

# Step-by-step approach to implement corporate sustainability

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## Abbreviation list

Abbreviation	Meaning	Description
BoD	Board of Directors	
CEO	Chief Executive Officer	
CFO	Chief Financial Officer	
CSO	Chief Sales Officer	
DIY	Do It Yourself	Mostly used in regard of the Do It Yourself stores, this is one of the customers
FBG	Family Business Group	Collection of legally independent firms that are connected by economic links (such as ownership, financial, and commercial) and social ties (such as family, kinship and friendship) that lead to operational links. (Bru, n.d.; García-Canal & Guillén, n.d.; Smelser & Swedberg, 2005)
GEC	Group Executive Committee	Top management of the case company consisting of the Chief Executive Officer (CEO), Chief Financial Officer (CFO), Chief Sales Officer (CSO), Managing Director Competence Centre Comfo Systems, Managing Director Competence Centre Radiators EMEA, Head Group Human Resource Management and Chief Sustainability Officer (CSO)
GRI	Global Reporting Initiative	An international, multi-stakeholder and independent non-profit organization that promotes economic, environmental and social sustainability. ( <i>Global Reporting Initiative (GRI)</i> , 2021)
HVAC	Heating Ventilation and Air Conditioning	This is the industry which is in scope of the
ICSS	Implementing Corporate Sustainability Successfully	Abbreviation made to refer to the Implementing Corporate Sustainability Successfully model made by TWijlens
ITBM	Integrated Theory Business Model	Research method that been used in Kantabutra's and Ketprapakorn's research (2020)
MBU	Marketing Business Unit	Part of the business including the procurement-, sales- and marketing department
MCS	Management Control System	A system that can support the strategy implementation (Ahrens & Chapman, 2005; Kober et al., 2007)
NGO	Non-Governmental Organization	
PBU	Production Business Unit	Part of the business including the production-, logistics- and manufacturing engineering department
SBMI	Sustainable Business Model Innovation	
SCS	Sustainability Control System	A system that can contribute to a successful integration of sustainability in combination with MCS (Ahrens & Chapman, 2005; Kober et al., 2007)
SDG	Sustainability Development Goals	

SMIRC	Senior Manager Investor Relations & Communication	
SSC	Shared Service Centre	Part of the business including ICT- and human resources department
SSIM	Sustainability Strategy Implementation Model	Abbreviation made during theoretical analysis
EMEA	Europe, Middle East, and Africa	Geopolitical region encompassing these continents and areas

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Enjoy reading my master thesis.

Best regards,

Tessa Wijlens

## Management Summary

To determine the next steps of a business, either to start one or to continue with an existing business, the goals, visions, missions, and business purposes are questioned. All to determine if the business could be a surviving or, some say, become a successful business. This activity of determining, predicting, and shaping the future continues after launch but it is then called a strategy. Research has shown that in the process of strategizing, the implementation of a strategy remains the most challenging step (Hrebiniak, 2006; Mazzola & Kellermanns, 2010). Authors even estimated a failure rate between 30 and 70 percent when implementing a strategy (Cândido & Santos, 2015, 2018). Cândido and Santos (2018) argue that the obstacles in strategy implementation are strongly interrelated, and these obstacles can lead to and reinforce other obstacles.

The implementation of corporate sustainability strategy seems to be even more complex. Businesses have become more aware of the environmental and social conditions within companies, people, and societies. Moreover, the introduction of the Sustainable Development Goals (SDG's) from the United Nations in 2015 are pushing companies to contribute to sustainable development (Tsalis et al., 2020). In business an increase of the amount and quality of sustainability reports published can be seen (Kolk, 2004; Rudyanto & Veronica Siregar, 2018). Despite the reports, implementing a sustainability strategy into action turns out to be a difficult task (Aaltonen & Ikävalko, 2002; Cândido & Santos, 2015, 2018). Albers Mohrman and (Rami) Shani (2011) as well as Buller and McEvoy (2016) argue that the implementation of sustainability practices is highly complex due to the interdependencies with the world and local ecosystems but also because of the dynamic process of creating and aligning processes within the company. Engert et al. (2016) support the complexity of integrating corporate sustainability, arguing that companies' boundaries should be on one hand relaxed while actively integrating the organizational environment. Moreover, complexities to implement sustainability are fore seen in organizational structure, and information and communication methods (Engert et al, 2016). Furthermore, embedding sustainability in a business demands new thinking and unorthodox solutions (Laszlo & Zhexembayeva, 2011b). Therefore, the implementation of sustainability practices entails some additional complexities.

To make a start with defining a systematic approach to successfully implement a corporate sustainability strategy, this research is conducted in the context of the case company. The case company has been through multiple evolutions within the past decades as a family firm. The case company is active in the Heating Ventilation and Air Conditioning Industry (HVAC). And consists of around 50 decentral organized sub-companies that are focused on innovation, production, distribution, support, trade and/or after sales service of their products. The production takes place in 16 manufacturing plants, including two in China and three in North America. Of which the sales activities are spanning over

more than 70 countries, taking place through local sales companies and representative offices. Nowadays, the case company has around 3500 employees worldwide.

In regard of sustainability implementation in the case company. The case company does have experience in reporting. However, when the standards were updated in 2014, the case company stopped reporting. Even though, the case company does have sustainability initiatives within Human Resources, Research and Development- and Logistics departments locally it is still facing problems with implementing corporate sustainability globally. At this moment, the case company does not have a clear plan how to implement the strategy formulated from group level to their sub-companies. While stakeholder's pressure increases (see appendix 1). Therefore, this the case company is used to determine:

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*Which systematic approach can be used by the case company to successfully implement a sustainability strategy?*

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After conducting semi-structured interviews with executive members of the case company, collecting and analyzing existing systematic approaches within theory and reviewing a combined model of implementing corporate sustainability within the case company. The following systematic approach is advised to the management to implement corporate sustainability within the case company. The systematic approach is displayed in “The case company’s evolution model” (figure 1) and consists of the following 9 pieces:

1. Inner piece

Consisting of phases inform, activate, innovate, and transform shown above the two red arrows in the globe/circle

2. Human Resource Management system

Blue dotted lines around the inner piece containing requirement selection, training and development, compensation, and performance appraisal

3. Output

Blue boxes underneath the ‘inner piece’- part of the model showing ‘output’ and ‘corporate sustainability performance’

4. Feedback loop

Line coming from 'corporate sustainability performance' to 'human and financial resources' consisting of success stories, financial benefit, and opportunities to improve.

5. Human and financial resources

Box in front of the 'inner piece'-part of the model and place where the information of the feedback loop is used as input

6. Create common understanding (at top-management)

Box in front of the 'human and financial resources'-box

7. External developments

Layer around the case company's own activities consisting of 'partnerships' and 'stakeholders' to display the external developments. The interaction between the external developments and the case company is displayed with the blue arrows between the layers.

8. Practices of Success

Box on the right side of the 'inner piece'-part of the model showing five practices of success to implement corporate sustainability. The five are: perseverance (1); resilience development (2); moderation (3); geosocial development (4) and sharing (5).

9. Context factors

Box below the 'output'-part of the model. Showing six factors that are of relevance while executing the case company evolution model. The six factors are: commitment (1); engagement (2); information (3); communication (4); trust (5) and transparency (6).

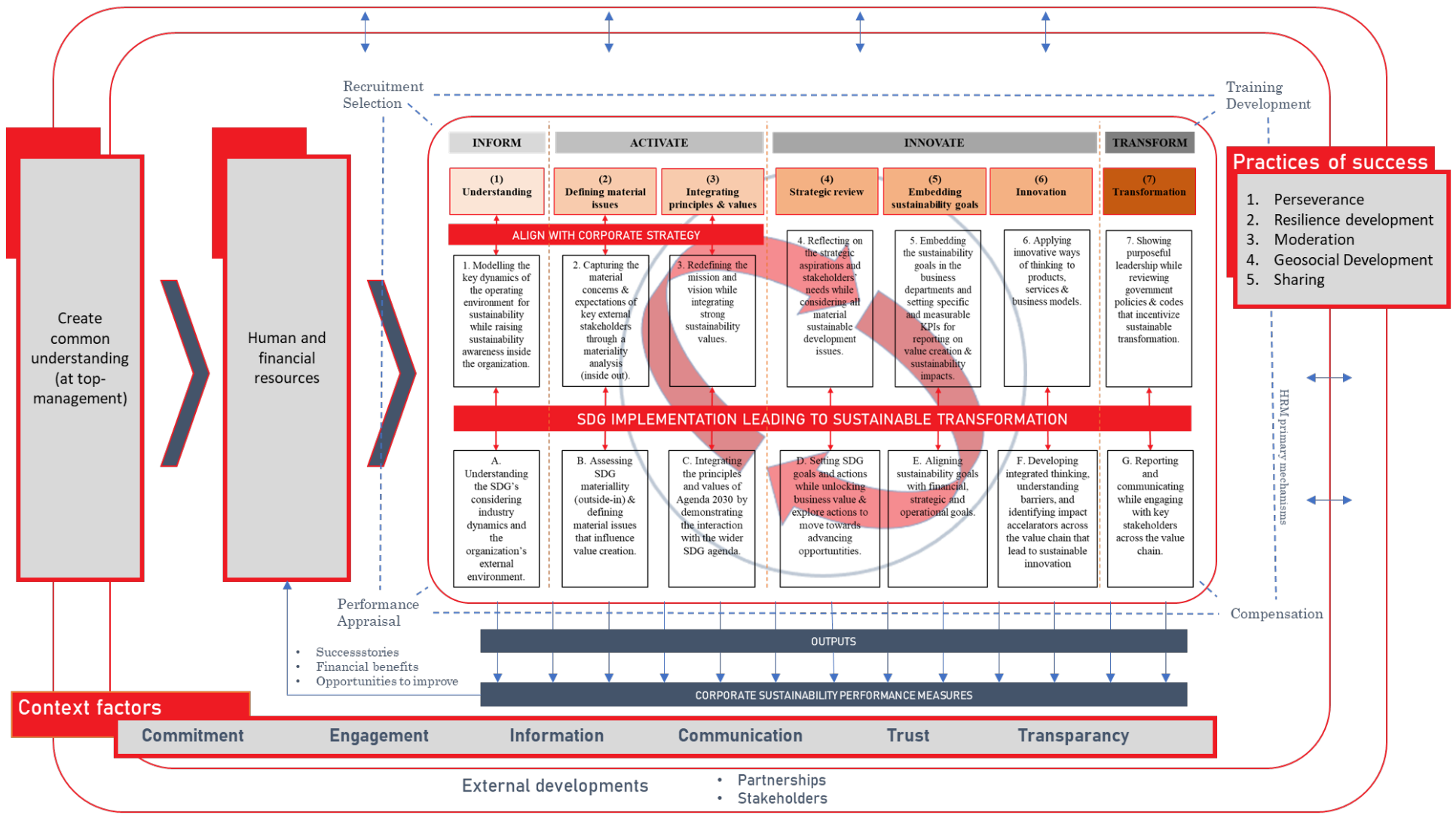


Figure 1 - The Case Company's evolution model



This case company's evolution model (figure 1) can be used as guide for top-management to implement corporate sustainability within their companies. The model advises top management to:

- Use the steps repeatedly within different business units
- Create common understanding in regard of sustainability at top management
- Provide local companies with the key dynamics, material concerns, mission, vision and purpose of the case company (the first 3 steps of the 'inner piece'-part of the model)
- Ensure that step 4, 5, 6 and 7 from the 'inner piece'-part of the model are executed for every business unit/department separately. Depending on the type of business model

Since the case company preferred the model to become even more specific. Figure 1 is supplemented with two 'match winning points' displayed as 'waves of impact' (figure 2 and 3) to provide the case company with a more detailed version of figure 1. These two 'waves of impact' do not make the case company's evolution model redundant. The two 'waves of impact' are meant as supplementing guideline which are both in line with the actions displayed in the case company's evolution model (figure 1).

## Wave of Creating common understanding

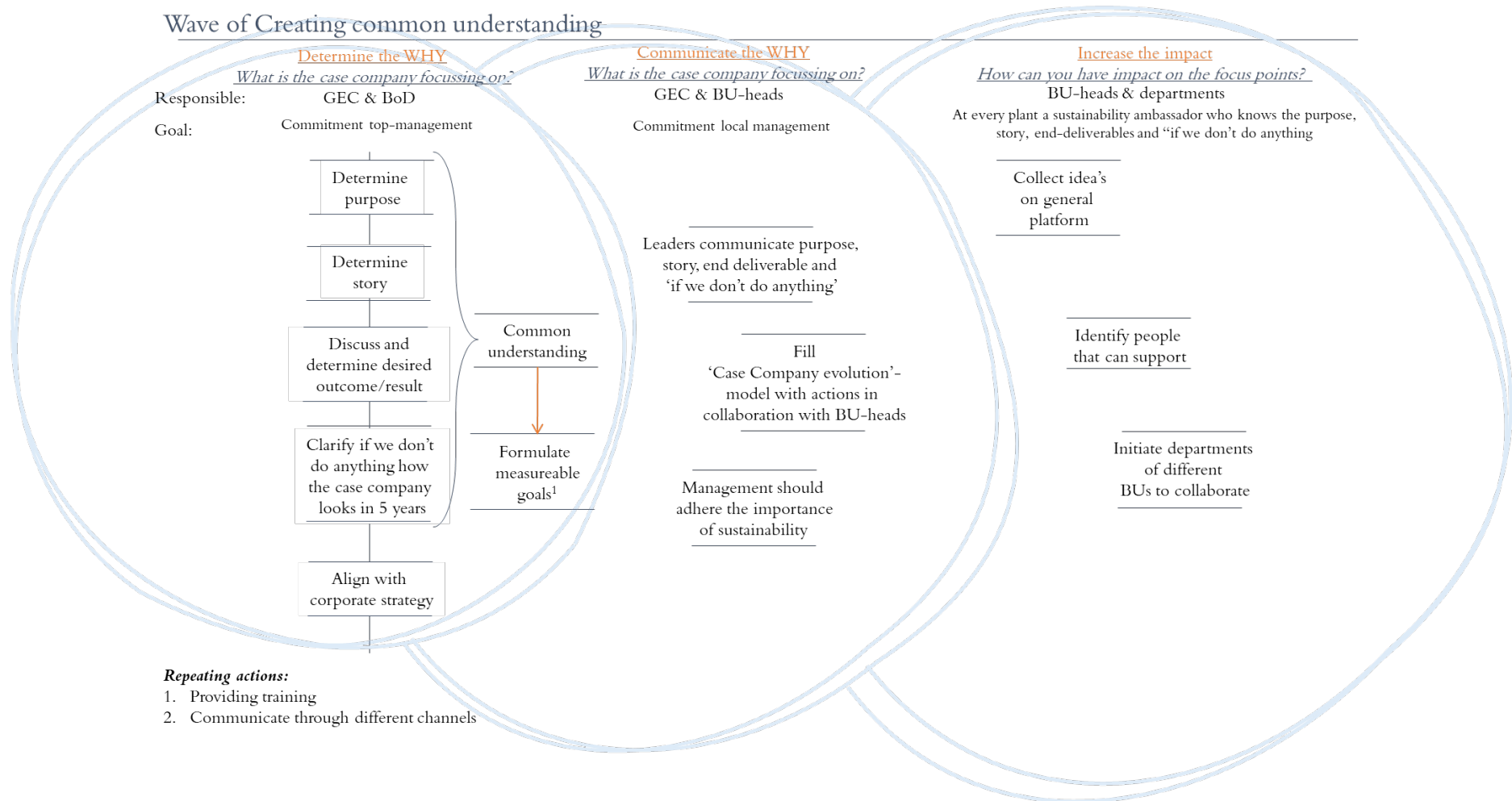


Figure 2 - Wave of creating common understanding

## Wave of Measuring system

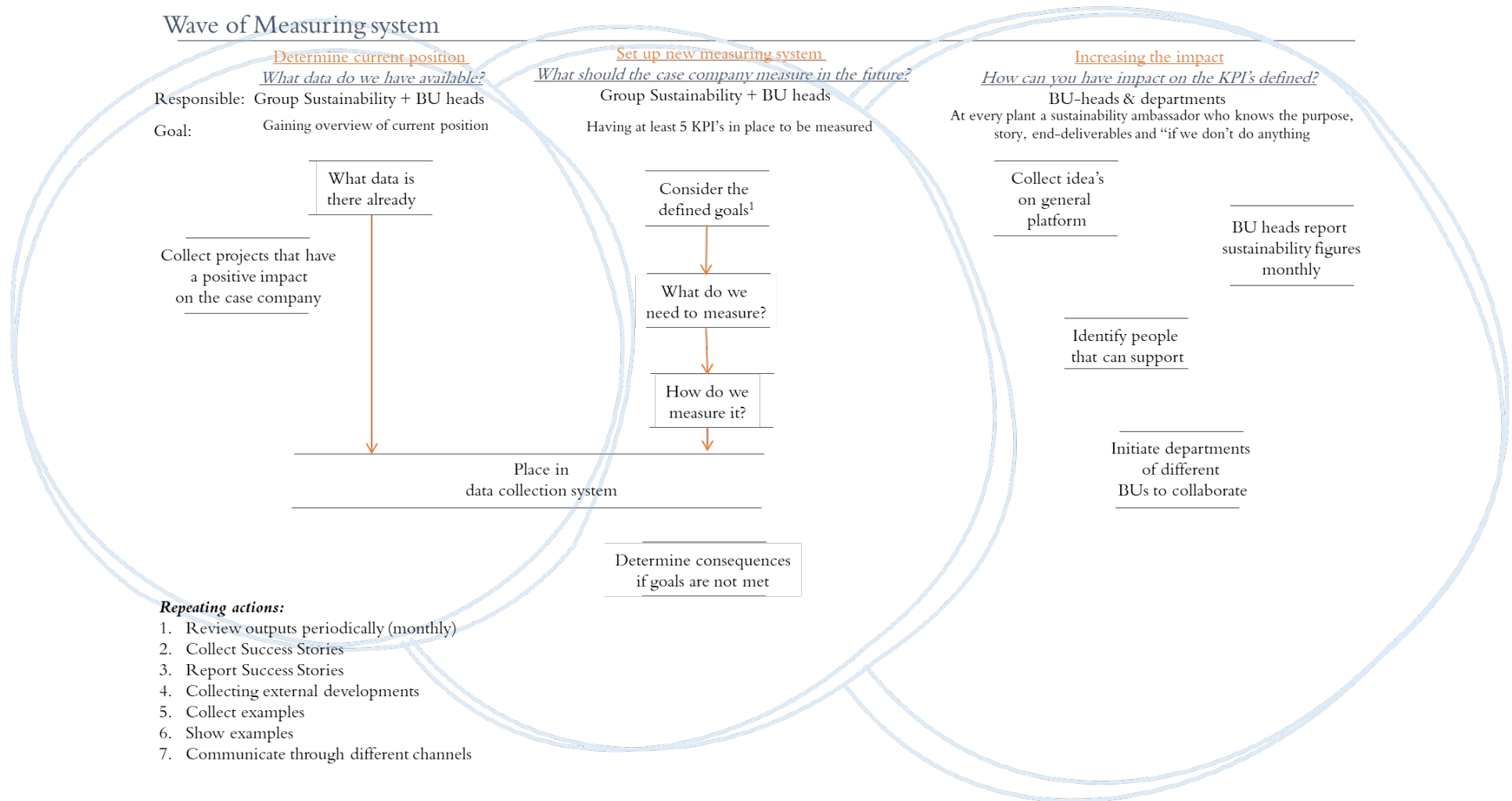


Figure 3 - Wave of measuring system

## Abstract

To fill in a gap in the sustainability strategy implementation literature, the present study proposes an integrated theoretical model for corporate sustainability (CS). A review of sustainability strategy integration literature and existing implementation models provides the background to develop an integrated theoretical model called “Implementing Corporate Sustainability successfully”. A qualitative case study with board- and executive members led to adjustments of the theoretical model. Resulting in ‘the case company’s evolution model’ highlighting nine parts and two ‘waves of impact’ of the corporate sustainability implementation process suggested to the case company. Practical- and managerial implications and suggestions of future research are also discussed.

### *Keywords:*

Corporate sustainability; implementing sustainability; sustainability strategy; implementation; case study; strategic management; strategy execution

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## 1. Introduction

Before a business is launched, goals, visions, missions, and business purposes are questioned. All to determine if the business could be a surviving or, some say, become a successful business. This activity of determining, predicting, and shaping the future continues after launch but it is then called a strategy. Research has shown that in the process of strategizing, the implementation of a strategy remains the most challenging step (Hrebiniak, 2006; Mazzola & Kellermanns, 2010). Authors even estimated a failure rate between 30 and 70 percent when implementing a strategy (Cândido & Santos, 2015, 2018). Cândido and Santos (2018) argue that the obstacles in strategy implementation are strongly interrelated, and these obstacles can lead to and reinforce other obstacles. Problems that arise while implementing a strategy are for instance: weak management roles (1), poor coordination across functions, businesses, or boarders (2) and uncontrollable environmental factors (3) (Aaltonen & Ikävalko, 2002; Beer & Eisenstat, 2000). Other obstacles are an unclear vision, inadequate information systems and lack of adequate feedback/learning that stand in the way of a successful implementation (Cândido & Santos, 2018). Hence, implementing a strategy is not as easy as it should be after defining one.

In the last decade, a new type of strategy has come to attention, namely, a sustainability strategy. Businesses have become more aware of the environmental and social conditions within companies, people, and societies. Moreover, the introduction of the Sustainable Development Goals (SDG's) from the United Nations in 2015 are pushing companies to contribute to sustainable development (Tsalis et al., 2020). In business an increase of the amount and quality of sustainability reports published can be seen (Kolk, 2004; Rudyanto & Veronica Siregar, 2018). Despite the reports, implementing a sustainability strategy into action turns out to be a difficult task (Aaltonen & Ikävalko, 2002; Cândido & Santos, 2015, 2018). Albers Mohrman and (Rami) Shani (2011) as well as Buller and McEvoy (2016) argue that the implementation of sustainability practices is highly complex due to the interdependencies with the world and local ecosystems but also because of the dynamic process of creating and aligning processes within the company. Engert et al. (2016) support the complexity of integrating corporate sustainability, arguing that companies' boundaries should be on one hand relaxed while actively integrating the organizational environment. Moreover, complexities to implement sustainability are fore seen in organizational structure, and information and communication methods (Engert et al, 2016). Furthermore, embedding sustainability in a business demands new thinking and unorthodox solutions (Laszlo & Zhexembayeva, 2011b). Therefore, the implementation of sustainability practices entails some additional complexities.

To deal with the complexity, literature shifted from the question why companies should consider sustainability issues to how companies can integrate sustainability performance measurement within their organizational systems and processes (Albers Mohrman & (Rami) Shani, 2011; Caputo et al., 2017; Maas et al., 2014, 2016). Therefore, researchers have identified success factors and methods to

realize sustainability implementation. To start with, Maon et al. (2009) identified that there are several critical success factors in the CSR process. They distinguished between corporate-, organizational- and managerial level, by which it is, for instance, important to engage participation of key stakeholders, consider mistakes and reward people that create success (Maon et al., 2009). Engert & Baumgartner (2016) defined six success factors, namely: organizational structure, management control, employee motivation and qualifications, organizational culture, leadership and communication. And mark especially the importance of internal- and external communication (Engert & Baumgartner, 2016). Laszlo and Zhexembayeva (2011a) show how companies can realize “embedded-sustainability” to increase competitive advantages and create higher value for customers and investors. Moreover, sustainability control systems (SCSs) have been developed to support organizations to integrate sustainability activities by providing a sustainability planning, environmental budgeting and sustainability performance measurement systems (Bonacchi & Rinaldi, 2007; Burritt & Schaltegger, 2001; Gond et al., 2012; Schaltegger & Wagner, 2006). Other researchers focussed on the interaction with the stakeholders while implementing sustainability strategies and developed a framework using Lewin’s force field model of change (Lewin et al., 1951; Maon et al., 2009). All with the goal to successfully implement sustainability practises.

Even though existing literature has been describing the availability of success factors and methods. There remain topics within the sustainability strategy implementation domain that need more clarification, Aaltonen and Ikävalko (2002) express the fact that little is known in the field of communicating strategies. And Bullen and McEvoy (2016) as well as Engert & Baumgartner (2016) emphasize on the knowledge gap with regard how best to implement a sustainability strategy. Additionally, Epstein and Buhovac (2010) state that the organizations top management often struggle with the challenge of how to improve sustainability performance as part of a strategy. Moreover, a lack of empirical studies on the integration of corporate sustainability into strategic management is noticed (Engert et al., 2016). As well as researchers call for research to discuss a proposed framework for designing and implementing CSR with case studies (Maon et al., 2009). At this moment there is no universal model of sustainability strategy implementation defined (Lee, 2011; Maon et al., 2009; Radomska, 2015). Therefore, this research attempts to clarify how a sustainability strategy can be successfully implemented by defining a suitable universal model. This research will be executed in the context of the case company. Hence, the objective of this study is to define a model for the case company to successfully implement a sustainability strategy.

The following research question is defined:

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*Which systematic approach can be used by the case company to successfully implement a sustainability strategy?*

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This report starts with a description of the research method in chapter 2. Followed by a description of the initial requirements of the case company in chapter 3. Chapter 4 consists of the theoretical framework. Followed by chapter 5 including the comparison of theories and the presentation of a theory-based combined model. Chapter 6 elaborates on the design thinking process with employees of the case company. Followed by combining the feedback into a priority list to adjust the theory-based model accordingly in chapter 7. Chapter 8 concludes with the discussion and conclusion of this research by describing the key findings, limitations of this research, future opportunities of research and practical implications.

## 2. Research method

The objective of this study is to define a case company specific model for the purpose of successfully implementing a sustainability strategy. To do so, qualitative empirical research is applied in the context of the case company. Paragraph 2.1 describes the research design. And paragraph 2.2 elaborates on the research context.

### 2.1 Research design

This paragraph includes a schematic overview of the method followed by a description of the theoretical and practical analysis to realize a unified model for the case company. The methodology design and the research planning including the sub-questions, data collection method, data selection method, analysis and deliverables can be found in appendix 2.

To improve our understanding, this empirical research consists of literature review, semi-structured interviews, and design thinking process to define a universal model. For support, figure 4 has been made to clarify the coherence of the sub-questions and division of chapters to serve the objective of this research to find a case company Evolution model. Figure 4 has been inspired by the Integrated Theory Building Model (ITBM) that has been used in Kantabutra's and Ketprapakorn's research (2020).

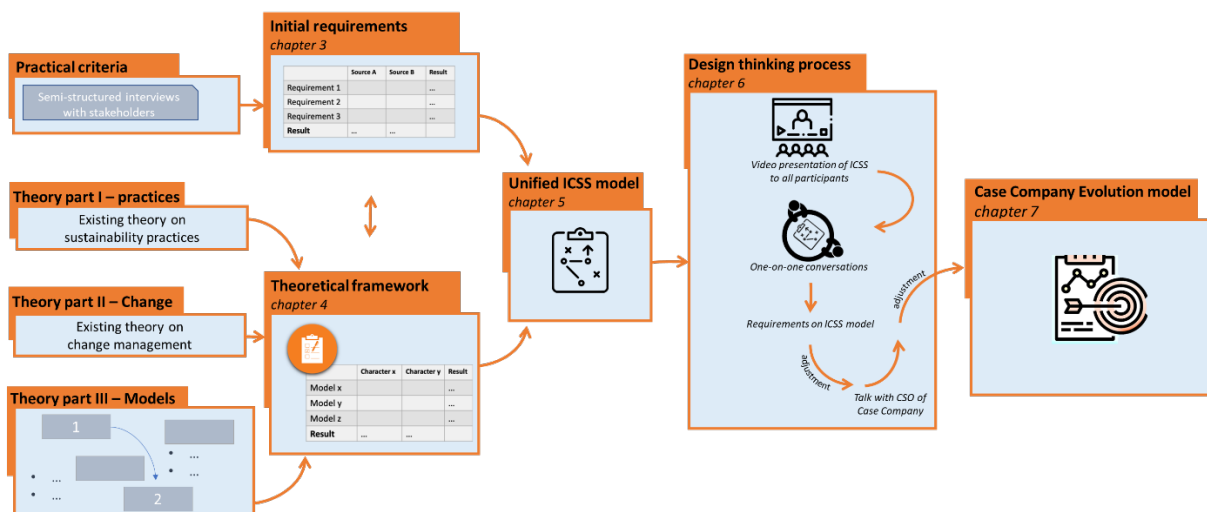


Figure 4 - Schematic overview of method (self-made)

To come to a case company Evolution model the following steps are executed (figure 4). First, practical criteria are collected with semi-structured interviews. Whereafter this raw data has been translated into initial requirements (chapter 3). Second, a literature review has been executed on sustainability practices, change management and existing sustainability strategy implementation models. Followed by a theoretical synthesis in which the theoretical models are matched with the initial requirements (chapter 4). Third, the theoretical models and requirements are combined to the unified ICSS model (chapter 5). Fourth, a design thinking process starts in which the ICSS model is presented in a video presentation to the participants followed by one-on-one conversations with participants from the case

company. This leads to suggestions of improvement of the ICSS model. The ICSS model is adjusted accordingly to the feedback and the new version has been discussed with the CSO of the case company. Fifth, the case company Evolution model is created (chapter 7). Figure 4 is based upon the following six sub-questions and the research planning including the data collection method, data selection method, analysis and deliverables can be found in appendix 2:

1. What theory on successfully managing change is existing?
2. What models to implement sustainability strategies are existing?
3. What requirements can be derived from the needs of the case company?
4. Which model could fit the requirements of the case company?
5. What needs to be adjusted to the prototype?
6. What SSIM would fit the case company's requirements?

Below the theoretical- and practical analysis is further described.

### Theoretical analysis

In further detail, to collect existing models to implement sustainability strategies, the following eight phases have been completed. The phases supplemented with the applied filter mechanisms and number of papers found are displayed in figure 5.

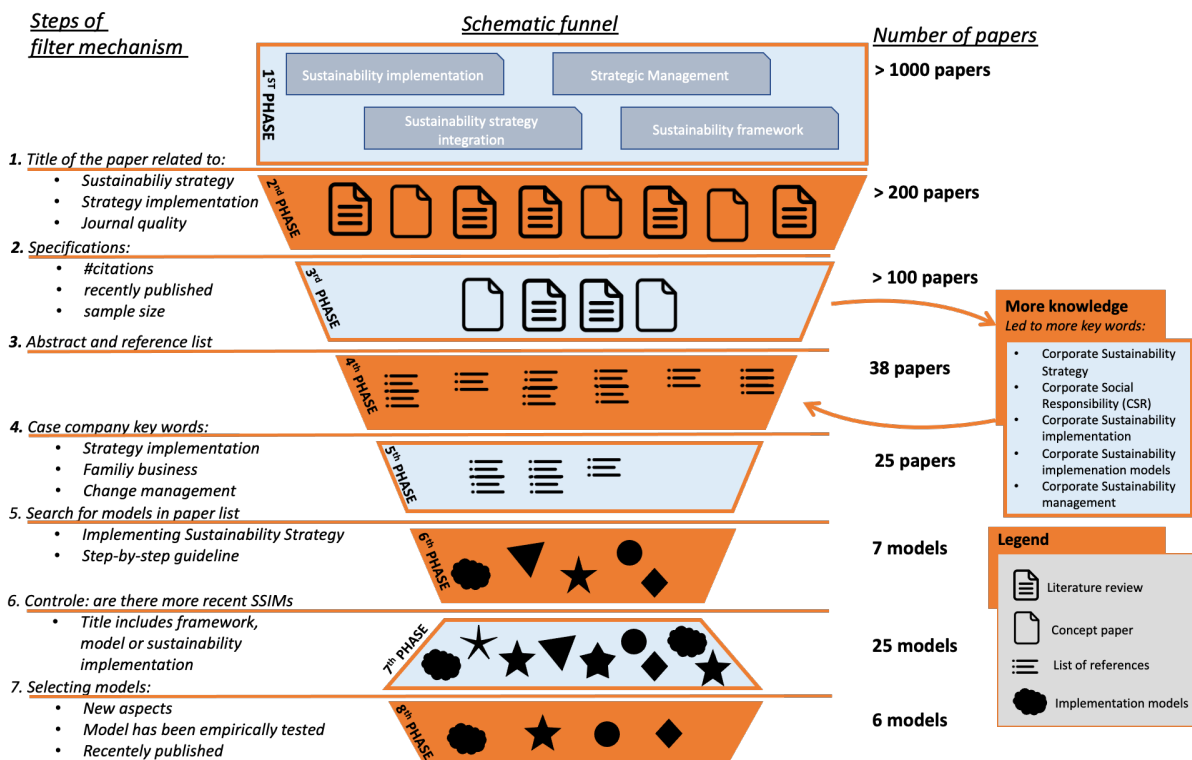


Figure 5 - Schematic funnel of theory collection

The first phase started with searching for literature reviews on Google Scholar. The search terms were ‘sustainability implementation’, ‘sustainability strategy integration’, ‘sustainability framework’ and ‘strategic management’. Resulting in over 1000 articles. After that, the first step of filter mechanism was applied by which the title of the paper should be related to ‘sustainability strategy’ and/or ‘sustainability implementation’. Moreover, the journal quality was considered to reduce the number of papers to 200-300. After that, the second step of the filter mechanism was applied, the specifications of the papers were considered. Therefore, the number of citations, publication year and sample size were used to reduce the number of papers to approximately 150 papers. Thereafter, the abstracts of the papers were read and relevant references were collected from the literature reviews. It should be noted that, while reading abstracts (in phase 2), additional knowledge was gained in regard of sustainability strategy implementation models (SSIMs). Therefore, more SSIMs are searched on Google Scholar by using the following keywords: ‘corporate sustainability strategy’, ‘corporate social responsibility (CSR)’, ‘corporate sustainability implementation’, ‘corporate sustainability implementation models’ and ‘corporate sustainability management’. This process is drawn on the right side of the schematic funnel in figure 5. This additional process led to a total of 38 papers. Where there were first only approximately 20. In the fourth step of the filter mechanism, the abstracts of the 38 papers, and sometimes, if needed, the content of the papers, was assessed on the key words given by the case company. These key words are based on the semi-structured interviews and are ‘strategy implementation’, ‘family business’ and ‘change management’. If papers did not include any of these key words, the paper was excluded. This step led to a remaining short-list of 25 papers. The short-list of 25 papers can be found in appendix 3. Followed by the fifth step of the filter mechanism, by which the papers were scanned to search for sustainability implementation frameworks, concepts or lists that imply a method to implement sustainability strategies successfully. This step led to 7 models which were significantly different from each other. Even though these models are collected by applying a systematic filter mechanism. We have chosen to add an additional “control-step” (step 6 of the filter mechanism) to increase the likelihood that the most recent models will be applied in this research. This has two reasons; one is the fact that more key words are added along the process of theory analysis. This increase the change that implementation models have been overlooked and by doing this control step we are attempting to include all factors to successfully implement sustainability strategies. Second, sustainability is a topic on which a lot of papers are published lately. Therefore, new suggestions of models could have been published in the meanwhile of this research. This step led to a total of 25 models. After which they were reduced by applying the seventh step of the filter mechanism. The 25 models were analysed based on; mentioning new topics/aspects, is the model empirically tested and is the model recently published. Based on this analysis, 6 models will be compared in the theoretical synthesis in chapter 5.

### *Practical analysis*

To ensure that the model designed fits to the needs of the case company. The practical requirements are determined. First, at the beginning of this research, by semi-structured interviews the initial requirements are collected. Second, in the design thinking process where the participants were interviewed individually to derive their feedback on the pieces of the theoretical developed model. In both cases, the five-step method from Ulrich and Eppinger (2016) has been used as guideline to process the practical insights. The five-steps that Ulrich and Eppinger (2016) suggest to identify customer needs are:

1. Gather raw data from customers
2. Interpret the raw data in terms of customer needs
3. Organize the needs into a hierarchy
4. Establish the relative importance of the needs
5. Reflect on the results and the process

Within this research the five-steps of Ulrich and Eppinger (2016) are adjusted accordingly to the raw data that was collected from the participants. Figure 6 displays how the steps from Ulrich and Eppinger (2016) are adjusted within the initial requirement collection.

	<b>First</b>	<b>Second</b>
	Beginning of research - Collection of initial requirements	Later in research - design thinking process to optimize the theoretical model
Steps of Ulrich and Eppinger (2016) to identify customer needs	<p><b>Goal</b> Derive initial requirements</p> <p><b>Method</b> Semi-Structured interviews with participants</p>	<p><b>Goal</b> Derive feedback on theoretical model</p> <p><b>Method</b> One-on-one conversations with participants</p>
<p>1. Gather raw data from customers.</p> <p>2. Interpret the raw data in terms of customer needs.</p> <p>3. Organize the needs into a hierarchy of primary, secondary, and (if necessary) tertiary needs.</p> <p>4. Establish the relative importance of the needs.</p> <p>5. Reflect on the results and the process.</p>	<p>1. Gather raw data from participants with Carroll's (2020) interview questions</p> <p>2. Interpret the raw data in terms of participant's need</p> <p>2a. Re-read the notes and flip-overs again</p> <p>2b. List the raw data as bullet points</p> <p>2c. Translate the bullet-points into interpreted need</p> <p>3. Organize the needs into a hierarchy of primary, secondary needs.</p>	<p>1. Gather raw data from participants with one-on-one conversations</p> <p>2. Interpret the raw data in terms of participant's need</p> <p>2a. Adjust theoretical model to a 'strong points' - template and 'suggestions of improvement'-template</p> <p>2b. Read single transcripts while filling out the templates</p> <p>2c. Cite several statements separately to support certain topics of discussion</p> <p>2d. Listen again to certain parts of the conversation to discover the nuances</p> <p>2e. Look into notes of the conversation to discover ideas that occurred in my head during the conversation but were not discussed</p> <p>2f. Write additional ideas (step 5) down in a separate slide</p> <p>2g. Re-read the list of 'other-points' to see if these can be grouped into one of the pieces of the model</p> <p>2h. Copy and paste the commands of the participant into the right cell of the summarizing table</p> <p>2i. Apply cross-case within analysis of the summarized table to derive the list of participant's topics of improvement (needs)</p> <p>3. Organize the needs into a hierarchy based on the nuance that is given on the topic within the conversations</p> <p>4. Establish the relative importance of the needs by the nuance that is given within the conversations</p> <p>5. Reflect on the final model and the process (included in the discussion of the thesis)</p>

Figure 6 - Steps of Ulrich and Eppinger (2016) applied within this research



As can be seen in figure 6, steps four and five of Ulrich and Eppinger (2016) are not executed in the determination of the initial requirements. This is because the initial requirements are considered by deriving theoretical models (step 4 in figure 5 schematic funnel of theory collection). Within the design thinking process, later in this research, the steps four and five are included. Step 4 is included by establishing the relative importance of the needs by the nuance that is given within the conversations and step five is included in the discussion of this thesis since step five is the reflection on the final model and the process.

#### *Collection of initial requirements*

In questioning the participants, the interview questions used by Carroll (2020) are used as basis to gain information how change of strategy is implemented into the HVAC industry. Carroll (2020) defined:

1. What does success mean for your organization?
2. What are the strategies for implementing change initiatives?
3. How do you determine when to execute change initiatives?
4. What are some of the benefits of implementing change initiatives?
5. What obstacles keep you from implementing change initiatives?
6. How do you determine if an implemented change initiative is successful?
7. What additional information would you like to share regarding your experience with change initiatives within the organization?

In advance of the questions, the context of this research is explained. Namely, the thesis goal, the research question, and the need of information from a practical point of view. Then the organizational diagram (see appendix 4) is showed to underline the complexity of implementing a strategy in our company. Followed by the question, what if you want to implement a strategy in your organization, where do you need to think of? How do you do it? Based on the insights that you had in the last years. In the interviews flip-overs were used to write down the words of the participants and clarify the answers. Additional questions were asked to gain answers on the 7 questions written above. Examples of questions that were added, are:

- What do you need if you are going to communicate an approach towards your sub-companies?
- What phases do you normally go through when you implement a strategy?
- What are important factors to keep in mind while planning to implement?
- Who are the key stakeholders to include?
- How do you collaborate with your people? Is it top-down, directive? Or more likely to be together?

The steps executed to translate the semi-structured interviews into initial requirements are:

1. Write down a summary of the conversation based on memory and flip over notes
2. Re-read the notes of the semi-structured interviews with the participants
3. Summarize the points that the participant mentions as important factors to successfully implement a (sustainability) strategy within their organization in bullet-points.
4. Cite several statements separately to emphasize the factors and or requirements
5. Copy and paste the commands of the participants into the list

These steps are (in short) displayed in figure 6 (step 2a till 2c). The list of participants can be found in appendix 5 and the notes of the conversations can be found in appendix 6. The list of primary and secondary initial requirements is described and displayed in chapter 3.

#### *Design thinking process to optimize theoretical model*

In the design thinking phase of this research, the same participants were asked to provide feedback upon the theoretical designed implementation model. To retrieve feedback, an explanation video has been made of the theoretical model followed by individual conversations from 15 till 75 minutes. These conversations are recorded and transcribed by using MS Teams software. To sort the commands, the theoretical model has been used as template followed by a cross-case within analysis of participants and pieces of the model to come to concrete improvements. The steps executed are schematically displayed in figure 6 and the outcome can be read in chapter 6.

1. Adjust theoretical model to a ‘strong points’ - template and ‘suggestions of improvement’-template
2. Read single transcripts while filling out the templates
3. Cite several statements separately to support certain topics of discussion
4. Listen again to certain parts of the conversation to discover the nuances
5. Look into notes of the conversation to discover idea’s that arose during the conversation but were not discussed
6. Write additional idea’s (step 5) down in a separate slide
7. Re-read the list of ‘other-points’ to see if these can be grouped into one of the pieces of the model
8. Copy and paste the commands of the participant into the right cell of the summarizing table
9. Apply cross-case within analysis of the summarized table to derive the list of participant’s topics of improvement (needs)

After these steps, the analysis has been shared with the Chief Sustainability Officer to show and discuss the outcome. Followed by a ranking of the topics that are considered most important to consider while

adjusting the theoretical prototype. The importance of the topics is determined based on the emphasis they received within the conversations followed by the number of times the topic has been addressed by the participants. All the topics are included within either the revised model or a step-by-step approach for the case company.

## 2.2 Context description of the case company

This paragraph introduces the case company by explaining about the origin of the company, their current challenge with implementing sustainability goals and the goal of this research. Further details on the company can be found in appendix 7 and a table of in- and out of scope topics can be found in appendix 8.

