Master Thesis –Sustainable Business and Innovation

The Systemic Impact of Systems Leadership Programs on Different Levels of Organisational Systems: A Case Study of Better Future

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Abstract

Due to the rising complexity of today's globalised business environment, leaders need new mindsets, skills and capacities to meet the systemic nature of its global challenges. To equip leaders with these necessary capacities, the emergence of systems leadership programs, and more specifically Theory U, has been a promising development.

Whereas Theory U is widely praised by organisational change and leadership practitioners, existing literature in these fields lacks critical assessments of the practical outcomes of Theory U, and specifically if it gives rise to systemic change required to meet global challenges. Hence, this research aimed to better understand the value of Theory U in practice by researching to what extent leadership programs inspired by Theory U give rise to systemic changes in organisational systems.

To do so, this study applied a qualitative, abductive research design, in which insights from an empirical case (Better Future) were systemically combined with insights from existing theory on systems, leadership and organisational change. Results indicated that Theory U mostly affected people on an individual level, as well as the way those individuals interact with others both in their team and organisations as a whole. Moreover, it was observed that organisations set several steps towards achieving their new goals and purpose defined during the U-process. Despite these achievements, the program did not facilitate systemic change, because changes were mostly actor-focused, did not sufficiently address system structures and the changes implemented across different system levels were not aligned (enough) with each other and with the overall goal of the system.

Overall, this research contributed to existing literature on systems and organisational change by being first of its kind to (1) research the impact of Theory U on all three organisational levels, (2) study how the impacts across these levels interact and how they affect the overall success of the change process, (3) to link these outcomes to systems theory and (4) provide an analytical framework to for doing so. Moreover, findings confirm the importance of deep systemic interventions, which authors often state as the most effective way to change systems, however also indicate that such interventions should be complemented by congruent changes in system structures, feedbacks and parameters. As this research could not encompass the complexity of facilitating systemic change, additional research is necessary to understand the complex dynamics of this endeavour. Regarding Theory U, additional guidelines are required for the processes on the right-side of the U.

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1. Introduction

Since the end of the 20th century, the organisational landscape has changed more rapidly than ever before (Hawkins, 2017). Societal trends such as globalisation, the digital and technological revolution, the increasing rate of change and growing pressure on social and environmental systems have increased the complexity of the global economy (Hawkins, 2017; Maak & Pless, 2009). To meet these challenges, an increasing number of scholars argue that there is a need for systemic (i.e. fundamental) change in the way our economy, and more specifically our organisations, operate (Senge, 1990; Scharmer, 2009a; Dreier, Nabarro & Nelson, 2019). However, while leaders and top executives increasingly recognise the need to embrace the rising complexity and unpredictability that underly the problems they face, they lack the necessary skills and cognitions required to solve them (Volini et al., 2019; Hutchins & Long, 2020).

An emerging approach aimed to equip organisations and leaders with the skills and mindset to deal with such complex interconnected challenges is the concept of systems leadership. Systems leadership is defined as "a set of skills and capacities that any individual or organisation can use to catalyse, enable and support the process of systems-level change" (Dreier, Nabarro & Nelson, 2019, p. 4). In other words, it equips leaders to facilitate a fundamental change, which affects how the whole system functions (Abercrombie, Harries & Wharton, 2015; Polhill et al., 2016). As the name indicates, systems leadership is an approach to leadership based on the principle of systems thinking, in which one aims to understand problems holistically rather than breaking them down into a series of separate elements which are addressed individually (Nguyen & Bosch, 2013; Meadows, 1999; Senge, 1990).

Within the concept of systems leadership, Theory U is a framework developed over 20 years of interdisciplinary research at MIT by Otto Scharmer (2009a). It aims to help individuals, teams, organisations and larger systems to develop the leadership capacities and awareness required to address the root causes of today's most pressing global challenges (Presencing Institute, 2020; Scharmer, 2009a). Overall, participants who go through the 'U-process' will learn to understand the complexity and interrelations of the systems they inhabit, as well as their own role in how to change it. Once they understand these complexities as well as their own role in the system, the premise is that system actors will start to collectively shift the system into a new direction by prototyping new solutions and by implementing these into the system as a whole (Scharmer, 2009a).

Since its first publication, Theory U has been translated in 20 languages and has widely been embraced by practitioners in the fields of organisational learning, organisational development and leadership education (Heller, 2019; Presencing Institute, 2020). However, academic research on the practical applications and actual outcomes of Theory U-inspired programs in organisations is scarce (Gunnlaugson, Baron & Cayer, 2014; Schweikert, Meissner & Wolf, 2014; Hays, 2014). More specifically, little scientific scrutiny exists on 1) the extent to which systems leadership trajectories such as Theory U contribute to changes within entire organisations and 2) whether these changes are actually facilitating systemic change (Dreier, Nabarro & Nelson, 2019; Szabla, Pasmore, Barnes & Gipson, 2017; Eisenstadt, 2010).

Regarding Theory U specifically, there also seems to be a discrepancy between theoretical and practical outcomes (Scharmer, 2009a; Better Future, personal communication, 2019). One organisation which experiences this gap first-hand is Better Future, a Dutch organisation which applies Theory U to large institutions by facilitating change and leadership journeys for corporate managers, teams and organisations worldwide. Although employees have regularly received feedback from participants saying the journeys have created personal change or changes in the way team members relate to each other (Better Future, personal communication, November 2019), it is unclear how and to what extent program outcomes reach the larger organisational level.

It is relevant to further study and understand the value and practical outcomes of system leadership programs, such as Theory U, and close knowledge gaps, because this has widespread social, practical and theoretical implications. Firstly, regarding the theoretical implications, existing literature from neither organisational nor systems theory (on which Theory U is based) is able to close the abovementioned knowledge gaps or the discrepancy between theory and practice. Moreover, while scholars from many academic fields acknowledge the need for the systemic change Theory U aims to facilitate (Meadows, Meadows, Randers & Behrens, 1972; Senge, 1990; Scheffer et al., 2009; Hutchins & Storm, 2019), scientific understanding on how to achieve such complex change and what approaches do and do not work in practise cannot yet solve the challenges at hand.

The practical relevance of researching these themes can further be highlighted by global study conducted with almost 10.000 leaders in 119 countries, which found that many organisations indicated to be unsatisfied with their current leadership programs (Volini et al., 2019). Also only 30% of the respondents said they are effectively developing leaders to meet evolving challenges (Volini et al., 2019). Hence, understanding what approaches do or do not work is highly relevant to support organisations in developing future proof leaders.

Lastly, regarding larger societal challenges, researchers from multiple academic disciplines have stated that unless humanity takes action to keep life on earth within its natural capacity, the growing social and environmental pressures pose a severe threat to human wellbeing, and ultimately, for life on earth all together (Rockström et al., 2009; Steffen et al., 2015; Raworth, 2017). As changing the way our organisations operate, and the underlying way they are designed, is believed to be one of the key leverage points to accelerate the sustainability transition (Abson et al., 2016), providing actionable insights into leadership strategies for solving such complex challenges is of great importance. As efforts aimed to align institutions to balance social, environmental and economic goals for the sake of human wellbeing are inherently complex and characterised by interdependencies and trade-offs, developing systems literate people is essential. Therefore, understanding what approaches do or do not work is highly relevant to develop system literature leaders.

Hence, to close the knowledge gaps regarding systems leadership approaches and their practical outcomes, and in particular Theory U, this research aims to better understand the value and outcomes of Theory U-inspired system leadership approaches in practice. More specifically, this study aims to answer the question:

To what extent do systems leadership programs based on Theory U give rise to systemic changes within organisational systems?

To provide a theoretical context of the research question, this paper will first clarify the main theoretical concepts of this thesis and embed these into a larger body of systems and organisational (change) literature. Here, the theoretical gaps regarding the application of Theory U will be elaborated on, and sub-questions will be formulated aimed to answer the RQ. Secondly, the methodology will be explained that was used to collect data and analyse the results. Afterwards, the results will be presented and discussed in the broader context of their implications and relation to existing theory. Then, practical recommendations will be provided, and lastly, the most important findings and implications are summarised in a conclusion.

2. Theoretical context

All theories on organisational change and leadership used for this thesis are heavily influenced by systems theory. Therefore, the most relevant principles of this discipline will be explained first. Secondly, it will be explained how these principles are applied within the context organisational sciences, and within the concepts of systems leadership and Theory U more specifically. Lastly, the theoretical gaps in our knowledge about Theory U are presented, after which more specific sub-questions are formulated aimed at closing these gaps and answering the overall RQ.

2.1. Systems theory

2.1.1. Introduction to systems theory

The systems thinking approach used in this paper finds its roots in the practices of general systems theory (von Bertalanffy, 1968) and complexity science (e.g. Forrester, 1971). General systems theory states that the way a system behaves is defined by the interaction of its individual elements (von Bertalanffy, 1968). A system is defined as a set of interacting and interrelated units, which can both be human (e.g. person, institution, technology) or natural in nature (e.g. an ecosystem or the climate system) (Meadows, 1999; Senge, 1990).

Complexity science is a broader academic discipline which emerged over the course of the 1960s, and combines general systems theory with insights from cybernetics, ecology, biology, sociology, mathematics and other disciplines. It aims to understand the behaviour and interaction among elements of *complex* systems (Forrester, 1971). In contrast to 'simple' systems, 'complex' (adaptive) systems consist of many different components, both tangible and intangible, which interact with each other in a non-linear and path-dependent way (Forrester, 1968; Cilliers, 1999). This means that the relationships between cause and effect in a system are often disproportionate (non-linearity) and that the direction of change towards a future state of the system is limited by and dependent on the system's history (path dependence) (Turner & Baker, 2019, Cilliers, 1999).

Individual system components can be systems in themselves and act both independently from each other as well as in coherence with other elements (e.g. employees within an organisation). The complexity of a system is defined by the number of different autonomous parts in relation to the degree of interdependence and interconnectedness of these parts (Colchester, 2019). Thus, the more autonomous components a system entails, and the more

these components are connected and dependent on each other, the more complex a system is. For this reason, the behaviour of individual system components cannot be completely controlled or predicted by one single entity. Similarly, one cannot predict or control the behaviour of the whole by multiplying the behaviour each separate part (de Domenico et al., 2019; Cilliers, 1999). Hence, for complex systems counts that the whole is more than the sum of its parts (also called emergence).

2.1.2. Defining systemic change

Due to the emergent and dynamic nature of complex adaptive systems and the large number of interacting elements, achieving systemic change is a challenging task. In this thesis, systemic change (i.e. systems change) is defined as an "intentional process designed to alter the status quo by shifting and realigning the form and function of a targeted system" (Foster-Fishman, Nowell & Yang, 2007, p. 197). Systemic change is different from 'normal' change in the sense that it fundamentally transforms the behaviour of the system as a whole, rather than merely adjusting its individual parts (Narberhaus & Sheppard, 2015). Although complex systems continuously and naturally change over time, these changes are mostly incremental and occur within existing and relatively stable system structures. These structures are important, because they define the context within individual parts can change and behave (Colchester, 2019). Hence, when aiming to achieve systemic change, one should take into account all system components as well as the relationships between them and the system structures which keep the system in place (Narberhaus & Sheppard, 2015; Barrett, 2006a). Moreover, the more complex a system is, the more difficult it is to change its overarching structures and behaviour (e.g. the global economy).

2.1.3. Achieving systems change

To better understand how to facilitate systemic change, the concept of leverage points has been of great relevance for system change practitioners. In her influential essay on systems interventions, Donatella Meadows (1999) outlines 12 places to intervene in a system, which all have different degrees of leverage to change the system as a whole. These so-called 'leverage points' refer to places within a system in which a small change could trigger a large change in overall system behaviour (Meadows, 1999). These leverage points come in different 'depths', in which interventions at deep leverage points are more likely to generate systemic change than interventions at shallow leverage points (Meadows, 1999). Moreover, the most effective place

to intervene in a system also depends on the specific system characteristics and the relationships between its components (Abercrombie, Harries & Wharton, 2015). Hence, achieving systemic change always requires a tailored approach.

To provide change agents with additional guidance on how to use leverage points to change whole systems' behaviour, Angheloiu and Tennant (2020) divided Meadow's (1999) 12 leverage points into four broader analytical categories. These categories represent four types of system characteristics at which change agents can focus their interventions. From weakest to strongest leverage, these categories (also referred to as system levels throughout this paper) are *parameters, feedback loops, system structures* and *mental models* (see **Figure 1**).

Parameters are the material, numerical and relatively mechanistic aspects of a system. They refer to the numbers or metrics in a system (e.g. taxes, subsidies or standards), the buffer size relative to their flows (e.g. cash flows) and the structure of material stocks and flows (e.g. infrastructure or distribution networks). Although these are generally relatively easy to implement and commonly targeted by policymakers, parameters on their own rarely have transformative effects on systems behaviour when altered (Abson et al., 2016). Therefore, parameters are considered the weakest leverage points within a system (Meadows, 1999).

Feedback loops refer to the interactions between different system components which impact their internal dynamics (Abson et al., 2016). They include the relative delays compared to the rate of systems change (e.g. the time delay between receiving information for a desired change and the time needed for implementing it) as well as positive (e.g. one effect reinforces another effect, thereby speeding up a process) and negative (the reverse; slowing down a process) feedback loops.

Thirdly, *system structures* provide the context within which parameters and feedback loops are structured, as well as how individual components behave and interact; they define the interdependencies among system components (Abson et al., 2016). This category includes the structure of information flows (e.g. hierarchical versus flat reporting structures in organisations; transparency of information), the rules of the system (e.g. code of conducts for employees or cultural norms prescribing behaviour) and the power to add, change or self-organise the system structure (e.g. team structure with one formal leader vs distributed leadership structure).

Lastly, at the deepest level of the system, *mental models* refer to the underlying beliefs, assumptions, values and goals, which serve as the filter through which the rest of the system is perceived and designed. This category includes the goal of the system, the mental models (e.g. the belief that profit maximisation is the main purpose of businesses) and the power to transcend paradigms. The latter refers to the reflective capacity of a system, which enables system actors

to become aware and question the underlying assumptions of their own (often unconscious) mental models. Although incredibly difficult to achieve, the power to transcend paradigms is considered the most effective point of leverage within a system (Meadows, 1999). A visual representation of the four categories and their corresponding leverage points can be found in **Figure 1**.

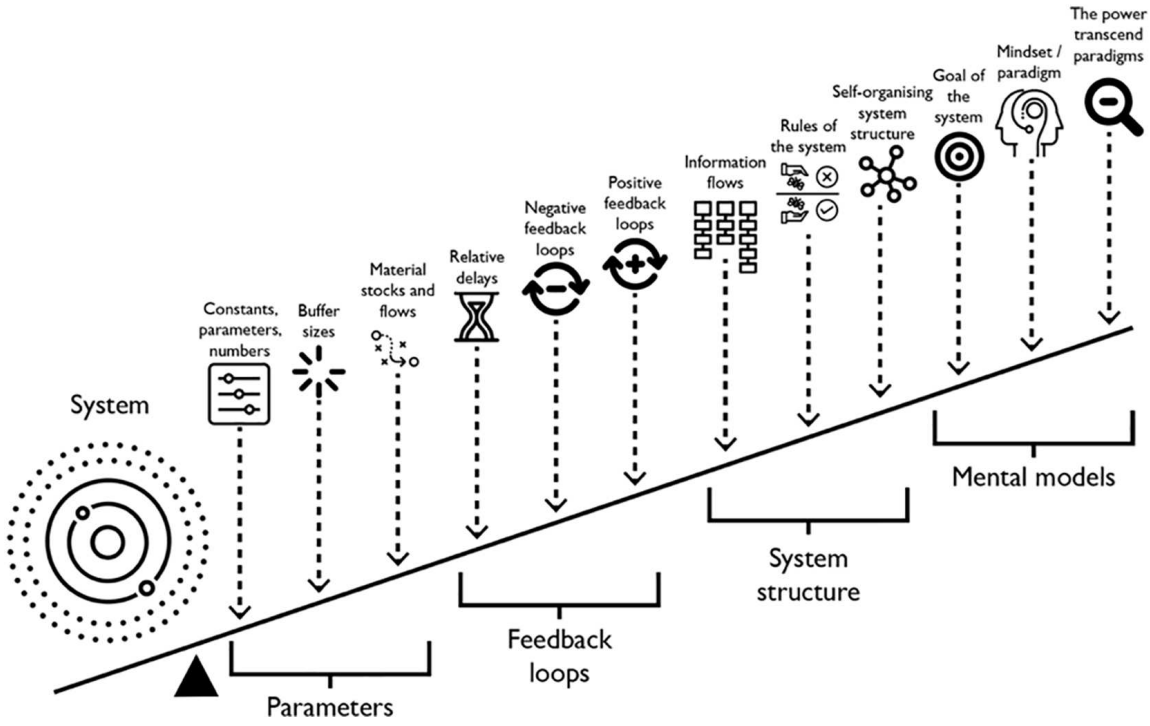

Figure 1. Angheloiu and Tennant's (2020) categorisation of Meadow's (1999) twelve leverage points into four broader systems levels. Interventions in deeper systems levels (e.g. mental models) are more difficult to achieve, however have more potential to transform the system as a whole than interventions at shallower systems levels.

Multiple scholars emphasise the importance of deep leverage point interventions (i.e. mental models and system structures) for achieving systemic change (Meadows, 1999; Angheloiu & Tennant, 2020). However, Abson et al. (2016) also add it is also important to understand the interactions between different system interventions and to intervene at different system levels simultaneously to succeed at system change efforts.

2.2. Achieving systems change in organisations

In this section it is outlined how system theory can be applied within the context of organisational (change) management and leadership. To do so, the main assumptions of organisations and change in the light of systems theory will be briefly explained. Secondly, it

is discussed how these assumptions have led to the emergence of systems leadership and change management approaches suited for the 21st century. Thirdly, Theory U is explained as being a specific approach to change and leadership in this regard. Lastly, the literature gaps regarding this theory are discussed after which more specific sub-questions to the RQ are formulated.

2.2.1. Changing the narrative on organisations, leadership and organisational change

As mentioned, leaders and top executives are increasingly recognising the need to embrace the complexity and unpredictability embedded in today's business environment. However, simultaneously, they lack the skills, cognitions and programs to deal with this rising complexity (IBM, 2010; Volini et al., 2019; Hutchins & Long, 2020). One reason for this is that the dominant narratives shaping organisational processes such as change management, leadership development or process improvement are still rooted in Industrial Aged, 20th-century logic. More specifically, since the introduction of Scientific Management (Taylorism) in the early 1900s, the dominant belief about organisations has been that they are machine-like systems which perform best when structured around principles of efficiency and stability (Littler, 1978). In this logic, organisations are viewed as mechanistic, linear and hierarchical entities which should be controlled by one central leadership body (Littler, 1978; Hutchins & Storm, 2019; Homan, Dijkema, van de Vlist & Colijn, 2016).

Organisations which embraced this 'Taylorist' model were among the most successful in their market during most of the previous century (Aghina et al., 2017). However, this model of machine-like organisations focused on efficiency, control and stability is being challenged by a new paradigm which views the organisation as a complex system (Hutchings & Long, 2020). Namely, the Taylorist model is unsuited for solving the complex and interconnected social and environmental problems that (business) leaders are held accountable for today (Hutchings & Storm, 2019; Aghina et al., 2017).

Understanding organisations as complex systems, as opposed to complicated machines, has several implications for the way organisations are structured and leadership and change management are approached. To understand the differences underlying both perspectives (mental models), the main assumptions are summarised in **Table 1** below.

Table 1

Underlying assumptions for different organisational logics. Based on insights from Aghina et al. (2017), Tams (2018a), Tams (2018b), Hutchins and Storm (2019) and Hutchins and Long (2020).

Traditional logic (Taylorism)	New logic (complex systems)

Organisations viewed as machine-like systems	Organisations viewed as complex adaptive systems
Cause and effect is based on linearity; future problems or events can be predicted based on analysing past patterns.	Cause and effects are non-linear; the future cannot be (fully) predicted due to the dynamic and emerging nature of the system. Unexpected problems and events will always occur and cannot be predicted in advance.
Organisational logic is based on the notion of control; employees and business processes can be guided and controlled by the right management (systems).	Due to the agency and self-organising nature of actors and sub-systems, the idea that one (central) leadership body can access full control over all system behaviours is an illusion.
A hierarchical organisational structure with one central leadership body at the top is most suitable to achieve company goals; organisations are structured for stability.	A networked organisational structure with shared leadership model is most appropriate to achieve company goals; Leadership should be shared across all organisational actors and subsystems; organisations are structured around agility and change (being able to quickly adapt to changes in their environment)
Employees are believed to be motivated by power and incentives (carrots and sticks).	Employees are believed to be motivated by passion and purpose (aspiration).
The organisation exists independently and separately from its environment.	The organisation is inherently connected to and interdependent on its environment; Organisations exists as sub-systems within larger societal systems (e.g. the economy or a political system)
Individual internal actors (employees) or sets of actors (e.g. teams or departments) act mostly in siloes. Specialized experts contribute to the overall goals of the organisation by optimizing the performance within their own discipline. In terms of competing interest, trade-offs have to be made: one sub-system or departments gains at the cost of another. The performance of the organisation is determined by the performance of individual teams / departments of experts (e.g. manufacturing, management, marketing etc.).	Individual internal actors have their own expertise, but operate based on a logic of interconnectedness. Organisational value is created through creating synergies between different expertise and viewpoints. Networks or department within the organisation are inherently interconnected and depend on each other's performance and contribution in order to achieve optimal performance for the entire organisation.
Problem solving is based on reductionist and analytical thinking: diving problems in smaller parts and solving them separately.	Problems solving is based on systems thinking: approaching the problem from the whole and recognizing the relationships between the separate parts.
Change is considered a static process. It has a clear beginning and a clear end. The aim of a change process is to move an organisation from an undesired, stable state to a different, desired state. In doing this, employees are assumed to be inherently resistant to change. Hence, the process should be well-managed to overcome employee resistance.	Change is considered as a natural and inherent aspect of the organisation; the organisation as a whole, its individual components (e.g. employees and departments) and the external environment are dynamic and continuously changing. Hence, the organisation should be designed in such a way that it is receptive and adaptable to unexpected changes in both its internal and external environment.

It should be noted, however, that the assumption that organisations are stable systems whose actors (employees) can be controlled by one central management has always been flawed to begin with. Namely, organisations have always been (1) complex and dynamic in nature, (2) comprised of unpredictable, interdependent and emergent human interactions and (3) part of complex and changing environments in which unforeseen and unpredictable events occurred outside of their control (Hutchins & Long, 2020). Hence, by changing the way organisations are led, designed, structured or changed, leaders are "merely starting to sense the organisation as it really is" (Hutchins & Long, 2020, p. 2).

That does not withstand, however, that those in charge of leading 'traditional' (Taylorist) organisations towards a new (complexity-based) model face a challenging task. Namely, embedding a fundamentally different set of mental models throughout the entire organisational system is a systemic change effort focused at the most difficult levers of change. Due to the novelty and complexity of the challenge at hand, there is no scientific consensus on how to achieve this systemic, organisational change in practice. However, several leadership and change management models have emerged in recent years to provide change leaders with some guidance on how to facilitate this process (Dreier, Nabarro & Nelson, 2019; Scharmer, 2009a).

These emerging principles fall within the concept of 'systems leadership' (Dreier, Nabarro & Nelson, 2019). A more specific process to achieve this, is outlined in Theory U (Scharmer, 2009a). As this thesis aims to understand the extent to which system leadership programs, and in particular, Theory U, give rise to systemic changes within organisations, the following section will shortly explain both approaches. Hence, the reader will gain a proper understanding of their main guiding principles.

2.2.2. The concept of systems leadership

In an early publication on systems leadership, Senge, Hamilton and Kania (2015) stated that: "the deep changes necessary to accelerate progress against society's most intractable problems require a unique type of leader- the system leader, [which is] a person who catalyses collective leadership" (p. 27). Moreover, to truly transform complex (organisational) systems, this systems leader should be able to facilitate "*learning, trust-building and empowered action among stakeholders who share a common goal*" (Dreier, Nabarro & Nelson, 2019, p. 4). Moreover (s)he should be able to mobilise diverse stakeholders and understand the complex system from which the challenge emerges (Dreier, Nabarro & Nelson, 2019).

Although these skills, needs and the overall concept of systems leadership seem to "make intuitive sense to many stakeholders" (Dreier, Nabarro & Nelson, 2019, p. 6), they are not yet widely embraced or practised. One of the reasons for this is that the concept is only in an exploratory stage, and few practical tools and programs have been developed and proven to support leaders, teams, organisations or (multi-stakeholder) coalitions to develop the right mindset, skills and (working) environment (Dreier, Nabarro & Nelson, 2019).

From existing theory and early-stage initiatives, it was learned, however, that to achieve real and lasting systems change in organisations, change should be facilitated at individual, team, organisational and inter-organisational level (ASC, 2020; Scharmer, 2009a). More specifically, individuals should understand and recognise that they are part of the system they seek to change (Senge, Hamilton & Kania, 2015; Dreier, Nabarro & Nelson, 2019; ASC, 2020). Moreover, they should understand how to interact and learn effectively from others, thereby focusing on creating productive and trustful relationships and interactions among individuals and teams (Senge, Lichtenstein, Kaeufer, Bradbury & Carroll, 2007). Thirdly, on an organisational level there should be capacity to scale up the change, which can be done by mobilising a diverse number of stakeholders to share their unique perspectives to help the entire stakeholder group understand the whole organisational system (Reos Partners, 2020; Scharmer, 2009a; Senge, Hamilton & Kania, 2015; ASC, 2020). And fourthly, actors and organisations should "work across boundaries to co-create the future", e.g. by organising multi-stakeholder initiatives (ASC, 2020).

Overall, the existing systems change and leadership literature thus highlight several skills and processes required to facilitate systems change. However, while these guidelines outline what is needed to achieve systemic change in organisations, they lack an explanation of how to accomplish this. Theory U fills this gap by providing a more specific process for how this can be facilitated, which will be further elaborated on in the following section.

2.2.3. Theoretical background and main principles of Theory U

Theory U is a framework which has been developed over the course of 20 years of transdisciplinary academic research by MIT Professor Otto Scharmer, and builds upon the work of influential system theorists (e.g. Meadows, 1999; Forrester, 1971; Senge, 1990) combined with insights from organisational theory (e.g. Schein,1990; Argyris & Schön, 1996), biology (e.g. Varela, Maturana & Uribe; 1974; Varela, Thompson & Rosch, 1991), philosophy and cognitive science (elaboration on the latter two, see Scharmer, 2009a, Chapter 2). The

framework emerged from Scharmer's fascination by the question why the same methods and tools to facilitate organisational change are successful in the hands of one leader and in one organisation but may fail in the hands of another.

He states that the personal characteristics of leaders are often what makes the essential difference, namely: "*Successful leadership depends on the quality of attention and intention that the leader brings to any situation. Two leaders in the same circumstances doing the same thing can bring about completely different outcomes, depending on the inner place from which each operates*" (Scharmer, 2009b, p. 1). Exactly this "source from which we operate", referring to one's 'being', experience, mindset, beliefs and character traits, is the "blind spot" in the process of leadership and facilitating organisational change (Scharmer, 2009a). The fact that this these elements are mostly 'blind spots' is, according to Scharmer (2009a), the reason why many transformative change processes fail.

