Managing commitment to change -
How to increase the success rate
of change initiatives

An investigation of formal and informal leaders’
perception of how to develop commitment
to organizational change

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Abstract
Although there exist numerous academic and practical theories and models regarding the subject of change management, research shows that 70 percent of all change initiatives fail to reach its objectives. One suggested reason for the failure rate is that there are not enough focus on the individuals in a change process. The individuals’ journey through change is a core process and developing commitment to change among individuals is suggested to increase the success rate of organizational changes. Moreover, the AEC industry (architecture, engineering, and construction) has undergone large technical advancements during the last decades, and the method of working with BIM (building information modeling) has affected the industry worldwide. Therefore, there is a need and desire for organizations to adapt to the changing industry and implement new work practices. Consequently, it is important to involve individuals in the change process and make them commit to the organizational changes.

The objective of this investigation is to research leaders’ perception of how to create commitment to change among individuals. A case study with a qualitative approach was used in order to conduct the investigation. Interviews were performed with two groups of leaders, formal and informal leaders, in order to investigate the two groups’ perception of the process of developing commitment to change among individuals. The empirical material were later on analyzed and quantified in order to detect differences in perception between the two different groups.

In large, the result showed that the role of the leader, clear leadership and the communication between change leaders and change recipients are important aspects to consider in the change process, and the process of creating commitment to change. Furthermore, the participants in this study recognized the individual as the core entity of the change process and the process of developing commitment to change. Also, a difference in perception was noticed between formal and informal leaders. The formal leaders showed, in general, a deeper understanding of the process of creating commitment to change and the different activities included in that process.

**Keywords:** Commitment to change, change management, organizational change, leaders’ perception
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List of Abbreviations

AC2C – Affective commitment to change
AEC – Architecture, engineering, and construction
C2C – Commitment to change
CC2C – Continuance commitment to change
CM – Change management
ESM - Eight stage model
FL – Formal leader
IL – Informal leader
NC2C – Normative commitment to change
R2C – Resistance to commitment
TR2C – The road to commitment
1 Introduction

The following chapter presents the introduction of the investigation, including background and the chosen case for this study. Furthermore, the chapter encompasses the problem formulation, research objective, and stated research questions. In addition, the structure of the report and the delimitations of the investigation are presented.

1.1 Background

In today’s modern world, technology and ways of working with new technologies are rapidly developing. Thereof, there is constant pressure on technology-based industries to continuously change their way of working with new technologies (Parker et al. 2013), whereas the industry of architecture, engineering, and construction (AEC) is highly affected by this. Additionally, for organizations to keep and gain market share, the competitive environment adds pressure to be constantly at the forefront of emerging technologies and working methods. Therefore, it is essential to have a flexible organization, and more specifically to be able to change work processes and the organization accordingly, so that the emerging technologies and methods can be supported (Skorstad & Ramsdal 2009).

One example of a technological advancement is the development of the technology, and methodology of building information modeling (BIM) (Eastman et al. 2011). When discussing the AEC industry, BIM has become a term widely discussed both in theory and in practice. However, it is still perceived differently depending on who is discussing it. Through rapid technology development as for example increased internet capacity and speed, BIM has emerged as a way of modeling buildings and more formerly a way of working with the re-use of information, and sharing of information (Eastman et al. 2011). More concretely, BIM has emerged as a methodology, and technology suggested to resolve issues regarding the interoperability between models, and tools used in the AEC industry (Succar 2009; Cerovsek, 2011; Eastman et al. 2011).

Furthermore, the implementation of BIM comes with numerous benefits, as for example cost and time reduction through the re-use of information (Arayici 2008; Aranda-Mena et al. 2009; Smith & Tardif 2009; Eastman 2011; Demian & Walters 2013). However, the implementation of BIM has primarily been discussed in regards to technicalities in theory (Smith & Tardif 2009; Eastman 2011; Jung and Joo 2011; Hartmann et al. 2012; Demian & Walters, 2013). Few studies have had socio-technical, and practical perspectives (Succar 2009; Arayici et al. 2011; Hartmann et al. 2012; Elmualim & Gilder 2013). While researchers in the field have pointed out the need for a bottom-up perspective when implementing BIM, investigating the change process of adopting or implementing BIM would be interesting (Arayici et al. 2011; Hartmann et al. 2012). This would provide a greater understanding, both practically and theoretically, regarding change processes in an AEC environment.

Moreover, to be successful there is a need to seize possible competitive advantages and develop capabilities through emerging opportunities. However, implementing or changing
work practices among professionals such as engineers and architects in regards to BIM is concluded to be a challenge, and in the need of experience in the transformation process (Aranda-Mena et al. 2009). Furthermore, this requires the need for flexible organizations (Skorstad & Ramsdal 2009). Consequently, the change of individuals’ working processes, and the execution of change initiatives needs to be thoroughly considered when adopting or implementing BIM. For more information on BIM, its benefits, and issues, please read Appendix 1. Building information modeling.

Change initiatives and projects are common in modern companies, and also an imperative for organizations to develop sustainably. However, according to researchers in the field of change management (CM), 70 percent of all change initiatives fail to be executed as planned (By 2005; Beer & Nohria 2000; Liebhart & Garcia-Lorenzo 2010; Raineri 2011; Amis & Aïssaoui 2013; Worley & Mohrman 2014). Furthermore, difficulties in accomplishing change are related to the complexity of transformations (Amis & Aïssaoui 2013). Interestingly one of the most prominent and recognized management consulting firms, also identified through a comprehensive investigation in 2008 that this failure rate actually still occurs about 2/3 of the times when executing change initiatives (Aiken & Keller 2008). Thus, even though the academic discourse has evolved, and new change management theories have been developed, the overall success rate of change initiatives in a practical setting has not increased significantly.

Although there are multiple academic theories about how to plan and implement change according to the different stages of the change process, companies face unsuccessful results (Lewin 1947a; Bullock and Batten 1985; Kanter et al. 1992; Kotter 1995). According to Parker et al. (2013) CM processes in regards to project management is lacking. They conclude that there is a need to align more practical project management processes with CM processes to increase the success rate of change initiatives (Parker et al. 2013).

CM theories as mentioned are often presented on a more general, theoretical, and conceptual level. Furthermore, Rune Todnem By presented a critical review of CM in 2005, concluding that there was a need for future research in regards to closing the gap between CM theories and practical CM methods (By 2005).

There exist a knowledge gap and issues when it comes to applying academic theories and concepts in regards to practical methods in change projects (Hughes 2007). It is not obvious how to apply the theories into practice, and a methodical line of action is missing. However, a number of CM researchers suggest that it is critical to engage the employees early on in the change process, in order to create commitment to organizational change (Oreg et al. 2011). Furthermore, developing commitment to change (C2C) is seen as a critical process for managers to consider in order to execute a change initiative successfully (Loup & Koller 2005; Conner 2006; Jaros 2010; Bouckenooghe et al. 2014). C2C is widely discussed in the academic discourse of CM and industrial organizational psychology. However, there is still a need to investigate how individuals develop C2C and provide managerial advice in regards to managing this process (Bouckenooghe et al. 2014).

From a more practical perspective researchers have separately developed two models that managers can use in order to understand and foster the development of C2C among
individuals in a change initiative (Loup & Koller 2005; Conner 2006). For example, The road to commitment presents an individual’s journey through change, from being aware of the change to being fully committed to it (Loup & Koller 2005). Thus, both purely academic research and more practical research recognize the process of developing C2C among individuals as essential in order to carry out change initiatives successfully.

Conclusively, the implementation and adoption of BIM in the AEC industry needs to be further investigated from a socio-technical perspective, whereas the individuals’ part of the change process is critical. At the same time failure still occurs among change initiatives, although new general theories have developed in the field of CM. Furthermore, there exists a gap between practice and theory of CM. However, both researchers and practicing researchers acknowledge the process of developing C2C among individuals as critical in the pursuit of leading change successfully. Thus, it is valuable both from a theoretical and practical perspective to investigate the process of developing C2C in the AEC industry. Henceforth, the process of developing commitment to organizational change among individuals will be referred to as “the C2C process” or “process of C2C” in this investigation.

1.2 Sweco the case
Sweco Sverige AB (Sweco) is a technical consulting firm working in the AEC industry and offers consulting services in for example architecture, urban planning, energy systems, IT for urban development, and project management. Sweco is divided into several subsidiaries where Sweco Position AB (Sweco Position) is one of them. Sweco Position, as well as several other of the subsidiaries in Sweco, work closely with BIM. From a more practical setting the concept of BIM can shortly be defined as:

“Building Information Modeling (BIM) is a digital representation of physical and functional characteristics of a facility. A BIM is a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life-cycle; defined as existing from earliest conception to demolition.”
(Nationalbimstandard.org 2015)

The definition of the concept is highly subjective depending on its user and the context it is used in. When talking with practitioners at Sweco about BIM, three different meanings were acknowledged; Building formation modeling, Building information model, and Building information management. However, the academic discourse has focused on the first two meanings (Wong et al. 2010; Eastman et al. 2011). For a more thorough introduction of BIM and its benefits, please read Appendix 1. Building Information Modeling.

Sweco have set up a change initiative that in the near future will be executed and hopefully result in a more effective approach in how to work with BIM, to increase the profits of Sweco and Sweco’s customers, by cutting costs and increasing revenues. Thus, the change project aims to increase consensus when working with BIM as a method and introduce a standardized way of working with BIM cross-organizational in five of Sweco’s subsidiaries. This change project will affect and have an impact on hundreds up to thousands of Sweco’s employees and is at this moment in the prelude phase.
The change itself has emerged as an initiative derived from cross-disciplinary and cross-organizational forums among employees working in the AEC industry at Sweco. The change initiative is divided into a planning phase, a phase of developing deliverables used for implementation, and an implementation phase. The project is further divided into five parts or deliverables supporting the implementation whereas the actual change project is one of them. The change project aims to anchor the other four deliverables into the different subsidiaries, making sure it will be used as planned, and that specified results will be attained. A more visual presentation of the project can be seen in Figure 1 below.

Figure 1. A visual presentation of the change project and the involvement of organizations in the project.

The project itself has derived from a certain group of employees that can be described as BIM-enthusiasts, some with roots in the technical council of BIM in Sweden and the BIM Alliance. Furthermore, many of these enthusiasts have not only been those who have planned the different deliverables that are going to be implemented. They are also the ones leading the development of these deliverables. However, when it comes to the implementation phase, all five organizations involved will be separately responsible for the actual implementation. Consequently, the change project itself becomes complex, whereas BIM-enthusiasts to a large extent is planning and developing the deliverables. Furthermore, the cross-functional organizations and its managers (chief operating officers, regional managers, and group managers) will play an important part supporting the implementation and the change project.
Consequently, both the BIM-enthusiasts and the managers have important roles to play for the change initiative to become successful. As different leaders have different perceptions regarding the execution of a change it becomes critical reaching consensus regarding the execution in order to avoid failures and work towards the same goals. While some might find it necessary to have more of a top-down approach, others may have more of a bottom-up perspective on CM. Furthermore, these groups, BIM-enthusiasts, and managers (except region managers) will from here on be called “informal leaders” respectively “formal leaders”.

1.3 Problem formulation
There exists a need to know how to approach and execute change projects and initiatives in order to reach a higher success rate. An important aspect in regards to the success of change projects is to engage and commit all those who are affected by the change and thus make them commit to the change. Furthermore, there exists a gap between theory and practice on how to do this, and there is still a high failure rate among change projects. Change initiatives involving multiple organizations, disciplines, and leader roles increase the complexity of executing a change successfully. Furthermore, possible complications may occur when leaders have different perception of how the change process should be conducted, and more specifically how to engage and create commitment to change among employees. Thus, there is a need to investigate how formal leaders and informal leaders perceive the creation of commitment to organizational change.

1.4 Objective
The objective of the research is to investigate leaders’ perception of change management and specifically the creation of commitment to organizational change among employees. By doing this and comparing the findings with existing relevant theories, it will be possible to contribute to the academic discourse and at the same time provide managerial implications in regards to the specific case and industry.

1.5 Research questions
The following research questions have been posed in order to achieve the objective:

- What do formal and informal leaders in the AEC industry perceive as important in the process of developing commitment to organizational change?
- How do change management theories incorporate the process of developing commitment to organizational change?
- How does the perception of creating commitment to organizational change differ between formal and informal leaders in relation to theory?
1.6 **Structure of the report**

Table 1 presents the overall structure of the report and its chapters in short.

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1.7 **Delimitations**

The investigation was conducted during the spring of 2015 from January to June. Therefore, the scope of the research was delimited by the time available for this investigation. Furthermore, there are several factors that delimit this investigation.

Firstly, since the case company is based in Sweden, cultural and managerial differences between both companies and countries delimit the study to the AEC industry in Sweden. The study will not focus on any of these differences, except the difference between formal and informal leaders. Furthermore, and as previously presented, the case itself is a descriptive setting of which the investigation will occur in. Thus, although the change project involves the implementation of BIM, the research itself, merely touches upon the relation between C2C and the process of implementing BIM. More concretely, it is the setting presented by the case that is the fundamental phenomenon for this study i.e. the groups of informal and formal leaders in the change process.

Although, the research questions state; formal and informal leaders “perception” of the process of developing C2C, the psychological term of *perception* will not be discussed in specific. More fairly it will be used as individuals viewpoints, interpretations, and feelings for this process. However, it can arguably be acknowledged that the perception derives from an individual’s experiences, motivational state, and emotional state as described in theory (Johns & Saks 2005).

Secondly, as a consequence of the topic of CM and the extensive amount of literature available, the study and its theoretical scope had to be delimited. Therefore, the theoretical framework has been delimited to focus only on a few number of CM models. However, a
more extensive part of the C2C literature has been incorporated into the theoretical framework. When it comes to the more practical theories of the C2C development process, the study is delimited to The road to commitment and Conner’s eight step model (Loup & Koller 2005; Conner 2006).

Thirdly, Organizational commitment and commitment to organizational change is two different types of commitments which should not be seen as the same. This study does not focus on organizational commitment. However, it might be discussed in relation to commitment to organizational change.

Fourthly, the three-component model measuring C2C and its three components will not indefinite be separated in regards to the analysis, discussion or conclusions of this research. Because of that, C2C antecedes, or predictors are not separated depending on which component of C2C it actually contributes to.

Lastly, although leadership and leadership styles play a large part when it comes to leaders perception, and as the results point towards specific leadership styles, the study is delimited to discuss leadership styles in the result and analysis chapter explicitly.
2 Theoretical framework

This chapter presents the theoretical framework and contains a discussion of different approaches to change management. Furthermore, it explains how different change management theories relate to the creation of commitment to change among employees, and how commitment to organizational change is defined. A comparison of how to develop commitment to change, and a conceptualized model that incorporates change management theories and theory from the commitment to change area are presented.

2.1 Change management

How to lead and manage change successfully has become a principal issue for organizational leaders to address since the rate of change is higher today than ever before (Anderson & Anderson 2001; Moran & Brightman 2001). Managing change is a requirement for organizations nowadays in order to survive and reach continued success (Anderson & Anderson 2001). Furthermore, change is an ever-present element that affects all organizations (By 2005). As Kotter describes it, most organizational changes have the purpose to make fundamental changes in how business is conducted, in order to be able to cope with a changing and more competitive market environment (Kotter 1995). From a more practical perspective, CM refers to the set of different tools used to keep any change effort under control (Kotter 2011). Moran & Brightman define change management accordingly:

“Change management is the process of continually renewing an organization's direction, structure, and capabilities to serve the ever-changing needs of external and internal customers” (Moran & Brightman 2001, p. 111)

How to manage change

Managing change relates to managing people, as it comprises knowledge of human motivation, groups, and leadership (Moran & Brightman 2001). There is no widely accepted, clear, or practical approach to organizational CM (Burnes 2004b). However, when studying the literature two main approaches to CM can be recognized: the planned, and the emergent approach (Bamford & Forrester 2003). The planned approach has dominated CM practices during the last 50 years and is mainly based on Kurt Lewin’s theories (Bamford & Forrester 2003). Traditional planned CM strategies often involve sequential steps for altering organizational or individual behavior (Liebhart & Garcia-Lorenzo 2010).

Some of the first theories of how to manage change were presented in the 1940’s. Kurt Lewin, who is widely recognized in the academic discourse for his three steps of change, was a psychologist interested in resolving social conflict through behavioral change (Burnes 2004a). Kurt Lewin published Frontiers in group dynamics 1947, which presented a planned approach to change (Burnes 2004a). Lewin’s three steps of change are unfreezing, moving and freezing, which according to him are fundamental steps in order to create a successful change (Lewin 1947a). The first step is the unfreezing of the current state (Lewin 1947a). This is the process of defining the current state, pointing out the driving and resisting forces and visualizing the desired state (Cameron & Green 2012). The second step is moving to the new level, the
desired state (Lewin 1947a). This is done through participation and involvement (Cameron & Green 2012). Lastly, the third step is *freezing* the group life on the new level (Lewin 1947a). This step includes stabilizing the new state by establishing new standards, rewarding success, and setting new policy (Cameron & Green 2012). Lewin approaches organizational change as a process that moves from one pre-planned step to another, a process that contains fixed states (Bamford & Forrester 2003). The model distinguishes the need to abandon old behavior, structures, processes, and cultures before successfully adopting new tactics (Bamford & Forrester 2003). Furthermore, Burns underlines a particular statement in Lewin’s (1947b) work on action research, that for change to be effective, it must take place at a group level, and be a participative and collaborative process with the involvement of those concerned (Burnes 2004a).

