but steady development of first responsible nurses taking the lead more often. They begin to realize that they have a managing role within the teams. Hopefully, this development will accelerate a little in the next two years.”

Although they admitted that in general financial competences of team employees were limited, some team managers still saw possibilities. They argued that team employees were supposed to do their own housekeeping. If the enactment of MACS at team level connected to the logic of these housekeeping competences, these team managers considered empowering MACS application at team level attainable. To quote a team manager:

“At home my team members are able to book journeys, take out insurances, buy and use smart phones, keep their own accounts. And here we have a kind of bookkeeping as well.”

Besides the financial data, there was a substantial use of non-financial data. Issues like quality of real estate and (long term) human resources mix figured prominently on the agendas of senior management. Team managers on their turn were predominantly occupied with the amount of flexible labour contracts and the check whether personal care plans of clients were up-to-date. Non-financial figures that gathered attention at all management levels were the percentages of sick leaves and the ratios expressing client satisfaction and employee satisfaction.

Both interviews and corresponding co-occurrence analyses provided indications that at team management level non-financial MACS information was used more often compared to senior management level\(^9\). A likely explanation was the fact that non-financial figures such as client-satisfaction or number of medical incidents were more close to the professional perception of team managers than for example productivity figures.

MACS data of an external nature, like demographical trends and developments in purchasing power, were novelties which were exclusively drafted for senior management. The same applied to MACS data of a prospective nature, like long term forecasts. Although not always available, the only prospective information at team management level was the years end forecast. In all cases, the availability of this information was quite new – in many cases less than one year.

At senior management level, the use of financial and non-financial data for the purpose of benchmarking was well known. TRG participated in the ActiZ benchmark, the leading benchmark in this sector. In line with this external benchmark, the board of directors and location managers used data of specific locations for internal benchmarking. This practice was

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\(^9\) This co-occurrence relates to quotations coded with the codes 413_Connect_Team management, 414_Connect_Team member and 415_Connect_Team on the one hand and 421_Connect_Applic_Financial information and 422_Connect_Applic_Non Financial information on the other hand versus quotations coded with the codes 411_Connect_Senior management and 412_Connect_Middle management on the one hand and 421_Connect_Applic_Financial information and 422_Connect_Applic_Non-financial information on the other.
Chapter 7

not without discussion. As a result of the presentation of these benchmark figures, in combination with the forecast for 2014 during a meeting of managing directors, almost all location managers questioned the validity of this internal benchmark. Most heard comment was that comparison of these figures was not useful due to the big differences between the locations. Most team managers were also familiar with the phenomenon of benchmarking. Based on the data, as presented in the integrated survey, they were able to compare the performances of their teams with those of colleagues. Nevertheless, agendas and reports of team meetings did not record any signs of the use of benchmark information. When asked, team managers stated that they used this information only in the deliberations with their superiors.

Depending on the level of management, not only the type of MACS information varied, also the way this information was used differed. At senior management levels a mix of diagnostic and interactive control was observable. If we quantify all quotes coded with either diagnostic or interactive control, the first mentioned code was more numerous. Remarkable was the finding that interactive control particularly took place in the meetings of senior and middle management with team management. At the level of team management, the practice of interactive control prevailed. To depict the meetings with their superiors, team managers used qualifications that indicated both rendering accountability and experiencing collegiality.

“Of course I have to answer for my figures and performances. But that is not the way we cooperate in this organization. Of course I explain to my superior what I have done and also why. And then we consider together what went well and what went wrong and why and how to perform better in the future.”

Remarkable was the high co-occurrences of quotes coded with ‘decentralization responsibilities’, ‘employee empowerment’, ‘accountability’ and ‘connect team management’

10 In particular team managers working in homes for the elderly and home care showed interest and willingness to link to MACS. Main obstacles in this aspiration were not the well-intended ambitions of these managers but the lack of financial knowledge and the in their eyes sometimes alienating layouts of MACS artefacts. Nevertheless, critical remarks by finance and control staff and middle managers with regard to the accountability of some team managers, in particular those working in nursing homes, were still worrying:

“Now and then I provide a team manager with a report full of dreadful negative financial results. And nothing happens. No questions are asked, no evident actions taken. How can that be?”

In spite of the aforementioned quote, the overall picture showed a change towards more autonomous and accountable awareness and behaviour of team managers. To manage and ease their span of control, several team managers explained how they used MACS information as legitimizing arguments in team meetings and individual counselling. In their experience MACS data were powerful arguments. According to a team manager:

10 This co-occurrence relates to quotations coded with the codes 433_Connect_Practice_Decentralization responsibility, 437_Connect_Practice_Employee empowerment, 438_Connect_Practice_Accountability and 413_Connect_Team management.
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“Workload is of course a personal and subjective sentiment. I am glad I have objective figures at my disposal to demonstrate whether these feelings are justified or not.”

Although interviewees did mention several ratios and indications to measure and monitor quality of care, particularly team management did not make a connection between these quality figures and MACS information. In their perception MACS information and quality were related but both sources came from different worlds nevertheless. When asked what kind of MACS information they used, interviewees mentioned all kinds of figures except for those related to quality. And when questions were asked about the way perceived care was monitored, interviewees mentioned all kinds of quality indices they apparently did not think of when asked to specify MACS information. This perception did not prevent managers to combine financial performances with quality outcomes. Although her percentages on productivity were excellent, a team manager (working in one of the homes for the elderly) was able to show figures that questioned the quality of the care provided for. In fact she translated her anxiety to a plea for MACS information with a broad scope.

7.3.5. Mobilization

By now the point of no return has passed. MACS practices have become taken-for-granted and their representing spokesmen are accepted as such. In fact, the black box is closed. In this translation process MACS reinforce the commitment of other actants. This way, networks are stabilized and enactments of MACS get institutionalized.

Hierarchically speaking, MACS had penetrated until and including the level of team management. Given a number of critical remarks with regard to the way some team managers handled this information, cautiousness was in order. Nevertheless, the trend of MACS as one of the network actants a team manager had to connect to, was irreversible. Whether this trend could be extended to the teams was under discussion. Particularly senior management pointed to best practices elsewhere and concluded that a business model, based on autonomous and self-organizing teams was feasible at TRG as well. Lower management and several controllers were plainly sceptical. They questioned whether the competences of team employees were sufficient. Overall, signs of connectedness of team employees with regard to MACS were limited and often related to first responsible nurses only. And in the team meetings, debated information often was restricted to figures on sick leave and quality of care services. Seen this way connectedness, let alone mobilization, of team employees in relation to MACS was still far away.

Worth mentioning was the role finance and control staff pictured themselves in. Several quotes indicate they felt that their role gained weight. A controller commented:

“First it was head bookkeeping and I was the little assistant. Now it is concern controller and I am one of the controllers.”
This change paralleled the growth of MACS information and corresponding questions from a growing number of managers, who became involved in MACS but lacked a financial background. Several quotes from controllers indicated that they did not just deliver information, they also provided an increasing amount of time on explaining these figures.

The already mentioned integrated survey could be considered as an institutionalized tool. It was widely accepted. Except for the voluminous layout, no critical remarks were registered. The main indicator of this survey, the gross margin, was widely mentioned and used as argument and explanation. Quotes like “my department has to score at least this percentage” were numerous. Figures that did not relate to this gross margin were neglected by team managers.

The annual budget cycle was also an accepted process. The rules and consultation procedures were clear. Although some employees questioned the time consuming aspect of these processes, all agreed that their involvement was key. During the budget preparation, the HHM model played an important role. This calculation model was developed by research and consultancy firm HHM. Based on the input of the number and the weight of ZZP’s, this model calculated the permitted direct costs of personnel in full time equivalents. Although all managers saw this model as a black box, the outcomes were not discussed. Everybody involved accepted the HHM outcomes as a legitimate reproduction of the workload and starting point for the budget process.

Another software system with a taken-for-granted status was the ECD (Electronic Client Dossiers) program. Within the teams, first responsible nurses used ECD to monitor the delivered care services per individual client. This way these nurses could see whether the actual indication and corresponding remuneration was still sufficient. If not, they were able to apply for a higher indication and remuneration in time.

### 7.4. Reflections on translation of MACS at TRG

Co-occurrence analyses of the interview transcriptions displayed a strong association between quotes coded with ‘perceived environmental uncertainty’ and quotes indicating that MACS was expected to enact solutions to deal with this increase in perceived environmental uncertainty. In line with these expectations, there were many indications of both horizontal and vertical extension of the enactment of MACS. In both directions accounting inscriptions became active, propping the ongoing reconstruction towards a decentralized and flexible care organization.

The horizontal extension of MACS, which mainly took place at senior management level, was needed to cope with the new risks senior management was facing. Confronted with more complicated problems, particularly the board of directors was asking for e.g. scenario planning and long term forecasts, finding finance and control staff at his beck and call. A meaningful example of this development was the proposed investment in a strategic planning tool. The vertical extension of MACS corresponded with the policy of decentralization. To provide team managers and their teams with the necessary operational information, an expansion of MACS to this level was considered necessary. A second reason for this vertical penetration of MACS
was the need to stay in control. MACS were supposed to commit these team managers, although operating more autonomously, to report to central management in a reliable and unequivocal format.

At all management levels the body of knowledge of the finance and control staff was leading in decisions on the content and the layout of MACS. However, depending on the management level, the enactment of MACS at TRG produced different effects. At senior management level, MACS were welcomed as solutions providing allies which broadened the scope of senior management in their struggle to handle the new uncertainties TRG was facing. In fact, senior management relied on the finance and control staff to learn the ropes of how to relate their problems and questions to MACS.

At lower managerial levels, MACS provoked, to a greater or lesser degree, confusion and unrest. Questions about which figures in which layout to present to team managers gave rise to many discussions. These questions were prompted by the core opinion of TRG senior management that it was necessary to mould MACS in such a way that it was suitable to overcome the limited financial knowledge of team managers and their teams. At these levels, MACS more than once aroused images that were difficult to integrate with the professional competences of these employees, who were wholeheartedly focused on care.

In fact, asking the many interviewees to draw pictures of how they experienced MACS, diverging emphases were made. As a boundary object MACS at TRG was distinctive enough to preserve a recognizable identity to the various segments of employees. Nevertheless the MACS perceptions of different groups of employees were diverse. In fact, based on the case research four segments of employees could be distinguished, each translating MACS in its own way.

\:* MACS according to finance and control staff

First, there was the segment of employees of the finance and control staff. They had a predominantly technical view of MACS. To them accounting inscriptions represented facts as part of a calculative surveillance tool which made actions and results visible and comparable, revealing the true state of affairs of the organization. Requested to appoint a list of important MACS information items, financial data dominated. In most interviews, non-financial data were only mentioned after follow-up questions. In the co-occurrence analysis, the activities of finance and control staff did hardly show any association with quotes coded as ‘monitoring perceived care’. In the way these staff employees contemplated MACS, only a shadow of the client was present in the background.

In the interviews with finance and control staff two main concerns were mentioned. First, how to guarantee the accuracy and reliability of MACS information and second, how to make sure that this information inclined managers to take the proper actions. Finance and control staff members were anything but at ease with the way particularly team management acted or failed to act upon the several reports they produced. One way of inciting managers to take the proper actions was an attempt of finance and control staff to present MACS outcomes in such a way that it was obvious to the manager which measures to take, leaving no room for alternatives or negation.
Parallel to the growing enactment of MACS at TRG, several quotes, made by finance and control staff members, showed a tendency to revalue their position in the organization in general and their role in the ongoing organization in particular. This new role could be characterized as a mixture of professional assertiveness and sincere anxiety of being indispensable.

\*\*\*MACS according to senior management\*\*\*

The second segment consisted of senior management. These managers consumed the growing amount of figures that finance and control staff was producing. In particular the board of directors experienced these numbers as an essential grip in their attempts to provide answers to the increasingly complex questions they were facing. In their perception, several senior managers associated MACS with entrepreneurship or a ‘business like’ way of operating, still hesitating whether they endorsed this development or not. To be sure to interpret and apply the figures in a correct manner, these managers relied on the explanations and the advices of finance and control staff employees. Senior management tried to detect in these digits substantiations for possible future plans and expectations. Although these managers realized the possible consequences of their decisions, questions concerning the reliability of the figures, upon which these decisions were based, were seldom asked. They trusted their finance and control colleagues to do their work thoroughly and to provide them with accounting inscriptions, such as long term forecasts and portfolio analyses, which enabled them to prepare TRG for future developments. In line with the latter remark, these managers were well aware of the legitimizing and sanctioning qualities of MACS inscriptions, both directed at their fellow manager and employees and towards external stakeholders such as the health care insurance companies and authorities.

\*\*\*MACS according to team management in homes for the elderly and homecare\*\*\*

The third segment was made up of team managers, in particular those working in homes for the elderly and home care. The relation between these managers and MACS almost exclusively consisted of the gross margin between revenues minus direct salaries and the related variables, such as sick leave and schooling, to influence this margin. They took an interest in indicators on quality of care. But in their perception MACS and quality of care were two different things; although related they nevertheless originated from different worlds.

This category of team managers was eager to score the budgeted gross margin. In fact this accounting artefact was dominantly present in the interviews. Without exception this third segment of interviewees knew what percentage they were supposed to realize, what their current score was and whether the current state of affairs, in particular the amount of sick leaves, offered sufficient possibilities to live up to the expectations as reflected in this percentage. In fact this percentage influenced their self-image, effectuating a kind of pride when they succeeded and vice versa. Interviews with this segment of team managers showed a high co-occurrence between quotes coded as ‘decentralization responsibilities’, quotes coded as ‘employee empowerment’ and those coded as ‘accountability’. As already mentioned in section 6.4 this combination aligned with a widely held opinion about the intrinsic or autonomous motivation of healthcare professionals. According to this opinion,
MACS would enable and motivate team managers to take on more autonomous roles (ActiZ, 2013; ActiZ, 2014b). Footprints of this opinion were easily traceable in the interviews as well as in the dealings and doings of the team managers who worked in the homes for the elderly and home care at TRG.

\[\textit{MACS according to team management in nursing homes}\]

The fourth and last segment comprised the group of team managers who worked in the nursing homes. To this segment MACS data equalled information of a managerial kind they tended to mistrust. They felt uncomfortable in relation to MACS or, even more, saw these accounting inscriptions as intimidating. They recognized the growth of MACS but at the same time they wondered whether this development was compatible with their social and ethical perception of care. Needless to say that these managers assumed an ill-disposed attitude towards MACS.
Chapter 8

Case study: South Care
8.1. Introduction

Three case studies are presented in succession in chapters six, seven and eight. In this chapter the third case study is elaborated. Subject of investigation is South Care, a healthcare organization which comprises 31 nursing homes and homes for the elderly and a home care division. In this chapter the results and analyses are presented in line with the framework of translation, as depicted in section 4.5. The final section of this chapter describes a first reflection on the findings of this case study.

![Diagram of the structure of the study]

Figure 8.1: Overview of the structure of this study

8.2. Introduction South Care

South Care (SC) is a healthcare organization which comprises a total of 31 nursing homes and homes for elderly. From each location home care teams operate in the surrounding region. SC is the result of several mergers over a period of approximately fifteen years. Its mission statement says: ‘South Care with attention’. In the annual report 2013, SC accounts for a capacity of 2,452 intramural places and 2,271 extramural clients. At the end of 2013 SC enlisted 5,284 employees (2,723 full time equivalents). According to the P&L statement 2013, total revenues were €210,388,257 and the year was closed with a profit of €6,461,052. The solvency ratio was 14.1% and the cash flow was €11,109,207 negative.

During the period February 2013 – August 2014 a total of 16 employees, ranking from board of directors to team managers, were interviewed. Besides these interviews, several documents were consulted and analysed to verify statements which were made during the interviews. A list of all interviews, specified by position of interviewee, date and length of time as well as a record of the consulted documents are attached as appendix 6.1.
According to the ActiZ benchmark SC had a good track record. Particularly in the category of large organizations – according to the classification by ActiZ – SC was distinguished in a positive way. Remarkable were the flat organizational structure of SC and the delegation of many tasks and corresponding responsibilities to lower managerial echelons. These characteristics were the fruits of a consistent policy, which dated from 2008. In that year the last merger took place and SC in its present form was created. This emphasis on decentralization was displayed in the organization chart of SC. In this chart the client was situated at the top, followed by several health care professionals and organizational units. Right at the bottom of this chart the board of directors was pictured. With regard to this policy, which started in 2008, SC proofed to be a forerunner of the broad trend of delegation in the Dutch sector of nursing homes, homes for the elderly and home care. This trend was described in section 2.4.2.

Aforementioned organization chart signalled also another aspect, namely the central position of the client in the mission statement and corresponding policy of SC. In line with this policy, SC had an informal company culture. A member of the board of directors explained this culture as follows:

“We are informal because the nature of our services is informal. Our services are all about relations with people. That is the heart of our work. We want to build relations with people and assist them in their way of living. And the keyword in this relation is attention. This is the core of our philosophy. All our policies have to concur with this philosophy.”

Clients of SC received care from employees who were organized in teams. Each team was headed by a team manager. A team manager managed several teams and on his turn this manager was part of a location group. A location group encompassed two to four locations, with several teams per location. A location group was headed by a location group manager. Overall there were 12 location group managers who were accountable to a three-headed board of directors. One of the board members had an academic education in accounting and ditto career. During the interviews he was often referred to as the CFO of SC. To support team managers and location group managers, SC had several so-called specialized staff services, for instance a finance and control staff, a human resources staff, an ICT staff and a staff that was specialized in quality of care services. Each staff member was assigned to a group of managers. Or seen the other way round, each manager had at his disposal a specialist on finance and control, a specialist on human resources management, etc.

Just like BCC and TRG, SC had to deal with new government regulations concerning the extramuralization of clients with a low indication for care and the corresponding risk of real estate becoming vacant. To cope with real estate risks SC had chosen a remarkable solution. Co-owner of the real estate of SC was a real estate building cooperation. Both SC and this cooperation had a share of 50% in a joint entity. This way both the costs and the risks of real estate development were split between the two parties. Above all, this cooperation with a real estate specialist meant an increase in the possibilities of SC to develop and maintain real estate that was up to the standards.
In reaction to the aforementioned extramuralization, SC presented the concept of ‘care-living’. In this concept clients rented an apartment in one of the locations of SC and they were free to subscribe to one of the several care arrangements SC offered. Target group were the elderly with a low indication for care who looked for a full-service apartment in combination with nursing aid nearby. The rent had to be paid by the clients themselves and the expenses for care services were largely matched with the usual reimbursement. At the time the field research took place this concept was still new but there were already several indications that this concept was going to work well. Moreover, several colleagues of other care organizations visited SC to learn more about the details of this concept.