Therefore, Scharmer (2009a) states that to truly transform systems and the solve complex problems of our time, system actors should become aware of the mental models that give rise to our current systems in the first place. Although he does not use the same term, Scharmer (2009a) seems to refer here to a similar idea as what Meadows (1999) referred to as 'the power to transcend systems': the deepest leverage point in a system (see *section 2.1.3*).

Additionally, Scharmer (2009a) states that once this awareness is gained, system actors should prototype new ideas to help them learn from their current reality, which is what Scharmer (2009a) calls 'learning from the future as it emerges'. This latter point is an essential element in his theory, as he states that the complex (wicked) problems of our time cannot be solved with existing knowledge from the past. Once system actors learned from their conducted experiments, the last step of the change effort is to collectively design interventions to change the system into the intended direction (Scharmer, 2009a).

To guide actors through this process, Scharmer (2009a) developed the 'U-Journey', which takes place in five stages and correspond with seven leadership capacities which the individual or group should cultivate to get the desired results from the process (Scharmer, 2009a). The five stages, as well as the corresponding leadership capacities, will be explained by one in the following sections and are visualised in **Figure 2**.

2.2.4. The U Process

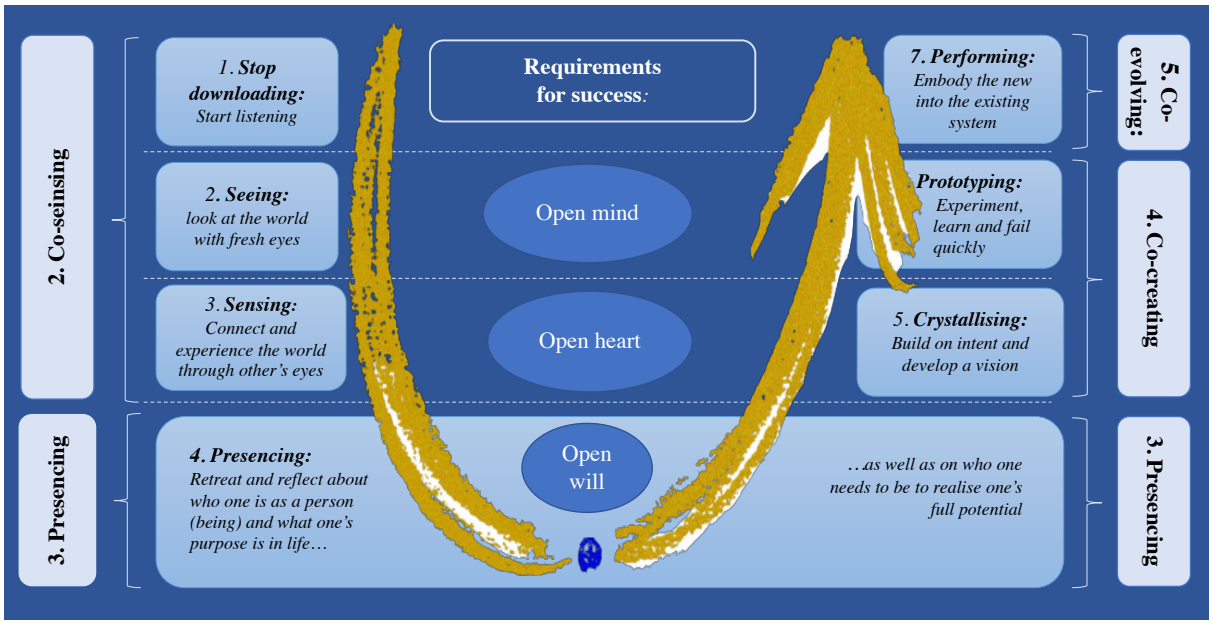

Figure 2. The U-process takes individuals and groups through one process with five stages and seven key leadership capacities. To successfully go through all stages and facilitate transformational change, individuals require an open mind (curiosity) heart (empathy) and will (courage to let go of old habits and beliefs one holds onto). Adapted from Scharmer (2009a).

Improving observation: Co-initiating and co-sensing

The first, introductory, movement is called *co-initiating.* In this stage, the individual or the group participating in the U-process defines a (shared) intent regarding the purpose of the journey. Having done that, the U-process moves into the *co-sensing* phase, in which participants gain insight into how they perceive and interpret the world around them. During the co-sensing stage, participants are encouraged to stop what Scharmer (2009a) calls "downloading"; this is to perceive the world with a closed mind and only observe information that confirms previous knowledge, beliefs and preconceptions. Instead, change-makers need to learn to "see" and "sense" to successfully move through this stage towards a deeper level of the U, and perceive their environment with an "open mind" (suspending judgement) (Scharmer, 2009a).

With "*seeing*", Scharmer (2009a) refers to a leadership capacity in which U-participants let their perceptions be guided by curiosity rather than by judging what they observe based on past experiences and beliefs. In essence, "seeing" is to look at the world with fresh eyes and an open mind. *Sensing* is to truly connect to oneself and others though 'opening up your heart'. It means to create a space in which deep emotional connections to others can emerge. This can be facilitated through empathic listening and exploring the situation from the perspective of others within the system. In essence, one tries to see, understand and experience the world through someone else's eyes.

Presencing: The bottom of the U

The capacity and experience of *sensing* is something the group will experience in preparation for the third movement of the process, the *presencing* stage. The concept, which is a combination of the words presence and sensing, refers to a leadership capacity and movement in the U in which participants retreat and reflect about who they are as a person, what their true calling is in life (purpose) and who they need to be to create this new envisioned reality (Scharmer, 2009a). During this stage, participants will start to see themselves as ultimately related to others and the systems they inhabit and gain heightened levels of energy to shape the emerging future into the desired direction (similar to the feeling people can experience when feeling inspired).

To successfully experience the *presencing* stage, one needs to be able to let go of old patterns, assumptions, beliefs or even the way one sees oneself. For this process to emerge, it is required to employ what Scharmer (2009a) calls an 'open will'. This means to let insights arrive based on, *seeing, sensing* and reflections, and to then be completely open to act upon these new insights without holding on to previous views or ideas of the self or system one is part of (e.g. ideas of who one should be or how something should be done according to existing rules or expectations by others).

Presencing is a key concept of Theory U which was developed by Peter Senge and colleagues (2005) and further explored by Scharmer for his Theory U (2009a). The concept is difficult to grasp as it explicitly aims to explain tacit experiences. Hence, it may sound vague or unscientific to some. However, it is extensively researched by MIT scholars and is based upon insights from over 150 interviews with experts in quantum physics, biology and several other fields of study. An in-depth explanation of the scientific foundation for the concept is beyond the goal and scope of this paper, however, so for further elaboration, I refer to Senge, Scharmer, Jaworski and Flowers (2005).

Activating intentions: co-creating and co-evolving

Once the U-participants have jointly moved through the first three stages of the U which "is about opening up and dealing with the resistance of thought, emotion and will" (Scharmer, 2009b, p. 11), the next two movements focuses on acting upon these insights and embedding them into the existing ecosystem. It should be said that while the aforementioned processes of the U are elaborately described and embedded academic theories, the right-side processes are described rather brief and general. However, Scharmer (2009a) still divided the activating parts the U-process into two iterative steps, *co-creating* and *co-evolving.*

Within the *co-creating* phase, U-participants who have committed to a shared purpose use the power of intention created during the *presencing* stage to *crystallise* one's (shared) vision. In this stage, there is a high level of energy within both the individual and the group (people are inspired and ready to act towards their new vision), and the group "begins to attract people, opportunities and resources to make things happen" (Scharmer, 2009b, p. 10). Following this inspired state, participants start to "explore the future while doing" i.e. *prototype* ideas (Scharmer, 2009b, p. 8) The latter is characterised by experimentation and quick learning cycles, in which challenges or mistakes are identified at an early stage, so they can be overcome before embedding the prototype into the existing system. This step could be operationalised in practice by, for example, creating dedicated (design) teams aimed to develop and test solutions for problems they encounter in their organisation. These can then later be scaled up to larger organisational levels if proved effective.

The last step of the U-process is to embody the new changes into the existing ecosystem. This stage (*co-evolving*) is concerned with reviewing what has been learned. Thus, change agents who are going through the U-process (or those who facilitate it) should integrate the new into the whole by applying the right set of players as well as the right methodologies to co-create the desired change (i.e. *performing*) (Scharmer, 2009a). Although it is not elaborately described how practitioners should do this, this step could be operationalised by developing guiding coalitions to scale up effective prototypes and build the organisational capacity to embed these into the organisation.

According to Scharmer (2009), the five movements of the U-process can be applied to all levels of systems, from individual and group level to large-scale innovation projects and (eco)system reforms. While stating this, he does indicate that the U-process will unfold "in different forms" and "over longer periods of time" when applied to micro and meso systems compared to macro and 'mundo' (regime-level) ones (Scharmer, 2009b, p. 8). However, these differences are not elaborately explained or specified within the theory.

2.2.5. The application of Theory U in practice: literature gaps and research questions

When reviewing the possible applications of Theory U outlined by Scharmer (2009a) himself, he states that Theory U can be applied to multi-stakeholder innovation, business innovation, transformational change projects and leadership development. More specifically, the process was considered useful in multi-stakeholder innovation efforts by facilitating effective dialogues between different stakeholders with diverse views and interests. Overall, such dialogues were

found to support these groups in creating solutions and policies which benefited and were embraced by all stakeholders.

Regarding the corporate applications, the U-principles have been applied by several (multi-national) organisations to create holistic change programs. In Scharmer's (2009a) cases, organisations experienced changes in corporate culture and improved scores on KPIs. Leaders had a better understanding of the problems they ought to solve and executive leadership teams experienced more common ground regarding the challenges and opportunities their business faces. On an individual level, leadership development programs which implement the U-process were found to have facilitated some behavioural changes (e.g. better listening and increased ability to handle pressure), which again led to "new leadership techniques, behaviours and results" (Scharmer, 2009b, p. 18).

Whereas Scharmer (2009a) thus does discuss some case studies and their results, these are rather general and provide little contextual information and insights into the way the U-process was conducted in that specific case. Moreover, particularly little explanation was provided regarding the concrete steps taken to embed the results of the program into the existing system (right side of the U). Hence, it is somewhat unclear what leaders or U-practitioners should do exactly to achieve a transformative change of the system they aim to change (i.e. the descriptions outlined in the theory are pretty broad, such as "embed the prototypes into the larger system").

Moreover, Scharmer (2009a) does not specify whether and how the U-process differs when applied to different systems levels (e.g. individual, team, organisation) or how the outcomes of Theory U contribute to achieving overall systems change. Lastly, when reviewing academic literature on the overall impact or outcomes of theory in practice, only one academic article has been found to assess the effects of Theory U on a team-level (Hays, 2014) and no literature was found to research the impact of Theory U on larger levels (i.e. whole organisations or larger systems).

Lastly, as indicated in the introduction of this thesis, the organisation for which this study is conducted (Better Future) also reported that, while its clients have indicated some personal or group-level changes across their organisations after participating in the U-Journey, the transformative and whole-system change that Scharmer (2009a) promises in his theory, is not forthcoming (Better Future, personal communication, November 2019).

An explanation of why the outcomes of Theory U on (larger) systems are so underreported may be because the process has a very tacit and embodied nature, which makes the exact impact of the relationships or initiatives created difficult to measure (Eisenstadt,

2010). Moreover, Eisenstadt (2010) states that "there are a variety of definitions of systemic change and it is currently difficult to draw causal links between the U-Process and systemic change, even if slices of the system can be addressed" (p. 26). Therefore: "understanding how the U-Process links with systemic change requires further research" (Eisenstadt, 2010, p. 26).

Hence, this study aims to contribute to the current knowledge gaps by researching the outcomes and impact of Theory U in practice and link these to the concept and practice of systemic change. To do so, this study will answer the question to what extent system leadership programs (SLPs) inspired by Theory U give rise to systemic changes in organisational systems. To answer this question, the following sub-questions (SQ) will be answered:

SQ1: What changes do Theory U-inspired system leadership programs give rise to on different levels of organisational systems?

SQ2: To what extent do these changes contribute to systemic change?

Following Scharmer's (2009a) division of different system levels, SQ1 will assess the outcomes on individual, team and organisational level with the aim to understand how changes in one level affect the impact of the systemic change effort on the organisational level overall. As the fourth level, larger systems, can refer any change which exceeds the boundaries of the organisation as a whole, this level is left out of the scope of this thesis.

In terms of its theoretical contribution, this study will be the first of its kind to (1) research the impact of Theory U on all three organisational levels, (2) study how the impacts across these levels interact and how they affect the overall success of the change process, (3) link these outcomes to systems change theory and (4) provide an analytical framework to for doing so. To understand how this research was conducted, the methodology used to answer both SQs as well as the overall RQ is outlined in the following section.

3. Research methodology

To answer the research questions this study employed an abductive, qualitative case study design with an explorative and explanatory functionality (Dubois & Gadde, 2002). The unit of analysis for this research is the leadership and change program of consultancy firm Better Future, which applies Theory U to organisations through leadership and change management journeys.

To answer SQ1, empirical data was collected across four sub-cases (selected through criteria sampling) through semi-structured interviews. These were complemented by several other data sources to enable data triangulation, which enhances the reliability of the findings (Yin, 1994) and increases the probability of new discoveries (Dubois & Gadde, 2002). Interviewees were selected based on theoretical sampling after which the interviews were transcribed and analysed following Grounded Theory principles (Glaser & Strauss, 1967). To answer SQ2, insights from the empirical data sources were analysed through an analytical framework developed by the researcher. In this analytical framework, principles from systems theory were translated to the organisational context of this study, which enabled the researcher to assess the systemic nature of all changes identified in SQ1. To answer the overall RQ, both insights were integrated into a coherent theory following the method of '*systemic combining'* (Dubois & Gadde, 2002), and presented in the discussion section of this thesis. A more detailed outline of all decisions and a substantiation of why they were considered most appropriate to answer the research question, will be provided in the following sections.

3.1. Research design

As stated above, this study employed an abductive, qualitative case study design with an explanatory functionality (Dubois & Gadde, 2002). An abductive research strategy is employed, because this is considered most appropriate in situations where there are indications that there is a discrepancy between existing theory and empirical reality (Dubois & Gadde, 2002; van Hoek, Aronsson, Kovács & Spens, 2005). This is the case for this study, as such gap between theory and practise was outlined by Better Future. Moreover, an abductive design is beneficial when neither inductive nor deductive approaches are sufficient to fully understand the research problem (Dubois & Gadde, 2002). This is also the case for this study, as developing a theory from empirical data without using existing theory (inductive approach) would only be able to explain the changes Theory U-inspired programs facilitate in practice (SQ1); without the addition of systems theory, it would not be able to assess whether these changes are systemic

(SQ2). In a deductive model, the data collection would be guided by systems theory and mostly test whether these theoretical principles also appear in practise (e.g. by asking very specific questions or analyse data by using a pre-determined coding scheme). Although this may answer the overall research question, this is a rather narrow approach. The researcher then risks missing important elements regarding the overall outcomes that Theory U programs generate in organisations (SQ1).

Therefore, an abductive research design, guided by the method of '*systemic combining'*, which combines and reaps the benefits of both approaches, is considered most appropriate for this study (Dubois & Gadde, 2002). As abductive research is a relatively novel and less known research strategy, a brief explanation of its main principles is provided in Appendix A. The main principles of systemic combining, as outlined by Dubois and Gadde (2002) can be found in **Figure 3.**

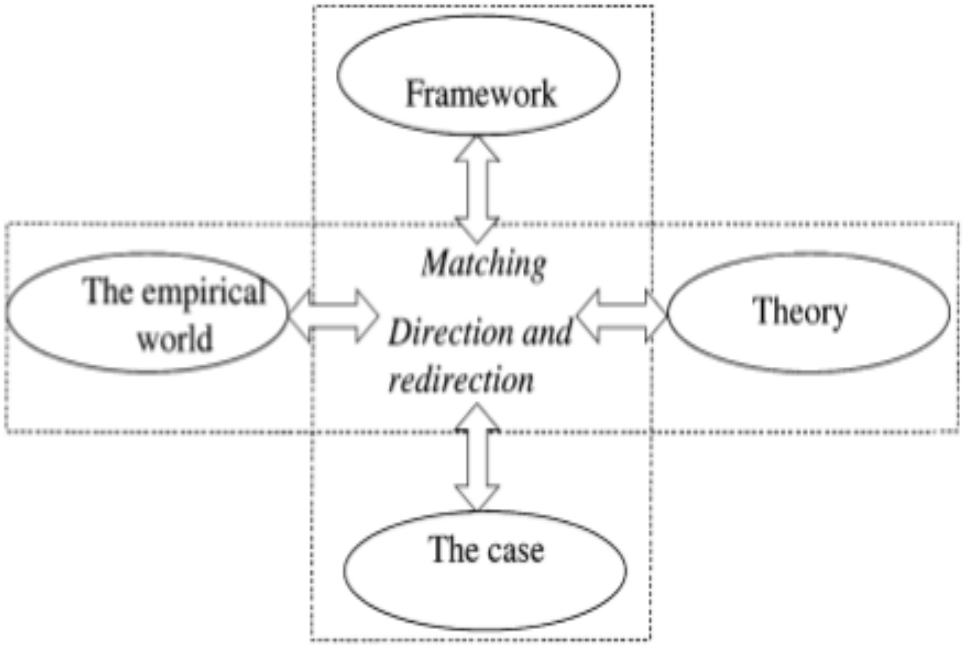

Figure 3*:* The process of systematic combining is the core method in abductive case research. It aims to improve an existing conceptual framework, in this case Theory U complemented by Meadows' (1999) leverage points, through continuously comparing empirical findings from one or more specific cases to insights from existing theory. Throughout the entire research period, the researcher continuously moves back and forth between the initial conceptual framework, empirical data (collected from the case) and existing theory, in which data collection, data analysis and theory development occur in an iterative process (matching). The direction of the data collection or analysis is subject to change, as both processes directed (or redirected) by insights gathered throughout the study (Dubois & Gadde, 2002).

In terms of the research strategy, a qualitative design was considered most appropriate to achieve the research aim. Namely, to answer the RQ, and especially to answer SQ1, it was important to understand how journey participants believed the journey changed themselves,

their teams and/or their organisation. To gain these insights, qualitative data, such as personal perceptions or anecdotes by interviewees, was considered most useful. Moreover, most system leadership approaches are less than a decade old, meaning the concept is only in an exploratory stage (Dreier, Nabarro & Nelson, 2019). Therefore, there is no scientific consensus yet regarding the variables and interactions that play a role in making or breaking the success of such programs. For this reason, a quantitative research design aimed at analysing these variables statistically would be suboptimal and difficult to employ (Bryman, 2012).

Lastly, this research employed a case study design, in which Better future was selected as the case for this study. Better Future's leadership and change journeys (based on the U-process) were selected as the unit of analysis. A case study design is typically selected when in-depth (qualitative) data from multiple different angles is required to answer the research questions (Bryman, 2012). Because such in-depth information is required to understand the complex dynamics of Theory U and systemic change in organisations, a case study design was considered most appropriate.

3.2. Case selection

3.2.1. Main case selection: Introducing Better Future

Better Future is a Dutch organisation which applies Theory U to large institutions by facilitating change and leadership journeys for corporate managers, teams and organisations worldwide. By incorporating the principles and leadership qualities of Theory U, the journeys challenge and guide individuals and organisations to gain new perspectives, embrace and activate their true purpose and translate this into their future work by developing new strategies. Or as they formulate it themselves: they aim to "turn business into a force for good" (Better Future, 2020).

Whereas all programs are developed based on the principles and leadership capabilities as outlined in section 2.2.2., all journeys are tailored to the individual system characteristics and needs of each client. Hence, the focus on individuals, teams or organisations as a whole can slightly differ across cases based on individual case characteristics.

3.2.2. Motivation for case selection

Better Future is considered an appropriate case to answer the RQs for several reasons. Firstly, all program facilitators in the organisation are certified Theory U practitioners, who obtained their certification at the Presencing Institute. This is a platform founded by Otto Scharmer to support practitioners and scholars to succeed in facilitating "profound social and organisational

change" (Presencing Institute, 2020). As all program facilitators are thus certified Theory U practitioners, it is assumed that its principles are applied correctly within the Journeys.

Secondly, facilitators employed at Better Future have between 4 and 15 years of experience in facilitating leadership and/or change journeys (either at Better Future or at other organisations). Additionally, the organisation itself has over 10 years of experience in facilitating these programs. Thus, learnings and improvements have been incorporated into the journeys over the years. Therefore, both the individual trainers as well as the overall quality of the journeys is considered to be adequate to achieve the systemic (organisational) changes which Scharmer (2009a) aims for with his theory.

Lastly, in terms of practical considerations, Better Future could support the researcher in the process of collecting high-quality data by providing access to both interviewees and additional material which helped to understand the research problem. Without this information, the research questions could not have answered.

3.2.2. Sub-case selection: case companies

It is beyond the goal and scope of this study to gather insights from all previous participants from Better Future Journeys. Therefore, the researcher decided to gather data from four organisations (sub-cases) which had participated in a Better Future program. This enabled a better understand the context in which the changes facilitated by the journey took place and to triangulate information from different sources (e.g. multiple participants from the same case), which enhanced the quality of the research findings (as opposed to interviewing participants spread over many different cases, e.g. only one participant per case).

All sub-cases were selected by the researcher through purposive sampling (Bryman, 2012). More specifically, sub-companies were selected in collaboration with Better Future consultants, based on their degree of focus on the different system levels studied in this research (individual, team, organisation). Whereas most journeys address all elements, differences between programs remain due to the tailor-made nature of each journey. This means that, while the main set-up, methods and principles used are similar in all programs, there may be more focus on some elements than on others[1]. In terms of sampling sub-cases, it was ensured that

[1] For example: if a case a client is an organisation in which people and departments are very siloed, more focus may be required on the aspects of *seeing* or *sensing* (aimed at listening to and understanding others) than in an organisation with a very collaborative culture in which all employees already understand and respect their colleagues' perspectives.

individual differences were balanced out by selecting a set of 4 cases which, combined, represent all three system levels well.

Moreover, sub-case selection was also based on the ability for the researcher to collect high-quality data throughout the entire organisation (i.e. different hierarchical levels, including top-management). To understand which organisations would be suitable in this respect, the researcher consulted Better Future employees.

3.2.3. Sampling methods for selecting interviewees

Within the sub-cases, interviewees were selected based on theoretical sampling, complemented by snowball sampling. Theoretical sampling is the recommended sampling strategy for abductive research (Dubois & Gadde, 2002), in which the researcher starts the data collection process with an initial set of interviewees and selects more interviewees later based on the study's needs (Glaser & Strauss, 1967). Until theoretical saturation occurs, the research activities of sampling interviewees, collecting data, coding data and analysing it, take place in an iterative process.

An initial set of interviewees was based on recommendations from Better Future regarding who would be willing and able to provide insightful contributions into the research problem (e.g. based on their position in the company and role in the program). Overall, interviewees from different hierarchical levels were approached to achieve a comprehensive understanding of the changes experienced across the entire company. Based on the outcomes as well as the analysis of these initial interviewees, new interviewees were continuously sampled to provide additional information aimed to answer the RQ until theoretical saturation occurred.

Overall, interviews were conducted across different organisational levels, from board level to non-management employees. This was done to ensure a diverse sample of interviewees across all sub-cases and gain a comprehensive understanding of the outcomes of the U-process across the entire company for each case. When whole teams participated (this was the case for 6 interviewees), multiple people in the team were interviewed to cross-check interviewees' statements. Lastly, as not every employee from every sub-case actively participated in each journey, both highly and less involved employees were included in the interview sample. When the latter were juniors from managers who did participate, these interviewees could provide additional, non-management perspectives on journey outcomes and be used to verify or question statements by managers (e.g. about how he/she changed behaviour following from the

journey). All decisions were made to cover all dimensions of the research problem and to enable cross-validation of interview statements, which increases the reliability of collected information.

3.3. Data collection

To answer SQ1 (what changes do Theory U-inspired programs give rise to in organisations), five different data sources were used for data collection. Firstly, 15 semi-structured interviews of ca. 1 hour each were conducted with ex-participants of Better Future journeys. These were distributed across four cases, namely A (n=4), B (n=4), C (n=4) and D (n=3)[2]. Of these, 6 interviews took place in person at a location chosen by the interviewee, 7 took place by phone, and 2 were conducted virtually though MS Teams. All interviews took place in March and April 2020, and were conducted in the interviewee's native language (13 in Dutch, 2 in English).

Semi-structured interviews were considered the most appropriate source of data collection as they allowed the researcher to gain an in-depth and comprehensive understanding of specific (sub)cases (Bryman, 2012). Additionally, they revealed personal and context-specific perspectives which couldn't be obtained from existing literature. Also, this semi-structured interviews enabled the researcher to follow a pre-defined structure to plan and guide the interview (interview guide, see Appendix B), while keeping the freedom to ask additional questions when interviewees shared information that was worth further exploration (Bryman, 2012).

Although the interviews served as the primary source of data to answer SQ1, they were complemented by several other data sources to ensure a comprehensive understanding of all sub-cases (Dubois & Gadde, 2002). Publicly available documents (company website and reports) from the selected organisations were used to gain a general understanding of the organisation's main activities. Additionally, they were used to gain insights into the organisation's culture, structure, policies, mission, vision, values and strategy (the company's DNA), which was especially useful to understand the broader context in which the journey had taken place.

Secondly, in one sub-case a mini-documentary was available which captured a segment of its leadership journey (Better Meetings, 2019). The video captured the transformation

[2] Due to confidentiality of the sub-case organisations, these will remain anonymous during this research. However, they were all large organisations which are active across different continents. Three organisations sold products, one organisations provided services. All four sub-cases were headquartered in the Netherlands.

process of a (leadership) team and includes fragments of program sessions and participants' reflections and responses to these. This was relevant, primary data for the researcher to comprehend what a Better Future Journey looks like in practice and how this process is experienced by participants.

Thirdly, in- and outtakes of participants were studied to better understand what participants perceived as the outcomes of the program. Intakes are questionnaires which journey-goers fill in before joining a journey. Out-takes are questionnaires in which those who joined a journey reflect on and report their main learnings, insights and changes they experienced during and after the journey. These documents were available in two out of four sub-cases (seven interviewees).

Fourthly, internal documents stored in Better Future's online database were reviewed to gain a complete and holistic understanding of the studied sub-cases and the overall impact the journeys in question had on the involved individuals, teams and organisations. These documents were available for all cases.

Lastly, the researcher completed a six-month internship at Better Future, which enabled her to gather additional data through meetings, conversations and collaborating with Better Future employees. Passive data, which appears through deliberate search (Dubois & Gadde, 2002), was collected by actively discussing research findings with Better Future employees and by continuously asking questions which appeared during the search. Active data, which is associated with discovery (Dubois & Gadde, 2002), was collected by attending meetings, having casual conversations with Better Future employees and by working at the office in general. To better understand the considerations and value of each data source used for this research, a further elaboration of these matters can be found in **Table 2**.