*Note:* Due to confidentiality reasons, the text below does not include references to the websites or public documents of the case company.

### *Origin of the case company*

This research will be conducted in the context of a case company. The case company has been through multiple evolutions within the past decades. Nowadays, the case company is active in the Heating Ventilation and Air Conditioning Industry (HVAC). The timeline of the case company can be found in appendix 7. The case company consists of around 50 sub-companies that are focused on innovation, production, distribution, support, trade and/or after sales service of their products (see appendix 7). The production takes place in 16 manufacturing plants, including two in China and three in North America (see appendix 7). Of which the sales activities are spanning over more than 70 countries, taking place through local sales companies and representative offices. The case company uses various sales channels, namely to installers, wholesalers, and DIY stores. In regard of distribution, the case company optimizes transport methods and ensures fast delivery times. The company has his own distributor network in core markets. After distribution, the case company supports the customer by training sessions and instructions. By which consultation from planning to maintenance is offered leading to excellent customer service. The case company employs around 3500 people worldwide. The company distinguishes between Marketing Business Units (MBU's) or Production Business Units (PBU's) while being listed on the SIX Swiss Exchange.

### *The case company's challenge to implement sustainability goals*

In regard of sustainability implementation within the company. The case company does have experience in reporting according to GRI standards between 2010 and 2014. However, when the GRI updated their standards in 2014, the case company stopped reporting. This was caused by the lack of resources in the sub-companies. In 2019, the case company noticed the attention shift towards sustainability from several stakeholders. Within an interactive session with participant I in September 2021, the following

five stakeholders were mentioned that exert pressure to change. Firstly, governmental regulations in regard of sustainability (e.g. GRI reporting and European Green deal) led to an increased pressure to adjust the business processes, measure performance and report figures. Secondly, customers are interested in the production process of the case company. On one hand, end customers are asking about the energy consumption of the case company's products. On the other hand, wholesalers are asking about sustainability aspects of the production process such as the product life cycle and the CO2 emissions per product. Thirdly, investors increasingly base their opinion on the financial analysts and rating agencies who analyze the case company's sustainability performance. Fourthly, there is scarcity of resources to produce products (e.g. steel). This results in rising costs and forces the case company to search for alternatives to produce their products by for instance using recycled or used material. Fifthly, several competitors of the company claim to be sustainable. Which motivates the case company to improve their sustainability image as well to prevent customers to change to their competitors and lose market share. In addition to these drivers that exert pressure to change, other stakeholders such as employees, NGO's and the public are also exerting pressure but are in a smaller extent present. For example, sub-companies of the case company are asking for a sustainability strategy of the Group with clear targets and measurements to base decisions. As a result of the noticed attention shift, the case company started a sustainability project by the end of 2020 and created a project team based on the Group Executive Committee (GEC) and group functions of 13 participants.

### *Research goal*

This project team has the goal to define the sustainability goals and targets by the end of 2021 in regard of sustainability topics such as product/service quality and safety; waste management; diversity and equal opportunity; employees training and development; compliance and business ethics as well as supplier management and energy consumption (see appendix 1). In addition, an external consultant was included in August 2021 to support the case company formulating their sustainability strategy. Nevertheless, the case company does not have a clear plan to implement the strategy formulated from group level to their sub-companies. The following challenges are expected when implementing the sustainability strategy within the case company. First, a shortage of capacity to manage the change. At this moment the sustainability topic is an additional task for most people but due to the Second, interest differences to change of the sub-companies caused by the country specific regulations, cultures, and mindsets in regard of sustainability. Third, it can take a while to ensure that every sub-company yearly contributes to the defined goals. Fourth, the company matured as a decentral organization by which each business unit is responsible for their own operation. Entailing that sub-companies are self-organized organizations and individually determine which projects, how much money and how much resources they allocate to the defined targets. Fifth, there is no knowledge and approach defined how to organize the implementation of sustainability targets in the company. Sixthly, there is no organizational structure in place such as a sustainability department to communicate sustainability

goals. To cope with these challenges, the case company needs guidance to implement the defined goals mentioned in the GRI report.

The goal of this research is:

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*Provide an approach for the case company to successfully implement their sustainability strategy in a short-to-mid-term time period.*

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By which it is important to state the success factors of implementation. Hence, literature and practice agree that there is an attention shift from the question why companies should consider sustainability issues to the need to be guided in the question how companies can implement sustainability strategies.

### 3. Initial requirements from the case company

This chapter describes the three steps of figure 6 to derive the initial requirements of the case company. First a description is given how the raw data is gathered from the participants. Second, the way of interpreting the raw data into participant needs is clarified. Third, the organization of interpret needs into primary and secondary needs is displayed. An overview of the participants can be found in appendix 5. The summaries of the conversations can be read in appendix 6. And the list of interpreted needs is displayed in appendix 9.

#### 1. Gather raw data from participants with Carroll's (2020) interview questions

In the first step the participants took part in semi-structured interviews in which the raw data was gathered. Within the conversations notes were taken on a flip-over, whiteboard or piece of paper. All conversations took between 15 and 45 minutes. Examples of the notes can be seen within figure 7. Where the summaries of the conversations can be found in appendix 6.



Figure 7 - Examples of taken notes within semi-structured interviews with executives

#### 2. Interpret the raw data in terms of participant's need

In the second step the summaries of the conversations with the participants were read again. To create a list of bullet points to describe the key-points of the conversation. The list of bullet points is displayed in figure 8 and 9. This is the result of step 2b from figure 2.

Level	Type of member	Initial feedback in key words
1	C-level Executive	People should fit to the values and principles of the company
		People should contain a certain skill set
		Offer workshops in which a strategy is communicated
		The sustainability strategy is cross organizational and -functional
2	C-level Executive	The organization is "as decentral as possible" and "central to the necessary extent"
		Get a "buy-in" of the people
		"All people involved think that it is their strategy"
		The benefits of the strategy need to be shown to the stakeholders
		Focus on the people who are involved
		Propose a plan of approach to start the discussion with
		The plan need to turn into action "...we need to DO it"
		Topic is made attritive to the sub-companies so that they like to contribute and are committed to the topic
		Cut the goal into phases which are reachable but challenging at the same time.
		Set realistic goals
		Cultural differences between countries can be a challenge
		Only one implementation approach would not be applicable on all business units
		Adjustments need to be made to every business unit
Find the group of "change supporters" followed by the natural and critical ones		
Sustainability implementation should have an evolutionary character not a revolution		
3	C-level Executive	Involve people to contribute
		Visualization of our vision
		Formulate SMART-goals
		Goals need to be SMART formulated
		Goals are visualized
		Goals are measurable
		Report what you have reached (so called 'success report')
		Clear strategy : o what do we want to do (1) o how do we want to do it (2) o which competences do we need in our company (3)
		Ensure that the answer "what's in it for me" is answered by the person who provides the message to change
		Initiatives and thoughts should come from peers
		Show where do we want to be in x years, but the local business units (MBU's) define the way how to go there.
		measure the sensitivity of a topic by the MBU heads to give the people the tasks where they have passion for.
		Change should be made together
People define their own way to get to the goal		
Communicate positive aspects instead of negative messages		
Different type of people are involved, so different approaches are needed		
Business Units will use different ways to come to the goal		

Figure 8 - Overview of initial requirements of the case company part 1 from 2

Level	Type of member	Initial feedback in key words
4	C-level Executive	People with the right characteristics (convinced to reach the goals and responsibility feeling)
		Realizing your goals and "... get things done".
		Find a common understanding of the strategy
		Aligning each Marketing Business Unit
5	C-level Executive	Creating ownership of a strategy by the people
		Organization structure to be matrix organization as well as 'isolated' business units
		'Learn on the fly'
		Complexity of the organization is caused by: <ul style="list-style-type: none"> <li>o Different markets</li> <li>o Existence of multiple business units</li> <li>o Value flow and tax model of Swiss company</li> </ul> Regional culture differences
6	C-level Staff	Communication advice: <ul style="list-style-type: none"> <li>o Pay attention to explaining the intention of change</li> <li>o Ensure that the strategy and strategy implementation method can be discussed</li> <li>o Be transparent</li> <li>o Repeat the message frequently</li> <li>o Ensure that production and managers have full attention to change their mindset</li> </ul> "Be Fair. Be Open. Be transparent to your people."
		Successful implementation <ul style="list-style-type: none"> <li>o Everybody can repeat the strategy</li> <li>o The results of the strategy are shown in the P&amp;L statements</li> </ul>
		Top-down and bottom-up communication
		People understand the 'why'
7	C-level (later added to the organization chart) Staff	Group level set the frame
		Group level checks if the strategy matches with the board and GEC to align focus points
		Every country should understand their stake
		Local levels have their own sub-strategy
8	Division-level Division	Find common dominators that are applicable globally
		Set up the framework on group level (globally) but in the sub strategy let it be enriched by the local requirements (law, market or customer wishes).
		Communicate incentives
		Communicate financial targets
9	Board-level Board	Business units need: <ul style="list-style-type: none"> <li>o Self-motivation</li> <li>o "Self-made" processes</li> <li>o Understand the purpose</li> <li>o People should be in the driver's seat</li> <li>o Define phases together</li> </ul>
		People should be challenged in an interdisciplinary team
		Ideas from different business units of the company should be combined
		Points from SMIRC in bullets: <ul style="list-style-type: none"> <li>• Communicate on time</li> <li>• Communicate desired information as precise as possible</li> <li>• The implementation method can be universal for all business units</li> </ul>
10	C-level Division	Points from chairman of the board of directors in bullets: <ul style="list-style-type: none"> <li>• The company is a family firm</li> <li>• The company is decentral organized</li> </ul>
		Points from Senior Manager Clean Air Solutions in bullets: <ul style="list-style-type: none"> <li>• Clear formalized goals and measures</li> <li>• Inform people regularly</li> </ul>
11	C-level Staff	Points from Strategic Business Development in bullets: <ul style="list-style-type: none"> <li>• Communicate horizontally and vertically</li> </ul>

Figure 9 - Overview of initial requirements of the case company part 2 from 2



After this step the bullet-points are translated into so called ‘interpreted need’. Figure 10 shows the first 12 ‘interpreted needs’ in combination with the bullet-points. The total list of 81 interpreted needs can be found in appendix 9.

	Initial feedback in key words (Customer Statement)	Interpreted Need
1	People should fit to the values and principles of the company	The model contains the selection of people that fit to the values and principles of the company
2	People should contain a certain skill set	The model contains the selection of people that contain a certain skill set
3	Offer workshops in which a strategy is communicated	The model offers workshops in which a strategy is communicated
4	The sustainability strategy is cross organizational and -functional	The model is organized cross organizational and -functional
5	The organization is “as decentral as possible” and “central to the necessary extent”	The model coordinates central and decentral activities
6	Get a “buy-in” of the people	The model includes creating awareness in people
7	“All people involved think that it is their strategy”	The model includes collaboration with people within the organization to derive a strategy together
8	The benefits of the strategy need to be shown to the stakeholders	The model includes a link to the stakeholders
9	Focus on the people who are involved	The model considers the people who are involved
10	Propose a plan of approach to start the discussion with	The model includes discussion of proposed plans
11	The plan need to turn into action “...we need to DO it”	The model requires to activate people (from plan to action)
12	Topic is made attritive to the sub-companies so that they like to contribute and are committed to the topic	The model attracts people from sub-companies to sustainability so that they like to contribute and are committed to the topic

Figure 10 - Piece of the analysis to interpret needs based on the bullet list of topics from the semi-structured interviews with the participants (the total table, of 81 interpreted needs can be found in appendix 9)

To translate the bullet-points into interpreted need the example of the ‘thermostat’ from Ulrich and Eppinger (2016) is applied. When defining the interpreted need the following five points are considered: express the need in terms of what the product has to do, not in terms of how it might do it (1); express the need as specifically as the raw data (2); use positive, not negative, phrasing (3); express the needs as an attribute of the product (4) and avoid the words of must and should (5) (Ulrich & Eppinger, 2016).

### 3. Organize the needs into a hierarchy of primary and secondary needs

Within step 3 of the process to identify customer needs, the interpreted needs from figure 6 (chapter 2) are organized into primary- or secondary need. The primary needs are the most general needs, while the secondary express the needs in more detail (Ulrich & Eppinger, 2016). Figure 11 displays the 81 interpreted needs in 7 primary and 71 secondary needs. There were 2 bullet-points which had the same interpreted need therefore figure 11 displays ‘only’ 78 needs instead of the 81 interpreted needs of appendix 9. A bigger image of figure 11 can be found in appendix 10.

<p>The model contains the selection of people that fit to the values and principles of the company</p>	<p>The model is adjustable to business units</p>	<p>The model includes creating awareness in people</p>	<p>The model is implying an evolutionary change instead of a revolution change</p>
<p>The model contains the selection of people that contain a certain skill set</p> <p>The model offers workshops in which a strategy is communicated</p> <p>The model includes collaboration with people within the organization to derive a strategy together</p> <p>The model includes the determination of 'change supporters'</p> <p>The model contains the selection of people with the right characteristics (convinced to reach the goals and feel responsible)</p>	<p>The model requires the local business units to define how to get at the desired goal</p> <p>The model considers the passion that Marketing Business Unit (MBU) heads have when delegating tasks</p> <p>The model leaves enough space for people to define their own way to get to the goal</p> <p>The model requires the local business units to define how to get at the desired goal</p> <p>The model aligns each Marketing Business Unit</p> <p>The model is able to be applied in a matrix organization as well as in 'isolated' business units</p> <p>The model copes with the complexity of Zehnder's different markets</p> <p>The model copes with the complexity of Zehnder's different business units</p> <p>The model copes with the complexity of Zehnder's value flow and tax model of Swiss company</p> <p>The model considers (regional) cultural differences</p> <p>The model requires to clarify the contribution of every country to the common goal</p> <p>The model requires local levels to have their own sub-strategy</p> <p>The model requires business units to be intrinsically motivated</p> <p>The model requires business units to have "self-made" processes</p> <p>The model requires business units to be in the 'driver's seat' of change</p> <p>The model requires business units to define phases in collaboration with the Group Executive Committee (GEC)</p> <p>The model requires to combine idea's from different business units of Zehnder</p> <p>The model requires to be applied in a decentral organized</p> <p>The model considers cultural differences between countries</p>	<p>The model requires to find a common understanding of the strategy</p> <p>The model considers the people who are involved</p> <p>The model requires to activate people (from plan to action)</p> <p>The model attracts people from sub-companies to sustainability so that they like to contribute and are committed to the topic</p> <p>The model includes the involvement of people to contribute</p> <p>The model considers initiatives and thoughts from peers</p> <p>The model requires to activate people to realize goals</p> <p>The model creates ownership among the people about the strategy</p> <p>The model requires that management and production employees have full attention to change their mindset</p> <p>The model ensures that everybody can repeat the strategy</p> <p>The model applies top-down and bottom-up communication</p> <p>The model requires that people understand 'why' Zehnder changes</p> <p>The model communicates incentives</p> <p>The model requires business units to understand the purpose</p>	<p>The model consists of phases</p> <p>The model requires to set realistic goals</p> <p>The model includes the visualization of Zehnder's vision</p> <p>The model requires to formulate Specific, Measurable, Attainable/Achievable, Relevant and Timely (SMART) goals</p> <p>The model includes the visualization of goals</p> <p>The model requires to set measurable goals</p> <p>The model requires to report what is reached ("success report")</p> <p>The model considers multiple stakeholders</p> <p>The model communicates positive aspects instead of negative messages</p> <p>The model adjusts along the execution of steps</p> <p>The model pays attention to explain the intention of change</p> <p>The model includes to be transparent during the change process</p> <p>The model requires to "Be Fair. Be Open. Be transparent to your people"</p> <p>The model requires to challenge people in an interdisciplinary team</p>
<p>The model requires a clear strategy (what do we want to do, how do we want to do it and which competences do we need in our company)</p>			
<p>The model clarifies what people can gain when they support the change</p> <p>The model determines where Zehnder wants to be in x years</p> <p>The model ensures that the strategy and strategy implementation method can be discussed</p> <p>The model defines common dominators that are applicable globally</p> <p>The model requires to clearly formulating goals and measures</p> <p>The model includes discussion of proposed plans</p>			
<p>The model coordinates central and decentral activities</p>			
<p>The model is organized cross organizational and -functional</p> <p>The model communicates the message (where you want to go) frequently</p>			
		<p>The model requires group level to set the frame</p>	
		<p>The model requires to be a framework on group level (globally) but is enriched by local requirements (law, market or customer wishes) in sub-strategies.</p> <p>The model requires the Group Executives Committee (GEC) to align the strategy between members (of the GEC) and the Board of Directors</p> <p>The model requires to be universal to all business units</p>	<p>The model requires to communicate on time</p> <p>The model requires to communicate desired information as precise as possible</p> <p>The model requires to be applied in a family firm</p> <p>The model requires to inform people regularly</p> <p>The model requires to communicate horizontally and vertically</p> <p>The model communicates financial targets</p> <p>The model requires that the results of the strategy are shown in the P&amp;L statements</p> <p>The model includes a link to the stakeholders</p>

Figure 11 - Primary- and secondary interpreted needs of initial requirements participants of the case company

Within the next chapter the theoretical framework is described including the comparison of six existing implementation models with the initial requirements defined in this chapter to determine the relevancy of the theoretical models.

## 4. Theoretical framework

This chapter describes the existing theory in regard of the following four topics: concept description (4.1); implementing sustainability practices (4.2), change management (4.3) and sustainability strategy implementation models (SSIMs) (4.4). The next chapter, chapter 5, compares the theoretical models of paragraph 4.4.

### 4.1 Concept description

Sustainability is defined in different ways depending on the sources. However, the most common definition is "... meeting our current needs without compromising the ability of future generations to meet their needs..." (Buller & McEvoy, 2016, p. 467). By which the terms "3P's" (Profit, Planet, People), "Triple E's" (Economics, Environment, Equity), "Triple Bottom Line" (Economic, Environmental, Social) are used to indicate the broader purpose for the sustainable firm (Buller & McEvoy, 2016; Kantabutra & Ketprapakorn, 2020). The aim of implementing business sustainability is to capture economic, environmental, and social value from core business activities and by doing that create "shared value" for society in meeting environmental and social needs (Buller & McEvoy, 2016; Laszlo & Zhexembayeva, 2011a). Hence, business sustainability goes beyond company-centric practices.

Buller and McEvoy (2016) argue that a sustainability strategy therefore should include a broader set of values (economic, environmental, and social) but also "... aligning internal strategy, structure, processes and people with this broader set of values, building effective collaborative cross-boundary networks inside the company as well as outside with suppliers, customers and other stakeholders..." (p. 469). Thus, organizations develop new and improve existing programs and policies to measure their social and environmental performance.

In literature, the term Corporate Social Responsibility (CSR) has been introduced by which organizations define their roles in society "... and adhere to social, ethical, legal and responsible standards"(Maon et al., 2009, p. 71). Maon et al. (2009) defined CSR as "... a stakeholder-oriented concept that extends beyond the organization's boundaries and is driven by an ethical understanding of the organization's responsibility for the impact of its business activities, thus, seeking in return society's acceptance of the legitimacy of the organization." (p. 72). Carroll (1999) started to trace the evolution of the CSR construct and concluded that CSR was referred more as social responsibility (SR) (Beyne, 2020).

Sheehy and Farneti (2021) reflect on the intellectual history, distinct policy objectives and policy scope of the concepts; sustainability, sustainable development and CSR. And Sheehy and Farneti (2021)

clarify that corporate sustainability (CS) has been lately used by business to clarify their sustainable practices. Based on previous research, Dyllick and Hockert's broadly accepted definition of CS is most useful (Sheehy & Farneti, 2021). Dyllick and Hockert (2002) define corporate sustainability as "meeting the needs of a firm's direct and indirect stakeholders (such as shareholders, employees, clients, pressure groups, communities, etc.), without compromising its ability to meet the needs of future stakeholder as well." (p. 11). Kantabutra and Ketprapakorn (2020) emphasize that CS is a leadership and management approach that corporations adopt to ensure that the company can "... profitably grow and at the same time realize social, environmental and economic outputs." (p. 6).

Despite the new term, corporate sustainability, Sheehy and Farneti (2021) argue that to some degree the terms sustainability, sustainable development, CSR and CS are related. They all draw attention to non-financial aspect of the business and include an element of considering the impact of the business on the natural environment (Sheehy & Farneti, 2021). They differ in terms of policy scope and policy objective (Sheehy & Farneti, 2021). CSR is focussed on the policy of environment, social and governance while considering international, national and organizational objectives. But has a narrower scope on the organization. Whereas CS is clearly focussed on the organization. Sheehy and Farneti (2021) distinguish between "strong" and "weak" level of implementing CS. By which strong implementation of CS include legal and governance structures and recognizes the planetary limits of the natural boundaries (Sheehy & Farneti, 2021). Moreover, strong corporate sustainability considers "human rights and addresses social needs" (Sheehy & Farneti, 2021, p. 11). So, corporate sustainability includes environmental concerns in industrial operations as well as improving reputation and focusing on economic success (Sheehy & Farneti, 2021). Since this research focusses on the successful implementation of sustainability strategies, we use the described definitions to guide our theoretical development.

#### 4.2 Implementing sustainability practices

Due to the complexity of implementing sustainability practices, researchers argue for different implementation approaches. Laszlo and Zhexembayeva (2011b) presented four interdependent lines of action based on experience of market leaders to guide the sustainability integration. Firstly, ensure that momentum is built in the organization by mobilizing, educating, and executing easy sustainability projects that support the existing business. So called, 'Getting the Right Start'. Secondly, the company's value chain and all other stakeholders need to be aligned on the vision of embedded sustainability. They refer to this step as 'Building the Buy-In'. Thirdly, 'Moving from Incremental to Breakthrough', contains the development of clear goals and capturing value through co-creation and innovation. Lastly, it is key to 'Stay with it', by managing learning and energy while making sustainability omnipresent but invisible in the business practice.

In addition, Gond et al. (2012) emphasize the important role of management control systems (MCSs) and sustainability control systems (SCSs) when integrating sustainability within organizations. According to Burgelman (1991) and Simons (1994), SCSs can only contribute to a successful integration of sustainability if it is not used as autonomous system but informs the MCS. MCS can support the strategy implementation by shaping actors' practices and drive organizations in the direction of sustainability (Ahrens & Chapman, 2005; Kober et al., 2007). By which the management control practices comprise the discussion of ways to realize strategies and negotiate budgets, and performance targets (Ahrens & Chapman, 2005). Kober et al., (2007) extend the research and examine the interrelationship between MCS mechanisms and strategy. They conclude that "... the interactive use of MCS mechanisms helps to facilitate a change in strategy, and that MCS mechanisms change to match a change in strategy." (p. 425). In the end, MCSs mechanisms are designed to align organizational and behavioral structures with the economic goals of organizations (Gond et al., 2012; Kober et al., 2007). In support the sustainability integration, SCS mechanisms are for instance sustainability planning; environmental budgeting and sustainability performance measurement (Bonacchi & Rinaldi, 2007; Burritt & Schaltegger, 2001; Gond et al., 2012; Schaltegger & Wagner, 2006).

### 4.3 Change management

According to Nutt (1999), managers could be successful to implement decisions when they clarify the action at the beginning, define objectives, execute an unrestricted search for solutions, and ensure that key people participate. In that sense, sustainability implementation is people dependent. By which, According to Menkhoff and Kay (2000), "... the process of changing people is probably the most challenging part of organizational change" (p. 159). According to the classical studies of Lewin et al. (1951) and Schein (1968), there are three steps in changing people (Menkhoff & Key, 2000). The first step is unfreezing, by which people recognize that the current situation is not desirable anymore and the need for change increases. Secondly, a planned attempt is made to create a future desirable state for the firm and employees (Menkhoff & Key, 2000). Lastly, the people refreeze, this occurs when the 'new' way of working is incorporated into the employees' thinking and organization's operations (Greenberg & Baron, 2011; Menkhoff & Key, 2000). This change process can also be seen as organizational learning. According to Dzhengizv (2020) organizational learning can take place in two different ways. It can take place across different teams and functions within an organization, referred to as intra-organizational. Or, in contrast, if knowledge is externally sourced such as in the case of networks, consultants, customers, or suppliers, then this learning is often referred to as inter-organizational learning (Dzhengiz, 2020; Van Wijk et al., 2008). Moreover, Dzhengiz (2020) defined, based on Nooteboom (2000), two distinct categories of learning outcomes, first and foremost, the outcome of which the capabilities, routines and organization behavior has changed, secondly, the change "... in mental modes, values and beliefs." (p. 6). Regarding the evolution to sustainable practices, Albers Mohrman and (Rami) Shani (2011) as well as Buller and McEvoy (2016) argue that

the implementation of sustainability is highly complex due to the interdependencies with the world and local ecosystems but also because dynamic process of creating and aligning processes within the company. Moreover, Cândido and Santos (2018) argue that the obstacles in strategy implementation are strongly interrelated, and these obstacles can lead to and reinforce other obstacles. Hence, people have an important role in regard of change in organizations by which their knowledge and the desired outcome as well as the intra- and inter-organizational processes are relevant. By which, it is acknowledged to be complex to successfully implement sustainability practices.

Complementary, Menkhoff and Key (2000) argue that the quality of corporate governance in combination with nepotism are key for successful or unsuccessful strategic change within family-owned SMEs. In that regard, Kao (2010) defined multiple drivers that impact the surviving succession of the family firm; the conservative orientation; the strategic and innovative practices; the transformation of tacit knowledge; identity and ownership; and management of family, firm, and wealth. These drivers can either become beneficial for the family firm or a hazard.

#### 4.4 Six theories on sustainability strategy implementation

Based on the theory filtering process, described in chapter 2. The following six models will be described and analysed on the lay-out of the model, the pieces of the model and the focus of the model. After the description, each of the models is compared with the initial requirements of the case company (Chapter 3) to determine the level of relevance. The level of relevance of the theoretical model is expressed in number of initial requirements met by the theory and in percentage in respect to the total list of interpreted initial requirements. The analysis of the each of the six models can be found in appendix 11. A larger image of the models can be found in appendix 12. And appendix 13 displays the ‘universe’-of models. Chapter 5 will continue with the comparison of the models and describes how the models complement each other within a unified theoretical model.

The six models are:

1. Epstein & Buhovac (2010) – corporate sustainability model
2. Maon et al. (2009) – integrative framework for designing and implementing CSR
3. Buller and McEvoy (2016) – line of sight model
4. Kantabutra and Ketprapakorn (2020) – integrated corporate sustainability model
5. Beyne (2020) – integrative framework for implementing the Sustainable Development Goals
6. Fonseca et al. (2021) – integrative sustainable intelligence model

##### *1. Corporate sustainability model*

The corporate sustainability model of Epstein and Buhovac (2010) is especially enhancing on the following five points: the role of various drivers (inputs and processes) in sustainability (1); the causal

relationships among the various actions that can be taken (2); the impact of these actions on sustainability performance (3); the likely reactions of the corporation's various stakeholders (4) and the potential and actual impacts on financial performance (5). By which the function of leadership, described as "...management commitment to sustainability is a core value ..." (p. 307). The lay-out of the model consists of, inputs, processes, outputs and outcomes. By which Epstein and Buhovac (2010) added feedback loops from sustainability performance, stakeholder reactions and long-term corporate financial performance to human and financial resources. Important to consider as input are the regulatory and geographical aspects, described as external context. Moreover, the business context is of relevance due to the industry sector, customers, and products. Both contexts influence the internal context, consisting of, the company's mission, -strategy, -structure and -systems. Additionally, the amount of human and financial resources allocated for the ability of sustainability practices is of significant impact. In the *processes* piece of the model, leaders need to develop suiting processes including a strategy, structure, systems, programs, and actions. These will lead to sustainability performance. Causing stakeholder reactions and finally long-term corporate financial performance. Hence, in accordance with Epstein and Buhovac (2010) sustainability strategies would be implemented and measured successfully by combining leadership, strategy, structure, as well as hard- and soft management systems.

The theory of Epstein and Buhovac (2010) supports this research by the emphasis on leadership to be important to implement corporate sustainability (CS) successfully. Their research has been tested and revised by academic and managerial studies and implementations (Epstein & Buhovac, 2010). Additionally, Epstein and Buhovac (2010) suggest performance measures for each of the components of the proposed framework. Arguing that each of the components should be associated with specific key performance indicators. Performance measures can help leaders to assess the sustainability implementation process (Epstein & Buhovac, 2010). Even though these takeaways to remember, the research of Epstein and Buhovac (2010) has not been published within the last 5 years, therefore there are currently more comprehensive models existing in the field of CS. Moreover, Epstein's and Buhovac's (2010) model is only meeting 30% of the initial requirements of the case company. In particular, the model lacks in the ability to adjust the model accordingly to the complexities of the Business Units (1); did not specifically mentioned how to communicate the strategy during the process (2) and is missing the consideration of initiatives and thoughts from peers (3). Figure 12 displays the model of Epstein and Buhovac (2010) including the takeaways, limitations, and relevancy of the theory for the case company. Followed by description and analysis of the second model, this model approaches the implementation in a more holistic way and considers for instance the continuous stakeholder dialogue and communication about commitment and performance.

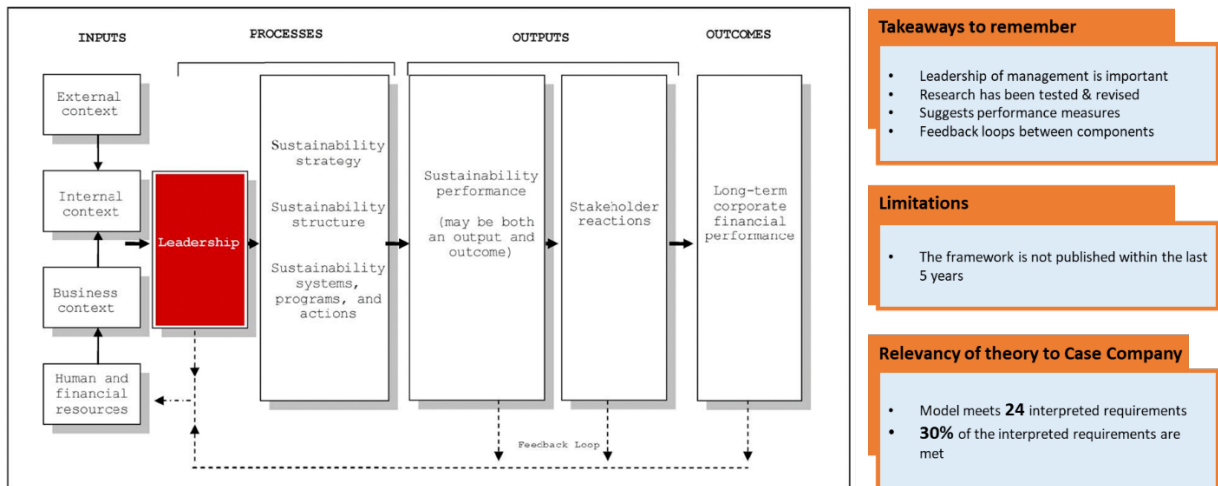


Figure 12 - Epstein and Buhovac's model of Corporate Sustainability including takeaways, limitations and relevancy of theory to the case company (Epstein & Buhovac, 2010)

## 2. Integrative framework for designing and implementing CSR

This model, proposed by Maon et al. (2009), is consisting of four stages that span nine steps. The three out of four stages are from Lewin's (1951) force field model of change. Namely, unfreezing, moving, and refreezing. The fourth stage is defined as *sensitizing*, which precedes the unfreezing stage, and contains the increase of awareness of the importance of sustainability issues at top management level. The nine steps are raising CSR awareness inside the organization (1); assessing corporate purpose in a societal content (2); establishing a vision and a working definition for CSR (3); assessing current CSR status (4); developing a CSR integrated strategic plan (5); implementing CSR-integrated strategic plan (6); communicating about CSR commitments and performance (7); evaluating CSR integrated strategies and communication (8) and institutionalizing CSR (9). During this process, a dialogue with stakeholders should be maintained. This dialogue should have a structured character that can identify and respond to expectations to address key concerns in advance (Maon et al., 2009). According to Maon et al. (2009) future improvements are driven by the continuous dialogue with stakeholders. In the article the best practice example of Philips is given in which several dialogue mechanisms are used, depending on the nature of the relationship dialogues include for instance surveys, networking practices, supplier days and meetings. Additionally, Moan et al. (2009) indicate that there are several critical success factors on corporate-, organizational- and managerial level to implement CSR. Examples of these factors are built upon existing organization structures and processes, ensure that the organization has internal skills to make the transformation, train the employees in CSR-related issues, emphasize relationships between new organizational behaviour and success, create enthusiasm and credibility around CSR (by providing regular updates on progress) as well as rewarding people that create CSR successes.

The theory of Maon et al. (2009) shows the interlinkage between Lewin's (1951) force field model of change and the successful implementation of CSR. Moreover, the model emphasizes on the continuous



stakeholder dialogue that should be maintained while changing. As well as the step-by-step approach to raise awareness till the institutionalization of CSR within organizations. Lastly, Maon et al. (2009) depicts a list of critical success factors of CSR processes. Moreover, the model is meeting more than half of the case company's initial requirements (51%) by complying with 41 interpreted requirements. Despite that, the model did not specifically mentioned the importance of the role of people by for instance selection process, development of skills or implying to collaborate interdisciplinary (1) and also lacks in the ability to adjust the model accordingly to the complexities of the Business Units (2). Moreover, the research of Maon et al. (2009) has two limitations. First, it has not been published within the last 5 years, therefore there are currently more comprehensive models existing in the field. Second, the model has been written with the goal to implement CSR where this research aims for implementing CS successfully. Figure 13 displays the model of Maon et al. (2009) including the takeaways, limitations, and relevancy of the theory for the case company. Followed by the description and analysis of the third model. The third model is particularly focussed on human resource management to implement sustainability strategies.

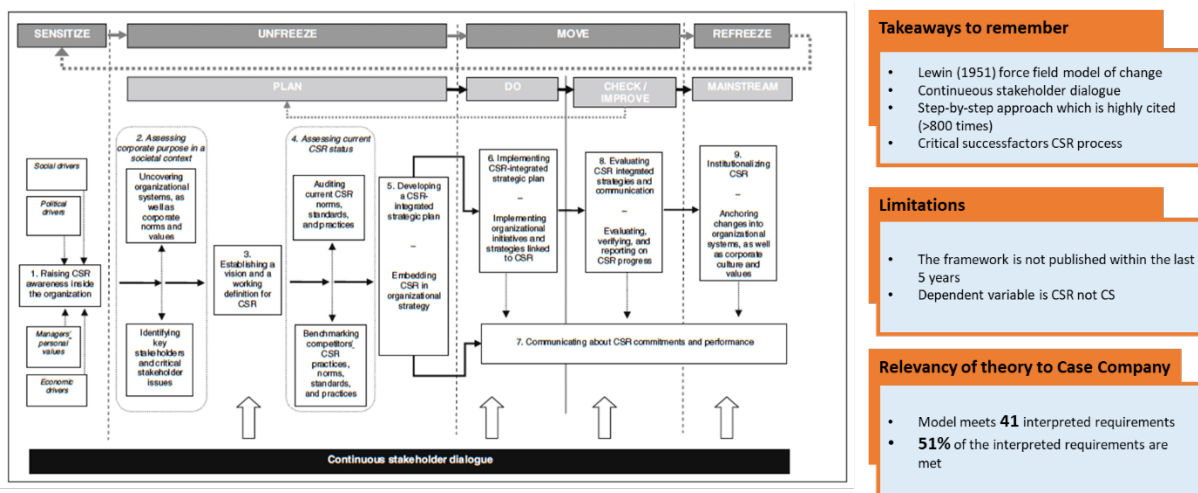


Figure 13 - Maon's Integrative framework for designing and implementing CSR including takeaways and limitations (Maon et al., 2009)

### 3. Line Of Sight Model

Within their LOS model, general systems theory is combined with a resource-based view (RBV) (Buller & McEvoy, 2016). LOS stands for Line of sight and is defined as "... the alignment of organizational capabilities and culture, group competencies and norms, and individual knowledge, skills, abilities, and other characteristics (KSAOs)." (p.473). The model consists out of multiple interconnected components in- and outside the company. The external environment includes the forces that drives the company to influence the company's sustainability strategy. At the center of the model, Buller and McEvoy (2016) distinguished three levels of analysis; organizational, group and individual level which are interacting with the human- and social capital of the company. Moreover, the HRM practices of recruitment/selection, training/development, performance appraisal and compensation are central to generate, reinforce and sustain the three levels of analysis. In the end, Buller and McEvoy (2016) argue

that the company's sustainability strategy is influenced by the external environment and long-term performance outcomes can be realized by applying HRM practices.

Buller and McEvoy's (2016) theory supports this research with their LOS model by emphasizing on the role of the HRM practices. Moreover, their model has been based on open systems theory, resource-based view, and the concept of line of sight (Buller & McEvoy, 2016). With their model feedback loops between performance and strategy are included and their research displays the capabilities and competences that are needed for the three levels of analysis. Moreover, four primary mechanisms of HRM are mentioned to maintain the three levels of analysis. The model is therefore only meeting 26% of the case company's initial requirements (51%). Which can be explained by the following three limitations, the research is limited to the HR practices and does not include financial or operational practices to implement sustainability strategies. Second, the LOS framework is made as theoretical basis for implementing a business strategy through HRM practices. Third, Buller and McEvoy (2016) are not clearly identifying if the LOS model is for CS or CSR implementation, they are only stating that this model can be used for implementing sustainability strategies. Therefore, the research of Buller and McEvoy (2016) is limited in supporting the research into successfully implementing sustainability strategies. Figure 14 displays the model of Buller and McEvoy (2016) including the takeaways, limitations, and relevancy of the theory for the case company. Followed by description and analysis of the fourth model, this model is empirically tested and considers the visualization of the case company's vision more specifically.

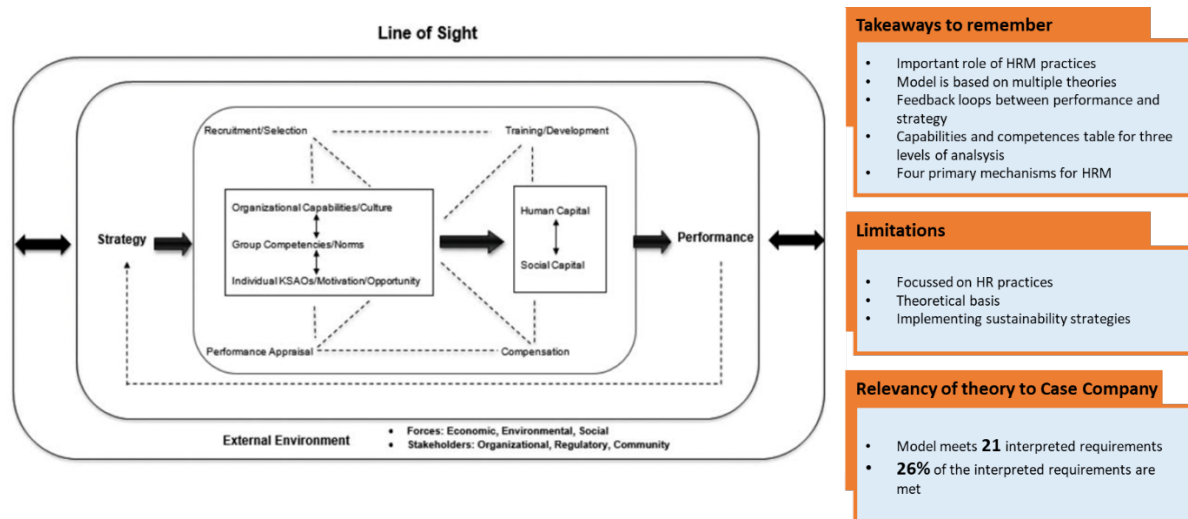


Figure 14 - Buller and McEvoy's Line of Sight model to implement sustainability strategies including takeaways and limitations (Buller and McEvoy, 2016)

#### 4. Integrated corporate sustainability model

The model of Kantabutra and Ketrapakorn (2020) is based on the combination of relevant theoretical and empirical literature. They assert that the sustainability organizational culture, comprising sustainability vision and values leads to emotional commitment of the organization. Additionally, five

corporate sustainability practices and -processes are defined to enhance corporate sustainability prospects. After the determination of the theoretical model, the theory has been tested with a qualitative case study to discover theoretical propositions and discover possible anomalies of the model. Based on this analysis, Kantabutra and Ketprapakorn (2020) found two reciprocal relationships. First between organizational culture (vision) and emotionally committed organizational members. Second, between emotionally committed organizational members and satisfied stakeholders. These relationships are added towards the initial model. Important to note, are the corporate sustainability practices and processes that Kantabutra and Ketprapakorn (2020) mentioned enhance stakeholder satisfaction by delivering Triple Bottom Line (TBL) outputs. These corporate sustainability practices are perseverance (1), resilience development (2), moderation (3), geosocial development (4) and sharing (5).

The model of Kantabutra and Ketprapakorn (2020) is contributing to this research because of three reasons. First, the theoretical model has been tested empirically. Which increases the reliability of the model. Second, the model has been published very recent and encompasses sustainability culture, creating awareness, CS practices and processes, triple bottom line outputs, stakeholder satisfaction, brand equity and corporate sustainability performance. Third, the intangible value of brand equity is expressed in reputational capital and market resilience. Hence, the model is meeting 51% of the case company's initial requirements and seemed to be of high relevance for the case company. Despite the relatively high relevancy rate, Kantabutra and Ketprapakorn (2020) mention that the model is lacking the inclusion of contextual factors that can affect the proposed relationships. These contextual factors could be "... political, economic, social, environmental, and legal ..." factors within the environment (p. 45). Second, the model is not specifying the responsibilities per department. Third, Kantabutra and Ketprapakorn (2020) do not indicate methods of measuring corporate sustainability performance but only state that these practices lead to corporate sustainability performance. Fourth, not all steps in the integrated model are described as actions only the CS practice and process part. Figure 15 displays the model of Kantabutra and Ketprapakorn (2020) including the takeaways, limitations, and relevancy of the theory for the case company. Followed by description and analysis of the fifth model, this model is implying that it is adjustable per Business Unit (1) and has been based on Maon et al. (2009) model which has been empirically tested and highly cited (2).