SC was not just a state of the art example with regard to ‘care-living’. Managers at both BCC and TRG saw SC as a best practice in their sector. Many interviewees at SC were well aware of this reputation of SC. This attributed to a confident and self-assured attitude of many interviewees who stated to be proud of SC. A location group manager explained:

“I’m convinced of what we do at SC. We are not just employees at SC, we are SC. It is in our genes. We endorse the values we strive for and this generates intrinsic motivation. This enables us to distinguish ourselves and gives a sense of pride.”

Or in the words of a member on the board of directors:

“Things go well at SC. But that is not without reason. If an organization has the courage to firmly hold on to its philosophy, self-assurance and calmness will dominate among its employees. And this is exactly what we have done. This enables us to anticipate to developments in our sector. This makes us flexible.”

In the interviews with SC employees, the question whether the commercialization of health care services was a positive development or not seemed of little relevance. Although all interviewees stated that profit orientation was not a goal that was in line with the philosophy of their organization, they acknowledged without exception that a small profit margin was needed to stay in a healthy financial shape. Financial performance such as a balanced budget and an adequate solvency were seen as necessary preconditions which enabled SC to fulfil its ambitions. According to this opinion SC had to comply with the same rules and mores like any regular company.

8.3. Translation of MACS at SC

The case description continues in accordance with the five processes of translation, as depicted in section 4.5. As explained, these processes of translation do not resemble in any way sequential executions. On the contrary, in the SC case, like in the two other cases, the phases in the translation processes intermingled and overlapped. In these processes different aspects of MACS were highlighted by different groups of participants. And as a consequence other aspects were under-exposed.
8.3.1. Problematization

In this translation process problems are identified and discussed. Actants take the role of initiator by informing other actants – who may become allies - how MACS can enact solutions to these problems.

In general, employees of SC were well aware of the far reaching developments in their sector. Although several interviewees expressed signs of perceived environmental uncertainty (PEU), the overall reaction could be described as calm and self-assured. A location manager even warned ...

“... not to use uncertainty as an excuse. Moreover, most regulations are invented by us and not by the authorities.”

Interviewees were not only acquainted with developments such as the extramuralization and the changes in the system of remunerations, they were also familiar with the policy of SC how to deal with these developments. Most interviewees stated that they were confident that SC would handle these developments well. Or in the words of a team manager:

“If SC cannot handle and survive all these changes, which care organization can?”

One of the pillars of this self-assured attitude was the among interviewees widely shared conviction that the financial state of affairs at SC was safe and sound. This conviction was remarkable due to the fact that solvency and liquidity figures of SC were not better than those of BCC or TRG. On the contrary, in 2014 a Dutch national newspaper listed SC among the ten poorest care organizations of the Netherlands.\footnote{11} Apparently this newspaper had not taken into account the extraordinary arrangement of SC with the real estate building cooperation as mentioned in section 8.2 and its consequence for the assessment of the solvency of SC. Nevertheless this news report seemed to have no effect, convinced as interviewees were of the strength of SC.

But there was no room for a complacent attitude. Management at SC was convinced of the necessity of a more cost conscious policy as a consequence of budget constraints on national level. With the motto “more with less” all managers received the assignment to reduce average costs by 10% in the period up to 2018. Although interviewees stated that this was a difficult target to realize, they reacted understandingly and explained how they had started to investigate possibilities for their departments in close consultation with their team members. This hands-on attitude could at least partially be attributed to the fact that team managers were familiar with the financial figures of their departments. They knew the main items on

\footnote{11} In June 2014 NRC published an article titled “Van tomeloze groei naar verliezen en ontslagen”. In this article SC was listed as one of the ten poorest care organizations in the Netherlands based on solvency calculated as equity divided by total assets.
their income statements as well as the stories behind these figures. In short, they knew how much space they had to manoeuvre.

The roots of aforementioned competence of team managers went back to 2008-2009. Around that time senior management of SC formulated a strategy as response to both the increase in financial uncertainties and the changing attitude of clients. To start with the latter theme, management at SC was well aware of the fact that the combination of emancipation of clients – or clients’ families – and rising expenses would mean that the onrush of clients could no longer be taken for granted. The supply-driven processes of providing care services had to be readjusted to a demand-driven way, which complied with the specific needs of the individual client. Concepts like ‘care-living’ could only be feasible if care services became more customized. According to the management of SC the keyword in this customizing was ‘attention’. Attention guaranteed a meaningful contact between client and employee.

The practical filling in of the keyword ‘attention’ consequently meant that tasks and responsibilities regarding care services had to be delegated as close as possible to the operational line of care providers, or more specific, to the team managers. This delegation included MACS-related tasks and responsibilities. For example, each month each team manager received an income statement of his department to check whether his budget was still balanced and, if not, to take corresponding measures. All managers spoken to confirmed that they considered this information as an essential part of their work. First of all, MACS stipulated whether management was still in control. A location group manager told how colleagues needed MACS figures for reassurance:

“To stay within budget creates a peaceful mind of security.”

Or in the words of a team manager:

“If I cannot comprehend my income statement I am not in control. And this will surely have negative effects on primary processes.”

Another example of the uncertainty reducing enactment of MACS was rendered by a team manager with a longstanding service record. She stated the usual financial reports did not contain any surprises to her. These figures took only a limited amount of her time. But because the concept of ‘care-living’ was new to her, she felt the necessity to monitor associated MACS data more closely. With regard to new developments, such as care-living, MACS were considered to provide indispensable assistance to properly control these developments.

The same uncertainty reducing and problem solving effect of MACS was anticipated at higher managerial echelons. To cope with risks due to new regulations with regard to financing and remuneration of care and housing expenses, senior management of SC increasingly used new types of financial information such as long term forecasts, portfolio analyses and scenario analyses.
8.3.2. Interessement

In this translation process the proponents of MACS try to convince other actants that they will somehow benefit from MACS. To legitimize MACS, the proponents use arguments and stories. Nevertheless, the proponents have to bear in mind that they will encounter actants who are not convinced of the benefits of MACS. They cast doubt on the supposed blessings of MACS.

The process of interessement could be characterized as a widely supported consent with decentralization of responsibilities and, consequently, a broad enactment of MACS. Main justification for this way of thinking was the conviction that a development towards more customized care services was inevitable. And to facilitate this process, delegation of MACS information and associated authorizations were considered self-evident. After all, according to the explanation of a location group manager, her influence on operational procedures was limited compared to the influence and possibilities of her team managers, in particular with regard to matters related to cost efficiencies.

“They [team managers] know the details behind the figures.”

Several location group managers proofed to be advocates of internal benchmarking. At the moment the field research took place, benchmarking was not a well-structured and widely applied practice. According to one location group manager this situation could be improved by taking a simple measure.

“Why don’t we add a column with averages to our financial reports? Then every manager can compare his figures with those averages and learn from the differences.”

His plea for benchmarking was induced by the potential learning effect: which colleagues had better results and what could be learned from them? This capability of MACS information was still insufficiently used, according to this location group manager. Another location group manager however stressed that figures could create all kinds of effects, both positive and negative. She emphasized that this learning effect would only take place in the proper context of a safe and respectful environment. Otherwise a manager with negative results could feel stigmatized, so she explained, and this would have a counterproductive effect.

On their turn team managers showed confidence to adequately interpret and act on the MACS information they received. Without exception team managers stated that MACS empowered them to steer and convince their teams. In line with their location group managers, team managers argued that decentralization created the necessary flexibility to customize care services. Moreover decentralization enabled the mobilization of useful knowledge from the shop floor which was unknown to senior management. More than once, according to these team managers, this information proved to be very useful in solving all kinds of operational problems and inefficiencies.
Several team managers stated that their team members were receptive to financial information and were more competent than frequently supposed. To substantiate this opinion a team manager told a story about a carpenter who usually did not order materials or schedule proceedings except for moonlighting in the weekend. In line with this reasoning, this team manager explained how she delegated finance related tasks, such as the purchasing of nursing articles, to team members. Making team members ‘accessory’ to manage their department effectuated that team members felt accountable and acted accordingly. A team manager illustrated this advantage with the following example:

“I seldom have a discussion about pressure of work. This is because my teams make their own schedules. If it is very busy, they start in the morning with one person extra and this is compensated by scheduling one person less when things are quiet.”

Finance and control staff on their turn profiled themselves as providers of solutions to difficult questions with regard to MACS. The controllers at SC were called counsellors and every month or at least every two months each counsellor visited all team managers to whom he or she was assigned. These visits were called ‘client talks’, signalling that these counsellors saw the managers as their clients. In these talks counsellors explained to their clients how to interpret the figures and how to act on them in an advantageous way. In fact these counsellors were the representatives of the financial system that was set up to cope with PEU and to enable decentralization. They were the messengers who kick-started the enactment of MACS at team management level.

In the previous sections several legalizing inside stories in favour of MACS have been mentioned. But there were also stories told which related to a specific example outside SC. At the time this field research took place several managers of SC had just visited a care organization called the J.P. van de Bent Foundation. They told interesting stories about this organization which seemed to outperform SC on aspects like overhead percentage and efficiency. Moreover the J.P. van de Bent Foundation had abolished the budget cycle and had simplified the financial reporting which – according to these visiting SC managers – offered more adequate information. At first sight, this J.P. van de Bent Foundation offered many examples how to materialize the earlier mentioned SC motto ‘more with less’. Their remarks were in line with critical comments relating to the growing dimensions of MACS at SC which comprised numerous cost centres and many complicated mutual cost charges and cost allocations. A team manager sighed:

“In this sector it looks as if we try to control things that you almost certainly cannot control. As long as we have a lot of figures on paper we deceive ourselves by thinking we are in control.”

A location group manager added:

“In the past five to ten years we added a lot of figures of things that are measurable. But to my opinion we forget to monitor aspects that are perceptible and appreciable.”
Confronted with this quote, the CFO of SC acknowledged this limitation of the financial reports. Moreover he posed the question whether MACS were the proper tool to provide an answer to the question whether SC was really successful, whether the philosophy of attention (see section 8.2) really worked out well.

“We have a lot of data but no real answers to the question whether SC is successful. And it is my strong conviction that the struggle to make up indicators that provide answers to this type of questions will remain unsolved.”

To substantiate their statements both the CFO and several location group managers referred to a management book that was quite popular at that time. This book was titled “Twisted organizations”\(^{12}\). Central theme of this book is the risk organizations run of focusing too much on all kinds of well-intended control mechanism and, as a consequence, the risk of losing sight on the original meaning and purpose of the organization. One of the authors of the book had given a lecture at SC and had made a profound impression on at least several location group managers and the CFO.

### 8.3.3. MACS objectification

This translation process shows how MACS concepts and MACS information become tangible in the shape of MACS inscriptions such as budgets, income statements, forecasts, dash boards, management reports, etc. Tangible MACS concepts and ditto information translate both in horizontal and vertical direction within the organization. The horizontal direction relates to an extension of MACS at a particular management level. The vertical direction refers to an extension of MACS to lower management levels.

Questions about how MACS information was made tangible and how this information was diffused led to stories in which two references dominated: the shared folder and the ZFP tool. The shared folder was stationed at the central computer network of SC and was accessible to all managers. This folder contained all possible financial reports, most of them drafted and provided by finance and control staff. Via this folder managers were supposed to consult for example the monthly financial figures of their department. All managers spoken to were able to show this folder and open the correct files in a self-evident manner. Moreover, managers had access and were able to consult financial figures of any other department. Several managers explained they compared their figures with those of other departments for specific reasons. In fact, most managers stated they appreciated this type of transparency. There were only a few managers who admitted that they experienced this transparency as awkward, particularly when their results were disappointing.

Each month – somewhere in the third week following on the month the report referred to – the finance and control counsellor presented the accumulated figures up to that month in the

shared folder. The team manager consulted these figures and shortly afterwards counsellor and manager met to talk the figures through. This monthly report was in fact a detailed income statement showing for example not only all possible personnel costs, subdivided into different positions and duties, but also purchasing figures of different types of food, expenses of volunteers, etc. The report also showed how much the department contributed to overhead and specialized staff services. Even the contribution each department had to fulfil to the retained earnings of SC was displayed. All figures were presented in Euros accurate to a cent. Besides the actual figures the budgeted figures and the differences were shown. All these figures were diffused throughout SC by means of this shared folder, entering each department of SC with a transparency and follow-up consultation which inclined managers to act on these figures.

At SC the ZZP tool played an important role. It had originally been developed by the CFO of SC in the time that he was still head of finance and control staff. This tool calculated the number of full time equivalents a manager could deploy by filling in the number of clients and their corresponding health care indication. It also offered the possibility to refine the deployment of full time equivalents by differentiating the level of competence, the percentage of sick leaves, number of different shifts and time spend on training and education. The ZZP tool was also used by the first responsible nurse to check, based on the actual number of clients and corresponding ZZP’s, whether the deployment of personnel still matched care production. To nurses, managers and even several finance and control staff members this ZZP tool was a black box. Nevertheless its output was not under any discussion what so ever. In fact this tool was embraced as a solution to circumnavigate complicated discussions and control issues.

How indispensable the ZZP tool had become in the operational state of affairs at SC was illustrated by the following occurrence. Due to changes in legislation, a specific type of care service was no longer remunerated by means of ZZP’s but by DRG’s (Diagnosis-related group). The team manager, who had to deal with this change, stated she dreadfully missed the ZZP tool because she was no longer able to link the production to the full time equivalent budget. In short:

“I have asked finance and control staff to urgently develop a DRG tool”.

With regard to the extension of MACS information, several interviewees confirmed both a horizontal and a vertical extension of financial information. In fact, the diffusion of detailed MACS data via the shared folder to every department and every team throughout SC was a striking example of the vertical extension of MACS. Examples of the horizontal extension were the long term forecasts, the portfolio analyses and the scenario analyses which increasingly figured on the agendas of senior management. As explained earlier, SC had developed the concept of care-living. This concept was preceded by several scenario analyses and corresponding calculations with regard to feasibility. The necessity of the programme ‘more with less’, which aimed at an average cost reduction of 10%, was also based on long term forecasts. And when two location group managers told that it was hard to reach break-even on care for clients with a high indication for care, they were able to substantiate their statements with calculations which came close to a portfolio analysis.
At the time interviews took place first experiences with regard to a new type of report were exchanged. This report was drafted every quarter and aggregated information on finance, human resources and quality at location group level. This information was integrated and presented from three perspectives: client, employee and organization. So far a balanced score card resembling report had not been available. Although SC had several specialized staff units who closely cooperated to support team managers, this was the first recurring report that comprised and integrated information of the different staff units. Reactions of senior management were positive and several location group managers indicated they wanted a same kind of report per separate location as well. Most heard comment was that this kind of report improved the quality of meetings on these topics. Or as one location group manager explained:

“The way figures are presented has an impact on the way people consider, interpret, and handle those figures.”

With regard to aforementioned development on reporting one question remained unanswered. Was this new development in reporting initiated because management had asked for it or because finance and control staff had offered the possibility? Both sites claimed the initiative but at the same time they all reassured that it was above all the result of a fruitful interaction.

8.3.4. Connectedness

In this translation process MACS is connected to other actants. They take an active role in the use of MACS to shape the relations with other actants. In doing so, these actants try to draw other actants into a scheme of enactments of MACS. But success is not guaranteed. There is always the possibility that actants become disconnected again or do not connect to MACS in the first place.

A remarkable illustration of the relation of MACS and management at SC was the initiative of a team manager to improve MACS information. To make budgets more dynamic and reliable she proposed to link the duty rosters, which were made three months in advance, with the ZZP tool. This way the consequences of planned duty rosters were translated to the deployment of employees and its financial consequences for the next three months. Depending on the outcomes adjustments could be made in time. This proposal had received broad approval. A project team, made up of this team manager, a location group manager, a controller and an ICT specialist, was assigned to mastermind this idea.

In the connectedness between MACS and both senior management and team management, finance and control staff played an important facilitating role. Team managers could rely on support meetings with their finance and control counsellor every month. A finance and control counsellor explained how these meetings were intensified when results stayed behind. There were also several examples of support to senior management to help them to get acquainted with new and more advanced MACS information.
In this process of counselling, the division of roles had shifted somewhat. In the period during which the shared folder was arranged and the ZZP tool was drafted, finance and control staff had the initiative in the reporting and the development of MACS information. Management responded by presuming that this information had to be important because otherwise finance and control staff would not have offered it. At the time the field research at SC took place this dependent attitude had emancipated to a more critical way of thinking. The idea to link the duty rosters and the ZZP tool came from outside finance and control staff. And when an finance and control counsellor presented to a team manager the cost price calculation of the meals his kitchen staff served to clients, this manager disagreed to such an extent that he decided to draft his own calculation to rebut the calculation of his finance and control counsellor. In explaining his reaction this team manager stated:

“This calculation [the one of the finance and control counsellor] is a typical example of people who only focus on figures. They have no clue of the processes behind these figures.”

Typical was the reaction of the finance and control counsellor to the objections of aforementioned team manager:

“These figures originate from our ledgers and are allocated to this cost centre. They must be correct.”

Indications of how finance and control staff coped with aforementioned shift of roles were twofold. On the one hand there were indications that suggested that at least some finance and control counsellors experienced difficulty with this critical way of thinking of team managers. One counsellor described how a team manager more than once neglected his advice and still produced negative results. When this counsellor more vigorously insisted on adequate actions, the location group manager intervened, taking over the deliberations with his team manager on the financial issues in question, leaving this counsellor more or less behind in an offside position. Another finance and control counsellor admitted he sometimes felt irritated by the self-assured way of thinking of some team managers because neither financial knowledge nor financial competences would justify such an attitude. Remarks, as would the present financial reporting be too elaborated, were suspiciously contemplated by this finance and control counsellor.