Table 2. *Elaboration on used data sources.*

Data source	Purpose and value of sources for the study
Semi-structured interviews with journey participants (conducted for all cases)	▪ Relevant to gain a detailed and in-depth and comprehensive understanding of specific (sub)cases. ▪ Revealed personal and context-specific perspectives which cannot be obtained from existing literature or documents. ▪ Most important data source for data analysis and answering SQ1.
Publicly available documents from sub-case companies (company website and	▪ Mostly used to gain a general understanding of the company's DNA (main activities, organisational culture, structure, policies, mission, vision, values and strategy. This was relevant information to familiarize oneself with the nature of the organisation as preparation for the interview.

annual reports, if available)	▪ Additionally this data could as input for the interview guide (prior to interview) and during the interview itself when formulating follow-up questions; ▪ Documents were searched to discover any changes in, for example, governance structure, goals and targets, or the companies purpose. This information could not always be provided by interviewees (e.g. not all employees have good insights into the company's strategy), meaning it was considered a useful source to data complementary to other data sources.
Mini-documentary (available in one sub-case)	▪ Captured part of a leadership journey, which was helped the researcher to gain valuable insights into what a Better Future Journey looks like in practice and how this process is experienced by participants; ▪ Valuable to overcome some of the memory-related problems which could be an issue in interview-research (Bryman, 2012), because it contains original content regarding the journey at the time it takes place. Hence, reflections in the video represent experiences and thoughts felt and expressed by participants during the process, which may be forgotten or remembered differently in hindsight. ▪ Comparing the interview data to the video enables the researcher to cross-validate what is shared by interviewees during the interview-process, and address inconsistencies when interview data seems to differ from video footage. This enhances accuracy and reliability of the research findings.
In- and outtakes from participants (available in two cases)	▪ Contain primary data on interviewees' own perceptions and reflections on the impacts of the journey, which contributes to a high interpretive validity of the study (Maxwell, 1992). ▪ Relevant to overcome some of the potential memory issues of participants who joined the journey several years ago, as in- and outtakes are completed shorty prior to / after the journey (e.g. when an interviewee cannot remember everything, remind them by asking: "in your outtake form you indicated that …… Can you elaborate on this") ▪ This information can be used when interviewees made statements which differ or even contradict statements which they had voiced earlier in their in- or outtakes or, more in general, to cross-validate data through triangulation (e.g. in case of contradictory statements, ask: "In your outtake form you indicated [something different than what the interviewee said before]. How do you reflect on this change now?"
Internal documents stored in Better Future's online database (available in all cases)	▪ Used for all the purposes that have been stated before, as well as, for discovering new aspects of the research problem and the sub-cases, which were not yet known or understood by the researcher. ▪ Data from this database consisted of valuable information of the case organisations, journey-participants, program details (e.g. program goals, desired outcomes, set-up or timeline) and information regarding outcomes or conclusions of intermediate sessions or (generate statements regarding) the overall program.
Active and passive data gathered through internship at Better Future	▪ Valuable to make sense of collected data, e.g. by asking for clarification of questions which appeared during the research process. ▪ Valuable for discovering new aspects of the research problem through active data collection. Helps to (re)direct further data collection with the aim to cover all aspects of the research problem.

3.4. Operationalisation of concepts

3.4.1. Interview guide developed to answer SQ1

Prior to conducting the interviews for answering SQ1, an interview guide was compiled which served as a guiding structure for all interviews. The aim of this interview guide is to increase consistency between all interview and limit interviewer bias, which enhances the construct (or theoretical) validity of the study (Maxwell, 1992). The interview guide (Appendix B) was inspired by theories on interview techniques and procedures suitable for qualitative inquiry (Seidman, 2006) conducting interviews on sensitive topics (McGrath, Palmgren & Liljedahl, 2019; Dempsey, Dowling, Larkin & Murphy, 2016) and theory as outlined in section 2.2. (e.g. the three levels of changes-individual, team and organisational based on Scharmer's division as well as the ASC's). Overall, the interview guide was divided into five main sections.

Of these, section 1 and 2 were based on standard interview protocols and on how to start the interviews in a way that make interviewees feel comfortable and willing to share honest insights (Seidman, 2006). Moreover, the first few questions served to develop a trusting relationships at the beginning of the interview, which is important to assure detailed, honest and high quality interview data (McGrath, Palmgren & Liljedahl, 2019; Dempsey, Dowling, Larkin, & Murphy, 2016).

Regarding the more thematic questions (section 3, 4 and 5), the interview guide has been divided into three main themes (changes on individual, group, organisational level). These were based on the similar division for facilitating systemic change in Theory U (Scharmer, 2009a) as well as on the a variety of other scholars and theories on collective or organisational change (e.g. Dreier, Nabarro & Nelson, 2019; ASC, 2020). Whereas three main questions regarding changes on the three levels were leading for the conversation, several possible sub-questions (asked if the interviewee didn't mention these themselves) were formulated based on insights from Wilber (2007), Barrett (2006a) and Jones (2013). These included a further specification in terms of the three organisational levels, such as a separation of mental models and behaviours for individuals or strategy, culture or organisational structures for organisational level.

As indicated in section 3.2.3. the emphasis of each theme may differentiate based on the background, experience, knowledge and role of the interviewee. However, by having consciously selected the sample, the study gathered rich data to answer the main question of this study. After completing the thematic part of the interview, a conclusion of the main points were always summarized by the researcher to verify correct understanding of the interviewee's

viewpoints, after which the interview was ended according to standard interview protocol (Seidman, 2006).

Lastly, SQ1 aimed to understand interviewees' *experience* of the journeys to understand to what extent these gave rise to any changes on personal, team or organisational level. To do so, it was important that interviewees shared personal experiences and reflections and move beyond providing merely factual statements. Therefore, questions were framed in a way encouraging stories over sharing facts.

3.4.2. Analytical framework developed to answer SQ2

SQ2 assesses whether the changes generated by Better Future's change program are systemic in nature. To operationalise systemic change, the concept was earlier defined as the "intentional process designed to alter the status quo by shifting and realigning the form and function of a targeted system" (Foster-Fishman, Nowell & Yang, 2007, p. 197)." Thus, changes should be fundamental (deep leverage points) and affect how the whole system functions. Moreover, it was stated that to achieve successful change, system change efforts should take into account all system components, the relationships between them and the system structures which keep the system in place (Narberhaus & Sheppard, 2015; Barrett, 2006a). Lastly, the systems' mental models, system structures, feedbacks and parameters should be aligned to sustain the new system behaviour (Angheloiu and Tennant, 2020; Abson et al., 2016; Barrett, 2006a).

Based on these insights, Angheloiu and Tennant's (2020) model, which categorised Meadow's (1999) 12 leverage points into four broader systems levels, was selected to assess the nature of the changes facilitated by U-Journey (outcomes of SQ1). Meadow's (1999) leverage points are a key concept in systems theory and therefore considered as a solid foundation to the analytical framework. Angheloiu and Tennant's (2020) categorization is useful to understand at which systems *level* the changes occur. Moreover, the additional insight by Abson et. al (2016), which further categorises the four systems levels into deep (mental models and system structures) and shallow (feedbacks and parameters) leverage points, help to define whether the changes identified for SQ1 are fundamental (i.e. affecting deep leverage points).

While these theories by Meadows (1999), Angheloiu and Tennant (2020) and Abson et. al (2016) provide valuable insights for answering SQ2, their explanatory power is limited when it comes to assessing systems changes in terms of system components (actors), system structures and interdependencies. Namely, while changes in system structures broadly relate to

leverage point 4,5,6,10,11 and 12 (system structure and parameter level) and interconnections to leverage point 7,8 and 9 (feedback level) can be evaluated with these models, they do not sufficiently account for the role of individual actors in shaping or changing the system. Hence, a firth system level was added to the existing model (the source), to addresses the role of the personality traits, past experiences or other unique personal characteristics of individuals who shape and inhabit the system. This dimension is based on Otto Scharmer's (2009b) insight that this "source", i.e. the "inner place from which we operate" plays a fundamental role into the way individuals construct their (social) reality, and thus into the way they engage in transformative change efforts (p. 234). Following Scharmer's (2009a), this dimension is placed at the deepest level of the system as it affects the way mental models are shaped, which consequently defines how the rest of the system is designed.

The systems theories used to operationalize systemic change are developed to understand systems in general, however, and not particularly organisational systems. Moreover, no framework of this kind exist in either systems or organisational literature. For this reason, the researcher developed an analytical framework herself (**Table 3**) in which the original systems principles are translated to the organisational context of this study. Next to the mentioned systems theories (Meadows, 1999; Angheloiu & Tennant, 2020), this framework used insights from organisational (change) literature, gained through an extensive literature review on organisational theory (e.g. Jones, 2013; Barrett, 2006a.; Estupiñán & Neilson, 2014, Kettinger & Grover, 1995; Ahmady, Mehrpour & Nikooravesh, 2016; Hutchins & Storm, 2019) and the researcher's latent knowledge gained by working in organisations and studying organisational theory for several years.

The developed framework includes descriptions, examples and indicators to understand how each leverage point translates into the organisations, team or individual context of employees. Where existing knowledge and critical thinking was unable to translate a specific leverage point to a specific context (organisations, teams or individuals), or when this did not make logical sense, the fields in **Table 3** are marked grey.

Lastly, it can be difficult to comprehend the leverage point framework in organisational contexts, especially for those who aren't familiar to systems theory. Therefore, several guiding questions were formulated to better understand how the concepts and indicators in **Table 3** can be understood or identified in practice. These can be found in Appendix C.

Table 3. *Analytical framework developed to answer SQ2.*

Systems level	Leverage point	Organisational context	Team context	Individual context
Parameters	12. Parameters	All kinds of (mostly numerical) metrics which can be measured or tweaked within an organisation. Measurable indicators can be used to assess progress or change in any of the other systems levels. E.g. Key performance indicators (KPIs), targets, performance indicators, monetary rewards (e.g. bonuses), standards, criteria to define organisational success etc.	Team KPIs / targets, rewards on team level, team performance indicators, rewards, standards, success criteria for the team etc.	Individual targets to achieve goals or ambitions (e.g. aims for specific salary, job, car, grades at university etc.)
	11. The size of buffer stocks, relative to their flows	E.g. financial buffers vs. in an outgoing cashflows, material resource stock in warehouse vs. human capital in-house vs. employee turnover. Relates to resilience of the organisation.	Similar to organisational context. Regarding the structure of material stocks and flows, these factors are mostly designed on the organisational scale and overall don't differ per team (except for possibly the physical set-up of the office space which can be changed per team)	
	10. The structure of material stocks and flows	The way in which the organisation' s material assets are designed, which guides the way resources flow. E.g. Physical infrastructure used by the organisation (e.g. roads or railways) + the structure, organisation and physical design of warehouses, distribution networks, transportation assets, work / office spaces etc. Difficult or costly to change once designed (one cannot move warehouses or redesign office areas		

		easily), however relevant to take into account (e.g. physical design of office space can define how employees move within the organisation, which guides who meets who in the company).		
Feedbacks	9. The length of delays, relative to their rate of change	Adaptive and innovative capacity of the organisation as a whole + internal response to events or decisions (e.g. response time between policies being drafted and implemented, waiting time before getting 'green light' for new project or idea) Dependent on the structure of adaptability of actors and teams, but especially on the organisational structures (related to leverage points 4, 5 and 6). Need for agile organisational design to keep delays short.	Adaptive and innovative capacity of the team, response rate to change or event in the environment	Adaptive capacity / flexibility of an individual (agility); How fast does a person react and adapt to a change in the environment. Dependent on personal / "source" characteristics (e.g. adaptability as a personality trait or the way one thinks about change) as well as other (environmental) factors.
	8. The strength of negative feedback loops	The effect of factors which inhibit the effect of other processes. This can refer to any interaction effect which results from how other system elements interact. E.g. The highly positive results expected in an organisation which has highly motivated and talented employees could be limited by a lack of coordination or efficiency among team members or teams as a whole (the effect of one process is inhibited by the interference of another, mediating variable).		E.g. Thinking patterns, behaviours, emotions or feelings which limit the effect of earlier once.
	7. The gain around driving positive feedback loops	The gain achieved from factors or processes which reinforce other processes or outcomes. This can refer to any interaction effect which results from how other system elements interact. E.g. Having a highly motivated and talented employees, an organisation can expect high quality individual outputs. If these employees also collaborate well and work processes are coordinated well, this even reinforces the positive effect of the highly skilled and motivated employees, which leads to even better overall results.		E.g. Thinking patterns, feelings or emotions which reinforce other thinking patterns, feelings or emotions (e.g. negative thoughts reinforce negative emotions which could give rise to behaviour which again leads to negative emotions).

System structures	6. Structures of information flows (access to information)	To enhance optimal system behaviour, system actors should ideally have access to the relevant information they need to optimally contribute to the systems goal. Therefore, it is important to create feedback loops "delivering information to a place where it wasn't going before, thereby causing people to behave differently" (Meadows, 1999, p. 13). This also facilitates accountability structures for system actors and the system as a whole (Meadows, 1999). Organisational or team structures should enable this. Such structures are e.g. knowledge management systems, (digital) information infrastructures & technologies, availability of relevant information within the organisation, monitoring systems for increasing accountability, and power structures which play a role in deciding who knows / shares what information with whom.		
	5. Rules of the system	<u>Intangible:</u> Organisational culture, norms, power structures, common language used, informal reward systems (e.g. appreciation or praise for specific behaviour), structures aimed to motivate employees <u>Tangible:</u> Policies, formal reward systems (e.g. performance management structures guiding who is promoted), behavioural code of conduct. Also guided by governance structure, task divisions and roles & responsibilities.	<u>Intangible:</u> Team culture, norms, power structures, common language used, informal reward systems (e.g. appreciation or praise for specific behaviour), structures aimed to motivate employees <u>Tangible:</u> Team policies, formal reward systems (e.g. performance management structures guiding who is promoted), team code of conduct. Also guided by governance structure, task divisions and roles & responsibilities.	Rules the person lives by. Also impacts what environments the person choses to work or live in.
	4. The power to add, change and self-organise the system	Structural elements focused on empowering employees, teams, departments or national offices (e.g. to make their own decisions or organise / create change themselves) Dependent on:	Similar to the factors mentioned on the organisational level, as these impact the way teams are organised (or organise themselves). More specifically on team-level, this leverage point can be affected by e.g. the	Structural behaviour of individuals focused on empowering others. E.g. management practises or leadership style

		▪ organisational structure (e.g hierarchical, hybrid or networked organisation); ▪ division of tasks, roles and responsibilities ▪ division of power; ▪ structure of working groups and departments (e.g. departments structured based on functional expertise vs. based on problem); ▪ structures to enable employees to work on own projects or projects of choice; ▪ structures to enable co-creation and innovation (e.g innovation labs or teams); ▪ decision making structures and procedures, reporting structures (who needs to report to whom).	division of power and roles, tasks and responsibilities of team members (e.g. shared decision making vs. one leader makes decisions, self-organising team vs. one leader is in charge of the way the team operates).	
Mental models	3. Goals of the system	Mission and goals of the organisation (operationalised in organisational strategy)	Mission and goals of the teams (long-term), operationalised in team strategy or annual plan	A person's purpose, mission or ultimate goals or ambitions in life. What one aims to achieve.
	2. The mindset from which the system arises	Organisational values, purpose (statement), vision, beliefs, theory of change	Team values, beliefs, assumptions (expressed in e.g. team value statement, code of conduct, common language used by team members)	Personal values, vision, beliefs, assumptions,; worldview of the individual
	1. The power to transcend paradigms	Reflective capacity of the organisation & learning cycles (learning organisation)	Reflective capacity of the team, learning capacity, degree to which team as a whole becomes aware of own assumptions, behaviour, goals, values etc.	Reflective capacity of the individual; degree to which one is and keeps becoming aware of own assumptions, believes, behaviours, goals, values etc.
Source	0. Inner place from which we operate			Way of being, i.e. personal DNA; unique characteristics for that

			person. Often unconscious until we become aware of it.

3.5. Data Analysis

3.5.1. Analysing data for answering RQ1

To analyse the empirical data collected to answer SQ1, Grounded Theory is used as the main method for data analysis (Glaser & Strauss, 1967). This is a commonly used methodology for qualitative research when theory has to be grounded in data, as it enables the researcher to structure a large amounts of data in a comprehensible way and identify relationships between emerging concepts and categories (Heath & Cowly, 2004). This process is non-linear and partly intuitive (Bryman, 2012), however the following paragraphs describe the overall logic applied to answer SQ1.

The process started with a first set of interviewees sampled and approached by the researcher, after which the first interviews were conducted. All interviews were recorded to enable literal transcription and enhance the descriptive validity of the study (Maxwell, 1992). Directly after each interview, the researcher captured her first impressions including the most important points mentioned by the interviewee as well as a short reflection of her own role as interviewer in a case-based memo (for examples, see Appendix D) (Charmaz, 2006). Because the researcher is part of the data collection process and is in control of what questions are asked and how they are asked (e.g. tone, intonation, order), any possible impacts this may have had on the research outcomes should be acknowledged.

As it is important to be familiar with the data before starting the coding process (Bryman, 2012; Strauss & Corbin, 1998), the transcripts were transcribed by the researcher herself and read multiple times before coding. With some exceptions due to some crisis management at the start of the COVID-19 government restrictions, all interviews were transcribed within 2 weeks after conducting the interview. After coding, they were uploaded to Nvivo 12, which is one of the most widely-used computer-assisted qualitative data analysis software by qualitative researchers (Bryman, 2012). Whereas data should still be interpreted by the researcher, the program was used to organise and code data in a clearer and more structured way then would have been possible through manual analysis.

When analysing the raw data, the coding process took place in three general steps[3]. Firstly, open coding was used to break down and conceptualise the raw data more comprehensible parts (codes). For the first half of the data sets, codes were generated based on line-by-line-coding: a code was attached to each sentence of the transcript to ensure that research outcomes are truly 'grounded' in data. By generating a large number of codes at an early stage of the research, the interviewees' words and meanings stayed intact; this minimizes the risk that potential researcher bias affects the interview outcomes through early-stage data interpretation (Strauss & Corbin, 1998; Bryman, 2012). While transcribing and coding more interviews, *conceptual memos* were used to document the researcher's thought process on the emerging theory (for example, see Appendix E).

Once more interviews were transcribed and coded, codes with similar content were grouped into concepts and later into categories (groups of concepts with a common theme)[4]. As multiple interviewees eventually started to mention similar themes and less novel information was highlighted in following data, line-by-line coding became redundant. Therefore, the overall coding process became more focused on saturating concepts and understanding relationships among them. During this process of 'axial coding' the relationships between concepts started to become clearer, and both concepts and categories were re-arranged in a coding tree (for early version, see example in Appendix F). In the meantime, new codes and concepts were still added to the coding scheme once interviewees introduced new topics and concepts (open coding).

Thirdly, selective coding is the process in which the coding three was refined; relationships between the most relevant concepts were identified and correlating concepts were clustered into final categories (for final concepts and categories, see Appendix G, H and I; for interrelations between categories, see Appendix J). In this stage, only relevant concepts and categories were further explored and additional data collection continued until theoretical saturation occurred. As the last three interviews did not lead to any new themes or insights, it was concluded that theoretical saturation had occurred. In other words, additional data did not lead to additional insights anymore, but rather confirmed existing findings (Bryman, 2012).

During this process, there was a constant iteration between theoretical sampling, data collection and all three levels of coding. Moreover, there was a constant comparison between

[3] All transcripts were coded and analysed in English. For the Dutch interview transcripts, the translation to English took place during the (open) coding stage.

[4] For example, multiple interviewees indicated that the journey helped them to better understand their own strengths. Whereas interviewees sometimes used different examples to explain the same change, these were all grouped into the concept of "better understanding own strengths". Later, some interviewees also mentioned to better understand their own core values and their weaknesses. These concepts were then clustered in the category "Better understanding of self".

the different data sources, codes, concepts, initial categories and their relations to see if data matched the emerging theory. By doing so, the researcher continuously updated and improved the coding scheme, the way concepts are grouped into categories and the emerging theory. A visual representation of this data analysis process can be found in **Figure 4**.

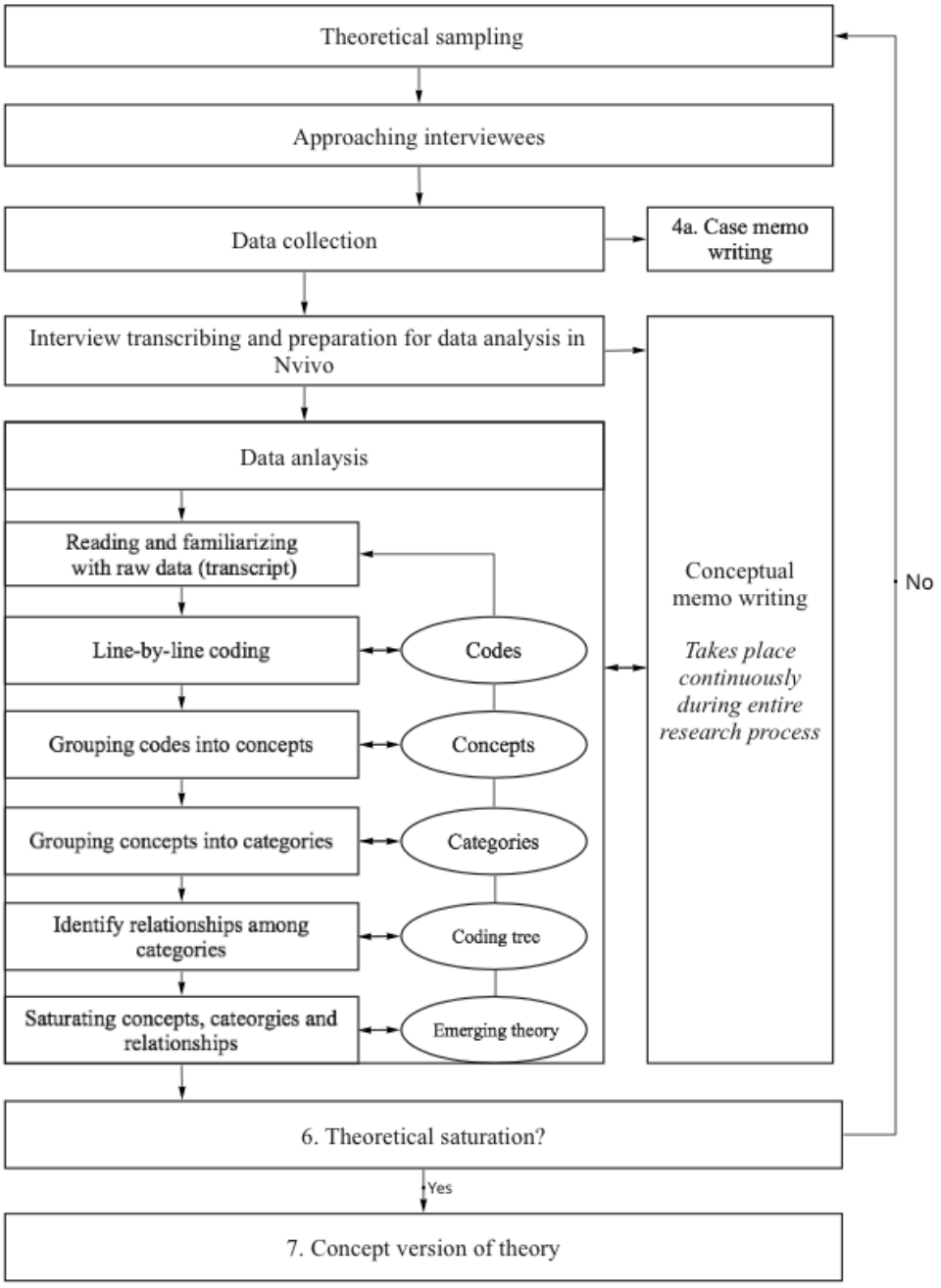

Figure 4*:* Schematic representation of the research process for answering SQ1.A Grounded Theory approach was used to analyse empirical case data (Glaser & Strauss, 1967). In this process, a conceptual theory is developed from qualitative data sources through continuously alternating between data sampling, data collection and data analysis. Data analysis consists of open coding (generating concepts from data), axial coding (grouping concepts into categories and identify relationships) and selective coding (formalise the existing conceptual theory by saturating concepts, categories and relationships until theoretical sampling occurs). In the figure, squares represent processes, circles represent outcomes.

3.5.2. Data analysis for answering SQ2 and the overall RQ

To answer SQ2, the (emerging) findings from the empirical data sources were categorized into the matrix outlined in **Table 3**, with the aim to gain insight into where in the system the journey facilitated change. Additionally, these findings were systemically combined with empirical data to understand which changes did *not* occur following the Journey, what drivers and barriers for change existed and what implications this had for overall effectiveness of the program for achieving systemic change. Based on these insights, SQ2 was answered.

Whereas SQ1 and SQ2 follow different processes and may seem separate steps to answer the RQ, this is not the case. Namely, the emerging concepts, categories and relationships identified from empirical data sources were continuously compared to the theory and analytical framework used to answer SQ2. Moreover, the empirical insights from the case were also continuously compared to the original conceptual framework (Theory U), which eventually led to an answer on the overall RQ. Therefore, the research outcome result from iterating the processes of theoretical sampling, data collection, empirical data analysis following Grounded Theory principles and insights from theory combined in the developed analytical framework. Whereas the previous **Figure 4** visualises the data analysis process of the empirical world, **Figure 5** below provides an overview of how these insights are integrated with theory to eventually answer the overall RQ following the process of systemic combining (Dubois & Gadde, 2002).

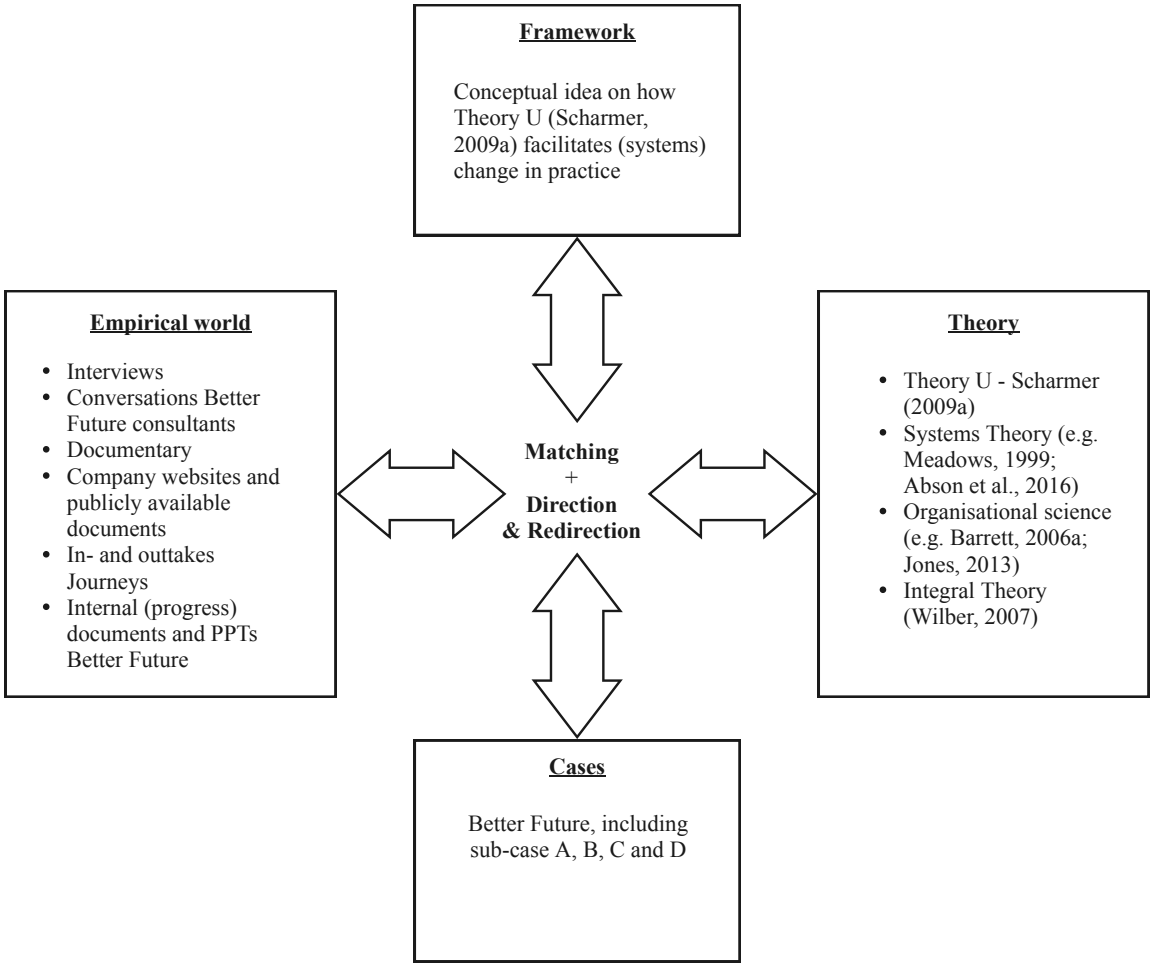

Figure 5. The method of systemic combining as outlined by Dubois and Gadde (2002), including the components applied in the current research. For empirical data analysis, a Grounded Theory approach was used (Glaser & Strauss, 1967). These findings were continuously matched and compared to insights from existing theory to answer the RQ.