Lewin’s three-step model is usually adopted as a general framework for understanding the process of organizational change, although it is a rather broad concept (Elrod II & Tippett 2002; By 2005). Other researchers have developed the planned approach further to make Lewin’s theories more practical (Bamford & Forrester 2003; By 2005). Bullock and Batten reviewed more than 30 existing CM models to develop their own four-phase model of organizational development (Bullock & Batten 1985). The four-phase model is based on that organizational development is a planned organizational change and can be divided into two blocks, the planning to do, and the doing block (Bullock & Batten 1985). The planning block of the change contains activities as for example the initial consideration of needs for the change, the actual decision to make the change, and the planning of the change (Bullock and Batten 1985). The doing block represents activities such as the implementation of the change, evaluation, and the decision to maintain the state after the change (Bullock & Batten 1985).

Furthermore, the planned approach has over the years received increasingly criticism in the academic discourse (Kanter et al. 1992; By 2005). It is suggested that the planned approach is adapted to small-scale change and, therefore, does not fit to be applied to rapid, large-scale transformational changes (Burnes 2004b; By 2005). Another critique is that the planned approach is based on that everyone within the organization, going through the change, agrees with the change and works in alignment with it (Bamford & Forrester 2003). However, this is not always the case (Bamford & Forrester 2003).

The emergent approach differs from the planned approach as it tackles the fact that change recipients must understand the change in order to agree with it (Bamford & Forrester 2003). Furthermore, it rather promotes a bottom-up approach than a top-down approach when it comes to commencing and implementing organizational change (Bamford & Forrester 2003). Emergent change can be described as change that emerges simultaneously as actors organize work, and can be unpredictable and unintentional (Liebhart & Garcia-Lorenzo, 2010). In addition, the emergent approach accentuates that change should not be perceived as a series of events but rather a continuous, open-ended process (Burnes 2004b). Some researchers in the area of CM who presents more of a practical guidance for managing change as for example Kotter, and Kanter et al., are advocates of the emergent approach (By 2005).

John P Kotter’s eight steps to transforming organizations are world renowned and often cited when discussing CM (Appelbaum et al. 2012). Organizational transformations are more likely
to succeed if one understands the challenges and pitfalls at each stage of the change process (Kotter 1995). Kotter’s eight steps to transforming an organization are:

1. Establishing a sense of urgency.
2. Forming a powerful guiding coalition.
3. Creating a vision.
4. Communicating the vision.
5. Empowering others to act on the vision.
7. Consolidating improvements and producing still more change.
8. Institutionalizing new approaches. (Kotter 1995)

Each step marks a stage in the transformation and tackles common errors made (Kotter 1995). However, Kotter did not reference any outside sources and based his eight steps to transforming an organization on his personal experiences (Appelbaum et al. 2012). Despite this, Appelbaum et al. argues that Kotter’s eight steps are an excellent starting point for managers to adopt when implementing change in their organizations. However, it should not be considered as a theory that guarantees success (Appelbaum et al. 2012).

Instead of focusing on a step model Kanter et al. named their model The “big three” model as it describes interconnected aspects of organizations, three kinds of motion, three forms of change, and three roles in the change process. Furthermore, Kanter et al. present ten commandments for executing change in connection with their “Big three” model:

1. Analyze the organization and its need for change.
2. Create a shared vision and common direction.
3. Separate from the past.
4. Create a sense of urgency.
5. Support a strong leader role.
6. Line up political sponsorship.
7. Craft an implementation plan.
8. Develop enabling structures.
9. Communicate, involve people, and be honest.
10. Reinforce and institutionalize change. (Kanter et al. 1992)

Kanter et al. underline that the organization must put a strong personal imprint on the change process. They can follow the ten commandments but must at the same time honor their specific culture, needs, and styles (Kanter et al. 1992). It is essential to tailor the commandments to give them meaning within the organization (Kanter et al. 1992). Furthermore, they also underline that the leader role in the change process is of particular importance to focus on i.e. support a strong leader role. The leader should drive, guide, and
inspire the change (Kanter et al. 1992). The ten commandments are similar to Kotter’s eight steps to transforming an organization as they present similar elements in their models (Kanter et al. 1992; Kotter 1995).

Moreover, the emergent approach has received critique as well, and since it is newer than the planned approach it has been stated that it lacks coherence and a diversity of techniques (Bamford & Forrester 2003; By 2005). Emergent theories also tend to be rather abstract and difficult to apply to the real life situations (Burnes 2004b).

Beer and Nohria’s article Cracking the Code of Change is included as one of the articles in HBR’s must-reads on change (Kotter et al. 2007). Beer and Nohria promote the use of a planned and emergent change process simultaneously, which means that a change process can be both planned and emergent (Liebhart & Garcia-Lorenzo 2010). Unlike other CM thinkers, Beer and Nohria have divided their theories about CM into two different theories, theory E and O (Beer & Nohria 2000). Theory E focuses on the economic value of the change, such as shareholder return (Beer & Nohria 2000). While theory O focuses on the organizational capability, such as developing corporate culture, building trust and emotional commitment to the company (Beer & Nohria 2000).

It is possible to apply theory E and O together to achieve rapid improvements in economic value and organizational capabilities (Beer & Nohria 2000). However, it requires determination and skill because the simultaneous use of theory E and O is difficult to manage, although it can lead to a sustainable competitive advantage (Beer & Nohria 2000). Companies must increase shareholder value as they build up the company culture to thrive and adapt (Beer & Nohria 2000). Theory E and O of business change must be in perfect step (Beer & Nohria 2000). Thus, this CM theory is unlike most of the others as it is not a model containing steps in how one should perform a change, but still accompanies essential building stones and important perspectives of the change process.

In conclusion, change processes can be divided into planned and emergent approaches however they can incorporate characteristics from both approaches. There exist several different theories and models about CM, some that act as a framework of how to handle change and others that incorporate practical steps with the purpose to avoid failure. Conclusively, the change process comes down to managing people in a change process. That includes how change leaders one way or another should act to manage the process of change so that it will be successful and adopted by the individuals involved in the change.

**Why do they fail?**

Even though, as shown, there are several CM theories and models, research shows that 70 percent of all change initiatives fail to reach its objectives (Beer & Nohria 2000; Aiken & Keller 2008; Koller et al. 2013; Worley & Mohrman 2014). Because of that, it is particularly interesting to address the question; why do they fail?

There is an underlying assumption that change involves a series of predictable steps that can be planned and managed (Graetz & Smith 2010). Change is neither simple nor straightforward, and unlikely to fit an n-step formula (Graetz & Smith 2010). Therefore, the management in organizations needs to understand the complexity of change (Graetz & Smith
Traditional CM models are no longer sufficient to guide organizations through the types of changes they are facing today. Since they often are constructed according to the assumption that changes have a clear beginning and end and that change is initiated and led by senior executives (Worley & Mohrman 2014). Additionally, the poor success rate indicates a lack of a valid framework of how to implement and manage organizational change (Burnes 2004b). There is a need for new types of CM theories, taking into account the modern structures and demands of organizations today (Worley & Mohrman 2014). Furthermore, there is a need to understand the inter-connections between different CM tools, models, theories and concepts (Hughes 2007). Perhaps even on a deeper level for each aspect of the different theories.

Furthermore, an increasing number of researchers argue that many change efforts fail since change leaders often underestimate the central role that individuals play in the process of change (Choi 2011). CM theories like Lewin’s and Bullock and Batten’s do not clearly incorporate the role of individuals in their change models (Lewin 1947a; Bullock & Batten 1985). However, other CM theorists as Kanter et al., Kotter, and Beer & Nohria have succeeded to do this, (Kanter et al. 1992; Kotter 1995; Beer & Nohria 2000).

Furthermore, the role of the individual is central to the change process, and perhaps the main role of the change (Conner 2006). Although some CM theories incorporate an individual perspective, they usually do not go into the specifics on a process level. Other more practical theories focus on the individuals’ journey throughout the change, and believe that individuals and their commitment to the change is suggested to determine the success of the change (Loup & Koller 2005; Conner 2006). Daryl R. Conner describes the need for individuals’ commitment to a change as:

“Successful change is rooted in commitment. Unless key participants in a transition are committed to both attaining the goals of the change and paying the price those goals entail, the project will ultimately fail.” (Conner 2006, p. 147)

Thus, commitment to a change initiative is suggestively an important part of CM in terms of succeeding. Therefore, it is interesting to investigate to what extent CM theories and models incorporate commitment.

**Change management theories regarding commitment**

The CM theories and models presented incorporate commitment in different ways. Kotter directly addresses commitment in one of his eight steps. The second step, *forming a powerful guiding coalition*, states that it is of importance to “come together and develop a shared commitment to excellent performance through renewal” (Kotter 1995, p. 62). More in detail, this step addresses the importance of creating a powerful and strong group to lead the change, which should involve employees from all levels of the organization, even the most senior executives (Kotter 1995). This is important in order to show faith in the change and develop commitment to the change among the personnel (Kotter 1995). Commitment to the change is a central and necessary component in Kotter’s change model (Portoghese et al. 2012). Kotter’s model describe how leaders may manage and involve their followers during a change (Nohe et al. 2013).
In contrast, Kanter et al. do not mention commitment in the ten commandments for executing change. However, since the commandments include the individuals’ needs and interests, this suggests that all of them in a way connect to the participation and because of that commitment of the individual and the individual’s journey through change. For example, the ninth commandment for executing change, *communicate, involve people, and be honest*, highlights the importance of involving the change recipients and thereof touches upon their commitment to the change project.

Furthermore, Beer and Nohria state that one should set the direction from the top and engage people below (Beer & Nohria 2000). Theory O is connected to employee commitment to change, and to the company (Beer & Nohria 2000). It is possible to develop a culture of trust and commitment by using theory O, (Beer & Nohria 2000). As Beer and Nohria (2000) underline, theory O is essential, as theory E and O have to be implemented simultaneously in order to reach success.

Lewin and Bullock and Batten approaches organizational development from a planned perspective, and there is no clear incorporation of creating commitment among employees in their theories. Lewin is often seen as advocating a top-down approach, a management driven approach to change, rather than focusing on a bottom-up approach to change (Burnes 2004a). However, it is said that Lewin believed the change would only be successful if gaining commitment of all people concerned, and reaching full involvement in the change process (Burnes 2004a). Consequently, it can be argued that Lewin recognized that change could be initiated from the top, middle or bottom, but that it would not be successful without active, willing, and equal participation of all individuals involved in the change (Burnes 2004a).

Furthermore, there are CM models that incorporate the creation of commitment in the model as an important part of the change process. One model is the Institutionalizing change model by Armenakis and Harris (2009). However, the process developing commitment to a change is not specifically described. Instead, the model describes how to establish a change, and at the final stage one of the three important elements in the model is presented as commitment (Armenakis & Harris, 2009).

In summary, there exist many theories and models regarding the subject of CM. Despite this, research shows that around 70 percent of all change initiatives fail. There are theories that state that the high failure rate is caused by an underestimation of the individual’s role in the change process. However, individuals and their commitment to the change is suggested to determine the success of the change. Conclusively, the general CM models mentioned above do not incorporate the process of developing commitment to change on a detailed level. While commitment to change is suggested to be an imperative to manage change successfully, it is not fully incorporated as a process from a general perspective of CM theories and models.

**2.2 Commitment to organizational change**

Commitment to organizational change has become a renounced topic in the academic discourse of CM and industrial organizational psychology as a result of organizations need to implement change initiatives successfully (Herscovitch & Meyer 2002; Meyer et al. 2007; Jaros 2010; Oreg et al. 2011; Michaelis et al. 2013). Although researchers in the area of C2C disagree when it comes to the term “Commitment to change” the different approaches to C2C
has a common theme: C2C is seen as an emotional state of mind reflected in cognitions (Jaros 2010). Additionally, Jaros concludes in his critical review of commitment to organizational change that C2C is discussed as a key psychological mechanism that connects behaviors of employees and organizational efforts to implement planned change (Jaros 2010).

Furthermore, researchers in the field of CM and C2C has during the last decades argued that building commitment among employees towards a change initiative is important in order to succeed, and support change initiatives (Conner & Patterson 1982; Coetsee 1999; Herscovitch & Meyer 2002; Conner 2006; Armenakis & Harris 2009). Researchers as Conner describe the importance of commitment as:

“Given that committed people will devote the time, money, endurance, persistence, loyalty, and ingenuity necessary, it is easy to see why commitment is critical for successful change. It is the glue that provides the vital bond between people and change goals.” (Conner 2006, p. 148)

Because of that, the development of C2C theories such as scales and measurements has kept on developing since it is suggested to support and act as a positive predictor of change initiatives. However, after reviewing the literature of C2C, Jaros identified one important issue to address: “does C2C positively predict change-supportive outcomes?” (Jaros 2010, p. 82). From a CM perspective, that means if C2C can predict individuals’ supportive behavior towards a change initiative. Although the results of predicting change-supportive outcomes have in a few cases showed contradicting results, Jaros (2010) concludes that:

“Concerning the last issue, the existing findings seem clear: C2C does indeed predict change-related behaviors.” (Jaros 2010, p. 92)

Furthermore, recent studies have provided similar findings in relation to C2C acting as a predictor of change-supportive outcomes (Oreg et al. 2011; Bouckenooghe et al. 2014).

Conclusively, although contradicting results have been found, it is suggested that C2C predicts positive change-supportive outcomes. Because of that, the process of developing C2C among individuals and thereby gaining positive support for change initiatives among change recipients and leaders, is suggested to be important to focus on when managing change.

**Unidimensional or multidimensional construct of commitment to change**

Another issue brought up by Jaros in his critical literature review of commitment to organizational change was the need for a multidimensional approach to C2C in contrast to the unidimensional approach (Jaros 2010). The unidimensional construct is used for measuring C2C, nothing more nothing less, while the multidimensional construct have been developed through the belief that individuals have different mindsets reflecting their course of action leading to the supportive behavior to change (Herscovitch & Meyer 2002).

Previous models that measures C2C have either been built on an unidimensional or multidimensional construct (Jaros 2010). Whereas the unidimensional approach has been represented to a larger extent than the multidimensional approach in the C2C literature (Conner & Patterson 1982; Coetsee 1999; Herscovitch & Meyer 2002; Conner 2006; Chen & Wang 2007; Conway & Monks 2008; Herold et al. 2008; Parish et al. 2008; Armenakis & Harris 2009). Furthermore, Jaros (2010) explains how the C2C models of Coetsee,
Herscovitch and Meyer, and Armenakis and Harris all have derived from the basic framework of the model presented by Conner and Patterson in 1982 (Jaros 2010). Because of that, they are all in some sense bound to each other. Regarding whether to use a unidimensional or multidimensional scale of measurement, Jaros (2010) states that:

“What all these conceptualizations share is the notion that C2C reflects some kind of attachment to and involvement in the change initiative, which results from awareness of the change, some combination of motivating factors, be they goal congruence, affective affinity, or self-interest, and the mental/physical ability to work on behalf of the change initiative.” (Jaros 2010, p. 81-82)

Thus, whether or not a multidimensional or unidimensional construct is valid, they all seem to measure the same thing. Moreover, Jaros’ literature review resulted in mixed evidence regarding the need of an unidimensional or multidimensional construct, and the research on the area of C2C has not yet concluded whether a multidimensional construct is needed or not. However, previous and more recent research shows differences in result regarding the mutual relation between the different components of the multidimensional approach, and in some cases support for it (Meyer et al. 2007; Jaros 2007, 2010; Soumyaja et al. 2011; Bouckenooghe et al. 2014). Thus, a multidimensional construct might better work as a measurement of C2C.

Although researchers have not agreed upon or validated a specific construct of models in regards to measuring C2C, the three-component model presented by Herscovitch and Meyer in 2002 has showed support among researchers. Furthermore, it has been used in several studies during the last two decades (Herscovitch & Meyer 2002; Stinglhamber et al. 2002; Powell & Meyer 2004; Chen & Wang 2007; Myeong-Gu et al. 2007; Parish et al. 2008; Shum et al. 2008; Machin et al. 2009; Neves 2011; Soumyaja et al. 2011; Portoghese et al. 2012; Nohe et al. 2013; Michaelis et al. 2013; Bouckenooghe et al. 2014).

Recent researchers in the field, as for example Bouckenooghe et al. (2014) argue that the three-component model of Herscovitch and Meyer measuring C2C has a more person-centered approach in contrast to unidimensional models (Herscovitch & Meyer 2002; Bouckenooghe et al. 2014). Furthermore, they conclude that the model plays a significant role in regards to explaining employees’ behavior, and support for change initiatives:

“This multi-dimensional perspective not only better reflects peoples’ different reactions towards change (i.e., affect, cognition and intention) but is also anchored in a more generally acknowledged and robust theoretical framework.” (Bouckenooghe et al. 2014, p. 2)

Conclusively, the multidimensional approach to C2C and the three-component model of Herscovitch and Meyer is arguably the most used and validated model of measuring C2C. For this reason, further research from a more theoretical point of view in regards to measuring C2C will be delimited to the three-component model, with a few exceptions. Antecedents and predictors of C2C will be discussed regardless of its construct origin since they from a more practical perspective is not clearly defined as three different components of C2C (Loup & Koller 2005; Conner 2006). Furthermore, since the three component model act as a
measurement of scale and do not define certain predictors of C2C, it is for the objective of this research reasonable to discuss C2C antecedents and predictors regardless if they have been measured using a unidimensional, or multidimensional measurement scale.

The three component model
The three-component model of Herscovitch and Meyer originated from the construct of measurement in 1991, which measures organizational commitment (Meyer & Allen 1991; Herscovitch & Meyer 2002). However, it is important to acknowledge that these concepts (organizational commitment and commitment to organizational change) are not the same and that the three-component model presented by Herscovitch and Meyer in 2002 is indeed a better measurement for the support of change initiatives (Herscovitch & Meyer 2002; Ford et al. 2003; Fedor et al. 2006). In the study of 2002, Herscovitch and Meyer defined C2C for the purpose of their research as:

“...a force (mind-set) that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative.” (Herscovitch & Meyer 2002, p. 475)

Consequently, researchers have to a large extent used this definition for their purpose when measuring C2C, even though disagreements regarding the actual definition of C2C still occurs in the academic discourse (Jaros 2010).