On the other hand several quotes of finance and control counsellors indicated that a more facilitating and supporting position towards management suited them well. One finance and control counsellor explained that to his opinion it was logical that team managers were in the lead in the budgeting process because...

“...they [team managers] are familiar with the content behind the figures and we [finance and control staff] are not. [...] In fact in my day-to-day practice I never meet a client although these clients are our core business. I realize figures somehow have to mirror images of these clients, otherwise these figures lose their meaning.”
Head of finance and control explained that his staff should adopt a more supporting role, closely monitoring whether MACS information was still of value to managers. After all, these managers operated in a fast changing environment.

At the time the field research at SC took place, a discussion was going on at senior management level with regard to the content and effects of MACS. Several location group managers stated that the present MACS reports were to elaborate, the number of cost centres too high and the system of cost allocations too complicated. Moreover, this large amount of figures had a negative effect, according to a location group manager:

"Too often figures are a party of those people who draft them.[...] At the moment we use mainly figures to manage our locations. Instead we should manage our organization by focusing on behaviour."

Inspired by MACS examples from the J.P. van de Bent Foundation, these managers advocated a simplification of MACS. Some even made a plea to abolish the budget cycle and to focus solely on a balance between revenues and costs. Other managers wanted to stick to the budget cycle, stating this was still an important steering mechanism which could not be abolished without providing an alternative. Also interesting was the plea of a location group manager to present only aggregated figures per location group. According to her experiences team managers were too much focused on the results of their own departments – by this location group manager entombed as ‘island attitude’ – and paid too little attention to the results of the location group they were part of. If figures were no longer presented per department or per team but only per location group, attention of managers would shift as well, according to this location group manager.

Although initiated at senior management level, aforementioned discussions were continued at team management level. Co-occurrence analyses of interview transcripts displayed close contacts among board of directors, location group managers and team managers13. Because of these contacts, discussions at one level quite easily spilled over to another management level. With regard to the proposal to abolish the budget cycle, team managers reacted differently. Some referred to figurative practices during the budgeting process and the limited practical use of budgets, which seemed to be outdated too quickly. Other team managers however clung to these budgets, explaining they needed this tool as a reality check. With regard to the proposal to present only aggregated figures at location group level, team managers unanimously disagreed. Obfuscating department and team figures in aggregated location group figures would mean that actions of individual team managers would hardly be traceable. A team manager explained:

"Your decisions are reflected in the figures and those figures are stipulating for your present actions. If I cannot recognize my own actions in these figures I don’t know what to do with them. They become meaningless to me."

Another team manager concluded:

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13 This co-occurrence relates to quotations coded with the codes 411_Connect_Senior management and 413_Connect_Team management.
“This proposal [of aggregated figures only] reminds me of an old saying: jointed responsibility is no responsibility.”

These reactions were manifest indications of connectedness of team management to MACS. Team managers on their turn were the superchargers of financial awareness and self-support among teams. In this process of vertical extension of MACS towards teams co-occurrence analysis suggested that team members were more susceptible to non-financial information than to MACS information of a pure financial nature\textsuperscript{14}. At team management level however co-occurrence analyses indicated that financial information seemed to dominate over information of a non-financial nature\textsuperscript{15}. To put this finding in perspective the following considerations are important. Although finance and control staff incorporated several non-financial figures such as human resources information in its reports, information on quality was produced and delivered by another specialized staff service through separate reports. A reporting format in which information of all specialized staff services was integrated was still only available at senior management level. And secondly, although there were more interview quotes coded with financial information than quotes coded with non-financial information, this was no indication of the time spend by managers on both types of information. On the contrary, although financial topics came up many times during the interviews, the total amount of time spend on this type of information was, according to most team managers spoken to, less than the time they spend on all kinds of non-financial topics like quality of care, training of staff, sick leaves, care treatments, satisfaction figures, checks whether indications for care were still up-to-date, arrangement of care services and the number of medical incidents. Also in deliberations with their teams, managers spend more time on these nonfinancial issues than on financial topics. Because team managers linked talking about MACS to information they received from finance and control staff, it stayed somewhat muddled and doubtful whether team managers really saw non-financial information on quality of care services as part of MACS.

Both data of an external nature, like demographic trends and sector developments, and prospective MACS data were almost exclusively used at senior management levels. Both types of information were combined in long term forecasts and scenario analyses. Particularly at senior management levels external partners like health insurance companies and sector organizations were mentioned.

According to co-occurrence analyses, all managerial echelons preferred interactive control practices to a diagnostic mode of control. Interactive control practices between senior management and team management were copied and translated by team managers to their meetings with team members in general and first responsible nurses in particular. Both location group managers and team managers considered coaching of their employees – also with regard to MACS – as an important task. Finance and control staff demonstrated their

\textsuperscript{14} This co-occurrence relates to quotations coded with the codes 414_Connect_Team member, 415_Connect_Team and 421_Connect_Applic_Financial information versus quotations coded with the codes 414_Connect_Team member, 415_Connect_Team and 422_Connect_Applic_Non-financial information.

\textsuperscript{15} This co-occurrence relates to quotations coded with the codes 413_Connect_Team manager and 421_Connect_Applic_Financial information versus quotations coded with the codes 413_Connect_Team manager and 422_Connect_Applic_Non-financial information.
preference for interactive control practices by the way they shaped their regular deliberations with team managers. The practice of interactive control at SC was perhaps best expressed in the following remark of a team manager:

“SC is an organization that allows you to make mistakes provided that you show willingness to learn from your mistakes.”

Strong co-occurrences were also registered between interview quotes coded with ‘decentralization’, ‘accountability’ and ‘employee empowerment’. This association indicated that delegation of MACS-related responsibilities had motivating effects. Besides the conviction that decentralization was necessary to customize services, this policy proved to be animating as well. To illustrate this effect a team manager stated:

“For me these [MACS-related] responsibilities stimulate an intrinsic motivation. When you see those Euro figures, you know it’s for real. This feeling creates a sense of responsibility.”

8.3.5. Mobilization

By now the point of no return has passed. MACS practices have become taken-for-granted and their representing spokesmen are accepted as such. In fact, the black box is closed. In this translation process MACS reinforce the commitment of other actants. This way, networks are stabilized and enactments of MACS get institutionalized.

With regard to the contribution of finance to the successes of SC opinions diverged. Members of senior management were unanimous in their opinion that the successes of SC were caused by the policy of customer attention and that the healthy state of financial affairs was a result of this policy. Finance and control staff members however stated that the satisfactory state of affairs at SC was at least partly caused by the financial results of this organization. These financial results, so finance and control employees reasoned, dispelled nightmares such as job losses and severe budget cuts and created the proper atmosphere to pay maximum attention to clients. Only when the pre-emptive condition of balanced budgets was fulfilled, attention could be diverted to care services, which were of course the core business of SC.

The latter view more or less reverberated when financial figures were enfolded with uncertainties. The team manager, who was confronted with fairly new and in her experience still complicated rules with regard to DRGs instead of the more familiar ZZP remunerations, stated:

“Particularly with regard to DRGs, finances seem to dictate what we can offer to our clients.”
Another illustration of finances as precondition was the experience of a team manager whose team came up with an initiative to purchase some food items themselves instead of collecting them from the central facility services of SC. This initiative was animated by the idea that short term purchases of food by staff in the nearby supermarket would more closely and flexibly connect to the wishes and the preferences of clients. To her own surprise this team manager found out that this initiative was only accepted after calculations showed that it was at least cost neutral. In the ultimate discussion this initiative provoked, not client attention but financial arguments prevailed. Several indications suggested that it was sometimes difficult to balance the welfare of clients with the requirement to stay within budget. A team manager tried to explain the difficulty of this balancing act:

“*The location group manager keeps telling me not to pay too much attention to financial figures. Over and over again we are told to focus on the client who should be in the spotlights. But at the same time she [location group manager] expects us to balance our budgets. So finances do matter. You see?”*

Although liable to some criticism, there were neither concrete plans nor alternatives to replace existing budget procedures. Comparisons of actual figures with forecasts were common practice. With regard to the budgeting procedures a generally accepted performance requirement was applied: each department had to present a budget that was balanced, including contributions to overhead, specialized staff services and retained earnings. Several managers, including the CFO, explained that balancing budgets was a strict precondition. To explain the seriousness of this requirement the CFO used a parallel with managing a household as example:

“*Everybody understands that exceeding the housekeeping budget has serious consequences. The same consequences apply to exceeding the budget of a care department or location.*”

Aforementioned examples illustrated that financial assessments, embodied in MACS, were present in the considerations at all management levels.

Hierarchically speaking MACS had penetrated up to and including the level of team management and was leaking out to the level of team members, in particular the first responsible nurses. At the moment the field research took place the shared folder and its monthly reports were institutionalized. Also widely accepted was the fact that information in this shared folder was accessible to all managers. This transparency was acknowledged as an important characteristic of the organizational culture of SC. Also institutionalized was the ZZP tool. This tool was mainly used by team managers and first responsible nurses. Its outcomes were accepted and deployed without further questions. Some managers narrated with a proud tone that ‘their’ ZZP tool had been sold to other care organizations several times. In their opinion this external interest underlined the quality of this tool.

Another piece of software that was taken for granted was the ECD (Electronic Client Dossiers) program. First responsible nurses used this ECD to monitor delivered care per client. This way these nurses could see whether the actual indication and corresponding remuneration were
still sufficient. If not, they were able to apply for a higher indication and remuneration in time. The production, as registered in this ECD, was linked to the Excel income statements.

Not yet institutionalized but at close distance of mobilization was the new quarterly report which integrated financial and non-financial information from three different perspectives: client, employee and organization. These reports were welcomed at senior management level and at the time field research took place, there were plans to introduce these types of reports to lower management levels.

Also noteworthy was the mobilization of interactive control practices at SC. Some managers stated that for an optimal exploiting of learning effects discussion techniques needed to be improved. In the meantime however this supposed lack of proper techniques was not an obstacle for a variegation of interactive control practices. Many interview quotes indicated both the need and willingness to deliberate over MACS information in varying networks.

8.4. Reflections on translation of MACS at SC

Remarkable was the way how managers at SC dealt with PEU. Instead of emphasizing the gathering of storm clouds, they explained how they expected to manage these uncertainties. Although several quotes indicated that managers were not insensitive to environmental uncertainties, they had confidence in the route SC had planned to get unscathed through the sweeping sector developments. The general sentiment at SC was quite business-like. Managers regarded SC as a regular company with a social purpose. The performance standards, which stipulated that budgets had to be balanced and retained earnings kept at a save level, were considered as necessary and important preconditions. The introduction of market mechanisms in their sector and the corresponding commercialization were not seen as problematic. Critical comments on this development had another line of approach. The CFO of SC explained that the current, by government controlled market mechanism in the health care sector was more hazardous than the more commonly known market mechanism in the profit sector. He considered government policy as too short-sighted and too liable to changes and as a consequence resulting in more risk.

In anticipation of profound changes in the sector of nursing homes, homes for the elderly and home care, SC had chosen a policy of decentralization of tasks and responsibilities which was accompanied by a vertical extension of MACS. Keyword in this policy was ‘attention’. To make ‘attention’ work, responsibilities – including MACS-related responsibilities – had to be delegated. In the day-to-day practice of SC this policy effectuated an extension of MACS up to and including the level of team managers. Signs of horizontal extension of MACS information were for example the long term forecasts and scenario analyses which were presented in the meetings of senior management. This horizontal extension of information was stimulated by the increase of risks due to new regulations on remuneration and by questions with regard to the feasibility of new projects like care-living.

The enactments of MACS aroused different perceptions of different groups of employees. Like a boundary object (see section 4.3.3) MACS were expected to adapt to the specific needs of specific segments of employees within the same care organization. And at the same time,
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MACS ought to stay robust enough to unambiguously manage and control the entire organization. As a boundary object MACS at SC was distinctive enough to preserve a recognizable identity to the various segments of employees. Nevertheless the perceptions of MACS by these different groups of employees were diverse. Based on the case study three segments of employees could be distinguished, each translating MACS in its own way.

\textit{MACS according to finance and control staff}

Finance and control staff at SC regarded MACS as a vital partner in the well-considered and successful realization of the policy of delegation. Thanks to MACS, processes and results were made visible and comparable throughout the organization, launching in-depth assessments of results as well as learning opportunities by revealing best practices.

Remarkable was the position of finance and control staff. Although they were acknowledged as experts on MACS and their support was highly appreciated, finance and control staff had gradually lost its position of ‘untouchables’. With regard to the enactment of MACS, the situation had changed from a guidelines providing monopoly of finance and control staff towards a cooperation between finance and control staff and care managers. Like before finance and control staff took care of the technical aspects such as the accuracy and reliability of data and the proper interlinking of the various inputs of the reports. However, with regard to the content and layout of MACS, contributions of care managers became more and more important.

Several finance and control staff members acknowledged that the contributions of care managers offered a benefit because care managers were familiar with the day-to-day practices which ought to be reflected in the figures. Finance and control employees lacked this kind of knowledge and experiences. From that point of view, the contributions of care managers offered the possibility to align the world of figures more closely with the world of care. Such development, in which MACS acted as intermediary between both worlds, would increase the value of MACS enactments at SC.

Aforementioned line of reasoning tended to prevail amongst finance and control staff. But some interviewees showed reluctance as well. Alarmed by critical remarks of managers with regard to reports being too elaborate and suggestions to abolish budgets, two finance and control counsellors wondered whether these managers were sufficiently familiar with the finance and control body of knowledge to realize what they were saying. In their perception MACS were part of a well-defined and specialized field of knowledge which offered limited possibilities for drastic changes without jeopardizing the reliability of the carefully developed control mechanism. Nevertheless all finance and control staff members spoken to were well known with experiences which clearly indicated that the world of finance, embodied in MACS artefacts, did not easily coincide with the world of care. Clamping to the classical accounting and control framework would not help to bridge both worlds, so they realized.

\textit{MACS according to senior management}

The segment of senior management consisted of the board of directors and the location group managers. This senior management level was well aware of the different effects MACS could
perform. Illustrative were remarks of how performance figures could stigmatize managers in case of benchmarking or in deliberations over results. Another example was the warning of two location group managers to team managers and their first responsible nurses not to use the ZZP tool in a counterproductive manner. In the past some first responsible nurses had used the ZZP tool to make very strict arrangements with clients and their families. These arrangements were accurate to a minute to make clear that the rights of clients were fully exploited and that further wishes could not be fulfilled. But as a consequence of this practice the client in question – or the family of the client – demanded a ditto accurate filling-in, leading to awkward discussions in which nurses were asked to give an account of nearly every minute they had spent. Meaningful also was the plea of a location group manager to exclusively report on aggregated location group level to discourage what she called ‘island thinking’. In her experience team managers were inclined to exclusively guard the interests of their teams without sufficiently considering the interests of the location group. According to this manager this way of thinking was infused by the reporting of financial results on team level.

Amongst senior managers at SC, there were some critical remarks of a more fundamental nature with regard to current MACS. One location group manager wondered whether the large amount of financial figures guided attention away from probably the most important indicator of success: the relationship with individual clients. Ideally, MACS should not just register measurable items but also mirror aspects that were of a more perceptible nature. From this point of view, it was obvious that senior management warmly welcomed the integrated quarterly reports, which offered information from three perspectives: client, employee and organization. This integrated way of reporting, enacted thanks to the broadening of the scope of MACS, might overcome aforementioned drawback, so was the expectation.

"MACS according to team management"

A third segment of employees consisted of team managers. Most team managers were sufficiently familiar with financial figures to put them in a critical perspective. For example, some managers thought that the budgeting process was overestimated due to their experiences how to manipulate figures to create space to manoeuvre without exceeding budgets. Team managers were attached to their monthly income statements. Remarkable was the unanimous refusal of the proposal to exclusively report aggregated location group figures. Team managers experienced MACS information on team level as an essential keystone in the delegation of responsibilities and a vital part of their empowerment. They were determined to hold on to the current MACS. Team managers at SC regarded these MACS as an indefeasible prerequisite, which was closely related to and intermingled with their daily activities.

All team managers spoken to were well aware of the fact that MACS were a powerful surveillance tool to senior management. Some team managers explained that the transparency at SC had a downside, particularly when results were disappointing. Nevertheless there were many indications that these comments were more than compensated by appreciated experiences with interactive control practices. Co-occurrence analyses confirmed a preference for interactive control at all management levels. To exemplify their preference, several team managers explained that an interactive approach did not put
the MACS outcomes at the centre of discussions but went beyond the figures to put the stories and experiences behind the outcomes at the centre of deliberations.

Several team managers explained how they used MACS information to strengthen their arguments in team meetings. Moreover, they explained how they delegated finance related tasks to team members. In general, these tasks were limited and well demarcated. An example was the purchasing of nursing articles. Several team managers told they drafted budgets in close consultation with their first responsible nurses. Making team members co-responsible to manage their department caused that team members acted accordingly. Nevertheless, a genuine delegation of MACS-related tasks to team employees did not take place. Neither did team employees have access to the shared folder.
Chapter 9

The ontological turn
9.1. Introduction

Three case studies were presented in succession in chapters six, seven and eight. In addition to the first reflections on the findings per separate case in previous chapters, this chapter displays the ontological turn, as described by Watson (2007). This choice is prompted by the necessity to fully comprehend the complexity that was disclosed by the extensive field research in accordance with the research guidelines in the chapters four and five. This complexity was reproduced in the three case descriptions in the chapters six, seven and eight. The ontological turn is used to fully picture the multiplicity of MACS. Only after acknowledging the profoundness of the differences in perceptions of MACS by revealing multiple versions of MACS which are somehow still related (Law, 2004), solutions may be found to questions such as how to balance and manage these different MACS objects.