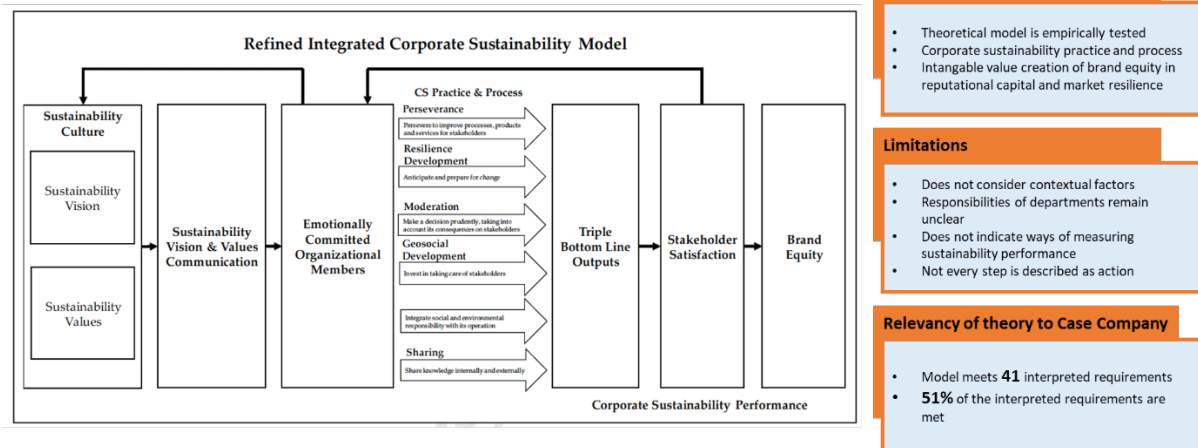


Figure 15 - Kantabutra and Ketprapakorn Refined Integrated Corporate Sustainability Model including takeaways and limitations (Kantabutra & Ketprapakorn, 2020)

### 5. Integrative framework for implementing the Sustainable Development Goals

The framework of Beyne (2020) consists of four different stages; inform, activate, innovate, and transform to implement corporate sustainability successfully. Within these stages activities regarding the implementation of corporate sustainability (1) and -Sustainable Development Goals or SDG's (2) are included. These two streams of activities are linked by arrows to indicate that the SDG's are meant to strengthen the current business sustainability strategies with global aspirations. With Beyne's (2020) framework a pathway for sustainable transformation is provided to integrate SDGs in business strategies and operations. In the literature review, Beyne (2020) compared well-known frameworks on SDG implementation such as "...SDG Compass, IR Value Creation Process, and the SDG Sector Roadmap..." (p. 4).

The model provided by Beyne (2020) is of relevance to consider within this research due to three aspects. First, Beyne (2020) used well known frameworks on SDG implementation. Second, the framework has been published very recent leading to a framework that includes recent studies. Third, the actions are step-by-step described. By including these aspects, the model scores relatively high to be of relevance for the case company. The model meets 57 of the interpreted requirements which equals 70% of all the requirements determined in chapter 3. Even though the relative high score, the model falls short on drawing "... understanding of contextual issues and critical success factors that surround organizations..." (Beyne, 2020, p. 8). Specifically, the existing tensions to SDG implementation and sustainable transformation into corporate sustainability is lacking the model. Another limitation of Beyne's model is the lack of stakeholder feedback loops. And the absence of corporate sustainability performance measurement systems. Figure 16 displays the model of Beyne (2020) including the takeaways, limitations, and relevancy of the theory for the case company. Followed by description and analysis of the sixth model, this model is implying that five context factors are essential to implement corporate sustainability success fully.

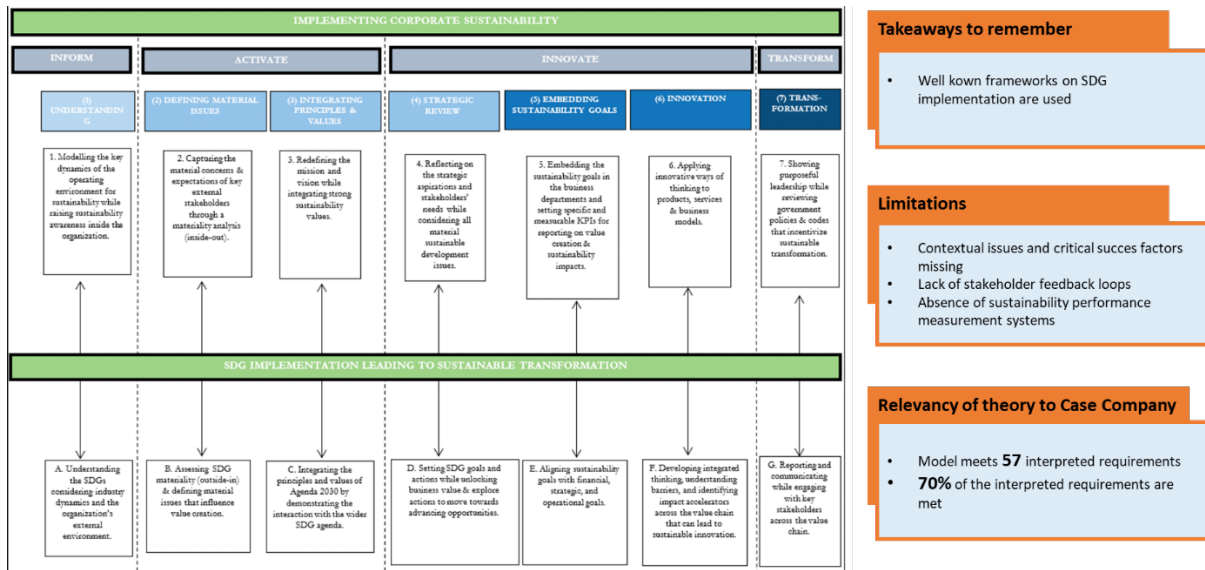


Figure 16 - Beyne's integrative framework for implementing the Sustainable Development Goals including takeaways and limitations (Beyne, 2020)

### 6. Integrative sustainable intelligence model

In the recent study of Fonseca et al. (2021) the role of context factors in the successful realization of corporate sustainability is researched. They conducted a literature review to identify 19 context factors that are relevant for the sustainability integration process. Second, quantitative exploratory research is conducted. Revealing that commitment (1), engagement (2), information (3), communication (4) and trust (5) have the highest level of perceived importance. Thereafter, the role of the context factors on the operational stages of a strategic management framework were analyzed. Based on Fonseca et al. (2021) research, the context factor commitment seems to be a key factor to influence the CS integration. Commitment is important throughout the whole process of corporate sustainability integration, including the financial and non-financial aspects. According to Fonseca et al. (2021) organizations' engagement level with CS can also be used as evidence for commitment. Engagement with CS can be measured by business strategies including non-financial issues (1), public disclosure of organizational commitments regarding different stakeholders (2) organizational contribution to the United Nation's Sustainable Development Goals (SDG's) (3) or adoption and promotion of responsible practices in the value chain (Fonseca et al., 2021). Second, adequate collection and management of information is of importance for organizations since this can provide learning opportunities and competitive advantages. When companies improve their understanding of organizational impact in the Triple Bottom Line (TBL) they are enable better adjustments and adaptation to new challenges (Fonseca et al., 2021). Therefore, information is an important context factor due to the ability to enable correct understanding of impacts and priorities. Third, engagement, this context factor implies the ability to manage relationships with stakeholders. Fourth, trust is an important intangible assets. According to Fonseca et al. (2021) organizations should be able to "... develop interactions and engagement with different stakeholders, promoting value co-creation and thus support and strength CS integration processes." (p.

9). Trust has an essential role throughout this process. Fifth, communication is an important context factor throughout all the stages of the integration of CS. According to Fonseca et al. (2021) internal and external stakeholders should be informed regularly about the change process and the results achieved. Moreover, the stakeholders should be able to express their concerns and/or arguments on sustainability-oriented projects and initiatives through communication channels (Fonseca et al., 2021).

The research of Fonseca et al. (2021) contributes to this research by the understanding of which context factors are relevant or CS integration processes as well as the functional role that context factors have in the strategic management of CS integration processes. By including these aspects, the model scores relatively high to be of relevance for the case company. The model meets 51 of the interpreted requirements which equals 63% of all the requirements determined in chapter 3. Despite that the context factors are linked to an integrative sustainable intelligence model which is meant for sustainability-oriented business models and not for integrating CS. Moreover, the model proposed by Fonseca et al. (2021) does not include alignment with SDG's. Third, the model did not include corporate sustainability performance methods. Figure 17 displays the model of Fonseca et al. (2021) including the takeaways, limitations, and relevancy of the theory for the case company.

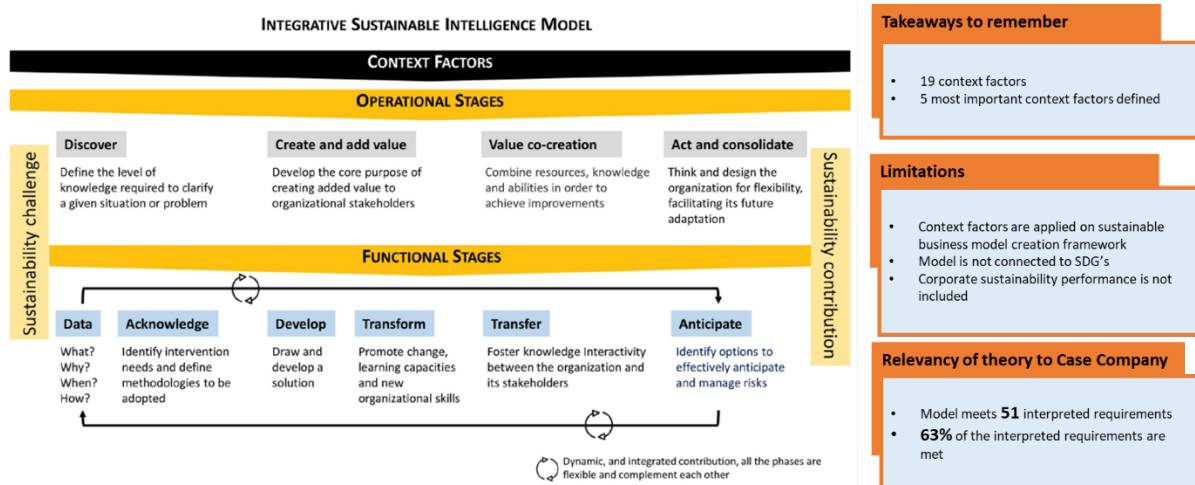


Figure 17 - Fonseca et al. Integrative Sustainable Intelligence Model including takeaways and limitations (Fonseca et al., 2021)

This chapter has shown that the six described theories all encompass strengths and weakness. Where none of the models was without limitations or meeting the case company's initial requirements more than 70%. Therefore, the following chapter compares the six models and combines the models where they complement each other. Resulting in one theoretical model of Implementing Corporate Sustainability Successfully (ICSS) which meets most of the case company's initial requirements.

## 5. Unified theoretical model: implementing corporate sustainability successfully (ICSS)

This chapter describes the comparison of the theoretical models (see chapter 3) and the synthesis of these into a unified model to implement corporate sustainability successfully. The comparison is executed based on two things. First on the relevancy number that the six theoretical models received in chapter 4. Second on their reliability, comprehensiveness, practices, and used theory. This chapter starts with the description of the first comparison, followed by the second and concludes with the unified model.

### First comparison of theoretical models

First, figure 18 is showing a piece of the analysis of the initial requirements. The full table can be found in appendix 11.

Interpreted Need	Primary (general) /secondary (detailed) need	1	Command	2	Command	3	Command
		Epstein & Buhoavac's model of Corporate Sustainability		Maon's Integrative Framework of desiging and implementing CSR		Buller & McEvoy's Line of Sight Model	
1 The model contains the selection of people that fit to the values and principles of the company	Primary	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms
2 The model contains the selection of people that contain a certain skill set	Secondary	X	No, not mentioned specifically. Despite that, the model emphasizes on the importance of leadership of people	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms
3 The model offers workshops in which a strategy is communicated	Secondary	X	No, not mentioned	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms
4 The model is organized cross organizational and -functional	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms
5 The model coordinates central and decentral activities	Primary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically
6 The model includes creating awareness in people	Primary	✓	The importance of leadership	✓	by 'realising CSR awareness inside the organization'	X	No, not mentioned specifically
7 The model includes collaboration with people within the organization to derive a strategy together	Secondary	X	Not specifically, only with 'leadership box'	✓	Not specifically mentioned, but implied by the continuous dialogue with stakeholders and establishing a vision and a working definition for CSR'	X	No, not mentioned specifically
8 The model includes a link to the stakeholders	Secondary	✓	'Stakeholder reactions' box	✓	'Identifying key stakeholders and critical stakeholder issues'	✓	implied by the external environment 'stakeholders: organizational, regulatory, community'
9 The model considers the people who are involved	Secondary	✓	'Stakeholder reactions' box	✓	Not specifically mentioned, but implied by the continuous dialogue with stakeholders'	✓	implied with the primary HR mechanisms
10 The model includes discussion of proposed plans	Secondary	X		✓	yes by 'evaluating CSR integrated strategies and communication' (step 8)	✓	implied by the feedback loop from performance to strategy

Figure 18 - Snap shot of the analysis of initial requirements with respect to the theoretical models, see appendix 11 for full overview

The table in appendix 11 led to the following relevancy numbers (figure 19) of the six theoretical models.

	1	2	3	4	5	6
	Epstein & Buhoavac's model of Corporate Sustainability	Maon's Integrative Framework of desiging and implementing CSR	Buller & McEvoy's Line of Sight Model	Kantabutra & Ketprapakorn Refined Integrated Corporate Sustainability Model	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Fonseca et al. Integrative Sustainable Intelligence Model
<b>Number of interpreted needs met:</b>	24	41	21	41	57	51
<b>% met interpreted needs ((total interpreted needs/number of interpreted needs met) * 100):</b>	29,63%	50,62%	25,93%	50,62%	70,37%	62,96%

Figure 19 - Summarizing table of relevancy numbers per theoretical model

Figure 19 shows that Beyne’s Integrative framework fits mostly to the initial requirements followed by Fonseca et al. Integrative Sustainable Intelligence Model. And Epstein’s and Buhovac’s model as well as Buller and McEvoy scored below 30%. Despite the high score of Beyne’s model. The model and research were lacking the inclusion of context factors, stakeholder feedback loops and the inclusion of corporate sustainability performance measurement systems. Fortunately, the models of Epstein and Buhovac (further referred to as model 1), Maon (model 2), Buller and McEvoy (model 3), Kantabutra and Ketprapakorn (model 4) and Fonseca et al. (model 6) complement the shortcomings of Beyne’s Integrative framework.

### *Second comparison of theoretical models*

But before describing how the models 1, 2, 3, 4 and 6 complement Beyne’s model. The second way of analysing the theoretical models on reliability, comprehensiveness, practices, and theory are displayed and described. This comparison is displayed in table 1 and described thereafter. The full comparison table can be found in appendix 14.

*Table 1 - Second comparison of models based on reliability, comprehensiveness and practices*

	<b>Takeaways to remember:</b>	<b>Epstein and Buhovac (2010)</b>	<b>Maon et al. (2009)</b>	<b>Buller and McEvoy (2016)</b>	<b>Kantabutra and Ketprapakorn (2020)</b>	<b>Beyne (2020)</b>	<b>Fonseca et al. (2021)</b>
Reliability	Published between 2016 and 2022	no	no	yes	yes	yes	yes
	Research has been empirically tested	yes	no	no	yes	no	yes
	Dependent variable is corporate sustainability	yes	no	no	yes	yes	yes
	More than 500 times cited	no	yes	no	no	no	no
	Based on internationally known sustainability framework	no	no	no	no	yes	no
Comprehensiveness	Research includes external factors	yes	yes	yes	no	no	yes
	Financial performance measures are considered	yes	no	no	no	no	no
	Leadership of management is included	yes	no	no	no	yes	no
	Feedback loops between components	yes	yes	yes	yes	no	yes
	Critical success factors implied	no	yes	no	no	no	no
Practices	Corporate sustainability practices	no	yes	yes	yes	no	no
	Role of HRM	no	no	yes	no	no	no
	Capabilities and competencies	no	no	yes	no	no	no

All the models exist of multiple steps to successfully implementing sustainability strategies. Most of them start with an analysis of the external context or with creating awareness inside the organization. An external context analysis is for instance suggested by Epstein and Buhovac’s Corporate



Sustainability Model (2010) by which regulatory and geographical aspects of the company are analysed. Moreover, Buller and McEvoy (2016) mention the external environment to be of importance since the company's sustainability strategy is influenced by it. Buller and McEvoy (2016) mention that stakeholders such as organizations, regulations and communities have influence.

Another way, to deal with the changing environment are applying feedback loops. Multiple models include this method within their models (Buller & McEvoy, 2016; Epstein & Buhovac, 2010). However, not all models position them between the same topics. For instance, Buller and McEvoy (2016) suggest a feedback loop between performance and strategy. Whereas Epstein and Buhovac (2010) between outputs (sustainability performance, stakeholder reactions) and outcomes (long-term corporate financial performance) to human and financial resources. Maon et al. (2009) even includes a component in their model called 'continuous stakeholder dialogue' during the sensitize, unfreeze, move, and refreeze phases of implementing sustainability strategy to maintain alignment during change. Even though the differences, the application of feedback loops in the models emphasize the dynamic nature of implementing a sustainability strategy.

Internally, the role of leadership is a common point of attention within the implementation models. Epstein and Buhovac (2010) have positioned 'leadership' as a key piece of the model to translate the inputs to processes such as sustainability strategy, -structure and systems. Moreover, emphasize is given to leadership role of the top management. Beyne (2020) included for instance that leaders should show purposeful leadership while reviewing government policies and codes that incentivize sustainable transformation.

This creation of commitment comes along with the creation of awareness. Maon et al. (2009) start with raising Corporate Social Responsibility (CSR) awareness inside the organization by managers personal values as well as social-, political-, and economic drivers. Rodrigues (2019) supports the importance of awareness creation of the need for internal structural changes and implies high commitment by the managers.

Important to note is the attention to the role of human resource management. Buller and McEvoy (2016) as well as Galphin et al. (2015) emphasize on the important role of human resource management to successfully implement a sustainability strategy. Moreover, most of the researchers mention the importance of tools, sustainability performance and sustainability systems to measure the progress of the strategy implementation (Buller & McEvoy, 2016; Dzhengiz, 2020; Epstein & Buhovac, 2010; Radomska, 2015; Maon et al., 2009).

## Combining the first and second comparison into unified model ICSS

To combine the six theoretical models, the first and second comparison are considered. Leading to the decision to take Beyne’s Integrative framework as basis. The model of Beyne received a relevance score of 70% in the first comparison and was the only framework that has been based on an internationally known sustainability framework. Namely the UN Sustainability Development Goals. Figure 20 shows the ‘inner-piece’-part.

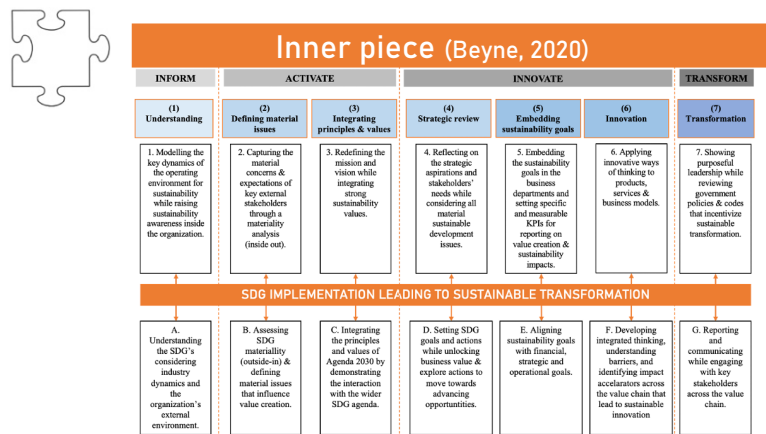


Figure 20 – Inner piece part from Beyne (2020)

### 1. Inner piece

The inner piece contains four phases: inform (1), activate (2), innovate (3) and transform (4). All along these four phases a description is given to guide the management through the change towards corporate sustainability. The description of the steps is numbered from 1 till 7 and every step has been linked to an action that is related to the SDG’s. The actions related to the SDG’s are displayed by the letters A till G.

### 2. Capabilities and competencies

The Human Resource Management system is complementing the inner piece with the primary Human Resource mechanisms. These include requirement selection, training and development, compensation, and performance appraisal. These mechanisms are fundamental to be able to execute the ‘inner piece’-part and are therefore displayed as foundation underneath the ‘inner piece’-part of Beyne. Initial requirements such as; containing selection of people, training people and offering workshops are met by adding this foundation. Figure 21 shows the capabilities and competencies part.

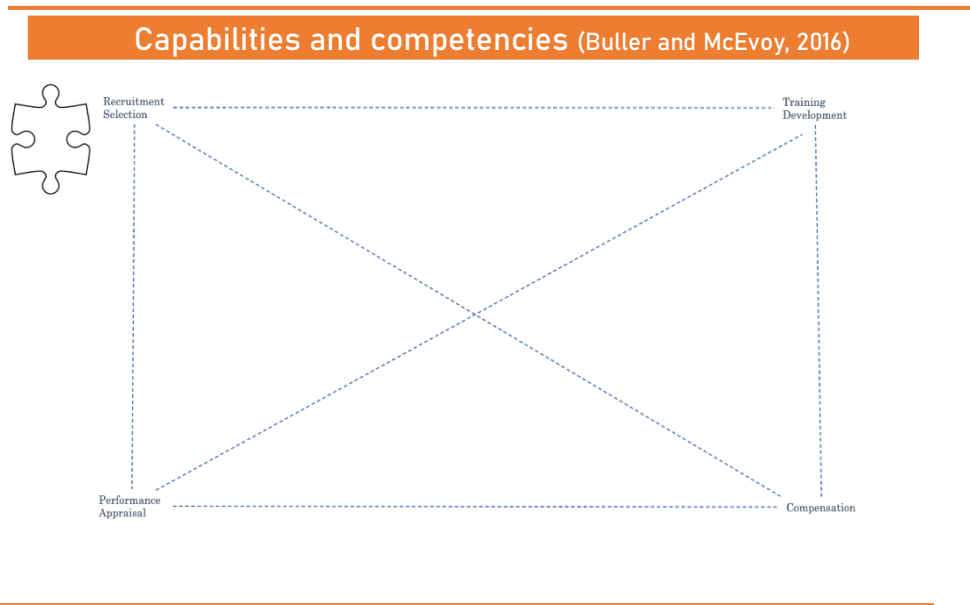


Figure 21 – Capabilities and competences included with primary Human Resource mechanisms from Buller and McEvoy (2016)

### 3. Corporate sustainability performance measures/Output

In addition to the first two pieces, it is important to review the corporate sustainability performance regularly by key performance indicators (KPIs). Epstein and Buhovac (2010) made some suggestions of these performance measures (see appendix 15) which can be used as inspiration for the case company. Within the systematic model the reflection on KPIs is displayed as output from the ‘inner-piece’-part. Figure 22 shows the corporate sustainability performance measures.

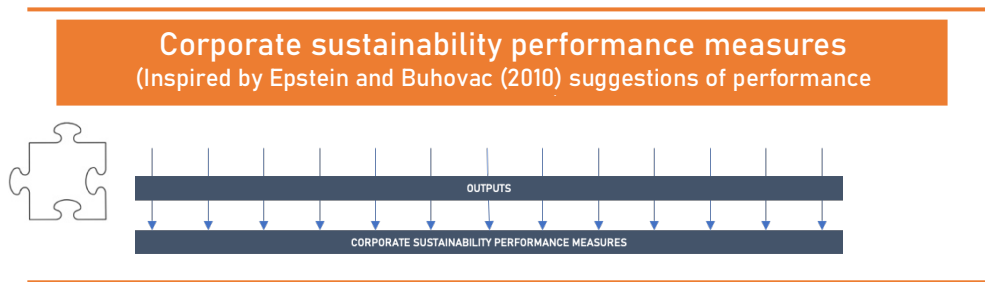


Figure 22 – Corporate sustainability performance measures inspired by Epstein and Buhovac (2010) suggestions of performance measures

### 4. Human and financial resources/Input

After measuring the sustainability performance a feedback loop is added towards the human and financial resources. Since the outcome of the implementation process determines the decisions made on the investments done in human and financial resources. These human and financial resource’s part is displayed in front of the ‘inner-piece’-part of the ICSS model. Figure 23 shows the human and financial resources part.

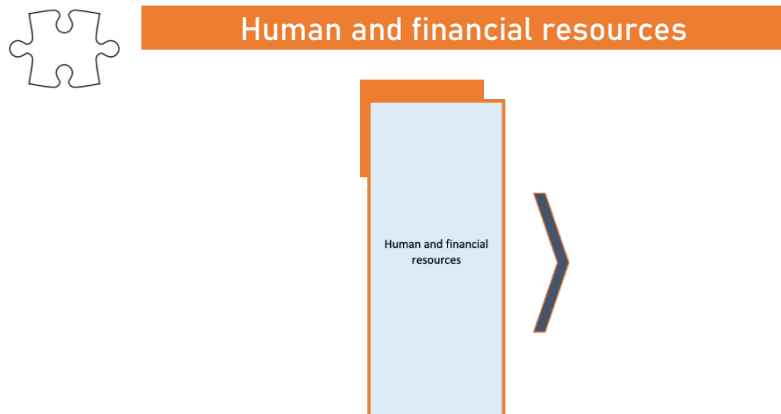


Figure 23 - Human and financial resources part

### 5. Practices of success

The practices of success from Kantabutra and Ketprapakorn (2020) complements Beyne’s (2020) framework by five practices of success during the integration of corporate sustainability. According to Kantabutra and Ketprapakorn (2020), perseverance is needed to improve processes, products and services for stakeholders. Resilience development is key to adjust after a crisis and reinvent your business model if needed. Kantabutra and Ketprapakorn (2020) describe this as the anticipation and preparation for change. Moreover, the moderation between long- and short-term goals is one of the practices of success. By which it is important to decide prudently while considering the consequences on stakeholders. Fourth, it is important to invest in taking care of stakeholders by integrating social and environmental responsibility with the case company’s operation. Fifth, it is important to shar knowledge internally and externally. Figure 24 shows the practices of success part.

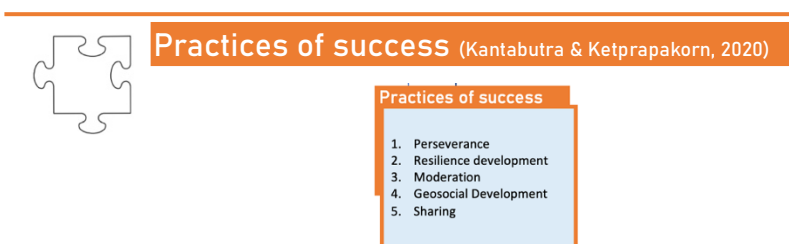


Figure 24 – Practices of success from Kantabutra and Ketprapakorn (2020)

### 6. Context factors

The inner piece is complemented with the context factors of model 6. Which are according to Fonseca et al. (2021) relevant for the implementation of corporate sustainability. It is of interest to maintain these factors during the process. Figure 25 shows the context factors part.

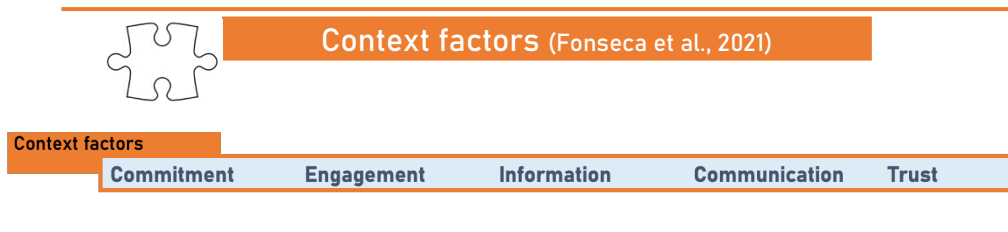


Figure 25 – Context factors part from Fonseca et al. (2021)

Thereafter, the parts of figure 20-25 are combined into unified model ICSS shown in figure 26. Figure 26 is based on our integrated theory of corporate sustainability, which is built upon Epstein’s Corporate Sustainability Model (Epstein & Buhovac, 2010), integrative CSR framework (Maon et al., 2009), Line of Sight framework (Buller & McEvoy, 2016), Integrated Corporate Sustainability model (Kantabutra & Ketprapakorn, 2020), Integrative framework of SDG’s in sustainability transformation (Beyne, 2020), and Integrative Sustainable Intelligence Model (Fonseca et al., 2021), which are based on force field model of change management (Lewin et al., 1951), open systems theory (Buller & McEvoy, 2016), resource-based view (Barney, 1991), Sustainability Vision theory (Kantabutra, 2020), self-determination theory (Ryan & Deci, 2000), stakeholder theory (Kantabutra & Ketprapakorn, 2020), sustainable leadership theory (Avery, 2005), complexity theory (Shirey, 2013), knowledge-based theory (Nonaka, 1994), dynamic capabilities theory (Barney, 1991; Eisenhardt & Martin, 2000; Helfat & Peteraf, 2003) and Integrated Value Creation (Visser & Kymal, 2015), the following corporate sustainability implementation model is developed for exploring as shown in figure 26.

With this combination of theoretical models, 76 initial requirements are met. This is equal to 94% of the total amount of initial requirements derived from the semi-structured interviews with participants of the case company (chapter 3). See appendix 16 to read how these 76 initial requirements are intended to be met with the ICSS model.

When considering the goal of this research,

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*Provide an approach for the case company to successfully implement their sustainability strategy in a short-to-mid-term time period.*

---

The theoretical ICSS model suggest an approach for the case company to successfully implement their sustainability strategy based on existing theories. However, to develop the ICSS model even further, an explanation video of the ICSS model has been made and send to the participants of the semi-structured interviews. The description and analysis of their feedback can be read in the next chapter.

# IMPLEMENTING CORPORATE SUSTAINABILITY

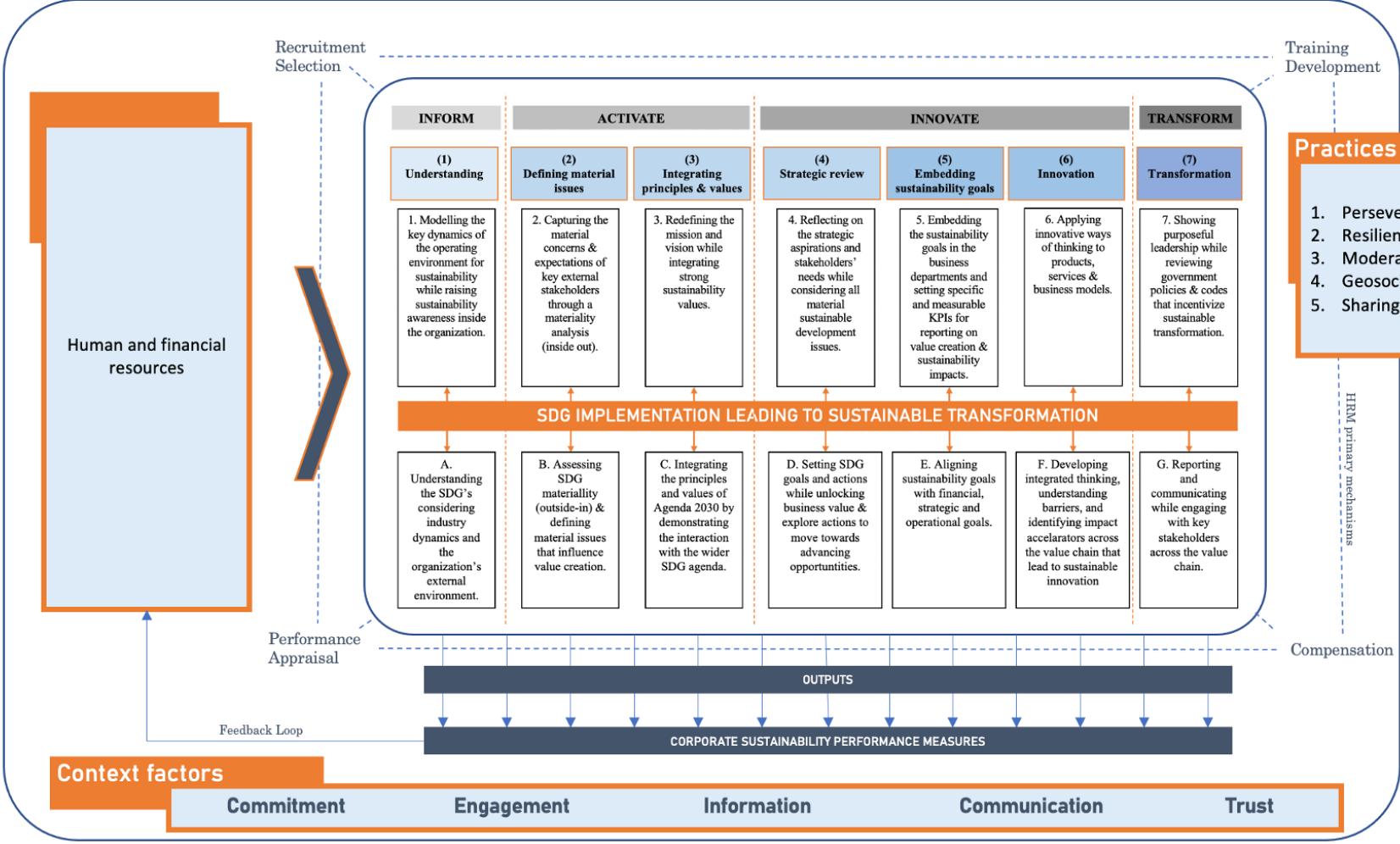


Figure 26 – Integrated theoretical model called “Implementing corporate sustainability successfully by TWijlens” (ICSS)

## 6. Design Thinking process

Within this chapter the outcome of the design thinking process will be displayed and explained. Paragraph 6.1 describes how a one-on-one conversation with a participant is translated. Paragraph 6.2 summarizes the described ‘strong points’ of the ICSS model (chapter 5). Followed by a summary describing the ‘suggestions of improvement’ to adjust the ICSS model in paragraph 6.3. The suggestions of improvement will be considered in the next chapter to adjust the ICSS model into ‘the case company’s evolution model’.

### 6.1 Translating individual conversations

This paragraph describes the process how the one-on-one conversations with the participants are analysed. The ‘strong points’ and ‘suggestions of improvement’ of the separate conversations can be found in appendix 17. Idea’s that came across during the conversation but were out of scope of this research can be found in appendix 18.

To process the conversations, the ICSS model from chapter 4 is grouped into seven parts (figure 27). After that, two templates are created, one to collect the ‘strong’- points, the second to collect the ‘suggestions of improvement’ (figure 28 and figure 29). These templates are used to sort the commands of the conversations. One outcome of a conversation is displayed in image 30. The conversations were recorded and watched a second time to complete the templates.

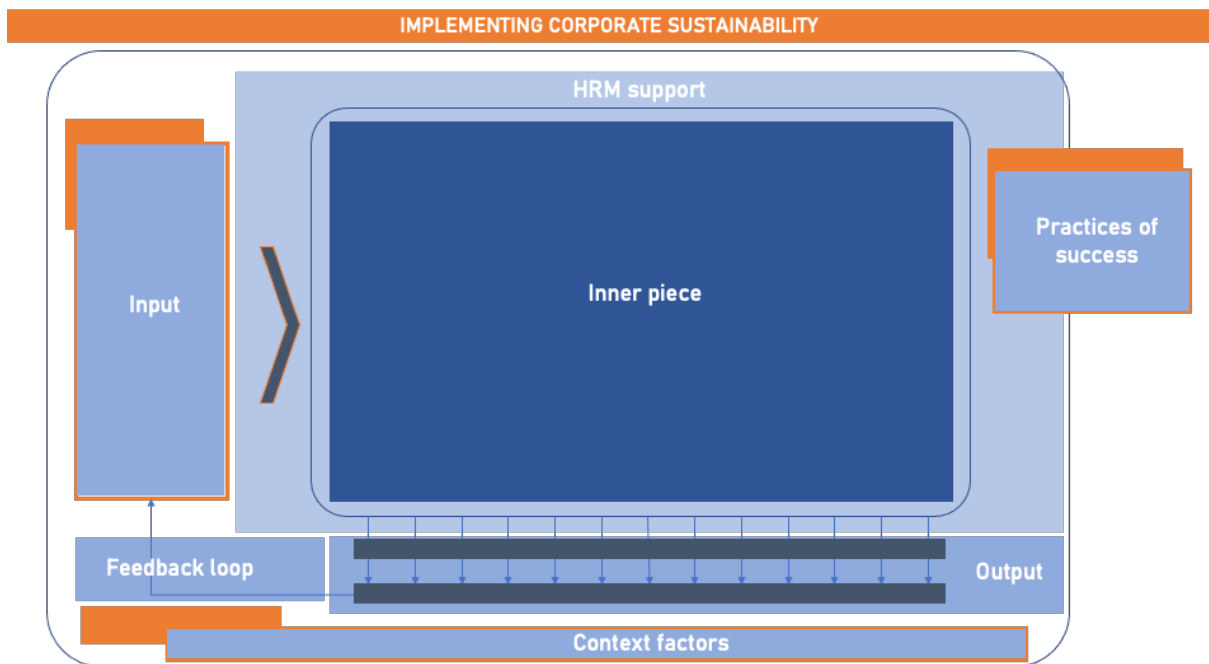


Figure 27 – ICSS model grouped in parts

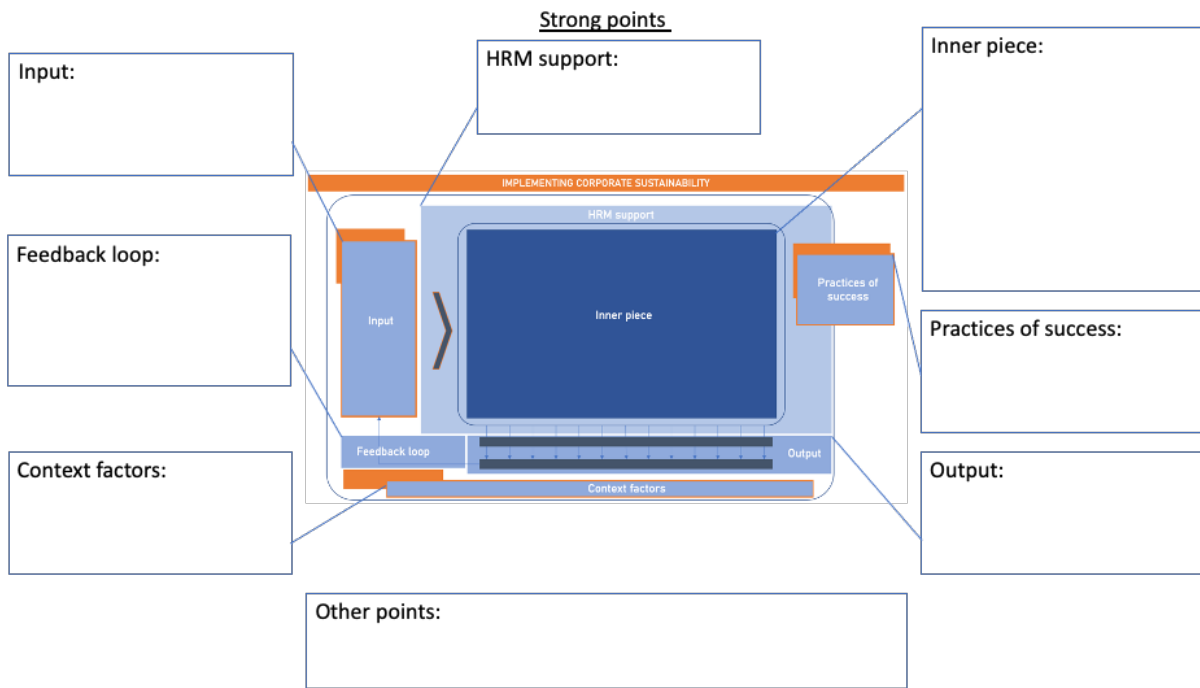


Figure 28 - Empty template of ICSS model for collecting strong points

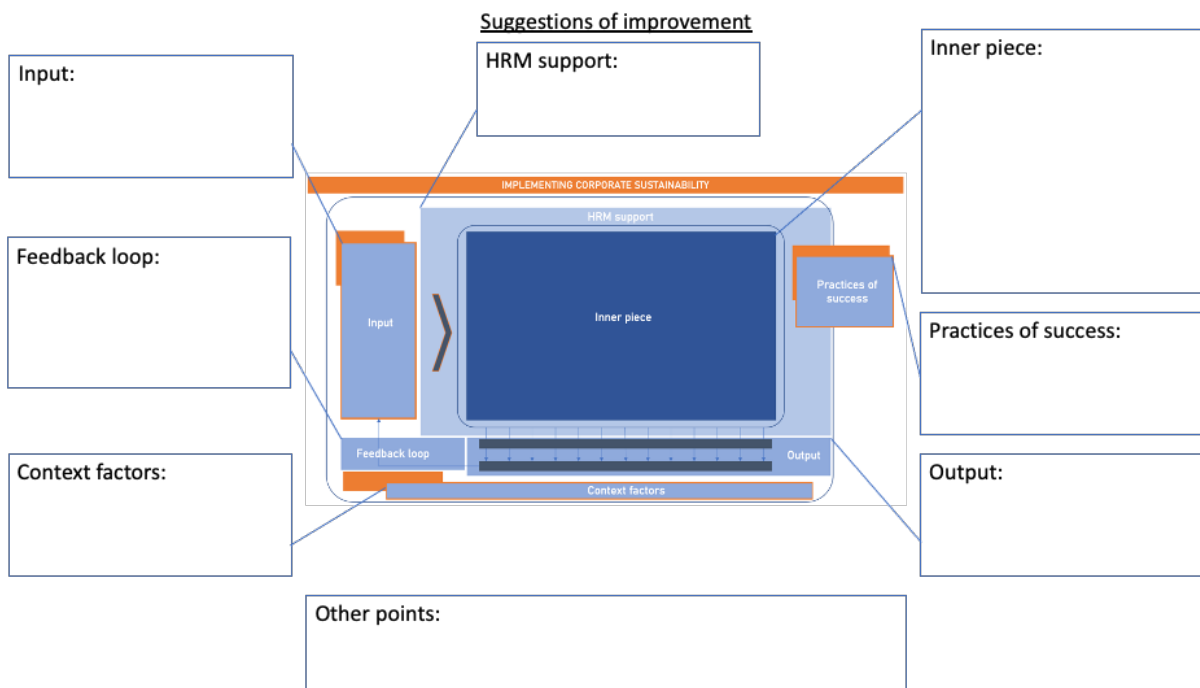


Figure 29 - Empty template of ICSS model for collecting suggestions of improvement



This figure was intentionally left out for confidentiality purposes

*Figure 30 – Examples of a filled out templates in regard of the ICSS model*

## 6.2 Summary of strong points of the ICSS model

This paragraph describes the ‘strong points’ of the ICSS model addressed to the seven parts of the ICSS model. After the description, a summary of the strong points is displayed in figure 31.