In short, the three-component model measures C2C in regards to affective commitment to change (AC2C), continuance commitment to change (CC2C), and normative commitment to change (NC2C). Its components are explained as:

- **AC2C** - “a desire to provide support for the change based on a belief in its inherent benefits.” (Herscovitch & Meyer 2002, p. 475)
- **CC2C** - “a recognition that there are costs associated with failure to provide support for the change.” (Herscovitch & Meyer 2002, p. 475)
- **NC2C** - “a sense of obligation to provide support for the change.” (Herscovitch & Meyer 2002, p. 475)

Furthermore, the different components explain employees’ mindsets as feelings for why they support a change as; if they would like to, if they have to, or if they ought to (Herscovitch & Meyer 2002). As mentioned earlier, the three-component model has been used for measuring C2C in several studies.

Research including the three-component model has until this day shown results that AC2C can be difficult to distinguish from NC2C in regards to its scales, and in some cases CC2C as well (Meyer et al. 2007; Jaros 2007, 2010; Bouckenooghe et al. 2014). This contradicts previous findings that the three components of C2C is distinguishable (Herscovitch & Meyer 2002). Furthermore, Jaros (2010) states that there are differences in regards to cultural settings when measuring C2C, something that Meyer et al. agree to especially when it comes to NC2C (Jaros 2010; Meyer et al. 2012).

Although further research is needed for validating or altering the scales of the three-component model, research suggests that the development of AC2C in particularly, and in
some cases NC2C is the key to succeed and gain behavioral support for an organizational change (Myeong-Gu et al. 2007; Parish et al. 2008; Shum et al. 2008; Machin et al. 2009; Jaros, 2010; Neves 2011; Bouckenooghe et al. 2014).

Furthermore, it has been recognized in studies that AC2C might be the critical component that managers ought to focus on when developing C2C in order to support change initiatives, and thus successfully implement change (Parish et al. 2008; Jaros, 2010; Bouckenooghe et al. 2014).

However, a question raised from a managerial perspective in the recent research of Bouckenooghe et al. (2014) was that: “How can an organization develop the ‘right kind’ of commitment to change?” (Bouckenooghe et al. 2014, p. 13). This partly describes the ongoing academic discourse of C2C in regards to the managerial implications of C2C. Furthermore, Bouckenooghe et al. (2014) conclude that the manageability as such and the development of C2C need to be further explored.

**A summary of commitment to change theory**

In summary, C2C is suggested to act as a positive predictor of change initiatives since it increases the supportive behavior among individuals towards the change initiative. Thereof, it is from a CM perspective important to focus on the C2C process in order to increase the success rate of change initiatives. The measurement of C2C either has a unidimensional or multidimensional approach, whereas the multidimensional measurement of scale i.e. the three-component model of Herscovitch and Meyer has to this date been widely accepted among researchers.

Previous research on the topic of the three-component model of C2C suggests that AC2C and NC2C is important for managers to focus on when developing C2C, which is the individual's sense of desire or obligation to support a change. Furthermore, by doing so, managers or change leaders can expect from a theoretical point of view that it will increase the employees behavioral support for change initiatives, and thus lead to an increased success rate.

However, more practical models that explain the process of C2C do not use a multidimensional approach in regards to antecedents and predictors of C2C. Thus, since the objective of this study is to investigate leaders’ perception of the C2C process, the multidimensional construct will not necessarily be discussed when it comes to C2C antecedents and predictors.

Consequently, in order to understand how it is possible to increase employee behavioral support for change initiatives in the process of C2C, there is a need to investigate antecedents and measures of how to develop C2C.

**2.3 The development of commitment to change**

The development of C2C has during the last decade been a large part of the academic discourse. It has been concluded that the antecedents of C2C, and models describing the development of C2C, as for example the models of Conners, and Armenakis and Harris, has a need to further be investigated and validated (Conner 2006; Armenakis & Harris 2009; Jaros 2010). However, previous studies have provided some suggested antecedents and predictors of C2C, see Table 2.
otherwise further research is needed. However, theories incorporating more practical experience suggest otherwise (Loup & Koller 2005; Conner 2006; Armenakis & Harris 2009).
The process of commitment to change in practice

There are two sides of the coin when it comes to the process of C2C. The academic research focuses to a large extent on factor analysis, for the purpose of studying possible predictors and antecedents of C2C, whereas more practical researchers have developed theories deriving from empirical findings and experiences (Loup & Koller 2005; Conner 2006; Jaros 2010). Furthermore, these researchers provide a process approach to C2C, and models that managers can adopt and use in practical settings.

Both the descriptive C2C models of Armenakis and Harris, and Conner originated from theory (Conner 2006; Armenakis & Harris 2009). However, Conner has an informative and practical approach to the development of C2C, as of his 40 years of experience managing change, whereas Armenakis and Harris incorporate the C2C process into a more general CM model (Conner 2006; Armenakis & Harris 2009). Thereof, Armenakis and Harris’ model does not explain positive predictors or antecedes of C2C on a detailed level and is therefore not relevant to the objective of this investigation or to be further discussed. On the other hand, Conner’s model provides a more in-depth view of the C2C process and will be further discussed (Conner 2006; Armenakis & Harris 2009).

Conner’s eight stage model of commitment (ESM) can shortly be described as an explanatory view of an individual’s development of C2C i.e. an individual’s supportive behavior to a change initiative over time exposed to the change, see Figure 2 (Conner 2006). Furthermore, the model is explained as a critical sub-process in managing change whereas C2C develops among individuals during the three phases of preparation, acceptance, and commitment. This process enables individuals’ progression or regression, whereas one stage may lead to either positive or negative development of C2C. For example, the step of contact can either lead to awareness or unawareness (Conner 2006).
In contrast to Conner’s ESM, Loup & Koller and their practical C2C model, The road to commitment (TR2C) has not been renounced or cited previously in the literature of C2C or CM (Loup & Koller 2005). Furthermore, the theoretical fundaments of TR2C have been developed and grounded from empirical experiences for the main purpose of creating commitment among employees and support for change initiatives, and thus, the development of C2C (Loup & Koller 2005). Even though TR2C to some extent describes a dynamic relation between commitment, resistance and compliance to change, the relationship between C2C and resistance to change (R2C) is not presented as dynamic as what recent research has found it to be (Koller & Fenwick 2013). However, Conner suggests in similar with Loup and Koller that an individual either will develop C2C or RC2 (Conner 2006).

Moreover, the process of developing C2C in TR2C is presented as an individual’s journey through the change process, whether it is the employee, the leader her- or himself or to the sponsor, see Figure 3 (Loup & Koller 2005). While the TR2C model incorporates some CM literature, it also offers from the managerial perspective a practical guide for measures to be used in order to develop C2C among change recipients (Loup & Koller 2005). This is indeed aligned with what CM theorists Kotter (1995) and Lewin (1947a) states in regards to making sure the everyone involved or affected needs to be committed to the change (Lewin 1947a; Kotter 1995; Burnes 2004a).

Furthermore, the model focuses on practical measures and change leaders’ actions that support the process of C2C. Where the measures and actions have a focus on the individuals’ needs, as understanding how one will be affected by a change. An example of this is to provide an answer to the question *What’s in it for me?* (WIIFM) (Loup & Koller 2005).
Consequently and not surprisingly, as the model derives from Kotter's theory of managing change, it focuses on the journey of change, and thus the development of C2C on an individual level.

Since TR2C only has been validated by the authors themselves. Obvious issues arise as for example; if it is a valid model for describing the process of C2C. Therefore, further research is needed in order to validate TR2C model. However, since this study focuses on the perception of the development of C2C, it is important to incorporate both the development of C2C from a theoretical perspective as well as a practical one, regardless of the models’ validity. Thus, a theoretical framework that incorporates both theoretical and practical viewpoints regarding the process of C2C is useful for the objective of this study, and to answer the stated research questions.

Furthermore, a conceptualized model presenting the process of C2C in the context of CM is relevant for the objective of this investigation. This will provide an understanding of general CM models’, and measures’ relationships with the process of developing C2C. Thus, a conceptualized model will provide sufficient fundamental theory and practical perspectives to be used for analyzing the empirical data.

**Conceptualizing the process of commitment to change and change management**

TR2C is divided into three phases in similar with Conner's ESM and is also seen as a process of the development of C2C on an individual level (Loup & Koller 2005; Conner 2006). Both models have several similarities as for example the creation of awareness and understanding. However, Conner provides a more step oriented process model. For example, the first contact with employees can result in either awareness or unawareness of the change, and awareness can lead to either understanding or confusion (Conner 2006). In contrast to Conner’s ESM, TR2C offers a more simplified process model of developing C2C, with fewer stages (Loup & Koller 2005; Conner 2006).
The relation between phase 1 in TR2C and the first three stages of ESM is indeed similar in regards to communicating the reason and intended result of the change i.e. the nature of the change, its purpose, as well as acknowledging the change recipients’ perspectives and previous experiences of change initiatives (Loup & Koller 2005; Conner 2006). In similar, CM theorists as for example Kotter, and Kanter and colleagues states that creating and communicating the vision is an imperative in order for a change initiative to be successful (Kanter et al. 1992; Kotter 1995). Furthermore, this has arguably support from other studies in regards to transformational leadership as long as it supports job satisfaction during the process of change (Myeong-Gu et al. 2007; Herold et al. 2008; Mangundjaya et al. 2015).

Whilst Loup and Koller address the employees’ concern regarding WIIFM, Conner provides a fourth stage in his model called Positive Perception, which rather explains the reason why to address employee concerns and worries, as for example what is in it for them (Loup & Koller 2005; Conner 2006). This has partly been supported by theoretical studies, to act as a predictor of C2C (Lau & Woodman 1995; Fedor et al. 2006; Myeong-Gu et al. 2007; Conway & Monks 2008; Battistelli et al. 2014).

Furthermore, leadership measures, as listening to fears and skepticism, are indeed important to address in the C2C process (Loup & Koller 2005). The ability of leaders to create change openness, honesty, trust, and support with focus on an individual level is also suggested to contribute to the development of C2C (Loup & Koller 2005; Herscovitch & Meyer 2002; Myeong-Gu et al. 2007; Herold et al. 2008; Neves & Caetano 2009; Kool & Dierendonck 2012; Battistelli et al. 2014). Not only is this aligned with what Kanter et al. suggest when managing change and being honest, Beer & Nohria also suggest that trust and emotional commitment to the company are important (Kanter et al., 1992; Beer and Nohria, 2000). In similar, research in the context of C2C also suggests organizational commitment as a positive predictor of developing C2C (Neubert et al. 2001; Herold et al. 2008). From a CM perspective on a more general level, and in similar with the C2C process, the participation of individuals affected by the change has indeed been found to be important for a change initiative to succeed (Lewin 1947a; Loup & Koller 2005; Conner 2006).

Moreover, both Conner, and Loup and Koller states that it is crucial to promote positive effects of the change (Loup & Koller 2005; Conner 2006). This is comparable to what other researchers have found as positive predictors of the development of C2C (Myeong-Gu et al., 2007; Meyer et al., 2010).

At the stage of expanding understanding about the change, practical measures for leaders are presented in the TR2C model, as to what the ESM rather provides a more explanatory view of employees’ reaction in the process of C2C. However, in the fifth stage of ESM, Conner explains how openness can act as a predictor of the development of C2C which is aligned both practically in regards to measures presented in TR2C, as in C2C theory (Herscovitch & Meyer 2002; Loup & Koller 2005; Kool & Dierendonck 2012).

In the second phase of TR2C, the supportiveness from leaders as well as organizational perquisites for change is recognized to be critical issues to address during the development of C2C (Loup & Koller 2005). Furthermore, according to Loup and Koller (2005), the positively associated impact of the change in the organization, and the individual is also important to
address. This is aligned with suggested predictors in regards to the development of C2C (Herscovitch & Meyer 2002; Fedor et al. 2006; Myeong-Gu et al. 2007; Conway & Monks 2008; Herold et al. 2008; Kool & Dierendonck 2012).

Once undergone the second phase belief in the TR2C model and captured the heart of the individuals, individuals can proceed into the commitment phase (Loup & Koller 2005). In similar with Loup & Koller, Conner (2006) suggests that after an individual has perceived the change as positive, the individual leaves the acceptance phase and proceeds into the commitment phase. However, in contrast to Loup & Koller, Conner's more binary process of C2C suggests a possibility of either a termination or abortion of a change initiative after entered the commitment phase’s first two stages (Conner 2006). Loup and Koller on the other hand mainly presume that the change will be implemented, therefore, they focus on the engagement, short term wins, and support for further development of C2C (Loup & Koller 2005). In consensus with Loup and Koller, Kotter (1995) explicitly recognize the short term wins and engagement of leaders’ followers during a change as important for the change process (Kotter 1995; Nohe et al. 2013).

Moreover, after the adoption and experimentation phase in the ESM, a change initiative is to be institutionalized and possibly internalized (Conner 2006). It is not until the last stage of the development process of C2C that Conner suggests that an individual will be fully committed to the change, and thereby has “put their heart into” the change. Loup and Koller on the other hand suggest the heart will be won already at an early stage of the process. Conclusively, regardless in which phase or stage of the C2C process an individual might be in, it is the desire or AC2C that is the component of C2C to target when developing C2C among individuals.

Lastly, both Loup and Koller, and Conner have identified the fundamental factor of time, as naturally important. Although it might seem trivial, the development of C2C takes a vast amount of time (Conner 2006). Consequently, if not enough time is put into the process of developing C2C, the process of C2C will fail, and the initiative itself will have less chance to succeed. In similar, from a CM perspective and in for example Kotter's second stage forming a powerful guiding coalition, it is critical to anchor and thereby have the support i.e resources that enables a change initiative to succeed (Kotter 1995).

Furthermore, although not explicitly suggested in the models of TR2C or ESM, theorists have found certain attributes, and characteristics of a leader which indeed can contribute to the development of C2C, as for example perceived competence and charisma of a leader (Neves 2011; Nohe et al. 2013). From a CM perspective, this could arguably be accomplished by what Kanter et al. suggest as necessary when managing change, the support of a strong leader role (Kanter et al. 1992).

In summary, both purely academic theories and more practical theories suggest that the development of AC2C is critical in order to gain behavioral support for a change and thereby succeed. While C2C theory focus on studying predictors of C2C others have a more practical approach to C2C presenting it as a manageable sub-process of CM. Although the process models have derived from empirical findings and practical experiences, suggested predictors of C2C, in theory, are frequently recognized in these models. Whether or not it is a three stage
or eight stage process, they all have a strong focus on individuals’ needs in the process, and how leaders can support these individuals in the process of C2C. In conclusion, the C2C process is found to be a core process of CM. It supports change initiatives success rate and outcome by fulfilling individuals’ needs through individual focused leadership throughout the change process.

**Conceptualized model - managing the process of commitment to change**

The development of C2C can suggestively be seen as a core process of managing change, whereas general theories as for example Kotter, and Kanter et al. to some extent supports and incorporates the process of C2C (Kanter et al. 1992; Kotter 1995). A conceptualization of this process and its relation to CM can be seen in Figure 4. This conceptualized model visualizes the process of C2C in relation to CM and furthermore what is suggested to be important for the C2C process in order to commit individuals to an organizational change, and thus increase its success rate.

![Managing the core process of commitment to change in change management](image)

**Figure 4.** Developing commitment to change through strong individual focused leadership and by fulfilling the needs of individuals at each stage of the commitment to change process (Emelie Jorander Fridén & Martin Holmgren, 2015).
3 Method

The method chapter explains the chosen research methods used to conduct this investigation. Descriptions and information about the data gathering methods and the process of data analysis are presented in this chapter as well as a discussion about the quality of the research.

3.1 Knowledge perspective
This investigation and its findings derive from the interpretations of empirical data from the conducted interviews. Furthermore, the data has been interpreted by the researchers for the specific objective of this research. This means that it would be possible to identify other findings by using other perspectives, interpreters, or another research objective. Thus, the data could be interpreted in another way. In short, knowledge is thought of as context dependent and dependent on the interpreters, and how and where it is created. Therefore, it is important to present the methodology of this research in transparency.

3.2 The case study
The methodology of this investigation is a case study. The case study is used to execute the investigation, and answer the research questions with an illustrative approach to the case. Furthermore, the case study methodology is appropriate to use when for example investigating complex situations of relations and processes and, therefore, fits this investigation as it researches the complex process of creating C2C (Denscombe 2009). Specifically, it is used when creating an in-depth understanding in regards to such relations and processes. This supports the objective of this research, that is, to create an in-depth understanding of formal and informal leader’s perception of the process of creating C2C. The advantage of using a case study is that it can address real-life situations as they unfold (Flyvbjerg 2006). C2C and CM are broad fields, which focus on people’s thoughts and journeys through organizational change, as for example The road to commitment (Loup & Koller 2005). This can be seen as a process of change and more specifically individuals’ insight and understanding of a change process. Thus, the case study itself is appropriate to use when investigating individuals’ perception of how to create C2C.

A case study is used to investigate a specific phenomenon and to get a deeper understanding in regards to the specific phenomenon, in this case, the process of C2C (Collis & Hussey 2014). The case in this matter is the case of Sweco. The case itself creates possibilities to gain deeper knowledge of leaders’ perception of the creation of C2C and should be carried out in reference to practical approaches presented in theory. Although theory in the field of industrial and organizational psychology often focuses on C2C from a theoretical perspective studying factors analysis, there are theories deriving from more practical approaches, through for example work experiences (Loup & Koller 2005; Conner 2006; Armenakis & Harris 2009). Combining both an academic and practical approach fits this typical case of managing change and C2C, and is aligned with the objective of this study.
**The research process**

Throughout the process of research, meetings have been held with the project leader of the case company’s change project. These meetings have been an opportunity for the project leader to provide the researchers with tips and feedback while the researchers have gotten the chance to reflect upon and present the progress of the investigation. This way of working is similar to the method of action research. However, since the research was not defined by the case, but rather the case was used to obtain in-depth knowledge about the subject it is seen as a case study (Collis & Hussey 2014). Also a case study begins with the researchers’ interest in a particular set of phenomena, which was similar to how this investigation started. It started with a notion of conducting a thesis on a topic within the field of CM, rather than that the case company’s situation, issues and concerns defined the research completely (Blichfeldt 2006).