3.6. Measures taken to assure research quality

To assure the validity of the research results, several quality measures were incorporated into the research methods. These were based on Maxwell's (1992) quality criteria developed to assess and assure the quality of qualitative research. Whereas others have developed different quality criteria as well, Maxwell's (1992) are considered to conceptualise the nature of qualitative research best (Thomson, 2011). **Table 4** provides an overview of all quality measures taken by the researcher to assure valid results.

Table 4.
Measures taken to assure research quality. Based on Maxwell (1992)

Quality criteria	Explanation	Measures taken to assure validity
Descriptive validity	Factual accuracy of the data analysed for the study. Data (e.g. interview transcripts) should accurately reflect participants'	▪ All interviews conducted for the current research were recorded. ▪ All interviews were literally transcribed by the researcher, based on the recording.

	words and actions. This is the basis of valid research findings and comparable to what other researchers have called "credibility" (Glaser & Strauss, 1967). Descriptive validity is threatened when relevant data is omitted from the analysis (e.g. only data confirming the researcher's viewpoint is used) or when interview transcripts do not reflect the interviewees words.	▪ Coding was conducted based on literal transcriptions of the interviews. ▪ Non-verbal cues were included in the transcription if relevant (e.g. laughter, sarcastic tone in answers to indicate that this answer should not be read literally) ▪ Case notes were written immediately after the interview to capture the most important points and first impressions of the interviewee which should be taken into account when analysing the transcript. ▪ Triangulation to increase confidence in the accuracy of the information provided by interviewees.
Interpretive validity	Captures if data (e.g. transcripts) represent the perspective of the participant well. Data should accurately represent what the participant *meant* or *experienced,* rather than how the researcher has interpret this. As Thomson (2011) frames it: "The key here is that the interpretations are not based on the researcher's perspective but that of the participant" (p. 79).	▪ The researcher listened well and repeatedly summarised interviewee's answer or asked for clarification to verify if she understood it well. This provided interviewees with the opportunity to confirm, adapt or rectify the answer it didn't match their perspective (You said […]. Can you please explain what you mean here?; So you mean […]? or So if I summarise: […]. Is that correct?). ▪ Primary data sources were deliberately used to enhance this type of validity (e.g. the documentary, in or outtakes, interviews). This type of data captures participant's own words, which limits the risk of used data which was already (wrongfully) interpret by someone else. ▪ Line-by-line coding was leading in the first half of the interviews. By coding every sentence of the interviewee individually, the central theme of that sentence is captured and mimics data as closely as possible. This limits the risk of early-stage (mis)interpretation of data.
Theoretical validity	Theoretical validity aims to assess two aspects of the research. Firstly, it addresses the validity of the concepts and categories used by the researcher (e.g. are concepts generated theoretically relevant, i.e. in alignment with concepts from existing data). This is similar to what is also referred to as construct validity in quantitative research (Yin, 1994). Secondly, it aims to evaluate whether the explanation used to justify the relationships among concepts and categories constructed by the researcher are in line with reality or make theoretical sense. This is in some way similar to what is mostly	▪ Enhanced by operationalising important concepts in this research based on existing theory (see section 3.5). ▪ The interview guide more specifically was based on theoretical insights, reviewed for construct validity by Better Future employees and tested three times before conducting interviews with journey participants. ▪ Due to the abductive nature of this research, constructs generated from data are continuously compared to theoretical insights, thereby minimizing the risks of low theoretical validity. ▪ This research does not aim to draw any causal relationships between concepts. ▪ The research findings and overall answer to the RQ are discussed in the light of the

	called internal or causal validity in qualitative research (although different in the sense that qualitative research generally doesn't claim to develop causal relationships from data).	broader theoretical context in the discussion section of this thesis.
Generalisability	Internal generalisability refers to the extent to which the research findings can be generalized to the community, organisation or sample studied, whereas external generalizability refers to the degree to which these findings can also be applied to other research settings (Maxwell, 1992). The latter can pose challenged to qualitative (case study) research.	▪ This criteria will be discussed more elaborately when the limitations of the current study are discussed (*see section 5.4.)*
Evaluative validity	This is not necessarily concerned with the research itself, but rather with the (moral/opinionated) evaluation of events or behaviours by the researcher. Whereas this is a rather vague and general criteria, it is included for completeness as the researcher can never be an objective observer in qualitative research. Instead, his/her evaluation of events will always be subjective and part of how the results of a study are constructed, and should thus be acknowledged and evaluated upon.	▪ After each interview, the researcher has included some reflections about her role during the interview and any possible impacts this may have had on the overall interview results. ▪ In the discussion section of this paper, a further evaluation is conducted regarding the quality and limitations of this research, in which the subjective and intuitive nature of qualitative research is reflected upon too. ▪ As the researcher was an external observer and had no interest into specific outcomes of the research (or the overall direction of the findings), no particular evaluative bias is assumed in this aspect.

4. Results

This thesis aims to understand to what extent Theory U-inspired system leadership programs give rise to systemic changes on different levels of organisational systems. To understand the changes to which the program gave rise to in the first place, this section will first outline the results from empirical data analysis generated to answer SQ1. Secondly, these results will be reviewed through the developed analytical framework to assess whether these changes are systemic in nature (SQ2).

4.1. Results of SQ1

Within the 15 interviews conducted for this research, interviewees mentioned a multitude of interconnected changes. After careful consideration and constant comparison with the additional data sources, these changes were conceptualized into 89 different concepts, clustered into 24 (interrelated) categories across three levels of organisational systems (individual, team, organisation).

As describing all 89 changes is beyond the scope and purpose of this paper, this section will outline the main categories as well as the most important concepts within these categories[5]. A complete overview of all concepts and categories can be in Appendix G (individual), H (team), I (organisation) and J (interconnections between the main categories).

To structure this section, changes perceived on individual level will be explained first, followed by the changes identified on team and organisational level. Whereas the different levels are explained one by one for the sake of clarity, one should keep in mind that these are not separate entities but parts of an interconnected system acting as a whole. Therefore, where causal or correlations between concepts or categories were expressed by interviewees, these are included within the results narrative below. Next to indicating several direct links between categories across the sections 4.1.1, 4.1.2 and 4.1.3, section 4.1.4. will look at these interconnections in more detail to provide a deeper and more comprehensive understanding of how the changes and categories interrelate. The quotes in this section are mostly translated by the researcher, as 13/15 interviews were conducted in Dutch.

[5] The decision on which concepts are included and excluded was based on 1) the number of interviewees who discussed the phenomenon, 2) the overall coverage of this concept within the data by number of references as well as relative coverage of the total data and 3) the overall importance of this concept to the theory (e.g. strong links with other key concepts). This is methods

4.1.1. Changes on individual level

Through the analysis of the data sources outlined in section 3.3.1. and 3.3.2., 41 changes have been identified on an individual level. These 41 changes have been clustered into nine categories, in which three overarching themes were identified. These are changes which are related to one's internal experience, changes related to one's behaviour and changes affecting the way participants relate and interact with others around them (relational changes). An overview of all changes on individual level can be found in Appendix G).

Changes related to participants' internal experience

One of the most evident changes discussed by journey participants across all cases is an increased understanding of themselves. Of all 15 interviewees, 11 indicated that the journey helped them to better understand their own strengths, weaknesses, capabilities and/ or their own core values. Several interviewees also expressed to have gained a better understanding of their own personal drivers and to have gained new insights into what kind of work makes them feel energised and fulfilled.

On a deeper personal level, journey participants expressed to have gained a better understanding of why they are the way they are as a person. As part of the U-journey, participants have reflected upon their own assumptions, values, beliefs and worldviews. Through sharing and discovering these with others, many of them gained deep insights into their own personality and behaviour, as well as into the way their environment has shaped the them.

For example, one interviewee shared that she gained new insights into her own behaviour and personality "*that were definitely blind spots for me*". She described that she is a very driven and perfectionistic person and realised that "*the way I've been brought up, the schooling I've had, the organisations I've worked in [were] all very focused on achievement and performance. That let me be very critical of myself and what I'm doing*". Being aware of these "blind spots", she explained that she now can and has taken action to work on some of the issues and personal insecurities that held her back in her development as a person and as a leader. Overall she explains:

> *"I think I'm more aware and understand better who I am as a person and what is driving the way that I behave, respond and perform on a daily basis. And because of a better understanding, I am learning to better manage myself. And, it's very much work in*

progress.. to become more resilient, for example. To better understand my own needs. To better understand my own boundaries.. Yeah, to better understand where my responses, where they're coming from. […] I'm not sure I'm articulating this very clearly, but basically to have a better understanding of myself and to understand why I am as I am as a person."

All nine interviewees who expressed similar insights and who were more self-aware after the journey, also indicated that several other positive changes emerged from this. For example, participants reported to have changed beliefs about themselves and an increased sense of self-acceptance. Regarding the former category, participants especially seemed to have changed beliefs about their own agency and capacity to change their own environment. To illustrate: interviewees stated that they realised they are more capable and skilled than they thought, e.g. because the journey showed them that they can successfully contribute to initiating and prototyping new, innovative solutions for their organisation. Additionally, and sometimes due to this, the journey helped participants to feel "*more self-confident*", "*more appreciated*" and "*more satisfied*" with themselves. People indicated that they gained "*the feeling that you matter, that you can achieve something*" and that "*you shouldn't underestimate your own role or contribution in making a difference*; *you can achieve quite a lot on your own. That was a realisation I had*".

Besides these examples of changed beliefs in terms of what participants suppose they are capable of, the increased sense of self-awareness had several ripple-effects as well. Especially the increased understanding about where some of their (limiting) beliefs or behaviours came from, helped many participants to let go of some of these previously held notions of themselves or others in their environment. As explained in section 2.3, this process of letting go of the old as a precondition to give rise to the new is an important aspect of the '*presencing*' phase of the U-process.

One interviewee clearly experienced this process as he shared a story on how his history with the organisation had impacted the way he viewed the business itself, his colleagues and his own role as a national director. About the organisation's turbulent history, which included a bankruptcy and several rotations of management and CEOs during the past years, he shares:

"Having been through a tremendous turmoil, going from 14 warehouses in 10 countries, really working quite independently, but dependent on a central finance and IT system, to one central organisation.. across the culture of everybody blaming each other and the

fact that ultimately the business went into administration […]there were a lot of damaged people. Fortunately, we did get rid of most of the people that did the damage, but still many of us had some history and some wounds of it so to say."

Regardless of the fact that "many people who had done the damage" had left the company several years ago, most of the internal dynamics and "wounds" related to what the interviewee called "*a period where we had a very strong, well, dictatorial central management […] a very bullying environment*", remained. Similarly, the behaviours and habits these managers adapted during this period remained too, even though the conditions that gave rise to them weren't part of the company anymore.

By realising the origin of these behaviours and by sharing these insights with one's colleagues, this person could accept the past and change his beliefs and behaviour regarding the business itself, his colleagues and his own role within the organisation. His perception of the management team transformed, about which he shared that: *"it reenergized me to know that I want to commit to these people, these 10 people and families behind them, rather than just thinking hmm how long are we gonna survive this*". This mindset change was noticed by other colleagues as well, as one stated that his behaviour changed accordingly: *"I know a few people have quite some scars from that [the turbulent years in the organisation] and one of these has said now: I left the past in Kenya [where the journey took place]. And with that person you see that he's a lot more willing to collaborate, think along and all that kind of stuff so that is just very good"*.

A very different example in which a journey-participant changed the way he viewed himself, was more related to an ideal self-image that had been guiding his behaviours for many years. Realising this image no longer fits his current situation, he explained:

"I've become more satisfied with myself. I was very much looking for higher, better, more, different... and that caused unrest, it caused a certain ambition, and of course that also sometimes causes tensions in your relationship. I was already on my way to get a bit away from that by just being more in the here and now, and to be honest, this journey gave that a big push... and really made clear again that it is fine as it is. I'm not 20 or 25 anymore, so these expectations I had back then, you can still have them, partly, but a part of them also not anymore due to the fact that life has changed.. you have the kids, you have a certain responsibility, life has just changed. And that doesn't have to be negative per se..

no, there are a lot of other things which come in return which are also worth it, but which may be different than things that you'd expected to be doing 20 years ago".

Overall, such changes in self-image, as well as a better understanding of oneself and the notion of letting go, helped many participants also to accept themselves more, and feel more accepted by others. In other words:

"How you are is good enough, and of course, every person can improve themselves… and that is very pleasant during such a journey, you see that everyone is struggling with the same questions, and that is very good for your own idea of: you know what, I am not different than others. I am fine the way I am and I'm trying my best to develop myself and I'm spending time on this.. and in time, this won't do me any harm. And that is a very pleasant feeling."

Several participants indicated that these insights weren't entirely new for them; they already knew them in a way. However, the Better Future program helped them to truly internalise such beliefs. Thus, it helped them to not only know these beliefs, but to also really "*believe*" or "*feel*" them:

"These [the insights] are of course all very open doors. However you often know them rationally, but you also have to feel them. And that is what the journey has done more, anchoring that feeling more again. So that the ratio is more connected with your feelings again, which has also enabled you to distance yourself from some ideas or expectations, meaning you can say: I no longer pursue those, I don't need that anymore, I am satisfied with the amount of things that I have now, and I also feel it that way instead of that I only know it rationally. And that connection between ratio and feeling, that is something where that journey has definitely played an important role."

This increased head-heart connection, as the researcher coded it, was expressed by multiple interviewees, as they stated to "*be more connected to my feelings*" or said to be "*getting closer to my own core, which enables me to be more in contact with my inner self when doing my work"*. Overall, these concepts imply that the journey has given rise to an improved connection between knowing and feeling, or how Otto Scharmer would formulate it, between head and heart.

In terms of the last changes related to participants' inner experience, several journey goers also expressed to feel "*more authentic*", and some expressed to feel they "*have become a better version of myself*". Whereas they couldn't always pinpoint the specifics of this, many participants indicated to feel better about who they are or that they are experiencing an overall improvement in wellbeing. One interviewee mentioned that: "*I'm hearing I radiate more calm since the journey. And also, there is little air anymore between how others see me and how I feel, I'd say. And that is, I think, the largest benefit that I've been experiencing in the last 7 to 8 months*"

Changes in participants' behaviour

Regarding the second main theme that was identified on an individual level, changes related to participant's behaviour, the most frequently mentioned change across all sub-cases was a change in personal characteristics. Additionally, several participants also reported a change in leadership approach and changes in their communication style following the journey.

Regarding the changes in personal characteristics, program participants believe that they have become more open in sharing their honest thoughts and feelings (i.e. more vulnerable), that have become better listeners, more empathic, less judgemental and that they are overall easier to connect to. One interviewees mentioned:

> *"What I really started to do differently, is to listen better to others; more listening than I did before, less judging about how other people live or how other people do their work. Let's say, have more respect or voice appreciation about how people approach life or how they do their job.. Yes, I think I am, due to these behaviours, more able to make contact with others, where I previously may be struggled more with this".*

In some cases, participants mostly portrayed these behaviours during specific moments in journey itself due to atmosphere created by Better Future. Namely, being open, empathic and sharing personal reflections was encouraged during the journey. In these cases, the behaviours of being more empathic, less judgemental, more understanding and better relating to others as shown during the journey, mostly sustained within the boundaries of the group that participated in the program together. However, when in back at the day-to-day job or when interacting in a different teams or group than the journey-group, people seemed to portray these behaviours to a lesser extent.

In a few cases, participants managed to truly incorporate these characteristics into their day-to-day behaviour, meaning they also portray them in other contexts and with other people. Especially those individuals, who mostly happened to be in formal leadership positions within their organisation, also noted a change in their leadership and their communication style, which seemed to be rather permanent. Why some participants changed these while others didn't, cannot be stated with certainty as many other factors can play a role (e.g. the leadership style or personal characteristics before the journey). However, after further investigating these people in Nvivo, it was found that these (permanent) behavioural changes mostly occurred for participants who had also reported deep personal changes in terms of their self-acceptance and beliefs about themselves, and who had been able to either understand or truly let go of unwanted beliefs, behaviours and thought patterns from the past.

Moreover, it was found that the improved self-awareness, self-acceptance, changed personal characteristics and the realisation that it is ok and even helpful to be vulnerable helped some leaders to naturally adapt a more collaborative and supportive leadership approach. Also, in terms of their communication style, these leaders also said to leave more room for vulnerability within their communication to show their team that it is all right to be honest and open about one's doubts, mistakes, weaknesses or how one really feels (also see quote p. 54). Additionally, they state to be more focused on understanding their team members better both on a personal and professional level, which is exemplified by one interviewee who now plans individual meetings with his team members every three weeks to discuss both work progress and the person's private life and wellbeing. Regarding the latter, he stated that "*I absolutely wouldn't have had these conversations a year ago"*.

Regarding the realisation that is ok and even helpful to be more vulnerable and share weaknesses or personal information about themselves, one participant states:

> *I think articulating out loud during the journey helped me to realize that it's okay to articulate this stuff out loud. You know, people do not go into shock or view you as a bad person, if you start to talk about some of the things that you're working on. They don't view you as a lesser person because of it. So I think it's, yeah, it's helped me to just be more open with other people. Yeah. And I certainly think that the Journey has contributed to that. In fact, I'm sure it has.*

This point is confirmed by many other participants, of which one said during an interview that "*this journey has especially helped you to realise that it is all right and allowed [to be vulnerable] and that there is nothing to worry about".*

Overall, the concept of vulnerability and its importance for creating connections with others and facilitate a space that allows group to transformed has been very prominent within all different sources of data used for this study, and across all cases. As the large majority of participants mentioned vulnerability as a prerequisite or accelerator of personal and group transformation, this concept is considered very relevant to include in a change process across all levels of organisational systems.

Most managers who expressed the above-mentioned or similar changes in their behaviour and views regarding their own leadership approach, also noticed several ripple effects of this approach within their team. Several positive changes which emerged were a more supportive and understanding team culture, improved team dynamics such an increased level of trust within the team and more engaged and satisfied team members. As these changes relate to group-level changes due to the journey, they will be elaborated on in section 4.1.2. of this thesis.

Relational changes

One last change that almost all participants experienced on an individual level, is a change in the way they relate and/or interact with others around them. More specifically, they mention an increase in the amount of people within the company they know and / or connect with on a personal level, as well as an improvement of the quality of relationships with those around them.

Whereas all interviewees indicated to have built stronger personal connections with other participants in their journey, some indicated that the journey also enabled them to create more meaningful relationships with others who did not participate in the program (mainly their juniors or own managers). The latter are mainly the participants who were able to adopt their behaviour and mindsets more permanently, and across contexts, as they became overall better equipped to build meaningful relationships.

Lastly, the interventions included in the Better Future program regularly include sessions in which people across different parts of the organisation are brought together. In these sessions, conditions are created in which people manage to deeply and personally connect with others, which helps employees across teams and departments got to know each other while previously being strangers. As a result of such interventions, individual employees stated to have gained a better understanding of the organisation as a whole, and started to think beyond silos of teams

and departments and consider solutions and behaviours which supported the whole business. As these changes were stated to be visible at the scale of the entire organisation, they will be elaborated on in the third section of the results.

4.1.3. Changes on team level

On a team level, a frequently-mentioned change across all sub-cases was a change in team dynamics of the group that participated in the journey together (for a detailed overview of all team-level changes, see Appendix H). Several participants even indicated that these changes were among the most valuable and impactful outcomes of the program.

In terms of these changed team dynamics, all journey participants who underwent the program as a team together (e.g. global boards or management teams, 6 interviewees), mentioned improved relationships and improved personal connections among team members. Moreover, those interviewees said that having a shared history and a common goal due to the journey had improved the sense of team spirit and 'togetherness'. Consequently, team members indicated to understand each other better, experience more mutual respect and they reported that, rather than competing with their fellow managers or department as was the case before, the teams had become more collaborative. Overall, us vs them thinking has largely been replaced by collaboration and shared problem solving.

Similarly, and related to the changes in team dynamics, journey participants also said that the overall team culture had become more supportive and more collaborative. Team members had become more understanding towards each other, said to listen better to others and felt more heard. One interviewee said that there he felt an increased sense of solidarity within the team, while another participant formulated this as the team having gone through a transformation towards a state in which openness, mutual understanding and trust were created within the group. He explains:

> "*Something they experience more often at Better Future, and what they never can say up front […] is that some sort of a transformation occurs; something happens to the group which is there. You just saw some kind of openness that was created, which emerged, between people… some sort of understanding, seeing things which weren't seen before, and I think that was pretty signifying for what happened when we were there".*

As the team transformed from one state to another, the level of trust and openness that was created remained after returning home. Most interviewees indicated that they experienced more open communication within the team since the journey. More specifically, team members mentioned they feel safe in the team and dare to be vulnerable.

Possibly related to these changes, it was also said that team members dare to give more honest feedback to each other, without being afraid this will have negative consequences. Similarly, talking about insecurities or things which are not going well within the business has become more embedded within the team communication. Rather than possibly risking a cold response or, due to the competitive nature between national offices and departments, having a colleague take advantage of another's weak spot, the post-journey team was more focused on supporting another during challenging times. One manager explains:

> *"Yeh, the value of exposing one's weaknesses came out to me. I think this is where the building of a team started, because the situation [the journey] enabled us to really expose our faults to each other. And as a result of that, I discovered that I wasn't alone in having self-doubt; that I can see in the reaction of others as it reflected my own. The defence of self-doubt is very often overachieving or overprotecting one's idea, while we're now actually taking the opposite view and are comfortable to expose our weaknesses, get people on board to try and work out together what's the best way. […] And because we were all doing it at the same time.. it remains. And that is one of the ongoing benefits that, because we open up to each other, as we find each other's weaknesses or difficulties that we are having since that time, we can help each other without it being aggressive or predatory."*

Hence, while starting the process often as a group of separate individuals, or team members working in silos to reach their individual goals, the large majority of interviewees who participated with their functional team together reported to feel more unity within the team.

Overall, interviewees who took part in the journey as a team reported to have found deep common ground on both a personal and professional level, thereby working towards to a common goal they are all personally committed to. They also expressed to act and feel more in harmony and are more aligned, which aids collaboration and decision making within the team. One comment that was made to illustrate this change is that: "*As a group, we have much more solidarity than we had before and I don't think that we.. in the situation in which we are now [beginning of nation-wide COVID-19 lockdown], with the crisis.. I don't think that we would*

have tackled it in the same way as we are doing now if we hadn't gone through the Journey". The latter point, regarding the increased resilience of the team (and hence the business) in times of crisis was expressed by all members of this team which were interviewed for this research. Interviewees indicated this change is largely permanent, however, that they should keep reminding themselves to their commitments to not slip back into old behavioural patterns.

Aside from a direct impact on the culture, team dynamics, team communication and sense of unity within the group of journey participants who went through the experience together, several people also indicated ripple effects of the team or organisation they were leading. Interestingly, these indirect changes on team members (who had not participated in the journey) were all expressed by interviewees who 1) were in a formal leadership position within their organisation, 2) who reported to have permanently changed the personal characteristics, i.e. better listening, more empathic, less judgmental and leaving more room for vulnerability and 3) incorporated this into their leadership and communication style.

After consistently performing these behaviours for several months, these leaders were also the ones who all stated to have deeper personal connections with those around them, (especially with their team), and who believed they had become better leaders. In time, these people also saw their direct team members copy their behaviour, such as communicating more open and honestly about what they really thought and felt. Eventually, similar effects occurred within the teams who participated in the journey together as compared to the team of whom only the manager had participated. An example of this process was provided by one interviewee who noticed that his new behaviour and leadership approach had changed the culture and dynamics within his team. He stated:

> *"What I am trying to do more is to make clear, by giving examples.. in areas I struggle with, which I find difficult, that I am open about my own weaknesses and that those weaknesses.. or more like, things I would like to see differently, or things which don't go exactly how I would like them to, that I just put them out there and talk about those as well. To show people like: I am also only an ordinary person with his own struggles, and I get the feedback sometimes like: I'm so glad you did that, because.. and then there comes a story of someone who is in that exact same situation. Then that openness appears. The openness you show causes other people to open up as well, and possibly feel more understood or have the feeling like: I am not alone […] And at the moment where you've had one or who of those deeper conversations with each other, a certain level of trust emerges, and a deeper connection and the idea that you can actually just be who you are*

supposed to be and who you want to be with that person, to a certain extent. And that only makes it more enjoyable to collaborate with that person."

In both the cases where the existing team joined as well in the instances where managers joined who then implemented the changes in their own team, many interviewees mentioned to enjoy their work more. Leaders who managed to transfer the positive team effects to their own team which did not participate within the journey also expressed to feel happier at work and reported that their juniors had become more satisfied as well[6,7].

Additionally, these leaders noticed a change in the way they and their role within the team were perceived by their juniors. One manager, for example, mentioned that his employees started to view him more as a coach than as their CEO. Similarly, two other interviewees indicated that their team members had indicated to easier connect with them on both personal and professional themes (e.g. "*I get the feedback that I am more vulnerable. And that people find it easy to connect with me*"). All three interviewees, as well as several others, reported that this had a positive effect on employee behaviour and engagement. One journey participant shared that he had become more mature as a leader, and that he stopped trying to control and hold on to his will on how things are done, thereby creating more openness for others to share their own insights and make decisions based on that. With this new mindset and behaviour, he made the annual team strategy process a shared effort, of which he is experiencing the first positive effects now:

"*I see that people indeed take up responsibility, that they are less likely to say: that is something that you have to solve as manager of the team […] People take their own responsibility much more.. that was pretty high in the team already, but it only increased. People stick to the choices we made together, because they are choices we have made with all of us. So the 2020 strategy is much more supported, due to which there is also less discussion about what we should do and what we shouldn't*"

Possibly due to a combination of the factors described above, some leaders also reported to witness an increase in personal growth for the employees who adapted to the new leadership

[6] Direct quote: "*I don't know it from everyone, but from most managers who were there [at the Journey], their employee satisfaction score has highly improved.*"
[7] From another case: "*I can see that their growth and their satisfaction have increased as a result of the way.. not only I react with them, but the whole organisation*".

style. Overall, most participants indicated their team satisfaction increased, their collaboration and communication had become more effective and they considered themselves overall as better performing teams.