To start with, the participants appreciated the way the model has been explained and the video format by which it has been provided in. Participant IX states that the model is “... explained very well” and Participant V said “... I understood the video and did not get confused by watching...”. Participant X even states “... I am impressed to have such a live show...”. In regard of the format, Participant X states “...I enjoyed the video, was well done...” and Participant I adds that it was very convenient to “... receive the video up front...”.

### *HRM-support*

The importance of human resource management is well enhanced in the conversations. Participant III states for instance “... in the end the corporation is a combination of people and talent...”. Followed by Participant IV arguing that “...the process is indeed an HR thing”. Participant XII emphasizes that “...if the mindset change is not done, then anyway the whole thing will not be successful...”. In addition, participant XII appreciates that the human factor is placed in focus and states:

“... I strongly believe that this (human resource management) is a critical success factor. You are totally right that you pit it as a framework with the recruitment, training, compensations, and performance appraisal...”

Moreover, Participant VIII appreciated that both the people and the fact base drivers are included in the model. Participant IX adds the importance of human resource management and says that “...it must be integrated in all the activities...”. Moreover, participant IX emphasizes that “... human beings are not robots. And humans are implementing it”.

### *Inner piece*

The participants appreciate the steps in the inner piece of the ICSS model. In particular, the transformation, innovation, link to SDG's and steps are addressed. In regard of the transformation step (step 7), Participant II emphasizes on the importance of the "...transformation block". Followed by participant III who states "... I like transformation.". Second, the involvement of innovation is being appreciated by Participant III since there is "... new thinking and a new mindset involved..." in the ICSS model. The third strong point that is addressed is the link to the SDG's. Which is "... specific and detailed..." (Participant III). According to Participant III, the "...SDG's are very specific about the problem.". Fourth, it is appreciated that various phases are considered from information till transformation (Participant V and Participant IX) and leadership is included (Participant VII). Participant VII states: "... there is not something missing. But maybe it needs to be clear that the steps are not chronological but some need to happen in parallel."

### *Practices of success*

The piece of the model in which the five practices of success are mentioned is appreciated. Participant III states for instance "... I like that..." and Participant IX emphasizes on the fact that practical advice is given by mentioning these five practices of success.

### *Output*

The inclusion of the output is highly appreciated by the participants. Participant VIII mentions for instance that it is a "... strong point..." of the proposed model to include performance measurement. Added with the phrase:

"... I strongly believe what measured, get's done..."

Participant IX agrees and emphasizes the importance of "...measurable outputs of our actions and efforts..." are indeed needed in this implementation process.

### *Context factors*

The context factors of the ICSS model are making sense to the participants. Participant IX states that these are "... very plausible context factors...". Whereas Participant VIII states that "... these context factors are very important...". Additionally, information is being addressed by Participant II who agrees with the fact that information need to be shared within the company and states that "...the group need to provide information to the companies...". And the context factor, communication, is addressed by Participant IV who states that it is indeed "... a communication thing...". Participant VIII says that the context factors; "... communication, information, engagement, and trust are appreciated...".

### *Other points*

Within the conversations also the applicability, the illustration, completeness, and process steps retrieved attention. The feedback on these four topics is described below.

#### *Applicability of the model*

In regard of applicability of the model itself, the participants responded positive. Participant II states: "... I think it is really good..." and emphasizes that the model fits "...really perfect..." to the group strategy on top-level. Participant IV agrees with participant II by stating: "... it fits perfectly well into our organization and also in the radiator business". According to participant IV the model is "...absolutely logical, makes perfect sense ...". Participant III adds that "... I like the model a lot..." and says it is "... very specific". Moreover, participant IX adds:

"I think it's quite pragmatic in the way you build it up and the different steps, because this fits very well to our overall goal to contribute to sustainability issues which we have selected with these 6 goals... (6 chosen SDG's)"

Even though these comments, some participants were a bit more reluctant. Participant IV stated for instance: "... the model makes probably sense or makes sense.". In contrast, participant X states "... I am pretty convinced... I would not question the model" and "... the model is fine, I am sure it is right".

#### *Illustrating structure*

The ICSS model can also support in guiding the process. In the conversation with Participant VI, it became clear that the model can help "...to structure your thinking..." and that the model can be used to keep the overview of the project. The model ensures that we don't miss anything and that we have everything covered (Participant VI). Participant II complies with Participant VI's perspective by the statement that the model is illustrating what "...we should be trying to do at the case company...". Moreover, the model can be used as a supporting tool (Participant IX) and help people. Participant XI states for instance: "... it is a help for everyone to ... pick out the relevant things out of it and say oké what is now the main things for us to focus on and how can we measure it and how can we break that down? And how can we track that?".

#### *Complete*

The participants argue that the model is to a certain extent complete. Participant V states that the "... model considers all topics that are relevant to implement a sustainability strategy..." and considers the model to be complete. Moreover, "... all elements (within the proposed model) are relevant." (Participant V). Participant IX complies that the model "... looks quite complete...". Followed by Participant VII who states "... it seems to be quite complete.". Additionally, participant V states that

the model "... considers the various phases, the framework in which it takes place (the company), the stakeholders, the culture and so on. From that point of view it is complete...". Participant V states therefore:

"... for sure you can work with it..."

Participant VIII adds that the model "...is quite comprehensive and covers a lot of different areas...". However, participant VIII, emphasizes that "...it is a model in which you cannot cover everything...".

#### *Process steps*

In regard of the process suggested in the ICSS model, the participants believe the steps are logical. Participant IV states for instance:

"... it is a common but tailored process you have described in your model in the individual steps..."

Followed by the statement that the process is "...very logical..." (participant IV).

It is important to note that none of the participants made a comment on the 'input'-part. And in regard of the 'feedback loop' only participant IX specifically stated to appreciate the feedback loop. Other participants included the importance of reflecting on performance and development within the 'output'-part of the ICSS model.

Below the strong points are summarized in a schematic overview sorted by the parts of the ICSS model and a piece called 'other' is added (figure 31).

## Strong points

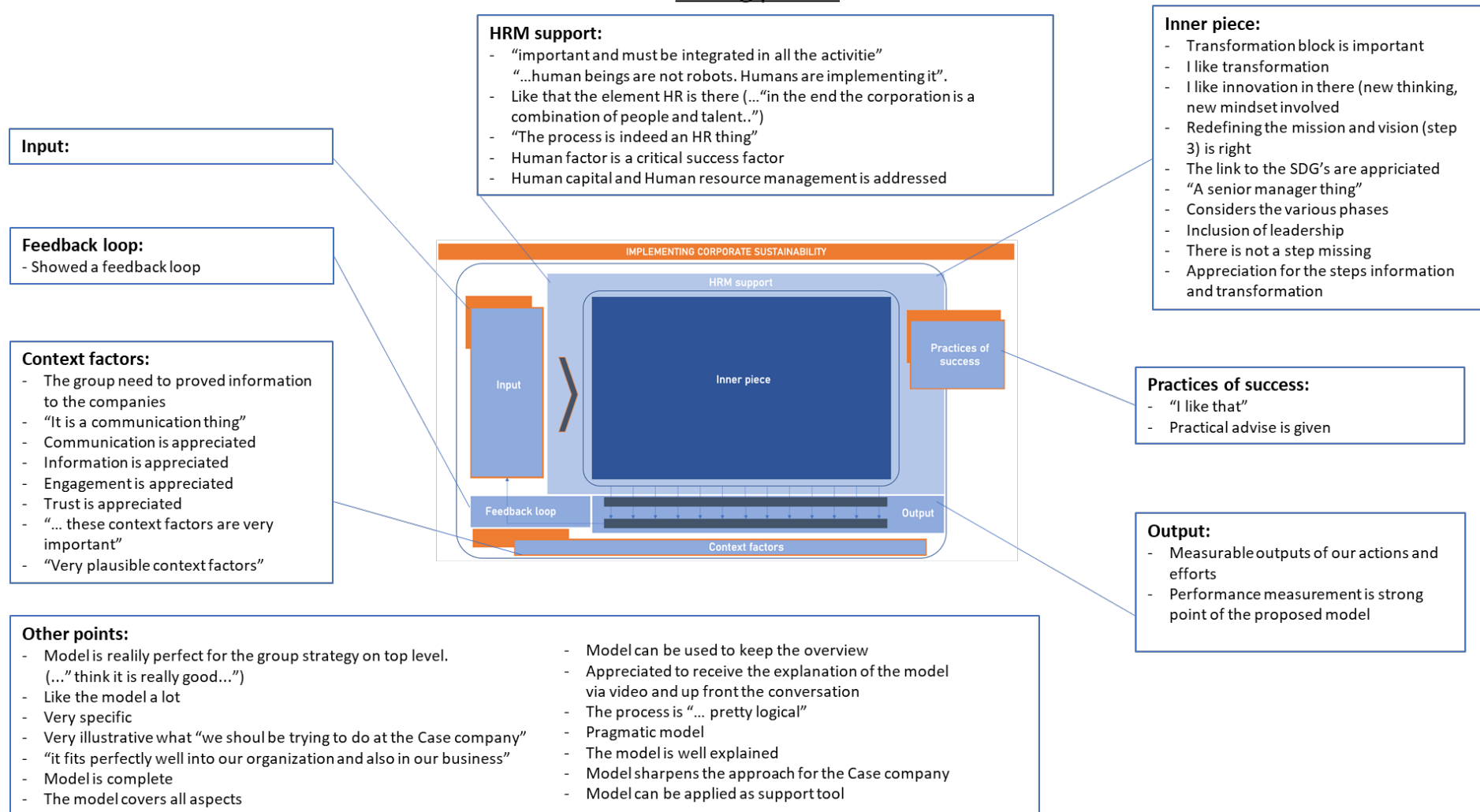


Figure 31 - Schematic overview of strong points of the ICSS model based on the conversations with the participants

### 6.3 Summary of suggestions of improvement ICSS model

This paragraph describes the ‘suggestions of improvement’ of the ICSS model addressed to the seven parts of the ICSS model. After the description, a summary of the suggestions of improvement is displayed in figure 32.

To start with, there were small interruptions in the video and it would have been helpful “... to use a pointer to point out specific parts of the slide...” (Participant I). Moreover, it would have been helpful to clarify why other implementation models were not sufficient to be used by the case company, “... why have you chosen, in particular, this model?”, was one of the questions (Participant II & Participant VII). In practice it is “...important to have one model. And not have Tills model, Tessa’s model and Matts model. Otherwise, we start to confuse everybody...”. According to Participant IV, the model fits perfectly with some exceptions and adjustments. Below the suggestions of improvements described for each of the parts of the ICSS model including ‘other points’ which could not be grouped into the parts of the ICSS model.

#### *Input*

The participants made suggestions in regard of the ‘input’-part of the model related to the inclusion of external development, stakeholders, and financial benefits.

First, at the input side, the external developments are missing. According to Participant XIII the external developments such as subsidies, policies and sustainability initiatives are not included. Participant XIII suggests to:

“... rethink all the different approaches on a regular basis and see what it means then for your own business model and own operation...”

At this moment the model “... looks to me independent” however we “... are just a small part of a big thing”. Participant III adds that the model is at this moment limited to the corporation and notices the “... responsibility of the product, supply chain, source, end of life of the product...” are missing.

Second, Participant III argues that the link with the stakeholders is missing. At this moment it seems to the participant that the corporation is a “... black box ...” which is not connected to the environment. Participant III shares the opinion that “... if you approach sustainability holistically, you basically zoom out ...there are a lot more things around there than only the corporation.”. This being said, the Participant emphasizes on the fact that “...there need to be a positive outcome for all stakeholders not only for shareholders.”. An example of a stakeholder that is missing are partners. According to

Participant III "...partnerships become valuable" where, "... in the past you did not dare to partner up...". According to Participant III SDG's will not be reached without partnerships.

Third, in regards of the financial benefits, Participant I state that it is important to "... determine how much money we are ready to invest in this project.". Supported by Participant VIII who states that this project should not only have resources as input but also financial benefits. Participant VIII states:

"... It is not just financial resources it is in the end also a financial benefit hopefully. At the end it is also to get corporate performance... sustainability can only work in long term if you have a win-win situation also success for the corporate. It can have a negative impact in a certain phase but in long term it should be stronger and not ... see it as a cost item. You should see it as an opportunity for growth and for further development of the business and not a threat that you need to tackle..."

#### *HRM-support*

Within the conversations the participants also made suggestions of improvement for the HRM-part of the ICSS model. Participant I said that it could be helpful to identify people which can really support. According to Participant I, supporting people are people that "... get also energy from the work that they are doing...". Moreover, Participant I thinks "...that would be also very helpful having such champions in place, then we can build a community and they learn from the other and the share their experiences.". In addition, Participant I state the following:

"... people are driving this transformation and not the GEC or the board"

#### *Inner piece*

Participants elaborate on the steps of the 'inner piece'-part of the ICSS model. First, according to Participant III, the impact of the steps differentiates. Participant III states: "If you have done steps 3 and 4 right, half of the transformation is done because you have the buy-in of the people and of the leadership".

Second, in the conversations, the participants indicated that this project does not have a start and an end but has the character of a continuous improvement. Participant II states for instance:

"... It is not a project, it is more a continuous improvement..."

Participant I completes and states that the process is not "... linear, it is a cycle". Also Participant IV supports the dynamic character of the process. Participant IV states:

“The process is not always the flow through from 1,2,3. Sometimes it goes from step 5 back to step 3 because we discovered another issue or opportunity or what soever and then it takes the usual ping pong.”

Participant VII complies with arguing that “... there is not something missing. But maybe it needs to be clear that the steps are not chronological but some need to happen in parallel”.

The participants claim that the implementation of corporate sustainability is not a fast and secluded project. Participant II states that “... sustainability projects are by definition long term...”. And according to Participant I, the project “... is not a project with a start and end...”.

Third, some participants gave suggestions of improvement for the transformation phase (displayed as step 7 in ICSS model). According to Participant III the transformation phase starts earlier than step 7. Participant III suggests, “... the transformation starts really somewhere at 3 or 4, probably 3...”. Participant VII argues similarly, “ ... I would say that the transformation has to be in steps depending on the hierarchy in the organization. I would not see that to much in 1234, I believe that the transformation should be separated in groups. It needs to start earlier already. According to Participant VII it starts even before the ‘input’-part of the ICSS model by arguing “... why should you have the resources when the senior management is not believing in it or understanding what it is about... at the end, senior management is deciding about that.”. Additionally, Participant VIII states that it really is an evolution where Participant VIII does “... not see in all companies a need for a transformation it can also be just an evolution of the model. If you are for instance in an oil company then perhaps it is a transformation, but I would say in our case I don’t really see the need for a complete transformation.”. Moreover, Participant II stated “...there are probably a lot of steps included in the transform phase...”. And asked “... how to do the transformation block?”. Participant X states that the transformation step “...is going to be a longer process and I think that is where we need to challenge each other.”

Fourth, in step 3 of the ‘inner piece’-part the purpose of the company is missing. According to Participant III,

“There needs to be a purpose, why the company acts or is in business...”.

According to Participant III there need to be a mindset change of the management before step 3 of the ‘inner piece’-part, called review principles and values can be realized. Participant III stated: “We need mindset change of the management team first, to make them more open to discuss .... ” the values and principles of the company”. Participant VII adds that “... the commitment of high level management need to be before ...” the activation phase. Participant VIII agrees that top-management involvement is



important by which "... we really get support from the board and from the Group Executive Committee". Moreover the "... mission and vision, our reasoning of being ... need also be sanctioned by the Board of Directors."

Fifth, the different steps need to be clarified for the different departments. Participant VI provides the following example: "... pick one function or one small department and say what does it (this particular step) mean for us?. What does a single step mean for Clean Air Solutions?". Participant VI emphasizes on the fact to translate the model into the languages of the existing business models of the case company. According to Participant VI "...you would really have to translate it to make it relevant...". After doing so, "... you would see that something is missing ... but for radiators it's fine."

Sixth, Participant X indicates that the innovation step (step 6 in the 'inner piece'-part) can come from whoever has a good idea. Participant X states that it does "...not need to come from you only, it can also come from members of the board, it can come from some investors it can come from whoever has a good idea.". According to Participant X, step 6 is "...probably your 'cur'" a place "... where you can differentiate". The "cur" is related to the sport figure skating in which there is a obligatory part and a so called "cur", where skaters are free to skate. In addition, Participant I suggested to create a platform on which ideas can be collected. These can be local, group or individual initiatives.

Seventh, Participant X indicated a timeline for the steps displayed in the 'inner-piece'-part. Participant X stated:

"... by the end of the year we want (the steps) 1, 2, 3, 4 and 5. ... At least mentally and in our paper work and in our thought process done..." "... and it will be living and it is not that is is concluded And obviously you know we will go on and get better. But you know then you know we have done the first full cycle. "

### *Practices of success*

Participants made suggestions of improvement in regard of the 'practices of success'-part of the ICSS model.

First, Participant I states that it is important to pick project that have a positive impact on the case company. These projects could even be project that are not even linked to the main goals, but people are empowered to execute the projects.

Second, it is important to allocate persons who are collecting the sustainability successes these could be for instance "... champions or sustainability ambassadors" (Participant I). Participant I suggests that "... this could maybe be done in every location...". Participant I states:

"...if someone has a good idea or have really implemented something they know who should be the person they can contact..." to share with others

Participant I therefore emphasizes on the need to create a good platform to collect local initiatives.

Third, the practices of success can be improved by showing examples. Participant VIII states:

"... I think we should not do everything perfect at the beginning, but also to show that it works. Small examples, bigger examples, but it is a normal project and execution at the end like all the other projects..."

Also, Participant IX emphasizes the importance of applying by example. Participant III says that examples are needed to show what does work and what does not work. Participant IX argues that leaders have a key role in this. Participant IX states "...leaders are underlining the proposed (thought) actions by practical examples. This is always very helpful. So, stay on the ground of the day-to-day situation and actually ... work with the model in mind without talk about the model.". Participant VII agrees with the practical mindset within the case company. And states that the culture in the company "... is really easy, hands on mentality...". Participant VII suggests to "... highlight what is really vital ... what is really the essence of what you really have to do?" and use these points in your communication towards employees.

Fourth, Participant III believes that "...you need to communicate it as a story". According to Participant III the case company should make sure to get "...the commitment of the whole organization".

Fifth, Participant IX states that is indeed important to share information. However, Participant IX suggests providing continuous information about what is going on, what is achieved and show information. Participant IX suggest talking continuously about sustainability aspects "... like we do about financial and productivity aspects". Participant IX states about the practices of success of ICSS model to:

Communicate about "... what we want to do and how we achieve it, so we're kind of reporting it. We talk about we have one big project in the Netherlands, we have a new apartment house with our

products. “) Moreover, it is important to create high sensitivity to sustainability issues. (“... create a high sensitivity for these issues.”) without finger pointing to people.

Sixth, the role of the management should adhere the importance of sustainability. Participant IX states that “... the tone of the top-management, MBU and PBU, everybody need to adhere to this importance, otherwise its get’s an academic exercise which is not fruitful.”.

### *Output*

Participants made suggestions of improvement related to the ‘output’-part of the ICSS model.

First, it is suggested to create a success report that is shared with each other. According to Participant I:

“... there is no such thing as a small success. A success is a success...”

While communicating successes “... you make people happy and proud, which are at the origin of the success.” (Participant I). Therefore, Participant I suggests to create “... a good platform to collect local initiatives”. Moreover, Participant II states that “... companies should get an overview of what we have done and what we have defined as material issues...”.

Second, participants suggest focussing on what is measurable today to set up goals as suggestion of improvement of the ICSS model. Participant I states that the case company “... maybe has already some information...” and emphasizes on that the case company should:

“... focus on what we have in our hands, for example our energy consumption” data

Participant I states that it is important to “... measure what we have done.”.

Third, the outputs should be reviewed periodically. Participant I states that the process should be reviewed yearly and “... maybe use the plan that we have for the midterm plan and the budget.”. This point of view is shared with Participant VI. Participant VI suggests that it should be measured on a monthly basis because “... it is important to see (change) and adjust (action) if necessary...”. Participant IX suggests to “... integrate sustainability aspects in our management meetings, in trainings programs also in a year-end speech. ... to keep the momentum high.”. According to Participant VI it is essential to track the progress of a project through measuring regularly.

Participant VI states:

“... if you don’t track. You don’t know where you’re going. And you will never improve. Or if you improve, it is more luck. Or maybe someone is doing something good and you don’t understand why.”

After collecting and combining the measurements, it is important to assess the results by asking questions about the defined KPI’s. Participant VI suggests asking: “... what happened? How was it? What was the profitability? What was the growth in the business? Etc.”. To reflect on the measurements, it is important to determine how you track the development by making the goals measurable (Participant VI & Participant VIII). Participant VI states:

“... if a goal is not measurable it is not a goal. Then it is just where we want to go, but we cannot measure it. It should be in there.”

To make the performance measurements realizable it is important to break down the performance measures to ensure that people at all levels in the organization can understand their impact and contribution to the defined measurable goals. Participant VIII states “... people need to understand what the impact can be done to get an overall result. You need a break down of targets and performance measures, so it is not just for the corporate but for all the different levels...”.

Participant VIII continued about the importance of measuring by stating “... I strongly believe what measured get’s done...”. Participant IX complies that creating measurement systems are important. Participant IX argues that “...needs for actions...” are defined from the “... measurements that we take.”. Additionally, it is important to determine consequences “... if someone does not achieve what” has been defined or when “... people do not respect the code” all to maintain the sustainable purpose that the case company has defined in collaboration.

Fourth, the conversations show that the desired outcome/result of implementing corporate sustainability needs to be discussed. Participant III prefers to discuss if “... shareholder value and profitability are a target or a result of being a successful sustainable company.” According to Participant III “... companies making profit as a goal is not true anymore. But not all companies and leaders believe that. So that’s the transformation in the world, in the business world.”. Therefore, Participant III believes that the goal, or desired outcome should be discussed within the company. Participant IV comply with the following statement:

“... sustainability is not for the sake of sustainability only. Of course, it is highly important and we need to contribute to it, but we need to see how we can also turn that into an operational benefit, if all...”

### *Context factors*

The participants made several suggestions of improvement in regard of the ‘context factors’-part.

First, it is suggested to communicate through different channels. Participant II suggests to “... communicate with images, monthly newsletters, video’s and text on the case company’s website what the corporate culture is and what our sustainability goals are.”. Participant II also suggests to use the Summer Meeting (a global business event from the case company in June 2022) to “... explain to the business unit heads what we have done so far and what is important for us and what are the next steps...”. Moreover, Participant II suggest to “...mention for instance five points that are important” for the case company. According to Participant II, these five focus points should be reflected each year.

Second, the expectations from group level to local level should be explained. Participant II suggests that the definition of material topics and how to interpretate them should be explained. Participant II suggest making instruction video’s in which terms “... such as diversity” are explained. Moreover, a kick-off meeting is suggested by Participant II to provide the local companies with instructions regarding sustainability. According to Participant II it is important to define which initiatives should be coordinated on group level and where “... do companies have the freedom to just decide on their own what they would like to do.”. Therefore, it is also important to define the responsibilities (Participant II).

Third, the participants elaborated upon the importance of a continuous information stream with the purpose to be transparent to internal- and external stakeholders. Participant II suggests creating an overview of what initiatives are currently running at local companies. Whereas Participant III underlines the importance of transparency by: “... the more transparent you are. The less provision you need in your communication.”. According to Participant III “... you have nothing to hide.”. Participant III argues that transparency and communication come hand-in-hand. Participant III explains: “if you have a negotiation with a partner in real life or in business circumstances. To find a good outcome for both you need trust, clean communication, right information, you have to engage them and commitment.” “But you also assume transparency. If you think that the other one is hiding something you will not feel the full commitment, you are not trusting. Full transparency, there is nothing to hide.”.

In the end, Participant III, states that

“... we all work on the same goals, which are the SDG’s, so let’s share information and be transparent and don’t hide for anybody else ... ”

To realize this, the engagement with internal stakeholders is emphasized by Participant III. According to Participant III it is important “... to make them feel heard and valued.”.

#### *Other points*

Within the conversations also the complexity of the model (1), cultural differences within the company (2) and completeness retrieved attention (3). The feedback on these three topics is described below.

#### *‘Break down the model’*

Multiple participants suggested to “... break down the model.” (Participant III). Participant III indicates that the model can be “... broken down” by giving working and not working examples. This includes giving examples of “... how others do it...”. Where Participant II states that the “... model need to be broken down into the companies”. Participant IX suggest that the model should be made understandable, stating:

“Applying a model is done by different persons which are part of a team and my advice is we do the application in let’s say a digestible and understandable way...” “... some of us have been in academic schools, but many of us, like me, have lost this academic world so we need a practical or pragmatic approach.”

Participant X adds that “...you need to guide us by the hand...” and “... make it very tangible...”. Therefore, it is important to clarify when you need what from “... whom by when” (Participant X). Participant I agree by stating that it is important to clarify “the expectations for everyone that is impacted (such as marketing, production, procurement etc” at a certain period of time. According to Participant X “... you need to guide us by the hand...” and “... make it very tangible...”. A method to make the model tangible is to “...put it in a timeline...” and “...make it clear to the key stakeholders in an intelligent sequence...”. Participant X emphasizes on the fact that it is a common task “... and that is much more important than the model...”. Participant VII finds the model complex at first and therefore suggests “... to highlight what is really vital ... what is really the essence of what you really have to do?”. Participant VII suggests to define “... 3-5 “match-winning points” that are critical to achieve success.”. According to Participant VII “... translation need to happen to ensure that we come from a scientific to a hands-on best practise...”

Participant V agrees that it is a challenge to fill this framework "... with real actions and content.". Participant IV agrees ...the element of the alignment of sustainability drive and operational change is missing...". Participant IV would prefer to have clarification on the question: "What does the sustainability approach mean to our organizational setting/process?". According to Participant V challenge of translating the framework to real actions "... is even made more complex due to the complex structure of the case company with this matrix of different businesses and different responsibilities...". Participant V suggests that a central organization is needed "...to get this framework alive and get going in the same direction". To do so, Participant V emphasizes on the role of the management. According to Participant V, priorities are given by "... actions of the management". Participant V states: "... they (the management) really assign and give the time. Which is easier said than done especially if you face that many operational challenges as we do. And if we don't get these materials and units out, I mean we can forget sustainability." According to Participant V there are "... similar topics across four business lines, however you cannot copy five times the same". The next paragraph elaborates upon suggestions of improvement to cope with the differences between product lines and countries within the case company.

#### *Difference between production lines & countries*

Important to note is the attention that is given to the different type of production lines. According to Participant IV "... there is a difference between Comfo Systems and Radiator business". Comfo systems come with "... a sustainability ambition in it's own..." where, in contrast, the radiator business "...never took into account the SDG target or environmental benefit".

In the conversation with Participant X, the different understanding of sustainability topics within the countries of the case company is addressed. Participant X states:

"... quite honestly, we also have probably somehow still a little bit different understanding ..." within the countries. "... other countries probably have different mechanisms or importance given to the sustainability criteria even though you have the Glasgow Conference, even though you have the commitments of all the governments..." We need to consider this "... In order not to run with the head through the wall..."

Therefore, Participant X suggests that the case company follows the local level of maturity in the application of sustainability. However, Participant X emphasizes that it is "... essential to, by minimum, meet the legal requirements in all of the countries but if we go beyond, follow the local initiatives". Participant X states:

“... something like that needs to also have a motivation from within and conviction that you know it is the right thing to do, because if something like that is top down, yes there is an element of top down, but you know, in the end if a local organization doesn't want to apply then they just don't apply it and then you know we are fighting our teeth out. I think all the legal top is fully clear. Whatever is legal is non discussable non-negotiable. You know that's a minimum standard, but I think on things that go beyond that we have to obviously also, you know, be following a little bit. .... the local. Let's say level of maturity in that topic. ”

According to Participant X, we need to be “... intelligent enough to understand” that some countries “... are probably at a different level of development stages.”. Therefore, Participant X suggest that “... we should ... be careful not to put everybody ... exactly at the same level of expectation.”.

### *Completeness*

The participants indicated some elements missing; first the overarching introduction, second the alignment with the corporate strategy.

First, the participants indicated that they miss an overarching introduction of “...why, how, what” (Participant X). Within the conversations it became clear that the definition the goal for the case company is one of the suggestions of improvement. Participant II states for instance: “... you cannot really see what is important for us...” at this moment “... the (local and global) initiatives give just examples...” . And Participant I stated:

“The GEC and the board need to take their responsibility and point out the few things we want to improve within a certain time period”. “We may have 3-5 main goals. Which we communicate to our employees and to our customers & government to say that is where the case company is really focussing on”

Also, Participant IX support the importance of the defining the end deliverable. It is important that “... everybody knows where we are shooting for or where we are going for...”. Participant IX emphasizes:

“... when you agree on the final deliverable, then everything afterwards is in line with the outcome we have defined.” Therefore, “... start with the end and determine what is the index of the final report or final document? ”. The question that needs to be answered, what needs to be achieved?”

The creation of a common image or purpose is in accordance with Participant IX important for multiple departments. Participant IX states:



“... if our purchasing people are going to suppliers, they must know what we have defined as our goals and then they have to make sure that our suppliers understand that. Our marketing people prepare marketing documentation or sales literature. They should all also, in an appropriate way, refer to what we want to achieve and what is our contribution because this can be a good sales argument and our (kind of) our sales proposition. If we hire new employees the HR manager, depending on the position we want to fulfil, also can make sure that the man or woman we are looking for shares about the same idea’s about sustainability issues. Maybe he or she is very sensitive, and it can also be a selection criteria.”

Participant VI suggests breaking the model down in for instance a sales function, service, production, purchasing, R&D, controlling within Clean Air Solutions by discussing about its. By doing so, the impact on the environment is determined collaboratively.

To create a common image “... we need kind of an overarching introduction. Why we do it, why how what. ... So that everybody has a shared view and be in on the same page. Explaining ... why we do these sustainability initiatives. ... I would advice that you have a slide or 2 on that ... ” (Participant IX). Participant VI that focus is needed by stating:

“... for everyone it needs to be a razor-sharp focus. There need to be 2 or 3 things and then you do it and get it done”.

According to Participant VI it should only be “... very few topics. 2-3 topics” which are “ ... very clearly defined so that everyone speaks the same language, so you cannot interpret it in different ways. Very clear on how we measure it.”

Second, the participants missed within the ICSS model the connection to the corporate strategy. Participant IX states that it should be ensured that “...we are not just put sustainability so much into the forefront that we forget about some of the other key elements...”. Participant VIII shares this opinion by stating “... for me it is not an independent corporate sustainability strategy it must be aligned with the normal strategy and then with a special focus on the customer benefit. It cannot be treated independent, just as a sustainability topic. Because I really think that it only get’s done and get’s impact if it is part of the whole business model. And that’s not so clear for me sometimes if you see it as an independent or fully integrated but I think you also believe it must be integrated.”. According to Participant VIII the case company should

“... make sure that we do not have just a separate sustainability journey, it should be as much as possible integrated in the overall strategy and overall business at a certain point...”. At a certain stage the sustainability topic “...should just be part of the normal strategy.”.

It is important to note that none of the participants suggested on the improvement of the ‘feedback loop’ from the ‘output’-part to the ‘input’-part of the ICSS model. Below the suggestions of improvement are summarized in a schematic overview sorted by the parts of the ICSS model and a piece called ‘other’ is added (figure 32).

The next chapter will elaborate upon the process to translate the ‘strong points’ and ‘suggestions of improvement’ of figure 31 and 32 to revise the ICSS model for the case company. The next chapter will conclude with an adjusted ICSS model in accordance with the case company’s suggestions of improvement.

## Suggestions of improvement

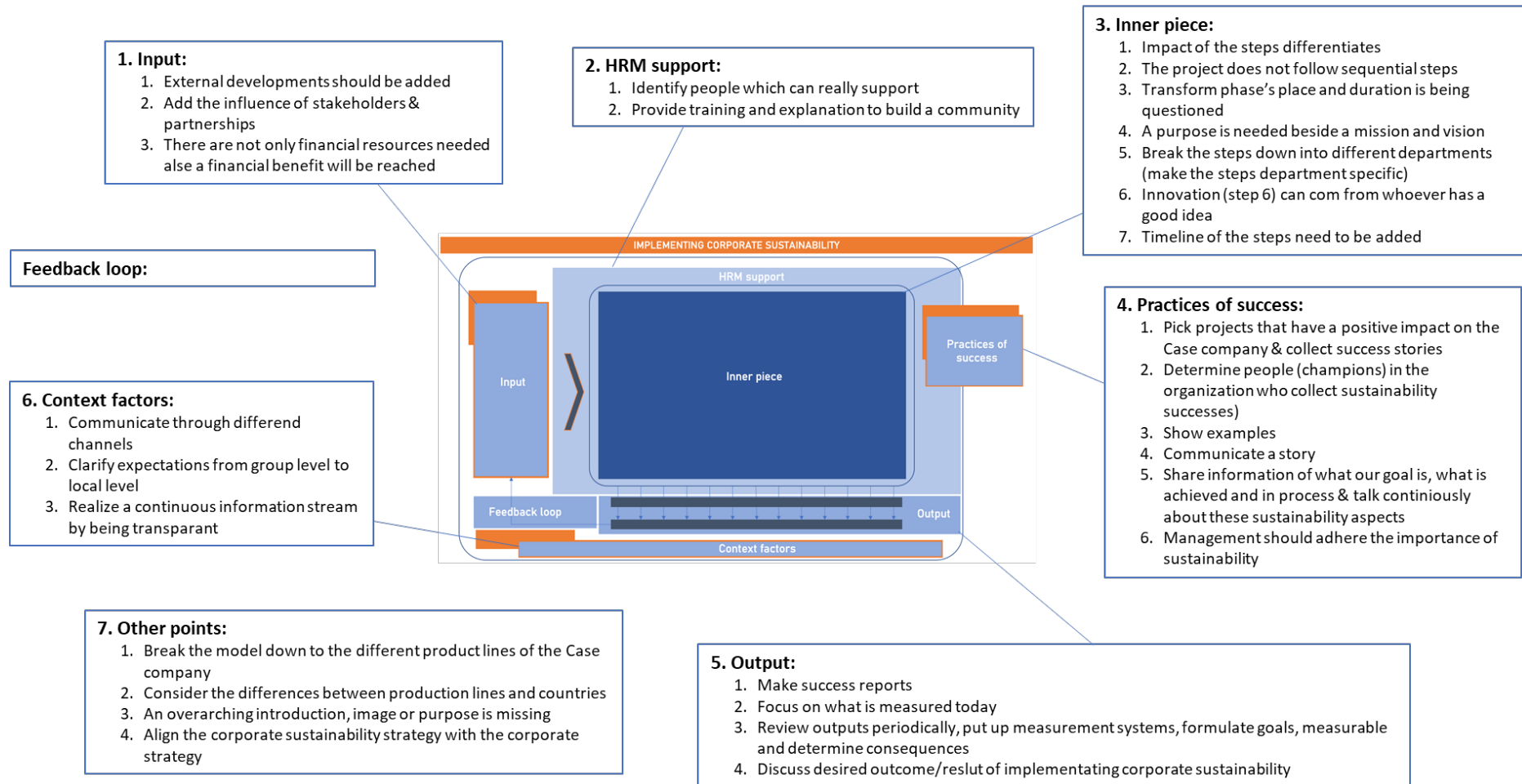


Figure 32 - Schematic overview of suggestions of improvement of the ICSS model based on the conversations with the participants

## 7. The case company's 2050 evolution model

This chapter contains the analysis of the suggestions of improvement of chapter 6. First, the analysis is described followed by table 2 displaying the sequenced topics of improvement. Second, a description is given how each topic is included in either the revised ICSS model or Gantt-chart for the case company.

### *Analysis of topics*

To analyse the topics the participants who supported the topic were listed. Followed by determining the 'level of importance' of each of the topics. The level of importance was decided based on the nuance that was given in conversations. When the participant was emphasizing a lot, the topic received the score '3 out of 3'. If the participant was mentioning the topic with almost no emphasis the topic received the score '1 out of 3'. For some topics, the emphasis was neither a lot nor very little. In these cases the topic received the score '2 out of 3'. Within the next step, the topic list was sorted by using two mechanisms. First, the list is sorted on the 'level of importance' received. By which a '3 out of 3' score is the highest and '1 out of 3' the lowest. Second, the number of times the topic was addressed mattered. The more the topic was mentioned the higher the topic was listed. Hence, there are seven topics that have a high importance level and are mentioned by at least four participants. Thereafter, there are seven topics left which have a high importance but are mentioned by three or less participants. Within the group of '2 out of 3' importance. There is only one topic that is supported by three participants the other eleven topics are only mentioned by two or one participant. Within the group of '1 out of 3' importance the topics are only mentioned by one or two participants. Below, table 2 shows the topics sequenced by the level of importance and the number of times the topic has been supported by the participants.

Table 2 – ‘Suggestions of improvement’-topics sequenced by level of importance and number of times supported

Topic Identification Number	Topic description	Level of importance based on nuance in conversations	Number of times mentioned	Which Participants
7.1	Break the model down to the different product lines of Zehnder	3	7	(III, II, IX, X, VII, V, IV)
3.3	Transform phase's place and duration is being questioned	3	5	(III, VII, VIII, X, II)
3.2	The project does not follow sequential steps	3	4	(II, I, IV, VII)
5.3	Review outputs periodically, put up measurement systems, formulate goals measurable and determine consequences	3	4	(I, VI, IX, VIII)
7.3	An overarching introduction, image or purpose is missing	3	4	(X, I, IX, VI)
3.4	A purpose is needed beside a mission and vision	3	3	(III, VII, X)
4.1	Pick projects that have a positive impact on Zehnder & collect successtories	3	3	(I, III, VIII)
1.1	External developments should be added	3	2	(XIII, III)
4.4	Communicate a story	3	2	(III, IX)
5.4	Discuss desired outcome/result of implementing corporate sustainability	3	2	(III, IV)
6.2	Clarify expectations from group level to local level	3	2	(I, II)
3.7	Timeline of the steps need to be added	3	1	(X)
4.5	Share information of what our goal is, what is achieved and in process & talk continuously about these sustainability aspects	3	1	(IX)
4.6	Management should adhere the importance of sustainability	3	1	(IX)
4.3	Show examples	2	3	(IX, III, VII)
5.1	Make success report	2	2	(I, II)
6.3	Realize a continuous information stream by being transparant	2	2	(II, III)
7.4	Align the corporate sustainability strategy with the corporate strategy	2	2	(IX, VIII)
1.2	Add the influence of stakeholders and partnerships	2	1	(III)
2.1	Identify people which can really support	2	1	(I)
2.2	Provide training and explanation to build a community	2	1	(I)
3.5	Break the steps down into different departments (make the steps department specific)	2	1	(VI)
4.2	Determine people (champions) in the organization who collect sustainability successes)	2	1	(I)
5.2	Focus on what is measurable today	2	1	(I)
6.1	Communicate through different channels	2	1	(III)
7.2	Consider the differences between production lines and countries	2	1	(X)
1.3	There are not only financial resources needed also a financial benefit will be reached	1	2	(VII, I)
3.6	Innovation (step 6) can come from whoever has a good idea	1	2	(X, I)
3.1	Impact of the steps differentiates	1	1	(III)

Within the next step, every topic from table 2 is analysed to determine how the topics can be included within the revised ICSS model. While allocating the topics, it became clear that not all topics could be included within the revised ICSS model. First, the complexity of the systematic model would arise to a certain extent which would reduce the clarity of the model. Second, some of the topics were more ‘actions’ within a planning than a systematic step in the ICSS model. Third, some of the topics could be combined into a general topic that could be included in the revised model but should also be considered as step within a planning. To cope with these inconveniences to include all topics within a revised ICSS model for the case company, an additional model has been created to ‘break down’ the ICSS model to specific steps. These steps are shown in a Gantt-chart allocated to the 4 ‘match-winning points’ that one of the participants suggested. The allocation of topics into either the revised model or the Gantt-chart can be read in figure 33. Within figure 33 it is important to notice that the some of the topics are excluded from the revised model due to the likelihood that the model would become too complex. Moreover, in some cases, the suggested improvement was rather an action within a planning than a part of the ICSS model.