![Figure 9.1: Overview of the structure of this study](image)

The results of the ontological point of view are described and graphically elucidated in section 9.2. Per case organization three different descriptions of MACS are drafted in parallel with three different segments of employees: finance and control staff, senior management and team management. As a result the differences between the various perceptions of MACS are sharpened. In fact, section 9.2 exposes the deep-seated range of these differences by picturing different objects, all called MACS. Moreover, this section demonstrates that equivalent echelons in different case organizations produced different perceptions of MACS as well, blurring pictures even further.
9.2. From an ontological point of view

Indispensable in these case studies is the mistake to design MACS in the expectation of certain predestined patterns of action (Pentland & Feldman, 2008). Such a way of thinking bears witness of a naïve top-down-ism (Pentland & Feldman, 2008). A possible solution is offered by defining MACS as boundary objects as described in section 4.3.3. This indicates a managerial approach which offers possibilities to picture MACS less messy and to create some clarity, making the processes around MACS fit for study. From this point of view the main task of researchers is “...to explain [...] the different perspectives and so retrieve the real object behind the interpretations” (Law & Singleton, 2005 p. 333). As explained in chapter 4, this is an epistemological stand of view, denoting the differences between the various viewpoints of different stakeholders as differences in perceptions and interpretations which obscure a customized and optimum application of MACS.

The epistemological stand of view is reflected in the description of MACS as a boundary object. As a boundary object, MACS are ‘plastic’ enough to adapt to the specific needs of specific segments of employees and at the same time they are distinctive enough to preserve a recognizable identity. Per case study, this is exemplified in the concluding sections of each case description by illustrating the varying perceptions of MACS of different segments of employees. These descriptions show how different segments of employees ascribed different characteristics and applicability’s to the same MACS within the same care organization.

By confining the different descriptions of MACS to mere differences of perceptions, possible other and more profound causes of these different descriptions stay concealed. As a consequence, efforts to cope with these differences may be underestimated. Moreover, aforementioned approach itself creates a part of the complexity and disarrangement. By ordering the different perceptions and shaping clarity and distinction, certain ideas and problems, which do not fit in, risk being neglected and made invisible or ‘othered’ (Law, 2004), creating messiness once again.

As an alternative, it is also possible to take the so-called ontological turn (Watson, 2007), depicting MACS as different objects, enacted in different sets of relations and contexts (Law & Singleton, 2005). To take an ontological position means “...we need to be looking at networks where objects precisely have to adapt and change shape if they are to survive” (Law & Singleton, 2005 p. 339). Multiple MACS are enacted according to different logics or realities which speak different languages. Nevertheless these multiple MACS are still related to one another through partial connections (Gad & Jensen, 2010). They do not exclude each other but are entwined, according to the idea of fractality (Mol, 2002). By taking the ontological turn it is possible to fully picture the multiplicity of MACS and to untangle the rhizome resembling tangle of sociotechnical relations around MACS. By depicting the profundity of the differences in perceptions of MACS, possible leads of how to manage these differences may be found.

In the continuation of this chapter the ontological view on MACS is represented by picturing and describing per case three enactments of MACS in parallel with three important segments of employees per case study: finance and control staff, senior management and team
management. Consequently some segments, which are mentioned in the case descriptions, are excluded.

In the BCC case a fourth outline with regard to the middle management is omitted in this chapter. As pictured in chapter 6, middle management at BCC was ‘stuck’ between senior management – i.e. managing directors and board of directors – and team management. Consequently MACS logics according to middle management were a rather vague compromise between more clear-cut pictures of MACS logics according to senior management on the one hand and those of team management on the other. In the TRG case, it is questionable whether it is useful and attainable to describe the enacting of MACS in relation to the segment of team managers working in the nursing homes of TRG. In general, their involvement with MACS was limited or even kept off as much as possible. More than once, this category of team managers saw MACS as an alienating mechanism which was considered to be irreconcilable with their health care profession. In the SC case, the possibility to draw a picture of MACS logics of team members or perhaps first responsible nurses was considered but renounced. Although many interview quotes indicated that team managers at SC did mix up their team members in limited and well demarcated MACS-related tasks, the overall impression was that team members, including first responsible nurses, were not more than indirectly involved with MACS and had no formal nor genuine MACS-related responsibilities.

In the following sections MACS are pictured as different enacting in parallel with the triple distinction between finance and control staff, senior management and team management per case organization.

### 9.2.1. An ontological view on MACS at BCC

**MACS actor-network enacting related to finance and control staff at BCC**

At BCC, an object referred to as MACS was embraced by finance and control staff as next of kin. These MACS were connected and intermingled with the core of all day-to-day practices of finance and control staff. As rational and neutral tools, MACS produced vital facts that were the input for the reports which finance and control presented to the management to steer and control the organization. Particularly in times of increasing perceived environmental uncertainty, MACS were indispensable. MACS enabled finance and control staff to arrange a durable calculative surveillance function which made actions, processes and results visible, transparent and comparable, prompting and directing activities of all related actants. In fact both fate and status of finance and control staff were closely related to the standing of MACS.

To these employees the added value of MACS was so self-evident that they could react unpleasantly surprised when they found out that the blessings of MACS enacting were not acknowledged by everybody else. They realized that their professional background was more in line with MACS logics than the professional backgrounds of other groups of employees. But this caused an alienating effect towards their colleagues and not towards MACS. Although finance and control staff admitted that the user-friendliness of their MACS needed to improve, the overall opinion among these staff members was that not MACS but their colleagues had to get their act together. Convinced that many managers did not realize what they missed, let
alone what they needed, finance and control staff members expressed a missionary and supply driven approach with regard to the dissemination of MACS.

Assured of MACS as brother in arms, finance and control staff strove for accurate, reliable and comprehensive information which should enable management to manage and control the organization as a decentralized and flexible organization in a changing landscape. With regard to the aspect of decentralization: only MACS was able to facilitate the delegation of tasks and responsibilities in a reliable way.

MACS at BCC offered little or no external indicators or ditto information. This was reflected in the attitude of finance and control staff. They mainly demonstrated an inward-looking focus with hardly any interest in outside information on possible competing developments or alternative scenarios. The actual MACS design at BCC did not trigger them to turn their focus outwards. Nor were there developments which made finance and control staff realize their beloved MACS might have some shortcomings in this respect.

*Figure 9.2 MACS actor-network and finance and control staff at BCC*
Finance and control staff were aware of the legitimating and sanctioning possibilities of MACS information. Nevertheless, these aspects were of minor importance. After all, MACS artefacts ought to be accurate and reliable, presenting neutral facts which were unambiguous and not fit for political games. Because MACS information was so unambiguous, deliberations with a diagnostic control nature dominated over those with interactive control characteristic.

Maybe because MACS were so closely related to their financial professional background, members of finance and control staff were limitedly interested in non-financial indicators. Moreover, not finance and control staff but other staff services were responsible for the production of data with regard to for example personnel and quality of care services. Finance and control staff just had to take care of a proper integration and lay out of these non-financial data. In the MACS enactments in relation to the finance and control staff, the client stayed somewhere on the fringe. And when this client appeared on the MACS radar of finance and control, this person had consumer power.

\textit{MACS actor-network enactments related to senior management at BCC}

The second MACS were those of senior management, meaning the two headed board of directors and the group of managing directors. Their involvement with MACS was mainly driven by the steady increase in perceived environmental uncertainty. They were troubled by unprecedented questions and although several managers of this echelon still had fairly limited experiences with MACS, the presumption that MACS would provide the answers to cope with the new challenges was unanimously shared. Nevertheless, a specific filling in of these expectations was missing. In fact, several senior managers did not really know what to expect from MACS. On the other hand, MACS at BCC did not really help senior management to fill in these expectations. Environmental uncertainty reducing information such as scenario analyses and up to date long term forecasts were only available to a limited extent.

In contrast to finance and control staff, senior management was not preoccupied with the accuracy and reliability of MACS information. In general they trusted their controllers to take care of these preconditions. Their main interest concerned the effects MACS enacted. They realized that MACS were more steering than one might have expected at first glance. In the discussion over the real estate dossier, some managing directors were uneasily impressed by the effect of financial arguments from the side of the CFO. In fact, the CFO acted as a catalyst for MACS awareness amongst senior managers who experienced and recognized the possibilities of MACS as centres of calculation and discretion. The object, referred to as MACS by senior management, enacted powerful arguments to discipline and control lower management. At times of austerity measures and budget cuts, financial arguments proved to be convincing. In addition, MACS enacted a hitherto unknown transparency by displaying all kinds of results and reference information per separate location and department. Moreover, senior management realized the persuasiveness of MACS enacted arguments, in particular with regard to the substantiation and legitimation of their own managerial actions.

Several managers depicted MACS enactments as indications of a transition of BCC to a more business-like organization. Times of unrestrained growth of health care budgets were over and actors like MACS were harbingers of a new era in which financial information became more dominant. In line with this development was the picture of the emancipated client as
care consumer, which replaced the picture of the ‘thankful’ client. MACS was expected to provide the information how to service this new type of customer.

At senior management level, management control relations of a diagnostic nature were common: MACS enacted outcomes which prescribed the agenda of the management meetings and set the tune of the deliberations. However, in the deliberations with lower echelons interactive control practices were not uncommon. These consultations had a social culture of emphasizing mutual respect and understanding. At several locations MACS enacted arguments adapted to this tradition and accomplished an open discussion over the meanings and coming about of MACS information.

Figure 9.3 MACS actor-network and senior management at BCC
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MACS actor-network enactments related to team management at BCC

MACS enactments at the level of team managers were dominated by full time equivalent personnel budgets and the efforts to control these budgets. Main disturbing factor in this aspiration was the percentage of sick leaves. Because team managers experienced that their control over this percentage was limited, they felt misjudged by MACS when their expenses were over budget due to sick leaves of their team members.

The version, which team managers point out as MACS, was a new and still unfamiliar player or actant in their managerial field. MACS offered a lot of rather incomprehensible data with a limited reflection of the day-to-day practices of team managers. Consequently MACS failed to acquire the commitment of team managers. An exception to aforementioned finding were the non-financial indicators, such as number of medical incidents and indicators of quality of care services. This type of MACS information came more close to day-to-day care practices of team managers and their teams and therefore was willingly accepted.

Figure 9.4 MACS actor-network and team management at BCC
Although MACS was hard to grasp, it produced results which team managers could not circumvent. Particularly in deliberations with higher management, MACS produced undeniable effects by putting figures on the agenda team managers had to account for. Moreover, team managers realized the supervising and judging characteristics of MACS inscriptions. Given the top down increase in both number and weight of accounting inscriptions, it was obvious that MACS was here to stay. Several managers turned the table by accepting this development as an opportunity which would enable them to act in a new and challenging role. To this idea many lip service was paid but concrete corresponding activities were (still) limited.

Although co-occurrence analyses indicated that team managers at BCC agreed with the decentralization of responsibilities and the corresponding enactment of MACS, these managers still felt awkward with regard to MACS. An important barrier was the failure of MACS to show the care needy client who still dominated the perception of team managers. Although team managers made firm statements that they were ready to welcome the so-called ‘care consumer’, a link between MACS and this care consumer was completely missing.

MACS enactments one the one hand and operational care procedures – embodied around the classical care needy client – on the other seemed to be contrary mechanisms, originating from two different worlds, which team managers had to combine and balance. In this balancing act MACS information was all but self-evident. To tackle this hindrance several locations of BCC demonstrated an increase in the development of interactive control relations. Nevertheless diagnostic control practices, presenting MACS results as final answers, dominated.

Finally

In this section three different pictures are drawn which are all three referred to as MACS. To recapitulate, the first picture outlines an object which is accurate, reliable and comprehensive. Closely connected to MACS, management is trusted to manage and control the organization efficiently. The second picture outlines an object with uncertainty reducing capabilities and managerial enablers. And in the third picture MACS is reduced to just one team budget, showing no Euros whatsoever. Moreover, at first glance this object looks incompatible with operational care procedures.

9.2.2. An ontological view on MACS at TRG

MACS actor-network enactments related to finance and control staff at TRG

At TRG, finance and control staff considered their version of MACS as their responsibility; a responsibility they took very seriously. After all, MACS produced comprehensive, reliable and accurate facts of a mainly financial nature, which were essential to both discipline and steer all managerial activities. MACS information acted like a surveillance scan which made actions and results visible, transparent and comparable, revealing the true state of affairs.

The relation of MACS and finance and control staff was twofold. Firstly, these staff employees devoted considerable effort to make sure that the quality of MACS figures was in order. After
all, if MACS facts were beyond any doubt with regard to reliability and accuracy, consequently
the enactments of MACS would be irrefutable also. Secondly, in their self-assigned role of
missionaries of MACS, finance and control staff were busy to make sure accounting
inscriptions revealed themselves to all users in a comprehensible way, tempting and impelling
these users to take the proper actions.

To safeguard a proper deployment of MACS, comprehensive financial statements were
rewritten and modelled in new user-friendly layouts. For example, at the time the field
research at TRG took place, a reconstruction of the so-called integrated survey to dash boards
was initiated. In this process finance and control staff showed flexibility and willingness to
listen to the wishes and preferences of their non-financial colleagues. Nevertheless, with
regard to the content finance and control staff claimed supremacy. Doing so, the enactment
of MACS by the finance and control staff started from an accounting knowledge framework
with limited understanding or consideration for other professional bodies of knowledge.

Figure 9.5 MACS actor-network and finance and control staff at TRG
The aforementioned way of thinking of finance and control staff was reinforced by the extension of MACS enactments. The horizontal and vertical dissemination of the MACS network within TRG had a strengthening effect on the status of employees of the finance & control staff. In the ongoing reorganization, MACS played an important role to highlight and monitor opportunities for efficiency improvements. In line with this development finance and control staff members were implicitly expected to fulfil the role of change controller (Frow, Marginson, & Ogden, 2005). To this call they dutifully applied by emphasizing aforementioned priorities.

In their missionary effort to promote MACS at TRG, finance and control staff acknowledged the importance of strategic financial planning and the uncertainty reducing effects MACS was able to enact. Indeed, concrete investments to facilitate the composition of for example what-if analyses and long term forecasts were scheduled.

In the MACS enactments in relation to the finance and control staff, the client stayed somewhere on the fringe with a rather indistinct profile. On the MACS radar of finance and control staff financial information, which came more close to their professional background, dominated over non-financial information. Given the close alliance between MACS and the finance and control staff, this contributed to the image of MACS as a predominant financial tool.

To finance and control staff at TRG, MACS information was clear and unambiguous, leaving little room for discussion over the meaning and consequences of these figures. More than once discussions over MACS results were looked at with suspicion, assuming the discussant was trying to explain away disappointing results. Consistent with these reasons MACS enactments were considered to be more suitable to diagnostic control practices.

MACS actor-network enactments related to senior management at TRG

The second MACS were those of senior management. Their involvement with MACS was primarily driven by the increase in perceived environmental uncertainty. The introduction of MACS was a logical consequence of the ongoing marketization of the care sector. With the introduction of a more business-like way of management, ditto instruments such as MACS were needed as well. MACS were seen as new allies which would provide the indicators to take the proper course in order to safeguard the continuity of TRG. When asked what they expected for the future, senior managers derived many arguments from MACS-related information. In their line of reasoning, senior managers tended to treat MACS data as facts or answers. Consequently diagnostic control relations prevailed. Interactive control practices were mainly restricted to the consultations with lower management and were intended to familiarize lower echelons with MACS. At senior management level MACS figures were seen as outcomes instead of conditional scenarios. Due to this course of action MACS outcomes were of more influence in the considerations of senior management than possibly anticipated.

In the more business-like way of reasoning and deliberating, MACS enacted arguments proved to be very powerful and convincing. This experience did not only apply to internal deliberations with colleagues but also to the assessments of competitors and the consultations with external stake holders like health care insurance companies. In short,
MACS was not just another instrument in the tool box of higher management. Instead, MACS enacted arguments and answers which thoroughly influenced the considerations of higher management.

In line with aforementioned finding, senior management was not so much interested in the reliability and accuracy of MACS information as well in the legitimating and sanctioning potential this information created. MACS enacted reasoning coloured and sanctioned the ongoing reorganization at TRG which senior management had initiated.

**Figure 9.6 MACS actor-network and senior management at TRG**

MACS at TRG primarily produced information of a finance oriented nature. Consequently finance related MACS topics prevailed over non-financial MACS information on the agendas of senior management. In line with the more business-like way of management, of which MACS was a distinct expression, the profile of the ‘thankful and needy’ client, which did not
The ontological turn

seem to fit in MACS, gradually moved to the background in exchange for the picture of the emancipated care consumer, with or without purchasing power and with or without the willingness to pay for additional care. In other words, the type of customer who tended to prevail, smoothly harmonized with the MACS terminology.

\[\text{MACS actor-network enactments related to team management at TRG}\]

The third and last category consists of team managers who gained experience with MACS during the last two to three years. The outline in this section does not apply to team managers who worked in nursing homes. As explained in chapter 7, this group of team managers felt awkward in relation to MACS and consequently were barely connected to MACS. So much the better does the picture in this section relate to team managers who worked in homes for the elderly and home care. Their version of MACS was both dominated by, and at the same time restricted to, the so-called gross margin between revenues and direct salaries. This percentage dominated their actions and was leading in questions whether it was possible for example to schedule extra night shifts or not. Team managers were eager to score the budgeted gross margin. In fact, according to the interviews this accounting artefact was dominantly present in the day-to-day practices of team managers. Without exception these managers knew what percentage they were supposed to realize, what their current score was and whether current state of affairs, in particular the amount of sick leaves, offered sufficient possibilities to live up to the expectations as reflected in this percentage. In fact this percentage influenced their self-image, effectuating a kind of pride when they succeeded and vice versa.

Additional financial information, e.g. costs of materials or housing, failed to arouse notable interest of these managers. By contrast non-financial indicators, which were related to the quality of health care services, did generate undivided attention of team managers. But it was doubtful whether these managers considered non-financial figures on quality of care services as part of MACS.

Team managers were well aware of the fact that MACS made their performances transparent to colleagues and superiors. Because MACS figures were far from self-explaining, this transparency created awkward feelings among team managers. Although MACS were supposed to bridge distances – bringing figures and their operational translation close to team managers – new distances were created as well. After all, how to combine and balance the business-like MACS enactments versus the social and empathizing nature of health care in which the care needy client still tended to dominate the day-to-day practices?