A qualitative approach was used to gain a deeper understanding and draw conclusions of leaders’ perceptions of C2C in regards to theories and proposed practical methods. Quantitative studies may collect a lot of information from many different cases. However studying a case on a deeper level may be more useful since it is often important to clarify the deeper causes of the problem rather than the symptoms and how often they occur (Flyvbjerg, 2006). Furthermore, Figure 5 provides a dense and concise description of the research process of this investigation.

![Figure 5](image.png)

*Figure 5. A summarized view of the research process.*

### 3.3 Data collection

The data gathering methods used in order to answer the stated research questions, and to reach the objective of the investigation were; a literature review, semi-structured interviews performed in two rounds, and an expert interview. The interviews were divided into prelude interviews, and primary interviews, with the exception of the expert interview. Figure 6 describes the relation between these sources in regards to the classification of primary and secondary sources.
Figure 6. The relation between primary and secondary sources.

The data was collected through a set of actions in order to serve the objective of the investigation, and to ensure high relevance of the data. Data triangulation was used, as sources were separated in regards to the two sets of interviews. However, the primary interviews resulted indeed in much more in-depth data. The literature review made it possible to identify theories and approaches to CM as well as C2C. These were considered, and used when executing both sets of the semi-structured interviews. Firstly, by including theories of CM and individuals’ perception of important aspects of the change process in the prelude interviews, this was done to achieve a conceptual grasp of the situation and identify possible delimitations. Gathered data from the prelude interviews was later analyzed to delimit the research. The findings that stood out the most from the prelude interviews were how leaders perceived the change process differently, thus also the creation of C2C. Therefore, it was possible from an academic perspective to gather relevant data to use further in the investigation. This was later used for the interview templates in order to identify the case specific attributes that were suitable to investigate in regards to the case study of Sweco.

It was possible to isolate the target groups for the investigation after identifying relevant attributes and the perspectives to investigate further regarding C2C, and perceptions related to CM. The two target groups that were chosen were formal leaders and informal leaders; formal leaders being official managers within the organization and informal leaders being technical experts and enthusiasts within the field of BIM. The selection of the two target groups was based on the findings in the prelude interviews. As mentioned, differences in perception of how to handle the process of change and the creation of C2C between the two groups were found. It was also acknowledged that the informal leaders have an impact on decisions regarding the change and an effect on the employees’ attitude regarding BIM, and, therefore, the change project.

The primary interviews were thereafter conducted in a semi-structured manner with the two target groups. The data collected from the interviews was analyzed accordingly to a setup of themes while still being divided according to the different target groups. The target groups’ perception of change and creation of commitment was thereafter compared and analyzed in relation to the theoretical framework. After analyzing the data, suggestions and conclusions were made to answer the given research questions.
3.4 Literature review

An extensive literature review of secondary sources was carried out to create a foundation of knowledge in the areas of CM, C2C, the process of C2C, and to create an understanding of the concept of BIM. Previously published studies such as scientific articles, conference reports and books were reviewed by systematically searching in databases provided by the KTH Library Primo search tool. Primo is a comprehensive multi-database search tool, including databases as for example Wiley online, Taylor & Francis eJournals, SpringerLink Journals, JSTOR, Google scholar, eBook Collection (EBSCO), Ebrary (ProQuest), Emerald Journals and Books, and many others (KTH Library 2015).

Furthermore, other sources of literature were gathered through discussions with academic professionals on the subject of organizational change and C2C, and by reviewing previous CM and C2C literature reviews, as well as reviewing references of other scientific articles on the same topic. To facilitate the sorting and organization of scientific articles the software Mendeley was used (Mendeley Ltd. 2015). By Mendeley, it was possible to have an efficient search process, providing a more thorough and extensive review of the literature. Furthermore, the Mendeley paper database comprises millions of papers and was also used when searching for literature.

The process of gathering material for the literature review was executed in the following steps. Firstly, the research area of CM was isolated as an interesting area to look deeper into. The literature search was executed to grasp and identify more specific areas of CM, and to delimit and identify possible gaps in the research relevant to the case. Secondly, the more specific area of C2C deriving from the findings in CM theories were extensively researched, to identify possible theories to be used in the investigation, in this case, the theory of creating C2C in a change process. Thirdly, after identifying theories of interest, specific literature was searched for, in order to understand previous studies closely related to the investigation, and the stated research questions.

The following keywords were used when executing the literature search in the first stage of the literature review:

**Keywords used when searching for CM:**
Change management, change management review, organizational change, change readiness, readiness for change, individual readiness for change, change management models, change management techniques, change management tools

**Keywords used when searching for BIM:**
Building information modeling, building information model, building information management, BIM, BIM benefits, BIM implementation, BIM adoption.

**The following keywords were used when executing the literature search in the second and third stage of the literature review:**
Change management, commitment to change, commitment to organizational change, creating commitment to change, developing commitment to change, organizational
change, organizational development, change management approaches, leading change, employee commitment, change recipient commitment, affective commitment to change, normative commitment to change.

3.5 Interviews
Two rounds of interviews were conducted, first the prelude interviews and later the primary interviews. In similar with Mats Alvesson it was thought to be a good idea to start off with semi-structured interviews in order to isolate the research area (Alvesson 2011). In addition to this, at the beginning of the investigation, a separate interview was performed to get a deeper understanding of the concept BIM. All interviews were performed in a semi-structured manner with open questions, with the purpose of encouraging the interviewees to talk about the main topics of interest and making the interviewees articulate longer developed answers to the questions (Collis & Hussey 2014).

Prelude interviews
Five focused semi-structured interviews were executed in the first phase of the investigation with five key persons in the change project, and the five affected organizations of Sweco; these are referred to as the prelude interviews. The interviewees had different roles at the company, but all had experience of working with BIM and had been a part of forming the change initiative. Three out of five interviews were conducted through physical meetings and the other two online using the communication tool of Microsoft Lync (Microsoft 2010). The interviews’ time-span varied from 30 - 60 minutes and were performed by two interviewers, one asking the questions and the other one taking notes. The data collected was critically discussed by the researchers, and led to concluding key points of the findings. Furthermore, all interviews were recorded to avoid possible biases and misinterpretations of data. The data was used to identify relevant areas of research, common issues, and factors to explore further. Interview templates were constructed in preparation for all of the five interviews. The structure was similar for all interviews, but the questions varied depending on the experiences, knowledge and role of the person interviewed.

A separate interview was performed at the beginning of the investigation with a Ph.D. student at the Royale Institute of Technology to gain information about the academic point of view of BIM. As already mentioned the interview was conducted in a semi-structured manner and an interview template was constructed in preparation for the interview. The interview was conducted face-to-face at the KTH department of Real Estate and Construction Management, lasted nearly 60 minutes, and included a visual presentation of BIM and its possible practical implications. The purpose of the interview was to get deeper knowledge about BIM and thereof the case situation. Therefore, the data gathered during this interview was not analyzed.

Primary interviews
The primary interviews were executed in a semi-structured manner in order for the interviewees to be able to develop their answers in a natural and unrestrained way. The semi-structured interviews are appropriate to use since the objective is to investigate leaders’ perception of a phenomenon, something that derives from personal experiences, and emotions. Furthermore, it also provided a possibility for the researchers to ask follow-up, and
clarifying questions during the interviews. The follow-up questions were for example; what do you mean, can you tell us more about this, and can you give an example of this. 17 primary interviews were in total executed with the two target groups, nine with formal leaders and eight with informal leaders.

CEO’s, managers and group leaders within different subsidiaries in Sweco formed the group of formal leaders. While BIM strategists, BIM coordinators, and BIM enthusiasts formed the group of informal leaders. Six respectively eleven of the interviewees were female and male. The same interview template was used for all of the seventeen primary interviews in order to facilitate comparisons and analysis, see Appendix 2. Interview template. Furthermore, since all interviews were performed in Swedish, the Swedish interview template was translated into English in order for the reader to understand its content. The interview template included several questions divided into three categories, piercing the topic of the development of C2C. The interviews’ time-span varied from 45 - 60 min and was performed by either one or two interviewers. Eleven interviews were performed with two interviewers and 6 with one interviewer. When there were two interviewers, one was asking the questions and the other one toke notes and interrupted with clarifying questions, otherwise one interviewer did it all by her or himself. By doing so, it was possible to partly transcribe the data from the interviews. Furthermore, after an interview was performed it was discussed, further interpreted, and reviewed by the researchers in order to not miss out on any important data, and avoid misinterpretations and possible biases. Ten of the interviews were conducted through physical meetings and the other seven online using the communication tool of Microsoft Lync (Microsoft 2010). All physical interviews were performed in a separate room without any additional listeners. The interviews were all executed at a Sweco office, although the interviewees who participated in the online interviews were in a few cases located at another location. Furthermore, the physical interviews performed at Sweco were set up in secluded meeting rooms. The chairs were placed in a triangle in order for the interviewees to relax, and to create an open environment so that the interviewees would answer the questions as open and honest as possible.

The interviews were used for collecting and interpreting data, such as understandings, opinions, experiences, and feelings. All interviews were recorded to strengthen the credibility of the investigation and to avoid any misinterpretations, controlling that data was indeed interpreted correctly. The recordings were also used later on when analyzing the data to confirm the notes, and when extracting quotes. Furthermore, as already mentioned, after each interview the interview notes were looked through, and reflected upon to summarize the main takeaway points from the interview.

3.6 Data analysis

As already mentioned the prelude interviews were analyzed to identify fields and themes relevant to the investigation and provide a basis for the primary interviews. Discussing the themes that each interviewee brought up, e.g. earlier experiences of change projects, innovation and support, and individual’s approach to change, and comparing the different opinions regarding the themes, led to an analysis of the prelude interviews. It was noticed in the interviews that there existed a difference in opinion on how to handle change. In addition,
it was interesting for the case to investigate C2C, which also showed potential as an interesting field, within theory.

The analysis of the primary interviews was done in a number of steps because of the magnitude of the data.

- First, the interview notes from all seventeen interviews were read through to pinpoint different topics and keywords that reoccurred. Both researchers did this separately to secure that no topics were left out. Additionally it led to that the topics could be confirmed by comparing what topics each researcher had identified. For example, researcher 1 had found that both formal and informal leaders discussed the role of enthusiasts in the change process and the process of C2C, this could be confirmed as this was something researcher 2 also had observed and underlined.

- Second, a number of workshops were held in which the identified topics were discussed. To begin, the topics that were chosen were identified by both researchers and showed the most potential for interesting discussions in comparison with theory. These were written down on post-its, and placed on a board to categorize the topics into different larger themes. However, it was difficult to separate some themes from each other and make them mutually exclusive since CM as a topic includes many aspects that are dependent on one another. Additionally each theme was discussed once again at a meeting with the project leader for the change project at Sweco, which helped address the relevance of each theme and its properties. Lastly, a final workshop was held, in which the final themes were decided upon by critically summarizing the thoughts behind each theme and topic, and by rearranging certain topics into new themes. Each larger theme that was identified was assigned a color.

- Third, every word, sentence or paragraph that had something to do with each theme was color marked. Both researchers read through all interview notes again separately to color mark the notes, according to the themes. The reason this was done separately was to not leave out any important data and to get two viewpoints of the data connected to each theme. As this was done, additional comments, analysis, patterns and contradictions in the interview material were added and identified.

- Last, with all data color marked according to the different themes, the data connected to each theme were collected in one document, still separated according to formal and informal leaders. This was done to sort the data and easier identify similarities and differences in opinion. To avoid losing the setting of the different statements, the original documents of the interview notes were as well used when writing the analysis for each theme. The data was additionally quantified in an excel document. Marking for each interviewee if they brought up the topics identified and if they found it important, belonging to each theme. This data was later on used in the analysis by mentioning and comparing quantities between formal and informal leaders. The analysis was then performed by comparing the different opinions and reflections of the formal and informal leaders and by comparing it to the theory regarding the different themes.
While writing the analysis quotes were extracted from the interview material to strengthen the analysis. To avoid any misunderstanding and confirm the meaning of the quotes each interviewee who were quoted were sent by email his or her quotes. In this way, the interviewees had a chance to verify the meaning and approve the usage of the quotes.

3.7 Quality of the research

The qualitative approach fits the purpose of the investigation and thus strengthens the quality of the research. Furthermore, the reliability, validity, and generalizability were considered and discussed in order to evaluate the quality of the investigation.

Reliability

The reliability of the research points out the accuracy of the measurement of the investigation, thereof the absence of differences if the investigation was performed again i.e. that the study and its results is replicable (Collis & Hussey 2014). Yin explains that the objective of reliability is to minimize biases and errors in the investigation (Yin 2013). A qualitative approach generally has low reliability (Collis & Hussey 2014). This is usually a consequence of interviewers possibility to interpret data during interviews (Alvesson 2011). Therefore, transparency in how the interviews were conducted, analyzed and presented, strengthens the reliability of the study.

As previously discussed, a thorough description of the primary interviews has been written and the process of analysis as well. This was done in order to strengthen the reliability of the research. However, since the collected interview data derives from individuals’ feelings, emotions, and experiences, and since the semi-structured interviews capitalize on this, the reliability of this research is to be considered as rather low. Furthermore, the data collected is not fully transparent as it is not presented as raw material. Quotations, citations, and quantified data extracted from the raw material is presented. Since a thematic analysis was made, the possibility that the result would differ if another study was made, is considered as high. However, since the interview template provides questions that indeed attacks the process of C2C from multiple perspectives, i.e. questions may be acknowledged by the interviewee as almost the same, and as the data was quantified, the process of analysis and the analyzed data is suggested to increase the reliability of the study. Conclusively, even though measures have been taken to strengthen the reliability of the research, it is considered to be rather low.

Validity

The validity can shortly be described as to which extent a test measures what it is supposed to measure i.e. that the study actually provides results aligned with the phenomena it studies (Collis & Hussey 2014). It is possible to increase the validity of the research by using data triangulation (Collis & Hussey 2014). This was done by formulating questions targeting different perspectives of the C2C process, see Appendix 2. Interview template. Furthermore, by asking follow-up, and clarifying questions to the interviewees as mentioned earlier, validity was increased. This was also done by sending out all quotes separately to the interviewees being quoted, which allowed them to verify their quotes.
When it comes to the analysis, the validity of the study was increased by having a clear step process of an iterative analysis process, making sure to reach consensus regarding the results in every step including the quantification of data. Thus, the results were triangulated through the setup of the analysis. Furthermore, it was possible to increase the validity of the research by mapping every question in the interview template to a specific area of the C2C process according to the conducted literature review.

**Generalizability**
The generalizability or external validity basically means to which degree the findings of the study is applicable to other settings (Denscombe 2009). Arguably this study is highly diversified in relation to other settings, companies, individuals, and cultures. Thus, the generalizability and transferability of the findings are considered as rather low. However, since the results provide insights in regards to the specific relations between formal and informal leaders, suggested managerial implications may apply to other settings, implementing BIM, with the same approach to the change process. Thereof, the study and its result may be transferable to other subsidiaries and change processes within Sweco.
4 Result and analysis

This chapter presents the empirical findings and the analysis of these findings in regards to the theory of change management and the process of developing commitment to change. Four themes were identified from the empirical material as relevant for the purpose of this study. Firstly, leader roles in the process of developing commitment to change, secondly, individuals in the process of developing commitment to change, thirdly, leadership supporting the creation of commitment to change, and fourthly, methods and approaches to reach individuals.

4.1 Leader roles in the process of developing commitment to change

The leader role in a change process and the process of C2C is something that has been frequently discussed in the literature as well as during the performed interviews. Since the interviews were conducted with two groups of leaders, formal leaders, and informal leaders, the different leader roles have partly been the focus area of this investigation. Several of the interviewees reflected upon the different leader roles in a change process and in the process of C2C, these being the enthusiasts, which are often seen as informal leaders, and the official managers at different levels of the organization.

Official leaders

In accordance with Kanter et al. the leader should drive, guide, and inspire the change (Kanter et al. 1992). Furthermore, the leader role is also underlined in their fifth commandment, which states that one should support a strong leader to lead the change (Kanter et al. 1992). Additionally, this emphasizes the role of the leader in a change process and the C2C process.

Eight out of nine formal leaders mentioned or discussed the role of the official leaders while only three out of eight informal leaders discussed it. One of the formal leaders (FL2) explicitly expressed that it can be difficult to change deeply rooted routines and operational methods, but the way to do it is by having a supportive and present leader. Furthermore, the same interviewee expressed that a strong leader is what determines the success of change, which agrees with what Kanter et al. (1992) state and is supported in C2C theory as well (Loup & Koller 2005). As one of the formal leaders expressed, it is crucial to identify the key persons in a change project at an early stage in order for it to succeed.

"Identify the right key persons in the change process, who can be involved in the project, carry out the project, communicate information and represent the business."

Formal leader #6

Furthermore, the same formal leader expressed that it is essential to show that the top management supports the change, as it will lead to mandate for key persons to act for a change. It was also expressed that the CEO has the most responsibility and the most power. However, the CEO should not take up too much attention in the change process and should leave this to other official leaders further down in the line of managers. This partly goes hand in hand with what Kotter expresses, that even the most senior executives should be involved
to show faith in the change, which will lead to development of commitment among the personnel (Kotter 1995).