Whereas most participants thus experienced mostly positive outcomes of the journey, in one case, multiple individuals of the team had decided the team and organisation during the process. Little further elaboration of the reasons for these departures was provided. However, the remaining team members did state that this provided an opportunity to continue the journey with a high-performing and motivating team.

4.1.3. Changes on organisational level

Regarding the changes that were perceived across the entire business, 20 different concepts have been identified, divided into five main categories and two overarching themes (employee-related and structural changes). Of these, the most frequently named changes that interviewees perceived across the entire organisation included increased employee connectivity, improved communication in terms of both quality and quantify, and a shift towards thinking from the whole organisation rather than its parts. These changes are all employee-related, whereas the most frequently mentioned structural elements include the development of new initiatives and partnerships within the organisation and changes in company strategy. An overview of all changes on organisational level can be found in Appendix I.

Changes related to employees

Participants in three out of the four cases indicated that employees across the company got to know many other co-workers due to the program. For example, participants mentioned they created strong ties with several other managers across different functions which they did not know before. Moreover, all four journeys included interventions in which employees across functions, departments or even national offices were brought together to increase the interconnectivity within the organisation. Hence, board members involved in these sessions stated that their employees were much more connected and knew more people personally. This was confirmed by journey participants who worked at different levels and functions within these organisations.

As a result of this increased interconnectivity (i.e. "*knowing the persons behind the function"*), interviewees stated that the threshold to contact colleagues to discuss problems or

innovative ideas had decreased or vanished. As one interviewee states about board members she got to know personally during the program:

> "*The thing is that you've got to know the person, and also the things they are working on […] and they have also clearly indicated that their door is always open. You can always walk in if something is going on, and, not like you do that every day, but yeah.. I know that that door is open and that there is a lot less distance between us, so that [communication] then becomes a lot easier"*

Moreover, employees reported to communicate more with colleagues whom they didn't communicate with before, and now search for a dialogue when problems occur:

> *"For example, we always have to plan our trucks in a way they are full [to transport goods] and my colleague is pretty bothered that this doesn't run very smoothly, because "that Belgium guy does not do that properly". You know, but if you talk to "that Belgium guy", then you realise that he also only does what he thinks works well. And he doesn't know that this is so difficult for you. So yes, if you discuss this with each other, yeah, that you've already won the rest"*

Before starting the journey, several employees as well as board members explained that the company culture was based on an us-vs-them culture or "*not-invented-here-syndrome"*, meaning communication between different departments or national offices within the larger organisation was relatively poor. After the journey, both the quality and quantity of the communication among different sections of the businesses improved.

As the quote above already indicates, an advantage of these increased personal connections and interactions between colleagues who didn't know each other before, is that their dialogues helped them to gain an increased understanding of the other. This, in turn, helped them to: 1) built a relationship which allowed both persons to actually try or want to understand the other (open mind), 2) "*see things in others that were not seen before*" (open heart) and 3) to understand each other's reality and work process better, which helped both employees to collaborate, solve problems and develop innovations better. The CEO of one of the sub-case companies says about this that:

"*Previously, you really had silos, not-invented here-syndrome: 'What they come up with over there, I don't care; that cannot be right, we need to do it again ourselves.'* […] *It was more like: 'they don't understand us, and we want this and they want that'. Now, people are searching for the dialogue and communication. So that culture, that mindset, that has changed"*

Overall, employees across two out of four cases summarized these changes as having a *more collaborative culture*, but also indicate the company overall has become a "*more pleasant environment to work in*".

Related to the abovementioned changes in terms of employee connectivity, improved communication and having a more collaborative organisational culture, several journey participants also mentioned to have gained a better understanding of the company as a whole. Besides the positive effect that this has on the results and problem-solving capability of the company, this was also reported to have changed employees' perspective on the company and their own role in it:

"Ultimately, it also has to do with being proud of your organisation. That you are proud of the fact that you work at such a large organisation and not at a relatively small company in the Achterhoek to say it like that. You really have the idea that you are part of a larger whole, yes. That you have to start thinking more broadly as well. So that you shouldn't only think about solutions which benefit us [the head office], about solutions for the entire organisation. That you pay more attention for that ".

Such changes in mindset were also said to contribute towards understanding and thinking in solutions that benefit the whole, across the entire business. E.g the previous interviewee adds:

"*You also notice that a bit within the entire organisation that.. You see that where are thinking more internationally and across the border. Like: we want that, we have certain ideas, but what does the French office want and what does the German office want? So you start looking at: how can we implement our idea within the larger whole. And that we don't only look at our own problem, to say it like that, or our own opportunities, but that were are looking [at it] for the entire organisation* "

Changes related to structures

One of the reasons which helped to initially achieve the increase in employee connectivity, and which further encouraged it, was the introduction of new initiatives and partnerships to the company. These were mentioned by participants in two out of the four sub-cases and aimed to further develop and implement new solutions. For example, one organisation partnered with an NGO to co-found a social start-up which would be funded and collaborate with the whole organisation[8]. In another case, an exchange program was developed in which employees from one national office could be transferred to an office abroad, so they could learn how that office operates.

Besides these new initiatives, several taskforces or project teams were developed in which employees (from both national and international offices) collaborated to co-create innovative solutions for problems. Participants indicated that, while these co-creation projects were relatively small, the results were effective (e.g. the development of an international phone list so employees could easily find contact information of relevant colleagues or several projects to work more efficiently with paper, which reduced waste and costs). As employees worked on concrete projects in inter-departmental or international teams, these projects were also stated to reinforce the collaborative and/or international mindset among participating employees. Moreover, interviewees who participated in these projects also indicated that this induced some of the changes on individual level, as explained in section 4.1.1. (e.g. better understanding of self, more enjoyment of work, more positive beliefs about own capabilities and agency).

Additionally, the two organisations which introduced such new initiatives and partnerships also made changes within the company's strategy due to the journey. More specifically, it was reported that specific goals and targets were developed in line with the new organisational ambitions (which were also formulated as part of the *co-creating* and *crystalizing* phase of the U). Overall, participants reported that sustainability and purpose had become more prominent within the strategy (e.g. by setting goals and targets for waste, CO_2 reduction or circularity or by including goals regarding the co-founded social start-up into the strategy).

Whereas these strategic changes were overall considered as positive and a step into the right direction, participants from both sub-cases in which these changes occurred also reported that these changes were "*never really embedded within the company*". Several reasons were given for why this is the case, such as a lack of internal communication regarding program

[8] This resulted from a change in global board members' mental models regarding the role of their business in society, which occurred after they had visited and engaged with people living in a rural and water-scarce village in Kenya. Shorted quote: […] *And when we say THAT [emphasis], the penny finally dropped for many people, thinking: yes, it cannot be true that we live the way we live and continuously work on how we can make profit and how do we do this and that without giving anything back to the world, to people who are not as well off as we are*".

goals and outcomes or a lack of clarity regarding employees' roles and responsibility within the change project. As these mostly relate to one specific system level, these will be elaborated on further on in this results section when the nature of the all program changes is assessed (*section 4.2*).

Lastly, in terms of results on organisational level, two sub-cases reported to have implemented some new policy changes. These included a policy to hire more women within the company and one related to the role of the customer within the organisation.

3.1.4. Facilitating change with Theory U: Understanding the interconnections between changes across all organisational scales

To better understand how the change process following Theory U works in practice, this section will shortly outline how the changes across the different organisational levels interrelate (according to statements by program participants). As it is beyond the goal and scope of this thesis to provide an in-depth theory on how all changes occur, only the most frequently mentioned changes and the categories are highlighted. For a visual overview of these interconnections, see Appendix J.

In terms of the interconnections among the different changes, participants mentioned that on an individual level, the increased understanding of themselves has been an important change in relation to the other changes on individual level. Namely, participants stated that this change in self-awareness contributed to their changed beliefs about themselves as well their increased self-acceptance. These latter factors were also said to affect each other. Moreover, the combination of these three changes led participants, according to their own evaluation, also to feel more confident and more authentic. Overall, the combination of these changes contributed to an improved sense of wellbeing and overall better feeling about themselves for many interviewees.

Moreover, the changes in personal characteristics (see section 4.1.1.) had important implications for both individuals and teams. Firstly, these changes were required for the other behavioural changes to occur (i.e. a more collaborative and supportive leadership style and a more open and honest communication style). Moreover, the large majority of interviewees also indicated that these behaviours were important for creating the meaningful connections they experienced. These meaningful connections, in turn, as well as the changed leadership and communication style reported by some individuals, were essential for creating the more open and supportive team culture and the changed team dynamics which both teams and individuals reported following the Journey.

Having established this more pleasant team environment, journey participants also felt more satisfied and engaged at work as well as more alignment among team members. These factors were contributed to creating an environment in which employees could grow their personal and professional skills. Overall, participants among all sub-cases expressed to have stronger and better functioning teams as well as improved (team) results.

Lastly, it appeared that the increased interconnectivity among employees (which was mentioned as a change on all levels) played an important role in the way employees now understand and communicate with each other. This increased employee connectivity, was reinforced by the new initiatives and partnerships, which enabled employees to collaborate with colleagues from different departments or countries. Moreover, it also contributed to the change in thinking of employees towards the whole rather than only towards the own area of work. Overall, the combination of all these (organisational-level) changes eventually contributed to improved communication within the organisation, an increased sense of unity felt by employees and changed ways employees behave and design solutions (which are more aimed to contribute to the organisation as a whole rather than only the own division).

4.2. Results of SQ2

When assessing the nature of all 89 changes identified in the previous section, it can be concluded that most changes occurred on individual level (41/89 changes). On team level, the changes included 30% of all changes, while the least changes occurred on the organisational level (24%). Evaluating these changes through the developed analytical framework demonstrated that they mostly occurred at the mental model level of the system. Several positive feedbacks were identified as well, especially at the team level, whereas the changes at the system structure and parameter level were overall insufficient to facilitate systemic change (see **Table 5**).

When comparing these insights to the theoretical criteria for achieving systems change (see *sections 2.2.1*, *2.2.2* and *3.5.2),* it was concluded that (1) the facilitated changes were mostly actor-focused and insufficiently addressed system structures and interconnections between elements; (2) changes were fundamental, however due to the lack of structural changes they did not facilitate systemic change, and (3) changes across all systems levels were not or insufficiently aligned with each other and with the (new) goal of the system. Therefore, it was concluded that the Better Future program had not facilitated systemic change. The following sub-sections will explain these conclusions and the insights which gave rise to them in more detail.

4.2.1. Understanding the program outcomes in terms of leverage points and system levels

To structure this section, all changes and their implications for the overall systems change effort will be explained per system level, thereby going from deep (source) to shallow (parameters). The system structure level is explained in more detail and covers leverage points 4, 5 and 6 separately, as interviewees shared many detailed insights which had important implications for the overall change effort.

To provide a clear overview of how changes were spread across the different system levels (in terms of quantity), **Table 5** displays the number of changes identified at individual, team and organisational level, for each system level. A qualitative overview of these changes is summarised in **Table 6**; the complete overview outlining all 89 changes can be found in Appendix K. Lastly, to gain a holistic understanding of the degree to which the Better Future program affected all leverage points and system levels, changes which were part of the analytical framework but did not occur in the organisations, or for which no conclusions could be drawn due to insufficient data, were identified as well.

Table 5

Quantitative overview of the nature of all changes in the system. Darker shades represent a higher amount of changes.

System level	Leverage point	Organisation	Team	Individual	Total per LP
Parameters	12. Parameters	3	1	1	5
	11. The size of buffer stocks, relative to their flows	0	0	0	0
	10. The structure of material stocks and flows	1	0	0	1
Feedbacks	9. The lenght of delays, relative to their rate of change	0	0	0	0
	8. The strength of negative feedback loops	0	0	0	0
	7. The gain around driving positive feedback loops	5	14	7	26
System structures	6. Structures of information flows (access to information)	1	0	0	1
	5. Rules of the system	2	7	0	9
	4. The power to add, change and self-organise the system	4	1	4	9
Mental models	3. Goals of the system	3	1	1	5
	2. The mindset from which the system arises	2	3	13	18
	1. The power to transcend	0	0	6	6
Source	0. Inner place from which we operate system	0	0	9	9
Total amount of changes		21	27	41	**89**

Table 6

Qualitative overview of changes which occurred following the Better Future Program

System level	Leverage point	Organisational context	Team context	Individual context
Parameters	12. Parameters	Several new targets were formulated to shape company's ambitions. Additionally, some small policy changes occurred.	Increased scores on employee satisfaction survey	Letting go of specific targets, ambitions or expectations set for self (which are not useful or relevant for someone anymore)
	11. The size of buffer stocks, relative to their flows			
	10. The structure of material stocks and flows	Improved working environment (some physical changes in e.g. meeting rooms and the canteen)		
Feedbacks	9. The length of delays, relative to their rate of change			
	8. The strength of negative feedback loops			
	7. The gain around driving positive feedback loops	Employees across the organisation got to know each other (while previously being strangers) and also got deeper personal connections with others in the organisation. Also, there is more international communication and employees search for dialogue more often. These changes reinforced the success of the change effort.	Team members and members across teams work better together, e.g. due to improved team dynamics and by having a common goal to work towards. There is also more open an honest communication, better overall relationships and more unity among team members. There is also more internal communication and collaboration (across offices and departments). These changes reinforced the systemic change effort, because they positively contribute to achieving the systems goal.	Individuals report to have better quality relationships with others (e.g. colleagues) and also report to know more people within the organisational (personally). These changes reinforced the systemic change effort, because they positively contribute to achieving the systems goal.
System structures	6. Structures of information flows (access to information)	An employee exchange program was introduced, which structurally reinforces knowledge sharing among offices.		

	5. Rules of the system	Some cultural changes occurred: Overall the company culture was reported to be more collaborative and overall more pleasant to work in.	More supportive, understanding and open team culture, mostly because of changed team dynamics. Team members also dare to be more honest and vulnerable within the team.	
	4. The power to add, change and self-organise the system	Several new initiatives and partnerships were introduced to the organisation (e.g. an employee exchange program, task-forces created to solve specific challenges or a Co-founded start-up in Kenya).	More opportunities for employees to develop themselves through experimental learning (in task-forces or co-creation projects)	More collaborative and supportive leadership style, which is better suited to empower team members.
Mental models	3. Goals of the system	Sustainability is getting more prominent role in company strategy. One organisation formulated a (new) purpose statement formulated for the whole organisation.	The Journey provided team members with a common goal to strive towards.	Letting go of specific targets, ambitions or expectations set for self (which are not useful or relevant for someone anymore)
	2. The mindset from which the system arises	More purposeful thinking among employees throughout the entire organisation. This also includes the board (e.g. changed mindset regarding the importance of 'giving back' to society).	Team thinking and doing have become more aligned within (board) teams. Moreover, team members changed their beliefs regarding other team members, and in some cases also regarding colleagues from other teams.	Participants reported to have changed beliefs about themselves (e.g. more trust in themselves or more positive believes about own agency) and experience an increased sense of self-acceptance. Some people had changed perception and feelings about their work, e.g. due to better understanding the impact of the work they do.
	1. The power to transcend paradigms			Participants report to better understand themselves (e.g. they own strengths, weaknesses, values). This is not a (structural) change in reflective capacity, but a result of reflecting during the journey
Source	0. Inner place from which we operate			Changed personal characteristics (e.g. less judgmental (open mind), more empathic (open heart), better listener). Participants also noticed an increased connection between knowing and feeling and consider themselves more authentic.

Changes in mental models

This study found that most changes facilitated by Better Future occurred at the mental model level of the organisational system (29/89 changes). Especially, the mental models of individuals appeared to have been affected, which accounted the large majority of changes that were identified at this level (20/29). As indicated in section 3.1.1., some interviewees also stated that besides the high number of such changes in the data, these changes were also amongst the most impactful for them personally.

When further evaluating the changes that occurred at the mental model level, it can be stated that most of the indicators included in the analytical framework also occurred in empirical data. Namely, on an organisational level, the mission and strategy of the organisation (LP 3) changed, as well as in the overall mindset and beliefs of those who enact and direct the system (LP2). On team level, team members reported to have a common goal (LP3) and changed beliefs about their work, colleagues and/or board members (LP2). Lastly, on an individual level, participants reported slight changes in personal goals (LP3), many different changes in mental models (LP2) and several changes which occurred due to the reflection space Better Future facilitated during the program (LP1).

Although, in theory, additional or more impactful changes (e.g. radical paradigm shift rather than several smaller shifts in mental models) *could* have occurred in this category, interviewees did not explicitly mention any examples at this level which would suggest any disruptions for achieving systemic change. Moreover, it is argued that the outcomes presented in **Table 6** do indicate an intention to shift towards a more sustainable and collaborative organisational pathway. This shift in the system's (and its actors') intent is expressed in several other changes which occurred following the journey as well (e.g. new project teams to act on newly set sustainability goals). Also, especially top management participants expressed to have become deeply committed to achieving these goals on a personal level, which they perceived as a driver for achieving the envisioned change. Hence, it is concluded that the changes facilitated by the Better Future Journey contributed to a relevant shift at the mental model level (intent) of the system.

The one exception to this conclusion is the first leverage point, the power to transcend paradigms. Based on the data presented in **Table 6** it cannot be concluded that reflective capacity has improved after the journey at any of the three organisational levels. Whereas there have been some changes which were said to be very impactful for participants on an individual level, these changes (improved understanding of self) don't focus on structurally improving the reflective capacity of the individual him/herself. Rather, they are the result of the reflective

elements being embedded into the Journey process; once the journey ended, these reflective spaces ended as well.

Similarly, on both team and organisational level, no structural elements have been embedded in these systems to ensure that individual members as well as the team or business as a whole to keep being challenged to reflect on own assumptions, goals, values and the direction the system or individual is moving into. Thus, the journey helped the organisation and some of its individual members to regain clarity about their mental models (intent), way of being (source) and behaviours. However, when wanting to reap benefits of such behaviour in the long run, structural elements should be embedded into the system to turn the one-time cause-and-effect intervention (facilitated by Better Future) into a causal loops (i.e. create feedback loops in which the system's intent and design are continuously challenged and, if needed, adapted).

System structures

In terms of the system structures, it was found that 19 of the 89 changes identified in empirical data relate to this systems level (33%), which mostly occurred at the team and organisational level. When looking at these changes more in-depth, however, there are several indications that the reported changes in system structures are insufficient to truly achieve systemic change into the intended direction as formulated during the journey. As mentioned, the changes at this level will be discussed per leverage points due to the detailed account of data provided by interviewees at this level.

LP4: the power to add, change or self-organise the system

Firstly, nine out of the nineteen structural changes have been identified regarding the power to add, change or self-organise the system (47% of all system structure changes), of which the majority occurred at the organisational level. Although the interviewees reported that the identified changes in organisational structures did lead to some important benefits for the whole organisation (e.g. the newly introduced exchange program and the cross-departmental taskforces increased interconnectedness among employees; see section 4.1.3 and 4.1.4), data did not provides sufficient evidence to conclude that individual actors across the organisations or teams were feeling more autonomous nor that the organisation has been (re)structured to achieve this.

In fact, 7 out of all 15 interviewees actually discussed some barriers related to this leverage point which seem to hamper the systems change process. More specifically, interviewees stated that their organisation lacked effective structures to enable employees to actively contribute towards the newly formulated organisational goals and ambitions[9].

Moreover, where spaces were provided for employees to co-create, shape or influence the company's future pathway (these spaces were mostly facilitated by Better Future), multiple employees mentioned that they did not have enough time to contribute to this due to their high work load (working on the change project was on a voluntary basis in 'spare' time)[10]. Another interviewee, which was part of a project group to help the global board to implement changes across the whole organisation, stated that this group's ideas were never used, which decreased their motivation and commitment to participate in such initiatives in the future. Lastly, three interviewees mentioned that the goals they were asked to contribute to were "*too abstract to act upon*", "*too large*" or "*too high level; In the end people did not have much influence to change that*".

In contrast to these barriers, the changes in leadership style experienced by several journey participants can be considered as a relevant driver of facilitating self-governance and empowerment of employees and teams. Namely, individuals who experienced this change indicated that, since the journey, they are having more eye for the needs of their team members, while also including them more into the decision making process and strategic planning for the team. Consequently, these managers experienced that their team members started to act more autonomous and felt more confident to make decisions based on their own judgement (e.g. see quote p. 55).

On the contrary, applying an authoritarian or controlling leadership style seemed to have the opposite effect: several interviewees across two different sub-cases perceived some leadership or management approaches within their organisations as a barrier for achieving the desired change. For example, in two sub-cases, employees on both top management and lower levels mentioned that many managers are finding it difficult to let go of their sense of control

[9] For example, one manager explained: "*We started with [name social start-up], but this is being executed in a very traditional way. We did ask [all employees]: 'Who wants to join in this effort?', but the past 1,5 year there has been no chance for that, because a small group of people wanted to advance this project first. […] So you say: 'Well, we are all going to work on something together' and afterwards you don't let anyone participate for a year.. Well, then the effect is rather reversed than beneficial*."

[10] Direct quote: "*I mean, it is great that you're saying: 'You get the space and freedom to do that [playing a role in embedding the desired change into the organisation]', but simultaneously you also just have your normal work which should be done, on which you're also being judged and which the rest of the organisation also needs.. So that [space to work on interventions to embed the changes in the organsation] disappears very quickly then. And yes, that was very difficult* "

over every process or outcome[11]. Moreover, employees who were initially given some power to actively co-create some interventions to embed the desired changes into the larger organisation, stated to experience controlling efforts from higher management as "*unpleasant*", "*too steering*" and "*taking a up bit of a disturbing role".* In essence, such controlling behaviour by (senior) management thus limits the power to add, change or self-organize the system for employees. One interviewee explains that:

> "*This has to do with ownership. Because what you see is [that], in principle, we had the ownership, but now you see that the board also gets a bit of ownership. And then I'm thinking: Well, nice, but substantiate why that is the case*".

It should be mentioned, however, that the majority of the specific managers which these latter statements are about are part of the organisation, but did not participate in the U-Journey (e.g. because they joined the organisation post-journey or because the journey focused on board executives). Overall, as only a few leaders across all cases have reported a change in their leadership approach the current study, it cannot yet be concluded that this change has widely leveraged across all researched organisations. Nevertheless, these insights suggest that the leadership style of managers across the organisation seems to be an important lever for facilitating whole organisational change.

When assessing the impact of all changes at this leverage point overall, it is concluded that while steps are being set into the right direction, the changes perceived in the organisations are still insufficient to truly empower employees and shift 'the system's power to add, change or self-organise itself' (at the moment of measuring).

LP5: The rules of the system

Regarding efforts to change the rules of the system, nine changes were identified in empirical data. Seven of these nine changes related to team culture, and in particular the way (team) members relate to and collaborate with each other. Moreover, regarding the reward, incentive or performance management structures of teams and organisations, there were strong indicators to suggest that these elements remained unchanged. For example, interviewees indicated that

[11] Direct quote: "*So there [management-level] are people who are used to get involved in everything and have an opinion about everything.. and those need to let go of this and leave this to the people they are leading.. Well.. that just costs time.. You start and then there are people who have to get used to the fact that they cannot just say anymore like: you have to do this and that.. they don't have full control over that anymore. And that is really difficult for people to get used to."*

they worked on the change initiatives and projects in their spare time on top of their 'normal' tasks (these extra efforts were unpaid), people mentioned internal motivation rather than external incentives as reason why they wanted to work on these efforts regardless, and team and middle managers were said to sometimes even discourage working on these change project. Although interviewees did not explicitly say that no changes occurred in these structures, the above-mentioned examples imply that the change efforts were not included in team KPIs or (team) success factors, and that no reward structures were in place to create external incentives for employees to behave towards the desired (new) organisational goal.

Moreover, although the perceived cultural changes are relevant and important to achieve whole systems change, multiple interviewees across different sub-cases indicated that these changes were not fully embedded within the team and organisational system. More specifically, while the journey helped system actors and groups to change some of their mental and behavioural models, no additional structures were put in place to continuously reinforce these behaviours and make it easy, or even automatic, to behave according to the new rules[12]. Thus, these insights indicate that whether or not the changed rules sustain in the long run, largely depends on the extent to which the individual actors and teams can stick to their own intentions (or, as one participant said: the extent to which they "*pay attention*" [13]).

For the overall changes in 'the rules of the system', that would mean that if actors fail to do so, the changes in this category may disappear again in time. Multiple interviewees indicated that some of the specific behavioural changes as well as the "*momentum to create change"* had indeed faded out in some places. A commonly given explanation for this was that the attention required to maintain changes was (partly) shifted to other tasks. For example, one interviewee stated that:

> *"What you miss, is some follow-up […] At some point, it [the implemented changes and employee momentum to create change] fades out again. Then you see that you've taken a specific path, but due to the daily routine.. the daily grind actually, that.. gets a bit*

[12] Direct quote: "*The Journey marked a turning point: people came back more relaxed and.. yes there was definitely some difference in the way they acted. [But] that doesn't seem to have really been embedded. Some people did really learn their lessons from that and when you tell them: Well, go back to that moment you were in Kenya [where the journey took place], what was different then compared to now which makes that you could act like that then and not now?', then people can find that modus back. But there is no system in place which they can fall back to; which catches them when they portray old habits [and reminds them of] like: 'Hey, this is the lesson that you learned back then, do something with that.*"

[13] Direct quote: "*Yes, something definitely changes in that aspect [team dynamics], but you do have to remind yourself to that. That is not a problem, but yeh.. if you don't pay attention, we go back to our old modus. But if we do pay attention, then we stay in that modus and that is really a lot better.*"

below the surface. And that is something that.. you actually want to embed in in your organisation, so it comes back every time"

Another employee adds to this that she cannot state with confidence that these changes will last long-term:

"*Of course, that would be ideal, but to achieve that we should really keep on giving attention to it. Because otherwise, the changes won't last. You cannot do something with everyone for four hours now and then expect that it sticks. So it should.. especially by middle management, so to say.. they should cherish this whole change plan and propagate it. Because otherwise.. if someone then leaves and a new person joins.. and it is embedded, then it also continues. And that is something we should really work on this year"*

In stating this, this employee made a very relevant point, because if the organisation depends on system actors to create and maintain changes across the whole organisation while having no structural elements to continuously reinforce these new behaviours by employees, the positive changes may leave once the people leave.

Thus, whereas the Better Future Journey may have changes some of the 'rules of the system', the structural elements to maintain these changes and to truly incorporate them into the organisation's design are still absent. Overall, it can thus be concluded that, while the U-journey did contribute positively towards changing the rules of the system (LP5), insufficient structural changes occurred to guarantee that the new 'rules' sustain in the long run.

LP6: System structures, the structures of information flows

Regarding the last leverage point related to system structures, one can be rather short. Namely, the newly introduced exchange program was the only change identified across all organisational dimensions. No additional changes were identified regarding any other organisational structures to enable actors to access or spread relevant information that would help them to optimally contribute to the system (except for power structures; no conclusions can be drawn due to a lack of data on this point).

In fact, several interviewees explicitly stated that they lack relevant information (channels) needed to optimally contribute to the organisation's (new) goals and ambitions. For example, it was said that many employees are not aware of the organisational goals defined

during the journey or that it wasn't clear to them how they should contribute to those within their own role (especially those who joined the organisation post-journey)[14]. This is counterproductive, as all employees should be working towards these goals to actually achieve them. Moreover, a third of all interviewees also mentioned that their organisation lacks communication (channels) to inform employees about the progress and results made towards the set goals:

> "*For example, the new project teams have really achieved some great results and we have those TV-screens all over the company.. I would say: write a short story about those results to portray at those screens, but yeh, that doesn't happen then*".