To tackle the difficult balancing act, as pictured in previous paragraph, diagnostic control mechanism gradually made room for interactive control practices. The latter practices proved to be helpful to familiarize team managers with the MACS information they had to account for. At the same time, several team managers felt challenged by MACS to take on both the extra managerial possibilities and the extra autonomy that MACS offered.
Finally

In this section three different pictures are drawn which are all three referred to as MACS. The first picture outlines an object which is comprehensive, reliable and accurate and is enacted for surveillance and management purposes. The second picture describes an object that is enacted to legitimize and sanction courses of action in an uncertain and risky environment. And in the third picture, MACS is almost completely reduced to just a single percentage which seems hard to balance with the day-to-day needs of clients.
9.2.3. An ontological view on MACS at SC

MACS actor-network enactments related to finance and control staff at SC

The first MACS were those of the finance and control staff. These staff members and their MACS were closely related; in fact MACS were created by finance and control staff. Technically speaking MACS at SC consisted of an impressive amount of Excel programs that were ingeniously linked together, effectuating a sense of pride amongst members of finance and control staff. Their MACS produced accurate and reliable rationalities, effectively disseminated to all managers by means of reports via the shared folder and through monthly consultations. Thanks to MACS, SC had been successful, and still was successful, in the realization of its policy of delegation without losing control. After all, thanks to MACS, processes and results were made visible and comparable throughout the organization, launching in-depth assessments of results as well as learning opportunities by revealing best practices. Moreover, MACS provided all kinds of scenario and risk analyses, enabling senior management to handle environmental uncertainties.

Finance and control staff realized that the blessings of MACS were not self-evident to all managers, due to their non-financial background. Consequently it was up to the finance and control counsellors to learn and train managers how to read and act on MACS information. This counselling task was considered to be an essential part of their responsibilities. Finance and control counsellors showed great ‘missionary’ involvement to enter the domain of team managers and initiate them into the miracles of accounting, pursuing the enactment of a meaningful and enduring connectedness of MACS and care managers. These efforts mainly consisted of interactive control practices.

Requests by managers for supplementary MACS information were promptly granted with additional calculations and links in continuously growing Excel reporting files. Every medal however has two sides. Finance and control staff was unpleasantly surprised by critical remarks of care managers with regard to the supposed excess of financial figures. Several finance and control staff members doubted whether care managers were sufficiently qualified to criticize the MACS information. Did they really know what it took for MACS to produce accurate, reliable and comprehensive accounting information?

Although non-financial information predominantly came from other specialized staff services and was not their first responsibility, finance and control staff realized that an integration of financial and non-financial information was of important added value to care managers and would possibly enhance the interest in MACS and vice versa the weight of MACS enactments in the deliberations with and between managers. The effects, enacted by the newly introduced integrated report, seemed to confirm these expectations.

Possible legitimating or sanctioning purposes of MACS information were looked at with suspicion and denounced as ‘political’ fuss. After all, MACS produced facts which were derived from ledgers and cost centres. These facts were beyond discussion and surpassed political rivalry.
In the enactments of MACS the care needy client was missing. By contrast, the new type of client, i.e. the care consumer, made his indisputable entrance. With regard to the concept of ‘care living’, MACS produced clients with purchasing power as one of the main characteristics.

\[\text{Figure 9.8 MACS actor-network and finance and control staff at SC}\]

\textit{MACS actor-network enactments related to senior management at SC}

The second MACS were those of senior management, meaning the board of directors and the location group managers. Their growing involvement with MACS was twofold. First of all, they made extensive use of MACS. In policy decisions with regard to the increasing environmental uncertainty, the delegation of responsibilities and files such as ‘care living’, MACS was explicitly present and guided courses of action. For example, in the considerations of senior management whether or not to focus on clients with a high indication for care, aspects such as revenues and costs per client played a prominent role. And the idea of ‘care living’ was several times examined on all possible financial aspects, including rent rebates, before senior management approved of this concept. With regard to the budget responsibilities of team managers, senior managers expected them to stay within budgets. This precondition was regarded as self-evident. If a team manager nevertheless did exceed his budget some kind of
alarm bell went off, putting all ongoing deliberations on hold to rearrange necessary attention to solve the budget problem. All these examples illustrate the dominant presence of MACS in the considerations and courses of action of senior management at SC and the compulsory frameworks which MACS enacted and to which managers at SC had to comply.

According to senior management, the combination of empowerment of team managers and reliable control mechanisms necessitated a broad deployment of MACS as twofold enabler. Inadequate MACS would either fail to mobilize team managers to take financial responsibility or hinder senior management to stay in control or, even worse, both. Or the other way round, adequate MACS enactments were essential enablers of the strategy of SC. In the deployment of MACS, interactive control practices dominated. These practices contributed to the commitment to MACS at all managerial levels and consequently to the successful deployment of MACS and its enactments at SC.
Although senior management took account of the potential effects that the dissemination of MACS would enact at SC, they were more or less unpleasantly surprised by some effects they did not anticipate. Firstly, location group managers noticed how MACS reports influenced the attitude of team managers. The so-called ‘island thinking’ and the wrong application of the ZZP tool by first responsible nurses were examples of how MACS performed attitudes which location group managers considered as counterproductive and harmful for SC and its clients. Secondly, because the shared folder made all MACS results visible and comparable throughout the organization, the danger of stigmatizing effects of MACS figures was all but hypothetical. After several negative experiences, senior management was eager to prevent these stigmatizing effects by promoting interactive control practices and presenting best practices as learning opportunities. And finally, senior management started to realize that MACS did not provide adequate information on probably the most important performance indicator, namely the relation with the client. Current MACS enactments could not take away the uneasy feeling among senior management of not knowing for sure whether SC was really successful. To monitor the relation with clients, senior management stressed the importance of non-financial information. Consequently the recently introduced quarterly report, which integrated financial and non-financial information, was received well.

With regard to the profile of the client no real distinction was made between the ‘care needy’ client and the client as ‘care consumer’. Both at senior and team level, managers acknowledged the development towards a profile of more self-conscious clients who asked for more custom-made care services. But at the same time these clients were still in need of care and attention like generations of clients before them. MACS however displayed only the image of the care consumer and proved incapable to show the care needy profile.

MACS actor-network enactments related to team management at SC

Previous remarks with regard to clients also applied to the version which team managers pointed out as MACS. Whereas the care consumer was clearly visible in files such as ‘care living’, team managers searched in vain for traces of the care needy client on the MACS radar.

In the day-to-day practices of team managers, MACS manifested themselves in the monthly income statements as presented in the shared folder and the ZZP tool. Team managers demonstrated to be quite committed to these MACS objectifications. They accepted and deployed MACS as important signposts in their day-to-day considerations and activities. At SC, a top down ‘enforcement’ of MACS by senior management was fading away and a bottom up ‘cherishing’ of MACS by team managers was taking over. In fact, MACS had become important co-designers of the position of team managers. To explain this finding, the following two examples are illustrating.

Firstly, detailed MACS reports per department created a ‘shop within the shop’ idea with team managers in the role of managing directors of their own department. Responsibility, which was reproduced by means of budgets in Euros, was regarded as the ultimate sign of delegation and had a motivating effect, reflected in high co-occurrences between quotes coded with ‘decentralization’, ‘empowerment’ and ‘accountability’. Although every team manager solemnly stated that the interests of the location group as a whole were more important than the interests of an individual department, there were several indications that team managers
were primarily devoted to their own ‘shop within the shop’. Detailed reporting per department nourished this devotion.

Secondly, team managers had experienced the weight of financial arguments in the consultations with their superiors. On their turn, team managers succeeded in using financial arguments to persuade their team members. This way MACS became important aids to team managers to consolidate their management position. Not surprisingly team managers opposed a proposal to report no longer on team level or on department level but solely on aggregated location group level. They feared that these aggregated figures would insufficiently mirror their individual actions and those of their teams. Consequently this proposal would deprive team managers of important arguments and erode the autonomy of their management position.
Although team managers did realize the supervising and disciplining characteristics of MACS, to most team managers this was hardly a problem. After all MACS results were seldom considered to be outcomes which dictated the end of a story but were regarded as input for the consultations with colleagues of finance and control staff and senior management. These consultations went beyond the figures and focused on the stories and experiences behind the outcomes. Team managers copied these interactive control practices to their deliberations over MACS results with their team members. Apparently, the embedding of MACS enactments in the day-to-day actions of managers was closely aligned to the interactive control experiences of these managers.

Several team managers experienced current MACS enactments as too much focused on control issues and of limited use with regard to so-called ‘soft’ matters. The latter aspects were better reflected in non-financial information such as indicators on the quality of care services. Non-financial information was used a lot by team managers, particularly in their deliberations with team members. More than once non-financial information acted like a lever to animate attention to financial information as well. However, the compartmentalized way in which management information was provided by the separate specialized staff services caused doubt whether team managers considered information on quality of care services as a part of MACS.

\textit{\footnotesize; Finally}

Of a reality called MACS three different versions are pictured. To recapitulate, the first picture outlines an object that enacts comprehensive, reliable and accurate information which is considered to be essential to facilitate and empower a successful delegation of tasks and responsibilities. The second picture describes a successful and widely used management tool that arouses all kinds of behaviours. Some ways of behaving are unexpected, turn out to be difficult to control and even are disapproved of as being counterproductive. And in the third picture, MACS is cherished as an essential co-creator of a managerial position.

\textbf{9.3. Final reflections}

The ontological turn reveals the complexity of relations and tensions as results of the enactment of MACS in localized settings. This complexity was not confined to differences between finance and control staff, senior management and team management in the three case organizations. Equivalent echelons in different case organizations produced different perceptions of MACS as well, blurring pictures even further. In fact, section 9.2 exposes the deep-seated range of these differences by picturing different objects, all called MACS.

To fully comprehend the complexity, as disclosed by the extensive field research conform the research guidelines in the chapters 4 and 5, and reproduced in the three case descriptions in the chapters 6, 7 and 8, the suggestion of Watson (2007) to take the ontological turn proved to be helpful. Or more concisely, although MACS were introduced as seemingly homogeneous tools to steer and control care organizations in transition, these accounting inscriptions were translated by a heterogeneity of users, revealing MACS as an ‘heterogeneous object’
(Quattrone & Hopper, 2006) whose ontology could only be understood if one realized that it attracted and performed diversity and heterogeneity (Busco et al., 2007).

In line with sections 4.4.2 and 9.2 this research explored the ontological turn (Watson, 2007). This concept was used to fully picture the multiplicity of MACS. Only after acknowledging the profoundness of the differences in perceptions of MACS by revealing multiple versions of MACS which are somehow still related (Law, 2004), solutions may be found to questions such as how to balance and manage these different MACS objects.

To take an ontological position means “...we need to be looking at networks where objects precisely have to adapt and change shape if they are to survive” (Law & Singleton, 2005 p. 339). Section 9.2 shows multiple MACS which were enacted according to different logics, speaking different languages. For example, in the cases of BCC and TRG the object that was called MACS by the finance and control staffs differed considerably from the object that was named MACS by the team managers. And it is questionable whether finance and control staff of BCC would recognize the enactments of the object which was called MACS by senior management at SC as elements which belonged to the object they themselves called MACS.

Nevertheless these multiple MACS were still related to one another through partial connections (Gad & Jensen, 2010). They did not exclude each other but were entwined, according to the idea of fractality (Mol, 2002). For example, although senior management at SC disapproved of the so-called ‘island thinking’ of their team managers who on their turn experienced detailed MACS information as a pillar of their managerial autonomy, both echelons shared the same vision with regard to MACS as enabler of a successful delegation of responsibilities and an obvious monitor of budgetary discipline. And although team management at BCC had yet limited experiences with MACS, several of them were willing to acknowledge the point of view of senior management with regard to the necessity of the extension of MACS to the level of team management and the advantages MACS was supposed to bring about.

By taking the ontological turn it was possible to fully picture the multiplicity of MACS and to untangle the rhizome resembling tangle of sociotechnical relations around MACS. By depicting the profundity of the differences in perceptions of MACS, possible leads of how to manage these differences may be found.

Next step in this research project is to return to the two main research questions of this study and to ascertain whether enough findings have been gathered to answer these questions. The outcomes of this finalizing effort are presented in chapter 10.
Chapter 10

Conclusions
“Accounting is a practical activity – it surfaces in talk and formal reports generated by human actors and expensive enterprise resource planning systems on a regular basis (monthly, weekly, yearly, etc.). It is distinguished through reality and folklore by the very routine nature of its activities. Yet, we often choose not to study it as a situated social practice. Instead, we study it from a distance – through mathematical formulae, surveys, quasi-experiments, and through analysing patterns in stock price databases. As a result, there is much to know about how accounting is enacted in localized, contemporary business settings. It is argued that one route to greater knowledge is to rediscover accounting and strategy as contingent, lived verbs rather than abstract nouns.” (Chua, 2007 p. 8)

10.1. Introduction

This chapter presents the final step of this research project. The ultimate purpose of this chapter – and this study – is to formulate valid and reliable answers to the two central research questions of this study:

1. Why and how do MACS enact and are MACS enacted upon by other actants in three case organizations, all operating in the Dutch sector of nursing homes, homes for the elderly and home care?

2. How can management in the Dutch sector of nursing homes, homes for the elderly and home care learn from the translation processes of MACS in the three case organizations?

The main verb in the first research question is ‘to enact’. This verb represents the notion that when actants act they bring structures and events into existence and set them into action, creating social constructions and relations (Weick, 1988).

The inducement and relevance of these questions were explained in chapter two of this study. In a fast pace, the Dutch sector of nursing homes, homes for the elderly and home care has to transform from risk free financed public services to market oriented social enterprises. To cope with consequential challenges, MACS were introduced in this sector as management tools, enabling management to timely recognize and quantify possible risks and to control their organizations. Features of MACS were described in chapter three, both from a functional perspective and through performative lenses. The data for the benefit of this study were gathered in accordance with the research guidelines as presented in the chapters four and five. In these chapters the choices of (post) ANT and case study research were clarified. Well equipped with these guidelines, this research project entered the field resulting in three descriptions of three case studies. In the penultimate chapter of this study the findings were specified from an ontological point of view. In short, in the previous chapters all ingredients have been assembled to complete this study by presenting its conclusions in this final chapter.
Firstly, in section 10.2.1 the concluding remarks of a somewhat scientific nature are presented. In fact this section provides the answers to the first research question. Highlighted are the translation of MACS, the usefulness of the framework to depict the corresponding processes, the performativity of MACS and the added value of the ontological turn, revealing multiple objects called MACS.

Secondly, in section 10.2.2 conclusions with a practical and managerial relevance are listed. Obviously these conclusions aim at answering the second research question. Highlighted are the importance of non-financial information and the possibility to use this type of information as lever to mobilize attention to financial MACS information as well. Also underlined is the quality of interactive control practices to stimulate the connectedness to MACS. And finally, ample attention is given to two possible points of departure on how to manage the multiplicity of MACS objects.

This chapter finishes with a list of the limitations of this study and some suggestions for future research. In particular the question how to use the performativity of MACS to broaden its relevance by offering a social perspective (Modell, 2014) is emphasized. By stretching its relevance, connectedness of MACS with the social goals and corresponding motivation of care organizations can possibly be enhanced.

![Figure 10.1: Overview of the structure of this study](image)

### 10.2. Conclusions

This study offered a review of the enactment of MACS in three case organizations, all operating in the Dutch sector of nursing homes, homes for the elderly and home care. It showed how MACS were introduced and extended in a sector which has to transform to market oriented social enterprises in a fast pace (ActiZ, 2012b; ActiZ, 2013; ActiZ, 2014a; ActiZ,
2014b; BDO, 2013; Wolswinkel & Achterberg, 2011). Until 2009 this sector consisted mainly of risk free financed public services. Due to the steep increase in health care expenditures, the Dutch government introduced New Public Management (NPM) related measures to contain these costs. The introduction of competitive and private sector-like practices aimed for an improvement of efficiency and effectiveness (Canoy, 2009; Conrad & Guven Uslu, 2011; Conrad & Guven Uslu, 2012; Cools, 2008). This line of reasoning was not unique to the Dutch authorities; it was adopted by many other West European governments as well. In the Netherlands new reimbursement systems like the so-called ‘care packages’ (‘zorgzwaartepakketten’ or ZZPs) and the normative housing component (NHC) meant that organizations in the Dutch sector of nursing homes, homes for the elderly and home care had to fundamentally change their way of conducting businesses in order to meet the new risks which were posed by the introduction of these new regulations.

The increase of perceived environmental uncertainties (PEU) was profoundly noticeable as a result of the austerity measures taken by the Dutch government in the same period. In particular regulations concerning the extramuralization of clients with a low indication for care posed a serious risk of real estate becoming vacant and consequently loss-making (Gupta Strategist, 2012; Nederlandse Zorgautoriteit, 2012; Nederlandse Zorgautoriteit, 2014a). Aforementioned developments in PEU were complicated by the replacement of the so-called ‘thankful’ generation of clients with a more emancipated and critical type of client, asking for custom-made care services (ActiZ e.a., 2012c; ActiZ, 2013; ActiZ, 2014b; Loogman & Velthuijzen, 2010). To cope with these new entrepreneurial challenges this study presumed and also ascertained that managers in the three case organizations needed additional management information. Moreover, this increase in PEU coincided with a delegation of tasks and responsibilities in the three case organizations. Team managers were in touch with the myriad of day-to-day problems and were therefore supposed to come up with customized solutions to specific and individual problems and wishes of clients. This in turn invigorated the need for extra MACS to offer senior management the information they needed to stay in control and at the same time provide lower management echelons with the proper information to comply with their new responsibilities.

The preliminary remarks, as mentioned in the previous paragraphs, could be read as the introduction of a functional display of MACS as useful instruments whether or not enabling management of the case organizations to handle aforementioned challenges. However, this study chose another perspective. It chose a relational perspective that was filled out by a close empirical investigation of the many relations between both human and non-human actants, all involved in localized MACS enactments. In line with (post) ANT thinking, MACS were revealed as multiple objects which were different but at the same time related. Although looking homogeneous from the outside, MACS got translated by the heterogeneity of its users (Quattrone & Hopper, 2006). The three case studies displayed MACS as a phenomenon which enacted and was enacted upon, creating different awareness’s. Moreover, MACS were not a well-defined whole. As an object, it was not closed off but had semi-permeable boundaries (Mol & Law, 2004 p. 57). The ‘MACS-we-do’ appeared to be neither a whole nor fragmented but rather a complex mix of performative relations.