Moreover, credibility is underlined as being important when creating C2C (Herold et al. 2008). It is something that one of the formal leaders (FL9) also highlighted by saying that one should lead by example and that the leader has to show credibility. As one of the informal leaders (IL7) explained it, it is important that employees have confidence in the leader. Another interviewee (FL4) explained the importance of the leader’s credibility by underlining the leader’s understanding in order to create belief to change, which is important for the C2C process. The interviewee expressed this in the following way:

“That I believe in it and understand everything around it, that I am well prepared and understand the details so I can explain it without being vague, that I am aboard with everything and understand why and the purpose, that I am genuine...” Formal leader #4

In that sense, it is important that the leader can communicate messages clearly and support these messages, or else these are just empty words, which does not promote any kind of credibility. In addition, Nohe et al. describe leaders’ charisma as important to create C2C as well as the leader’s change-promoting leadership (Nohe et al. 2013). However, leader charisma was not explicitly discussed although the interviewees expressed the importance of leaders change supportive behavior.

Leaders at all levels of the organization

As Beer and Nohria states, one should set the direction from the top and engage people below (Beer & Nohria 2000). This relates to the importance of engaging the change recipients in the change as well as leaders at the lower levels of an organization. One of the interviewees (FL1) explained that the leader has very large influence on the employees, but it is as important that the regional and group managers also understand the intention with the change and that everyone need to support the change. In similar with C2C theory, leaders that support a change through for example transformational leadership is suggested to predict C2C (Myeong-Gu et al. 2007). Furthermore, one of the formal leaders (FL2) explained the group managers’ role accordingly:

“Group managers build on, but with a different dialogue with the individual employee, engage them in a different way, highlight questions and make them involved. It is really a team effort. One need to involve everyone but in different ways and all types of leaders within the organization are very important to get involved. They act as ambassadors, who represent their own viewpoints and understand the benefits of the change.” Formal leader #2

An informal leader (IL4) explained that the group managers are essential and that it is important that they know everything that is going on in a change, so that they can communicate this to the employees during a change. This speeds up the process of reaching all employees with the information and makes sure that the information is presented in accordance with the needs of the target groups. In agreement with informal leader #4, a formal leader stated that it is especially important to get the support from the group managers
at the lower levels of the organization in a change process. Thus, informal and formal leaders perceive that group managers have an important role in the process of developing C2C.

**Enthusiasts**

As already mentioned, Kotter (1995) emphasizes the importance of involvement of the top management. Furthermore, he also stresses the importance of creating a strong group to lead the change with people from all levels of an organization in order to create commitment (Kotter 1995). One of the interviewees (FL2) expressed that the initiation of the change should clearly come from the top, but different persons within the organization should take part in the change process. Seven out of nine formal leaders and six out of eight informal leaders brought up the subject of enthusiasts, experts, and informal leaders, as leaders in the change process and the process of creating C2C. One of the formal leaders (FL3) said that the enthusiasts are important people to have on board for a change. Another formal leader (FL8) explained that one should find individuals at lower levels within the organization that has the drive and enthusiasm for the change; often that is the informal leaders. Furthermore, the leaders also said that, in a group there is always an engine that can help the change effort, which one should take advantage of and involve in the change process. One of the formal leaders explained the importance of informal leaders accordingly:

“One might use and communicate the change through informal leaders, so you first spread the information to those who are the most open to change... In this way, you get some allies...The purpose with those allies is that they can further spread the message, in that way it will be closer communicated to the group and not only communicated by the boss.” Formal leader #4

An informal leader (IL6) also emphasized the importance of finding the key persons who informally have power, but no mandate, as they are the ones who have a strong effect on the opinions within a group. This is not explicitly promoted in C2C theory although Conner mentions that advocates are one of the important roles in a change process (Conner 2006).

Other interviewees expressed different viewpoints and opinions when it came to the enthusiasts. One formal leader (FL6) expressed that one should not let the enthusiasts drive the work forward and that there is a need for someone more neutral to do that, who is not as emotionally involved. As one informal leader (IL1) explained it, BIM has to a large extent been run by software manufacturers and enthusiasts and has not been anchored at the top. However, as IL1 stated it would have been difficult to do this without the support from managers in the organization, but it is still the enthusiasts that have driven the progress forward. Now when the top management has recognized BIM, large-scale implementation and a more synchronized method of operation is being developed. This connects to what one informal leader (IL4) explained that the enthusiasts and informal leaders must also be led.

**Intermediate summary regarding leader roles**

To conclude, formal leaders discussed the role of the leader more often than informal leaders. This could be because they have more experience of change processes, and they are familiar with the leader role as well as its importance. Change has to be supported by top management in order for the employees to believe in the change. Thus, the C2C process should be applied
to all individuals on all levels in an organization. Furthermore, interviewees agree in accordance with theory that credibility and confidence in the leader as well as the fact that the leader fully understands the change will lead to C2C among the employees. However, some theory promotes other traits in a leader, such as charisma and change-promoting leadership.

Furthermore, group leaders at lower levels in an organization are essential to involve in the change process in order to reach the employees with information. Group leaders have a different dialogue and relationship with employees than other official leaders since they are managers at a lower level. Thus, they are important for the C2C process. Additionally, enthusiasts and informal leaders are important persons to involve in a change process as they to some extent already are engaged and committed to the change, and have an impact on the other employees enthusiasm for a change. However, they cannot drive the change fully as they also have a need to be led by official leaders. Consequently, it is important to involve both enthusiasts and official leaders in the change process in order to support the process of C2C. Thus, it is important to manage the structure of these roles in a change process.

4.2 Individuals in the process of developing commitment to change

It is necessary to understand that the individual is the core of the process of creating C2C, additionally a number of events and actions are needed to secure the process of C2C (Loup & Koller 2005; Conner 2006). The actions and events, in this case, could be seen as positive predictors and antecedents needed in order to fulfill the needs of individuals during the process. While interviewing informal and formal leaders, all 17 participants recognized the individual as being the core of this process. One formal leader stated that:

“Individuals’ questions need to be answered. One have to give an answer to these questions, even on an individual level.” Informal leader #5

However, all nine formal leaders explicitly perceived that there was a need to identify and mediate how the employees will be affected by the change while six out of eight informal leaders had a similar perception. In accordance with Loup & Koller (2005) and Conner (2006) this is suggested to be essential to reach C2C and is also aligned with what other CM theorists believe will lead to a successful change (Kanter et al. 1992; Kotter 1995; Beer & Nohria 2000; Armenakis & Harris 2009). Thereof, formal leaders do to some extent perceive the individuals’ needs as slightly more important in regards to the development of C2C than informal leaders.

Moreover, what mediation of individuals’ personal wins in a change process is seen as an imperative of managing the process of C2C (Loup & Koller 2005; Conner 2006; Fedor et al. 2006; Conway & Monks 2008). Therefore, it is critical to answer the question “What’s in it for me?” on an individual level.

What’s in it for me

As mentioned, the personal wins and benefits with the change are important to explain and communicate (Loup & Koller 2005; Fedor et al. 2006). When performing the interviews, it was acknowledged that 89 percent respectively 88 percent of the formal and informal leaders perceived the need for identifying and communicating personal wins on an individual level as
important. In regards to promoting personal benefits among employees during a change, one formal leader stated that:

“We need to find other ways to explain how one will benefit. In some way you have to benefit from it, you have to feel that you are going to benefit from it by acting in this certain way.” Formal leader #7

In addition, another formal leader stated that:

“What’s in it for me?... Why should I care about this? I have already enough on my mind, and everything works good.” Formal leader #8

In agreement with the formal leaders regarding personal benefits an informal leader said that:

“When talking about a change it is important to point out the benefits of the change. If we do it in this way, then we will benefit in this way. That is motivating for everyone.”

Informal Leader #5

Furthermore, the interviewed leaders often described the communication of personal wins and possible benefits to the group described as engineers as important. Although the characteristics of this group were not fully explained, this was an interesting discovery since a large number of the employees working at Sweco are in fact engineers. Thus, both formal and informal leaders perceived it as specifically necessary to explain possible benefits from a change initiative to the group described as engineers. Furthermore, the need for the individual to perceive personal benefits from a change was in most interviews put first in contrast to the overall benefits for the organization. In regards to prioritizing the promotion of individual benefits of a change, one interviewee stated that:

“A boss that is interested in a monetary result do not act as a driving force for more technical individuals. It is more about showing the effects from a technical perspective and how this can make it better, not from an economic perspective.” Informal leader #7

Furthermore, the change and its implication for the work, on an individual level, and the wins is suggested to develop C2C (Loup & Koller 2005; Fedor et al. 2006; Conway & Monks 2008). However, opposed to what many interviewees saw as a balance between the personal and organizational wins Neubert et al. (2001) and Herold et al. (2008) found organizational commitment to be a positive predictor for development of C2C. This implies that communicating both organizational and personal benefits are important in the process of C2C, something which Loup & Koller (2005) agree with. While theory suggests both personal and organizational benefits as important, several interviewees suggest that it is more important to identify and communicate personal wins, which would possibly develop more in particular AC2C. Thereof, informal and formal leaders acknowledge the individuals’ needs as more important in the process of C2C, which overall is suggested as critical in theory.

Moreover, while communicating individuals’ benefits, it is also important to paint and reflect a positive picture of the change in order to develop C2C (Conner 2006). In relation to theory about 50 percent of each interview group suggested that this was important. One formal leader stated that:
“You need to promote the positive aspects in every stage of a change.” Informal leader #7

To be able to paint this picture, which is suggested to be a positive predictor of developing C2C, promoting positive affective experiences to the individuals would possibly help to create this positive picture in mind (Myeong-Gu et al. 2007). However, although individuals may find themselves perceiving the change as positive and understand both the personal and the organizational benefits, the purpose of a change acts as a prerequisite for all changes. If one does not know why the change should be carried out, why would a person put their heart into it and commit to the change?

The individual and overall purpose

Identifying and communicating the purpose of a change might seem trivial, but it is an imperative to successfully carry out a change initiative. Arguably it might, therefore, be the most recognized fundamental entity to focus on in a change initiative. While general CM theorists as Kotter and Kanter et al. comprise it to creating a vision and communicating it, it can be seen as the fulfillment of individuals’ needs.

All 17 interviewees stated explicitly that they found it to be an imperative to explain the purpose of the change i.e. why are we going to do this change, on an overall level in order to execute a successful change initiative. Furthermore, almost all participants found that understanding the purpose on an overall level was not enough. It was believed that individuals need to find their own purpose with the change, which is very much alike with what theory states regarding the development of C2C (Loup & Koller 2005). A formal leader highlighted the necessity of individuals to understand the purpose of a change as:

“In order for a change to occur you need to understand why it is going to happen, under your skin.” Formal leader #1

In similar, an informal leader said that:

“There is a history about two stoncutters; where one understands that they are building a cathedral and the other one only cuts stones. If you know that you are going to cut stones with the purpose to build a cathedral it becomes much more fun to cut the stones.” Informal leader #7

Therefore, both informal and formal leaders found it equally important to identify and communicate the purpose on an individual level, in similar with theory. Thus, while the overall purpose as well as the individuals’ purpose needs to be considered, identifying and communicating the purpose on an individual level is suggested to develop C2C. Evidentially this has to be done since all individuals are different, and will perceive the change from their own perspective. However, in larger change initiatives it might be difficult to get acceptance on the amount of resources needed to put into the process to develop individuals’ purposes, even though it is likely to develop R2C in the case of insufficient resources.

We are all different

Everyone has different experiences, perceptions and interprets different situations in different ways. In times of change, this is not an exception. Several of the interviewees stated that
different experiences regarding previous changes have an impact on individuals’ perception of a change initiative. When performing the interviews formal leaders often showed a perspective including the understanding that everyone is different while it was not recognized as often while interviewing the informal leaders. One formal leader (FL 3) described this as people having different mindsets. Furthermore, the leader explained that a change is built up by creating a journey while considering the individuals that will participate in this journey.

In similar with previous findings, formal leaders in relation to informal leaders understood the individuals’ needs more in depth. In addition, a formal leader stated the following practical measure in order for individuals to commit to a change:

“Employees have to be able to formulate the change with their own words.” Formal leader #6

Although formulating the change for themselves with their own words i.e. how they interpret and perceive it, there still might be concerns and worries on an individual level that could lead to the development of R2C.

**The will to improve in relation to concerns, fears, and insecurities**

Whereas the will to improve or develop is often seen as positive, individuals’ reactions towards change is as likely to lead to the development of R2C instead of C2C (Loup & Koller 2005; Conner 2006). Lau found in 1995 that the general attitude towards a change can have a positive impact on the development of C2C (Lau & Woodman 1995). Although an individual has the will and a positive attitude towards a change, there still might be other concerns that stand in the way. As for example concerns regarding how one will be affected by a change, fears that a change will lead to something bad, or other insecurities that might appear in a change process. Regarding the individuals’ will to change an informal leader stated that:

“People are afraid of change for the change’s sake itself.” Informal leader #8

Aligned with recent studies by Battistelli et al. (2014) fears, worries, and concerns were identified as important issues to address. Nine out of nine formal leaders stated this as well. However, among the informal leaders only five out of eight responded similarly. One formal leader (FL3) explained that it is important to understand individuals’ concerns in a change process whether or not is on an employee, group or managerial level. Furthermore, the leader advocates the importance to handle the concerns personally, and in the groups from which they derive. A formal leader explicitly stated the consideration of employees’ fears as:

“To understand, what are their fears? Is something that I have gained through my experience as a leader the last couple of years. Many delimit themselves because of their fears... Do they tell me this because they are afraid, is that what is hindering them? Then I have to ask questions in regards to this to identify; Ok, well that is what you are afraid of.” Formal leader #8

Once again, this suggests a difference between the two group perspectives regarding the depth of understanding the individuals and their needs in the process of C2C. Although concerns, fears, and worries may occur, they all have to derive from somewhere.
Conflicts of interest in the process of developing commitment to change

Individuals’ worries, fears, and other concerns might derive from different conflicts of interest. These conflicts could possibly hinder the will for an individual to commit to the change. In a few of the executed interviews, conflicts of interest were addressed as an issue, not only as a conflict in relation to the change itself but also to the process of C2C. A few interviewees mentioned that, as the company is a high technology consulting firm there might be fears regarding the knowledge gap between generations among employees. The fast rate of change, regarding tools, techniques, and working methods necessary to implement and adjust to, was perceived as a possible conflict of interest to the development of C2C. Engineers from previous generations have built up a lot of human capital and knowledge whereas younger generations might be more adaptable to the rate of change. One informal leader (IL1) explained that engineers in the older days had the tools of pen, rubber, ruler, and a paper, the rest was stored as human capital in their minds, whereas nowadays more complex techniques and tools are used, and changed more frequently where knowledge might no longer be up to date. Thus, engineers of older generations might see the change as an actual threat to their work.

The conflict of interest regarding the fear of getting useless was an issue perceived as possible to hinder the development of C2C. Furthermore, others also mentioned personal agendas as a possible conflict of interest. A formal leader stated that:

“Changes might contradict employees’ own agendas and purposes.” Formal leader #6

Specifically for this case, the perspective of getting more efficient by implementing change was seen as a conflict of interest, since individuals in most cases is individually responsible for charging customers by the hour and with individual goals that are set. Thereof, becoming more efficient would result in less chargeable hours and thus decrease the possibility for individuals to reach their goals. However, from a broader perspective becoming more efficient through for example new working methods would create value for the customers, and thus increase the number of project i.e. workable hours. As mentioned earlier and aligned with theory, identifying and communicating personal wins and in this case possible barriers would support the development of C2C (Loup & Koller 2005; Conner 2006; Fedor et al. 2006). Furthermore, the model of doing business on an individual level also acts as a conflict of interest to the development of C2C from another perspective. One interviewee stated that:

“Common projects are always prioritized over development projects.” Informal leader #8

Thus, there is also a possible conflict of interest in regards to the resource budget and the sponsorship of change, which is similar to Conner’s perception of the development of C2C, and thereby is critical to address (Conner 2006). Although time on an individual level can act as a conflict of interest for the development of C2C it can be even more critical from an overall perspective.

Time is of the essence

The process of C2C is naturally developed over time, depending on an individuals’ time exposed to a change (Conner 2006). Therefore, enough time as a resource is an imperative for
the process of C2C. After performing interviews with 17 formal and informal leaders it was clear that while formal leaders had a more in-depth perspective on individuals and their needs for the development of C2C, informal leaders did not. Furthermore, eight out of nine formal leaders identified the time needed for an actual change initiative in balance with meeting all individuals’ needs on a personal level, as an issue. Regarding this issue, two formal leaders stated that:

“What does one need to know? You have to go down on an individual level. One has to take the time. It takes time.” Formal leader #1

“One need to talk individually about things...One need to think about; what is it that you are afraid of now when we are going to do this, in this way, what are your fears? Bring all these things into the light and then start to work with it. One needs to dig into it and find out what it is all about...One should not underestimate the time one will need to do all this.” Formal leader #7

Consequently, while there is a need to be personal and meet the needs of individuals, plenty of time is needed to do so. At the same time, time is found to be the scarcest resource to supply. In similar with Conner’s theory, C2C is costly, but what one will invest in will eventually also lead to the success of the change, in contrast to possibly develop R2C (Conner 2006). Thereof, leaders face a crossroad or a dilemma, whether to supply the hours needed to develop C2C, which possibly could lead to success or not and then pray that everything eventually will fall into place. Either way, a choice needs to be made, not in beginning of a change, not in the middle of an ongoing change, but before the planning of a change.

Intermediate summary of individuals in the process of developing commitment to change

Both formal and informal leaders put the individual in the center of the change process and the process of C2C, which is in accordance with theory indeed an imperative (Loup & Koller 2005; Conner 2006). Both groups also identified individuals’ wins with the change as needed for the process of developing C2C. Furthermore, individuals’ purposes, both why it is important to them and the organization, were perceived as a prerequisite for the development of C2C as suggested by theory. However, the need of finding a purpose for each and every individual in larger change initiatives was stated by the formal leaders to be costly.