Topic Identification Number	Topic description	How is the point applied in revised model	How is the point applied in Gantt-Chart
7.1	Break the model down to the different product lines of Zehnder	Excluded in the revised model (would make it to complex)	Included by development of steps with BU-heads within 'match-winning point'-create common understanding
3.3	Transform phase's place and duration is being questioned	Included by the extra box in front of the 'input' of the model. ( purposefull leadership should be at the beginning)	Included by defining steps at the 'match-winning point'- create common understanding
3.2	The project does not follow sequential steps	Included by arrows above and below the inner piece, depending on the progress (showing the dynamic)	Included by some arrows indicating dynamic process
5.3	Review outputs periodically, put up measurement systems, formulate goals measureable and determine consequences	Excluded in the revised model (would make it to complex)	Included by creating a measurement system.
7.3	An overarching introduction, image or purpose is missing	Included within the extra box in front of the 'input' of the model. ( purposefull leadership should be at the beginning)	Included by defining steps at the 'match-winning point'- create common understanding
3.4	A purpose is needed beside a mission and vision	Included within the extra box in front of the 'input' of the model. ( purposefull leadership should be at the beginning)	Included by defining steps at the 'match-winning point'- create common understanding
4.1	Pick projects that have a positive impact on Zehnder & collect successtories	Included by communicating successtories as one of the parts of the feedbackloop	Included as step 'collect projects that have a positive impact on Zehnder' and 'collecting successtories' as returning action within the 'match-winning point'- measuring system
1.1	External developments should be added	Included (Combined with 1.2) by adding an additional environment layer over the model	Included by the returning step "collecting external developments" within the 'match-winning point'-measuring system
4.4	Communicate a story	Excluded in the revised model (would make it to complex)	Included by the step 'determine story' within the 'match-winning point'-common understanding
5.4	Discuss desired outcome/result of implementing corporate sustainability	Excluded in the revised model (would make it to complex)	Included by the step 'discuss and determine desired outcome/result' within the 'match-winning point'-common understanding
6.2	Clarify expectations from group level to local level	Excluded in the revised model (would make it to complex)	Included by the step 'leaders communicate purpose, story, and deliverable and "what if we don't do anything"' within the 'match-winning point'-common understanding
3.7	Timeline of the steps need to be added	Excluded in the revised model (would make it to complex)	Gantt-chart is added to comply with this topic
4.5	Share information of what our goal is, what is achieved and in process & talk continuously about these sustainability aspects	Included by adding transparancy as sixth context factor	Excluded
4.6	Management should adhere the importance of sustainability	Excluded in the revised model (would make it to complex)	Included by the step 'management should adhere the importance of sustainability' within the 'match-winning point'-common understanding
4.3	Show examples	Excluded in the revised model (would make it to complex)	Included as step 'collecting examples' and 'show examples' as returning action within the 'match-winning point'- measuring system
5.1	Make success report	Excluded in the revised model (would make it to complex)	Included as step 'report successtories' as returning action within the 'match-winning point'- measuring system
6.3	Realize a continuous information stream by being transparant	Included by adding transparancy as sixth context factor	Included by creating a measurement system.
7.4	Align the corporate sustainability strategy with the corporate strategy	Included by adding a link to the corporate strategy for the first 3 steps of the 'inner piece' of the model	Included as step ' align with corporate strategy' within the 'match-winning point'-common understanding
1.2	Add the influence of stakeholders and partnerships	Included by adding an additional enviornment layer over the model including external developments, partnerships and stakeholders (value chain)	Included by the returning step "collecting external developments" within the 'match-winning point'-measuring system
2.1	Identify people which can really support	Excluded in the revised model (would make it to complex)	Included as step ' Identify people that can support' within the 'match-winning point'-common understanding
2.2	Provide training and explanation to build a community	Excluded in the revised model (would make it to complex)	Included as returning step 'providing training' within the 'match-winning point'-common understanding
3.5	Break the steps down into different departments (make the steps department specific)	Excluded in the revised model (would make it to complex)	Included as step ' initiate departments of different BU's to collaborate' within the 'match-winning point'-common understanding
4.2	Determine people (champions) in the organization who collect sustainability successes)	Excluded in the revised model (would make it to complex)	Included as step ' Identify people that can support' within the 'match-winning point'-common understanding
5.2	Focus on what is measurable today	Excluded in the revised model (would make it to complex)	Included as step 'what data is there already?' as action within the 'match-winning point'- measuring system
6.1	Communicate through different channels	Excluded in the revised model (would make it to complex)	Included as returning step 'communicate through different channels' within the 'match-winning point'- creating common understanding and 'match-winning point'- measuring system
7.2	Consider the differences between production lines and countries	Excluded in the revised model (would make it to complex)	Included as step ' Identify people that can support' and 'fill 'Zehnder's evolution'-model with actions in collaboration with BU-heads" within the 'match-winning point'-common understanding
1.3	There are not only financial resources needed also a financial benefit will be reached	Included by adding 'financial benefits' to the feedbackloop	Excluded
3.6	Innovation (step 6) can come from whoever has a good idea	Excluded in the revised model (would make it to complex)	Included as step 'collect ideas on general platform' within the 'match-winning point'- measuring system and 'match-winning point' - common understanding
3.1	Impact of the steps differentiates	Excluded in the revised model (however with the 'match-winning points' the impact of some steps is highlighted)	Excluded

Figure 33 - Overview how topics are included within the revised model and Gantt-Chart for the case company

Hence, the following adjustments are made on the ICSS theoretical model to create a ‘the case company evolution’ model to realize corporate sustainability (the topic identification numbers are mentioned between parentheses):

- The feedback loop has been changed to a feedback loop including ‘success stories, financial benefits and opportunities to improve’ (4.1; 1.3)
- The transformation phase of the inner piece has been moved to the front of the human and financial resources (‘input’- part) to imply that ‘creating common understanding’ is key to start this evolution of the case company. (3.3; 7.3; 3.4; 4.5)

New aspects added are:

- Arrows within the ‘inner-piece’-part of the model to show the dynamic process and continuous improvement character of the case company’s evolution (3.2)
- The alignment with the corporate strategy along the way of the evolution (7.4)
- The alignment with the environment around the business (environmental developments as well as partnerships and stakeholders such as customers, society and others outside the company) (1.1; 1.2)
- ‘Transparency’ is added as sixth context factor (6.3)

Below the ‘the case company evolution’ model is displayed (figure 34). Figure 35 shows the model in the company colours. The figure used within the management summary (figure 1) is equal to figure 35.

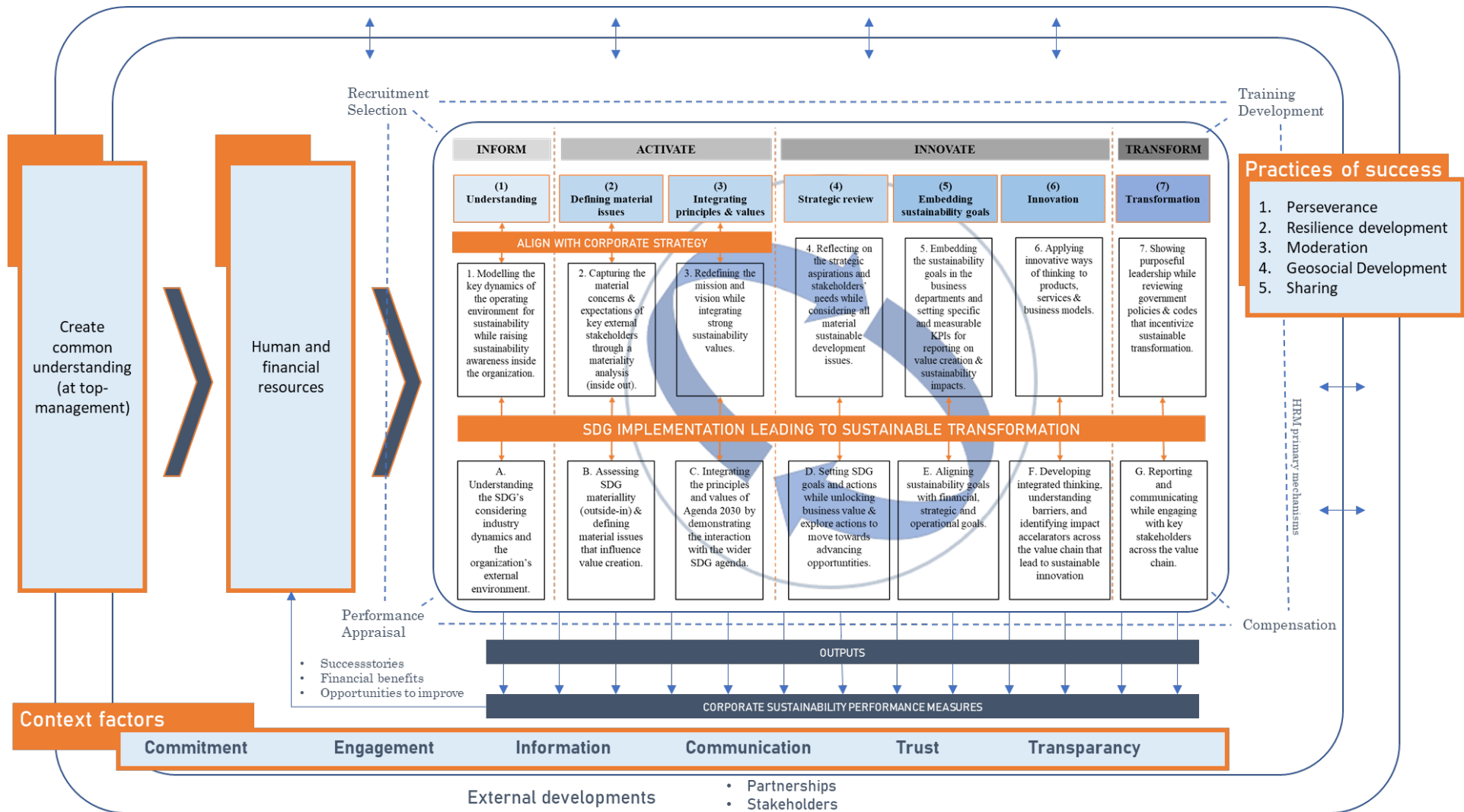


Figure 34 - The case company evolution model to realize corporate sustainability



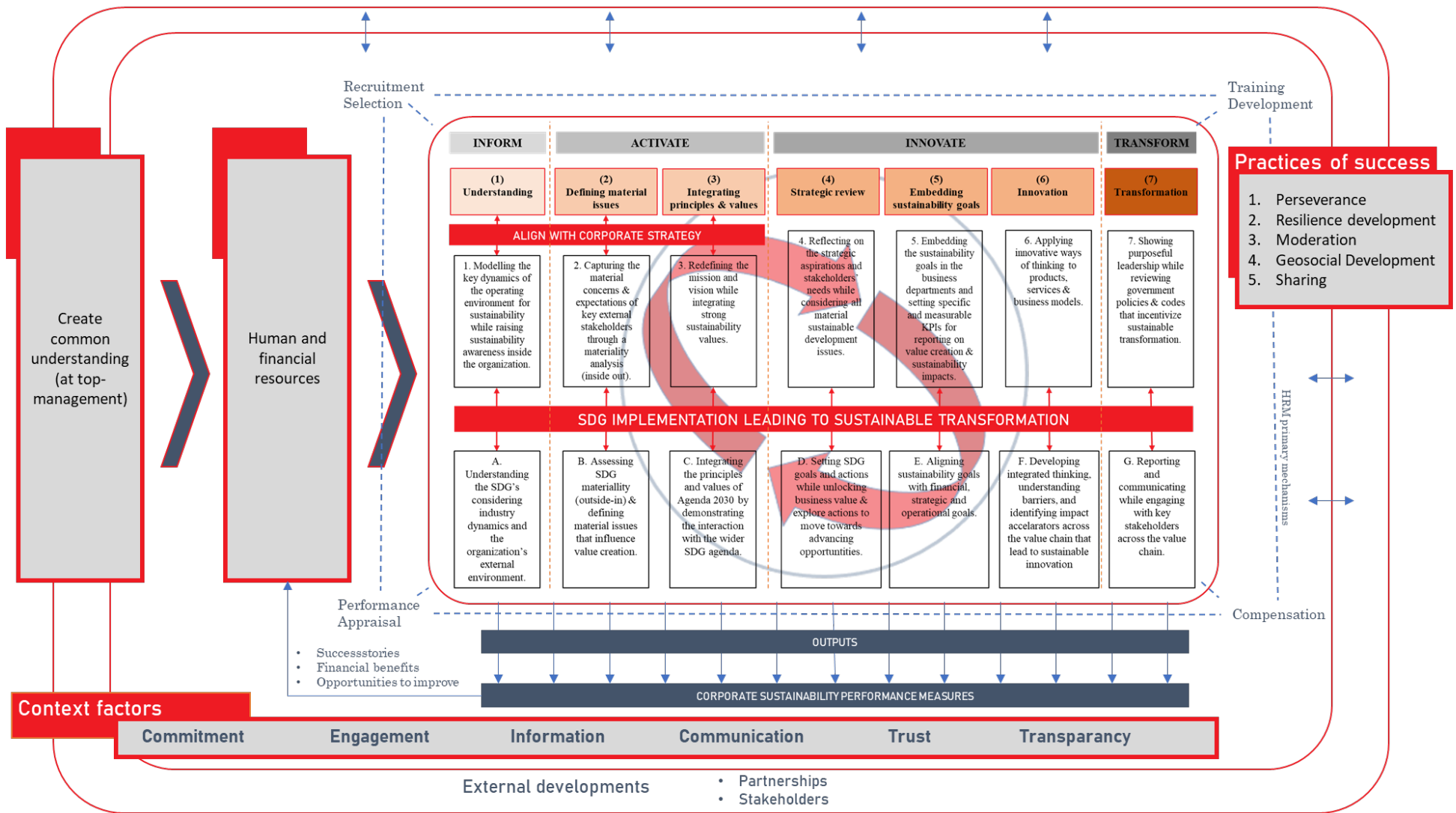


Figure 35 - The case company evolution model in company colors

This proposed systematic approach (figure 35) can be used by the top management as a guideline to implement corporate sustainability. And as starting point of discussion with the Business Unit heads to collaboratively derive actions to the respective steps. However, the most important point of the participants within the conversations was the need to ‘break-down’ the model (topic number 7.1) and this topic is not yet covered in figure 35. The suggestion of ‘breaking down the model’ was made in regard of the ‘inner piece’-part as well as on the model in total. Therefore, the following solution is determined based on suggestions by the participants as well as additional discussion with the Chief Sustainability Officer of the case company and own perspective.

First, it is recommended to look at step 4, 5, 6 and 7 from the ‘inner piece’-part of the model for every department separately to see how the steps can be pursued in the specific situations. Important to note is that the top management stays responsible to provide the information of the first three steps (of the ‘inner piece’-part of the model) to the business unit heads of the sub-companies.

Second, to translate the scientific model into a hands-on fitting approach for the case company. A simplified version of the model is made. The simplified version consists of the following 4 “match winning points” that are key elements to implement corporate sustainability within the case company:

1. Create common understanding (top-management)
2. Measuring system/process
3. Human Resource system
4. Context factors

To guide the case company through realizing these match winning points. Figure 36 and 37 show a Gantt-chart displaying steps how to bring the first two match winning points ‘alive’. The Gantt-charts are displayed as water drops that become larger when time passes because the impact of the actions increases.

#### *Wave of Creating common understanding*

The commitment of top management can be reached by the definition of a purpose together.

## Wave of Creating common understanding

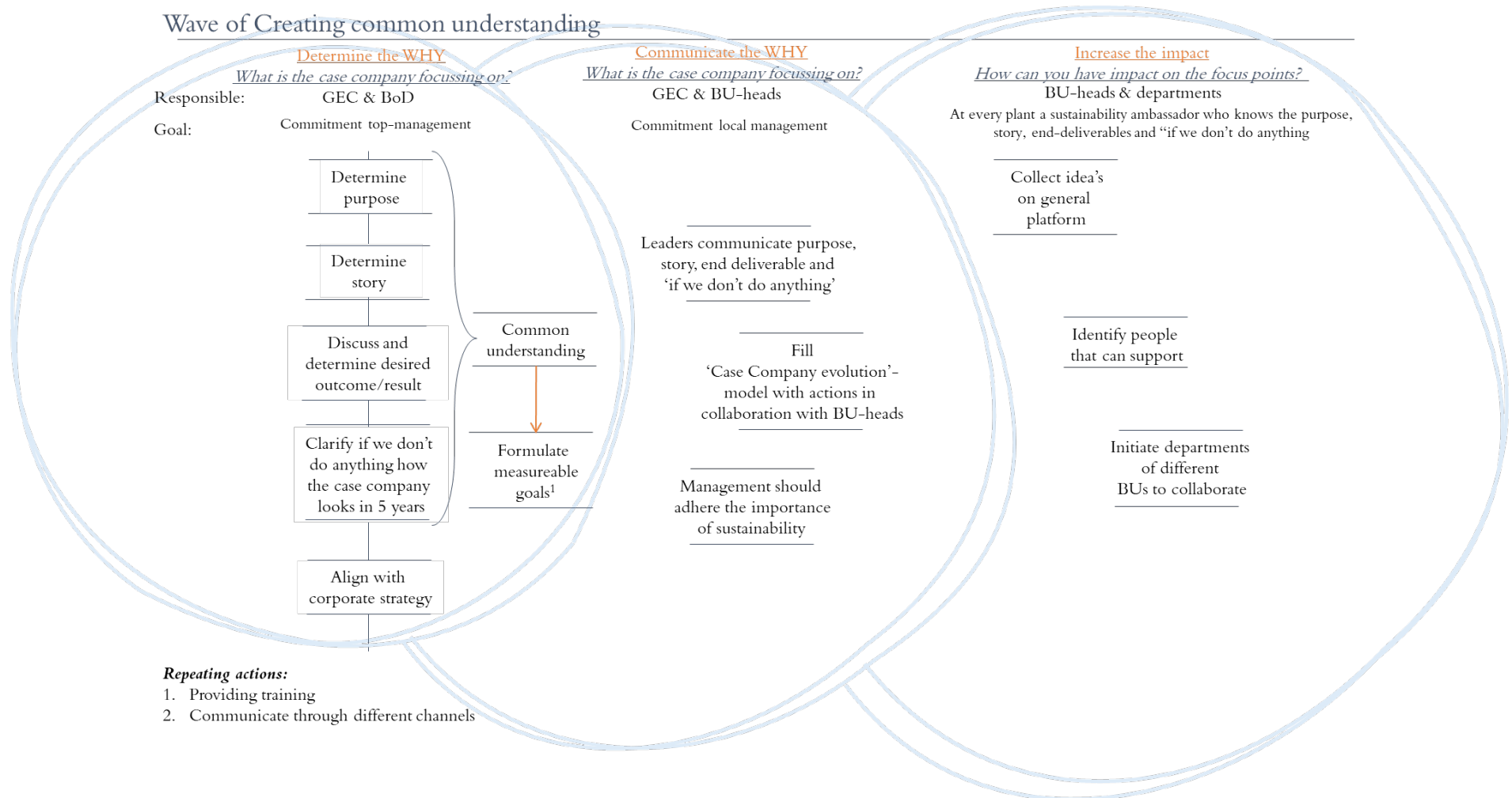


Figure 36 - Wave of Creating common understanding as one of the "match winning points"

According to Participant III "... you need to communicate it as a story" and "make sure you get the commitment of the whole organization". Therefore, the first circle includes the actions to determine of purpose and the story. Followed by a discussion of the desired outcome and a clarification of the 'what if' scenario when the case company does not change anything. All these four activities have the purpose to realize a common understanding within the GEC and BoD (top-management). In addition to these four activities, it is important to align the development of the story, purpose and desired result with the corporate strategy that the GEC and BoD define. After the common understanding is realized, it is the responsibility of the top management to formulate measurable goals. These actions should all be executed before the 15<sup>th</sup> of June 2022 because at that moment the business unit heads gather and this is the moment to step into the next wave of impact. The goal of the second wave is to create commitment of the local managers. This should be done by the top-management who is communicating the purpose, story, end deliverables and 'if we don't do anything'. Second, by filling out 'the case company's evolution model' with actions in collaboration with the business units heads. Third, management should adhere the importance of sustainability. In wave three the business units heads collect ideas on a general platform, identify people that can support this change and initiate departments to collaborate with other business units. During this wave of 'creating common understanding' it is important to repeat the following two actions: provide training about the sustainability topic (1) and communicate through different channels (2).

#### *Measuring process*

The second 'match-winning point' is setting up the wave of a measuring system. The measuring system set-up should start with determining what data is already available at the case company. Followed by collecting the data in a system. In the second wave the defined goals (see wave of creating common understanding) are considered to determine what other information is needed to be measured and how it should be measured. All this information is added to the system that was in place to collect the data in the first wave. Third, it is important to collect ideas on a general platform, identify people that can support, instruct business units heads to report on sustainability figures monthly and ensure to initiate departments of different business units to collaborate. During this wave of 'measuring system' it is important to repeat the following seven actions: review outputs periodically (monthly) (1); collect success stories (2); report success stories (3); collect external developments (4); collect examples (5); show examples (6) and communicate through different channels.

## Wave of Measuring system

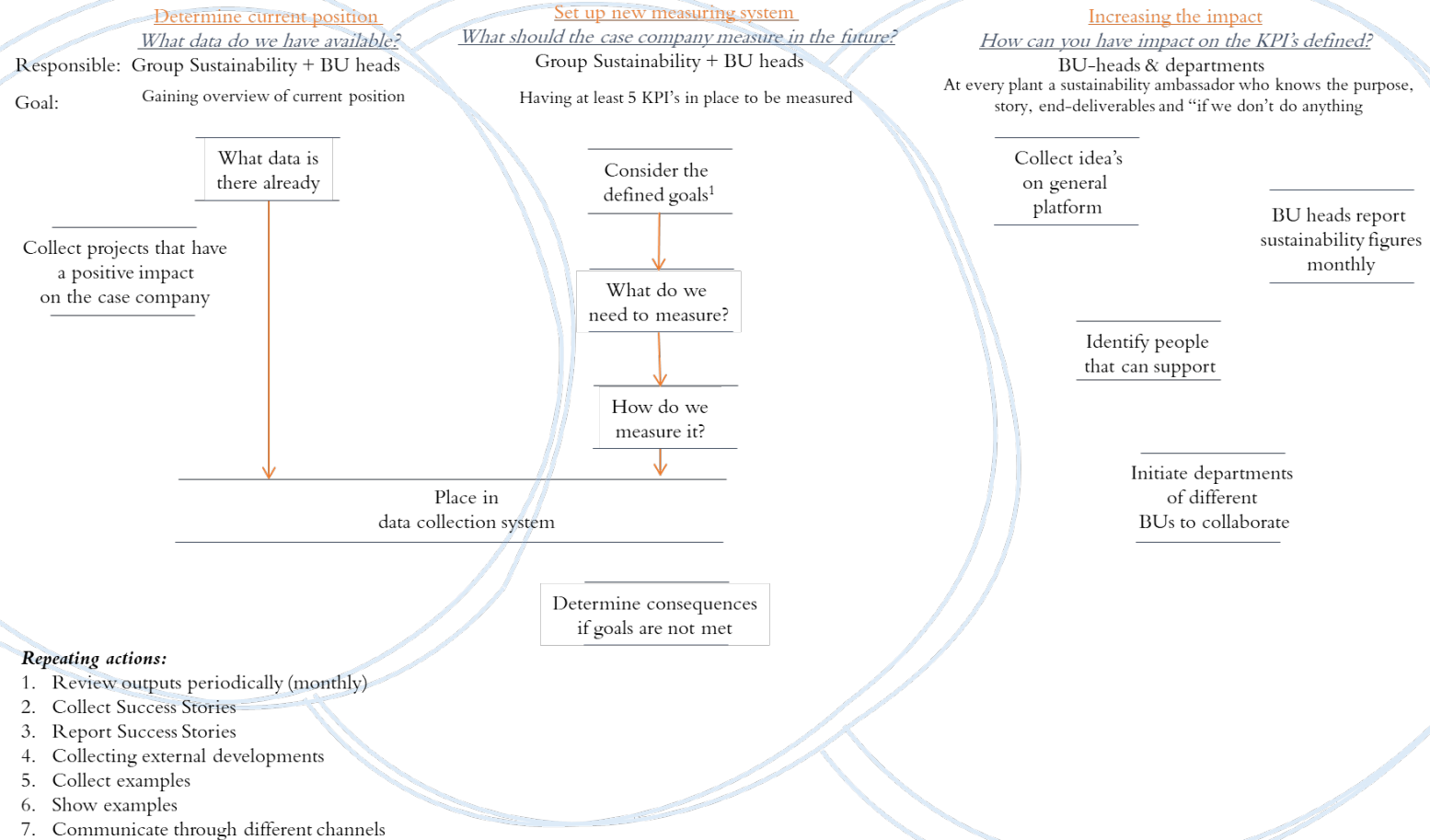


Figure 37 - Wave of Measuring system as one of the "match winning points"

## 8. Conclusion and Discussion

Based on the previous chapters, this chapter describes the key findings by mentioning five conclusions. Each conclusion is followed by a description how this result contribute to theory and practise by describing what is new and what is counterintuitive. After this description, the limitations of the specific part are described. Followed by the suggestions for future research and practical implications outside the case company.

The chapter starts with a repetition of the aim and research question.

The aim of this research was to:

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*Provide an approach for the case company to successfully implement their sustainability strategy in a short-to-mid-term time period.*

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Therefore, the following research question was formulated:

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*Which systematic approach can be used by the case company to successfully implement a sustainability strategy?*

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**Conclusion 1:** This research showed that existing theoretical systematic approaches complement each other.

**Conclusion 2:** This research showed that none of the existing theoretical systematic approaches fit to the initial requirements of case company.

Based on conclusion 1 and 2, a combination of existing systematic approaches has been made. Resulting in figure 38.

# IMPLEMENTING CORPORATE SUSTAINABILITY

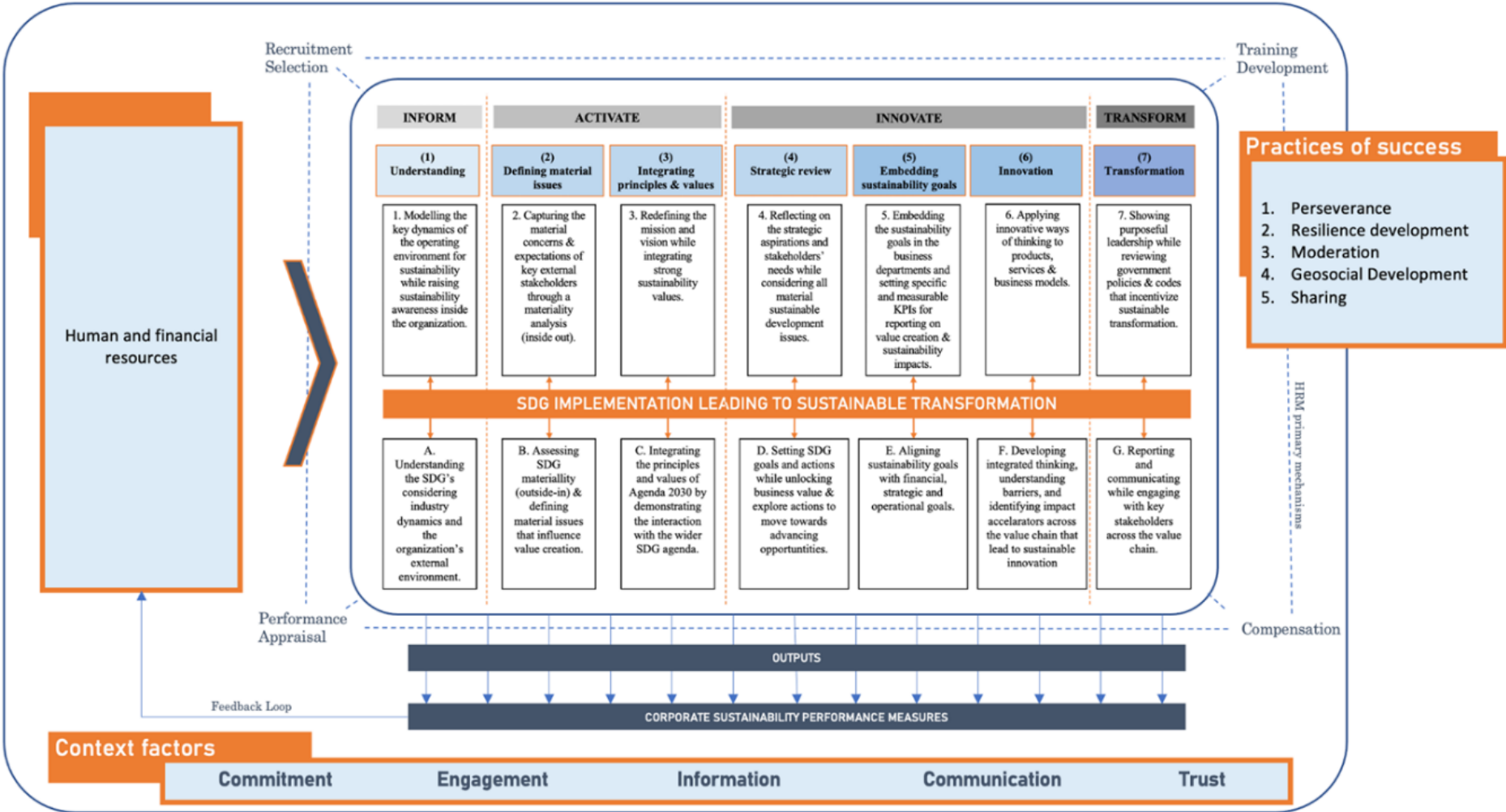


Figure 38 - Integrated theoretical model called "Implementing Corporate Sustainability Successfully" (ICSS)

The theoretical framework of Beyne (2020) was determined to be most relevant and is used as basis within figure 38. Followed by adding several aspects from other models to enhance the model and improve the relevancy of the theoretical model for the case company. First, the HR dynamics are added which has its origin in Buller & McEvoy's framework (2018). Second, the corporate sustainability performance measures are added as output based on Epstein and Buhovac's (2010) model of Corporate Sustainability. Third, a feedback loop has been added to adjust the process accordingly to the corporate sustainability performance. This feedback loop has its origin in multiple existing systematic approaches (Epstein & Buhovac, 2010; Maon et al., 2009; Buller & McEvoy, 2016; Kantabutra & Ketprapakorn, 2020; Fonseca et al. 2021). Fourth, the 'human and financial resources' are added as input to be adjusted accordingly to the corporate sustainability performance. This input box has its origin in Epstein and Buhovac (2010) model. Fifth, the five practices of success find its origin in Kantabutra and Ketprapakorn (2020) which support along the change. Sixth, the context factors find its origin in Fonseca et al. (2021) which includes the attention to 'commitment, engagement, information, communication, trust'.

Theoretical and practical contribution as a result from conclusion 1, 2 and figure 38:

This research contributes to the corporate sustainability theory by analyzing and combining existing systematic approaches. This theoretical ICSS model contributes to the corporate sustainability theory by the combination of existing elements. In particular, the inclusion of context factors. Beyne (2020) was implying a limitation in their research by stating that context factors of the implementation are missing. And Kantabutra and Ketprapakorn (2020) mentioned that the model is lacking the inclusion of contextual factors that can affect the proposed relationships. These contextual factors could be "... political, economic, social, environmental, and legal ..." factors within the environment (p. 45). By adding the context factors from Fonseca et al. (2021) and the external developments as 'layer' around the framework we provide an answer to the limitations suggested in previous research has been provided with this research.

Second, prior research has shown that there was no universal model of sustainability strategy implementation defined yet (Lee, 2011; Maon et al., 2009; Radomska, 2015). By which the theoretical ICSS model attempts to define a universal model of implementing corporate sustainability.

In contrast to the theoretical contribution, the ICSS model can be applied in practice as a guideline. The ICSS model is specifically suitable to apply on top-management level as a guideline for the organization and complete the stages information, activation, innovation and transform to implement corporate sustainability.



## Limitations

Even though this study was performed to the best abilities of the researcher and several theoretical- and practical contributions are mentioned. The following limitations should be considered.

- First, one could discuss the exclusion of the formulation of the strategy. The formulation of the strategy of the case company is left out of scope within this research but previous research has shown that a poor or vague strategy is one of five obstacles to implement a strategy (Hrebiniak, 2006). Yet, the researcher could not extend the research to include the formulation and decided to focus on the steps of implementation. Notwithstanding that the theoretical ICSS model (figure 38) includes the refinement of the mission and vision since the model of Beyne (2020) includes this step. According to Hrebiniak (2006) and Mazzola and Kellermanns (2010) the implementation of making a strategy work is even more difficult than formulating one.
- Second, in the sixth step of the systematic funnel (figure 5) this research continued with searching for more recent models based on the models that were already found. This could have caused that some models were not collected at all. Additionally, this research excluded models from the ‘university-’, ‘sport-’ and ‘mining-’ industry to prevent that too many models were derived. Despite that, these models could have maybe been covering valuable aspects to apply in the ICSS model.
- Third, one could discuss the representativeness of the participants of the semi-structured interviews. It is debatable that ten participants represent the case company employing 3500 employees. As well as the fact that these participants only included high-ranked employees such as board-, staff- and executive members. However, the researcher realized that all the business units were part of the establishment of a systematic approach for the case company by including the top-management. Hence, actions were taken to increase the representativeness of the interviews. Even though further research is needed to indicate the requirements of local business unit managers.
- Fourth, the combination of existing theory into the theoretical ICSS model and translation of semi-structured interviews in initial requirements was a single person exercise. To increase the reliability of this study, it is recommended to conduct the combination and coding of interviews by multiple researchers.

**Conclusion 3:** This research showed 94% of the initial requirements of case company are met by the theoretical ICSS model

**Conclusion 4:** This research showed that the theory based ICSS model (figure 38) needs to be adjusted to comply with case company by communicating success stories, financial benefits and opportunities to improve (1); start with the transformation phase earlier (2); display a dynamic process (3); indicate alignment with the corporate strategy (4); consider environment around the business (5) and includes transparency of the process (6).

Based on conclusion 3 and 4, a the case company evolution model has been made. Resulting in figure 39.

Figure 39 differs from figure 38 by the following five aspects. First, the feedback loop has been adjusted by including success stories, financial benefits and opportunities to improve. Second, the box 'create common understanding (at top-management)' has been added since the creation of a common understanding is 'key' to realize a successful implementation of the case company's sustainability. Third, the 'double red arrow' within an earth/circle is added, to show the dynamic character that this implementation of corporate sustainability within the case company has. Fourth, the alignment with the corporate strategy has been added within the first three steps of the inner part. Fifth, a layer 'external developments' around the case company's own activities is added in which partnerships and stakeholders are displayed. The interaction between the external developments and the case company is displayed with the blue arrows between the layers. Sixth, transparency of processes has been added as additional context factor.

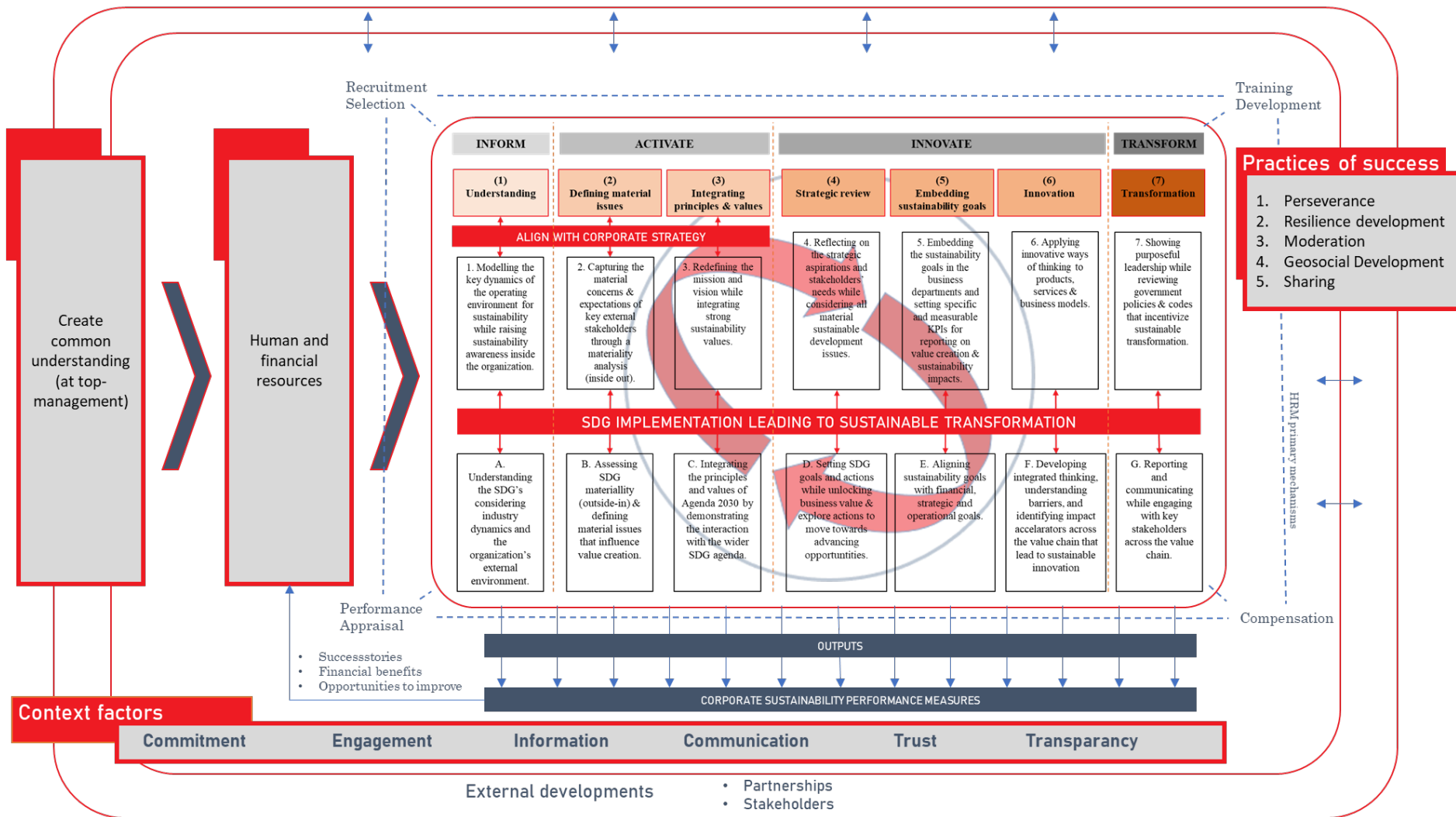


Figure 39 - The Case Company evolution model

### Theoretical and practical contribution as a result from conclusion 3, 4 and figure 39:

Previous research addressed the lack of empirical studies on the integration of corporate sustainability into strategic management (Engert et al., 2016). And researchers called for research to discuss a proposed framework for designing and implementing CSR with case studies (Maon et al., 2009). Within this research we researched the approach to implement corporate sustainability and conducted a case study by using Maon et al. (2009) suggested framework as one of the parts. The research enlarged the knowledge on the integration of corporate sustainability by combining existing theoretical approaches and searching for anomalies by conducting a case study.

Figure 39 can be used by the top-management of the case company as a guideline to implement corporate sustainability within the business units. While doing so it is important to adjust the model accordingly to the preferences of the business units heads since the culture, market and resources can differ within the countries.

### Limitations

Even though this study was performed to the best abilities of the researcher and several theoretical- and practical contributions are mentioned. The following limitations should be considered:

- First, the researcher conducted a single case study. Which led on one hand to more detail and rich data but on the other hand to a low external validity or generalizability of the model. Hence, the findings of this study cannot be generalized to other companies.
- Second, the one-on-one conversations are only interpreted by a single person to derive adjustments of the theoretical ICSS model. Despite that the researcher used a systematic approach to sort the feedback, the reliability of this study could be increased to conduct the coding of interviews by multiple researchers.

**Conclusion 5:** This research showed that the ICSS model (figure 38) should be ‘broken down’ to concrete actions to successfully implement a sustainability strategy within case company.

Based on conclusion 5, the case company evolution model (figure 39) has been supplemented with two ‘match winning points’ displayed as ‘waves of impact’(figure 2 and 3). This package is displayed in figure 40 below.

The two ‘waves of impact’ (number 2 and 3 in figure 40 and shown in figure 36 and 37) do not make the case company’s evolution model (figure 39) redundant. The two ‘waves of impact’ are meant as supplementing guideline which are both in line with the actions displayed in the case company’s evolution model (figure 39). Hence, this research delivers a case company evolution package consisting of the case company evolution model (1) and two ‘waves of impact’ (2 and 3).

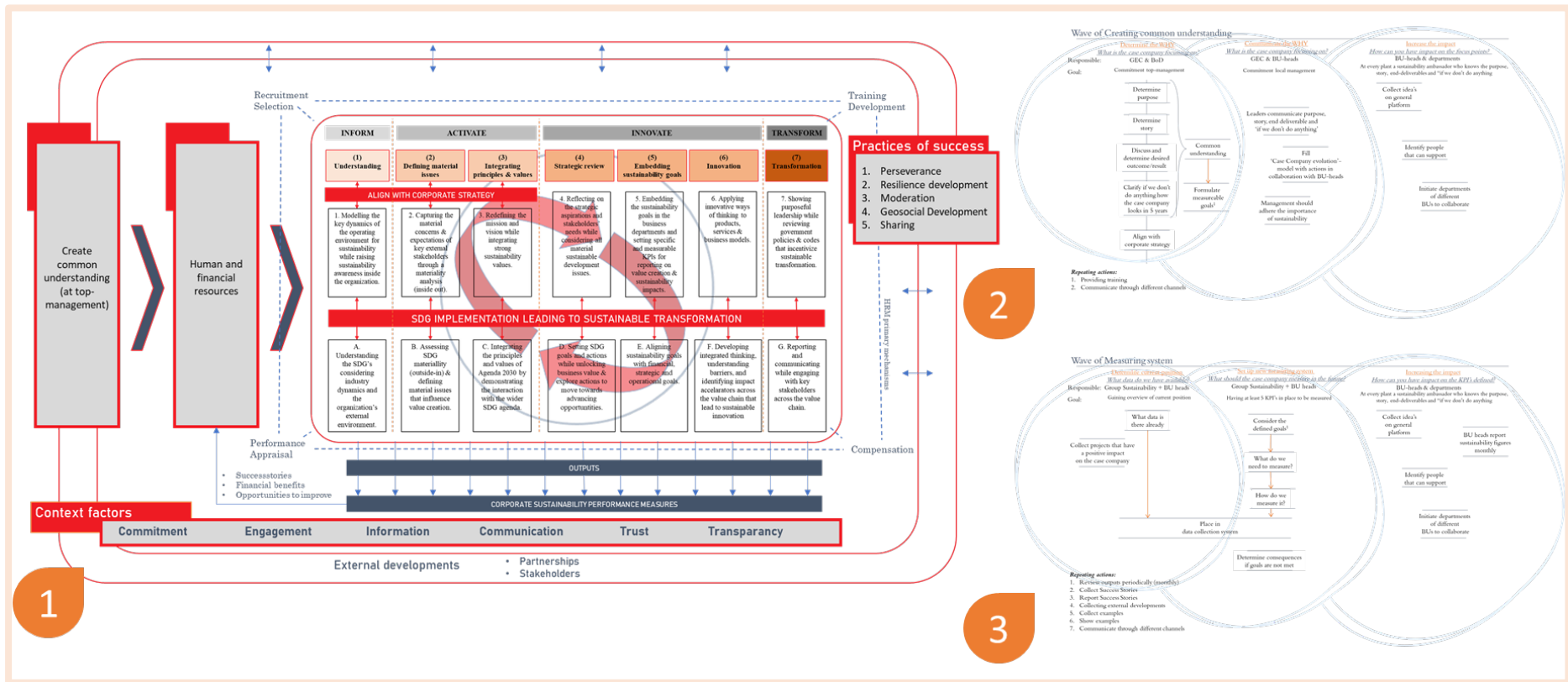


Figure 40 - The Case Company evolution package

### Theoretical and practical contribution as a result from conclusion 5 and figure 40:

This part of the research contributes especially to the practical ability of the case company to implement their sustainability strategy successfully. Figure 40 provides the case company with a step-by-step approach to implement corporate sustainability successfully.

### Limitations

Even though this study was performed to the best abilities of the researcher and several theoretical- and practical contributions are mentioned. The following limitations should be considered:

- First, the activities mentioned in the ‘waves of impact’ are only based on the one-on-one conversations with the participants. One could consider to include missing actions during the execution of the model.
- Second, one could discuss the relevancy of the case company evolution model (figure 39) since the final model has only been discussed with the CSO of the case company and not with all the ten participants of the semi-structured interviews. Despite of that, the researcher discussed the final model with the CSO of the case company. Who is responsible to implement corporate sustainability within the company. Hence, actions were taken to increase the relevancy of the case company evolution model but further collaboration and development of the model is suggested. Within the design thinking phase an additional feedback loop could have been added.