Where to start? Following Latour and Nicolini (Nicolini, 2009b; Ren et al., 2012), this study started ‘in the middle’. This research entered the field before the black box, called MACS, was
closed. All three organizations were in the middle of deliberating and implementing all kinds of plans to optimize their operations somehow. For example, BCC had plans to increase the development and application of MACS, TRG was in the middle of a long term reorganisation and at SC new developments with regard to an integrated report were still fresh. Nevertheless it is possible to draw concluding remarks concerning the effects of the enactments of MACS in these three organizations, all operating in the sector of nursing homes, homes for the elderly and home care.

10.2.1. Theoretical relevance

This section displays the relevant research findings of a predominantly theoretical nature. The findings in this section constitute the answers to the first research question:

*Why and how do MACS enact and are MACS enacted upon by other actants in three case organizations, all operating in the Dutch sector of nursing homes, homes for the elderly and home care?*

*MACS as solutions to uncertainty*

First of all, the application and extension of MACS in the three case organizations showed developments that were in line with previous research on the application and deployment of MACS. Consistent with several studies in the profit sector (Abdel-Kader & Luther, 2008; Abdel-Maksoud et al., 2005; Merchant, 1990), this research showed that the increase in PEU was a major inducement for all three case organizations to deploy more advanced MACS. With regard to this development, both in horizontal (extension on the same managerial level) and in vertical direction (extension to lower managerial levels) extension of MACS practices were evident. At senior management level new MACS information, such as long term forecasts and scenario analyses, were introduced. MACS-related topics figured more and more on the agendas of senior management. At the same time all kinds of budget responsibilities were delegated to team managers. The latter development was caused by an increase of PEU as well. More specifically, the transition from standard care services to more custom made services impelled senior management in all three case organizations to rearrange the organization to more decentralized models. After all, team managers were directly in touch with the myriad of day-to-day problems and were therefore better equipped to come up with custom-made solutions. As a consequence MACS information was translated and detailed at team level and vice versa MACS offered senior management the tools to stay in control despite the delegation of tasks and responsibilities.

*MACS as translation of MACS: centres of calculation and discretion*

The employment of MACS caused new experiences. These experiences indicated MACS as ‘centres of calculation’ (Justesen & Mouritsen, 2011; Latour, 1987; Robson, 1992) with their corresponding inscriptions and artefacts which enabled accounting to reveal all practices, how small or distant they might be (Vaivio, 2006). MACS made all results of each location and of each department transparent and available for assessment by senior management. At BCC,
every two months location management was invited by the board of directors to explain the results of the location based on income statements composed by finance & control staff. At TRG the so-called gross margin was dominant, directive and visible to all managers. If negative, this figure urged team managers to take actions to make sure that in the next month this figure signalled green again. And at SC the so-called shared folder, which was accessible to every manager, impelled team managers to stay within budget.

These centres of calculation were also experienced as ‘centres of discretion’ (Munro, 1999). Several team managers stated they were aware of the fact that MACS made their performances transparent to senior management, causing a state of suspense among these interviewees. Would senior management show leniency when departmental results were negative again due to long sick leaves? This example illustrates the shift from accounting as a technology towards accountability as a social and relational practice (Vosselman, 2013). Even more, it shows how MACS acted as a new authority and mediated in who and what was important, what counted as significant and which developing prospects got endorsed and which not. These field studies revealed MACS as “an actant rather than an instrument in the hands of human beings” (Vosselman, 2014 p. 185). And as actants, MACS were marked out as ‘sociomaterial’ (Mol, 2002) because MACS enactments manifested a constitutive and mutually shaping entanglement of the social and the material (Orlikowski, 2007). For example, at TRG the employment of MACS enhanced the status of finance and control staff. Like a vicious circle this animated finance and control staff on their turn to promote the investment in a strategic planning tool and to design new dash boards to improve the receptivity of team managers to MACS. At SC, MACS became a co-designer of the position of team managers who experienced MACS as an enabler of a more autonomous management position. This animated team managers to explicitly ask for detailed MACS information. And at BCC sick leaves became an important topic in management meetings because MACS revealed once too often an exceeding of personnel budgets, frustrating team managers because they felt unable to contain the many cases of reporting ill.

\section*{Performativity of MACS}

Findings indicated that the increase in PEU started off an increase in deployment of MACS. To limit the interpretation or assessment of this development to a functionalist perception, depicting MACS as neutral and cybernetic systems that measure and monitor managerial performances, would be wrong. Several examples, obtained during extensive field research, illustrated how accounting practices thoroughly influenced thinking and behaviour of interviewees. At SC location group managers experienced how detailed reports, showing figures and results per individual department and team, created a strong focus on departmental results amongst team managers. One location group manager disqualified this inclination as ‘island thinking’ because, according to her experiences, team managers acted insufficiently in the interest of the location group as a whole. This example illustrates the proposition that “the implementation of management by the numbers ... strengthens the systematic construction of calculable selves” (Vosselman, 2013 p. 3) and displays the performative effects of economics through accounting.

This research argued and illustrated by means of three case studies that MACS were not solely instrumental and neutral tools but provided value-laden information and assessment
influencing incentives as well. The enactment of MACS brought along a new vocabulary. Particularly at senior management levels, words like ‘business case’, ‘efficiency’, ‘profitability’, ‘entrepreneurial’ and ‘business risks’ became quite common. Moving to lower management levels, this vocabulary was used less and sometimes even caused offence. Some interviewees wondered whether this vocabulary was compatible with their vocation to health care. They probably realized that these words were not without consequences but introduced a new or ‘hidden curriculum’, consecrating new competencies and performances (Oakes, Townley, & Cooper, 1998). This assumption was consistent with remarks of interviewees who referred to the importance that was attached to MACS-related arguments, hitherto unknown in this sector. For example, in all case organizations team managers were supposed to have adequate financial competences at their disposal. Financial results were part of the assessment interviews with team managers. And at SC, team managers were well aware of the importance of the financial profile of their clients to make an initiative like ‘care living’ worthwhile. In short, MACS were mediators of a new frame of thoughts and considerations.

These findings showed how MACS were granted an important role because they were seen as “actors that take part in the formulating, construction – and often stabilisation – of organizational activities” (Justesen & Mouritsen, 2011 p. 176). This is in line with other studies which show that health care organizations are not immune for the performative consequences of this practice of management by the numbers (Chua, 1995; Conrad & Guven Uslu, 2011; Conrad & Guven Uslu, 2012). Nevertheless, signs of possible crowding out effects of intrinsic motivation due to instrumental accountability were absent in this research. The fairly recent full scale introduction of MACS in this sector is the most probable explanation for this apparent contradiction. After all, there were no indications that employees in this sector were safeguarded against negative side-effects of NPM practices which did appear in other sectors (Frey et al., 2013).

MACS as continuous shifting set of tensions

This study argued that MACS certainly did not settle existing tensions. Instead they introduced new sets of tensions. This study did not provide an answer to the question whether a specific set was better than another one. However, it provided a micro dynamic and tailor-made explanation of how in these particular cases the MACS network unfolded. Instead of employing mainstream accounting research methods, which mostly isolate a number of accounting variables, this study produced rich stories of lived MACS practices and associations. The presumption as if MACS were efficient in improving a few parameters proofed to be shortsighted (Alcouffe et al., 2008). Or to quote Mol and Law: “If all MACS practices are interventions … than they should be appreciated accordingly. Thus not only their effectiveness in improving one or two parameters but the broad range of their effects deserves self-reflective attention.” (Mol & Law, 2004 p. 58) In line with this quote, this study described how MACS introduced a shifting set of tensions. For example, at BCC some managing directors were unpleasantly surprised by MACS fuelled arguments to deprive them of real estate responsibilities. At TRG, team managers who worked in the nursing homes were reluctantly figuring out how to cope with the so-called gross margin which still felt extra-terrestrial to them. And at SC, a successful employment of MACS turned out to be insufficiently capable of representing soft controls like the quality of the relations with clients.
MACS change proved to be not a once-only and transitory event. More or less stable situations were only temporary until new developments took place. The chances of new developments were manifold. New regulations with regard to remunerations followed in a fast sequence. Moreover, the yearly negotiations with health care insurance companies often resulted in new budget cuts. Repeatedly senior management of the case organizations initiated new policy plans to cope with all these changes. As a consequence, a state of flux was probably a more accurate characterization of the observed MACS practices. In line with the study of Tsoukas and Chia (Tsoukas & Chia, 2002), change could be seen as the more or less normal condition of organizational life in the three case organizations. In managing these continuous changes, managers should be aware of “both the unavoidable irruptive power of events and of the fact that actor-network changes constantly occur in different spaces and at different times. Having acknowledged this, managers should become aware of the ‘unconscious’ background of their organizations, seeing them as not only human and non-human milieu that they control, but also as a fabric of relations that constantly move, translate and change without either entailing a precise design in nature or the accomplishment of intentions as prime movers of strategic change” (Lancione & Clegg, 2013 p. 22).

To illustrate aforementioned quote of Lancione and Clegg, the following examples of unforeseen actor-network effects are useful. At BCC both finance and control staff and senior management were not prepared for the reaction of several team managers with regard to the extension of MACS to team management level. In contrast to the presupposed delegation enabling effects of MACS, team managers reacted with restraint to the MACS enactments which were all but self-explanatory to them. Several team managers at BCC even quite successfully circumvented MACS. At TRG, finance and control staff reacted suspiciously when the so-called front-runner teams disapproved of the dash boards, which were recently introduced by finance and control staff, and convinced the board of directors to allow them to experiment with alternative dash board software. And at SC, location group managers were worried by the too autonomous attitude – referred to as ‘island thinking’ – which MACS had enacted amongst their team managers. This (side-)effect of a successful employment of MACS was not anticipated by senior management. How to enact MACS to make sure that team managers would closely monitor the interests of their departments and at the same time would not neglect the interests of the location group their teams were part of?

\section*{Framework of translation}

In line with literature on accounting change (Alcouffe et al., 2008; Baxter & Chua, 2003; Quattrone & Hopper, 2001), the enactment of MACS practices and the changes this provoked, did not unfold like linear and predictable processes. On the contrary, it was more like an ongoing circular movement of network associations. The three cases showed different enactments of MACS, each consisting of several sets of relations and tensions, intermingled in a tangle of network connections. These findings illustrated once again the necessity of replacing the verb ‘to diffuse’ with ‘to translate’, indicating that MACS “are never merely diffused, adopted or implemented; they are adapted and translated and, at the same time, they are enrolled in an actor-network that reconfigures other actors’ interests” (Justesen & Mouritsen, 2011 p. 176). In this study ‘to translate’ indicated a relational process of enacting and reconfiguring of MACS through mutual interacting connections between MACS and various other actants.
Conclusions

The process of translation was made operational by means of the framework depicted as table 4.2. This theoretical framework, which was derived from Callon (Callon, 1986b), proved to be useful to disentangle the many field data, which demonstrated a heterogeneity of actants and accompanying acts and interests, into a structured picture of distinguishable processes of translation. It offered points of departure to map and depict the locally translated MACS relations with other actants. This was illustrated in the chapters 6, 7 and 8. However, to avoid any hint of social constructivism due to what might be seen as a description of the various interpretations of MACS by different segments of employees, the relational or post-structural nature of this study was underlined in chapter 9. This chapter displayed the so-called ontological turn (Watson, 2007) by explicitly aiming the research focus on the ontology of objects. In fact, this ninth chapter highlighted the far-reaching consequences of the concept of translation by adding an extra performative dimension through turning the research focus on the ontology of MACS.

Towards an ontological turn

The complexity was not confined to differences in perception of MACS between finance and control staff, senior management and team management in the three case organizations. Comparison of the cases showed that equivalent segments of employees in different case organizations produced different perceptions of MACS as well. In fact, the objects, which were pointed out as MACS by different segments of employees in three different case organizations, differed to such an extent that it was doubtful whether an epistemological stand of view offered sufficient leads to untangle aforementioned tangle of network relations. According to this point of view, objects like MACS look complex and messy because the various stakeholders, who work with these systems, have different perspectives and consequently make different interpretations (Mol & Law, 2001; Mol & Law, 2004). Starting from this epistemological perception, the main task of the researcher is “to explain the different perspectives and so retrieve the real object behind the interpretations” (Law & Singleton, 2005 p. 333). This epistemological perception presupposes “one non-human world that provides a stable baseline for multiple human interpretations” (Gad & Jensen, 2010 p. 72). Transcribed to this study, an epistemological point of view presupposes immutable MACS which are obscured by different interpretations. But perhaps this approach itself creates a part of the complexity and disarrangement: by shaping and ordering clarity and distinction, certain problems, which do not fit in, risk being neglected and made invisible or ‘othered’ (Law, 2004), creating messiness once again and consequently a sense of discomfort.

The discomforting feeling of not fully comprehending what caused the complexity of perceptions of MACS motivated this study to follow the proposal of Law and Singleton (2005) to change the research focus to the ontology of MACS. What if the differences between versions of MACS were due to the nature of MACS itself rather than the multiple interpretations of MACS by its users? This passage is also known as the ontological turn (Watson, 2007), depicting MACS as different objects, enacted in different sets of relations and contexts (Law & Singleton, 2005). A limitation to an epistemological point of view would obscure the scope and profundity of the differences that had to be bridged and somehow brought in line to deploy MACS effectively and unambiguously. After all, “... might it not be the case that, if we want to understand objects, to characterize and study them, then we need
to attend as much to the mutability of what lies invisibly below the waterline, as to any immutability that arises above the surface?” (Law & Singleton, 2005 p. 337)

Instead of being fixated on how to reconcile the various perceptions of an object that was supposed to be one object, this study started from the assumption that below the surface of the detailed case descriptions there were several objects enacted which were all called MACS. Consequently, close descriptions of these different MACS were required to learn the differences and similarities. The ontological point of view introduced concepts like multiplicity and fractionality (Watson, 2007). In line with Gad and Jensen (2010), this study argued that the complexity of MACS was a combination of multiplicity – there were different versions of MACS which were all pointed out as MACS – and fractionality or partial connections – these different objects were related but not at all points or in all dimensions. Analogous to Mol who concludes that “there are different atheroscleroses [parallel to different forms of knowledge which all enact a specific version of this disease] in the hospital but despite the differences between them they are connected; atherosclerosis enacted is more than one – but less than many” (Mol, 2002 p. 55), this study explains that there were different MACS enacted, not just between different care organizations but within the same organization as well. And despite the differences these versions of MACS were connected. Both multiplicity and fractionality are illustrated in the following examples.

At TRG, the object that was called MACS by finance and control staff differed considerably from MACS which were enacted in the network relations with team managers. The enacted complex of comprehensive, reliable and accurate accounting data, which finance and control staff regarded as the cornerstone of their professional status, crumbled to little more than one percentage in the enactment of MACS in the network with team managers. Nevertheless, this percentage, the so-called gross margin, proved to be the essential connection between both versions of MACS. Team managers understood the importance of this percentage without a clear idea what all those other figures and percentages in the so-called integrated survey meant. On the other hand, finance and control staff, more than once startled by the limited accounting knowledge of team managers, were often reassured when the gross margin, a key performance indicator which affected the outcome of many other indicators, was well understood by team managers.

At SC, team management downplayed their supposed ‘shop-in-shop’ attitude and did not recognize the behavioural drawbacks that frustrated the agenda of senior management. They opposed the idea of senior management to present each month only aggregated results without detailed figures per department. This proposal of senior management hit the core of MACS enactments which co-created the position of team managers. On the other hand, both senior and team management searched in vain for a picture of the care-needy client in MACS. As a consequence, these managers confronted their colleagues from finance and control with critical requests which hardly belonged to the object which finance and control staff themselves called MACS.

And finally, although MACS per case organization differed considerably, there were common features as well, probably due to inter alia the isomorphic effects of the many sector symposia. TRG had its HMM tool to calculate the permitted direct personnel costs, based on the input of the number and the weight of ZZP’s. SC had developed its own ZZP tool to
generate the same information. At TRG and SC these tools were integrated in the budget cycle and enabled team managers to closely monitor team budgets. All employees involved considered this type of tool as an indispensable gear-wheel in the enacted complex of MACS relations. At the time the field research at BCC took place such a tool was missing in this case organization, frustrating in particular employees who had experiences with this type of tool at former employers. In the summer of 2014, when field research at SC was still going on, the head of finance and control at SC told they just had sold user rights of their ZZP tool to BCC.

Multiple objects called MACS

Pictured from an ontological, also called post ANT, point of view and in line with the research of Mol (Mol, 2002), this study disclosed multiple objects called MACS. Per case study at least three different realities, which were pointed out as MACS, were distinguished. This multiplicity was fully pictured and mapped in order to realize how MACS, although looking homogenous from the outside, got translated by the heterogeneity of its users to different objects (Quattrone & Hopper, 2006). Different objects, all called MACS, were established by attracting and mobilizing other actants in different sets of relations, revealing the relational ontology of MACS (Hassard & Wolfram Cox, 2013; Vosselman, 2014). These findings underlined the argument of John Law, explaining that “entities take their form and acquire their attributes as a result of their relations with other entities” (Law, 1999 p. 3). For example, the differences in the MACS enactments at SC compared to those at BCC were at least partially due to the differences in the realization of the policy of delegation. Successes and failures of MACS enactments were the results of interactions with policy making, organizational culture, competences of employees and many other aspects which even varied between different locations within the same care organization. Differences between MACS were generated in the different networks of relations and thus should not be presupposed (Hassard & Wolfram Cox, 2013 p. 1710). When the board of directors at TRG allowed – to the displeasure of some members of finance and control staff – the so-called front-runner teams to introduce an alternative dash board program, members of the board justified this decision by explaining that the opinion of team managers and their teams was leading in the ultimate decision which MACS information in which way to present at team level. Although these board members could only guess what the outcome would be, they were convinced that their basic assumption was valid.

At the same time the post ANT or ontological perception of MACS can be used as meaningful starting point in the quest how to bridge and manage these differences. After all, post ANT researchers such as Law (2004) and Mol (2002) make a stern distinction between pluralism and multiplicity. Multiplicity “does not imply that reality is fragmented. Instead it implies something much more complex. It implies that the different realities overlap and interfere with one another.” (Law & Urry, 2004 p. 61) Besides the many differences there are also partial connections. In delineating the multiplicity of MACS, partial connections, such as indicated by the examples in the previous sections, become visible as well. These points of coherence can serve as starting points for managerial efforts to bridge and line up differences. In other words, these leads are useful to answer the second research question.