Both groups acknowledged the individuals and their differences regarding experiences, interpretations, and perceptions. However, this was done more in depth by the formal leaders. For example, the formal leaders perceived the need to deal with individuals and change recipients’ fears, concerns, and worries, whereas this was not as frequently perceived among the informal leaders. This suggests that the formal leaders have a more individual focused perspective regarding the process of C2C, which once again is aligned with theory (Loup & Koller 2005; Conner 2006).

Furthermore, these fears, worries, and concerns were found to possibly be the result of different conflicts of interest among the individuals. A perceived example of a conflict of interest were; Engineers belonging to the older generation, might acknowledge the change as a threat to their expertise. Furthermore, these issues acting as conflicts of interest hinder the
development of C2C and is suggested to be identified and resolved in order for individuals to commit to a change.

Interestingly, while formal leaders identified individuals’ needs as a core of the C2C process, time was naturally found to be a dilemma. If not supporting the process of C2C with sufficient time, R2C could be developed and, therefore, decreases the success rate of the change initiative. While as fulfilling all individuals’ needs in the process of C2C would result in a too long time span of a change initiative, and thus be costly (Conner 2006).

Conclusively, it is acknowledged that formal leaders in relation to informal leaders do have a deeper perspective on individuals and their needs in the change process and the process of C2C. While individuals’ needs were perceived as necessary to fulfill to develop C2C among individuals, formal leaders found the time put into this process as a change leaders’ dilemma.

4.3 Leadership supporting the creation of commitment to change

Although theorists have not explicitly concluded which leadership style is favorable in the process of developing commitment, some characteristics of leadership styles as transformational leadership, and servant leadership have been acknowledged (Loup & Koller 2005; Conner 2006; Myeong-Gu et al. 2007; Herold et al. 2008; Neves 2011; Nohe et al. 2013; Mangundjaya et al. 2015). In similar with theory, interviewees presented different views on supportive leadership styles in regards to the process of developing commitment, and to reach success in a change initiative. All 17 participants in this study identified supportive leadership as critical to the process of developing C2C. Furthermore, 94 percent found a great need for clarity regarding leaders’ approach and direction of a change, suggesting that in contrast to for example Loup and Koller’s TR2C model, an authoritative leadership style is perceived as needed in the process of C2C (Loup & Koller 2005).

Regarding a clear leadership direction of a change one of the interviewees stated that:

“To engage them in a change, the leadership is critical. The leader must be very clear.”

Informal leader #4

Furthermore, another interviewee stated that:

“As long as one is clear, it is possible to get people to do almost anything” Informal leader #2

Although, clear direction is needed, the transformational leadership style also applies since it focuses on creating a shared long-term vision (Myeong-Gu et al. 2007; Bhugra et al. 2013). At the same time, a vision on an individual level supports the development of C2C (Loup & Koller 2005).

Thus, formal and informal leaders along with theorists have similar views regarding the need for what Kanter et al. (1992) would explain as a strong leader role, and therefore also strong leadership skills. Interestingly, both formal and informal leaders find authoritative leadership needed which suggest an increased R2C instead of C2C. Since a more authoritative leadership style might be seen, from an employee perspective, as the employees have less saying in how the change will be carried out.
Moreover, other characteristics of leadership styles were also acknowledged during the interviews as important for the change process and the development of C2C. More specifically supportiveness, engagement, empowerments, openness, honesty, and transparency were acknowledged as important aspects in the process of developing C2C.

**Supportiveness, engagement and responsiveness**

Several formal and informal leaders pinpointed that there is a need to engage the personnel from the bottom-up so that they feel responsible to take action on their own and support the change. In regards to involving employees in the change process and using a bottom-up perspective one informal leader stated that:

“You will never have the ability to control details, all you can do is to point in a direction. And the dedication should be at the bottom among the workers, and it should bubble up.” Informal leader #2

Furthermore, a formal leader stated that it is important to involve and consider employees at all levels of the organization in the change process:

“I think that it needs to be engaged both from below and from above. Only engaging from below will take too long, and only engaging from above will take too much time until you get the acceptance from below.” Formal leader #7

In similar with Beer & Nohria (2000), a two-way perspective approach is needed to reach success, and is seen as an imperative in the process of C2C to support and engage individuals so that they can develop AC2C (Loup & Koller 2005; Conner 2006). This suggests that both formal and informal leaders aligned with theory, have identified this balance as important to address, in order to be successful when managing change and the creation of C2C.

Both individual engagement and support have been recognized as positive predictors for the development of C2C (Loup & Koller 2005; Conner 2006), which was generally acknowledged as important by all participants of this study. However, a particular difference between the two subject groups in regard to responsiveness was that 78 percent of the formal leaders found this highly important in contrast to the informal leaders where only 50 percent of the interviewees stated this as important. One formal leader explicitly stated that:

“The number one crash course in leadership is to be responsive to the human being.”

Formal leader #9

Another formal leader said that:

“Keep up the dialogue, be available, responsive, listen, and get a sense of feeling. If you know your employees, then you will know what you should look for among the individuals, is he all right and so on. And make sure to ask how a person feels, and support them…” Formal leader #2

Previous studies have shown a focus on the individuals, as for example Kool & Dierendonck's (2012) study of servant leadership. Formal leaders perceive that leaders should be responsive to individuals’ needs whereas this was not found to be as important from an informal leader’s perspective. Thus, there were some differences between the participants in regards to the perspective of supporting individuals’ needs in the process of C2C.
Furthermore, the focus on individuals which theorists as Loup and Koller (2005) present, as needed for the process of developing C2C, differs between formal and informal leaders. Consequently, this puts pressure on leaders’ abilities to create an open, honest, and trustworthy atmosphere and close relationship with the individuals involved in the change.

**Openness, trust, and honesty**

In the process of C2C, a leader’s ability to foster a culture of openness and transparency is acknowledged as a positive predictor of developing C2C (Herscovitch & Meyer 2002; Loup & Koller 2005). Both formal and informal leaders perceive that promoting openness is important for a change initiative to be successful, and the development of C2C. In regards to openness and transparency one informal leader stated that:

> “Then it is also important to be clear on what you are going to deliver and what that means. It is not possible to hide anything in that context. If one knows of problems that will occur, then these must be acknowledged and brought into the light so that individuals will know this early on.” Informal leader #6

Furthermore, a formal leader said that:

> “One needs to present all possible questions... It is important to create a forum with great openness.” Formal leader #8

Moreover, eight out of nine formal leaders found openness to be important in the process of C2C while five out of the eight informal leaders found it to be important. Once again, this suggests a difference in regards to the perception of individual focused leadership. Thus, this suggests that formal leaders to some extent have a broader perspective of the process of C2C and managing change, putting the individual in the center of the change process. Additionally, this also suggests that formal leaders aligned with previous results, in contrast to informal leaders find the servant leadership style more useful in the process of C2C.

Furthermore, the transformational leadership style, which focuses on building long-term close relationships between the leader and their “followers” (Myeong-Gu et al. 2007; Bhugra et al. 2013), implies to some extent the fostering of an honest and trustworthy culture in a change process. Out of the 17 participants in this study, an overall average of 65 percent suggested that openness, honesty, and transparency are critical to foster in a change process and for the development of C2C. However, between the two groups of informal and formal leaders the perception of the importance regarding openness and honesty differed significantly.

13 out of 17 participants acknowledged openness as important, eight formal leaders and five informal leaders. On the other hand, foster honesty as a leader and being honest was more frequently acknowledged as important among the informal leaders whereas 75 percent of the informal leaders acknowledged it as important in contrast to 44 percent among the formal leaders. Earlier studies have not specifically investigated the factor of being honest. However a transformational leadership style and servant leadership style, which both focus on individuals credibility towards the leader, has been acknowledged as being a possible positive predictor for developing C2C (Myeong-Gu et al. 2007; Herold et al. 2008; Bhugra et al. 2013). Furthermore, trust in the supervisor has explicitly been suggested as an antecedent of C2C and of importance for a successful change initiative (Neves & Caetano 2009; Beer &
Nohria 2000). This suggests that although formal leaders understand the need for an open and transparent climate in regards to the change process, they do not need to be honest, as long as they are perceived as honest, while formal leaders believe that actual honesty is more important. When it comes to not explaining failures to the change recipients one formal leader said that:

“I can understand it, as a leader you might lose trust and mandate in the organization.”
Formal leader #8

Another formal leader said that:

“One should tell a story that is believable and based on facts.” Formal leader #2

This suggests that some formal leaders believe that as long as a leader is perceived as being honest, trust and openness can be established, and thus develop C2C. On the other hand, formal leaders also suggest that people have the ability to see through dishonest leaders. In regards to being honest or the possibility to be seen as dishonest a formal leader stated that:

“Transparency and honesty establishes a good foundation... We know if someone tells the truth or not.” Formal leader #1

Furthermore, being seen as dishonest could be a potential risk leading individuals to the development of R2C. On the other hand, leaders that are honest and admit mistakes might risk being perceived as less competent and therefore they will lose trust. This counteracts the C2C process since a competent leader is also suggested to be a positive predictor of developing C2C (Neves 2011). Thus, this can be seen as a leader’s dilemma in the process of C2C. Either the change leader will take a risk being perceived as incompetent by being honest or they risk losing employees’ trust by being perceived as dishonest. This shows that the leader once again needs to consider yet another balance, a balance of being perceived as honest or actually being honest depending on a given situation. In regards to the issue of trust one formal leader stated that:

“I think that the essence of what I am trying to say and explain is that, it is all about trust. One cannot be a leader and accomplish change if one cannot be trusted. One has to establish trust.” Formal leader #9

Furthermore, trust, which often is gained by honesty and close relations, may often result in what is perceived as openness. This has through previous studies shown to be a positive predictor of the development of C2C (Myeong-Gu et al. 2007; Herold et al. 2008; Neves & Caetano 2009; Neves 2011). Thus, even though risking being seen as a less competent leader in times of failures, gaining trust is suggested to be critical for change leaders in order to carry out a successful change initiative, and develop C2C among employees. While informal leaders see a need for actually being honest, formal leaders seem to acknowledge the balance of gaining trust and being trustworthy in the process of C2C. Once again, different depth in perspective between the two groups are acknowledged, regarding the change leaders’ role in the process of C2C.
**Intermediate summary regarding leadership**

Both groups, formal and informal leaders aligned with theory have similar approaches to the need for clear leadership in the process of developing commitment. Furthermore, the relationship between a top-down and bottom-up approach was acknowledged as important for change leaders to balance in the process of C2C. However, the responsiveness of individuals was more frequently seen as important among the formal leaders. Thus, differences in perspectives were seen regarding leaders’ need to acknowledge individuals’ needs during the process of C2C. Furthermore, this also implies, a more individual focused leadership approach, i.e. transformational or servant leadership styles, which are suggested to be used in order to support the development of C2C.

The participants of this study identified openness as important. However, formal leaders identified openness as important more frequently, which also suggests different perceptions in regards to depth of perspective, focusing on an individual level while leading the change and thus the development of C2C. Aligned with theory, a credible and thus competent leader would support the development of C2C. However, a change leader’s dilemma was identified as whether a leader should actually be honest, taking the risk of being seen as less competent, and thus risking the development of C2C, or to some extent being dishonest and then risking the trust, which also act as a positive predictor for the process of C2C.

**4.4 Methods and approaches to reach individuals**

During the gathering of empirical material, a theme that reoccurred in all interviews was methods and approaches to reach individuals in a change process. The theme mainly addresses the communication tactics and techniques between change leaders and change recipients. The communication is crucial when it comes to creating awareness and understanding of the change and thus C2C as well (Loup & Koller 2005). Something that is supported in Kotter’s eight steps, as he includes *communicating the vision* as one step and *empowering others to act on the vision* as another step (Kotter 1995). This goes hand in hand with Kanter et al.’s ninth commandment to change, which state; *communicate, involve people and be honest* (Kanter et al. 1992). As earlier mentioned, the relation between phase 1 in TR2C and the first three stages of ESM are similar as they both bring up the subject of communicating the reason and intended result of the change, in order to create awareness and understanding (Loup & Koller 2005; Conner 2006).

**What to say**

One of the questions in the interviews was “What do you perceive as important to communicate to employees during a change project at such an early stage? Why?”. It provided practical and straightforward answers, which pierced the topic of communication at an early stage of a change process. A large part of the interviewees (47 %) agreed upon that it was crucial to explain the benefits of the change on an individual level i.e. how the change will assist the employees in their work. One formal leader (FL2) expressed the opposite, that it was too early to address the effects on an individual level at an early stage of a change initiative and that it should be left until later when the actual effects are clearly defined. According to theory it is useful to explain the benefits for the employee on an individual level
i.e. WIIFM, in order for to evoke belief among the change recipients and thus support the C2C process (Loup & Koller 2005).

A few interviewees also mentioned the purpose and vision of a change as an answer to the question mentioned above, which naturally is useful to understand. In total, all of the interviewees mentioned the vision, goal, or the result of a change in their interviews. Therefore, it is good to underline the importance of communicating the vision, which agrees with Kotter and Kanter theories and models, and also supports the C2C process (Kanter et al. 1992; Kotter 1995; Loup & Koller 2005). Furthermore, it was clear that a larger group of the formal leaders showed insight in regards to what is important to communicate in the change process in relation to theory. However, a few interviewees also mentioned different aspects of what is important to communicate and some had a hard time answering the question.

**Simplicity, clarity, and continuity**

All interviewees except two formal leaders brought up the subjects of simplicity, clarity, or continuity. The interviewees stated that simplicity and clarity were needed in order to make it easier for the employees to understand the change, including the reason for the change and the objective of the change. In accordance with theory, this is important to communicate in order for individuals to develop C2C (Loup & Koller 2005; Conner 2006). Continuity in communication was mentioned as important in order to support a continuous understanding of the change process.

Almost all of the interviewees mentioned the importance of simplicity, clarity, and continuity which supports the process of creating C2C as these are tools for facilitating the creation of understanding, awareness, and belief, which are all phases in the C2C process (Loup & Koller 2005; Conner 2006). Thus, these are aspects that should be taken into consideration during the creation of C2C in order for it to be successful, and which can lead to a successful change as well. Simplicity, clarity, and continuity are not aspects that are mentioned in the CM theories but can be seen as practical guidelines that can be incorporated in all steps of the change process. This can be done in order to make it simpler for the change recipients to understand what is communicated, and to understand the change, as well as the vision, plan, and urgency.

**Feedback or dialogue**

The informal leaders explicitly mentioned the concept of feedback in five out of eight interviews, whereas the formal leaders only mentioned it in two of nine interviews. A formal leader stated the importance of feedback as:

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“That employees receive feedback on their contributions or their behavior in a change, can be a form of encouragement ... It is important to provide feedback. To hear, this was good or this was not so good. It may not alter or improve the change process but in some way it makes the employees develop.” Formal leader #3
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As feedback most often is information about reactions to a person’s performance of a task, it relates to the communication from the leader to the change recipient. However, it was also expressed that it is important for change leaders to inform about a change’s progress to employees. This closely relates to the dialogue between the change leaders and change recipients. Five out of nine formal leaders mentioned the vital use of dialogue whereas only
three informal leaders underlined the dialogue. Allowing and keeping a dialogue was described in the interviews as an imperative in order for change recipients to understand and commit to a change. Regarding a dialogue with change recipients and indirect feedback as well, one formal leader stated that:

“It is very important to be open and to keep a dialogue with those affected. So you do not to leave them out in the cold, but rather you have continuous dialogue with them and update them on what is happening around them, how the schedule looks and what activities it includes so they feel that they are involved…” Formal leader #2

One viewpoint is that informal leaders discuss feedback more often than the formal leaders because they appreciate concrete information and critique, but also since they believe it is important to provide concrete information and critique to others. Informal leaders are familiar to focus on one-way communication, between change leaders and recipients. While the formal leaders mention dialogue more often since they are concerned about the discussion and coming to agreements and results through cooperation and dialogue, something that might be a struggle when it comes to hierarchical structures. Even so, the use of feedback and dialogue relate to the emergent approach to CM. That is that change should incorporate a bottom-up process and not only be addressed from the top-down (Bamford & Forrester 2003). Loup and Koller also underline the importance of that change recipients should have a possibility to express themselves regarding the change process (Loup & Koller 2005). Thus, leaders perceive close communication in accordance with CM and C2C theory as important for the C2C process.

Furthermore, both feedback and dialogue make it possible for individuals to express opinions. Expressing resistance is one way of expressing opinions. Resistance is also something that is discussed in TR2C model as an element on the road to compliance, instead of commitment (Loup & Koller 2005). Furthermore, Loup and Koller also express that resistance is a natural part of change, as resistance occurs in the phase of creating understanding and awareness, and the phase of creating belief (Loup & Koller 2005). Thus, by not being ready to commit to action, the person appear resistant (Loup & Koller 2005). As expressed in several interviews, listening to the resistance among employees was something many underlined as important. A formal leader stated the following in regards to the issue of R2C:

“When important points surface from the resistance, which are actually relevant... you of course need to embrace them. Express that now I have listened to you...” Formal leader #3

This is also a part of the dialogue. By listening to resistant employees’ opinions, it is possible to show that their opinions matter and that they have been taken into consideration during the change process. This will facilitate the dialogue, which can help create understanding and awareness, and support the process of creating C2C.

**Tools to reach individuals**

Loup and Koller state that one tool for expanding the understanding of a change is to post a *Frequently asked questions* document (Loup & Koller 2005). Five of the interviewees in total discussed the use of Q&A-documents and found it important to use during a change process.
The method of answering change recipients concerns in this manner is, in general, a well-known practical tool and an effective way of spreading information clearly. In this way everyone can take part of the answers to the most frequently asked questions, which easier will make them understand and believe in the change, and thus develop C2C among them (Loup & Koller 2005).