According to this interviewee, this is currently not being done, because many employees don't know how to communicate such results[15]. Moreover, support in this respect is not available, as this participant also mentioned that this specific organisation has no department nor employees who are responsible for developing effective (internal) communication flows[16].

Thus, in terms of leveraging the information flows to change the organisational system (LP6), these examples as well as the lack of additional evidence to prove that changes in this category did occur leads to the conclusion that the changes made at this place within the system are not enough to achieve systemic change.

When reviewing the changes at the system structure level overall, it is concluded that the changes identified in system structures are insufficient to facilitate whole systems change in the researched organisations; at time of measuring, too many barriers still existed which hampered the system changes process. Thus, whereas the journey certainly has facilitated many positive and relevant changes in system structures (mostly on team and whole organisational level), additional changes are required to truly shift the organisations in a way that is transformative and systemic in nature.

This conclusion has important implications for the changes which occurred at shallower system levels. Namely, as system structures define the way feedbacks and parameters are

[14] Direct quote: "We *actually have quite a large group [of employees] within the company which sees the posters on the walls, but which doesn't have any image or feeling of that what these mean*".
[15] Direct quote: "*People find that difficult, they don't know exactly how they should write that and then it should also go on the screen.. there should be a photo added.. yeh, they actually also don't really know how to do that... So there really should be someone to take that up; who says: I will do that for you or we'll look at it together. But that thus doesn't happen."*
[16] Direct quote: "*No, there is no one who specifically focuses on this [internal communication]. We do have a marketing department, but that is really for our marketing for our Dutch office, but they are not concerned with this story [changes which occur internally related to the Journey]. Not at all actually.*"

shaped, the latter are likely to be missing or misaligned with deeper system levels as well. For this reason, the following system levels will be explained in less detail than the previous two sections.

Changes in feedbacks

When assessing the changes related to system feedbacks, it was found that 26 out of all 89 changes identified in the data took place on this system level (29%). Of these, the majority occurred within the team context (52%). Moreover, all changes in this category related to positive feedback (LP7), and in particular to the way individual employees interact with others around them. No conclusions can be draw regarding the length of delays relative to their rate of change (LP9), as this element was not covered by interviewees.

Due to the infinite number of possible feedbacks and interconnections that can occur between the components, it is difficult to conclude if these changes were sufficient to achieve system-level change or whether specific feedbacks are missing or hampering the change effort. To do so, a more in-depth analysis (e.g. through mapping causal loops within the organisation) would be more suitable to draw such conclusions. However, it *can* be concluded that little feedbacks were identified related to system structures and that several system structures which should enable these feedbacks (e.g. information channels to reinforce changed rules of the system or reward structures to incentivise desired behaviour) were missing. Having the right feedbacks in place to reinforce or limit certain behaviour guides actors to portray the desired behaviour on a continuous basis, which contributes to achieving the system's goal. Hence, incorporating these (positive) feedbacks into the system's design (e.g. by creating incentive and reward structures for desired behaviours) is an important element within the system change effort.

Changes in Parameters

Lastly, in terms of system parameters, it was found that only 7% of all changes identified in data occurred at this level. These mostly included some small policy changes as well as some changes in goals and targets. As touched upon earlier (section on LP6), data also suggested that there were no changes in other parameters identified as relevant in the analytical framework, such as a change in reward or incentive indicators.

As changes in parameters mostly arise from the deeper system levels and hardly lead to systemic change on their own (Meadows, 1999; Abson et al., 2016), it was considered of minimal value to the goal of this thesis to discuss these changes in-depth. However, one relevant

insight at this level was that, regarding some of the more intangible goals set during the journey, such as becoming a more pleasant place to work or having a more collaborative or innovative culture, multiple interviewees indicated that parameters to make these aims tangible and achievable, were absent. Especially one interviewee, which has over 20 years of experience in (managing) change projects in organisations himself, addressed this point multiple times during the interview. In short, he stated that successful change projects should always connect "soft" (intangible, interpersonal) changes to measurable targets (parameters). More specifically:

> "*I think that if you really want to have success, then you have to address both of them simultaneously. You cannot have the one [change] be leading for the other, and vice versa. […] So if you say: I really want to change organisations with such a program, then you should make that explicit [in measurable targets] and attach something tangible to that.. and define what that means for the business, how it helps the business achieve its goals.*"

Overall, this interviewee as well as other participants from different sub-cases said that this connection of "hard" and "soft" changes was insufficiently facilitated during the journey. Additionally, they mentioned this as one of the possible reasons why attention drifted away from these goals and changes, why some change faded.

4.2.2. Drawing conclusions regarding the systemic nature of the changes

To draw conclusions regarding the systemic nature of all changes, this section will evaluate (1) whether changes identified 4.2.1 impacted the system's components (actors), structures and the relationships between them, (2) whether these changes were fundamental, i.e. affecting deep leverage points and (3) whether the changes across all systems levels are aligned. Based on these insights, a conclusion will be drawn regarding the nature of the changes facilitated by the Better Future program (SLP), thereby answering SQ2.

Evaluating the changes in terms of actors, structures and feedbacks

For systemic change to occur, one should take into account all system components as well as the system structures that keep the system in place and the relationships between them (Narberhaus & Sheppard, 2015). To assess the identified changes in terms of these three categories, section 3.5.2. outlined that system structures overall refer to the changes in system structure and parameter level (LP4,5,6,10,11 and 12) system components relate to changes in

actors (all individual changes incl. the source) and the relationship between those are captured at the feedback level (LP7,8 and 9).

When using this division, it can be concluded that, in terms of quantity, most changes have occurred at the actor-level of the organisation, i.e. changes embedded in employees (33%). Secondly, many changes were perceived regarding the way these employees interacted, both on team level and the interaction between employees within the organisation as a whole (29%). However, almost no interconnections (feedbacks) were found between other system components (e.g. between structures). Thirdly, relatively little change occurred regarding the overall structure of the organisation which defines the majority of the system's behaviour.

Thus, it can be concluded that all three system elements were taken into account in the system change efforts by Better Future, and that some of the individual parts of the system (structures) changed as a result. However, these changes were insufficient to shift the behaviour of the entire system (i.e. realise the new intent). Moreover, it should be acknowledged that while this conclusion holds true in broad terms, the current analytical framework has some limitations regarding the division between system components, interconnections and system structures based on the analytical framework developed for this. These will be further elaborated on in the discussion section of this thesis.

Evaluating the changes in terms of deep and shallow leverage points

Secondly, it was also established that to achieve systemic change, interventions should take place in those parts of the system which are most defining of how the system behaves (see section 2.1.2). Thus, interventions should ultimately aim to leverage changes in the system's (as well as system actors') mental models and the system structures.

This study concludes that, relative to the other system levels, most changes facilitated by the Better Future Journey occurred at the mental model level of the system. Especially the mental models of individuals (system actors) were highly affected. However, for both the team and whole organisational level it was concluded that the overall intent (i.e. the mental models) of the system had shifted as well. Hence, at the deepest and most fundamental model of the system, relevant change had occurred that could potentially generate systemic change.

Regarding the system structures level, it was concluded that, whereas many relevant changes occurred across different levels of the organisation, these were insufficient to facilitate a fundamental change in the behaviour of the system as a whole. Hence, the Better Future program realised some fundamental changes in the systems intent (mental models), which is needed to shift "the form and function of the targeted system" (Foster-Fishman, Nowell &

Yang, 2007, p. 197). However, due to the lack of (sufficient) fundamental changes in system structures, this shift was not actually realised.

Evaluating the alignment among system levels

Next to the required "shift" in "form and function" of the system, the definition of systemic change also indicated that this form and function should be *aligned* to achieve systemic change (Foster-Fishman, Nowell & Yang, 2007, p. 197). Translating that to this study's results, that means that the changes across all four systems levels should be aligned with each other, and in particular with the system's goals (LP3 on organisational level).

When evaluating the changes across all systems levels, the researcher concluded that the system's intent had shifted from being only profit-driven towards being more focused on giving value back to society. These changes were incorporated in the vision (LP2), purpose statement (LP2) and strategy (LP3) of the organisation. However, many of the structures, feedbacks and parameters were not aligned with this vision. Namely, while the intended vision, purpose, strategy and some of the mental models have changed, the system's structures and feedbacks were mostly still directed towards achieving the old goals. Examples where this was explicitly pointed out by employees, were the structure information flows between employees or the (controlling) leadership style by some managers hinder them to realise the new organisational vision.

In terms of the changes in parameters, data indicated that several new targets were formulated in line with some of the system goals (e.g. becoming carbon neutral or 100% circular in year X). However, multiple interviewees also mentioned that, especially regarding some of the more intangible goals, parameters to make these aims tangible and achievable were absent. Due to the lack of certain parameters to incentivize system behaviour that would contribute to the goal of the system, parameters are not entirely aligned with the changes in the other system levels.

4.2.3. Overall conclusion regarding systemic change

Based on the analyses and conclusions of the previous three sections, it is concluded that several individual parts of the systems in question have been changed, but that the program by Better Future has not resulted in an overall shift of the behaviour of the researched organisations as a whole. Thus, at the time of measuring, the identified changes did not result in systems change.

5. Discussion

By answering the RQs, this research contributed towards closing several knowledge gaps about the outcomes of Theory U in practice, and in particular its ability to facilitate systemic change. To better understand the relevance and implications of the research findings within the wider context of Theory U, systemic change and facilitating systems change in organisations, this section will discuss these results in the light of existing academic literature. To do so, the implications of this study for Theory U are discussed first. Secondly, the main implications for facilitating systemic change will be discussed, which include both theoretical and practical suggestions. Thirdly, the limitations of the current research approach will be examined and, lastly, relevant topics for further research will be outlined.

5.1. Implications regarding Theory U

Prior to this research, limited academic scrutiny existed on the outcomes of Theory U in practice on individual and team level of organisations. No academic research was found on the outcomes of Theory U on the level of whole organisations and larger systems (e.g. regimes). Thirdly, authors also argued for more evidence regarding the value and application of system leadership programs (such as Theory U) in practise (Dreier, Nabarro & Nelson, 2019). This research contributed towards closing these knowledge gaps by identifying 89 different changes across the three levels, which confirmed earlier findings by Scharmer (2009a) and Hays (2014), but also extended them by providing a more detailed account of these changes and adding changes which weren't known before.

Important insights are that Theory U mostly facilitated changes on individual level, less on team level and least on the organisational level of the system. Moreover, the outcomes mostly related to the way employees perceived themselves, others and their environment as well as the way they interacted with others (i.e. changes facilitated by the left-side processes of the U). Additionally, this author argues that whereas Theory U did not facilitate systemic change, the program equipped participants with important system leadership skills and built collective capacity to facilitate systemic change in teams and organisations. A further elaboration of these findings and their implications is provided in the following sub-sections.

5.1.1. Changes on individual level

The results of this study regarding the impact of Theory U on individuals are, overall, in line with earlier findings regarding individual outcomes of the U-process (although more elaborate and specified). Namely, Scharmer (2009a) indicates that participants who go through this journey will gain greater awareness of their own behaviours and thinking patterns and feel deeply (inter)connected with others and with the system they inhabit, which is indeed confirmed by this research.

Moreover, an important part in Scharmer's (2009a) theory is that, to achieve or facilitate truly transformative (organisational) change, one should act with an open mind (suspending judgement), open heart (be empathic) and open will (having the courage to let go of anything related to one's behaviour or thinking patterns which limits him/her to realise one's true purpose). Many interviewees in this research indicated to have become less judgemental and more open for understanding different viewpoints (open mind) as well as more empathetic, easier to connect to and better listeners (open heart). Hence, this study confirms Scharmer's (2009a) premises that the U-process, and in particular the *co-sensing* stage in which participants learn to "*see*" and "*sense*", facilitates changes in "mind" and "heart".

These insights also have important implications for the value of Theory U for developing systems leaders. Namely, the capacity to listen, connect and create trusting relationships with others, as well as being self-aware, were listed as some of the most important capacities for system leaders (Senge, Hamilton & Kania, 2015; ASC, 2020). Moreover, Hutchins and Storm (2019) even outlined the quality of self-awareness as one out of the two *most* important qualities of a leader to facilitate systemic change[17]. Therefore, it is argued that while the U-process has not facilitated systemic change in organisations, is *has* equipped the people who can create the desired systems change with several relevant capacities to do so.

Regarding the third requirement for facilitating transformative change in Theory U, "open will", several participants expressed experiences which indicated signs of this change[18]. Whereas the current analysis did not provide any explicit explanation on why some Journey-participants "let go" or developed an "open will" while others didn't, the individuals who did change mentioned some specific character traits which may be relevant in this respect. Namely, they indicated to be "*very prone to learn and continuously develop myself*", said to have already

[17] The other one is systems awareness, which Theory U also increased based on employees' statements about their increased understanding of their role in the organisation as a whole. However, from the current data, it cannot be concluded that employees systems awareness has been increased to the level that Hutchins and Storm (2019) outlined in their book.

[18] For example, the interviewees which mentioned to have let go of very high, outdated expectations rooted in the past or of the resentment towards the organisation one manages which originated from the company's turbulent history and individual's past experience with this.

started the journey towards letting go of old patterns or improving oneself before the U-process and/or indicated to have gained a deep understanding of where their old behavioural or thinking patterns came from, which made them realise they are not relevant or applicable to their current situation anymore. Moreover, these participants also said that having deeply, personal conversations with others about these themes as well as being vulnerable helped them to understand and let go of these old patterns.

Therefore, participants' readiness and willingness to change as well as their ability to reflect on and share these patterns with others could play a role in the process of 'letting go', which is required for true transformational change. However, the current research did not provide a solid and explicit understanding of why some individuals were able to create an open will, while others didn't. As the 'open will' is a pre-condition to facilitate changes on the right side of the U (Scharmer, 2009a), the insight that this may occur in the process by all participants has important implications for the overall impact of Theory U on the right side of the process. Hence, this author argues that this question requires further exploration in future research on Theory U.

5.1.2. Changes on team level

Regarding the team level, changes are in line with several outcomes from case studies described by Scharmer (2009a) as described in section 2.5. The current research builds on these findings, however, by providing a more detailed and elaborate understanding of the variety of changes on this level as well as an elaboration on how these changes relate to individual and organisational-level changes.

Although fewer changes occurred in the organisations assessed for this study than on individual level, there was an apparent theme which encompassed the majority of team-level changes, namely: the way individual team members perceived and interact with each other. More specifically, frequently occurring changes across all sub-cases included changes in team culture, team dynamics and communication style, which mostly shifted towards a more positive, collaborative and aligned state. Also, the amount and the quality of relationships which people experienced (on group-level) following the journey had increased too.

Outcomes which were not highlighted by Scharmer (2009a) before, were that groups which underwent the process had more shared commitments, common goals, more trust and openness in the team and better overall team dynamics and team performance. These changes are very relevant for achieving systemic change and for solving large-scale, complex societal

challenges, because these efforts ultimately require effective collaboration and alignment among different stakeholders (Senge et al., 2007; ASC, 2020).

Namely, disagreements among different stakeholders about important matters and how they will be handled (e.g. what goals to strive after or how to achieve them) are one of the reasons why (system) goals are not achieved (Hays, 2014). For instance, team members who disagree on such topics may work towards different goals, use possibly conflicting strategies to achieve these, or (unintentionally) undermine or duplicate each other's work (Hays, 2014). As there is especially much disagreement about important matters when it comes to solving complex (societal) problems (Head, 2008; McConnell, 2018), Theory U's ability to build common intent and align different views from stakeholders, is a valuable and necessary capacity for achieving systemic change. Moreover, it is argued that Theory U also fills the need for "*more relational and integral approaches*" and for integrating *"new approaches and perspectives to build trust*" in complex problem solving (Wamsler et al., 2020, p. 233).

Therefore, this study argues that the principles of Theory U (especially the left-side) can provide important contributions to (system) change efforts by facilitating the process of developing shared intent, common goals and effective collaboration among individuals or groups (with different interests). Moreover, although additional principles are required to facilitate whole systemic change, Theory U can certainly play a role in closing the 'complexity gap' between the current and required skills of leaders (Volini et al., 2019).

5.1.3. Changes on organisational level

Thirdly, this research serves as a relevant contribution to fill the knowledge gap regarding outcomes of Theory U on organisational level, on which no prior academic research has been found. Most importantly, employees had become more interconnected in terms of both quality and quantity of their relationships with other colleagues, and communicated and collaborated better. Several structural changes were implemented as well on the organisational level, among which some structural initiatives and partnerships which reinforced this increased employee interconnectivity as well as some smaller structural changes. However, these were not transformative for the business. Thus, overall Theory U had mostly facilitated changes related to employees and the way they interact, but lacked (transformative) changes in system structures.

As already suggested in the previous sub-sections, this study concludes that the changes facilitated by Theory U mostly relate to the processes on the left-side of the U. Namely, except for the '*crystallisation*' of a new vision (part of the *co-initiating* phase) and some actions which

were taken to achieve this vision (e.g. initiating task forces and partnerships to work toward the goal), most changes relate to the *co-sensing* (incl. *sensing* and *seeing*) and *presencing* phases of the U.

A possible explanation for the lack of changes on the right side may be that, as already indicated in section 2.2.5. the properties and stages on the left side of the U are described in much detail, while the guidelines for practitioners at the co-creating and co-evolving parts of the U are rather abstract. Hence, the lack of guiding principles on *how* to embed the 'new' into the existing ecosystems makes it very difficult for practitioners to do it right; this was indicated by Better Future practitioners as well (Better Future, personal communication, 2020).

For Theory U, this implicates that further research should aim to understand how to leverage the changes on the left-side to facilitate systemic organisational change, and how to embed these into the organisational system as a whole. Also, more specific guidelines are required on the right-side of the U to provide practitioners with more concrete tools on how to facilitate systemic change; especially the 'performing' phase should be elaborated on. This point will be elaborated in the next sections.

5.2. Implications for facilitating systemic change

As concluded in the previous sections, the U-process is valuable for equipping individuals, teams and organisations with some of the necessary capacities to facilitate systemic change (e.g. better listening, creating shared commitments for common goals), however, the theory falls short when it comes to facilitating systemic change. Namely, due to the lack of sufficient changes at structure, feedback and parameter level, as well as a lack of alignment among these changes with each other and which the goal of the system, systemic change did not occur. This conclusion was drawn regardless of Theory U's ability to intervene at the deepest and 'strongest' leverage points in the organisational system, which is typically stated as the most effective intervention to change systems (Meadows, 1999). This implicates that altering system's and actors' mental models is necessary, but not sufficient to facilitate systemic change. Instead, both practitioners and scholars should view systemic change more as a holistic process, in which changes at *all* systems levels are essential for the change effort to succeed (as opposed to focusing most efforts on altering the 'strong' leverage points). For Theory U, this means that the importance of changing system structures, feedbacks, parameters, as well as the need to align these with the (changed) mental models or goal of the system should be incorporated into

the theory. Concrete theory and guidelines on how to facilitate these changes are needed to support practitioners in this process.

5.2.1. The role of mental models and system structures

This research found that changing the mental models of the actors and the system itself is necessary, but not sufficient to facilitate systemic organisational change. Namely, congruent changes in design, feedbacks and parameters are essential for systemic change efforts to succeed.

Regarding the first part of this statement, i.e. changing mental models is necessary to facilitate systemic change, this research confirms existing systems theory saying that a small shift in deep leverage points can lead to a multiplier of changes across the whole system (Meadows, 1999; Angheloiu & Tennant, 2020). Additionally, current findings also provide further support for the statement that changing beliefs is a powerful intervention for changing behaviour (Kwik, 2020; Kaiser, Byrka & Hartig, 2010). Namely, the changes in individuals 'internal experience' (e.g. self-awareness or changed beliefs about themselves) were the starting point from which many of the other changes occurred.

Additionally, changing mental models is not only a multiplier, but also an essential element required to shift whole system behaviour (Scharmer, 2009a; Meadows, 1999; Senge, 1990). Namely, the emerging changes in mental models (intent) can be the 'push' factor that makes actors (or groups of actors) desire or need to reconsider or redesign their system's structures (Barrett, 2006a). From this research, this can be illustrated by the changed belief by executive leadership teams about their commitment to contribute to a more sustainability-focused future for their organisation, which added to the decision to adapt a new organisational purpose. Without these changed beliefs and new purpose, there would (most likely) not have been a desire for facilitating radical change in other parts of the business. However, that doesn't withstand that simply desiring change in complex systems does not equal achieving it.

That brings us to second part of this research finding, namely that a change in mental models *alone* is insufficient to facilitate systemic change. This has also been confirmed by scholars researching attitude-behaviour gaps. Namely, in the case of sustainability related behaviour change, the fact that people value environmental sustainability (mental model) does not necessarily lead people to adapt environmentally friendly behaviours; it should also be made easy by the external environment to act sustainably for that individual (Kaiser, Byrka & Hartig, 2010). In other words, the system structures should be designed in a way that enables and encourages sustainable lifestyles (Abson et al., 2016).

Moreover, research from in the organisations sciences adds to this that a change in employee values and beliefs without changes in organisational structures can even be counterproductive for achieving change within the organisation in question (Barrett, 2006b). Namely, when organisations facilitate programs (such as the U-process) which help employees to gain increased awareness of their values and purpose, "*they quickly become disillusioned when they realise that although they have changed, the organisation has not" (Barrett, 2006b, p. 6).* This impact is even stronger when "*the new behaviours they have learned are not practiced by their superiors and are not rewarded*" (Barrett, 2006b, p. 6). Moreover, failing to align an organisation's mission or purpose with its structures is also found to be one of the most frequently made mistakes in implementing whole organisational change (Barrett, 2006b.). Hence, Barrett (2006b) confirms the conclusion of the current thesis that changing system structures is essential for achieving system change success.

This conclusion has relevant implications for both academics and practitioners aiming to understand and facilitate systemic change. Namely, while many scholars emphasize the importance of deep leverage points interventions and facilitating 'paradigm shifts' to move systems into different pathways (Meadows, 1999; Abson et al., 2016; Ives, Freeth & Fischer, 2020), the current findings implicate that this may solve only half of the 'problem'; the other half is concerned with the understanding of how to change, design and (re)align the rest of the system according to this new paradigm.

Hence, further research is needed on how to change system structures, and how to align them with the desired systems goal. For system change practitioners (in organisations), these findings mean that changing mental models, and especially those of the leadership team who have the power to change the goals, rules and structures of the system (Meadows, 1999; Barrett, 2006a), is an important starting point for changing organisations. However, they should be aware that this should not be the end goal and can even hamper change efforts if not followed up by additional measures. Thus, changes in mental models should always be complemented by changes in organisational structures, and as will be argued in the next section, also by changes in parameters and interconnections between system components (feedbacks).

For Theory U, it is argued that the need for changes in system structures should be highlighted as a criteria for succeeding the systems change effort, because this is currently not the case.

5.2.2. The need for including parameters in the systemic design process

A second insight of this thesis regarding systemic change is that systems should have parameters in place which are in line with the systems goal. These create positive feedback loops that incentivise actors to portray the desired behaviour.

The incorporation of parameters into systems design makes intuitive sense when translating this to the organisational context. Namely, when implementing a new organisational strategy, this strategy should include specific targets and sub-targets which need to be achieved to realise desired strategic goals (Gamble, Peteraf & Thompson, 2014). Moreover, there should be indicators to assess whether the (sub-)targets are achieved, and there should be a system in place to measure this and monitor changes (Gamble, Peteraf & Thompson, 2014). These steps all relate to system parameters.

When relating these insights to earlier studies, it was demonstrated that, in order to motivate employees and maintain momentum for positive changes in the organisation, monitoring KPIs (parameters) and communicating these to the work force and celebrating successes are essential (Gill, 2002, Barrett, 2006a). Without, momentum and motivation are more likely to be lost (Gill, 2002), which harms the change effort (Elmes & Wynkoop, 1990; Nutt & Backoff, 1997). This is confirmed by the current findings, as the lack of parameters was outlined by journey participants as one of the reasons why motivation and momentum for changes were lost, why actors didn't work towards the desired goal, and why the Better Future program did not lead to systemic change.

Thus, while parameters are typically referred to as weak leverage points (Meadows, 1999; Abson et al., 2016), this study states that they are certainly essential elements that need to be changed to achieve systems change success. When relating this to Theory U, it was already concluded earlier that the processes on the right-side of the U (after the crystallising phase where the vision is created) lacked guidance for practitioners on how to ensure new changes are embedded into the larger system. Hence, the author argues that the need for implementing and changing system parameters should be incorporated into the U-process. This could be done by highlighting the importance of developing targets, indicators, measuring and monitoring structures in *the co-evolving* stage of the U.

5.2.3. The need for including feedback loops in the systemic design process

For system feedbacks, a similar conclusion can be drawn as for system parameters. Namely, while they are typically also categorised as relatively 'weak leverage points' (Meadows, 1999), they should be altered to make systemic change efforts a success. In a way, this is a logical conclusion as system parameters are inherently related to all other system elements and part of

the overall structure (Scheffer et al., 2009); feedbacks are the glue which keep actors and structures together and define how they interact (Kauffman, 1996; Scheffer et al., 2009). Therefore, practitioners should give thought to which elements in the system should be connected to reinforce desired system behaviour and control for undesired behaviour.

The function of creating feedback loops to incentivise certain behaviour (see previous section) is regularly mentioned by authors when discussing the impact of changing parameters on overall systemic change (e.g. Ernstson et al., 2010; Bahadur & Thornton, 2015; Burch et al., 2016). However, besides the role of feedbacks to create incentives for actors, this study also highlights that reinforcing feedback loops is necessary for embedding more tacit changes such as organisational norms, values or organisational culture into the overall system (structures). Namely, the lack of such feedbacks was one of the reasons why the cultural changes identified in the studied organisations were not embedded into the existing system and risked to be lost if no measures were taken. Especially with regards to organisational culture, Johnson, Scholes and Whittington (2009) confirm the need for alignment and reinforcement of different interacting elements in an organisational system.

For system change practitioners, this finding implicates that, especially to embed new rules and tacit changes into the existing system, they should reinforce the all new changes by creating positive feedback loops. This ensures that new or one-time events and behaviours by employees turn into behavioural patterns and eventually into (social) structures (Goodman, 2002)[19].

Moreover, for further research regarding systems change, this author argues to be careful with labelling leverage points as ‘strong’ or ‘weak’. Namely, this implies that some leverage points worth the effort to intervene, while others are not (or less). In essence, it is true that changing mental models can create a need or desire to change system structures, feedbacks or parameters (Barrett, 2006a; Johnson, Scholes & Whittington, 2009). Also, some interventions indeed have larger effects than others (e.g. changing the governance structure has more impact than providing bonusses for positive behaviour). However, this research also revealed that all system levels are worth intervening in, when specific elements are not aligned with the overall system goal. Hence, practitioners should keep in mind that ‘weak’ should certainly not be

[19] For example, getting a one-time communication or team collaboration training does not create a new communication or team collaboration pattern. Instead continuous reinforcement (e.g. by follow-up trainings or creating spaces for actors to actively practise and gain feedback on these behaviours) should ensure that one-time behaviours become (behavioural) patters, and eventually become so engrained into the personal or team habits that actors portray them almost automatically. In the latter case, they have become part of the system’s structure (Goodman, 2002).

interpret as irrelevant or not worth the effort to intervene, because failing to alter and align 'weak' leverage points can certainly hamper the durability and success of the change effort.