### *Future research*

This empirical study into sustainability strategy implementation is contributing to literature by providing an in dept qualitative study using literature and semi-structured interviews. However, researchers are invited to extent this research by applying another type of qualitative research, namely a longitudinal case study approach to evaluate the sustainability developments among a longer time frame (Gond. et al., 2012). Craig and Dibrell (2006) support the demand for more longitudinal research on family firms in organizations and add that future research should even include a broader sustainable development context. Second, further empirical research is needed on how organizations balance and distribute managerial attention on MCS and SCS across their organization (Gond et al.2012). Third, researchers are invited to test the ICSS model within different organizations by using the templates. To discover to which extent this ICSS-model can be applied in other industries.

### *Practical implications the case company*

Within the case company I would suggest that the ‘the case company Evolution-model’ (figure 39) will be tested by following the seven-step method for testing product concepts from Ulrich and Eppinger (2016):

1. Define the purpose of the concept test

2. Choose a survey population
3. Choose a survey format
4. Communicate the concept
5. Measure customer response
6. Interpret the results
7. Reflect on the results and the process

By which it is important to test the model within different business units of the organization. I would recommend that the ‘the case company evolution model’ will be considered as a template to the heads of the production lines and determine concrete tasks into the specific business areas. Moreover, it is recommended to execute a stakeholder analysis in the future, including the orientation on optional partnerships, to increase the awareness of the external developments around the case company. Third, the ‘waves of impact’ for the other two match winning points: human resource system and context factors should be created within the future. Therefore, it is recommended to create these waves in collaboration with the Human Resource Manager of the case company as well as the local Human Resource managers.

#### *Practical implications worldwide*

This research showed that companies are facing the complex task to implement corporate sustainability within their organizations. However, this research also provided a theoretical ICSS model that can be used as inspiration for other companies to start with the transformation towards a sustainable company. In support of the further implementation of the sustainability concept, I would recommend that companies to adjust the ICSS model accordingly to the business the company is located in. Additionally, it is recommended to implement a Balanced-Scorecard to display the corporate sustainability performance. Radomska (2015) emphasizes that the Balanced-Scorecard displays the greatest integration with the concept as implementation tool (Figge et al., 2002). Where Nathan (2010) support this statement by arguing that the Balanced-Scorecard is especially suitable for the non-financial measures. By creating this measuring tool, it is relevant to include the sustainability performance measures suggested by Epstein & Buhovac (2010).

With this research, theoretical and practical contributions, a start has been made to reduce the complexity of implementing corporate sustainability. And hopefully inspires others to increase their awareness to change. As Charles Darwin said:

*It's not the strongest of the species that survive, nor the most intelligent, but the ones most responsive to change – Charles Darwin*

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## Appendix



## Appendix 1 – Increase of stakeholder's pressure

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## Appendix 2 – Methodology overview and research planning

Within this appendix the methodology overview (figure A2.1) as well as the research planning (figure A2.2) are displayed.

Figure A2.1 – Methodology overview (self-made)

		Number	Sub-question	Data collection method	Analysis	Deliverable	Deadline
Chapter 4	Theory	1	What is existing theory on successfully manage change?	Secondary research	Vertical analysis	Theoretical syntheses describing similarities and differences	12.01.2022
		2	What models to implement sustainability strategies are existing?	Secondary research	Horizontal- and vertical analysis		
Chapter 3	Practise	3	What requirements can be derived from the needs of the case company?	Semi-structured interviews with stakeholders	Qualitative content analysis	List of requirements	12.01.2022
Chapter 5	Prototype I	4	Which model could fit the requirements of case company?	Chapter 3 and 4	Horizontal- and vertical analysis	Prototype I	28.01.2022
Chapter 6	Design thinking process	5	What needs to be adjusted to the prototype?	Design thinking process including one-on-one conversations	Qualitative content analysis	Prototype II	18.02.2022
Chapter 7	Final SSIM	6	What SSIM would fit the case company requirements?	Chapter 6	Horizontal- and vertical analysis	Final Case Company Evolution Model	04.03.2022

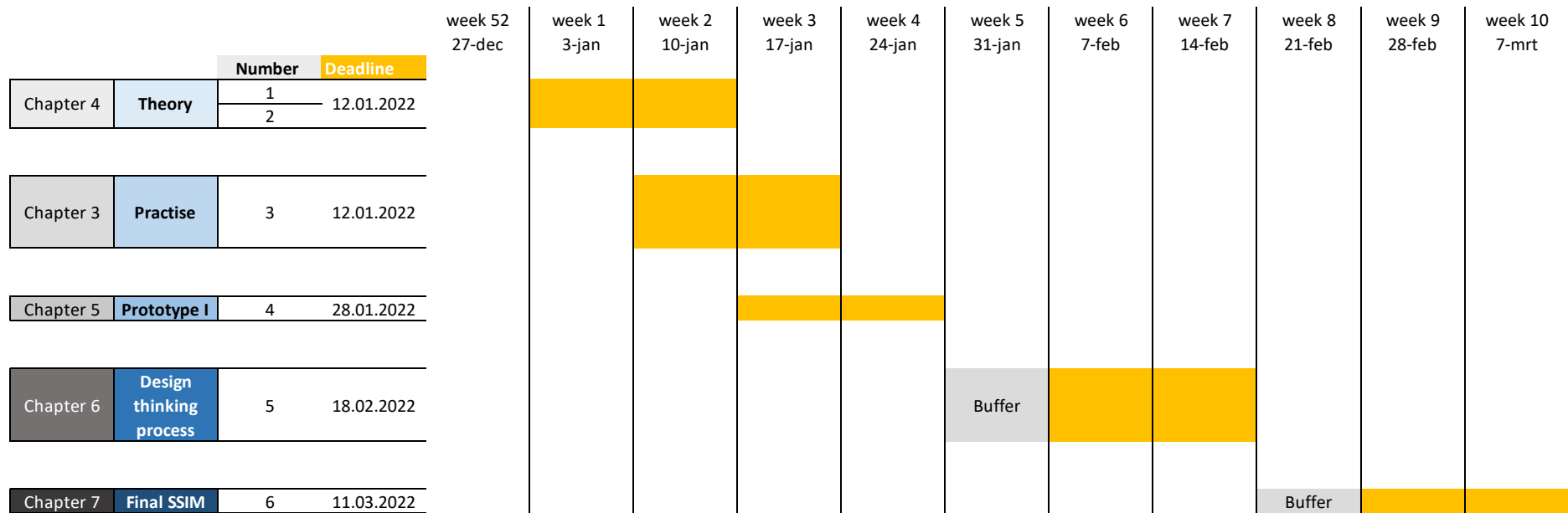


Figure A2.2 - Gantt-chart showing the research planning

## Appendix 3 – Short list of 25 sources

Source Nr.	Literature review (LR)/Concept paper	Source of reference	Reference	Title	Content summarized or abstract copy pasted
1	LR	<a href="https://essay.utwente.nl/67480/1/vanApeldoorn_BA_BMS.pdf">https://essay.utwente.nl/67480/1/vanApeldoorn_BA_BMS.pdf</a>	Ocasio, W. & Joseph J. (2008). Rise and Fall – or Transformation?: The Evolution of Strategic Planning at the General Electric Company, 1940-2006. Long Range Planning, 248-272	Rise and Fall – or Transformation?: The Evolution of Strategic Planning at the General Electric Company	We challenge conventional accounts of the rise and fall of strategic planning by examining the history and evolution of strategic planning practices at the General Electric Company (GE) during six CEO regimes: Wilson, Cordiner, Borch, Jones, Welch and Immelt. We distinguish strategic planning - a system of strategy formulation, decision making and control - from particular planning technologies such as SBU planning. We show how an integrative system of strategic planning was first established in GE in the 1950s and continues, albeit transformed, to this day. Integrative strategic planning at GE was originally called long range planning, later strategic planning, and after the abandonment of SBU planning, GE's Operating System, but changes in the use of labels mask continuities in prevailing practices. The history of strategic planning at GE has several implications for contemporary strategy making: first, the practice of strategic planning cannot remain static but must evolve to facilitate changes in corporate agenda and management style. Second, the CEO's involvement in design of the strategic planning system is critical to its endurance and centrality. Third, specialized governance channels for decision-making and communications focus attention of corporate executives on distinct, yet critical, planning tasks to shape the corporate agenda. Finally, the tight coupling of information and communication flows across governance channels is critical for the overall integration and effectiveness of the strategic planning system.
2	CP	<a href="https://www.emerald.com/insight/content/doi/10.1108/JBS-08-2014-0099/full/pdf?title=building-sustainability-strategy-in-business">https://www.emerald.com/insight/content/doi/10.1108/JBS-08-2014-0099/full/pdf?title=building-sustainability-strategy-in-business</a>	Teh, D. and Corbitt, B. (2015), Building sustainability strategy in business, <i>Journal of Business Strategy</i> , Vol. 36 No. 6, pp. 39-46. <a href="https://doi.org/10.1108/JBS-08-2014-0099">https://doi.org/10.1108/JBS-08-2014-0099</a>	Building sustainability strategy in business	The purpose of this paper is to explore environmental sustainability (eco-sustainability) policy and strategy adoption and implementation in Australian companies. Specifically, it assesses what influences the extent of organizational eco-sustainability strategy implementation.
3	CP	<a href="https://www.mdpi.com/2071-1050/7/12/15790">https://www.mdpi.com/2071-1050/7/12/15790</a>	Radomska, J. (2015). The Concept of Sustainable Strategy Implementation. <i>Sustainability</i> , 7 (12), 15847–15856. <a href="https://doi.org/10.3390/su71215790">https://doi.org/10.3390/su71215790</a>	The concept of Sustainable Strategy Implementation	"The implementation of the idea of sustainability in the strategy execution process, lending it a holistic and balanced nature. "

Figure A3.1 - Short list of sources part 1 out of 9

Source Nr.	Literature review (LR)/Concept paper	Source of reference	Reference	Title	Content summarized or abstract copy pasted
4	CP	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0263786316302691">https://www.sciencedirect.com/science/article/abs/pii/S0263786316302691</a>	Musawir, A. ul, Serra, C. E. M., Zwikael, O., & Ali, I. (2017). Project governance, benefit management, and project success: Towards a framework for supporting organizational strategy implementation. <i>International Journal of Project Management</i> , 35(8), 1658–1672. <a href="https://doi.org/10.1016/j.ijproman.2017.07.007">https://doi.org/10.1016/j.ijproman.2017.07.007</a>	Project governance, benefit management, and project success Towards a framework for supporting organizational strategy implementation	There is growing pressure on project managers to demonstrate the value of their projects to the funding organization. However, most projects lack a robust process for realizing such strategic value. While the literature recognizes the importance of project governance for enabling benefits realization, this research area lacks empirical evidence. Accordingly, this paper analyzes the relationships between effective project governance, benefit management, and project success. A scale for evaluating effective project governance was developed and validated based on feedback from 21 project governance experts. Subsequently, an international survey of 333 projects was used to test proposed relationships. The results indicate effective project governance improves project success both directly and through an enhanced benefit management process. Additionally, the most effective project governance and benefit management practices for improving project success are identified, such as the development and monitoring of a high quality project business case. The resulting model sets the foundations for a theory that explains how effective project governance enhances project success and enables the realization of strategic objectives through projects.
5	CP	<a href="https://link.springer.com/chapter/10.1007/978-3-319-94923-9_5">https://link.springer.com/chapter/10.1007/978-3-319-94923-9_5</a>	Jahn, R., & Koller, H. (2019). Foresight as a Facilitator for Innovative Capability and Organizational Adaptability: Insights from a Family Firm in the HVAC Industry. In D. A. Schreiber & Z. L. Berge (Eds.), <i>Futures Thinking and Organizational Policy: Case Studies for Managing Rapid Change in Technology, Globalization and Workforce Diversity</i> (pp. 91–111). Springer International Publishing. <a href="https://doi.org/10.1007/978-3-319-94923-9_5">https://doi.org/10.1007/978-3-319-94923-9_5</a>	Foresight as a Facilitator for Innovative Capability and Organizational Adaptability: Insights from a Family Firm in the HVAC Industry	Among the most crucial tasks for organizational management is, undoubtedly, the preparation for future development. One way to deal with the uncertain and erratic future is by utilizing the methods, tools, and procedures of foresight. Foresight has been shown to be effective for companies in multiple ways, i.e., for anticipating latent trends, observing environmental changes, or challenging autochthonous mind-sets (Ansoff 1975; Heger and Boman 2015). Thus, engaging in foresight exercises can be beneficial for an organization's 'future-readiness', i.e., the degree to which an organization is able to anticipate external changes and ready to respond to them. It also works as a facilitator for organizational adaptability and innovative thinking (Von der Gracht et al. 2010; Öner et al. 2014)
6	CP	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0148296314004036">https://www.sciencedirect.com/science/article/abs/pii/S0148296314004036</a>	Wagner, M. (2015). The link of environmental and economic performance: Drivers and limitations of sustainability integration. <i>Journal of Business Research</i> , 68(6), 1306–1317. <a href="https://doi.org/10.1016/j.jbusres.2014.11.051">https://doi.org/10.1016/j.jbusres.2014.11.051</a>	The link of environmental and economic performance: Drivers and limitations of sustainability integration	Combining stakeholder, resource based and institutional theories suggests that stakeholder demands affect the environmental and social activities of firms, which in turn influence various performance aspects. This paper tests if stakeholder demands are related to the integration of management activities within the firm, and if such integration is positively associated with economic and environmental performance dimensions, where especially for the latter empirical evidence is scarce and inconsistent. To address this gap, data from the manufacturing sector is used for analysing how stakeholder types associate with sustainability integration and economic and environmental performance. The analysis reveals better fit for a moderated structural equation model than a model with direct links between economic and environmental performance and shows that environmental performance is decoupled from integration. These findings suggest that resource based reasoning could be self-limiting in jointly improving environmental and economic performance.

Figure A3.2 - Short list of sources part 2 out of 9

Source Nr.	Literature review (LR)/Concept paper	Source of reference	Reference	Title	Content summarized or abstract copy pasted
7	CP	<a href="https://www.emerald.com/insight/content/doi/10.1108/CG-06-2013-0075/full/html?skipTracking=true">https://www.emerald.com/insight/content/doi/10.1108/CG-06-2013-0075/full/html?skipTracking=true</a>	João Bettencourt Gomes de Carvalho Simas, M., Francisco Bertinetti Lengler, J., & José dos Santos António, N. (2013). Integration of sustainable development in the strategy implementation process: Proposal of a model. <i>Corporate Governance</i> , 13(5), 511–526. <a href="https://doi.org/10.1108/CG-06-2013-0075">https://doi.org/10.1108/CG-06-2013-0075</a>	Integration of sustainable development in the strategy implementation process: proposal of a model	<i>This paper proposes a conceptual model that deals with the relationship between sustainable development and implementation of organizational strategy with the distinct stakeholders of a company. In the proposed model, authors indicate how the concept of sustainable development could be operationalized through each of the organizational stakeholders.</i>
8	LR	<a href="https://journals.sagepub.com/doi/10.1111/j.1741-6248.1997.00001.x">https://journals.sagepub.com/doi/10.1111/j.1741-6248.1997.00001.x</a>	Dumas, C. (1989). Understanding of father-daughter and father-son dyads in family-owned businesses. <i>Family Business Review</i> , 2(1), 31-46.	Understanding of father-daughter and father-son dyads in family-owned businesses	Study examines similarities and differences in problems faced by male and female inheritors in family businesses. While sons have a desire for autonomy, daughters take a more submissive role as caretakers and need help with empowerment.
9	CP	<a href="https://www.sciencedirect.com/science/article/pii/S0959652615018259?casa_token=8VfM2DUigPUAAAA:4G50cw5DXndhTW_DNAERF12S0T9hKQlFAHm8UJBxXmAQI6d-TLBU2vOgSDRtdNgEuwA">https://www.sciencedirect.com/science/article/pii/S0959652615018259?casa_token=8VfM2DUigPUAAAA:4G50cw5DXndhTW_DNAERF12S0T9hKQlFAHm8UJBxXmAQI6d-TLBU2vOgSDRtdNgEuwA</a>	Engert, S., & Baumgartner, R. J. (2016). Corporate sustainability strategy – bridging the gap between formulation and implementation. <i>Journal of Cleaner Production</i> , 113, 822–834. <a href="https://doi.org/10.1016/j.jclepro.2015.11.094">https://doi.org/10.1016/j.jclepro.2015.11.094</a>	Corporate sustainability strategy - bridging the gap between formulation and implementation	While it is agreed that corporate sustainability strategy formulation is relevant for companies, to date only little attention has been paid to its actual implementation, i.e. to the concrete steps needed to translate sustainability strategy into practice. The research presented in this article is based on the existing literature in the field and on an in-depth analysis of a case in the automotive industry. The case study entailed participant-observation over a period of three months, and is supported by company data, qualitative expert interviews and workshop data. The main objective of this study is to investigate the factors involved in the successful implementation of corporate sustainability strategy. The success factors identified provide new insights concerning how the gap between the formulation and the implementation of corporate sustainability strategy may be bridged. Particular focus is placed on identifying the conditions needed in successful corporate sustainability strategy implementation, i.e. on factors relating to organizational structure, organizational culture, leadership, management control, employee motivation and qualifications, and communication. In addition, the study was also able to identify factors which are largely ignored in the relevant literature, such as employee motivation and communication. Evidence from an in-depth analysis of a single case in the automotive industry provides the basis for the research. It is hoped that the insights gained will be helpful to other companies and scholars engaged in analyzing the crucial transition from strategy formulation to strategy implementation and to all those seeking to cope with the challenges arising in the research field of corporate sustainability strategy implementation.

Figure A3.3 - Short list of sources part 3 out of 9

Source Nr.	Literature review (LR)/Concept paper	Source of reference	Reference	Title	Content summarized or abstract copy pasted
10	LR	<a href="https://journals.sagepub.com/doi/10.1111/j.1741-6248.1997.00001.x">https://journals.sagepub.com/doi/10.1111/j.1741-6248.1997.00001.x</a>	McGivern, C. (1989). The dynamics of management succession: A model of chief executive succession in the small family firm. <i>Family Business Review</i> , 2(4), 401-411.	The dynamics of management succession: A model of chief executive succession in the small family firm	Study identifies five main variables influencing succession process: stage of organizational development based on the succession issue's importance, motivation of ownermanager, extent of family domination, organizational climate, and business environment.
11	CP	<a href="https://link.springer.com/article/10.1007/s11625-020-00856-0">https://link.springer.com/article/10.1007/s11625-020-00856-0</a>	Breu, T., Bergöö, M., Ebnetter, L., Pham-Truffert, M., Bieri, S., Messerli, P., Ott, C., & Bader, C. (2021). Where to begin? Defining national strategies for implementing the 2030 Agenda: the case of Switzerland. <i>Sustainability Science</i> , 16(1), 183–201. <a href="https://doi.org/10.1007/s11625-020-00856-0">https://doi.org/10.1007/s11625-020-00856-0</a>	Where to begin? Defining national strategies for implementing the 2030 Agenda: the case of Switzerland	Five years after adoption of the 2030 Agenda, there is a general lack of progress in reaching its Sustainable Development Goals—be it on national, regional, or global scales. Scientists attribute this above all to insufficient understanding and addressing of interactions between goals and targets. This study aims to contribute to the methodological conceptualization of the 2030 Agenda's implementation at the national level. To this end, taking the case of Switzerland, we tested and enhanced existing approaches for assessing interactions among the 2030 Agenda's targets and for analysing the systemic relevance of priority targets. Building on our insights, the article concludes with an eight-step proposal for creating knowledge to support national 2030 Agendas.
12	CP	<a href="https://www.mdpi.com/2071-1050/10/1/226">https://www.mdpi.com/2071-1050/10/1/226</a>	Batista, A. A. da S., & Francisco, A. C. de. (2018). Organizational Sustainability Practices: A Study of the Firms Listed by the Corporate Sustainability Index. <i>Sustainability</i> , 10(1), 226. <a href="https://doi.org/10.3390/su10010226">https://doi.org/10.3390/su10010226</a>	Organizational Sustainability Practices: A Study of the Firms Listed by the Corporate Sustainability Index <a href="https://doi.org/10.3390/su10010226">https://doi.org/10.3390/su10010226</a>	The results showed the strategic planning involving infrastructure, environment, human resources, product innovation, organizational management and deadline setting acted as the baseline for the implementation of the practices found. The findings will guide the managers' decisions in the development of their strategic planning, based on practical and objective results.

Figure A3.4 - Short list of sources part 4 out of 9

Source Nr.	Literature review (LR)/Concept paper	Source of reference	Reference	Title	Content summarized or abstract copy pasted
13	CP	<a href="https://www.emerald.com/insight/content/doi/10.1108/J SMA-08-2016-0050/full/html">https://www.emerald.com/insight/content/doi/10.1108/J SMA-08-2016-0050/full/html</a>	Cavaleri, S., & Shabana, K. (2018). Rethinking sustainability strategies. Journal of Strategy and Management, 11(1), 2–17. <a href="https://doi.org/10.1108/J SMA-08-2016-0050">https://doi.org/10.1108/J SMA-08-2016-0050</a>	Rethinking sustainability strategies	The paper proposes two conceptual frameworks designed to link sustainability with business strategy. These models are rooted in evolving understandings of business strategy arising from Porter's original explanations of generic strategies and sources of competitive advantage. The first model is a causal model that links drivers, such as type of competitive strategy and mode of innovation, to competitive outcomes and firm financial performance. The second model describes how different modes of technology development, in sustainability initiatives, cause changes in firm competitive and financial outcomes.
14	CP	<a href="https://doi.org/10.1080/14042520">https://doi.org/10.1080/14042520</a>	Mento, A., Jones, R., & Dirndorfer, W. (2002). A change management process: Grounded in both theory and practice. Journal of Change Management, 3(1), 45–59. <a href="https://doi.org/10.1080/14042520">https://doi.org/10.1080/14042520</a>	A change management process: Grounded in both theory and practice	There exists in the literature a number of change models to guide and instruct the implementation of major change in organisations. Three of the most well known are Kotter's strategic eight-step model for transforming organisations, Jick's tactical ten-step model for implementing change, and General Electric (GE)'s seven-step change acceleration process model. This paper introduces a framework that draws from these three theoretical models but is also grounded in the reality of the change process at a Fortune 500 defence industry firm. The purpose of the paper is to provide guidance to the practitioner leading an organisational change process. This guidance is grounded in both theory and practice. The guidance is further enriched by the demonstrated use of such methodologies as mind mapping, lessons learned, storytelling and metaphors.
15	CP	<a href="https://link.springer.com/article/10.1007/s10551-008-9804-2">https://link.springer.com/article/10.1007/s10551-008-9804-2</a>	Maon, F., Lindgreen, A., & Swaen, V. (2009). Designing and Implementing Corporate Social Responsibility: An Integrative Framework Grounded in Theory and Practice. Journal of Business Ethics, 87(1), 71–89. <a href="https://doi.org/10.1007/s10551-008-9804-2">https://doi.org/10.1007/s10551-008-9804-2</a>	Designing and Implementing Corporate Social Responsibility: An Integrative Framework Grounded in Theory and Practice	This article introduces an integrative framework of corporate social responsibility (CSR) design and implementation. A review of CSR literature – in particular with regard to design and implementation models – provides the background to develop a multiple case study. The resulting integrative framework, based on this multiple case study and Lewin's change model, highlights four stages that span nine steps of the CSR design and implementation process. Finally, the study identifies critical success factors for the CSR process

Figure A3.5 - Short list of sources part 5 out of 9



Source Nr.	Literature review (LR)/Concept paper	Source of reference	Reference	Title	Content summarized or abstract copy pasted
16	CP	<a href="https://www.sciencedirect.com/science/article/abs/pii/S0149718915300574">https://www.sciencedirect.com/science/article/abs/pii/S0149718915300574</a>	Schalock, R. L., Verdugo, M., & Lee, T. (2016). A systematic approach to an organization's sustainability. <i>Evaluation and Program Planning</i> , 56, 56–63. <a href="https://doi.org/10.1016/j.evalprogplan.2016.03.005">https://doi.org/10.1016/j.evalprogplan.2016.03.005</a>	A systematic approach to an organization's sustainability	This article integrates the concepts of sustainability and quality improvement into a systematic approach to an organization's sustainability. The article: (a) presents a literature-based model that incorporates the factors that drive an organization's sustainability; (b) <b>describes how sustainability is operationalized through a systematic approach to quality improvement</b> ; (c) discusses the advantages of a systematic approach to sustainability; and (d) shares with the reader literature and experientially-based lessons learned about the approach.
17	CP	Buller & McEvoy (2016)	Buller, P. F., & McEvoy, G. M. (2016). A Model for Implementing a Sustainability Strategy through HRM Practices. <i>Business and Society Review</i> , 121(4), 465–495. <a href="https://doi.org/10.1111/basr.12099">https://doi.org/10.1111/basr.12099</a>	A Model for Implementing a Sustainability Strategy through HRM Practices.	There is a rapidly growing interest in the topic of sustainability as it relates to long-term business performance that optimizes the “triple bottom line”: economic, environmental, and social outcomes. This article articulates a multilevel conceptual <b>model for executing a business strategy for sustainability primarily through the design and implementation of human resource management practices</b> . The model builds on open systems theory, the resource based view of the firm, and the concept of line of sight to identify certain key organizational capabilities, group competencies, and individual abilities and other characteristics that combine to drive organizational performance when pursuing a sustainability strategy. The article concludes with a discussion of implications of the model for theory, research, and practice.
18	CP	<a href="http://www.ef.uni-lj.si/docs/osebnestrani/Solving_the_Sustainability_Implementatio.pdf">http://www.ef.uni-lj.si/docs/osebnestrani/Solving_the_Sustainability_Implementatio.pdf</a>	Epstein, M. J., & Buhovac, A. R. (2010). Solving the sustainability implementation challenge. <i>Organizational Dynamics</i> , 39(4), 306–315. <a href="https://doi.org/10.1016/j.orgdyn.2010.07.003">https://doi.org/10.1016/j.orgdyn.2010.07.003</a>	Solving the sustainability implementation challenge	A Corporate Sustainability model is developed to “help managers measure and manage their success in implementing sustainability strategies”. The model enhances on the role of various drivers, causal relationships among the various actions, the impact that the actions have on sustainability performance, the likely reactions of corporation's stakeholders and the potential and actual impacts on financial performance.

Figure A3.6 - Short list of sources part 6 out of 9

Source Nr.	Literature review (LR)/Concept paper	Source of reference	Reference	Title	Content summarized or abstract copy pasted
19	CP	<a href="https://www.emerald.com/insight/content/doi/10.1108/02756661111100274/full/html?fullSc=1">https://www.emerald.com/insight/content/doi/10.1108/02756661111100274/full/html?fullSc=1</a>	Bonn, I., & Fisher, J. (2011). Sustainability: The missing ingredient in strategy. <i>Journal of Business Strategy</i> , 32(1), 5–14. <a href="https://doi.org/10.1108/02756661111100274">https://doi.org/10.1108/02756661111100274</a>	Sustainability: the missing ingredient in strategy	Research has demonstrated that many managers do not understand how to make their organizations more sustainable, even though they recognize the benefits of doing so. The framework developed in this paper suggests a way for managers to integrate sustainability into strategy. It focuses on the strategic decision-making process, including the cognitive characteristics of strategic decision-makers and the strategy content at the corporate, business and functional levels. The authors also address the role of organizational culture and vision in supporting sustainable strategies. The framework is illustrated by case examples of BHP Billiton, Loving Earth, the Australian Wine Industry, and Migros.
20	CP	<a href="https://www.google.com/url?sa=t&amp;rct=j&amp;q=&amp;esrc=s&amp;source=web&amp;cd=&amp;ved=2ahUKEwYmPKhQ-rzAhWL3eAKHRnWA7kQFnoECAQQAQ&amp;url=https%3A%2F%2Fwww.mdpi.com%2F2071-1050%2F12%2F12%2F4876%2Fpdf&amp;usq=AOvVaw3I2my4RJhuErz7IDgDmF9P">https://www.google.com/url?sa=t&amp;rct=j&amp;q=&amp;esrc=s&amp;source=web&amp;cd=&amp;ved=2ahUKEwYmPKhQ-rzAhWL3eAKHRnWA7kQFnoECAQQAQ&amp;url=https%3A%2F%2Fwww.mdpi.com%2F2071-1050%2F12%2F12%2F4876%2Fpdf&amp;usq=AOvVaw3I2my4RJhuErz7IDgDmF9P</a>	Dzhengiz, T. (2020). A Literature Review of Inter-Organizational Sustainability Learning. <i>Sustainability</i> , 12. <a href="https://doi.org/10.3390/su12124876">https://doi.org/10.3390/su12124876</a>	Literature Review of Inter-organizational Sustainability Learning	Sustainable development goals (SDGs) have become increasingly important for today's firms as they build sustainability strategies that integrate SDGs into their core activities. Addressing these goals collaboratively, in line with SDG 17-partnerships for the goals, has gained momentum, hence the growing literature on sustainability-oriented partnerships. However, addressing SDGs through partnerships is not straightforward. For firms, contributing to SDGs through alliances and partnerships requires building environmental capabilities and embracing new value frames; in other words, going through the complex process of inter-organizational learning. This paper reviews the literature on sustainability-oriented partnerships with a focus on the inter-organizational learning process. As a result of the review, a model of inter-organizational sustainability learning is presented. This model captures the different levels and types of the inter-organizational learning process; partner and partnership characteristics that impact learning; the environmental conditions that set the conditions for learning to take place; the catalyst and inhibitors of learning; and finally outcomes of learning. This model expands and reorganizes the existing scholarly conversation about inter-organizational learning in the context of sustainability-oriented alliances and partnerships and offers a learning-based understanding of sustainability partnerships to practitioners. Based on the review, the paper proposes ideas for future research and contributes to the development of a future research agenda in the area of sustainability-oriented alliances and partnerships.
21	CP	<a href="https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1320881&amp;dswid=7604">https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A1320881&amp;dswid=7604</a>	Bäversten, D., & Nordström, M. (2019). Key Aspects of Implementing a Corporate Sustainability Strategy in a Decentralized Organization: A Case Study. <a href="http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-384522">http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-384522</a>	Key Aspects of Implementing a Corporate Sustainability Strategy in a Decentralized Organization: A Case Study	Different factors have been identified to affect the implementation of a sustainability strategy. The purpose of this thesis is therefore to add to the concept of strategy implementation and how organizational structure, organizational culture and internal communication affect the implementation process. A qualitative case study has been chosen to answer the research question where we conducted semi-structured interviews with employees at various positions in the case company. Our result revealed that a company's sustainability strategy can be implemented even if the internal communication is weak. However, we suggest that an organizational culture that is promoting the employees to feel committed to the strategy will have a positive impact on the implementation process. Finally, we also advocate that the organizational structure has affected the case company's implementation of their sustainability strategy positively by enabling strategies to emerge from practice.

Figure A3.7 - Short list of sources part 7 out of 9

Source Nr.	Literature review (LR)/Concept paper	Source of reference	Reference	Title	Content summarized or abstract copy pasted
22	CP	<a href="https://www.sciencedirect.com/science/article/pii/S0959652616001724?casa_token=UpbY_AUhKFMAAAA:PU0gboiD-cgTLA_C1ghwhNhETEZewdGHdSVYImvYGzGnvaaoCALBDMWGae-gx7YHu8Pc5zaZwjp">https://www.sciencedirect.com/science/article/pii/S0959652616001724?casa_token=UpbY_AUhKFMAAAA:PU0gboiD-cgTLA_C1ghwhNhETEZewdGHdSVYImvYGzGnvaaoCALBDMWGae-gx7YHu8Pc5zaZwjp</a>	Witjes, S., Vermeulen, W. J. V., & Cramer, J. M. (2017). Exploring corporate sustainability integration into business activities. Experiences from 18 small and medium sized enterprises in the Netherlands. Journal of Cleaner Production, 153, 528–538. <a href="https://doi.org/10.1016/j.jclepro.2016.02.027">https://doi.org/10.1016/j.jclepro.2016.02.027</a>	Exploring corporate sustainability integration into business activities. Experiences from 18 small and medium sized enterprises in the Netherlands	As organisations face pressures to address the impact on society which they directly or indirectly cause, several authors have stressed the increasing importance of CS (Baumgartner, 2009, Dunphy et al., 2006, Lozano, 2013). This implies that companies need to achieve mutually interdependent sets of issues: the triple bottom line of planet, people and prosperity (PPP), thus integrating economic, social and environmental issues (i.e. triple issue focus; Elkington, 1998) into their business activities. The awareness of CS in relation to the general business goals makes it easier to define how to integrate CS into business activities (Dunphy et al., 2006). To create this awareness, it is necessary to use a holistic understanding of the triple issue focus of the corporate values (Linnenluecke et al., 2009, Lozano, 2012) while reducing the environmental impact and ensuring compliance with policy goals. Simultaneously, companies tend to contribute to stakeholder welfare (Hahn et al., 2015).
23	CP	<a href="https://www.mdpi.com/2071-1050/11/22/6214">https://www.mdpi.com/2071-1050/11/22/6214</a>	Rodrigues, M., & Franco, M. (2019). The Corporate Sustainability Strategy in Organisations: A Systematic Review and Future Directions. Sustainability, 11(22), 6214. <a href="https://doi.org/10.3390/su11226214">https://doi.org/10.3390/su11226214</a>	The Corporate Sustainability Strategy in Organisations: A Systematic Review and Future Directions	The corporate sustainability strategy in organisations is a current topic and set in Agenda 2030 for sustainability, and so this study aims to map the literature on the subject through a bibliometric analysis. From 97 documents identified and analyzed, the results obtained show the fragmentation and hiatus between the planning of a global strategy and inclusion therein of a sustainable strategy. Furthermore, these results provide <b>the construction of a framework as an auxiliary tool for managers of different organisations to implement a sustainable strategy</b> , this being the main contribution of the study. In addition, the theoretical contribution of this study is to obtain evidence that the resources and market position of organisations is crucial to the successful implementation of this type of strategy, in which the resource-based view and competitive advantage proved to be appropriate to support the same. The contribution to the practice showed the importance of having full involvement and commitment of all stakeholders in this implementation, so that the organisations acquire the so ambitious internal and external legitimacy. Finally, some limitations, indications for future research are drawn. View Full-Text
24	CP	Hitchcock, D., & Willard, M. (2008). <i>The Step-by-Step Guide to Sustainability Planning—How to create and implement sustainability plans in any business or organization</i> . Earthscan.	Hitchcock, D., & Willard, M. (2008). <i>The Step-by-Step Guide to Sustainability Planning—How to create and implement sustainability plans in any business or organization</i> . Earthscan.	The Step-by-Step Guide to Sustainability Planning—How to create and implement sustainability plans in any business or organization.	Sustainability is now the greatest business imperative, yet how do you actually develop and implement a sustainability plan if you aren't an expert? From the authors of the award-winning handbook <i>The Business Guide to Sustainability</i> comes this highly practical guide to designing and implementing a customized sustainability plan in any business, organization or government department of any type and scale. This step-by-step guide explains how to create a sustainability plan and sustainability report. Each chapter has two vital sections. The first contains background reading, tips and case examples to help you be successful. The second presents a set of methods each with step-by-step instructions and a selection matrix to help choose the best methods. The book also contains sample worksheets and exercise materials that can be copied for organization-wide use.

Figure A3.8 - Short list of sources part 8 out of 9

Source Nr.	Literature review (LR)/Concept paper	Source of reference	Reference	Title	Content summarized or abstract copy pasted
25		Pirali, A., Amini, M. T., Parhizghar, M. M., & Nourozi, A. (2019). <i>Designing the Strategy Implementation Model across Organizations following an Integrated Approach Based on Grounded Theory</i> . 25 (73), 133–155.	Pirali, A., Amini, M. T., Parhizghar, M. M., & Nourozi, A. (2019). <i>Designing the Strategy Implementation Model across Organizations following an Integrated Approach Based on Grounded Theory</i> . 25 (73), 133–155.	Designing the Strategy Implementation Model across Organizations following an Integrated Approach Based on Grounded Theory	The strategy implementation is a dynamic, repetitive, complex process that is undertaken to achieve strategic goals by turning the strategic plans into tangible realities. This process is affected by the set of decisions made and actions taken by managers and employees of the organization. As such, it is necessary to develop a comprehensive and well-tailored model for strategy implementation that helps managers lead the organization toward appropriate implementation of the strategies. On this basis, the present research seeks to adopt a grounded theory-based qualitative methodology to describe such a model. In this work, the required samples were taken via a purposive, theoretical, snowball sampling approach. Using deep interviews as a research instrument for data collection, the collected data was analyzed using the grounded theory paradigm model. Accordingly, considering the repetitions, a total of 134 initial codes were extracted from the transcripts of the interviews. Investigating the associated concepts, we identified 21 categories, out of which 6 primary categories were ultimately recognized upon selective coding. The obtained results Confirmed that, activating such mechanisms as strategic management of strategic implementation across the organization and careful monitoring of different steps of the process, implementation of strategies across organizations via an integrated approach formed on the basis of causal, contextual, and interventional factors leads to two principle achievements, namely implementation of target strategies across the organization and, consequently, achievement of the organizational visions and missions along with improved performance of the organization because of enhanced agility and efficiency of activities across the organization.

Figure A3.9 - Short list of sources part 9 out of 9

Appendix 4 – Case company Organization diagram

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Appendix 5 – Overview participants semi-structured interviews  
 Within this appendix the participants of the interviews are displayed.

*Table A5.1 - Participants semi-structured interviews*

<b>Nr.</b>	<b>Level</b>	<b>Type of member</b>
1	C-level	Executive
2	C-level	Executive
3	C-level	Executive
4	C-level	Executive
5	C-level	Executive
6	C-level	Staff
7	C-level	Staff
8	C-level (later added to the organization chart)	Staff

Additional stakeholders that provided input even though they were not part of conducted semi-structured interviews:

*Table A5.2 - Additional stakeholders*

<b>Nr.</b>	<b>Level</b>	<b>Type of member</b>
1	Division-level	Division
2	Board-level	Board
3	Division-level	Division

## Appendix 6 – Notes of semi-structured interviews

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## Appendix 7 - Company overview

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## Appendix 8 – in- and out of scope

To clarify the scope of this research table A8.1 shows the in- and out of scope topics and table A8.2 clarifies the abbreviations used in table A8.1.