Conclusions
10.2.2. Managerial relevance

This section displays the research findings of a predominantly practical and managerial nature. These findings comprise the answers to the second research question:

How can management in the Dutch sector of nursing homes, homes for the elderly and home care learn from the translation processes of MACS in the three case organizations?

One of the consequences of the choice of ANT as methodology is the limited number of ready-to-use conclusions. On the face of it, ANT seems to produce detailed descriptions of localized relations which accurately illustrate the many choices that can be made during the processes of translation but fails to offer leads for practical and generally applicable conclusions. Nevertheless, it is possible to distil the data of this study into some useful managerial suggestions. To this purpose, the performative character of this study necessarily becomes slightly diluted by lines of thought of a rather ostensive nature.

<Monitor (dis)connectedness

For a start this study argues to pay attention to the degree of interressemment and connectedness of actants. For example the TRG case showed, not all actants involved were convinced of the added value of MACS. In particular team managers, who worked in the nursing homes, were inclined to interpret MACS as something that mainly concerned senior management and that would not really affect professional care practices. Consequently, these actants hesitated to connect – at least during the period the field research took place – to the corresponding MACS networks, undermining the intended solution providing enactment of MACS. If not all relevant actants connect to the MACS enacted networks, the enacting movement, apart from the question in which direction it evolves, could falter and dilute. To manage this risk, one should monitor who connects and who does not for what reason. The framework of translation, as depicted in table 4.2, can be used to map out to what extent which actants are interested or connected. This offers the opportunity to notice possible reluctance of key actants in time. This study showed that there are many possible reasons for not getting connected. It is up to management to recognize and address these reasons.

<Importance of non-financial information

In all three cases, management proved to be susceptible to non-financial information such as figures on sick leaves, quality of health services and client-satisfaction. In line with the case study of Vaivio at Lever Industrial, this study argues that non-financial indicators have the potential of being “not a merely functional management technology, but also an active element that restructures organizational reality” (Vaivio, 1999 p. 413). Contrary to financial information, which was fairly new to most managers, non-financial information often touched the core of the vocation of many care managers. In all three case organizations non-financial information contained an important potential with regard to the receptivity to MACS, in particular at the level of team management. This supports a broad interpretation of MACS information (Bouwens & Abernethy, 2000) in addition to which non-financial information is used as a kind of lever to generate attention to financial information as well. By using this
receptivity and connectedness to non-financial information to draw attention to the relations between non-financial and financial information and subsequently to financial information itself, the enactment of network relations with MACS can be encouraged and advanced.

In order to increase the effectiveness of its function as lever, as suggested in the previous paragraph, this study provided indications that all non-financial information should preferably be integrated and presented together with financial information in one reporting tool or format. This suggestion was prompted by the hesitation, which was shown by the team management at TRG and SC, to consider non-financial information on quality of care services as MACS information. In all three case organizations financial and non-financial information were separately produced by different specialized staff services. At TRG and SC indicators on quality were presented through separate reports as well. Although team managers at TRG and SC attached great importance to this information on quality, question marks remained whether these team managers really saw this information as MACS information. Only after supplementary questions these team managers acknowledged that information on quality of care services was in fact part of MACS information. Due to the full integration of both financial and non-financial information including information on the quality of care services in MACS, traces of this somewhat narrow definition of MACS information were absent among managers at BCC. A complete integration of both financial and non-financial information in one MACS format is important not only in support of proposed lever function of non-financial information but also for the benefit of a careful and complete assessment of diverging information. Developments at both TRG – which recently had introduced new dash boards containing financial and non-financial information including indicators on quality of care services – and SC – where quarterly reports with fully integrated information were well received – demonstrated that the benefits of an integrated reporting of MACS information were recognized.

Interactive control practices

The study of Vaivio (1999) at Lever Industrial shows another interesting quality of non-financial information. Once systematized into a regular and integrated reporting format, "it appears as if the systematized non-financial measures became a vehicle of focused interactive control" (Vaivio, 1999 p. 430). Both interview quotes and co-occurrence analysis indicated that non-financial information positively related to interactive control practices in the three case organizations. However, non-financial information did not distinguish itself for stimulating interactive control from two other applications. Co-occurrence analysis showed that, besides non-financial information, financial information and internal benchmark information played an important role in interactive control practices as well. The design and findings of this research do not offer the possibility to isolate the effects of separate variables.

With regard to diagnostic and interactive control practices, both frequency of relevant quotes and co-occurrence analyses indicated that the latter category of practices failed to prevail at BCC, were more on hand at TRG and more or less dominated at SC. These differences in enactment of interactive control practices in the three case studies ran parallel to the differences in vertical enactment and ditto connectedness of MACS in these cases. This finding suggests that interactive control practices are positively related to connectedness with MACS. Moreover, interview quotes indicated that interactive control practices were in particular
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effective at lower management echelons. To a lot of managers, particularly team managers, MACS information was fairly new and consequently necessitated much explanation and deliberation, offering opportunities to exploit MACS as a learning machine (Naranjo-Gil & Hartmann, 2007a). In this way, interactive control practices seemed to promote the receptivity of managers towards MACS. Particularly at lower management levels, interactive control practices proved to be helpful to familiarize managers with MACS information and to learn how this information could facilitate primary processes. In fact these interactive control practices come close to the plea of Roberts and Vosselman to reinforce the social potential of accounting by focusing on interdependence and interaction over results (Roberts, 2009; Vosselman, 2013).

\textit{Motivating effects}

The previous remarks link up to the positive motivating effects, which interviewees attributed to the delegation of MACS-related tasks and responsibilities. In all three case organizations, co-occurrence analyses showed strong associations between quotes coded as ‘decentralization responsibilities’ (code 433), those coded as ‘employee empowerment’ (code 436) and those coded as ‘accountability’ (code 437). Particularly at the level of team management these associations were strong. These associations indicated a stimulating and motivating effect of the delegation of MACS-related responsibilities. Both frequency as well as co-occurrence scores suggested this relation was least strong at BCC and most strong at SC with TRG again in the middle, suggesting this relation invigorated as the delegation to this level of team management intensified.

\textit{No evolutionary template}

If aforementioned co-occurrence scores are added to those on interactive control practices, one might get the impression that the three case organizations could be sorted or classified in accordance to some kind of evolutionary template. According to such a template BCC would be the least developed organization with regard to the evolution of MACS enactments, SC the most developed and TRG somewhere in the middle. Nevertheless, even though this line of reasoning might seem obvious, ANT offers no space for evolutionary patterns. Law and Singleton explain that an object “did not need to ‘evolve’ over time to change but only required the enactment of different realities and connections with different practices” (Law & Singleton, 2005 p. 336).

\textit{How to balance different MACS?}

Whether MACS could enact the aforementioned enabling and motivating effects of decentralization was not self-evident given earlier explanations on the multiplicity of MACS objects. This study showed that the object which team manager called MACS differed from the object that senior management called MACS and the object that was called MACS by finance and control staff had again other features. Taking into account the continuous movement of network connections and corresponding tensions between different interests, emanating from different professional backgrounds and conflicting areas for special attention, it is necessary to look for some kind of manageable balance between the different MACS objects. This study suggests two possible routes to create such equilibrium. After all, given the
inevitable need for financial management and the corresponding need for financial accountability, MACS “could be designed in ways to ensure that they are enabling and then be used in an interactive way to provide the forum for their on-going application” (Chenhall et al., 2010 p. 753).

 Route 1: The ‘in charge’ concept

The first point of departure relates to the questioning of the mainstream ‘in control’ concept. This ‘in control’ thinking assumes a sequence of rational steps that have to do with measuring, planning and monitoring, enabling the manager to stay ‘in control’. Key words in this approach are ‘steering’ and ‘sense of purpose’. It is an instrumental approach which pictures organizations as systems containing more or less predictable cause and effect relations. This study however sketched a total different picture of both MACS and the organizations in which MACS were enacted. It showed the heterogeneous translations (Quattrone & Hopper, 2006) of MACS by its various users and depicted organizations as groups of human and non-human actants interacting in a tangle of network relations. This study described processes which managers could only partially control. Streetfield (2001) calls this ‘the paradox of control’. He states that managers “have to live with the paradox of being ‘in control’ and ‘not in control’ simultaneously” (Streetfield, 2001 p. ix). Change is only manageable to a limited extent and is in need of “an awareness requiring a de-centralization of the selves that presume change agency in order to appreciate the others – human and not-human – that shape as much as these managers (think they) do” (Lancione & Clegg, 2013 p. 23). According to Streetfield, managers have to handle the anxiety of being ‘not in control’ by fully participating within the many network relations. They have to get involved in the performative processes of network building. As a consequence, managers should focus less on the mainstream concept of ‘in control’ – acting from a functionalist perspective on organizations as rational and manageable entities – and more on the ‘in charge’ concept instead – acting from a perspective on organizations as social and relational constructions and processes of human and non-human interaction (Van ‘t Hek & Van Oss, 2009).

 Route 2: Outside-in orientation

Indications for a second route how to balance different but fractional coherent MACS objects and how to bring these objects, all called MACS, to some extent in line with each other are found in the third case study. This case provides suggestions how finance and control staff can promote connectedness among care managers with regard to enactments of MACS. At BCC and TRG, the way of thinking of finance and control staff was predominantly inside-out, meaning their reasoning started from their well-defined accounting body of knowledge and went on to determine almost unilaterally how to deploy MACS in this new environment and how to service management. At BCC, there were hardly any traces of discussions between finance and control staff on the one hand and care managers on the other about the content and lay out of MACS. As far as MACS proved too difficult for care managers to connect to, additional training and education were supposed to suffice to clear away this objection. This way of thinking neglected the profound differences in perceptions of MACS. At TRG, the opinions among finance and control staff varied. One controller at TRG stated that MACS information for middle managers and team managers had been stripped of all its frills and was so much compressed by now that further adjustments were unnecessary and even impossible.
Another controller however doubted whether she and her colleagues sufficiently empathized with the experiences and needs of care managers.

Notions with the latter purport were a lot more frequent at SC. In this case organization there were indications of a turn of finance and control staff towards an outside-in orientation. Meaningful was the job description of ‘counsellor’ to denote the role of finance and control staff on the one hand and that of ‘client’ to qualify the role of care managers on the other. At the time field research took place, this development towards an outside-in orientation was not completed but already resulted in practices that could be characterized as co-creation and organizational learning. An example was the combined project team of finance and control employees and care managers to investigate the feasibility of a proposal – made by a team manager and now also project member – to link the duty rosters with the ZZP tool in order to calculate in advance the financial consequences of the deployment of employees. This type of ‘MACS we do’, in which different logics positively and creatively intermingled, offered new opportunities to increase both relevance and connectedness of MACS. This procedure fits the call of Vosselman to consciously opt for the creation of a relational ontology of management accounting (Vosselman, 2014) in which performativity of MACS is used to prevent externally – towards other professional realms – oriented defensiveness and to nourish intersubjective relations (Fischer & Ferlie, 2013 p. 45).

10.3. Limitations

If only because practices are never fully articulated (Ahrens & Chapman, 2007), this research has its limitations. The limited number of cases as well as the uniqueness of each case are obvious reasons to recoil from firm conclusions which claim a broad significance. The insights gathered from the three case studies cannot be used to judge enactments of MACS in other networks (Alcadipani & Hassard, 2010). Indeed, the outcomes of the chosen methodology are time specific in localized settings. Or in the words of Law: “... we are left with situated enactments and sets of partial connections ...” (Law, 2004 p. 155).

Whereas this research is limited to a micro view of individual care organizations, the question whether the introduction of systems like MACS and corresponding managerial practices have broader societal effects is beyond the scope of this research. To explore this broader societal perspective a so-called ‘multi-level research’ (Modell, 2014) is needed. Neither does this study provide answers to obvious questions whether efficiency of care services improved as result of MACS or whether decentralization and customization of care services improved client satisfaction. All these aspects lay beyond the limits of this study. But with regard to the enactment of MACS in three care organizations, all operating in the Dutch sector of nursing homes, homes for the elderly and home care, this study provides a comprehensive and holistic picture of a rhizomatic complexity.

Another limitation, which is inherent in aforementioned holistic approach as well as in the qualitative nature of this research, is the impossibility to make distinctions in the separate mutual effects. For example, how well non-financial information promoted interactive control practices in the three case organizations was hard to define. Co-occurrence analysis showed that, besides non-financial information, financial information and internal benchmark
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information played an important role in the advancement of interactive control practices as well. The design and findings of this research do not offer the possibility to isolate the separate effects of the relevant variables.

Finally, as explained in section 9.4, this study limited the number of perceived outlines of MACS to three depictions per case organization: one of finance and control staff, one of senior management and one of team management. Nevertheless there were other segments of employees, like for example the segment of first responsible nurses, who were introduced to MACS as well. Although these additional segments were still barely distinguishable in their relation to MACS at the time this research took place, the probability of more perceptions than depicted in this research should not be excluded.

10.4. Future research

This study shows that care organizations in the Dutch sector of nursing homes, homes for the elderly and home care are susceptible to management by numbers. Multiple examples were displayed to illustrate how MACS figures somehow influenced day-to-day practices of care managers. This raises the question what possible consequences MACS enactments have on the professional attitude and motivation of managing health care professionals. Are these developments harbingers of the arrival of the homo economicus (Vosselman, 2013) in this sector? Signify these developments the start of so-called crowding out effects (Corbey, 2010; Frey et al., 2013; Ghoshal, 2005; Sandel, 2012) which will erode the intrinsic motivation of these managing health care professionals?

Aforementioned considerations are in fact a plea not to confine MACS practices to some kind of narrow instrumental accountability but to broaden its relevance by offering a social perspective also (Modell, 2014). By stretching its relevance to an actor-network perspective, MACS become useful to a broader range of interests in the current network society and its characteristic pluricentricism. If MACS are really performative – and this study demonstrates these systems are indeed performative – the question arises how to use performativity of MACS? Is it possible to enhance the performativity of alternative and broader concepts of MACS (Vosselman, 2013)? After all, things might always be otherwise (Law, 2008).

In line with the percipline of Latour (Latour, 1987 p. 10), this study shows that the success of MACS enactments is determined less by the designers of MACS and its relations to an underlying economic reality than by those who come after and their relations with MACS in a network of actants and accompanying interests. Taking this empirical fact into account, this study offers two possible starting points for further research into enactments of MACS which connect to the social goals and corresponding motivation of care organizations and its employees.

To begin with, this study showed that the delegation of MACS-related tasks and responsibilities produced motivating and stimulating effects, reflected in strong co-occurrences between the codes ‘decentralization responsibility’, ‘employee empowerment’ and ‘accountability’ at the level of team management. These co-occurrence scores reveal MACS as potential enablers and motivators, indicating a process which looks similar to the
concept of ‘enabling formalization’ of Adler and Borys (1996). Characteristics of this enabling formalization are usability, transparency, flexible learning opportunities and co-design. Research indicates that this enabling type of formalization encourages motivation based on identification and integration, meaning the person involved internalizes goals as well as the discipline which is necessary to reach these goals. In contrast to this type of motivation, research distinguishes introjected motivation, which is based on avoidance of guilt and search of approval. In accordance with the so-called Self-Determination Theory (SDT), researchers prefer the former type of motivation because identifying motivation is more autonomous, more enduring and more vigorous (Adler & Borys, 1996; Deci & Ryan, 2000; Gagné & Deci, 2005; Lam & Gurland, 2008; Van den Broeck, Vansteenkiste, De Witte, Lens, & Andriessen, 2009; Vansteenkiste et al., 2007).

Although possible links with aforementioned psychological studies are beyond the scope of this research, it is conceivable that these studies might provide leads how enactments of MACS can go hand in hand with processes of enabling formalization and autonomous motivation. A similar request is made by Becker et al. (2013). In their ANT oriented study on how the identities of German public sector accountants were transformed through the introduction of Accrual Output-Based Budgeting, Becker et al. ask the question whether it is possible to come up with solutions to transform “some moral obligation into one where people become ‘happy’ performing their responsibilities” (Becker et al., 2013 p. 13). This study presumes that the degree and type of motivation is important in order to enrol and mobilize actants in a more positive and enduring way. Future research might investigate how to connect the performativity of MACS with psychological frameworks such as SDT in order to enact network relations with and around MACS which emanate from as well as stimulate autonomous motivation.

The positive experiences with practices of interactive control are a second possible starting point for future research. This study produced many examples of how managers mobilized commitment and accountability amongst employees through practices that were categorized as interactive control. How to foster these practices by traits of what Roberts (2009) calls ‘intelligent accountability’ would be a challenge worthwhile. Future research could shed light on the feasibility of a combination of so-called hard controls – i.e. instrumental accountability to foster individual accountability – and trust building soft controls aimed at relational interdependence (Roberts, 2009; Vosselman, 2013). The latter facet could be linked to the question whether it is possible to enhance some kind of creative cross functional integration or hybridization of the domain of finance & control staff with that of managing professionals in health care.

Aforementioned suggestions for future research may be more inviting if one considers the performativity of doing research: “Every time we make reality claims in science we are helping to make some social reality more or less real.” (Law & Urry, 2004 p. 396)
References


References


Bédard, J., & Gendron, Y. (2004). Qualitative research on accounting: Some thoughts on what occurs behind the scene. In C. Humphrey, & B. Lee (Eds.), *The real life guide to accounting research: A behind the scene view of using qualitative research methods* (pp. 191-206) Elsevier.


References


References


References


References


References


References


References


References


References


References


Appendices
## Appendix 1  Codes

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Appendices

Appendix 2  Interview Protocol

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<th>November 2012</th>
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Selection criteria case organizations

- Case organization has to comprise three types of care: nursing homes, homes for the elderly and home care.
- Case organization has several establishments or locations.
- Case organization is not situated in one of the four big cities in the Netherlands.
- Case organization classifies as ‘large’ conform the classification of ActiZ.