For Theory U, the importance of changing and creating (new) feedback loops should be incorporated on the right-side of the U, after the crystallising phase; the theory as it is today, does not address the need for such interventions.

5.3. Additional practical implications for facilitating systemic organisational change

In this discussion, it was outlined that practitioners can use the principles of Theory U to facilitate changes at source and mental model level of the system (and actors). However, those changes should be followed by (aligned) changes in system structures, feedbacks and parameters. By evaluating the change process by Better Future, several barriers were found that prevented these efforts to succeed, especially at system structure level. Therefore, this section will provide several additional guidelines to overcome these barriers next to the practical implications which were already mentioned.

Firstly, almost half of all interviewees in this research indicated that their organisation lacked effective structures to enable employees to actively contribute to the organisation's new ambition, even if they were motivated to do so. To overcome this barrier, practitioners should create organisational structures in which employees can work autonomously and make their own decisions, as this is an important element in facilitating systems change (Laloux, 2014; Hutchins & Storm, 2019.) More specifically, a growing body of authors argues for more agile, adaptive and decentralised structures, in which employees can organise themselves and decisions are made by collective intelligence (Laloux, 2014; Aghina et al., 2017). This way employees across the entire organisation can act or change the system towards the desired goal, which is much more effective than when change is 'driven' by a limited group of top executives (Laloux, 2014)[20].

Secondly, practitioners who aim to facilitate systemic change should ensure their organisations let go of controlling leadership approaches, and focus on creating trust among employees. Namely, in this study shared and collaborative leadership approaches which focused on creating mutual trust, honest communication and in which people felt safe to express themselves (authentically), were found to positively affect the employees' behaviours towards

[20] To distribute tasks and power from a central to more decentralised organisational structure, organisations could explore several operational models other than hierarchy (e.g. holocracy, sociocracy, heterarchy or hybrid models). Just as the hierarchical organisational model, these models all bring several challenges of their own (Hutchins & Storm, 2019; Kotter, 2014). However, it is beyond the goal and scope of this paper to discuss these in-depth.

the desired organisational goals. On the contrary, a controlling leadership style was associated with employee dissatisfaction, a decreased sense of ownership and a rather passive attitude towards creating change toward the new goals. These negative effects occured, even when employees were given some freedom and autonomy to make their own contributions towards the formulated goals (because controlling leaders decreased the sense of ownership of employees). These findings are confirmed by Hutchins and Storm (2019), who add that creating trust and letting go of controlling leadership styles are a necessity for for creating systemic organisational change.

Thirdly, as already highlighted by the previous sections, practitioners should continuously reinforce (new) cultural changes to embed them into the larger system. Changing an organisation's culture (i.e. the rules of the system) is a strong lever for changing organisations as a whole (Barrett, 2006a; Chatman & Cha, 2003). However, this is very difficult to achieve, because cultural rules are highly interconnected with, and embedded in, (almost) all other system elements (e.g. communication outlets, the parameters people strive after, the power structures etc.) (Johnson, Scholes & Whittington, 2009). Hence, practitioners should keep in mind that 'changing the rules' is mostly a result of changing many other elements in the system, rather than one specific task in itself (Barrett, 2006a).

Lastly, information feedbacks should be created to build and maintain momentum for change (Nutt & Backoff, 1997). To ensure information can be communicated throughout the system, the right structures should be in place, especially to provide feedbacks on the systems goals (incl. achievements). To ensure alignment across interventions and changes, it is recommended to incorporate reflection loops into systems change efforts to evaluate if the direction of change is in line with the direction required to achieve the goal.

Before concluding this section, some final remarks can be made about the relevance of these practical recommendations with regard to Theory U. Namely, although Theory U may fall short in terms of providing guidelines on what system elements to leverage to achieve systemic change, practitioners could use the left-side principles of the U to set out the direction for the change, align relevant stakeholders (e.g. employees) and *crystallise* a new vision. Afterwards, the (practical) insights mentioned across this discussion section could provide extra guidance on which organisational structures or interdependencies to change (and why). Certainly, these recommendations are still broad and require different ways of implementation depending on the goals and dynamics of the system they are implemented in. However, the author argues that they do provide additional guidance for Theory U practitioners on what steps to take to ensure the *crystallised* vision becomes reality.

5.4. Refection on research methods and limitations

Regardless of the quality measures taken to overcome several barriers of qualitative research (see section 3.6.), several limitations should be taken into account when reading this thesis. Firstly, the generalisability of the findings to other contexts is always a critical point in qualitative research (Maxwell, 1992; Leung, 2015). In this sense, it should be acknowledged that while the same U-principles were used in all sub-cases, these principles (especially on the right side) are rather broad and leave space for practitioners to adapt to the specific conditions of each organisation. Therefore, no one journey 100% equal to another. For this reason, as well as the fact that only four organisations were assessed, it is difficult to generalise the findings based on these four sub-cases to a larger population (other organisations that apply Theory U). Nevertheless, the author argues that the results of this research do provide relevant insights into the value and outcomes of Theory U in practice, and certainly provide valuable insights for Better Future.

Regarding the findings on facilitating systems change, the researcher argues that these findings *are* externally generalisable, as these had profound theoretical foundations and were cross-validated with other literature in the discussion of this paper. Therefore, the main conclusions regarding the factors to take into account for facilitating systemic change in organisations (see section 5.2. and 5.3) are considered relevant and applicable to efforts of systemic organisational change beyond the current sample.

Secondly, despite the quality measures which were integrated into the current research to assure a high validity of the findings (see section 3.6.), it cannot be excluded that a (selection) bias occurred during the sampling process of sub-cases and/or interviewees (Costigan & Cox, 2001). Namely, whereas the researcher limited the probability of this bias by having several sampling criteria selecting for sub-cases, Better Future's knowledge on which cases would be suitable for data collection, was included in this decision as well. Hence, it cannot be excluded that a possible (unconscious) (selection) bias in favour of journeys which had generated positive feedback from clients, influenced the sampling process (Costigan & Cox, 2001). However, as this topic was discussed with Better Future prior to collecting data and employees across the company clearly emphasized to desire unbiased results, this bias, if present, is considered minimal.

Regarding the selection of interviewees, both the researcher herself as well as Better Future employees reached out to possible participants. However, as data collection took place in the midst of the Dutch COVID-19 peak, many interviewees cancelled or rescheduled

requests. Hence, whilst a large variety of interviewees was approached, it may be the case that especially interviewees who had a strongly positive or negative (the latter was not encountered) experience with Better Future were most willing to share their experiences of the journey (self-selection or volunteer bias) (Braver & Bay, 1992). Because this was not validated by the researcher, it is unknown what possible impacts the sample selection of interviewees had on the overall results. However, as both positive and critical notes were shared by participants, the researcher argues that the sample still provided valuable insights into the Better Future program.

Thirdly, it should be acknowledged that, due to the abductive research design, not all elements of the analytical framework for evaluating the systemic nature of the program changes appeared in the empirical data. Namely, empirical data was collected based on a Grounded Theory approach (Glaser & Strauss, 1967) and aimed to understand interviewees' perspectives on what changed for themselves, their teams and their organisations after the U-program. Initially, it was not specifically researched what changes did *not* occur due to the program, although they appeared in data. Due to their relevance for answering SQ2 and the overall RQ, they were further explored and included in the data analysis (following the directing and redirecting principle of abductive research, see Appendix A).

However, for this reason, several elements included in the analytical framework were not discussed by interviewees, or interviewees suggested that a change did not occur but were not explicit. As this information could not be deducted from, or confirmed by, other data sources, no (firm) conclusions could be drawn on whether these elements changed due to the U-program or not (for data points in which this occurred, see Appendix L). It should be noted, however, that there are very few data points which were not included at all in the data. Moreover, Meadows (1999) states about most of these elements that they are weak leverage points (e.g. size of material stocks and flows, LP11), rarely a leverage point in large systems due to their difficulty to change once designed (e.g. the structure of material stocks and flows) or that other system elements should be focused on, because they have much more leverage (delays relative to the rate of change, LP9). Overall, it is thus argued that the most relevant elements for answering the RQ were included in the data and the conclusions drawn regarding the RQ are still valid. Also, this point has no effect on the findings of SQ1.

To conclude this section, there are several remarks to be made on the analytical framework developed by the researcher to answer SQ2. Firstly, the author argues that analytical framework developed for this research provides a relevant methodological contribution to existing theory and methods on evaluating systemic change. Namely, this study was the first to develop an approach to assess whether the application of Theory U to organisational systems

contributes to the transformative, systemic change that Scharmer (2009a) aims for. The author argues that this framework can be used to assess the systemic nature of other (systems leadership or) change programs as well. Namely, it assesses where in the organisation (in terms of leverage) a change occurs, regardless of what framework facilitated these changes. After understanding where changes occurred, the evaluator can apply the same steps that were taken by the current author to evaluate whether systemic change occurred (see section 3.2.5. and section 4.2.).

Despite this possible useful application in terms of understanding program outcomes through a leverage point perspective, the developed framework is less suitable to draw conclusions regarding changes in terms of system components (actors), structures and interdependencies. More specifically, this research divided the categories based on related leverage points: system structures were associated with LP4,5,6, 10,11 and 12 (structures and parameters), actors with LP0-12 on individual level and the relationship between them with LP7,8 and 9 (feedbacks). This division works in broad terms, however, it should be acknowledged that the line between structures, actors and interdependencies is less clear-cut than this categorisation makes it seem.

Moreover, in general, the developed analytical framework insufficiently accounts for role of actors in changing systems behaviour (despite the addition of the source level) and for the role of interdependencies between actors and structures. Regarding the actors, it should be noted that complex systems comprise of multiple sub-systems (e.g. organisations comprise of departments, teams etc.) inhibited by actors who all have their own agency, goals, combinations of mental models and structures. Thus, next to alignment of systems interventions on different levels (mental models, system structures etc), facilitating systemic change also requires an alignment of these elements across the different sub-systems (e.g. values of employees should match organisational values, team cultures should support the organisational change effort) (Barrett, 2006a). Although the current analytical framework does address this limitation of the leverage point framework by separating changes for individuals and teams at different systems levels (Meadows does not address this point), one should take into account that these dynamics are still more complex than the current analytical framework shows.

Lastly, regarding system feedbacks, it should be noted that these ultimately result from the way a system is structured (Scheffer et al., 2009). To understand the role of feedbacks in a system more specifically, systems mapping or performing a causal loop analysis would be more appropriate than using the feedback leverage points by Meadows (TSL, 2020; Meadows, 1999). However, as the purpose of the analytical framework in this study was to provide an overall

understanding of the nature of all changes facilitated by Theory U, such in-depth analysis was not necessary.

5.5. Suggestions for further research

To further understand the outcomes and value of Theory U in practice, especially with regards to systemic change, further research is needed on several topics. Firstly, the current research did not assess the outcomes of Theory U beyond the organisational level (e.g. regimes) and no additional studies have assessed this topic either. Therefore, it would be relevant to assess the value of Theory U for facilitating systemic change on regime-level, e.g. by providing (case-study) evidence on the outcomes (and possible shortcomings) of the U-process in specific corporate sectors (i.e. sector-level) or multi-stakeholder initiatives for change. Moreover, additional research should aim to better understand how interventions at specific system levels can be complemented by interventions at other levels to embed them into the system (e.g. the rules of the system should be reinforced by positive feedback loops, the goal of the system should be supported by the right parameters etc.). Lastly, there is a need for more concrete insights on how the right-side processes of the U can be improved to inform practitioners how to embed new systemic elements into the existing system (structures). Case study evidence from possible cases where Theory U *has* led to transformative change, be it in combination with additional systems theories or methods, could provide relevant insights into how to improve, or complement Theory U to achieve its ultimate aim of facilitating large-scale, systemic change.

6. Conclusion

This research aimed to better understand the value and application of Theory U (Scharmer, 2009a) in practise. More specifically, it was investigated to what extent Theory U-inspired system leadership programs facilitate systemic change in organisational systems. In doing so, this research aimed to close the knowledge gap between theoretical descriptions and practical outcomes of the U-process as described by Scharmer (2009a). Namely, existing literature lacked critical assessments of the practical outcomes of Theory U in organisations, the implications of these outcomes for facilitating systemic change and an analytical framework or methodological description on how to assess this.

The results of this study indicate that Theory U, as it is currently described, facilitates most changes on individual level, followed by teams and the organisation as a whole. More specifically, changes related to actors' internal experiences, behaviour and relationships and the way actors interact on both team and organisational level. Regarding the organisational level, several structural changes were identified as well. In terms of the overall RQ, the systemic combining of empirical case data with systems and organisation theory led to the conclusion that the U-program assessed for this research gave rise to several relevant and important changes, which improved the organisational capacity for achieving systemic change. However, these changes were considered insufficient to realise systemic change in these organisations. Explanations for this were that the changes were mostly actor-focused and did not sufficiently address system structures. Additionally, the changes implemented across different leverage points were not aligned (enough) with each other and with the overall goal of the system.

In terms of Theory U more specifically, it was concluded that most changes resulted from processes on the left-side of the U, which addresses individuals' and teams' perceptions and beliefs about themselves, others and the system they are part of. Although these changes did inspire action and changes on the right-side of the U, it was overall concluded that Scharmer's (2009a) tools and guidelines provided to embed these changes into the existing system are yet insufficient to guide practitioners towards system change success.

In terms of additional insights of this research on facilitating systemic change, it was found that existing literature often stresses the need for a 'mindset-change' when discussing systemic change pathways. This study acknowledges the importance of such changes, but also emphasizes the need for actionable insights and guidelines for practitioners to redesign and realign system structures with their desired goal. Moreover, the importance of including feedbacks and parameters into the design phase of systems change was also highlighted (e.g.

by creating feedbacks by introducing new incentive structures), as these are inherently embedded into the overall system structure and required to make change efforts succeed.

Lastly, this research yielded several insights regarding specific structural elements which could be changed to make systems change efforts, and especially design change efforts, more successful. In short, these insights included the role of governance structures and leadership styles to promote self-organisation and empowerment of employees, the interconnectivity of organisational culture with other (structural) system elements and the importance of creating effective communication and information channels to ensure free flow of relevant information. However, while these insights contribute to the overall understanding of facilitating systemic change with or without Theory U, more research should be conducted to fully comprehend the complex dynamics of both topics.

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Appendix A:
Guiding principles for abductive research and the method of systemic combining

Abductive research, as outlined by Dubois and Gadde (2002), is a relatively novel research strategy which is increasingly used in action and case study research (Alvesson and Skoldberg, 1994; Dubois and Gadde, 2002; Wigblad, 2003). It overcomes some of the limitations of both inductive (little theoretical substantiation for the developed theory) and deductive (risking to exclude relevant themes from the analysis because they are not measured) research strategies by integrating both approaches through the method of '*systemic combining'* (Dubois and Gadde, 2002).

'*Systematic combining'* is a methodology in which the researcher starts with several preconceptions of reality based on a conceptual theoretical framework (in this thesis outlined the theory section and in particular the conceptual understanding of how Theory U works in practice). This conception of reality (framework) is then continuously challenged and improved by the researcher through '*matching'* and '*direction & redirection'* (Dubois & Gadde, 2002). With *matching*, the researchers refer to "the process of continuously moving back and forth between the (initial) framework, data sources [theory and empirical] and analysis with the ultimate goal to match the theory with reality" (Dubois & Gadde, 2002, p 556). The original conceptual framework is then continuously modified throughout the course of the entire study until it reflects the empirical findings. A visual representation of how this method works in practise, can be found in Figure 2.

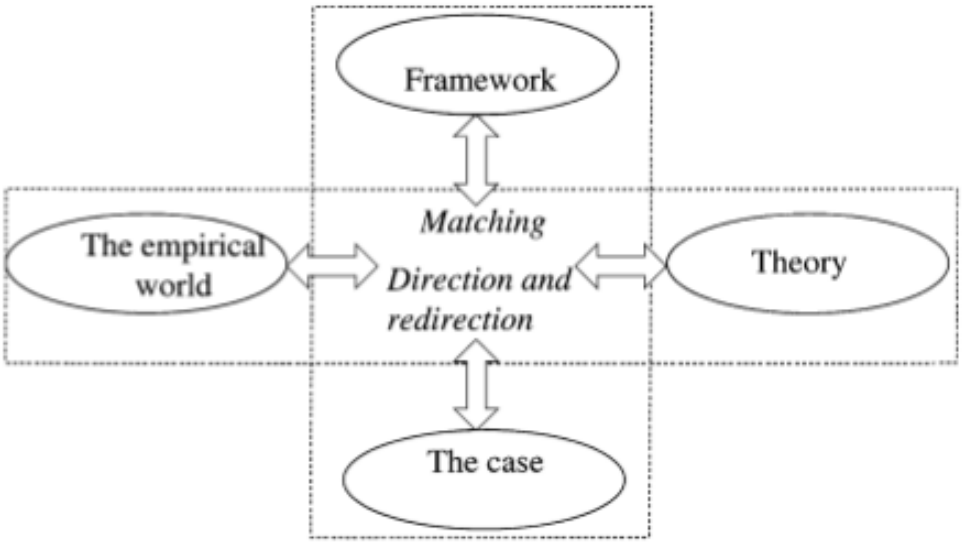


Figure 2. The process of systematic combining is the core method in abductive case research. It aims to improve an existing conceptual framework through continuously comparing empirical findings from one or more specific cases to insights from existing theory. Throughout the entire research period, the researcher

continuously moves back and forth between the initial conceptual framework, empirical data (collected from the case) and existing theory, in which data collection, analysis and theory development occur in an iterative process (matching). The direction of the data collection or analysis is subject to change, as both processes directed (or redirected) by insights gathered throughout the study (Dubois & Gadde, 2002).

Just as in Grounded Theory research, the main focus of the current approach to is to generate new concepts and develop theoretical m Hence, the method of systematic combining in abductive research is closer to an inductive than a deductive approach. However, abductive research has a much higher reliance on existing theory throughout the entire research period compared to inductive research (Glaser & Strauss, 1967). Also, inductive research is mainly concerned with theory generation (creating new theory from empirical data), whereas abductive research aims to *modify or refine* existing frameworks (Dubois & Gadde, 2002). odels that match empirical data, rather than to confirm existing theory (Dubois and Gadde, 2002).

Appendix B: Interview guide

1. **Formalities regarding interview procedure**
   - Thank you for accepting interview request
   - Introduce research: goal + length [ca. 60mins]
   - Confidentiality of interview data
   - Ask permission to record.

2. **Introduction: "setting the scene / get them comfortable"**
   - Can you please tell me something about yourself and the role you fulfil within [company name]
   - Can you please tell me something about the context and goal of the leadership journey you participated in?
   - [When you think back about your experience, what stands out most / what impact the journey made do you recall most / is most valuable for you? – possibly ask to take the person back to the program + to open up the conversation before asking more personal questions – depending on time] – stories

3. **To what extent do you have the feeling that the journey changed something within yourself / has changed you as a person?**

   Let the interviewee answer first, then ask additional / guiding questions depending on the answer, such as:
   - Can you give me an example of that?
   - How did you realize that? Can you tell me more about how this change occurred?
   - At what moments do you notice this change in your daily life / work?
   - How does that translate into the way you think or act (back then / right now)
   - Do you have the feeling that this change [in the way you think/act/relate to others] continued after the journey? Why/why not?

Possibly themes to ask about if interviewee doesn't bring them up his/herself:

Mental models:
- Are you under the impression that the journey changed the way you look at certain things?
- Are you under the impression that the journey changed something in the way you think? [In Dutch: In hoeverre heb je het idee dat de journey ertoe geleid heeft dat je anders tegen zaken bent gaan aankijken / … dat je anders bent gaan denken?]
- Can you give me an example of this?
- Can you tell me what happened that led to this shift? / Why did this happen?
- What impact has this shift had on your behaviour?

Behaviour
- Are you under the impression that the journey changed the way you act?
- Follow up: Can you give an example of that your daily life / work? OR: Can you give me an example of how you act differently today compared to before the journeyin
- Was this change in behaviour lasting (or did it fade?)
- Do you have the feeling that the journey changed the way you relate to others?
- Ask for examples

- Have other people indicated/expressed that they noticed this change in you as well? Can you elaborate on that?

4. **<u>To what extent do you have the feeling that the journey changed something within your team?</u>**

- Let the interviewee answer first, then ask additional / guiding questions depending on the answer, such as:
- Can you give me an example of that?
- How did you realise that? Can you tell me more about how this change occurred?
- At what moments do you notice this change in your daily life / work?
- How does that translate into the way the team thinks or acts (back then / right now)
- Do you have the feeling that these changes within your team stayed after the journey? (or did it move back to old habits again?) Why/why not?

Team interaction

- Do you feel like the journey has changed something in the way you interact with each other?
- What caused this change to happen?
- How do you notice that in your work? How was the situation before?
- What does this change mean for the way the team works together?
- What implications does this change have on the team performance?
- What implications has this changed had on the organisation in a whole? Do you think the organisation benefited from that?
- Have other people within the team or wider organisation indicated that they noticed this change as well? If yes, how?

Group thinking / culture

- Do you have the way that your team, while going through this journey, has undergone a change in the way you think about things as a group? (or specific individuals within the team?)
- Did you make any written / verbal commitments in the way you interact / behave as a group? What were these? What implications did these commitments have for the group / individuals within it / for the organisation as a whole?
- Have you been able to stick with these commitments after the journey? Can you give me an example? Why did it stick/fade?
- Do you think that this journey had implications for the norms and values (lived) within your team?
- Do you have the feeling that the culture within your group has changed? In what specific moments do you notice this? Can you give me an example of how there is a change between how things were before and after the journey?
- What does this change mean for you personally?
- What does this change mean for your team?
- What does this change mean for the organisation?

Group behaviour

- Did the journey inspire a change in behaviour after you got back to work?
- What kind of change? Can you give me an example of a situation in which you notice the difference before and after the journey?

- Did the behaviour change last after you came back to work? For how long? What aspects did and which didn't? Can you give me some reasons on why you think this is the case? How could you/your team/your organisation/ Better Future have helped to ensure this would have lasted?
- Did you or your team aim to facilitate a change after the program on an organisational level? Did this succeed? Why / why not ?

5. **<u>To what extent do you have the feeling that the journey gave rise to changes within your organisation?</u>**

    - Do you have the feeling that the changes made during / after the program changed something within the company strategy? Why / why not?
    - Did you notice anything that indicates that the changes from the journey 'travelled' to other parts of the organisation? E.g. senior/ executive management?
    - Do you have the feeling that the changes made during / after the program changed something within the organisation's culture?? Why / why not?
    - Do you have the feeling that the changes made during / after the program changed something within the organisation's structures? Why / why not?
    - Do you have the idea that the organisation is more purposeful because of the journey? Why / why not? In what cases / instances do you notice this?

6. **Do you have any recommendations for other people which could share valuable insights into these topics?**

Closure: Summarize most important conclusions of the interview and give the interviewee the opportunity to add, rectify or confirm something. Thank interviewee for his/her time.

Appendix C:
Guiding questions for increased comprehension and practical use of analytical framework

Systems level	Leverage point	Relevant questions to ask to organisations and teams	Relevant questions to ask to individuals
Parameters	12. Parameters	▪ What do we (want to) measure at the end of a specific time period? ▪ More specific indicators for operationalising strategic goals. ▪ What indicators define whether the strategy has been achieved? ▪ How are resources divided among different system gaols (e.g. how much money or how many people are assigned to realise the gaols)	▪ What goals do I strive after? ▪ What indicator help me define whether I achieved this goal? ▪ How much resources will I assign to my goals (.e.g. time, energy, money)
	11. The size of buffer stocks, relative to their flows	▪ How large are our incoming and outcoming (financial, human, material) resources, compared to our existing stock?	Not so relevant for individual level
	10. The structure of material stocks and flows	▪ How are our physical assets (e.g. office spaces, warehouses, logistics) designed? ▪ How do these structures impact other system behaviour (e.g. employee behaviour, resource flows). ▪ What road to our resources travel before arriving at their destination (e.g. from raw resource to customer)? ▪ Before intervening here, question the impact of these changes compared to the goal and resources needed.	
Feedbacks	9. The length of delays, relative to their rate of change	▪ What is the response time between action (something that changed) and reaction? ▪ This action or change can both be something that occurred within the team/organisation and without	

	8. The strength of negative feedback loops	▪ To what extent are specific (positive and negative) effects moderated by other factors?	
	7. The gain around driving positive feedback loops	▪ To what extent are specific (positive and negative) behaviours, internal and external events or structures reinforced by other factors?	
System structures	6. Structures of information flows (access to information)	▪ Who has access to what information? And who decides this? How is this process structured? ▪ How transparent and accessible is information for internal and external stakeholders? ▪ How can information be accessed by members inside or outside of the organisation/team? ▪ What information technologies support information exchange? ▪ What factors decide whether there are free, undisturbed flows of transparent information across the team/company?	
	5. Rules of the system	▪ How does it work around here? ▪ What are the formal and informal rules? ▪ Informs how one is expected to behave ▪ Drives employee and team behaviour within the organisation	
	4. The power to add, change and self-organise the system	▪ How are we structured? How are we designed? ▪ How are we governed? ▪ Questions about employee agency and empowerment, e.g. to what extend do employees have the freedom to realise own ideas? ▪ How are decisions made and who has a say in these? ▪ What are our decision making models? To what extent is decision making (power) shared? ▪ Also related to roles and functions within the organisation (who does what and who is entitled to what).	On individual level, this could be related to questions of agency and empowerment.

Mental models	3. Goals of the system	▪ What are we in the business in for? Why do we exist? ▪ What do we strive after? ▪ What is our ultimate goal / purpose?	Replace 'we' for 'I' in the questions on the left to related these questions to the individual.
	2. The mindset from which the system arises	▪ What do we believe in? ▪ What do we value? ▪ What do we stand for? ▪ What (behaviour) do we want to praise? ▪ What underlying assumptions guide our behaviour / practise?	
	1. The power to transcend paradigms	▪ How do we learn? Where do we get our knowledge from? ▪ How are our assumptions and believed challenged? ▪ What perspectives, mindsets or worldviews do our knowledge and beliefs arise from? ▪ Is there a different way to think about this?	
Source	0. Inner place from which we operate		▪ What traits define me? ▪ What drives my thinking and my behaviour?

Appendix D:
Examples of case-memos

Example 1: Overall themes [anonymous interviewee]:

- *Being able to let go of perfect / very high expectations self-image / ideal self.*
- *Daring to show more vulnerability to others (incl. team). Sharing weaknesses as well to team, creating space in which employees feel safe and like they van be themselves. Overall open communication created due to vulnerability and openness leader.*
- *Being oneself; authenticity; what you see is what you get; letting go of extreme high expectations of self and of others, being yourself is good enough. Others don't expect anything more of you.*

Example 2: More elaborate case memo [different interviewee]

Sentiment van faillissement / dingen die voor de reis al speelden, spelen door in werk, team work en bedrijfscultuur.

Ervaring met verander trajecten, spreekt veel over koppeling 'softe', teamgerichte kant met harde doelen en targets waarnaar concreet gewerkt kan worden. BF heeft zich voornamelijk gericht op softe kant zonder 'harde' targets, dus lastig om verandering te borgen en zich ergens echt in vast te kunnen bijten.

Erg positief over BF traject, wel m.n. gericht op samenkomen / verbinding en verbroerdering van het team. Daarvoor was het super. Ook geholpen met gezamenlijk doel rondom Waterstarters, kwartje gevallen voor iedereen over hoe schaars en belangrijk water is en wat dit betekent. Traject minder geslaagd als het doel was om volledige cultuurverandering teweeg te brengen / verandering van hele bedrijf. Verandering niet helemaal geborgd, niet tot leven gekomen in bedrijf.