**Intermediate summary regarding methods to reach individuals**

Both formal and informal leaders discussed the communication between change leaders and change recipients. Furthermore, they addressed methods and approaches of how to reach individuals with information during a change process. Something almost all interviewees agreed upon was that simplicity, clarity, and continuity are important aspects to embrace when communicating, and which also is necessary for the C2C process according to theory. A larger group of the formal leaders showed insight into what is important to communicate to employees at an early stage of the change process, such as WIIFM and vision. However, a larger part of the informal leaders brought up the subject of feedback while a majority of the formal leaders addressed the importance of dialogue between change leaders and change recipients. Conclusively, close communication between change leaders and recipients were seen as important in similar with theory. A few interviewees from each group mentioned the use of a Q&A-document in order to answer common questions effectively about a change among employees, which can act as a useful tool that supports the C2C process.

4.5 **A visualization of the results**

In order for the reader to get a clearer overview of the results the collective results from the quantified data were visualized in a figure, see Figure 7. The figure represents the differences between informal and formal leaders perception of C2C and the importance of the previously presented themes. Furthermore, the visualization is presented as weighted results i.e. the difference in number of interviewees in the two groups have not affected the visualized figure. Moreover, informal leaders’ perception is described on the left-hand side whereas formal leaders’ perception is described on the right-hand side. The result shows that formal leaders perceive the themes and its content as important more frequently than informal leaders. By studying the figure using the gray circle as a marker, it is possible to understand the differences in perception of the themes between the two groups.
Figure 7. A visualization of the quantified data (Emelie Jorander Fridén & Martin Holmgren, 2015).
5 Discussion and conclusions

This chapter presents a discussion of the results in a wider context, suggested implications, and lessons provided by these findings for each of the four themes presented in the result and analysis chapter. Furthermore, it presents the conclusions made in the investigation as answers to each research question. Lastly, managerial implications based on the findings of the investigation, and suggestions for future research are presented.

5.1 Discussion

This study has investigated informal and formal leaders’ perception of CM and in particular what is perceived as important in the process of developing C2C, in relation to theory. The investigation derived from the problem of an increased complexity of managing change as a result of different types of leader roles in the change process. Furthermore, the process of developing C2C was indeed identified as a critical process of CM in order to increase the success rate of change initiatives (Conner 2006).

The results of this study suggest that both formal and informal leaders to some extent have a similar perception of the C2C process and what is important in relation to C2C and CM theories. In short, the results revealed that informal and formal leaders perceive that leading a change with a focus on openness and trust all the way down on an individual level, and fulfilling the needs of individuals in a change process is necessary for the C2C process. Furthermore, it was found that involving both informal and formal leaders in the change process, and using different techniques and methods to involve other individuals in the change process was important in order to fulfill individuals’ needs, and thus support the development of C2C.

However, the results also present that there are several differences between the two groups. Since consensus was not reached in all aspects, and formal leaders expressed a deeper understanding of what is suggested to be important for the process of C2C, the change itself might suffer as a result of this. Therefore, bridging the gap between formal and informal leaders’ understandings is suggested to support the process of C2C. Furthermore, it is suggested according to theory that it is critical to create C2C and to have a more concerted perception of individuals in this process (Loup & Koller 2005). Ignoring this might lead to the creation of R2C instead of C2C (Conner 2006). Thus, this study demonstrates differences in perception that is suggested to lead to possible issues that should be resolved to support the process of C2C. In short, findings on a general level suggest that the role structure between formal and informal leaders aligned with the consensus of individual-centered leadership is an imperative for supporting the C2C process. Furthermore, by fulfilling individuals’ needs and involving them in the change process using supportive methods and techniques for involvement, it is possible resolving issues counteracting the C2C process, and in the end increase the success rate of change initiatives.

Furthermore, the study resulted in a number of challenges. One example of this was the challenge to balance resources assigned to a change process in relation to developing C2C
among individuals. This provided a set of managerial implications as well, which is presented in a separate section. A number of case specific issues were also identified and will be discussed further on. In addition, this study provides value by highlighting the importance of the process of C2C in the context of CM. Although informal and formal leaders perceive the C2C process as important, they ought to develop a clearer and more focused view of the actual process of developing C2C in consensus with each other. Thereof, leaders can lead a change in practice with a C2C perspective, and thus focus on a process that acts as a positive predictor of change initiatives.

Firstly, the results of the study suggest that it is important to involve both formal and informal leaders in the change process, as they all have different parts to play when involving other individuals in a change process. However, both informal and formal leaders might not always be a part of the change process, and sometimes a change leader might have multiple roles in a change process. Whether or not that is the case, we found that fostering openness and trust by advocates of a change is a necessity in order to involve employees in the change process and make them commit to the change. Furthermore, role structure and prerequisites for a change such as resources and communication channels used by individuals that plan and execute the change, organizational structure, and organizational culture is arguably important aspects supporting the C2C process. A possibility to ensure a sufficient role structure could be to create a formal relationship between different roles in a change initiative, defining and planning the change project and more specifically the process of developing C2C altogether. In short, key roles in a change initiative such as formal and informal leaders ought to function and understand their separate purposes and roles in the process of C2C in order to support the involvement of change recipients, and develop a supportive behavior to change among individuals. Thereof, by resolving any issues regarding the ambiguity of how to create C2C among change recipients it is possible to increase the success rate of a change initiative.

Secondly, in accordance with C2C theory both informal and formal leaders found it necessary to focus on individuals’ needs in order to support the development of C2C. Naturally a change may occur on different levels in an organization. However, in the end it is the change recipients that are affected and possibly need to change in some way. Since individuals are all different, they should be treated on an individual level according to their individual needs in order for them to be able to create a behavioral support for a change.

In specific, we found that worries, concerns, and fears of individuals are important to shed a light on, and for leaders to discuss to support the process of developing C2C. However, since formal leaders expressed this more frequently than informal leaders, and since formal leaders are expected to incorporate individuals’ perspectives in their everyday work, work experiences might cause these differences in perception. This implies that there is a need for those with more insight to share their understanding and experiences of the change on an individual level in order to support the C2C development process. In depth, we found that leaders considered different conflicts of interests as worries, concerns, and fears. This suggests that these conflicts of interest act on an individual level and is the root cause hindering the development of C2C. Thus, leaders ought to focus on this and discuss it openly during a change process. From a broader view, individuals’ needs and the importance of recognizing these needs is not only important to change recipients as for example employees.
it does also apply to informal leaders and lower, middle, and upper management. More concretely, if the ones leading the change are not committed to it, how could they truthfully and honestly understand and foster C2C among others. A possibility to support the C2C process on a more general level considering individuals’ needs, as worries and conflicts of interest, would be to foster an open organizational culture, with close relationships between managers, informal leaders, and change recipients.

Moreover, formal leaders expressed the need to consider the balance between caring for individuals’ needs and the time spent fulfilling those needs. As with any change initiative, this shows the importance of knowing what you plan for and how long time it is going to take. If considering incorporating a C2C process perspective of a change, and thus increasing the success rate of a change initiative, it comes with effort, and it will take time. However, if a change is executed with the mission to be successful, supporting its success should be the top priority for change leaders. Otherwise, it would be better to initiate the change later on when there are sufficient resources available to support the C2C development process. In accordance with what Conner states, either you pay for developing C2C or you pay to manage R2C (Conner 2006). Furthermore, to be able to support the C2C process with enough resources to commit a large part of the change recipients, time is needed, and, therefore, the mandate to provide this time is needed as well. Thus, as with CM models, in general, anchoring the change initiative among top management is utterly important (Kanter et al. 1992; Kotter 1995). Thereof, anchoring a perspective of including the C2C process in a change and plan for what it will cost, is an imperative for C2C to be developed. Although it might be difficult to motivate the allocation of resources to the C2C process, if one does not focus on this from the beginning it is possible that the change initiative might end up in the 70 percent bucket of failed change initiatives.

In a greater thought, since a change might be a cause of something that individuals perceive negatively e.g. layoffs, limited working conditions, in contrast to industrial and technological development as in this case, it might be difficult to foster and motive the use of the C2C process. Thus, a change that is perceived as negative may not as easily support the process of developing AC2C.

A possible measure to balance individuals’ needs and the allocation of resources to a change initiative might be to divide individuals that are affected by a change in different groups, and identifying their greatest concerns, fears, worries, and conflicts of interest in order to develop C2C more efficiently. This could be supported if an organizational structure and hierarchy would support close relationships between informal and formal leaders, and change recipients. Thus, by having a greater understanding of employees in different working groups, it would be possible to foster C2C through the identification of needs of different clusters or groups. Furthermore, the relationship between individuals with the largest positive effect from a behavioral support to a change, and the amount of time needed to foster C2C among these might be important to consider. For example, if one individual’s C2C has a great effect on the change outcome, and hers or his individual C2C process demands less time than others' processes, then leaders should focus on that specific individual. However, if not including everyone individuals might perceive this as a medium effort, which once again would not fully support a change initiative and its chances of success.
Thirdly, our results showed that both formal and informal leaders perceived leadership styles as for example transformational or servant leadership as important for the process of developing C2C. This was also recognized during the literature review and incorporated into the theoretical framework as a positive predictor of C2C (Myeong-Gu et al. 2007; Herold et al. 2008; Kool & Dierendonck 2012; Mangundjaya et al. 2015). Furthermore, it is possible to support the C2C process by focusing on individuals when leading a change. More specifically, we found that openness, supportiveness, trust, credibility, and competence was perceived as important attributes supporting the C2C process, which also is partly supported by C2C theory as well (Herscovitch & Meyer 2002; Myeong-Gu et al. 2007; Neves & Caetano 2009; Neves 2011). Thereof, it is important for leaders to foster an atmosphere and environment where individuals i.e. change recipients can be open and talk about their fears and concerns regarding a change. Openness usually requires some kind of trust, and fundamentally, trust requires some kind of a relationship between two individuals. Thus, informal leaders or formal leaders who already are closely related to change recipients have an advantage in fostering such an environment. Trust on the other hand might be gained through one person’s perception of another person as being honest and competent. We found specifically that the formal leaders acknowledged transparency, openness, and trust in the change process as important. Thereof, leaders ought to mediate transparency, and thus they may be perceived as honest and trustful. Consequently, this suggests resulting in an open environment where individuals more easily can express their needs, concerns, fears, and worries in relation to a change. Furthermore, this would eventually support the process of developing C2C among individuals and thus increase the success rate of a change initiative.

Moreover, a balance of trust versus honesty in regards to having a transparent leadership approach to a change process and thus foster openness was identified as a dilemma in the process of C2C. A leader might be perceived as less competent if she or he were to be transparent and admit mistakes in the change process. In that case, it is likely to increase the development of R2C instead of C2C among individuals. On the other hand, if a leader would not be transparent and honest, it is possible for leaders to find her- or himself in a tricky situation, both being seen as incompetent, and dishonest. However, if one would get away with being perceived as honest, transparent, and trustful while bluffing this might result in the most favorable outcome for the leader, and the C2C process. In short, leaders have to make a choice whether or not to be honest and admit mistakes, and while none of the choices mentioned above might seem like a good option, a leader will eventually have to decide for an action. These results has brought this practical issue into the light, and thus provides a possibility for leaders to make a choice while understanding how this might affect the process of developing C2C, and thus increase or decrease the success rate of a change initiative.

Fourthly, while individual focused leadership types, approaches, and specific leader attributes support the process of C2C, our findings suggest that methods and approaches that translate the leadership support to the needs of the change recipients is important. In the more practical C2C models as for example TR2C and ESM, methods and techniques as for example using a Q&A, or continuous feedback is seen as supporting the C2C process (Loup & Koller 2005; Conner 2006). Furthermore, aligned with using a transparent leadership approach, formal and informal leaders suggested the use of simple, clear, and continuous communication to support...
individuals’ development of C2C. These approaches and methods could be discussed between key roles in the change process and would thereby increase clarity among these individuals.

In similar with transparent leadership, to be open and create trustful relationships can be done through dialogue with change recipients. Both informal and formal leaders perceived this as important for the C2C process which is stated in the C2C theory as well (Conner 2006). As previously stated, the role structure is seen as important to ensure the process of C2C. A part of this structure is the communication between formal and informal leaders and the change recipients. Furthermore, important practicalities of the C2C process is to ensure a continuous dialogue with change recipients, listening to their needs, taking their concerns regarding the change process into consideration, and providing feedback to the results of these concerns. The use of such an approach towards communication and ensuring it among all roles is likely to support the creation of C2C, and thus increase the success rate of a change initiative.

Whilst CM theories often promote communication through all possible channels, face-to-face communication was seen as the most efficient and most important channel when communicating with change leaders and change recipients. This also supports the possibility of continuous feedback and dialogue, which foster a closer relationship between leaders and change recipients, and thus supports the C2C process.

Regarding the subject of sustainability, although we have not explicitly approached the research problem with a sustainability perspective, it actually derives from a more general problem of economic sustainability. Most industries, including the AEC industry and managers working in these industries need to manage change more rapidly than ever before since market conditions nowadays leave little rooms for errors, and the competitive environment puts pressure on organizations to differentiate themselves and be more effective in their working process. Thus, in order to be economic sustainable, it is crucial to manage change sustainably through the use of the C2C process. Furthermore, while general CM models usually focuses on an overall level of a change process, managing the C2C process would likely create sustainable value, since it would increase the success rate of change initiatives and the C2C among employees. When individuals are committed to something whether it is an organizational change or not, individuals are not likely to retract from their commitment. On the other hand, if organizations need to change more rapidly and individuals in an organization need to change their working practices, which they have already committed to, then this might lead to R2C. Thus, from that perspective it may be more suitable to manage the process of C2C when implementing more sustainable and long-lived changes as for example changes deriving from industrial transformations as adapting to BIM in the AEC industry.

From another sustainability perspective, working conditions and practices in organizations may act as a recruitment value proposition since potential employees may be attracted to this. Furthermore, for employees working at an organization, the C2C process is suggested to include individuals in the change process, creating an open and honest atmosphere that might be aligned with personal values. Consequently, social factors regarding employees’ working conditions may be affected positively when managing the C2C process during a change.
Limitations

As in all studies, the result of this study has its limitations. Although not all is discussed below, we found three topics that could have been taken into consideration when we performed this study.

Firstly, this study has not investigated ethical aspects that may be of importance when managing change. Furthermore, ethical issues in the research process have not been a problem since all the interviewees were anonymous. However, since the process of C2C is suggested to be highly focused on individuals and their needs, it is important to consider ethical aspects when it comes to managing peoples’ worries, fears, and concerns which are deeply rooted in their hearts and minds. Therefore, readers of this report should take this into consideration when reading the results of this study and the managerial implications.

Secondly, the target groups of this investigation i.e. the informal and formal leaders were chosen with regards to the particular case and phenomena. The study could have considered the positions of power between these two groups, which could have provided a deeper insight into the leaders’ perception of the role structure and role dynamics in a change process. However, due to the limited scope of the investigation it was not found to be central to investigate for the objective of this study.

Lastly, although the target groups were found to be different in regards to the gender of informal and formal leaders, no further analysis was performed regarding this. However, this was not found to be crucial for the objective of the research. On the other hand, it would have been interesting to do an analysis in regards to gender equality in order to identify possible findings that could have affected the result. Gender equality issues regarding for example leadership during a change process would have been interesting to analyze further. Thus, informal and formal leaders’ perception of the C2C process has not been analyzed in this study in regards to possible gender equality issues. Thereof, this needs to be considered when reading the results of the study.

Furthermore, these limitations ought to be considered in future research on similar topics although they are not mentioned explicitly in the section of future research. In terms of managerial implications, they are to be presented more in-depth later on, whereas they have in this section only been generally discussed. Firstly and foremost, the conclusions of this study are to be presented prior the managerial implications and future research proposals.

5.2 Conclusions

To conclude this investigation, the initially stated research questions are answered in the order presented in the introduction chapter.

- What do formal and informal leaders in the AEC industry perceive as important in the process of developing commitment to organizational change?

Both informal and formal leaders perceive employees understanding of a change, involving individuals in the change journey and fulfilling their needs as important. However, there exists an uncertainty of how it is possible to actual develop commitment to change, including steps and activities to be managed in the process of developing commitment to change.
Furthermore, for each theme derived from the results of the study there are a number of attributes identified as important for the process of creating commitment to change.

Firstly, formal and informal leaders perceive the role of the leader as important in the process of creating commitment to change. The interviewees express that leaders within the organization have to support the change in order for individuals to commit to the change. Furthermore, the two groups perceive confidence in the leader, and the fact that the leader fully understands the change as important since it will develop commitment to change among employees. Additionally, the participants of this study see leaders at lower levels of an organization as well as informal leaders i.e. the enthusiast, as essential to involve and engage in the process of developing commitment to change. The reason for this is since they have a different relation to, dialogue with, and impact on the employees and their enthusiasm for a change, compared to official leaders at higher positions within an organization.

Secondly, formal and informal leaders see the individuals as the core entity of a change process and the process of developing commitment to change. The interviewees find it necessary to explain the purpose of a change, both on an individual level and on an overall organizational level. It is specifically important to address individuals’ benefits as a result of a change in order to create commitment to change. Furthermore, formal and informal leaders underline that issues as for example conflicts of interest that hinders the development of commitment to change need to be identified and resolved in order for individuals to commit to a change.

Thirdly, formal and informal leaders perceive clear leadership as highly important for the process of developing commitment to change. In addition, they view responsiveness to other employees’ opinions important to support the development of commitment to change. A credible, and thus competent leader facilitates this process. The participants of this study also identify openness as important. Furthermore, a majority of the leaders underline honesty as essential for the process of creating commitment to change.

Lastly, formal and informal leaders perceive communication between change leaders and change recipients as important for the process of developing commitment to change. Something that almost all interviewees agree upon is that simplicity, clarity, and continuity are important aspects to consider when communicating. According to the interviewed leaders, it is important to communicate a vision, and *What’s in it for me* at an early stage of the change process. Additionally, the interviewees identify the use of feedback and a continuous dialogue as tools to be used by change leaders in order to support the process of developing commitment to change.