Table A8.3 - In- and out of scope topics within this research

In scope	Out of scope
Research is focused on Family Business Groups (FBG)	Defining the sustainability strategy
Heating Ventilation and Air Conditioning (HVAC) Industry with R&D, manufacturing, sales, and service activities	Creating GRI sustainability report for the case company
The transformation of knowledge and guidance from the case company towards the sub-companies	An implementation of the sustainability strategy in all sub-companies

Table A8.2 – Clarifying abbreviations used in table A8.1

Abbreviation	Meaning	Description
FBG	Family business Group	Family owned, in a sense that a controlling block of shares is owned by the family itself (Bru, n.d.). Moreover, Bru (n.d., p. 2) defines a business group as “ ... a collection of legally independent firms that are connected by economic links (such as ownership, financial, and commercial) and social ties (such as family, kinship, and friendship) that lead to operational links.”
GRI	Global Reporting Initiative	An international, multi-stakeholder and independent non-profit organization that promotes economic, environmental and social sustainability. ( <i>Global Reporting Initiative (GRI)</i> , 2021)
HVAC	Heating Ventilation and Air Conditioning	This is the industry in which the case company is active

## Appendix 9 – Interpreted needs of semi-structured interviews

	Level	Type of member	Initial feedback in key words (Customer Statement)	Interpreted Need
1	C-level	Executive	People should fit to the values and principles of the company	The model contains the selection of people that fit to the values and principles of the company
2			People should contain a certain skill set	The model contains the selection of people that contain a certain skill set
3			Offer workshops in which a strategy is communicated	The model offers workshops in which a strategy is communicated
4			The sustainability strategy is cross organizational and -functional	The model is organized cross organizational and -functional
5			The organization is “as decentral as possible” and “central to the necessary extent”	The model coordinates central and decentral activities
6	C-level	Executive	Get a “buy-in” of the people	The model includes creating awareness in people
7			“All people involved think that it is their strategy”	The model includes collaboration with people within the organization to derive a strategy together
8			The benefits of the strategy need to be shown to the stakeholders	The model includes a link to the stakeholders
9			Focus on the people who are involved	The model considers the people who are involved
10			Propose a plan of approach to start the discussion with	The model includes discussion of proposed plans
11			The plan need to turn into action “...we need to DO it”	The model requires to activate people (from plan to action)
12			Topic is made attritive to the sub-companies so that they like to contribute and are committed to the topic	The model attracts people from sub-companies to sustainability so that they like to contribute and are committed to the topic
13			Cut the goal into phases which are reachable but challenging at the same time.	The model consists of phases

Figure A9.1 - List of interpreted needs of semi-structured interviews part 1 of 7

Level	Type of member	Initial feedback in key words (Customer Statement)	Interpreted Need
C-level	Executive		
14		Set realistic goals	The model requires to set realistic goals
15		Cultural differences between countries can be a challenge	The model considers cultural differences between countries
16		Only one implementation approach would not be applicable on all business units	The model is adjustable to business units
17		Adjustments need to be made to every business unit	The model is adjustable to business units
18		Find the group of "change supporters" followed by the natural and critical ones	The model includes the determination of 'change supporters'
19		Sustainability implementation should have an evolutionary character not a revolution	The model is implying an evolutionary change instead of a revolution(al) change
20		Involve people to contribute	The model includes the involvement of people to contribute
21		Visualization of our vision	The model includes the visualization of Zehnders' vision
22		Formulate SMART-goals	The model requires to formulate Specific, Measurable, Attainable/Achievable, Relevant and Timely (SMART) goals
C-level	Executive		
23		Goals need to be SMART formulated	The model requires to formulate Specific, Measurable, Attainable/Achievable, Relevant and Timely (SMART) goals
24		Goals are visualized	The model includes the visualization of goals
25		Goals are measurable	The model requires to set measurable goals
26		Report what you have reached (so called 'success report')	The model requires to report what is reached ("success report")

Figure A9.2 - List of interpreted needs of semi-structured interviews part 2 of 7

	Level	Type of member	Initial feedback in key words (Customer Statement)	Interpreted Need
27	C-level	Executive	Clear strategy : o what do we want to do (1) o how do we want to do it (2) o which competences do we need in our company (3)	The model requires a clear strategy (what do we want to do, how do we want to do it and which competences do we need in our company)
28			Ensure that the answer “what’s in it for me” is answered by the person who provides the message to change	The model clarifies what people can gain when they support the change
29			Initiatives and thoughts should come from peers	The model considers initiatives and thoughts from peers
30			Show where do we want to be in x years	The model determines where Zehnder wants to be in x years
31			The local business units (MBU’s) define the way how to go there.	The model requires the local business units to define how to get at the desired goal
32			Measure the sensitivity of a topic by the MBU heads to give the people the tasks where they have passion for.	The model considers the passion that Marketing Business Unit (MBU) heads have when delegating tasks
33			Change should be made together	The model considers multiple stakeholders
34			People define their own way to get to the goal	The model leaves enough space for people to define their own way to get to the goal
35			Communicate positive aspects instead of negative messages	The model communicates positive aspects instead of negative messages
36			Different type of people are involved, so different approaches are needed	The model is adjustable to business units
37			Business Units will use different ways to come to the goal	The model requires the local business units to define how to get at the desired goal
38	C-level	Executive	People with the right characteristics (convinced to reach the goals and responsibility feeling)	The model contains the selection of people with the right characteristics (convinced to reach the goals and feel responsible)
39			Realizing your goals and “... get things done”.	The model requires to activate people to realize goals

Figure A9.3 - List of interpreted needs of semi-structured interviews part 3 of 7

Level	Type of member	Initial feedback in key words (Customer Statement)	Interpreted Need
C-level	Executive		
40		Find a common understanding of the strategy	The model requires to find a common understanding of the strategy
41		Aligning each Marketing Business Unit	The model aligns each Marketing Business Unit
42		Creating ownership of a strategy by the people	The model creates ownership among the people about the strategy
43		Organization structure to be matrix organization as well as 'isolated' business units	The model is able to be applied in a matrix organization as well as in 'isolated' business units
C-level	Executive		
44		'Learn on the fly'	The model adjusts along the execution of steps
45		Complexity of the organization is caused by: o Different markets	The model copes with the complexity of Zehnder's different markets
46		Complexity of the organization is caused by: o Existence of multiple business units	The model copes with the complexity of Zehnder's different business units
47		Complexity of the organization is caused by: o Value flow and tax model of Swiss company	The model copes with the complexity of Zehnder's value flow and tax model of Swiss company
48		Regional culture differences	The model considers (regional) cultural differences
49		Communication advice: o Pay attention to explaining the intention of change	The model pays attention to explain the intention of change
50		Communication advice: o Ensure that the strategy and strategy implementation method can be discussed	The model ensures that the strategy and strategy implementation method can be discussed
51		Communication advice: o Be transparent	The model includes to be transparent during the change process
52		Communication advice: o Repeat the message frequently	The model communicates the message (where you want to go) frequently

Figure A9.4 - List of interpreted needs of semi-structured interviews part 4 of 7

	Level	Type of member	Initial feedback in key words (Customer Statement)	Interpreted Need
53	C-level	Executive	Communication advice: o Ensure that production and managers have full attention to change their mindset	The model requires that management and production employees have full attention to change their mindset
54			"Be Fair. Be Open. Be transparent to your people."	The model requires to "Be Fair. Be Open. Be transparent to your people"
55			Successful implementation o Everybody can repeat the strategy	The model ensures that everybody can repeat the strategy
56			Successful implementation o The results of the strategy are shown in the P&L statements	The model requires that the results of the strategy are shown in the P&L statements
57	C-level	Staff	Top-down and bottom-up communication	The model applies top-down and bottom-up communication
58			People understand the 'why'	The model requires that people understand 'why' Zehnder changes
59			Group level set the frame	The model requires group level to set the frame
60			Group level checks if the strategy matches with the board and GEC to align focus points	The model requires the Group Executives Committee (GEC) to align the strategy between members (of the GEC) and the Board of Directors
61			Every country should understand their stake	The model requires to clarify the contribution of every country to the common goal
62			Local levels have their own sub-strategy	The model requires local levels to have their own sub-strategy
63			Find common dominators that are applicable globally	The model defines common dominators that are applicable globally
64			Set up the framework on group level (globally) but in the sub strategy let it be enriched by the local requirements (law, market or customer wishes).	The model requires to be a framework on group level (globally) but is enriched by local requirements (law, market or customer wishes) in sub-strategies.
65	C-level (later added to the	Staff	Communicate incentives	The model communicates incentives

Figure A9.5 - List of interpreted needs of semi-structured interviews part 5 of 7

	Level	Type of member	Initial feedback in key words (Customer Statement)	Interpreted Need		
66	C-level (later added to the organization chart)	Staff	Communicate financial targets	The model communicates financial targets		
67			Business units need: o Self-motivation	The model requires business units to be intrinsically motivated		
68			Business units need: o "Self-made" processes	The model requires business units to have "self-made" processes		
69			Business units need: o Understand the purpose	The model requires business units to understand the purpose		
70			Business units need: o People should be in the driver's seat	The model requires business units to be in the 'driver's seat' of change		
71			Business units need: o Define phases together	The model requires business units to define phases in collaboration with the Group Executive Committee (GEC)		
72			People should be challenged in an interdisciplinary team	The model requires to challenge people in an interdisciplinary team		
73			Ideas from different business units of the company should be combined	The model requires to combine idea's from different business units of Zehnder		
74			Division-level	Division	• Communicate on time	The model requires to communicate on time
75					• Communicate desired information as precise as possible	The model requires to communicate desired information as precise as possible
76	• The implementation method can be universal for all business units	The model requires to be universal to all business units				
77	Board-level	Board	• The company is a family firm	The model requires to be applied in a family firm		
78			• The company is decentral organized	The model requires to be applied in a decentral organized organization		

Figure A9.6 - List of interpreted needs of semi-structured interviews part 6 of 7

Level	Type of member	Initial feedback in key words (Customer Statement)	Interpreted Need
79	C-level Division	<ul style="list-style-type: none"> <li>• Clear formalized goals and measures</li> </ul>	The model requires to clearly formulating goals and measures
80		<ul style="list-style-type: none"> <li>• Inform people regularly</li> </ul>	The model requires to inform people regularly
81	C-level Staff	<ul style="list-style-type: none"> <li>• Communicate horizontally and vertically</li> </ul>	The model requires to communicate horizontally and vertically

*Figure A9.7 - List of interpreted needs of semi-structured interviews part 7 of 7*



## Appendix 10 – Primary- and secondary interpreted initial requirements/needs of the case company

<p><b>The model contains the selection of people that fit to the values and principles of the company</b></p>	<p><b>The model is adjustable to business units</b></p>	<p><b>The model includes creating awareness in people</b></p>	<p><b>The model is implying an evolutionary change instead of a revolution change</b></p>
<p>The model contains the selection of people that contain a certain skill set</p>	<p>The model requires the local business units to define how to get at the desired goal</p>	<p>The model requires to find a common understanding of the strategy</p>	<p>The model consists of phases</p>
<p>The model offers workshops in which a strategy is communicated</p>	<p>The model considers the passion that Marketing Business Unit (MBU) heads have when delegating tasks</p>	<p>The model considers the people who are involved</p>	<p>The model requires to set realistic goals</p>
<p>The model includes collaboration with people within the organization to derive a strategy together</p>	<p>The model leaves enough space for people to define their own way to get to the goal</p>	<p>The model requires to activate people (from plan to action)</p>	<p>The model includes the visualization of Zehnders' vision</p>
<p>The model includes the determination of 'change supporters'</p>	<p>The model requires the local business units to define how to get at the desired goal</p>	<p>The model attracts people from sub-companies to sustainability so that they like to contribute and are committed to the topic</p>	<p>The model requires to formulate Specific, Measurable, Relevant and Timely (SMART) goals</p>
<p>The model contains the selection of people with the right characteristics (convinced to reach the goals and feel responsible)</p>	<p>The model aligns each Marketing Business Unit</p>	<p>The model includes the involvement of people to contribute</p>	<p>The model includes the visualization of goals</p>
	<p>The model is able to be applied in a matrix organization as well as in 'isolated' business units</p>	<p>The model considers initiatives and thoughts from peers</p>	<p>The model requires to set measurable goals</p>
	<p>The model copes with the complexity of Zehnder's different markets</p>	<p>The model requires to activate people to realize goals</p>	<p>The model requires to report what is reached ("success report")</p>
	<p>The model copes with the complexity of Zehnder's different business units</p>	<p>The model creates ownership among the people about the strategy</p>	<p>The model considers multiple stakeholders</p>
<p><b>The model requires a clear strategy (what do we want to do, how do we want to do it and which competences do we need in our company)</b></p>	<p>The model copes with the complexity of Zehnder's value flow and tax model of Swiss company</p>	<p>The model requires that management and production employees have full attention to change their mindset</p>	<p>The model communicates positive aspects instead of negative messages</p>
<p>The model clarifies what people can gain when they support the change</p>	<p>The model copes with the complexity of Zehnder's value flow and tax model of Swiss company</p>	<p>The model ensures that everybody can repeat the strategy</p>	<p>The model adjusts along the execution of steps</p>
<p>The model determines where Zehnder wants to be in x years</p>	<p>The model considers (regional) cultural differences</p>	<p>The model applies top-down and bottom-up communication</p>	<p>The model pays attention to explain the intention of change</p>
<p>The model ensures that the strategy and strategy implementation method can be discussed</p>	<p>The model requires to clarify the contribution of every country to the common goal</p>	<p>The model requires that people understand 'why' Zehnder changes</p>	<p>The model includes to be transparent during the change process</p>
<p>The model defines common dominators that are applicable globally</p>	<p>The model requires local levels to have their own sub-strategy</p>	<p>The model communicates incentives</p>	<p>The model requires to "Be Fair. Be Open. Be transparent to your people"</p>
<p>The model requires to clearly formulating goals and measures</p>	<p>The model requires business units to be intrinsically motivated</p>	<p>The model requires business units to understand the purpose</p>	<p>The model requires to challenge people in an interdisciplinary team</p>
<p>The model includes discussion of proposed plans</p>	<p>The model requires business units to have "self-made" processes</p>	<p><b>The model requires group level to set the frame</b></p>	<p>The model requires to communicate on time</p>
	<p>The model requires business units to be in the 'driver's seat' of change</p>	<p>The model requires to be a framework on group level (globally) but is enriched by local requirements (law, market or customer wishes) in sub-strategies.</p>	<p>The model requires to communicate desired information as precise as possible</p>
	<p>The model requires business units to define phases in collaboration with the Group Executive Committee (GEC)</p>	<p>The model requires the Group Executives Committee (GEC) to align the strategy between members (of the GEC) and the Board of Directors</p>	<p>The model requires to be applied in a family firm</p>
	<p>The model requires to combine idea's from different business units of Zehnder</p>	<p>The model requires to be universal to all business units</p>	<p>The model requires to inform people regularly</p>
<p><b>The model coordinates central and decentral activities</b></p>	<p>The model requires to be applied in a decentral organized</p>		<p>The model requires to communicate horizontally and vertically</p>
<p>The model is organized cross organizational and -functional</p>	<p>The model considers cultural differences between countries</p>		<p>The model communicates financial targets</p>
<p>The model communicates the message (where you want to go) frequently</p>			<p>The model requires that the results of the strategy are shown in the P&amp;L statements</p>
			<p>The model includes a link to the stakeholders</p>

Figure A10.1 -Primary- (orange) and secondary (light blue) interpreted initial requirements/needs of the case company

## Appendix 11 – Comparison theoretical models with initial requirements

Interpreted Need	Primary (general) /secondary (detailed) need	1		2		3		4		5		6		
		Epstein & Buhoavac's model of Corporate Sustainability	Command	Maon's Integrative Framework of desining and implementing CSR	Command	Buller & McEvoy's Line of Sight Model	Command	Kantabutra & Ketprapakorn Refined Integrated Corporate Sustainability Model	Command	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Command	Fonseca et al. Integrative Sustainable Intelligence Model	Command	
1	The model contains the selection of people that fit to the values and principles of the company	Primary	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms	✓	Implied by "Emotionally committed organizational members"	X	No, not mentioned specifically	X	No, not mentioned specifically
2	The model contains the selection of people that contain a certain skill set	Secondary	X	No, not mentioned specifically. Despite that, the model emphasizes on the importance of leadership of people	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms	✓	Implied by "Emotionally committed organizational members"	X	No, not mentioned specifically	X	No, not mentioned specifically
3	The model offers workshops in which a strategy is communicated	Secondary	X	No, not mentioned	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically
4	The model is organized cross organizational and -functional	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	Implied by the 'operational stages' and the 'functional stages'
5	The model coordinates central and decentral activities	Primary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by the 'operational stages' and the 'functional stages'
6	The model includes creating awareness in people	Primary	✓	The importance of leadership	✓	by "raising CSR awareness inside the organization"	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	Implied as step 1 'understanding'	✓	Implied with the analysis of the most relevant context factors in the strategic management of CS integration processes

Figure A11.1 - Comparison theoretical models with initial requirements part 1 from 14

Interpreted Need	Primary (general) / Secondary (detailed) need	1	2	3	4	5	6
		Epstein & Buhoavac's model of Corporate Sustainability	Maon's Integrative Framework of designing and implementing CSR	Buller & McEvoy's Line of Sight Model	Kantabutra & Ketprapakorn Refined Integrated Corporate Sustainability Model	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Fonseca et al. Integrative Sustainable Intelligence Model
7	The model includes collaboration with people within the organization to derive Secondary a strategy together	X	✓	X	✓	✓	✓
8	The model includes a link to the Secondary stakeholders	✓	✓	✓	✓	✓	✓
9	The model considers the people who are involved Secondary	✓	✓	✓	✓	X	✓
10	The model includes discussion of Secondary proposed plans	X	✓	✓	X	✓	✓
11	The model requires to activate people Secondary (from plan to action)	✓	✓	X	✓	✓	✓
12	The model attracts people from sub-companies to sustainability so that they like to contribute and are committed to the topic Secondary	X	X	X	✓	✓	X

Figure A11.2 - Comparison theoretical models with initial requirements part 2 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1	2	3	4	5	6							
		Epstein & Buhoavac's model of Corporate Sustainability	Maon's Integrative Framework of desiging and implementing CSR	Buller & McEvoy's Line of Sight Model	Kantabutra & Ketrapakorn Refined Integrated Corporate Sustainability Model	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Fonseca et al. Integrative Sustainable Intelligence Model							
13	The model consists of phases	Secondary	✓	Yes indicated as boxes	✓	implied by the steps 1 till 9	X	Only layers	✓	implied by six boxes	✓	implied by steps 1 till 7 and A till G	✓	implied by operational stages and functional stages
14	The model requires to set realistic goals	Secondary	X	No, no goals mentioned	✓	implied by 'developing a CSR integrated strategic plan' (step 5)	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)	X	No, not mentioned specifically
15	The model considers cultural differences between countries	Secondary	X	No, not specifically	X	No, not mentioned specifically	✓	implied by the element 'organizational Capabilities/Culture'	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
16	The model is adjustable to business units	Primary	X	No, not specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
17	The model is adjustable to business units	Primary	X	No, not specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
18	The model includes the determination of 'change supporters'	Secondary	X	No, not specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the arrow between "Emotionally committed organizational members" and 'sustainability culture'	X	No, not mentioned specifically	X	No, not mentioned specifically

Figure A11.3 - Comparison theoretical models with initial requirements part 3 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1		2		3		4		5		6		
		Epstein & Buhoavac's model of Corporate Sustainability	Command	Maon's Integrative Framework of desining and Implementing CSR	Command	Buller & McEvoy's Line of Sight Model	Command	Kantabutra & Ketrapakorn Refined Integrated Corporate Sustainability Model	Command	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Command	Fonseca et al. Integrative Sustainable Intelligence Model	Command	
19	The model is implying an evolutionary change instead of a revolution(al) change	Primary	X	No, not specifically	✓	implied by the plan do check/improve phases that are shown	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the four steps 'inform, activate, innovate and transform' however, a cycle is not added	✓	implied by operational stages and functional stages by which the functional stages are described as being 'dynamic, and integrated contribution, all the phases are flexible and complement each other'
20	The model includes the involvement of people to contribute	Secondary	✓	The importance of leadership	✓	implied by 'managers personal values	✓	implied with the primary HR mechanisms	✓	implied by the arrow between 'Emotionally committed organizational members' and 'sustainability culture'	X	No, not mentioned specifically	X	No, not mentioned specifically
21	The model includes the visualization of Zehnders' vision	Secondary	X	No, only "sustainability strategy", "sustainability structure" and "sustainability systems, programs, and actions"	X	No, not specifically	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	✓	implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
22	The model requires to formulate Specific, Measurable, Attainable/Achievable, Relevant and Timely (SMART) goals	Secondary	✓	The model suggests multiple performance measurements for inputs, processes, outputs and outcomes	✓	implied by 'developing a CSR integrated strategic plan' (step 5)	X	No, not mentioned specifically	✓	implied by 'sustainability culture' consisting of 'sustainability vision' and 'sustainability values'	✓	implied by 'setting SDG goals and actions while unlocking business value & explore actions to move towards advancing opportunities' (step D)	X	No definition of goals even though Fonseca et al. implied by 'value co-creation - combine resources, knowledge and abilities in order to achieve improvements' as operational stage
23	The model requires to formulate Specific, Measurable, Attainable/Achievable, Relevant and Timely (SMART) goals	Secondary	✓	The model suggests measurements for inputs, processes, outputs and outcomes	✓	implied by 'developing a CSR integrated strategic plan' (step 5)	X	No, not mentioned specifically	✓	implied by 'sustainability culture' consisting of 'sustainability vision' and 'sustainability values'	✓	implied by 'setting SDG goals and actions while unlocking business value & explore actions to move towards advancing opportunities' (step D)	X	No definition of goals even though Fonseca et al. implied by 'value co-creation - combine resources, knowledge and abilities in order to achieve improvements' as operational stage
24	The model includes the visualization of goals	Secondary	X	No, only "sustainability strategy", "sustainability structure" and "sustainability systems, programs, and actions"	X	No, not specifically	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	✓	implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage

Figure A11.4 - Comparison theoretical models with initial requirements part 4 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1	2	3	4	5	6							
		Epstein & Buhoavac's model of Corporate Sustainability	Maon's Integrative Framework of desining and implementing CSR	Buller & McEvoy's Line of Sight Model	Kantabutra & Ketprapakorn Refined Integrated Corporate Sustainability Model	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Fonseca et al. Integrative Sustainable Intelligence Model							
25	The model requires to set measurable goals	Secondary	✓	The model suggests multiple performance measurements for inputs, processes, outputs and outcomes	✓	implied by 'developing a CSR integrated strategic plan' (step 5)	X	No, not mentioned specifically	✓	implied by 'sustainability culture' consisting of 'sustainability vision'	✓	implied by 'setting SDG goals and actions while unlocking business value & explore actions to move towards advancing opportunities' (step D)	✓	implied by 'value co-creation - combine resources, knowledge and abilities in order to achieve improvements' as operational stage
26	The model requires to report what is reached ("success report")	Secondary	X	No, only "sustainability strategy", "sustainability structure" and "sustainability systems, programs, and actions"	✓	implied by 'communicating about CSR commitments and performance' (step 7)	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically
27	The model requires a clear strategy (what do we want to do, how do we want to do it and which competences do we need in our company)	Primary	X	Only includes the term 'sustainability strategy'	✓	implied by 'developing a CSR integrated strategic plan' (step 5)	✓	implied with 'strategy' on the left	✓	implied by 'sustainability culture' consisting of 'sustainability vision' and 'sustainability values'	✓	implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
28	The model clarifies what people can gain when they support the change	Secondary	X	No, not mentioned	✓	implied by 'developing a CSR integrated strategic plan' (step 5)	X	No, not mentioned specifically	✓	implied by the link between 'stakeholder satisfaction; and 'emotionally committed organizational members'	X	No, not mentioned specifically	X	No, not mentioned specifically
29	The model considers initiatives and thoughts from peers	Secondary	X	No, not mentioned	✓	implied by 'benchmarking competitors CSR practices, norms, standards, and practices	X	No, not mentioned specifically	✓	implied with 5 practices and process of CS particularly 'sharing'	X	No, not mentioned specifically	✓	implied by 'transfer - foster knowledge interactivity between the organization and its stakeholders' as functional stage
30	The model determines where Zehnder wants to be in x years	Secondary	✓	It includes the topic 'sustainability strategy' implying that the determination where Zehnder wants to be in x years is included	✓	implied by 'developing a CSR integrated strategic plan' (step 5)	✓	implied with 'strategy' on the left	✓	implied by 'sustainability culture' consisting of 'sustainability vision' and 'sustainability values'	✓	implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage

Figure A11.5 - Comparison theoretical models with initial requirements part 5 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1		2		3		4		5		6	
		Epstein & Buhoavac's model of Corporate Sustainability	Command	Maon's Integrative Framework of desiging and Implementing CSR	Command	Buller & McEvoy's Line of Sight Model	Command	Kantabutra & Ketprapakorn Refined Integrated Corporate Sustainability Model	Command	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Command	Fonseca et al. Integrative Sustainable Intelligence Model	Command
31	The model requires the local business units to define how to get at the desired Secondary goal	X	No, not mentioned	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
32	The model considers the passion that Marketing Business Unit (MBU) heads have when delegating tasks Secondary	X	No, not mentioned	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms	✓	Implied by "Emotionally committed organizational members"	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
33	The model considers multiple stakeholders Secondary	✓	"Stakeholder reactions" box	✓	Yes, 'continous dialogue with stakeholders'	✓	implied by the external environment 'stakeholders: organizational, regulatory, community'	✓	implied by 'triple bottom line outputs' and 'stakeholder satisfaction'	✓	implied by 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside-out)' (step 2)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
34	The model leaves enough space for people to define their own way to get to the goal Secondary	✓	Yes, model remains broad			X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
35	The model communicates positive aspects instead of negative messages Secondary	X	No, not mentioned	✓	implied by 'communicating about CSR commitments and performance' (step 7)	X	No, not mentioned specifically	✓	implied by the arrow between "Emotionally committed organizational members" and 'sustainability culture'	X	No, not mentioned specifically	X	No, not mentioned specifically
36	The model is adjustable to business units Primary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage

Figure A11.6 - Comparison theoretical models with initial requirements part 6 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1		2		3		4		5		6	
		Epstein & Buhoavac's model of Corporate Sustainability	Command	Maon's Integrative Framework of desiging and Implementing CSR	Command	Buller & McEvoy's Line of Sight Model	Command	Kantabutra & Ketrapakorn Refined Integrated Corporate Sustainability Model	Command	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Command	Fonseca et al. Integrative Sustainable Intelligence Model	Command
37	The model requires the local business units to define how to get at the desired goal	X	No, not mentioned	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
38	The model contains the selection of people with the right characteristics (convinced to reach the goals and feel responsible)	X	No, not mentioned	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms and HR elements displayed in the middle	✓	Implied by "Emotionally committed organizational members"	X	No, not mentioned specifically	X	No, not mentioned specifically
39	The model requires to activate people to realize goals	✓	"Sustainability systems, programs, and actions" box	✓	implied by the plan do check/improve phases that are shown	✓	implied with the primary HR mechanism: "training and development"	✓	implied with 5 practices and process of CS	✓	implied by the four steps 'inform, activate, innovate and transform'	✓	implied by the operational stages: 'discover, create and add value, clau co-creation and act and consolidate'
40	The model requires to find a common understanding of the strategy	X	No, not mentioned specifically	✓	implied by 'establishing a vision and a working definition for CSR'	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	X	No, not mentioned specifically	✓	implied by the context factor 'commitment' described as 'top-management assumes the importance of sustainability for the organization, and sustainability issues are integrated in the organization's strategic planning'
41	The model aligns each Marketing Business Unit	X	No, not mentioned specifically	✓	implied by 'communicating about CSR commitments and performance' (step 7)	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	✓	implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
42	The model creates ownership among the people about the strategy	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically

Figure A11.7 - Comparison theoretical models with initial requirements part 7 from 14



Interpreted Need	Primary (general) /secondary (detailed) need	1	2	3	4	5	6			
		Epstein & Buhoavac's model of Corporate Sustainability	Maon's Integrative Framework of desiging and Implementing CSR	Buller & McEvoy's Line of Sight Model	Kantabutra & Ketrapakorn Refined Integrated Corporate Sustainability Model	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Fonseca et al. Integrative Sustainable Intelligence Model			
43	The model is able to be applied in a matrix organization as well as in Secondary 'isolated' business units	X	X	X	X	✓	✓			
44	The model adjusts along the execution of steps	Secondary ✓	With feedback loop	Yes,implied with the 'continous dialogue with stakeholders' and the plan, do check/improve phases that are shown	implied by the feedback loop from performance to strategy	implied by the link between 'stakeholder satisfaction; and 'emotionally committed organizational members' and the link between 'emotionally committed organizational members' and 'sustainability culture'	X	No, not mentioned specifically	✓	implied by operational stages and functional stages by which the functional stages are described as being 'dynamic, and integrated contribution, all the phases are flexible and complement each other'
45	The model copes with the complexity of Zehnder's different markets	Secondary ✓	Included by the 'inputs' called 'external context', 'internal context' and 'business context'	no, even though social drivers, political drivers, economic drivers are mentioned	No, not mentioned specifically	✓	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
46	The model copes with the complexity of Zehnder's different business units	Secondary X	No, not mentioned specifically	No, not mentioned specifically	No, not mentioned specifically	✓	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
47	The model copes with the complexity of Zehnder's value flow and tax model of Swiss company	Secondary X	No, not mentioned specifically	No, not mentioned specifically	No, not mentioned specifically	✓	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
48	The model considers (regional) cultural differences	Secondary ✓	Included by the 'inputs' called 'external context', 'internal context' and 'business context'	implied by 'social drivers' and 'political drivers'	implied by the element 'organizational Capabilities/Culture'	✓	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage

Figure A11.8 - Comparison theoretical models with initial requirements part 8 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1		2		3		4		5		6		
		Epstein & Buhoavac's model of Corporate Sustainability	Command	Maon's Integrative Framework of designing and implementing CSR	Command	Buller & McEvoy's Line of Sight Model	Command	Kantabutra & Ketprapakorn Refined Integrated Corporate Sustainability Model	Command	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Command	Fonseca et al. Integrative Sustainable Intelligence Model	Command	
49	The model pays attention to explain the intention of change	Secondary	✓	yes, the 'leadership' box implies the attention to it	✓	implied by 'establishing a vision and a working definition for CSR'	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	✓	implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3) and 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)'	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
50	The model ensures that the strategy and strategy implementation method can be discussed	Secondary	✓	With feedback loop	✓	Yes, implied with the 'continuous dialogue with stakeholders' and the plan, do check/improve phases that are shown	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by the 'develop - draw and develop a solution' as functional stage
51	The model includes to be transparent during the change process	Secondary	✓	With feedback loop	✓	implied by 'communicating about CSR commitments and performance' (step 7)	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the context factor 'information' described as 'adequate collection of information in order to understand the problem, its requirements, and its impacts' and the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved'
52	The model communicates the message (where you want to go) frequently	Secondary	✓	With feedback loop	✓	implied by 'communicating about CSR commitments and performance' (step 7)	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication' and the links between 'stakeholder satisfaction; and 'emotionally committed organizational members' and the link between 'emotionally committed organizational members' and Sustainability	X	No, not mentioned specifically	✓	implied by the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved' and scope described as 'strategic disclosure of the organizational commitment regarding CS, and of the results achieved has become a basic tool to support sustainability-oriented change and to demonstrate transparency and accountability'
53	The model requires that management and production employees have full attention to change their mindset	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the context factor 'engagement' described as 'engagement of internal and external stakeholders in the search for solutions and actions aiming sustainable value creation' and scope described as 'organizations aim to create value holistically for their stakeholders. Organizational culture dictates the intensity of the interactions with stakeholders. The use of digital networks can promote stakeholders involvement in the search for solutions and proposals for value creation and dynamics development, allowing the almost immediate exchange of relevant information for decision making process.'
54	The model requires to "Be Fair. Be Open. Be transparent to your people"	Secondary	X	No, not mentioned specifically	✓	implied by 'communicating about CSR commitments and performance' (step 7)	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the context factor 'information' described as 'adequate collection of information in order to understand the problem, its requirements, and its impacts' and the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved'

Figure A11.9 - Comparison theoretical models with initial requirements part 9 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1	2	3	4	5	6							
		Epstein & Buhoavac's model of Corporate Sustainability	Maon's Integrative Framework of desiging and Implementing CSR	Buller & McEvoy's Line of Sight Model	Kantabutra & Ketprapakorn Refined Integrated Corporate Sustainability Model	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Fonseca et al. Integrative Sustainable Intelligence Model							
55	The model ensures that everybody can repeat the strategy	Secondary	X	No, not mentioned specifically	✓	Implied by 'Institutionalizing CSR' (step 9)	✓	implied with the primary HR mechanisms and HR elements displayed in the middle	✓	implied by 'sustainability vision & values communication'	X	No, not mentioned specifically	✓	Implied by the context factor 'commitment' described as 'top-management assumes the importance of sustainability for the organization, and sustainability issues are integrated in the organization's strategic planning' and the scope by 'Organizational commitment is a force that gathers individuals together, triggering actions directed to the achievement of the intended goals. Ethical leadership frames top-management's commitment and strategy, promoting culture change.'
56	The model requires that the results of the strategy are shown in the P&L statements	Secondary	X	No, not mentioned specifically. Although, 'long-term corporate financial performance' is included as outcome	✓	Implied by 'communicating about CSR commitments and performance' (step 7)	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	Implied by the context factor 'information' described as 'adequate collection of information in order to understand the problem, its requirements, and its impacts' and the scope described as 'When adequately selected and managed, the collected information increases organizational knowledge, enhances the correct understanding of the impacts of organizational activities on all sustainability dimensions, and contributes to the adequate definition of priorities in CS management.'
57	The model applies top-down and bottom-up communication	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
58	The model requires that people understand 'why' Zehnder changes	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	✓	implied by 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside out)' (step 2)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
59	The model requires group level to set the frame	Primary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside out)' (step 2) and 'redefining the mission and vision while integrating strong sustainability values' (step 3)	X	No, not mentioned specifically
60	The model requires the Group Executives Committee (GEC) to align the strategy between members (of the GEC) and the Board of Directors	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage

Figure A11.10 - Comparison theoretical models with initial requirements part 10 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1		2		3		4		5		6		
		Epstein & Buhoavac's model of Corporate Sustainability	Command	Maon's Integrative Framework of desiging and implementing CSR	Command	Buller & McEvoy's Line of Sight Model	Command	Kantabutra & Ketrapakorn Refined Integrated Corporate Sustainability Model	Command	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Command	Fonseca et al. Integrative Sustainable Intelligence Model	Command	
61	The model requires to clarify the contribution of every country to the common goal	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'value co-creation - combine resources, knowledge and abilities in order to achieve improvements' as operational stage
62	The model requires local levels to have their own sub-strategy	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
63	The model defines common dominators that are applicable globally	Secondary	✓	It includes the topic 'sustainability strategy' implying that the common dominators are determined	✓	implied by 'establishing a vision and a working definition for CSR'	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	✓	implied by 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside out)' (step 2) and 'redefining the mission and vision while integrating strong sustainability values' (step 3)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
64	The model requires to be a framework on group level (globally) but is enriched by local requirements (law, market or customer wishes) in sub-strategies.	Secondary	X	No, not mentioned specifically	✓	implied by 'establishing a vision and a working definition for CSR'	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the first four steps followed by step 5: 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on vlue creation & sustainability impacts'	X	No, not mentioned specifically
65	The model communicates incentives	Secondary	X	No, not mentioned specifically	✓	implied by 'communicating about CSR commitments and performance' (step 7)	✓	implied with primary mechanisms of HR namely 'compensation' and 'performance appraisal'	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by functional stage 'acknowledge' described as 'identify intervention needs and define methodologies to be adapted' and
66	The model communicates financial targets	Secondary	✓	yes, this is implied by the box 'long-term corporate financial performance' and the examples given of performance measures within 'input', 'process', 'output' and 'outcome'	✓	implied by 'communicating about CSR commitments and performance' (step 7)	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	✓	implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3)	✓	implied by the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved' and scope described as 'strategic disclosure of the organizational commitment regarding CS, and of the results achieved has become a basic tool to support sustainability-oriented change and to demonstrate transparency and accountability.

Figure A11.11 - Comparison theoretical models with initial requirements part 11 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1		2		3		4		5		6		
		Epstein & Buhoavac's model of Corporate Sustainability	Command	Maon's Integrative Framework of desiging and Implementing CSR	Command	Buller & McEvoy's Line of Sight Model	Command	Kantabutra & Ketrapakorn Refined Integrated Corporate Sustainability Model	Command	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Command	Fonseca et al. Integrative Sustainable Intelligence Model	Command	
67	The model requires business units to be intrinsically motivated	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied with the primary HR mechanisms and HR elements displayed in the middle	✓	Implied by "Emotionally committed organizational members"	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	Implied by the context factor 'commitment' described as 'top-management assumes the importance of sustainability for the organization, and sustainability issues are integrated in the organization's strategic planning' and the scope by 'Organizational commitment is a force that gathers individuals together, triggering actions directed to the achievement of the intended goals. Ethical leadership frames topmanagement's commitment and strategy, promoting culture change.
68	The model requires business units to have "self-made" processes	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied with 5 practices and process of CS	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by functional stage 'develop' described as 'draw and develop a solution'
69	The model requires business units to understand the purpose	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	✓	implied by the combination of step 1,2 and step 5. Step 1: 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and Step 2: 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside out)' (step 2). Where Step 5 includes: 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage
70	The model requires business units to be in the 'driver's seat' of change	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied with 5 practices and process of CS in combination with the 'emotionally committed organizational members'	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
71	The model requires business units to define phases in collaboration with the Group Executive Committee (GEC)	Secondary	X	No, not mentioned specifically	✓	implied by 'developing a CSR integrated strategic plan' (step 5)	X	No, not mentioned specifically	✓	implied with 5 practices and process of CS in combination with the 'emotionally committed organizational members'	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
72	The model requires to challenge people in an interdisciplinary team	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	✓	implied by 'value co-creation - combine resources, knowledge and abilities in order to achieve improvements' as operational stage

Figure A11.12 - Comparison theoretical models with initial requirements part 12 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1	2		3	4		5	6					
		Epstein & Buhoavac's model of Corporate Sustainability	Command	Maon's Integrative Framework of designing and implementing CSR	Command	Buller & McEvoy's Line of Sight Model	Command	Kantabutra & Ketprapakorn Refined Integrated Corporate Sustainability Model	Command	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Command	Fonseca et al. Integrative Sustainable Intelligence Model	Command	
73	The model requires to combine idea's from different business units of Zehnder	Secondary	X	No, not mentioned specifically	✓	implied by 'auditing current CSR norms, standards, and practices' (step 4)	X	No, not mentioned specifically	✓	implied by "Emotionally committed organizational members"	✓	implied by 'applying innovative ways of thinking to products, services & business models'	✓	implied by 'value co-creation - combine resources, knowledge and abilities in order to achieve improvements' as operational stage
74	The model requires to communicate on time	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved' and scope described as 'strategic disclosure of the organizational commitment regarding CS, and of the results achieved has become a basic tool to support sustainability-oriented change and to demonstrate transparency and accountability.
75	The model requires to communicate desired information as precise as possible	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the context factor 'information' described as 'adequate collection of information in order to understand the problem, its requirements, and its impacts'
76	The model requires to be universal to all business units	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'sustainability vision & values communication'	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
77	The model requires to be applied in a family firm	Secondary	X	No, not mentioned specifically	✓	implied by 'establishing a vision and a working definition for CSR'	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the examples given of family firms and the assumption made that the model of Maon (2009), that has been cited more than 500 times has been tested in family firms as well.	X	No, not mentioned specifically
78	The model requires to be applied in a decentral organized organization	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically

Figure A11.13 - Comparison theoretical models with initial requirements part 13 from 14

Interpreted Need	Primary (general) /secondary (detailed) need	1	2	3	4	5	6							
		Epstein & Buhoavac's model of Corporate Sustainability	Maon's Integrative Framework of desining and implementing CSR	Buller & McEvoy's Line of Sight Model	Kantabutra & Ketrapakorn Refined Integrated Corporate Sustainability Model	Beyne's Integrative Framework for Implementing the Sustainability Development Goals	Fonseca et al. Integrative Sustainable Intelligence Model							
		Command	Command	Command	Command	Command	Command							
79	The model requires to clearly formulating goals and measures	Secondary	✓	The model suggests multiple performance measurements for inputs, processes, outputs and outcomes	✓	implied by 'developing a CSR integrated strategic plan' (step 5)	✓	implied with 'strategy' on the left	✓	implied by 'sustainability culture' consisting of 'sustainability vision' and 'sustainability values'	✓	implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4) and 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No definition of goals even though Fonseca et al. implied by 'value co-creation - combine resources, knowledge and abilities in order to achieve improvements' as operational stage
80	The model requires to inform people regularly	Secondary	✓	With feedback loop	✓	implied by 'communicating about CSR commitments and performance' (step 7)	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved' and scope described as 'Strategic disclosure of the organizational commitment regarding CS, and of the results achieved has become a basic tool to support sustainability-oriented change and to demonstrate transparency and accountability.'
81	The model requires to communicate horizontally and vertically	Secondary	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	X	No, not mentioned specifically	✓	implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4) and 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	X	No, not mentioned specifically
Number of interpreted needs met:		24	41	21	41	57	51			51				
% met interpreted needs (total interpreted needs/number of interpreted needs met) * 100:		29,63%	50,62%	25,93%	50,62%	70,37%	62,50%			62,50%				

Figure A11.14 - Comparison theoretical models with initial requirements part 14 from 14

Appendix 12 – Large pictures theoretical models

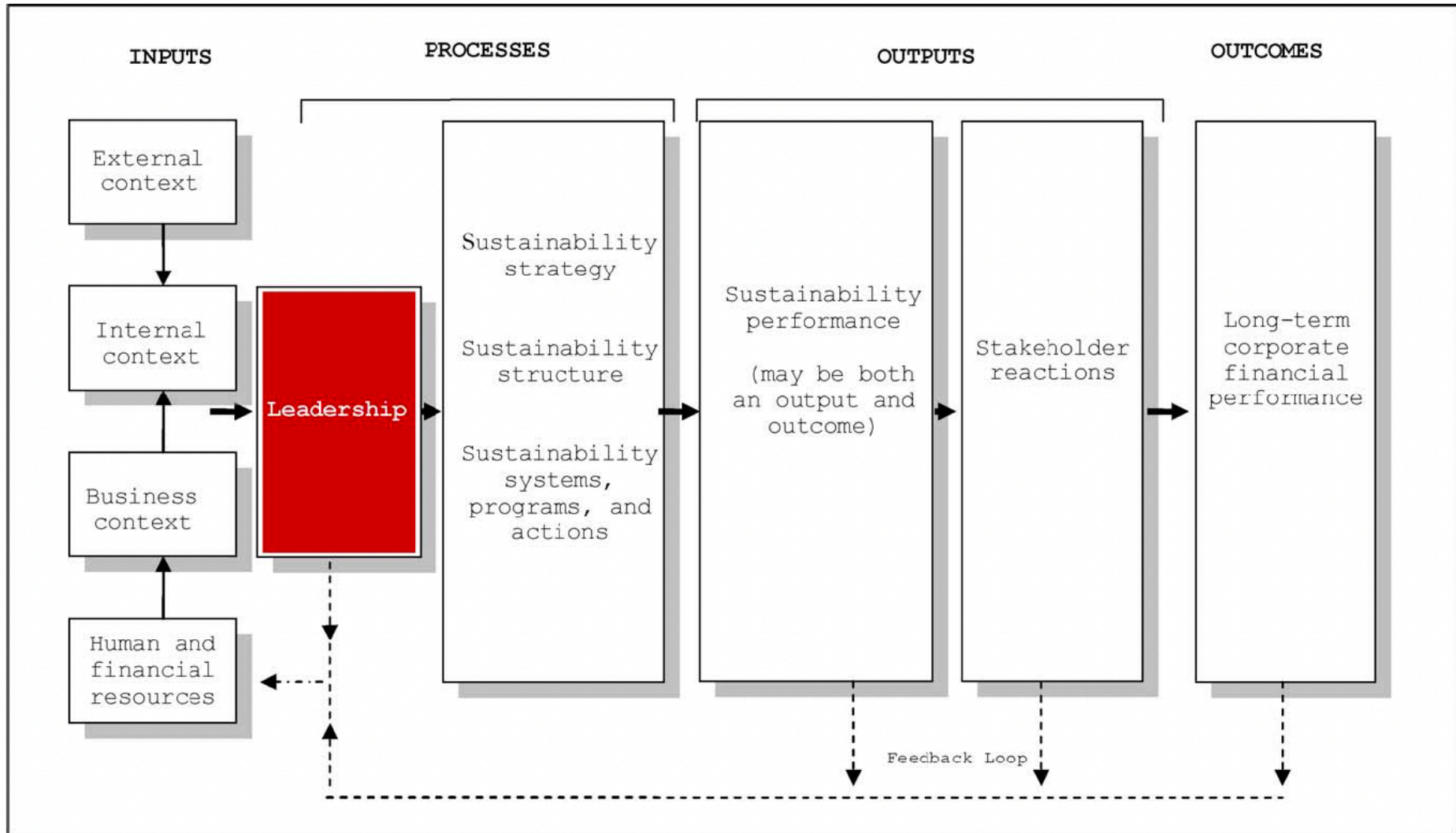


Figure A12.1 - Epstein and Buhovac's model of Corporate Sustainability (Epstein & Buhovac, 2010)