[Interviewee] indicates that prior to the Journey, the company was very divided, departments and countries worked in silos rather than as one team and the company culture was characterised by an "us vs them" approach. The management team lacked a sense of team spirit and due to internal stress and eventually a bankruptcy of [company], many MT members still carried a negative emotional load from that time into the workplace, which affected both team interactions and general behaviour in the workplace.

Discussed improved collaboration between members of the ELT has been the most prominent change resulting from the BF Journey. Common experience and new way of working that was shown to them during the Journey, has positively influenced their sense of team-spirit and perception of each other → the atmosphere in the group has improved. One of the reasons for this is the vulnerability which was shown by MT members during the Journey. Helped them to connect on a deeper level and understand each other's motives and behaviours better. Keep paying attention to not losing the "Africa setting" by reminding each other of what they agreed on back then.

There is more collaboration and communication among people and departments. There is still progress to be made, though. BF is very strong in creating the right 'energy', addressing difficult questions and working towards an ideal vision. Waterstarters and the increased sense of purpose within the organisation is believed to be a direct result of the BF Journey which would not have happened without it.

Appendix E:
Example of conceptual memo

Thoughts related to interview [anonymous interviewee]:

Possibly outcome of the research, related to Theory U --> Theory U might help organisations and people (actors) to create the environment in which change is possible. Goal / focused on creating a learning organisations (that keeps on innovating and up to date / fast responding towards emerging / ongoing challenges and changes in the world, fast adapters etc).

Having an open mind, heart and will seems that this does make an important difference for enabling change; in other words, this 'way of being' may be a prerequisite for effective organisational / institutional change. It seems to take away, or help to take away, many of the barriers for organisational change as mentioned by Jones (2013)), such as disagreement about functional orientation (by having an open and honest conversation about it), fear by employers (because of the built trust) etc.

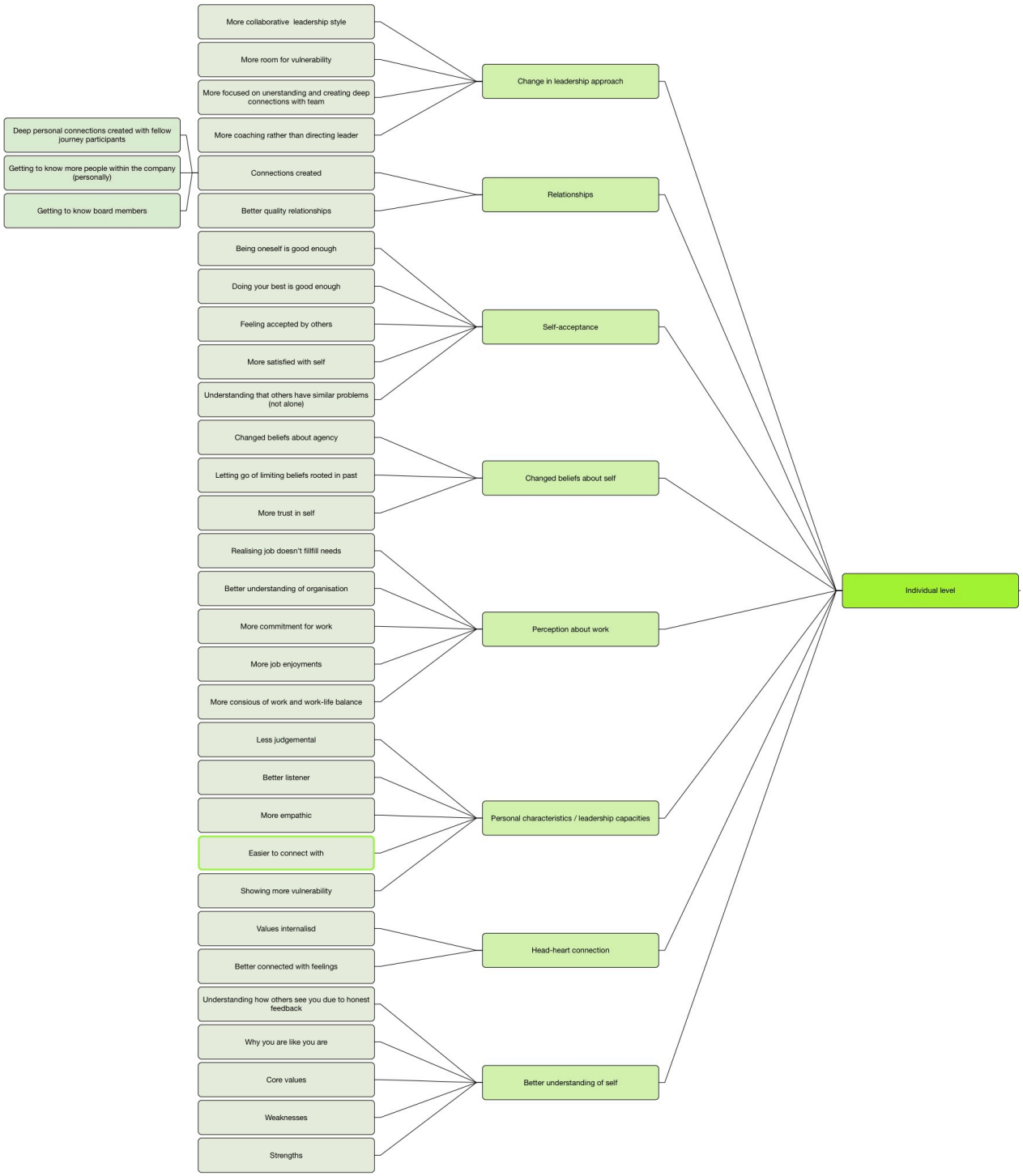
Moreover, Theory U seems to help / equip actors within a system (e.g. an organisation) to be better and more effective collaborators, by taking away many of the barriers that may create distance / separation between people [judgement, dishonesty, lack of compassion etc] --> by creating / facilitating deep personal and emotional connections between people, there's a better environment for effective collaboration and thus for effective change.

However, this all doesn't necessarily mean that effective change will occur or be successful --> whereas the environment may be right or more suitable than before, and actors may be more prone to change / to collaborate in change efforts, this doesn't not directly cause transformative change to happen (from itself) . Next to systems actors, the syit is the system's structure which in the end should be revised as well for the systems to act / work in a different directs , i.e. transform / transition. For this, more is necessary than 'mere' willingness to change. I also requires a clear / good system's insight as well as knowledge and a plan to make the change a reality.

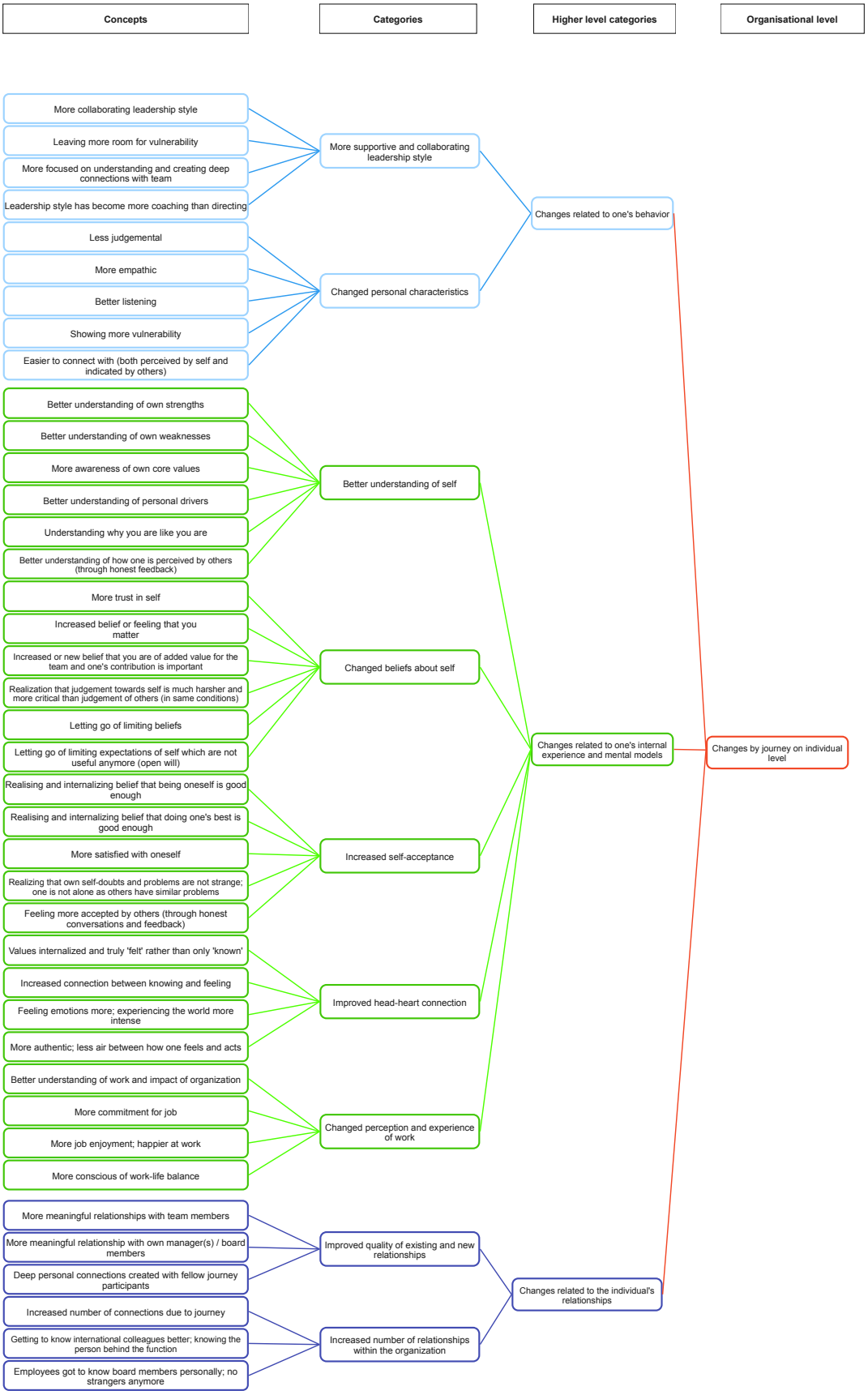
--> n.a.v. chat Brian: There's a chance in the system's actors, but not always / necessarily in the system's structures. Both are needed for true systemic change.

Also in terms of thesis direction --> possible shift it towards the role of Theory U in change management literature and practice / role and application of Theory U within systems change / systems leadership / manging systems change in complexity

Appendix F:
Early coding tree for changes on individual level (as example)

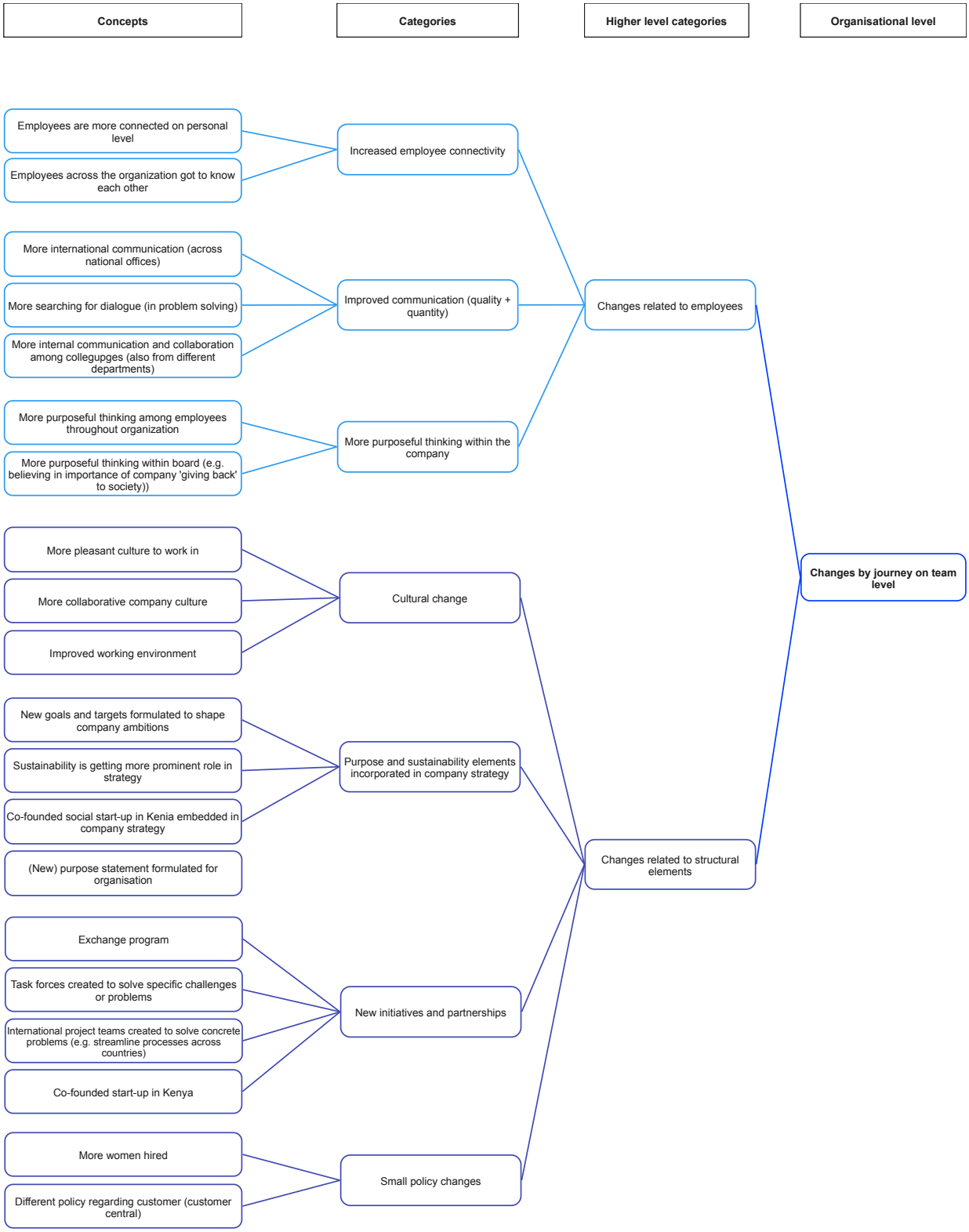


Appendix G:
Changes by the Better Future Journey on individual level

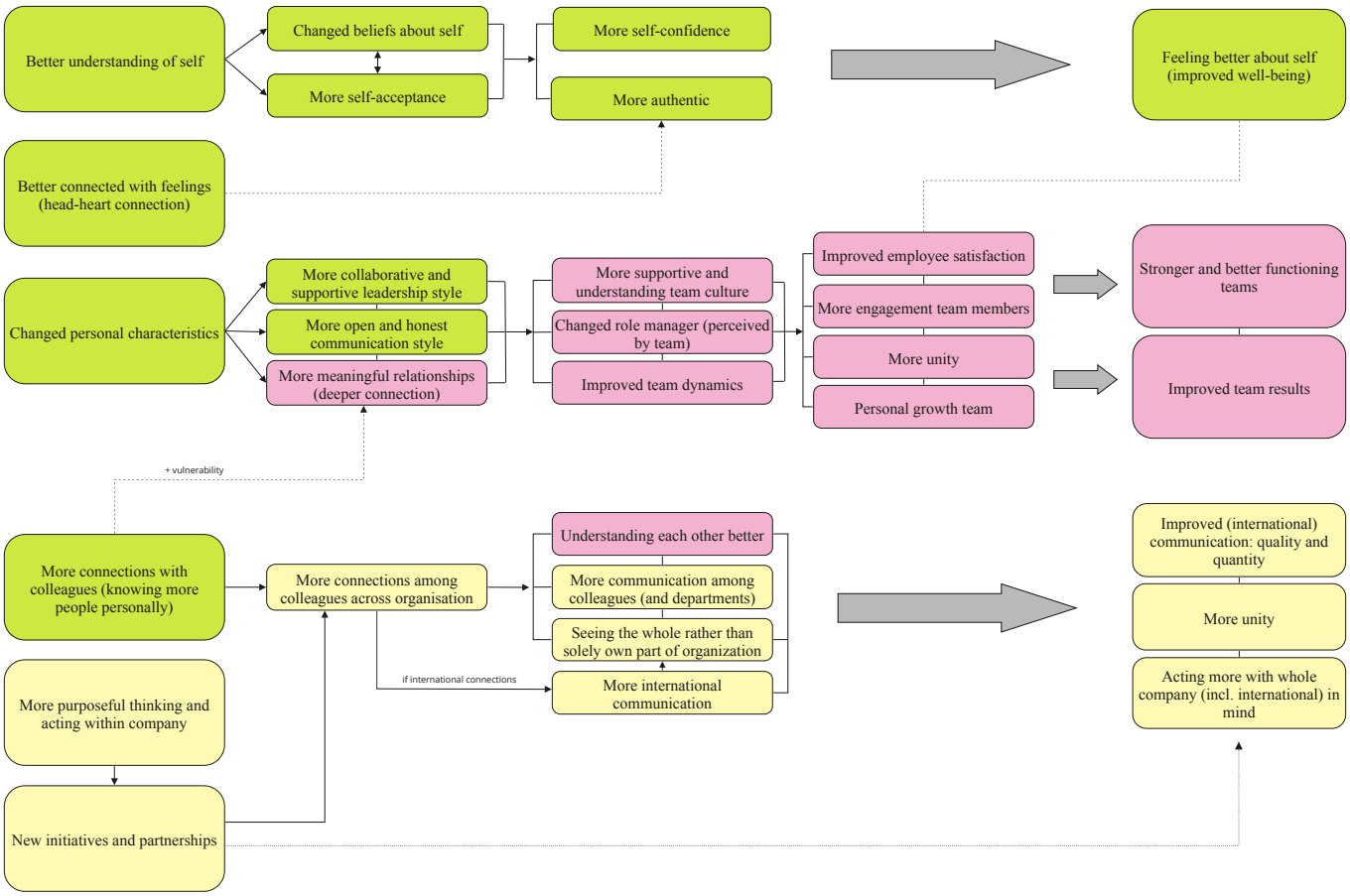


Appendix H:
Changes by the Better Future Journey on team level

Appendix I:
Changes by the Better Future Journey on whole organisational level



Appendix J:
Overview of links between most important concepts and categories



Legenda

Individual changes | Team changes | Organisational changes | Data indicated direct link | Data indicated indirect link

Appendix K: Complete overview of identified changes of Better Future Journey located in analytical framework

Systems level	Leverage point	Organisational context	Team context	Individual context
Parameters	12. Parameters	▪ New targets formulated to shape company's ambitions ▪ More woman hired (policy change) ▪ New policy regarding customer (customer central)	▪ Increased scores on employee satisfaction survey	▪ Letting go of specific targets, ambitions or expectations set for self (which are not useful or relevant for someone anymore)
	11. The size of buffer stocks, relative to their flows			
	10. The structure of material stocks and flows	▪ Improved working environment (some physical changes in e.g. meeting rooms and canteen)		
Feedbacks	9. The length of delays, relative to their rate of change			
	8. The strength of negative feedback loops	▪ Employees are more connected on a personal level ▪ Employees across the organisation got to know each other (while previously being strangers) ▪ More international communication ▪ More searching for dialogue	▪ Improved collaboration among team members ▪ Improved MT collaboration ▪ More open communication within team ▪ Improved relationships among team members ▪ More mutual respect among colleagues ▪ Shared history and experiences have created team connection ▪ Improved personal connections between the global board and national managers	▪ Improved quality relationships ▪ Increased number of relationships within the organisation
	7. The gain around driving positive feedback loops			

			▪ Better understanding of each other ▪ More harmony within the team ▪ More personal connection between board members ▪ More internal communication and collaboration (across offices and departments)	
System structures	6. Structures of information flows (access to information)	▪ Introduction of employee exchange program		
	5. Rules of the system	Small cultural changes: ▪ Overall more pleasant culture to work in ▪ More collaborative company culture	More supportive and understanding team culture, (mostly because of changed team dynamics): ▪ Team members listen better to others (and employees feel more heard) ▪ More solidary towards each other ▪ Team members search for dialogue more often ▪ More understanding towards each other ▪ Team members dare to be vulnerable within team ▪ Employees feel safe in team, leading to more open communication among members ▪ Employees dare to give honest feedback	
	4. The power to add, change and self-organise the system	▪ Introduction of employee exchange program ▪ Task-forces created to solve specific challenges (in which employees can generate small changes in e.g. business processes)	▪ More opportunities for employees to develop themselves through experimental learning (in task-forces or co-creation projects)	Change in management style, which is better suited to empower team members: ▪ More collaborating leadership style ▪ Leaving more room for vulnerability in leadership style

		▪ International project teams created to solve concrete problems (e.g. streamline processes across countries) ▪ Co-founded start-up in Kenya		▪ More focused on understanding and creating deep connections with team (needed to empower them) ▪ More coaching than directing leadership style
Mental models	3. Goals of the system	▪ Sustainability is getting more prominent role in company strategy ▪ Co-founded social start-up embedded in company strategy (separate pillar) ▪ (New) purpose statement formulated for organisation	▪ Having a common goal due to journey	▪ Letting go of specific targets, ambitions or expectations set for self (which are not useful or relevant for someone anymore)
	2. The mindset from which the system arises	▪ More purposeful thinking among employees throughout the entire organisation ▪ More purposeful thinking within board (e.g. regarding the importance of 'giving back' to society) ▪ New or altered purpose statement and/or future vision for the organisation	▪ Team thinking and doing more aligned (also counts for board) ▪ Changed beliefs regarding team members and other colleagues (e.g. from other teams)	Changed beliefs about self: ▪ More trust in self ▪ Increased believe that one matters ▪ Increased / new belief that one is of added value for the team and once contribution is important (=belief about agency) ▪ Realisation that judgement towards oneself is much harsher and more critical than judgement of others (in same condition) ▪ Letting go of some limiting beliefs Increased self-acceptance: ▪ Realising and internalising the belief that being oneself is good enough ▪ Realising and internalising belief that being oneself is good enough ▪ More satisfied with oneself ▪ Realising that one is not alone and self-doubt and problem one experience as others have similar problems (and can better accept this now about self) ▪ Feeling more accepted by others (e.g. through honest feedback and dialogues) Changed perception and feelings about work:

				▪ Better understanding of organisation and impacts of work ▪ (Leading to) more commitment for job
	1. The power to transcend paradigms			Not a (structural) change in reflective capacity, however a result of reflecting during the journey: Better understanding of self: ▪ Better understanding of own strengths; ▪ Better understanding of own weaknesses ▪ More awareness of own core values ▪ Understanding why you are the way you are ▪ Better understanding of how one is perceived by others
Source	0. Inner place from which we operate			Changed personal characteristics: ▪ Less judgemental (open mind) ▪ More empathic (open heart) ▪ Better listener ▪ Showing more vulnerability ▪ Easier to connect to Improved head-heart connection: ▪ Values internalised and truly 'felt' rather than only known rationally ▪ Increased connection between knowing and feeling ▪ "Feeling more"; experiencing the world more intensely ▪ More authentic: less air between how one feels and acts

Appendix L: Elaboration on changes which did not occur and no-data points

Theoretical concepts		Changes which were not identified in empirical data		
System level	**Leverage point**	**Organisational context**	**Team context**	**Individual context**
Parameters	12. Parameters	Insufficient changes in key performance indicators (KPIs), incentive structures or monetary rewards (e.g. bonuses), criteria to define organisational success etc.	Besides and increased employee satisfaction score, there were no indications from data that team that there were changes in team performance indicators, rewards or incentive structures, standards, success criteria for the team etc. Although these topics were not elaborately discussed in detail and not refused, there were strong indicators to suggest these elements did not change (e.g. interviewees indicated that they worked on the change initiatives and projects in their spare time, these efforts were unpaid, people mentioned internal motivation as reason for their commitment for the change project and team managers were said to discourage working on these change project too much, which implies that these efforts were not included in the team KPIs or success factors)	
	11. The size of buffer stocks, relative to their flows	No data	No data	
	10. The structure of material stocks and flows	No changes in physical infrastructure used by the organisation (e.g. roads or railways) + the structure, organisation and physical design of warehouses, distribution networks, transportation assets etc. This was not a question included in the interview guide, however distribution and logistics topics had been discussed during several interviews. Radical changes in this category would have been mentioned at these moments if they had occurred.		

Feedbacks	9. The length of delays, relative to their rate of. change	Insufficient data to draw conclusions about the adaptive capacity of the organisation.	Insufficient data to draw conclusions about the adaptive or innovative capacity of the team, response rate to change or event in the environment.	Insufficient data to draw conclusions of the adaptive capacity / flexibility of an individual (agility); How fast does a person react and adapt to a change in the environment.
	8. The strength of negative feedback loops			
	7. The gain around driving positive feedback loops			
System structures	6. Structures of information flows (access to information)	No changes in additional organisational structures which enable actors to access relevant information for optimally contributing to the system e.g. knowledge management systems, (digital) information infrastructures & technologies. No data regarding power structures which play a role in deciding who knows / shares what information with whom.	Although there has been little explicit data collected regarding this LP on team-level, data did indicate that the information and knowledge management structures were not in place on organisational level. Changes in additional team structures which enable actors to access relevant information for optimally contributing to the system e.g. knowledge management systems, (digital) information infrastructures & technologies and power structures which play a role in deciding who knows / shares what information with whom.	
	5. Rules of the system	Interviewees provided indications that there was no change in formal and informal reward systems (e.g. appreciation or praise for specific behaviour) or structures aimed to motivate employees (see parameters on this point) and performance management systems.	Interviewees provided indications that there was no change in formal and informal reward systems (e.g. appreciation or praise for specific behaviour) or structures aimed to motivate employees (see parameters on this point) and performance management systems on team-levels.	No data. Unclear if rules one decides to live by have changed

	4. The power to add, change and self-organise the system	No changes related to organisational structure (e.g hierarchical, hybrid or networked organisation), division of tasks, roles and responsibilities, decision making structures and procedures, reporting structures (who needs to report to whom). Further changes could be made to the (re)structure of working groups and departments (e.g. departments structured based on functional expertise vs. based on problem); structures to enable employees to work on own projects or projects of choice and structures to enable co-creation and innovation (e.g innovation labs or teams).	No changes regarding roles, tasks and responsibilities of team members (e.g. shared decision making vs. one leader makes decisions, self-organising team vs. one leader is in charge of the way the team operates).	
		No explicit data to conclude whether there was any (re)division of power.	No explicit data to conclude whether there was any (re)division of power.	
Mental models	3. Goals of the system		Relevant changes occurred, however, unclear if this was operationalized in team strategy or annual plan.	.
	2. The mindset from which the system arises		Relevant changes occurred, however unclear whether this is expressed explicitly in e.g. a team value statement or code of conduct by team members)	
	1. The power to transcend paradigms	There were no changes which affect the reflective capacity of the organisation.	There were no which affect the reflective capacity of the team.	
Source	0. Inner place from which we operate			

Note. Dark red colours represent changes of which data explicitly indicated that they did not occur in the studied organisations. Lighter red shadea represent changes of which data did not explicitly indicate that they had not occurred, however, there were strong indications that these elements hadn't changed in that system. Where no data or insufficient data was gathered, this is indicated in the table. Categories about which no conclusions were drawn in terms of changes which did not occur, are left blanc**.**