- *How do change management theories incorporate the process of developing commitment to organizational change?*

There exist change management theories that incorporate commitment to change as a step in the change management process, for example, Conner (2006) and Armenakis & Harris (2009). Nevertheless, many of the more popular and renowned change management theories do not incorporate commitment to change as a concrete step or process. This may have an effect on the result of a change as the process of developing commitment to change is suggested
to be a core process of change management, and developing commitment to change among individuals is suggested to increase the success rate of change initiatives.

- How does the perception of creating commitment to organizational change differ between formal and informal leaders in relation to theory?

There was a significant difference between informal and formal leaders when it came to perceiving the role of the leader as important. More formal leaders (89 %) than informal leaders (38 %) discussed the role of the leader. It was found that the formal leaders have a greater understanding of what is needed from them as change leaders in order to support a change process and the process of developing commitment to change. In similar, change leaders are from a theoretical perspective found as an imperative for the change process to be successful.

When it came to considering individuals and their experiences, interpretations, and perceptions of a change, more formal leaders than informal leaders acknowledged it. All of the formal leaders (100 %) discussed the subject of dealing with individuals’ and change recipients’ fears, concerns and worries, while the informal leaders brought it up less frequently (63 %). Addressing individuals' fears and worries is something theory as well promotes as important to address to support the development of commitment to change.

Furthermore, there was a difference in how often the different groups addressed responsiveness to individuals. Formal leaders (78%) perceived responsiveness as important more frequently than informal leaders (50%). Hence, there is a difference in perspectives between informal and formal leaders when it comes to addressing individuals’ thoughts and needs. Theory confirms the importance of responsiveness to individuals and their worries, and thoughts. Theory also acknowledges leaders’ ability to foster a culture of openness and transparency in a change process as a positive predictor for developing commitment to change. Regarding the topic of openness, formal leaders identified it as important more frequently (89%) than informal leaders (63 %).

A larger group of the formal leaders showed insight into what is important to communicate at an early stage of the change process to the employees, such as What’s in it for me and a vision. From a theoretical perspective, this is found important as well. On the contrary, a larger part of the informal leaders explicitly brought up the subject of feedback (formal leaders 22 % vs. informal leader 63 %) while a larger part of the formal leaders addressed the importance of dialogue between change leaders and change recipients (formal leaders 56 % vs. informal leaders 38 %). Both are communication methods but expressed in different ways, a dialogue being a conversation while feedback being information about reactions to something. The theory also underlines the importance of communication for the development of commitment to change.

Formal leaders in relation to informal leaders showed, in general, a deeper insight and understanding of the development of commitment to change. The informal leaders did not neglect the different components or steps of the process of developing commitment to change, but they did not fully recognize them as frequently as the formal leaders. These differences in
perception might differ as a result of different levels of experience regarding change processes.

In conclusion, a visualization has been made in order to provide an overall understanding of the differences in perception among formal and informal leaders in regards to important aspects of the commitment to change process, see Figure 8. The visualization is divided between informal leaders’ perception on the left-hand side and formal leaders’ perception on the right-hand side. It is important to notice that the different components’ internal relation i.e. the importance of these aspects has not been considered.

The six components of the process of developing commitment to change presented in Figure 8 are; The leader role, Individuals’ fears and worries, Leader responsiveness, Openness and transparency, The use of feedback, and Foster a dialogue. By using the gray circle as a marker, it is possible to gain understanding of the differences in perception between the two groups. Furthermore, it is clear that formal leaders have a wider perspective, perceiving important aspects that support the process of developing commitment to change more frequently than informal leaders.

![Figure 8. A sunburst chart illustrating the differences between informal and formal leaders’ perception, and frequency of addressing certain important aspects of the commitment to change process (Emelie Jorander Fridén & Martin Holmgren, 2015).](image)

### 5.3 Managerial implications

Much of the results from this investigation offer concrete suggestions of how to act as a leader throughout the change process in order to support the development of commitment to change, and improve the success rate of change initiatives. Managers often take on the role as change leaders in a change project. Thereof, a number of managerial implications and recommendations have been identified.

In order to supply as many employees as possible with information about a change, and inspire everyone to act for a change it is essential to spread the information through all possible communication channels available. This should naturally be done by prioritizing the
use of the most effective, and thus important communication channel. The most important communication channel is the leaders themselves, communicating face-to-face with the employees. It is important that the leaders within an organization explain the change and show faith in a change for others to commit to it. This includes leaders at all levels of the organization, as well as informal leaders such as enthusiasts and experts. By engaging informal leaders in a change and getting them involved one has an advantage. Different leaders communicate in different ways, and the dialogue with the employees differs between them. Therefore, it is advantageous to get both formal and informal leaders aboard on the change since they have the power to affect opinions and attitudes among the employees through previously formed relationships.

Additionally, it is essential to create a consensus regarding a change and what has to be done. It is also suggested to incorporate the development of commitment to change as a core perspective among formal and informal leaders. A part of this is to set up a formal role and communication structure between formal and informal leaders, that concretizes and clarifies each role’s purpose, and mission. Consequently, everyone needs to fully understand what the change implies. Therefore, the leaders have to clarify and concretize the meaning of a change, activities included in the change and the desired result of the change. Thus, it will be possible to support the process of developing commitment to change.

Furthermore, it is preferred to foster a culture of openness because this encourages the change recipients to express their opinions and provide feedback to the change leaders. Likewise, it gives the change leaders a chance to answer the feedback, explain ambiguities, and use the feedback to improve the change in practice. Additionally, the change recipients are more likely to commit to a change knowing that their opinions matter and that leaders are interested in having a dialogue with them.

In the interviews of this investigation, it was expressed that there existed conflicts of interests, for example, employees got paid per hour by the company’s clients, and thereof had individual goals to fulfill. Consequently, this may have an effect on the motivation among employees to get involved in, committed to, and spend time on a change project. However, this could be resolved by having a clear project budget and balanced individual goals. Issues and conflicts of interests like these need to be identified and resolved at an early stage for the change initiative to be successful.

Additionally, other conflicting statements were expressed in the interviews. For example, that it is important for the success of a change project to explain the change on an individual level at an early stage of a project. At the same time leaders expressed that this is costly and, therefore, should not be done. As a matter of fact, it is essential to keep a balance when it comes to using the company’s resources and supporting the creation of commitment to change. However, if one would like to accomplish change and do so successfully, one has to invest in the change and, therefore, take the time needed for the individuals to understand and commit to the change.

A possibility for managers to balance resources and time put into a project versus increased commitment to change could be to identify different clusters or groups of individuals depending on a set of different factors. These factors could for example be individuals’
worries, concerns, fears, conflict of interests, needs, possible benefits, change absorption capacity, chance of developing resistance to change, positive or negative acknowledged perception of a change, likelihood to affect the change negatively or positively if not developing commitment to change. By identifying target groups for the change using factor analysis it would be possible to some extent minimize the time needed to develop commitment to change among all individuals, which in a larger change initiative would be preferred since supporting the process of developing commitment to change is costly even though it is necessary for the success of a change initiative.

5.4 Future research
It would be interesting for future studies to perform similar studies but in different settings. This would address the generalizability of the research and further examine the critical relation between formal and informal leaders as well as important aspects to consider in the change process and the process of developing commitment to change in other settings. In addition, it would be interesting to perform a similar investigation at a company with a different organizational hierarchy, organizational culture, and organizational structure. In order to test the result of this investigation, but also to identify aspects and relations which are necessary for the change process and the process of developing commitment to change depending on the organizational structure and culture.

A quantitative study could complement this study by building on the result and investigate the importance of each identified aspect, according to formal and informal leaders. Consequently, it would thereafter be possible to identify additional differences in opinion and perception between formal and informal leaders regarding the importance of each aspect. In addition, performing the investigation in the organization on a larger scale would be interesting in order to validate and increase the reliability of the result.

Furthermore, reviewing previous research about commitment to change in parallel with an ongoing change project would give researchers a chance to develop the conclusions made in this investigation and test some of the results. This would be valuable since it would bridge the gap between theory and practice, and hopefully validate some of the results provided in this investigation. Moreover, it would be possible to measure the effects using the Three-component model of Herscovitch and Meyer.

Lastly, executing two different change projects parallel to one another and implementing the conclusions made from this investigation to both projects would let the researchers examine and compare the results between the two. Thus, further conclusions could be made about factors affecting the success rate of a change project as well as the development of commitment to change.
References


Appendix 1. Building information modeling

The industry of Architecture, Engineering, Construction have issues regarding the interoperability between different working tools and models (Succar 2009; Cerovsek 2011; Eastman et al. 2011). These issues stretch throughout the whole product lifecycle for buildings, from the first stage of planning to the very last stage of disposal. Building information modeling (BIM) is a methodology and more specifically what Hannu Penttilä describes as:

“...a methodology to manage the essential building design and project data in digital format throughout the building’s life-cycle.” (Penttilä 2006, p. 403)

Researchers in the area of BIM agrees that the methodology of managing data throughout the building’s lifecycle has the possibility to solve several issues of interoperability and has other possible benefits as well (Arayici 2008; Aranda-Mena et al. 2009; Smith & Tardif 2009; Succar 2009; Eastman 2011; Jung & Joo 2011; Demian & Walters, 2013).

Furthermore, the process BIM is normally referred to as “building information modelling” and the product as “building information model” among practitioners in the industry (Wong, et al. 2010; Eastman et al. 2011). BIM is also largely described as a technology. Shen et al. (2012) describe BIM as a technology in a more practical manner:

“The BIM technology provides a platform to illustrate both graphical and non-graphical information of the building projects during its life cycle.” (Shen et al. 2012, p. 148)

A few of the more former researchers in the field of BIM and the authors of the BIM Handbook defines BIM (for the purpose of their handbook) as:

“...a modeling technology and associated set of process to produce, communicate and analyze building models.” (Eastman et al. 2011, p. 16)

The methodology of BIM itself and the re-use of data during the life cycle of buildings can be further understood by studying Figure 9 in depth.

Figure 9. Description of building information modeling (Dispenza 2010).
Moreover, the term BIM and what it describes differs among researchers (Succar 2009). Succar (2009) explains that there is a need to bridge the gap between theory and practice in regards to the understanding of what the term BIM withholds and how it is perceived differently.

The understanding of the BIM methodology itself is difficult and is naturally critical to the implementation of BIM in order to be successful. Thus, there is a need to understand the term, methodology, and concept of BIM “well enough” in order to meet the challenges of implementing it in an organization (Shen et al. 2012).

**Benefits of implementing BIM**

BIM is implemented in organizations for overall goals as cost reduction, reduction of cycle time, and increased quality of services. However, there are several more benefits of implementing BIM (Arayici 2008; Aranda-Mena et al. 2009; Smith & Tardif 2009; Eastman 2011; Demian & Walters 2013). One example is the possibility to decrease the need for, and creation of data throughout the building process. This is described in Figure 10.

![Figure 10](image.png)

*Figure 10. Benefits of implementing BIM as decreased creation of unnecessary data. The figure shows that there is no obvious relation between information and value (Emelie Jorander Fridén & Martin Holmgren - Sweco, 2015).*

When it comes to implementing BIM and aspects that create highest positive financial impact, a study in the UK showed that collaboration among stakeholders is the key to successful BIM, and the most significant aspects to consider (Eadie et al. 2013). Furthermore, other aspects as the reduction of waste (materials, resources, and costs) were also concluded to have a significant positive financial impact.

Although there are several possible benefits expected to gain by implementing BIM, in order to be able to benefit from BIM, there is a need to incorporate and implement BIM into the organization successfully. The implementation of BIM into organizations has been addressed as a challenge, in the academic discourse (Succar 2009; Arayici et al. 2011; Jung & Joo 2011; Hartmann et al. 2012). Furthermore, it is stated that practitioners have difficulties configuring
BIM for implementation as a result of low availability of practical knowledge (Hartmann et al. 2012).

Succar has for example categorized the term of BIM into three different fields, the policy field, the process field, and the technology field (Succar 2009). All these fields eventually show that they have an effect on the individuals that works with BIM. Furthermore, Succar presents a BIM framework of a three stage process to implement BIM, where incremental, evolutionary steps are needed in order to reach maturity in one or all of the three stages (Succar 2009).

**BIM Implementation**

The challenge of implementing BIM is often discussed in regards to technicalities, and how to solve such problems during an implementation process (Smith & Tardif 2009; Eastman 2011; Jung & Joo 2011; Hartmann et al. 2012 Demian & Walters 2013). Furthermore, BIM-based tool implementation in the perspective of the academic discourse has been described using a top-down approach with a focus on technicalities and organizations on a high level (Hartmann et al. 2012). Although researchers often identify and address technical problems in regards to the implementation of BIM, few have studied the issues from a socio-technical perspective, taking softer factors, people factors into account when implementing BIM (Succar 2009; Arayici et al. 2011; Hartmann et al. 2012; Elmualim & Gilder 2013).

An organizations’ implementation or adoption of the BIM methodology requires change in regards to many aspects; whether there is a need for implementing a set of principle rules and guidelines to be followed when working with BIM, or a specified order of working activities with specified results (Succar 2009). Wherever there is a change occurring in an organization, there is a need to manage that change in order to become successful (Kotter et al. 2000).

Furthermore, it is concluded from a CM perspective that for BIM technology adoption to be successful, the change should be carried out with emphasis on a bottom-up approach rather than a top-down approach (Arayici et al. 2011). Something which Hartmann et al. (2012) conclude as well when it comes to BIM based tool implementation. However, Hartmann et al. (2012) finds it important that implementations that require more collaboration in between different organizations, in contrast to their case studies, might also require a more top-down approach for the implementation. Furthermore, it is argued that bottom-up implementations of BIM based tools might be more suitable for organizations that have collaborative structures as a result of organic growth (Hartmann et al. 2012).

While both Arayici et al. (2011) and Hartmann et al. (2012) argues that the implementation of BIM should be executed using a bottom-up approach, Arayici et al. (2011) also suggest that the approach provides success when it comes to dealing with resistance to change. Although, Arayici et al. (2011) present a case study following a specific project and setting, it provides insights on a socio-technical level. They conclude that:

“**Therefore, BIM implementation should have a bottom-up approach rather than top-down approach in order to i) engage people in the adoption, ii) ensure that people's skills and understanding increase and companies build up their capacities, iii) apply**
successful change management strategies, and iv) diminish any potential resistance to change." (Arayici et al. 2011, p.194)

Consequently, the BIM methodology can be implemented because of many reasons, however studies have focused on a more technical level than a socio-technical level in regards to implementing BIM, where the people factor of implementing or adopting BIM need to be considered as a critical success factor. Furthermore, some studies have shown that a bottom-up approach to implementing BIM and BIM tools is favorable (Arayici et al. 2011; Hartmann et al. 2012). However, these conclusions do not provide sufficient results to be used from a practical standpoint. Furthermore, the understanding of the term BIM is not definite. As a result, it is important to understand if, how, and why practitioners perceive BIM adoption differently, and more concretely, how change implementation projects of BIM should be executed.
Appendix 2. Interview template

Interview with:

**Background and purpose of the interview**

We are two KTH students studying the last year of our Master of Science in Engineer, with a major in Design and Product Realization. We write our master thesis within the institution of Industrial Engineering and Management at KTH, and with the case company Sweco Position AB.

We are investigating the implementation and adoption of more coherent and coordinated work practices regarding BIM between multiple disciplines, parallel with the project Bissniss. More specifically we investigate different leaders’ perception of how a change ought to be executed within Sweco, and how informal (BIM enthusiasts) and formal leaders’ (managers) perception differs in relation to theory.

This is our second round of interviews, and the purpose is to dig deeper into the perception of creating commitment to an organizational change. Furthermore, this interview aims to investigate leaders’ perception of how to execute a change, and differences in leaders’ perception in regards to the creation of how to develop commitment to change.

The duration of the interview is estimated to 45-60 minutes.

First off, is it OK if we record this interview?

- We will be the only one handling the material
- We will verify that facts are correct
- The material will not be saved after the investigation is finished
- The material will not be reviewed by anyone else unless it is made anonymous
- Is it OK that we quote you? We will get back to you if so

**Basic information**

Name:
Role at Sweco:
How long have you worked at Sweco:

**Basic follow-up questions:**

- What do you mean by that?
- Can you give an example?
- Can you tell us more about this?
Phase 1: Awareness and understanding

**Prompt:**
Imagine yourself at an early stage of change project; let’s say a change project involving changes in working practices with the support of the implementation of an IT system.

- What do you perceive as important in order to become successful in a change project? (At an early stage of the project)

- Are there any activities you think are important to execute at such an early stage that support the success of the project?

- Why are these activities important?

- What questions do you perceive as important for the employees at this stage of the change?

- How would it be possible to address these questions?

- What should one not do at this early stage of the change project? Why is that?

- What do you perceive as important to communicate to employees during a change project at such an early stage? Why is that?

**Control questions:**
- Do you think it is not important or important to explain the purpose of a change? Why is that?

- Do you think that it is not important or important to explain the desired results of the change? Why is that?
Phase 2: Belief

- What do you perceive as important for the employees to understand and experience in order for them to start believing in a change?

- Do you think it is not important or important for the employees to believe in a change? Why is that?

- How do you think it is possible to get people to believe in a change?

- How does one avoid disbelief or skepticism, as for example that a change might lead to something worse?

- What is important for a leader to communicate to develop belief in a change among employees? Why is that?

Phase 3: Commitment, engagement, and setbacks

- How do you think that one should encourage employees during a change project?

- Do you perceive clear leadership from the top as important for employees’ commitment to a change? Why is that?

- How do you think one should manage indifference among employees?

- What are your thoughts regarding resistance to change?

- How is it possible to affect individuals’ resistance to change?

- How is it possible to manage worries about failure among employees?

- How do you think failures during a change should be managed?
Phase 4: Closure

Thank you!
Is it OK if we ask you clarifying questions after the interview?

Control questions (Have we interpreted this correctly)