Prior to interview

- Per case organization, an average of approximate 20 employees, all somehow involved with MACS practices and of different hierarchical management levels, are interviewed.
- All interviewees receive three to five days before the interview a flyer with a short explanation of the research and its goals.
- All interviewees receive three to five days before the interview a - not (yet) signed - statement of informed consent.
- All interviews are digitally recorded. Adequate hardware is provided and checked.
- Following data is noted in a logbook: name – position – date – length of time interview – location.

During the interview

- Attitude of the interviewer is respectful, reserved and neutral. Judging statements by the interviewer are avoided.
- The interviewer starts the interview with small talk, not related to the research project, to ease the interviewee and to promote a pleasant atmosphere.
- The interviewer explains to the interviewee the objectives of the research project and refers to flyer.
- The interviewer checks whether the interviewee has read the statement of informed consent and asks interviewee to sign the statement.
- The interviewer is alert to ask the interviewee how practices, which the interviewee refers to, are registered or recorded. During further field research these records are consulted for data triangulation.
- The interviewer is alert to ask the interviewee to give examples of experiences, statements and opinions.
- The interviewer asks the interviewee to substantiate his opinions.
- The interviewer recapitulates the conversation to check whether he has correctly understood the meanings and intentions of the interviewee.
• The interviewer is alert to statements and opinions which possibly conflict with statements or opinions of other interviewees.
• If possible and appropriate the interviewer asks the interviewee whether it is possible to attend meetings which are possibly relevant to the research project.
• If possible and appropriate the interviewer asks the interviewee whether it is possible to receive a copy of the documents the interviewer referred to during the interview.
• The last question of the interviewer is always whether the interviewee wants to add something or whether the interviewee missed one or more questions or topics which the interviewee did expect but were not asked.
• The interviewer is alert to remarks and final comments after the (formal) interview is ended. The interviewer writes these remarks and comments (which are more than likely not digitally recorded) in his logbook as soon as possible.

After the interview

• The interviewer takes care of the redaction of the transcription of the interview. With regard to the ATLAS.ti coding and ditto analysis, this transcription is as literally as possible.
• The interviewer sends a concept transcription to the interviewee and asks the interviewee to make corrections and additions if necessary. Furthermore the interviewer asks the interviewee whether he/she agrees with the transcription including possible additions and corrections made by the interviewee.
• The interviewer registers all corrections and additions of the interviewees.

Topics during semi-structured interview

1. The tasks, responsibilities, competences and authorizations of the interviewee in relation to MACS.
2. The amount, type and content of MACS information which are available to the interviewee.
3. The range of MACS information:
   a. financial information (production; productivity; costs; revenues);
   b. non-financial information (sick leaves; client satisfaction; employee satisfaction; quality of services);
   c. prospective information (demographic information; future scenarios);
   d. external information (market portfolio; market shares; external benchmarks).
4. The usage of MACS information or diagnostic versus interactive use of MACS information:
   a. the timing and frequency of discussions and deliberations of MACS information;
   b. the participants in the discussions and deliberations of MACS information;
   c. the items and character of the discussions and deliberations of MACS information;
   d. MACS as learning machine or just as answering machine.
5. The strong and the weak aspects of the present MACS and MACS information, according to the interviewee.
Appendices

6. How does the interviewee react to MACS-related tasks and responsibilities? Do these tasks and responsibilities discourage or motivate the interviewee? And why?
7. How does the interviewee experience MACS-related tasks and responsibilities? Do these tasks and responsibilities empower the interviewee as professional? Or do these tasks and responsibilities alienate the interviewee? Does the interviewee see these MACS-related tasks and responsibilities as necessary or as burdensome or as offering opportunities?
8. What developments in relation to MACS and MACS information does the interviewee expect?
9. Topics which are related to MACS practices of the interviewee and which the interviewee wants to mention or highlight.
Appendix 3 Statement of informed consent\textsuperscript{16}

The interviewee states that he/she voluntarily participates in the research project ‘Accounting as actor in health care. Different perceptions of management accounting and control systems in the Dutch sector of nursing homes, homes for the elderly and home care’. Purpose and design of this research project are as follows:

1. Purpose of this research project is to investigate how management accounting and control systems are operated in the Dutch sector of nursing homes, homes for the elderly and home care and how they can contribute to the effectiveness and the efficiency of care services in this sector.
2. The collection of data takes place through interviews with managers and employees who are somehow involved in MACS and MACS-related tasks and responsibilities. The interview takes 60 to 90 minutes.
3. The interviewee has the right to refuse, without giving any reason, to answer any question. The interviewee is entitled to end or break off the interview at any time he/she feels necessary, without giving any reason.
4. The data and research results are exclusively disseminated in an anonymous mode.
5. With regard to the guarantee of the anonymity and the confidentiality of the information, the following is applicable:

a. In all publications, which are related to this research project, both the identity of the case organization and the identity of the interviewee are made anonymous. Also paraphrases such as “one of the largest organizations in the city of Amsterdam”, are avoided.

b. Interviews and transcriptions of interviews are not available for consultation to colleagues (both within and outside the case organization) of the interviewee.

c. Only researchers, who are involved in this research project, have access to the interviews and the transcriptions of interviews.

d. After the interview, the interviewee receives a concept of the transcription. During a period of six weeks, the interviewee has the right to alter, to correct and/or to add any information to this transcription. During this period the interviewee also has the right to withdraw his/her cooperation, which means that the interview and corresponding transcription are not used in the research project. If the interviewee fails to give a reaction within aforementioned period of six weeks, the interviewer is entitled to presume that the interviewee agrees with the transcription.

e. The digital recordings of the interviews are kept safe until one year after finishing the research project. After this period of one year the records are deleted.

f. The transcriptions of the interviews are kept safe until ten years after finishing the research project. After this period of ten years the transcriptions are deleted.

6. The data and findings of this research project are exclusively used for research publications, educational purposes and a dissertation.

\textsuperscript{16} Original is in Dutch.
Appendices

7. Copies of aforementioned publications are at the disposal of all interviewees of this research project.

8. W.P.M. van Erp, lecturer at Utrecht University of Applied Sciences and PhD student at VU University Amsterdam, takes full responsibility for this research project. Possible complaints or objections can also be addressed to Professor Dr. F.A. Roozen and Professor Dr. E.G.J. Vosselman, both employed at VU University Amsterdam.

Read and agreed to (date): .................................................................

Signature interviewee: .................................................................

Name interviewee: .................................................................

Signature interviewer: .................................................................

Name interviewer: .................................................................
Appendix 4.1  List of interviews and documents case 1 – BCC case

<table>
<thead>
<tr>
<th>Nr.</th>
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<th>Position / Description</th>
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<td>January 2013</td>
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<td>Departmental manager</td>
<td>January 2013</td>
</tr>
<tr>
<td>T3</td>
<td>Transcription interview</td>
<td>Staff finance and control</td>
<td>January 2013</td>
</tr>
<tr>
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<td>Transcription interview</td>
<td>Managing director</td>
<td>February 2013</td>
</tr>
<tr>
<td>T5</td>
<td>Transcription interview</td>
<td>Manager care</td>
<td>Nov. 2012</td>
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## Appendices

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Appendix 4.2  Co-occurrence analysis case 1 – BCC case

(Filter $\geq 0.05$; blank rows are left out)

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<tr>
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</tr>
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Filter $= 0.05$

![Co-occurrence analysis table]

---

111_Probl_PEU_Financing
121_Probl_Solution_PEU_reducing_information
122_Probl_Solution_Enabling_decentralization
212_Interess_Agent_Higher_management
213_Interess_Agent_Team_manager
215_Interess_Agent_Staff
221_Interess_LegStory_Extern
222_Interess_LegStory_Intern
231_Interess_Critically_Organizational_context
232_Interess_Critically_Accountability
233_Interess_Critically_Financial_competence
234_Interess_Critically_General_competence
311_Object_Tang_Reports
312_Object_Tang_Dash_boards
313_Object_Tang_IT_programs
321_Object_Extension_Horizontal
322_Object_Extension_Vertical
411_Connect_Higher_management
412_Connect_Middle_manager
413_Connect_Team_management
414_Connect_Team_member
415_Connect_Team
416_Connect_Staff
421_Connect_Applic_Financial_information
422_Connect_Applic_Non-financial_information
423_Connect_Applic_Benchmarking
424_Connect_Applic_Prospective_information
425_Connect_Applic_External_information
431_Connect_Practice_Diagnostic_control
432_Connect_Practice_Interactive_control
433_Connect_Practice_Decentralization_response
434_Connect_Practice_Cost_efficiency
435_Connect_Practice_Coordination
436_Connect_Practice_Employee_empowerment
437_Connect_Practice_Accountability
438_Connect_Practice_Monitoring_care
441_Disconnect_Critics_inaccuracy
442_Disconnect_Critics_user-unfriendly
443_Disconnect_Critics_timeliness
444_Disconnect_Critics_limited_use
445_Disconnect_Critics_missing_MACS_info
530_Mobil_MACs_procedures
532_Mobil_Performance_standards
530_Mobil_MACs_artefacts
### Appendices

#### Co-occurrence ratio = C

Computed as:

\[
C_{ij} = \frac{n_{ij}}{n_i + n_j - n_{ij}}
\]

**Filter:**

<table>
<thead>
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<th>Co-occurrence</th>
<th>0.05</th>
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</table>
| 111_Probl_PEU_Financing | 122_Probl_Solution_PEU_reducing_information | 211_Interest_Agent_Higher_management | 212_Interest_Agent_Middle_manager | 213_Interest_Agent_Team_management | 215_Interest_Agent_Staff | 221_Interest_LegStory_Extern | 222_Interest_LegStory_Internal | 311_Object_Tang_Reports | 312_Object_Tang_Dash_boards | 313_Object_Tang_IT_programs | 321_Object_Extension_Horizontal | 322_Object_Extension_Vertical | 411_Connect_Higher_management | 412_Connect_Middle_manager | 413_Connect_Team_management | 414_Connect_Team_member | 415_Connect_Team | 416_Connect_Staff | 421_Connect_Applic_Financial_information | 422_Connect_Applic_Non-financial_information | 423_Connect_Applic_Benchmarking | 424_Connect_Applic_Prospective_information | 425_Connect_Applic_External_information | 431_Connect_Practice_Diagnostic_control | 432_Connect_Practice_Interactive_control | 433_Connect_Practice_Decentralization_respons. | 434_Connect_Practice_Cost_efficiency | 435_Connect_Practice_Coordination | 436_Connect_Practice_Employee_empowerment | 437_Connect_Practice_Accountability | 438_Connect_Practice_Monitoring_care | 441_Disconnect_Critics_inaccuracy | 442_Disconnect_Critics_user-unfriendly | 443_Disconnect_Critics_timeliness | 444_Disconnect_Critics_limited_use | 445_Disconnect_Critics_missing_MACS_info | 510_Mobil_Macs_procedures | 510_Mobil_Macs_artefacts | 510_Mobil_Macs_standards | 520_Mobil_Performance_standards | 530_Mobil_Macs_artefacts | 218

\[
\text{Computed as: } C_{ij} = \frac{n_{ij}}{n_i + n_j - n_{ij}}
\]
<table>
<thead>
<tr>
<th>Appendix</th>
<th>Co-occurrence ratio = C. Computed as: C_{ij} = n_{ij} / (n_i + n_j - n_{ij})</th>
</tr>
</thead>
</table>

**Appendices**

Co-occurrence ratio = C.
Computed as: 
\[
C_{ij} = \frac{n_{ij}}{n_i + n_j - n_{ij}}
\]


- **111_Probl_PEU_Financing**: 0.05
- **121_Probl_Solution_PEU_reducing_information**: 0.10
- **211_Interess_Agent_Higher_management**: 0.05
- **212_Interess_Agent_Middle_manager**: 0.08
- **213_Interess_Agent_Team_manager**: 0.03
- **215_Interess_Agent_Staff**: 0.05
- **221_Interess_LegStory_Extern**: 
- **222_Interess_LegStory_Intern**: 
- **231_Interess_Critically_Organizational_context**: 0.05
- **232_Interess_Critically_Accountability**: 0.06
- **233_Interess_Critically_Financial_competence**: 0.05
- **234_Interess_Critically_General_competence**: 0.05
- **311_Object_Tang_Reports**: 0.08
- **312_Object_Tang_Dash_boards**: 0.08
- **313_Object_Tang_IT_programs**: 0.08
- **321_Object_Extension_Horizontal**: 0.08
- **322_Object_Extension_Vertical**: 0.05
- **401_Connect_Higher_management**: 0.05
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- **404_Connect_Team_member**: 0.05
- **405_Connect_Team**: 0.05
- **416_Connect_Staff**: 0.05
- **421_Connect_Applic_Financial_information**: 0.05
- **422_Connect_Applic_Non-financial_information**: 0.05
- **423_Connect_Applic_Benchmarking**: 0.05
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- **425_Connect_Applic_External_information**: 0.05
- **431_Connect_Practice_Diagnostic_control**: 0.05
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- **433_Connect_Practice_Financial_information**: 0.05
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- **510_Mobil_Macs_procedures**: 0.05
- **520_Mobil_Performance_standards**: 0.05
- **530_Mobil_Macs_artefacts**: 0.05

**Computed as:**
\[
C_{ij} = \frac{n_{ij}}{n_i + n_j - n_{ij}}
\]
Appendices

Appendix 4.3  Audit trail

This appendix provides an explanation of how the selection and reduction of data and the process of ascribing meaning to the data took place. This description does not only apply to appendix 4.2 but also to the appendices 5.2 and 6.2. This appendix provides a description of the audit trail which was applied in this study and which Miles and Huberman (1994) mention as an advantage of ATLAS.ti to increase the procedural reliability.

All interviews were transcribed and these transcriptions, together with other documents and observation records, were loaded in ATLAS.ti. Next these so-called ‘primary documents’ were coded. Hereto the scheme of codes, as presented in appendix 1, was used. This scheme started with conceptual codes which were deduced from the theoretical backup as elaborated in the chapters 2, 3, 4 and 5. Based on the emphases in these chapters, open questions and corresponding codes were applied with regard to topics such as for example perceived environmental uncertainty, (lack of) experiences with interactive control practices, availability and application of types of information such as non-financial data and benchmark references and division of roles with regard to MACS-related tasks and responsibilities. This process is also known as top-down coding or deductive coding. To this list of conceptual codes, free codes were added in accordance with empirical data and suggestions which emerged during the coding process. This process is called bottom-up or inductive coding. The possibility to add free codes was frequently used to prevent the danger of forcing data into predefined frames. After testing several concept lists of codes through many rounds of coding according to the trial and error principle, a final list of codes was composed.

Furthermore, two researchers independently coded several transcripts, leading to an inter-rater coding reliability up to 88,7%, well within the minimum margin of 80% to 90%. This margin is accepted as standard to assess this type of reliability (Malina & Selto, 2001 p. 81; Miles & Huberman, 1994 p. 64). The percentage of 88,7% was established in two rounds of coding. The first round of coding took place in April 2013 and the second one in January 2014.

In both rounds the same two persons participated: one of the two supervisors and the PhD student/author of this study. In each round the coding of two interview transcripts were deliberated with the following results:

<table>
<thead>
<tr>
<th>Interview</th>
<th>Date</th>
<th>% Agreement</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>April 2013</td>
<td>90,1%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>April 2013</td>
<td>86,6%</td>
<td></td>
</tr>
<tr>
<td>After the first round of coding two existing codes were merged, one code was redefined and two new codes were added.</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
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<td>January 2014</td>
<td>88,8%</td>
<td></td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>88,7%</td>
<td></td>
</tr>
</tbody>
</table>

*Table 4.3: Inter-rater coding reliability*
Appendices

Although the frequencies of the various quotes are an indication of the relative importance of the separate quotes, they do not reflect the relations among concepts nor the intensity of these relations (Malina & Selto, 2001 p. 62). To overcome this limitation the co-occurrence tool, one of several analysis tools of ATLAS.ti, was used to calculate co-occurrence ratios (C) of all possible combinations of codes. These ratios were used to detect and quantify the strength of associations between coded quotations. In order to focus on the more meaningful associations a cut-off limit was chosen of C ≥ 0.05. This limit meant that approximately 30% of all co-occurrences were selected for closer examination. Lowering the cut-off limit caused a more than proportionate increase in the amount of associations and cluttered the overall picture accordingly.

The associations with C ≥ 0.05 were selected for careful re-reading of all underlying quotations. This was done with the help of a query tool in ATLAS.ti which offers the possibility to list all quotations which are part of a particular association. For example, if we select in appendix 4.2 the cell which represents the combination of ‘111_Probl_PEU_Financing’ and ‘121_Probl_Solution_PEU_reducing_information’ we can read a co-occurrence ratio of 0.15. Displayed in ATLAS.ti we can read that this co-occurrence comprises 18 quotations which are associated with each other. The verb ‘associate’ in this context means that a quotation encloses or is enclosed by, overlaps or is overlapped by, or is identical to another quotation. With the help of the query tool all quotations can be listed for careful reading and considering. This way, essential elements for the depiction of the process of problematization at BCC (see section 6.3.1) were sorted and composed. In short, this procedure not only displays the more powerful associations, it also enables the researcher to ponder over every detail which a particular association comprises.

All these elements together made it possible to build the narratives as displayed in the chapters 6, 7 and 8.
### Appendix 5.1  List of interviews and documents case 2 – TRG case

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<td>Managing director</td>
<td>August 2013</td>
</tr>
<tr>
<td>T2</td>
<td>Transcription interview</td>
<td>Managing director</td>
<td>September 2013</td>
</tr>
<tr>
<td>T3</td>
<td>Transcription interview</td>
<td>Team manager</td>
<td>December 2013</td>
</tr>
<tr>
<td>T4</td>
<td>Transcription interview</td>
<td>Team manager</td>
<td>November 2013</td>
</tr>
<tr>
<td>T5</td>
<td>Transcription interview</td>
<td>Team manager</td>
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</tr>
<tr>
<td>T6</td>
<td>Transcription interview</td>
<td>Information analyst</td>
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Computed as:

\[ C_{ij} = \frac{n_{ij}}{(n_1 + n_2 - n_{12})} \]

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**Appendices**
## Appendices

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Co-occurrence ratio = C
Computed as:

\[ C_{12} = \frac{n_{12}}{(n_1 + n_2 - n_{12})} \]