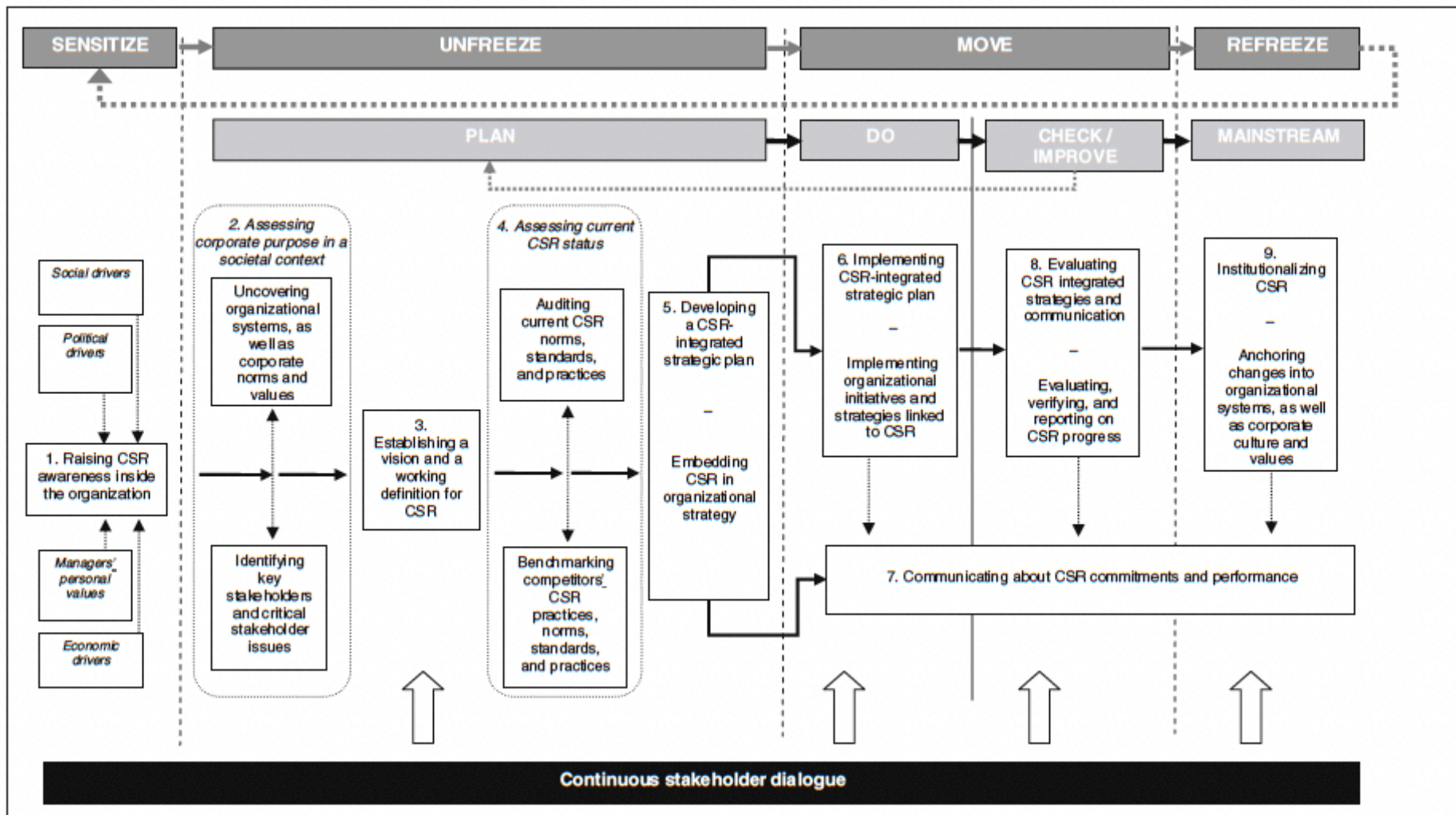


Figure A12.2 – Maon's integrative framework for designing and implementing CSR including takeaways and limitations (Maon et al., 2009)

### Line of Sight

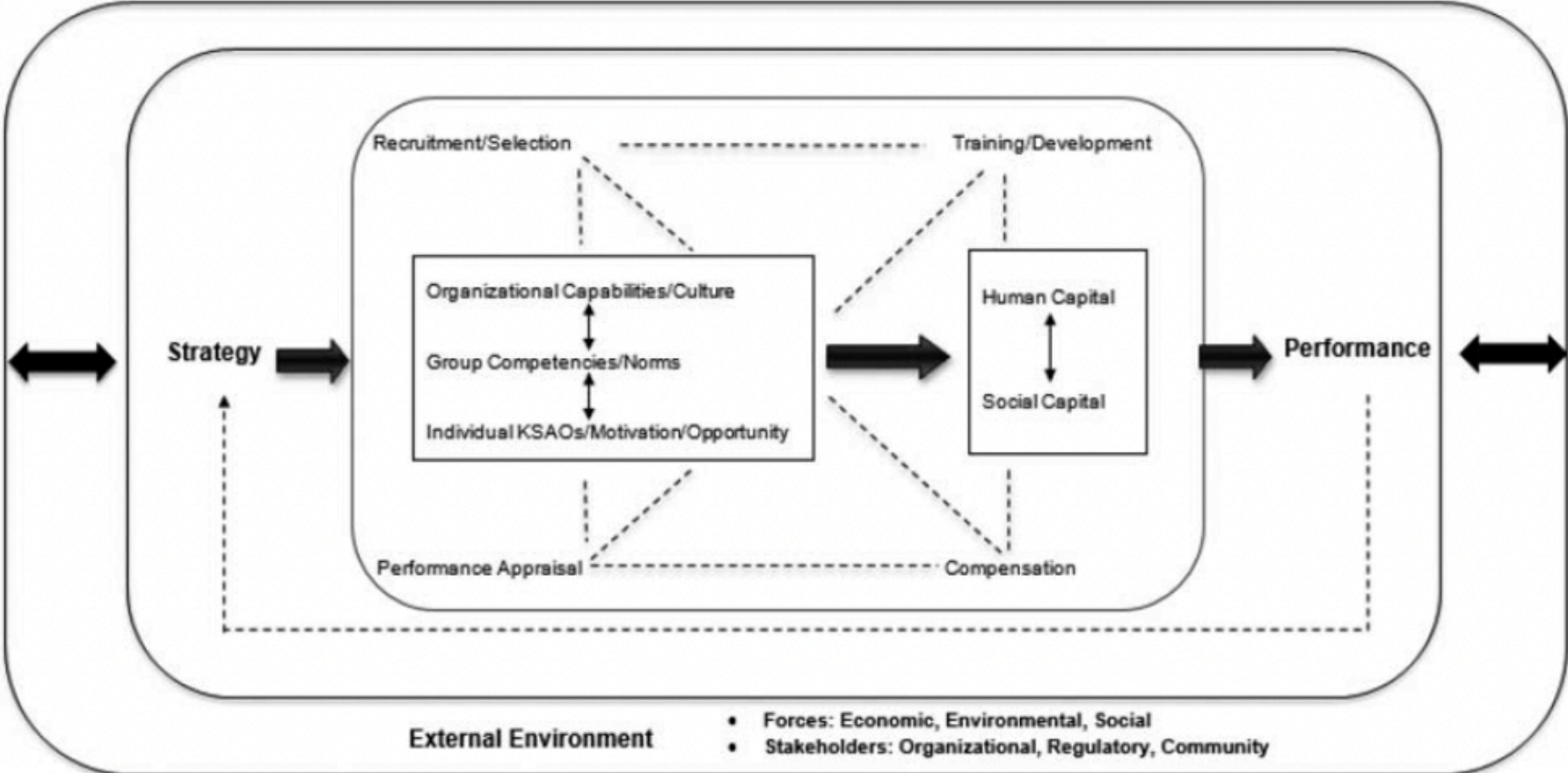


Figure A12.3 – Buller and McEvoy’s Line of Sight model to implement sustainability strategies including takeaways and limitations (Buller & McEvoy, 2016)

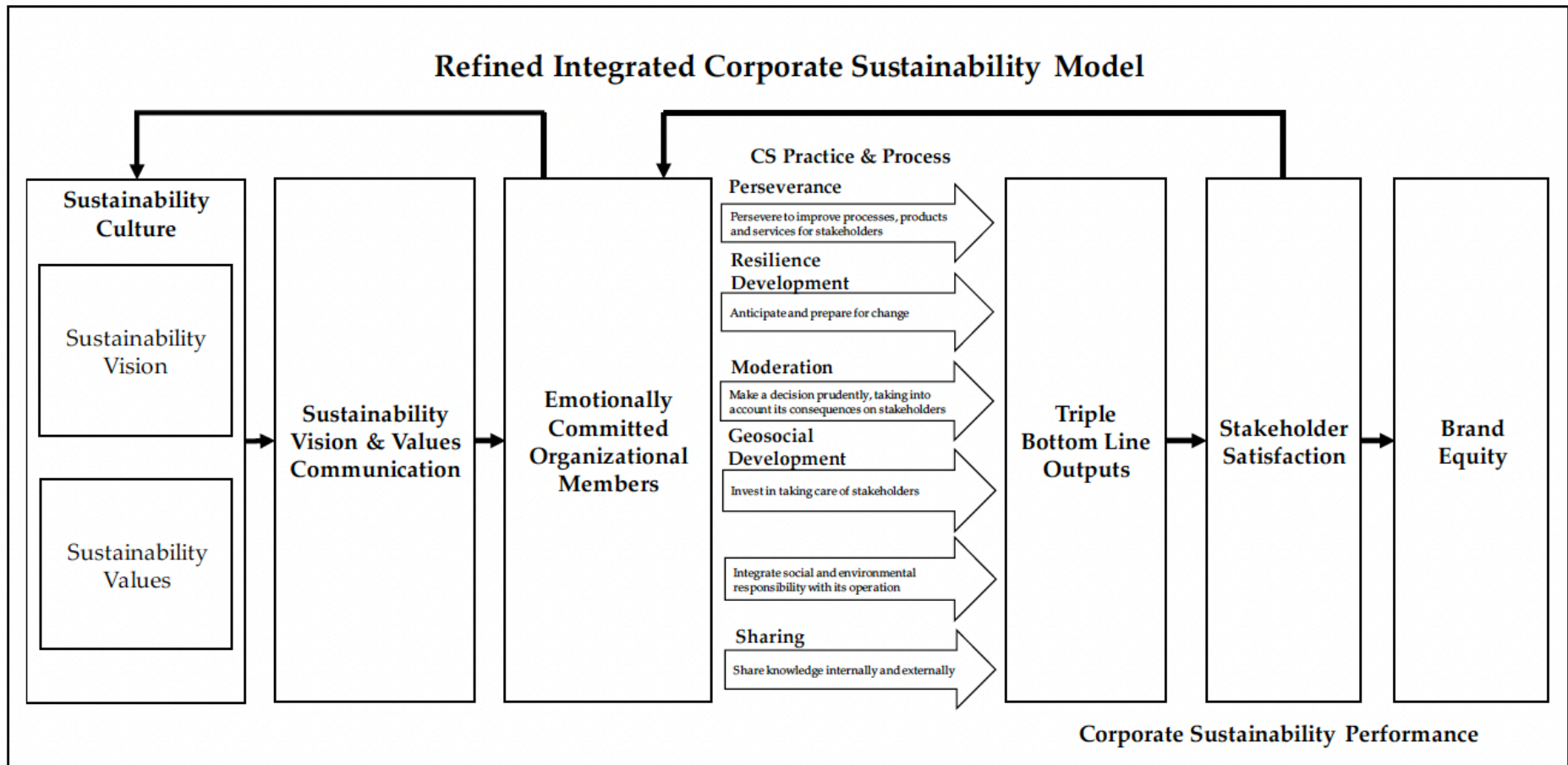


Figure A12.4 - Kantabutra and Ketprapakorn Refined Integrated Corporate Sustainability Model (Kantabutra & Ketprapakorn, 2020)

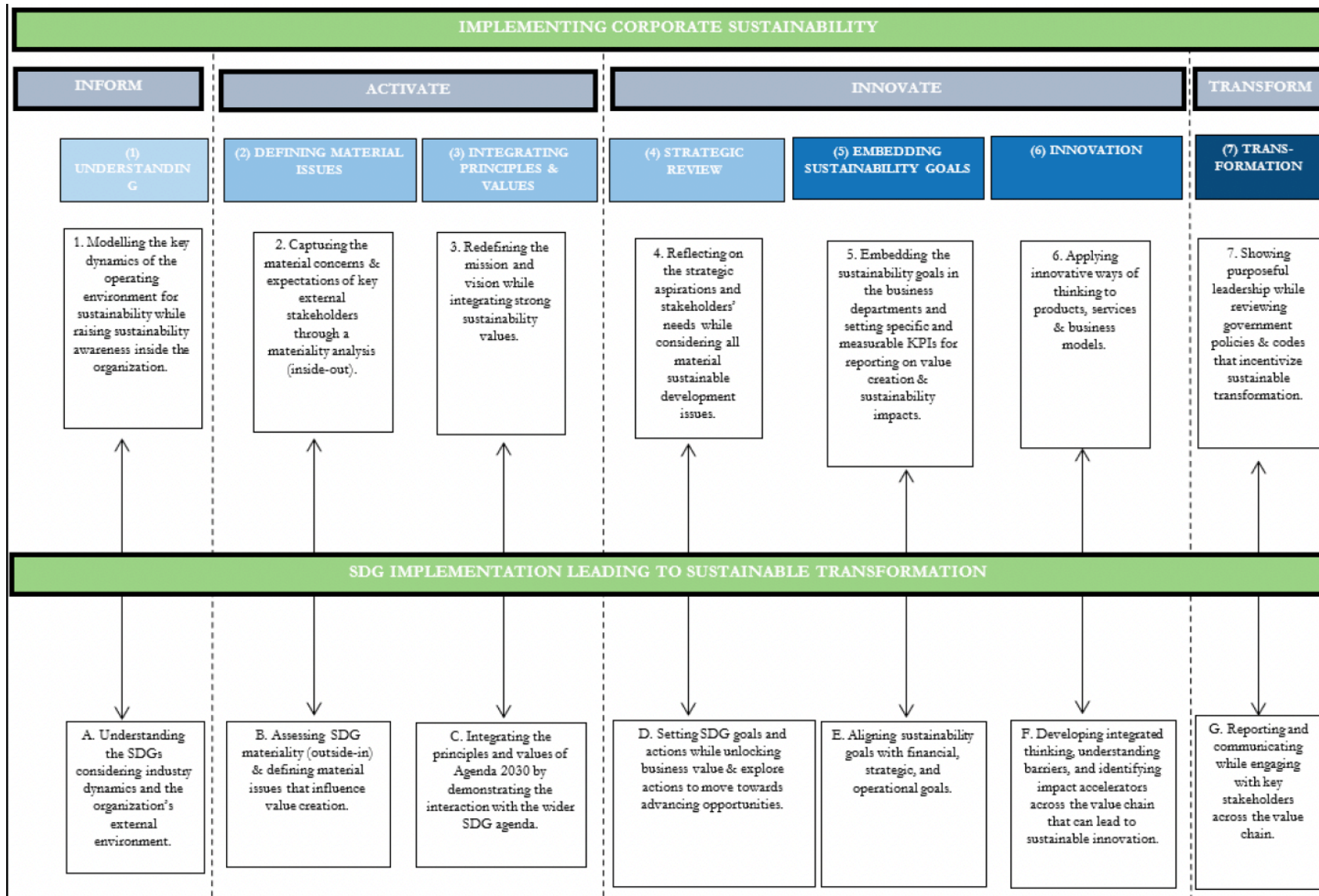


Figure A12.5 – Beyne’s integrative framework for implementing the Sustainability Development Goals (Beyne, 2020)

# INTEGRATIVE SUSTAINABLE INTELLIGENCE MODEL

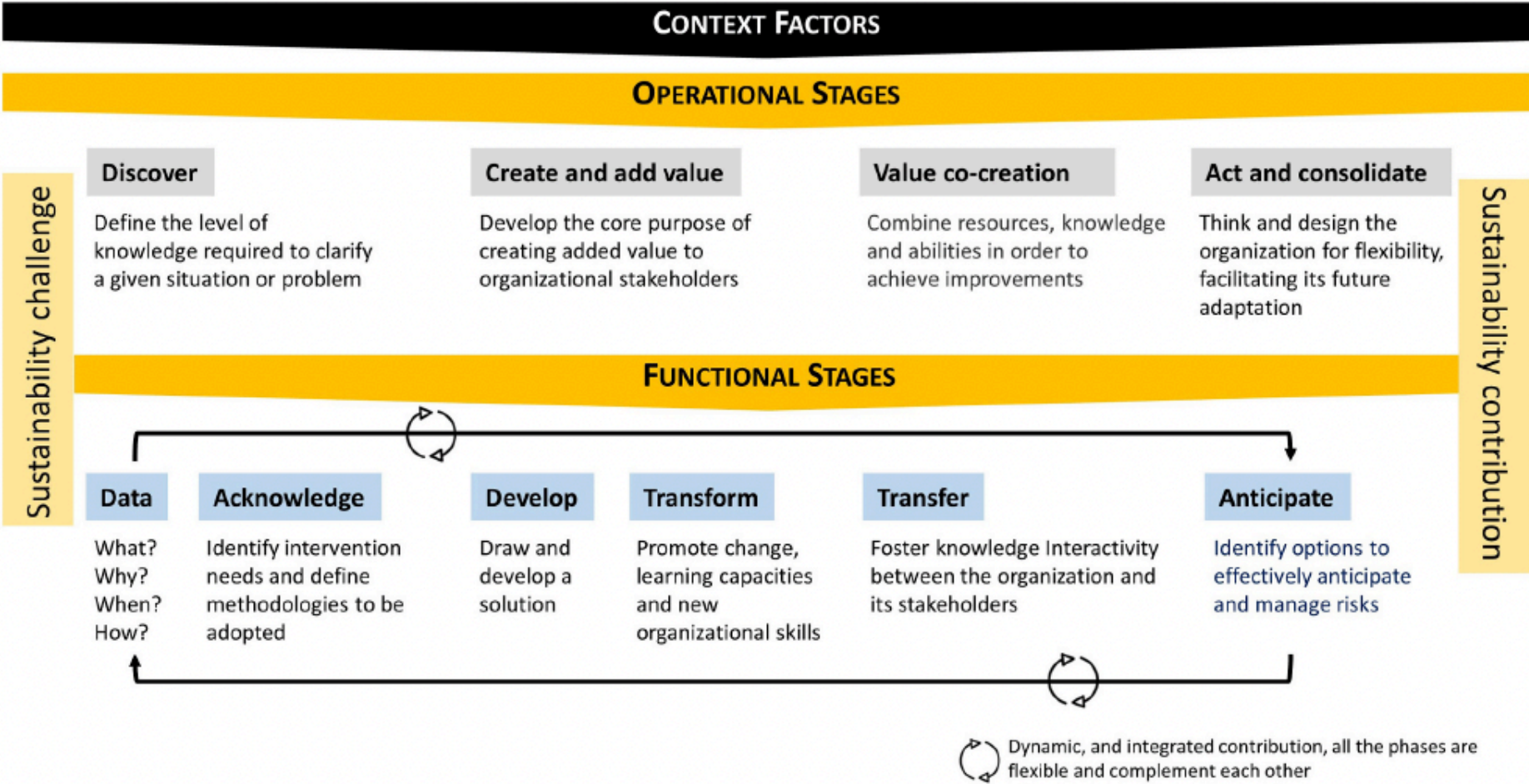


Figure A12.6 – Fonseca et al. Integrative Sustainable Intelligence Model (Fonseca et al., 2021)

Appendix 13 – Universe of models

Image A13.1 shows from the 12 last considered models the 6 models which are considered within this research. The universe shows what the relationships are between the models because they have been citing each other.

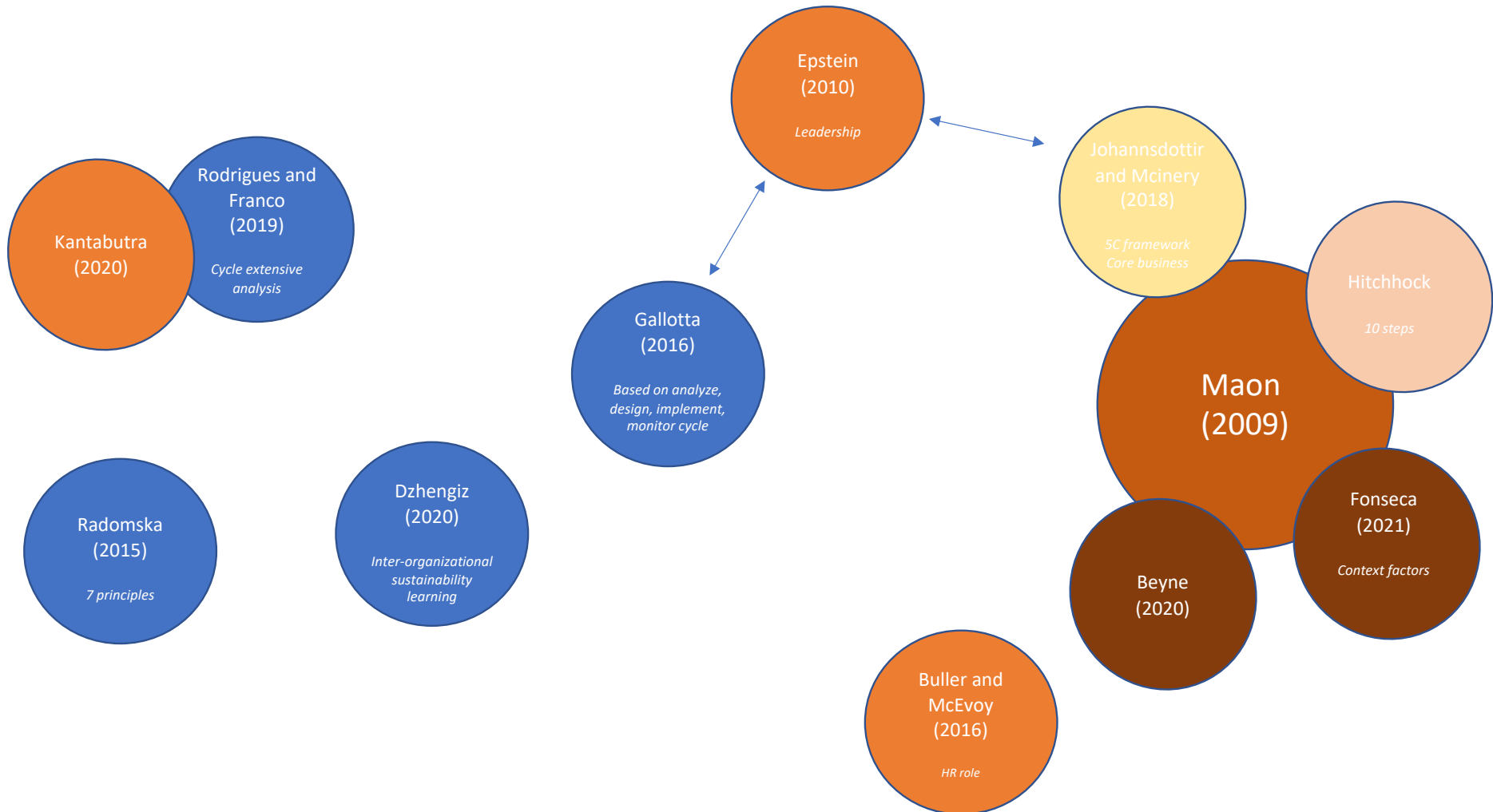


Figure A13.1 - Universe of models

## Appendix 14 – Second comparison of theoretical models

Criteria	Model Epstein and Buhovac (2010)	Model Maon et al. (2009)	Model Buller and McEvoy (2016)	Model Kantabutra and Ketrapakorn (2020)	Model Beyne (2020)	Model Fonseca et al. (2021)
<b>Takeaways to remember:</b>						
Published between 2016 and 2022	no	no	yes	yes	yes	yes
Research has been empirically tested	yes	no	no	yes	no	yes
Reliability						
Dependent variable is corporate sustainability	yes	no	no	yes	yes	yes
More than 500 times cited	no	yes	no	no	no	no
Based on internationally known sustainability framework	no	no	no	no	yes	no
Research includes external factors	yes	yes	yes	no	no	yes
Financial performance measures are taken into account	yes	no	no	no	no	no
Comprehensiveness						
Leadership of management is included	yes	no	no	no	yes	no
Feedbackloops between components	yes	yes	yes	yes	no	yes
Critical successfactors implied	no	yes	no	no	no	no
Practices						
Corporate sustainability practices	no	yes	yes	yes	no	no
Role of HRM	no	no	yes	no	no	no
Capabilities and competencies	no	no	yes	no	no	no
Changemanagement theory is included	no	yes	no	no	no	no
Open systems theory	no	no	yes	yes	no	no
Resource-based view	no	no	yes	no	no	no
Concept of line of sight	no	no	yes	no	no	no
Sustainability Vision theory	no	no	no	yes	no	no
Self-determination theory	no	no	no	yes	no	no
Stakeholder theory	no	no	no	yes	no	no
Theory						
Sustainable Leadership theory	no	no	no	yes	no	no
Complexity theory	no	no	no	yes	no	no
Knowledge-based theory	no	no	no	yes	no	no
Dynamic Capabilities theory	no	no	no	yes	no	no
Knowledge Management theory	no	no	no	yes	no	no
Integrated Value Creation (IVC) (Visser, 2015)	no	no	no	no	yes	no
Integrative CSR framework (Maon et al.,2008)	no	no	no	no	yes	no
Integrative Sustainable Intelligence model	no	no	no	no	no	yes
Count 'yes' ex theory	6	4	4	5	4	5
Count 'yes' incl theory	6	5	7	14	6	6

Figure A14.1 - Second comparison of theoretical models considering reliability, comprehensiveness, practices and theory

Appendix 15 – Performance measures indicated by Epstein and Buhovac (2010) to be used as inspiration for the case company

INPUTS	Performance Measures	PROCESSES	Performance Measures
<i>External context</i>	<ul style="list-style-type: none"> <li>- Pollution standards</li> <li>- Non-discrimination standards, etc.</li> </ul>	Leadership	<ul style="list-style-type: none"> <li>- Clearly articulated vision around sustainability issues</li> <li>- Number of hours of management time for volunteer work, etc.</li> </ul>
<i>Internal context</i>	<ul style="list-style-type: none"> <li>- Existence of corporate code of conduct and management system</li> <li>- Environmental/social benchmarking of competitors, etc.</li> </ul>	Strategy	<ul style="list-style-type: none"> <li>- % of suppliers certified for sustainability standards</li> <li>- % of overall budget set aside for sustainability initiatives, etc.</li> </ul>
<i>Business context</i>	<ul style="list-style-type: none"> <li>- Competitive position within industry</li> <li>- Geographic diversity of production, etc.</li> </ul>	Structure	<ul style="list-style-type: none"> <li>- Number of levels of management with specific environmental responsibilities</li> <li>- Number of functions with sustainability responsibilities, etc.</li> </ul>
<i>Human and financial resources</i>	<ul style="list-style-type: none"> <li>- \$ available for employee training</li> <li>- \$ committed for R&amp;D on more effective energy conservation efforts, etc.</li> </ul>	<i>Systems programs, and actions</i>	<ul style="list-style-type: none"> <li>- Social performance evaluation systems in place (number of facilities)</li> <li>- Number of hours of ethics training per employee, etc.</li> </ul>

OUTPUTS	Performance Measures	OUTCOMES	Performance Measures
<i>Sustainability performance</i>	<ul style="list-style-type: none"> <li>- % change in volume of hazardous waste</li> <li>- % change in volume and cost of energy use</li> <li>- % of a product's content that can be reused or recycled</li> <li>- Money contributed through philanthropy and cause-related marketing</li> <li>- Percent and number of women and minorities in senior positions</li> <li>- Number of human rights and labor violations</li> <li>- Number of local jobs created, etc.</li> </ul>	<i>Long-term corporate financial performance</i>	<ul style="list-style-type: none"> <li>- % of sales from 'green' products</li> <li>- Revenue from recycled waste materials</li> <li>- Revenue from cause-related marketing</li> <li>- Increased sales from improved reputation</li> <li>- Cost savings from employee turnover reduction</li> <li>- Reduced cost of environmental cleanup</li> <li>- Reduced cost of fines/penalties</li> <li>- ROI on sustainability projects, etc.</li> </ul>
<i>Stakeholder reactions</i>	<ul style="list-style-type: none"> <li>- Number of community complaints</li> <li>- Employee turnover</li> <li>- % of favorable versus unfavorable press mentions</li> <li>- % of return customers</li> <li>- Improved image (survey score), etc.</li> </ul>		

Figure A15.1 – Performance measures indicated by Epstein and Buhovac (2010) to be used by the case company



Appendix 16 – Overview how the initial requirements are met in ICSS

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
1 The model contains the selection of people that fit to the values and principles of the company	Primary	✓	With the inclusion of HR focus coming from Buller & McEvoy (2016)	None of the models assigns responsible persons/departments for the steps to execute. Only HR model of Buller and McEvoy (2018) is specifically for HR department	
2 The model contains the selection of people that contain a certain skill set	Secondary	✓	With the inclusion of HR focus coming from Buller & McEvoy (2016)		
3 The model offers workshops in which a strategy is communicated	Secondary	✓	With the inclusion of HR focus coming from Buller & McEvoy (2016)		
4 The model is organized cross organizational and -functional	Secondary	✓	With the inclusion of HR focus coming from Buller & McEvoy (2016)		
5 The model coordinates central and decentral activities	Primary	✓	Byene's model: implied by step 5 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts'		
6 The model includes creating awareness in people	Primary	✓	Fonseca 2021 Implied with the analysis of the most relevant context factors in the strategic management of CS integration processes	With Beyne's model	

Figure A16.1 - Overview how the initial requirements are met with the ICSS theoretical model part 1 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3	
7	The model includes collaboration with people within the organization to derive a strategy together	Secondary	✓	Beyne: implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)		
8	The model includes a link to the stakeholders	Secondary	✓	Beyne (implying particularly the internal stakeholders by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)	implied by the external environment (inspired by Buller & McEvoy)	
9	The model considers the people who are involved	Secondary	X	No model included this interpreted need in a sufficient way		
10	The model includes discussion of proposed plans	Secondary	✓	Beyne 2020 implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)		
11	The model requires to activate people (from plan to action)	Secondary	✓	(use Kantabutra (2020): implied with 5 practices and process of CS		
12	The model attracts people from sub-companies to sustainability so that they like to contribute and are committed to the topic	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		

Figure A16.2 - Overview how the initial requirements are met with the ICSS theoretical model part 2 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
13 The model consists of phases	Secondary	✓			
14 The model requires to set realistic goals	Secondary	✓	Beyne (2020) implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)		
15 The model considers cultural differences between countries	Secondary	✓	with Buller & McEvoy (2016): implied by the element 'organizational Capabilities/Culture'		
16 The model is adjustable to business units	Primary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
17 The model is adjustable to business units	Primary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
18 The model includes the determination of 'change supporters'	Secondary	X	No model included this interpreted need in a sufficient way		

Figure A16.3 - Overview how the initial requirements are met with the ICSS theoretical model part 3 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3	
19	The model is implying an evolutionary change instead of a revolution(al) change	Primary	✓	Beyne (2020) implied by the four steps 'inform, activate, innovate and transform' however, a cycle is not added		
20	The model includes the involvement of people to contribute	Secondary	✓	Buller & McEvoy. implied with the primary HR mechanisms		
21	The model includes the visualization of Zehnders' vision	Secondary	✓	implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3)	however the word communication is missing, but this is covered with the context factors	
22	The model requires to formulate Specific, Measurable, Attainable/Achievable, Relevant and Timely (SMART) goals	Secondary	✓	Beyne (2020) implied by 'setting SDG goals and actions while unlocking business value & explore actions to move towards advancing opportunities' (step D)		
23	The model requires to formulate Specific, Measurable, Attainable/Achievable, Relevant and Timely (SMART) goals	Secondary	✓	Beyne (2020) implied by 'setting SDG goals and actions while unlocking business value & explore actions to move towards advancing opportunities' (step D)		
24	The model includes the visualization of goals	Secondary	✓	Beyne (2020) implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3)		

Figure A16.4 - Overview how the initial requirements are met with the ICSS theoretical model part 4 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
25 The model requires to set measurable goals	Secondary	✓	Beyne (2020) implied by 'setting SDG goals and actions while unlocking business value & explore actions to move towards advancing opportunities' (step D)		
26 The model requires to report what is reached ("success report")	Secondary	X	No model included this interpreted need		
27 The model requires a clear strategy (what do we want to do, how do we want to do it and which competences do we need in our company)	Primary	✓	Beyne (2020) implied by 'create and add value - develop the core purpose of creating added value to organizational stakeholders' as operational stage		
28 The model clarifies what people can gain when they support the change	Secondary	X	No model included this interpreted need		
29 The model considers initiatives and thoughts from peers	Secondary	✓	Kantabutra & Ketprapakorn implied with 5 practices and process of CS particularly 'sharing'		
30 The model determines where Zehnder wants to be in x years	Secondary	✓	Beyne (2020) implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)		

Figure A16.5 - Overview how the initial requirements are met with the ICSS theoretical model part 5 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
31 The model requires the local business units to define how to get at the desired goal	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
32 The model considers the passion that Marketing Business Unit (MBU) heads have when delegating tasks	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
33 The model considers multiple stakeholders	Secondary	✓	implied by 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside-out)' (step 2)		
34 The model leaves enough space for people to define their own way to get to the goal	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
35 The model communicates positive aspects instead of negative messages	Secondary	X	No model included this interpreted need in a sufficient way		
36 The model is adjustable to business units	Primary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		

Figure A16.6 - Overview how the initial requirements are met with the ICSS theoretical model part 6 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
37 The model requires the local business units to define how to get at the desired goal	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
38 The model contains the selection of people with the right characteristics (convinced to reach the goals and feel responsible)	Secondary	✓	(Buller and McEvoy) implied with the primary HR mechanisms and HR elements displayed in the middle		
39 The model requires to activate people to realize goals	Secondary	✓	Beyne 2020 implied by the four steps 'inform, activate, innovate and transform'		
40 The model requires to find a common understanding of the strategy	Secondary	✓	Fonseca context factor implied by the context factor 'commitment' described as 'top-management assumes the importance of sustainability for the organization, and sustainability issues are integrated in the organization's strategic planning'		
41 The model aligns each Marketing Business Unit	Secondary	✓	Beyne 2020 implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3)		
42 The model creates ownership among the people about the strategy	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		

Figure A16.7 - Overview how the initial requirements are met with the ICSS theoretical model part 7 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
43 The model is able to be applied in a matrix organization as well as in 'isolated' business units	Secondary	✓	Beyne 2020 implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4) and 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
44 The model adjusts along the execution of steps	Secondary	✓	Buller & McEvoy implied by the feedback loop from performance to strategy as well as Epstein and Buhovac's feedback loop		
45 The model copes with the complexity of Zehnder's different markets	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
46 The model copes with the complexity of Zehnder's different business units	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
47 The model copes with the complexity of Zehnder's value flow and tax model of Swiss company	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
48 The model considers (regional) cultural differences	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		

Figure A16.8 - Overview how the initial requirements are met with the ICSS theoretical model part 8 of 14



Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3	
49	The model pays attention to explain the intention of change	Secondary	✓	Beyne 2020 implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3) and ' reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4) '		
50	The model ensures that the strategy and strategy implementation method can be discussed	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
51	The model includes to be transparent during the change process	Secondary	✓	Fonseca et al. implied by the context factor 'information' described as 'adequate collection of information in order to understand the problem, its requirements, and its impacts' and the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved'	included with feedback loop and in context factor	
52	The model communicates the message (where you want to go) frequently	Secondary	✓	Moreover with the feedbackloop from performance to 'financial and human resources'	and with feedbackloop from performance to 'financial and human resources'	
53	The model requires that management and production employees have full attention to change their mindset	Secondary	✓	Fonseca et al. implied by the context factor 'engagement' described as 'engagement of internal and external stakeholders in the search for solutions and actions aiming sustainable value creation' and scope described as 'organizations aim to create value holistically for their stakeholders. Organizational culture dictates the intensity of the interactions with stakeholders. The use of digital networks can promote stakeholders involvement in the search for solutions and proposals for value creation and dynamics development, allowing the almost immediate exchange of relevant information for decision making process.'		
54	The model requires to "Be Fair. Be Open. Be transparent to your people"	Secondary	✓	Fonseca et al. implied by the context factor 'information' described as 'adequate collection of information in order to understand the problem, its requirements, and its impacts' and the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved'		

Figure A16.9 - Overview how the initial requirements are met with the ICSS theoretical model part 9 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
55 The model ensures that everybody can repeat the strategy	Secondary	✓	Fonseca et al. implied by the context factor 'commitment' described as 'top-management assumes the importance of sustainability for the organization, and sustainability issues are integrated in the organization's strategic planning' and the scope by 'Organizational commitment is a force that gathers individuals together, triggering actions directed to the achievement of the intended goals. Ethical leadership frames top-management's commitment and strategy, promoting culture change.		
56 The model requires that the results of the strategy are shown in the P&L statements	Secondary	✓	Fonseca et al. implied by the context factor 'information' described as 'adequate collection of information in order to understand the problem, its requirements, and its impacts' and the scope described as 'When adequately selected and managed, the collected information increases organizational knowledge, enhances the correct understanding of the impacts of organizational activities on all sustainability dimensions, and contributes to the adequate definition of priorities in CS management.'		
57 The model applies top-down and bottom-up communication	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
58 The model requires that people understand 'why' Zehnder changes	Secondary	✓	Beyne (2020) implied by 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside out)' (step 2)		
59 The model requires group level to set the frame	Primary	✓	Beyne (2020) implied by 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside out)' (step 2) and 'redefining the mission and vision while integrating strong sustainability values' (step 3)		
60 The model requires the Group Executives Committee (GEC) to align the strategy between members (of the GEC) and the Board of Directors	Secondary	✓	Beyne 2020 implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4)		

Figure A16.10 - Overview how the initial requirements are met with the ICSS theoretical model part 10 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
61 The model requires to clarify the contribution of every country to the common goal	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
62 The model requires local levels to have their own sub-strategy	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
63 The model defines common dominators that are applicable globally	Secondary	✓	Beyne (2020) implied by 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside out)' (step 2) and 'redefining the mission and vision while integrating strong sustainability values' (step 3)		
64 The model requires to be a framework on group level (globally) but is enriched by local requirements (law, market or customer wishes) in sub-strategies.	Secondary	✓	Beyne (2020) implied by the first four steps followed by step 5: 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts'		
65 The model communicates incentives	Secondary	✓	Buller & McEvoy (2016) implied with primary mechanisms of HR namely 'compensation' and 'performance appraisal'		
66 The model communicates financial targets	Secondary	✓	Beyne (2020) implied by 'redefining the mission and vision while integrating strong sustainability values' (step 3)	Beyne (2020) implied by 'setting SDG goals and actions while unlocking business value & explore actions to move towards advancing opportunities' (step D)	Fonseca (2021) implied by the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved' and scope described as 'strategic disclosure of the organizational commitment regarding CS, and of the results achieved has become a basic tool to support sustainability-oriented change and to demonstrate transparency and accountability.

Figure A16.11 - Overview how the initial requirements are met with the ICSS theoretical model part 11 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
67 The model requires business units to be intrinsically motivated	Secondary	✓	Beyne (2020) implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	Buller and McEvoy (2016) implied with the primary HR mechanisms and HR elements displayed in the middle	Fonseca (2021 implied by the context factor 'commitment' described as 'top-management assumes the importance of sustainability for the organization, and sustainability issues are integrated in the organization's strategic planning' and the scope by 'Organizational commitment is a force that gathers individuals together, triggering actions directed to the achievement of the intended goals. Ethical leadership frames topmanagement's commitment and strategy, promoting culture change.
68 The model requires business units to have "self-made" processes	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	Kantabutra (2020)implied with 5 practices and process of CS	
69 The model requires business units to understand the purpose	Secondary	✓	Beyne (2020) implied by the combination of step 1,2 and step 5. Step 1: 'modelling the key dynamics of the operating environment for sustainability while raising sustainability awareness inside the organization' (step 1) and Step 2: 'capturing the material concerns & expectations of key external stakeholders through a materiality analysis (inside out)' (step 2). Where Step 5 includes: 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
70 The model requires business units to be in the 'driver's seat' of change	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	Kantabutra (2020) implied with 5 practices and process of CS in combination with the 'empotionally committed organizational members'	
71 The model requires business units to define phases in collaboration with the Group Executive Committee (GEC)	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)	implied with 5 practices and process of CS in combination with the 'empotionally committed organizational members'	
72 The model requires to challenge people in an interdisciplinary team	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		

Figure A16.12 - Overview how the initial requirements are met with the ICSS theoretical model part 12 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
73 The model requires to combine idea's from different business units of Zehnder	Secondary	✓	Beyne 2020 implied by 'applying innovative ways of thinking to products, services & business models'	(Kantabutra, 2020) Implied by "Emotionally committed organizational members"	
74 The model requires to communicate on time	Secondary	✓	Fonseca (2021) implied by the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved' and scope described as 'strategic disclosure of the organizational commitment regarding CS, and of the results achieved has become a basic tool to support sustainability-oriented change and to demonstrate transparency and accountability.		
75 The model requires to communicate desired information as precise as possible	Secondary	✓	Beyne (2020) implied by the context factor 'information' described as 'adequate collection of information in order to understand the problem, its requirements, and its impacts'		
76 The model requires to be universal to all business units	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		
77 The model requires to be applied in a family firm	Secondary	✓	Beyne (2020) implied by the examples given of family firms and the assumption made that the model of Maon (2009), that has been cited more than 500 times has been tested in family firms as well.		
78 The model requires to be applied in a decentral organized organization	Secondary	✓	Beyne 2020 implied by 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts' (step 5)		

Figure A16.13 - Overview how the initial requirements are met with the ICSS theoretical model part 13 of 14

Interpreted Need	Primary (general) /secondary (detailed) need	ISCC Theoretical model	Command	Command 2	Command 3
79 The model requires to clearly formulating goals and measures	Secondary	✓	Beyne 2020 implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4) and 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts (step 5)	Epstein's The model suggests multiple performance measurements for inputs, processes, outputs and outcomes	
80 The model requires to inform people regularly	Secondary	✓	Fonseca (2021) implied by the context factor 'communication' described as 'adequate communication of the results achieved to the stakeholders involved' and scope described as 'Strategic disclosure of the organizational commitment regarding CS, and of the results achieved has become a basic tool to support sustainability-oriented change and to demonstrate transparency and accountability.'		
81 The model requires to communicate horizontally and vertically	Secondary	✓	implied by 'reflecting on the strategic aspirations and stakeholders' needs while considering all material sustainable development issues' (step 4) and 'embedding the sustainability goals in the business departments and setting specific and measurable KPIs for reporting on value creation & sustainability impacts (step 5)		
Number of interpreted needs met:		76			
% met interpreted needs ((total interpreted needs/number of interpreted needs met) * 100):		93,83%			

Figure A16.14 - Overview how the initial requirements are met with the ICSS theoretical model part 14 of 14

Appendix 17 – Design thinking process, individual conversations

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Appendix 18 – Design thinking process, idea list

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